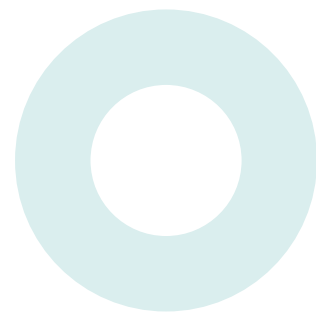
The background is a solid dark blue. On the left, there is a vertical red bar. A grey circle is partially overlapping the bottom of this red bar. In the lower-left area, there are several overlapping rounded shapes: a teal rounded rectangle, a grey rounded rectangle, and a teal rounded rectangle. On the right side, there is a large teal rounded rectangle. A dark blue circle is partially overlapping the bottom-right corner of this large teal shape. At the bottom right, there is a vertical red bar.

Harnessing the power of evaluation
to build better international strategic
partnerships between universities

The EVALUATE framework and handbook



This handbook has been produced by the EVALUATE project – Developing a Framework for Evaluation of International University partnerships.

The EVALUATE project consortium

The University of Copenhagen, Denmark

University College Dublin, Ireland

The University of Edinburgh, United Kingdom

The University of Helsinki, Finland

Leiden University, Netherlands

The University of Sydney, Australia

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Words of support



UCPH is continuously working to fulfil the potential of our international strategic partnerships to ensure the highest possible quality in our research and education. The EVALUATE project is a welcome and very valuable resource in this endeavour.

**Kristian Cedervall Lauta, Prorector for Education
The University of Copenhagen, Denmark**



Strategic international partnerships offer higher education institutions great opportunities, but also pose challenges. UCD is committed to building sustainable partnerships of mutual benefit, and EVALUATE offers an exciting new means to support this. I am delighted to welcome this unique resource to UCD.

Professor Dolores O’Riordan, Vice-President for Global Engagement, University College Dublin, Ireland



THE UNIVERSITY
of EDINBURGH

The world’s grand challenges cannot be solved in isolation – we need to work together. The EVALUATE handbook will help you build these impactful collaborations.

**Prof James Smith, Vice Principal International
The University of Edinburgh, United Kingdom**



UNIVERSITY OF HELSINKI

The handbook is an essential read for all who want to improve their strategic partnerships with the help of evaluation.

**Professor Hanna Snellman, Vice Rector International,
University of Helsinki**



Universiteit
Leiden
The Netherlands

High quality strategic international partnerships are a pre-requisite for success across both our education and research missions. The EVALUATE handbook is a valuable resource to assist in developing such sustainable partnerships.

**Annetje Ottow, President of the Executive Board,
Leiden University, The Netherlands**



THE UNIVERSITY OF
SYDNEY

Our partnerships with other universities create global opportunities for students and staff. Collaboration sparks innovation, and improves our research, teaching and learning. This evaluation handbook makes a valuable contribution to the theory and practice of managing sustainable international university partnerships.

**Professor Mark Scott AO, Vice-Chancellor and President
The University of Sydney, Australia**

Executive summary

A young person has a life changing experience through a student exchange programme. A researcher combines data with their peers around the world to advance their field. A collaborative educational programme creates a powerful space for students across jurisdictions to share learning.

These are just three examples of the many benefits international partnerships between universities can provide. Yet, our understanding of how such partnerships perform can be quite limited. We often don't know if a partnership has made a difference over and above what can be achieved by a university independently. Evaluation gives us the evidence to understand the value of partnerships – and to use that evidence to inform decision-making. *The EVALUATE project – Developing a Framework for Evaluation of International University partnerships*, hopes to help more universities generate that evidence for their own benefit, and that of the wider field.

In this handbook, you'll find a range of guidance, resources, and analysis to help you do that. It includes a wide range of advice sourced from workshops and case studies. Highlights include:

- Guidance on how to consider the **context** and **purpose** of your evaluation. When you evaluate, what you set out to do and who you involve can be hugely significant. Yet these decisions can be taken unthinkingly, resulting in poor quality evaluations, or ones which are poorly aligned to goals.
- Guidance on developing a **clear central question**, and supplementary questions, to focus your evaluation. This ensures your evaluation is coherent, that you don't waste time or resources, and can help bring different stakeholders together and ensure roles are clear.
- An introduction to a range of evidence-based **methods**, qualitative and quantitative, for conducting your evaluation. These range from interviews and surveys to bibliometric analysis. Often, methods are selected without proper thought, and downsides or risks might be ignored.
- Case studies with **first hand, on the ground accounts** of building partnerships and delivering evaluations. These frank and honest account include rich insight into pitfalls to avoid, as well as inspirational examples of the benefits a well-considered evaluation can bring.

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How to use this handbook



This handbook is intended to help staff in University international offices, and those involved in international policy and strategy development, to improve the quality of international strategic partnerships through evaluation.

At its core is an **evaluation framework**, which presents key questions and other prompts to guide the design of evaluations. The first section, whose contents you can find on **page 9**, introduces the framework and explains how to apply it. Rather than setting a rigid template, the framework is flexible and can be applied to a diversity of partnerships. It provides a framework for evaluation of success, failure, and everything in between. Applying this framework is a reflective activity - evaluation questions can look deceptively easy, but they are often hard to compose and answer. Designing and implementing new evaluation processes requires multiple attempts to arrive at the right level of understanding.

This handbook also includes an extensive **literature review (page 112)**, an **anthology (page 46)**, and **lessons learned** by the project partners (**page 41**). The literature review surveys the academic and policy literature on “international strategic partnerships” between higher education institutions. It aims to highlight what research is available on such partnerships, and then to explain the general themes and insights that inform the development of the Evaluation Framework. The anthology is made up of case studies and additional writings that explore how evaluation works in practice. The lessons learned section attempts to summarise the project partner’s reflections about developing strategic partnerships and evaluating them.

Who created this handbook – and why

This handbook is the result of the EVALUATE project. The University of Edinburgh invited five partner universities to join hands and address the evaluation of international strategic partnerships. Together they bring together a diverse and extensive range of experience in developing and delivering all types of partnerships:

- The University of Copenhagen, Denmark
- University College Dublin, Ireland
- The University of Edinburgh, United Kingdom
- The University of Helsinki, Finland
- Leiden University, Netherlands
- The University of Sydney, Australia

The six universities observed a growth in strategic partnerships, and a lack of consistent and aligned evaluation practices. Therefore the goal of the project was to develop an evaluation framework that can be used in any institutional context, for a variety

of strategic partnerships, during all phases of a partnership and for the evaluation of success, failure and everything in between. The framework was to be grounded in existing literature, and based on the evaluation practices of the partner organisations. It was intended to contribute to the quality of strategic partnerships. The framework covers the first section of this handbook (**page 10**). It presents key questions and other prompts to guide the design of evaluations.


At the start of the project it became clear that there was no straightforward definition of international strategic partnerships and that the term covers a broad range of activities. The project therefore developed its own definition of international strategic partnerships that mirrored the practices of the universities involved:

“A strategic partnership is a formal relationship between two or more universities. It is centrally supported and takes the form of a Top-Down engagement that depends on a Bottom-Up approach. A strategic partnership is university wide, covers a range of departments and includes both research and education. A strategic partnership often demands a high level of engagement from the involved parties, and can deliver greater impact than the sum of the individual parts.”

Scholars of the University of Edinburgh conducted an extensive literature review (**page 112**). The project team learned that there are few relevant studies on the topic of international strategic partnerships, yet there is relevant literature on internationalisation. This literature addresses reasons and goals for partnerships. It covers a wide variety of activities, including research collaboration and mobility of students and academics. It also pays attention to dynamics of collaboration with the Global South and to environmental impact of mobility. Another important finding from the review is that there is little literature on the evaluation of these internationalisation arrangements.

Given the lack of literature on the evaluation of internationalisation arrangements, the project team decided to develop a framework from scratch. It chose a co-creative approach, to make sure that the framework was embedded in both theory and practice. Scholars from Leiden University and the University of Edinburgh guided staff in international offices through the evaluation of a specific strategic partnership. For Leiden University, an alternative model was chosen where university wide formal and informal collaborations with a specific region were considered in the evaluation to test the framework. Due to the nature of this specific case and the methods used, the evaluation has been based (by and large) on confidential information and can therefore not be included in full in this handbook. Whilst the other case descriptions have been included in the Anthology of case studies (**page 46**), the lessons learned from the Leiden approach have been included to support the framework description. The scholars developed the framework on the fly, and adjusted it based on the feedback and responses of the international office staff. The diverse case studies provide good insight into the implementation and evaluation of strategic partnerships, and the use of the framework. Examples from the cases are included in the framework as illustration.

The EVALUATE project has been a learning journey for all. The governance philosophy of the various universities, the partnership activities, the goals of the partnerships



and the relation to university strategies differ between the partners and cases. Consequently, partners realised that a rigid framework with clear measures or benchmarks is not realistic or useful. Context matters and a useful and meaningful evaluation is contextualised. The framework is therefore flexible. In addition, partners realised that relevant contextual information is sometimes lacking, for instance on the history of the partnership, the goals, or the implementation plan. Therefore, a part of the framework addresses the context.

The lack of consistent and aligned evaluation practices was confirmed throughout. Evaluation is best integrated from the start to the end of partnerships. If integrated well, evaluation is a cyclical activity returning in every phase of the partnership, underpinning decisions and new actions. Yet in practice, this is rarely the case.

Last but not least, it became apparent that evaluation is not easy at all: it requires skills and time. Evaluation questions can look deceptively easy, but are often hard to compose and answer. It requires multiple attempts and iterations over time to arrive at the right level of understanding. Some universities have a team with evaluation experts that support the development of institutional evaluation capacity and skills. Making time for evaluation, practising it regularly, is the best way to work with this framework. It will increase insight in the functioning of international strategic partnerships and their value.





The EVALUATE Framework

**Leonie van Drooge, Carole de Bordes, Leiden University;
Niki Vermeulen, Mayline Strouk, University of Edinburgh**

This section presents a framework for the evaluation of strategic partnerships. It is flexible, and is designed to improve the process of monitoring and evaluating a diverse range of international strategic partnerships. Using it will help you practice evidence informed monitoring and decision making in the running of partnerships.

About the EVALUATE Framework

While universities enter into strategic partnerships with a range of different kinds of actors, such as Higher Education Institutions (HEIs), private companies, and nongovernmental organisations (NGOs), the EVALUATE project focusses primarily on international strategic partnerships between HEIs.

For the purpose of this evaluation framework, we define such partnerships as formal arrangements between two or more HEIs located in different nation states. The Literature review explores the concept of international strategic partnerships in more detail (**on page 115**).

In brief, however: we find a diversity of different arrangements between universities that are currently labelled under the “strategic partnership” banner, including student mobility partnerships, international branch campuses, policy advocacy arrangements, and large research projects. Furthermore, there are a plethora of different strategic objectives underlying the inception of different partnerships, such as enhancing market competitiveness, addressing particular societal goals, and empowering students.

Given the diversity of how people apply the “strategic partnership” label, our framework for evaluation consists of a variety of tools and approaches that can be moulded around the specific objectives of partners, their particular strengths and weaknesses, and their broader context (e.g. policy, funding, and research environment).

The focus of this project is on evaluation of strategic partnerships. The global network Better Evaluation defines evaluation as follows:

Evaluation uses a systematic process to judge quality, combining evidence and values. Good evaluation helps people make better decisions for better outcomes. Different types of evaluation can be done throughout a program or policy cycle, before implementation, during implementation, or after implementation.

(**BetterEvaluation.org**)

In the EVALUATE project it became apparent that the term “evaluation” is used to refer to many recommendations and decisions regarding strategic partnerships. The notion of “systematic” in the definition contributes to the quality of any evaluation process. We therefore frame the idea of evaluation as systematic throughout. Considering how to build your evaluation carefully, and sticking to a clear plan, are important to ensure quality.

With that in mind, the framework consists of a number of questions which, taken together, inform the design, implementation, and iteration of an evaluation. They are split into 3 categories, plus a Methods section:

1. The evaluation and its context

These questions are outlined and explained in a subsection starting on **page 13** of this handbook. They are intended to guide you as you design your evaluation, and follow up on it after completion. The focus is on the evaluation process.

2. The central evaluation question

These questions are outlined and explained in a subsection starting on **page 18** of this handbook. They are intended to give you ideas for a “central question” or a focus, that you can use to guide the evaluation. The focus is on the content of the evaluation.

3. The partnership and its context

These questions are outlined and explained in a subsection starting on **page 23** of this handbook. They are intended to provoke thought on the history and goals of the partnership and its relationship with other policies. The focus is not on evaluation as such, but on information that can be relevant to an evaluation.

4. Methods Finally, the framework includes a Methods section (on **page 27**) to address appropriate forms of evidence to support and inform your evaluation. Although some information on a partnership is usually available, often additional information is needed. They include bibliometric analyses as well as qualitative methods such as interviews and surveys.

How to use the framework

The EVALUATE framework is designed to fit different types of partnerships, in different phases of their life. It presents questions that can be adjusted and appropriated to various situations. During the co-creation process of the framework, it became clear that strategic partnerships vary significantly in shape and form. Therefore the framework has been designed to be flexible.

As such, the EVALUATE framework cannot cover every possible question. Instead, the framework shows you the type of questions you might want to ask, examples of issues to take into account, and possible approaches to evaluation.

We encourage users to identify questions relevant to their situation. Good starting questions would be: What makes this particular partnership unique? And, how does this partnership differ from other partnerships?

Good questions towards the end might include: is there any relevant dimension/question that should still be interrogated/asked? Is there still information missing? Are there aspects that have not been addressed because of their complexity, for instance because of the political situation or of other sensitive aspects that have been implicit?

How can this be addressed? The EVALUATE framework supports the evaluation of a strategic partnership, yet it does not dictate or predict the outcome of this assessment. On the contrary: whether or not a certain university is a suitable strategic partner; whether or not a certain partnership lives up to its expectations; whether or not to renew a strategic partnership, all depends on what is seen as important and relevant – and on who sees it that way. The framework is only meant to support the design of the evaluation, to ensure relevant aspects are taken into account and that necessary information is collected, in order to support a well-informed assessment.

In practice, the evaluation of strategic partnerships usually requires going back and forth between the evaluation question, the strategic partnership itself, the reason to evaluate, and the evidence, data and methods. Therefore, this framework should be used as part of an iterative, cyclical process through the issues and questions.

Finally, the framework is extensive. Evaluating every strategic partnership at every stage of its life-cycle to the fullest extent possible under the framework requires capacity, and it might not be feasible (or necessary) to do this every time. As such, you will need to decide when to do a comprehensive evaluation, and when not.



The evaluation and its context

The evaluation of a strategic partnership is often part of a larger process and not a stand-alone effort. For example, the board of a university might request an evaluation which asks “with what university in country x should we enter into a strategic partnership?”. This might identify several potential universities, with qualitative and quantitative criteria to consider as part of a subsequent formal decision-making process.

Questions to consider when planning an evaluation

Some important general questions to consider as you plan, or consider whether to plan, an evaluation include:

Why evaluate now?

An evaluation is a systematic process that requires time, skills and effort. And so it is relevant to ask what the driver is for a given evaluation. For example, will there be a decision regarding a certain strategic partnership, that requires an evaluation? Or is there an audit or other benchmarking exercise underway, that requires reporting on the partnership? Or is this the moment to take stock of a recently established partnership, and come up with recommendations for improvement?

Who is asking for the evaluation?

Who is asking for the evaluation, and who will use the results of the evaluation? You should consider why they need these results: in the example at the start of this subsection, the university board will use the results to decide on a university partner in country x, for instance.

Who else is involved (other than those asking for the evaluation), and in what role?

Who is part of the process? When will they come into play? Who is responsible for collecting and analysing evidence? Who will ultimately formulate the assessment? And what stakeholders relevant to the partnership will be involved?

Depending on the strategic partnership, relevant stakeholders can include a range of staff, academic and otherwise, from all partners, students, as well as external partners such as government or NGOs.

One case-study was organised by representatives of the two universities involved in the partnership; a paired evaluation. Policy staff responsible for the implementation of the partnership from both universities jointly designed the evaluation and collected and analyzed evidence. The main activity of the partnership is PhD training and joint research, so researchers and PhD candidates of both universities were invited to provide feedback, and to share their experience.

What is at stake? What are the consequences?

An evaluation usually has a goal, and the results can lead to a range of actions, for example: a decision on whether to enter into a partnership, choices regarding implementation. In some cases the consequences can be substantive, in other cases the consequences are hardly felt.

A midterm evaluation of a strategic partnership can have a range of consequences. It can result in suggestions for improvement, or in changes imposed from the top. In the case-study mentioned above, the PhD candidates and researchers wanted to know the potential consequences. When they learned that the evaluation was reflexive and about identifying improvements, they felt at ease sharing their experiences. They would have been more reluctant, had they learned termination of the partnership could be a consequence.

What will the follow up look like? What will happen with the results of the evaluation?

The follow up to the evaluation is as important as the actual evaluation, so consideration of it should form part of the evaluation process design. For example, these factors might influence individuals' willingness to participate, or the caution they take while participating.

Questions that address the more technical aspects of the evaluation include:

When should the evaluation take place?

Evaluations can take place at every phase of a partnership, so it's worth considering when is the most appropriate time:

- **Prior to formalising the partnership**

An evaluation preceding a partnership will inform a decision to enter into that partnership. The evaluation can include the presentation of relevant selection criteria for a partnership and an assessment of potential partners; an assessment of the potential contribution of a partnership to certain goals; or an inventory of risks and risk mitigation for a specific partnership. Note that selection criteria that are key at this stage, might be less relevant during the lifetime of a partnership.

One case-study was dedicated to the selection of a number of partners in a certain region. In the phase prior to the formalisation of the partnership, therefore, a key selection criterion was the location: only universities in the region were potential candidates. However, after the selection of a partner had been made, the location in that region was no longer a relevant criterion.

- **During the partnership**

Evaluation of an ongoing strategic partnership is often dedicated to monitoring or improving that partnership. Such an evaluation can draw attention to the partnership in development and allows staff to intervene in and improve it. It can also prevent a conclusion towards the end of a strategic partnership that it was not very successful,

yet that problems hadn't been noticed. During the EVALUATE project the challenge of evaluating an ongoing partnership has been addressed several times.

One case-study was aimed at reviewing and (if necessary) improving a small and developing partnership. Eight PhD candidates had been recruited and had started their candidacy, yet the Covid pandemic had delayed their fieldwork. The PhD candidates, supervisors and academic leads have experienced the partnership, its benefits and challenges. It is not too late to discuss and support, if necessary, changes. The evaluation also allows those in charge of the partnership to learn about the design of the scheme and the feasibility of its goals and ambitions.

- **Towards the end of an agreement term**

Towards the end of a term of a partnership, it is useful to identify what the contributions, impacts and challenges of that partnership were. This can be done for several reasons: to learn for other partnerships, to account for the investments made, or to inform the renewal of the strategic partnership.

One case-study will be used to inform a decision whether or not to renew an existing strategic partnership. The university has articulated clear expectations and indicators for the specific type of partnership. Data was collected and analysed. Certain results exceeded expectations, yet for other criteria the partnership did not meet the expectations. These mixed results need to be considered in any decision to renew the partnership. The evaluation also led to recommendations to improve the governance of strategic partnerships in general.

What is the goal of the evaluation?

- **To decide: “do we want to partner with university X?”**

An evaluation to inform a decision involves a balanced assessment, a weighing of criteria and aspects to take into account. A frame of reference supports this process. What aspects will be taken into consideration, what criteria? Is one of the aspects more important than the other?

One case-study involves two universities with a long history of collaboration, without any formal strategic partnership agreement. One of the first questions was why the university had never been selected as a strategic partner, given the diverse, frequent and successful collaboration. The main reason turned out to be that this university did not score high enough on one crucial criterion: rankings. This led to a reflection on the criteria and considerations used to select a strategic partner.

You can also take a more exploratory approach to this kind of evaluation. Such an approach would not address the question “do we want to partner with university X?”, instead it would address the question: “what university would be a good partner?”.

In practice, this involves consideration of diverse arguments and different sorts of information, including aspects that might not have been identified as important initially. An evaluation like this can lead to a useful reconsideration of criteria, as was shown in one case study.

One case-study involves the selection of a number of potential strategic partners in a certain region. The initial analysis showed that the university predominantly collaborates with universities from one specific country. In order to promote a balanced approach to international engagement, those involved decided to add an extra criterion: no more than half of the strategic partner universities can be located in the same country.

- **To reflect and improve: How does the partnership develop?**

An evaluation to reflect and improve usually includes those directly involved in the partnership. This will deepen the understanding of the current situation and allows the evaluation to develop realistic recommendations. Information on the goals, results and implementation so far provide a relevant reference. Interviews, focus groups and, to a lesser extent, surveys are the methods of choice.

- **To understand outcomes: What are the results of the investment?**

An evaluation to understand outcomes asks for transparent reporting on investments put into a partnership (of all kinds: money, staff, in kind) and for results. The reference is the goal and implementation: did the investment indeed lead to the initial results expected?

- **To monitor: What are the investments, activities and results?**

Monitoring is not evaluation per se. It means that information is collected at regular intervals (yearly, for instance) and made available. What data to collect depends on the goals and implementation.

One university has developed a dashboard. It includes, per strategic partnership, information on external funding received, number of staff involved and number of publications. It facilitates monitoring and reporting on quantitative indicators. It requires regular data collection and analysis.

How is the evaluation / decision organized?

Being explicit about the need and function of the evaluation or decision, contributes towards a well-balanced and appropriate process design.


Any evaluation requires a plan of action that describes its process. Sometimes this is written down, sometimes it is more implicit. It includes aspects such as:

- **What will be used as evidence?**

Ultimately an evaluation leads to an assessment, and this assessment is informed by evidence and information. What evidence is seen as relevant depends on the strategic partnership and its goals, as well as on the evaluation question and goals.

- **What methods will be used to collect and analyse information?**

Our **Methods subsection (page 27)** describes commonly-used methods, including interviews, surveys and bibliometric analysis. What methods you should use depends on the questions, targets or goals. Methods can be mixed to create different sources



of evidence. For example, it is recommended to always complement quantitative data with qualitative evidence.

Questions to support the decision on methods and data include:

- **What information is available / collected already?**
- **Are there any targets or goals, and if so, what?**
- **What information is missing?**
- **How to balance between too little and too much data?**
- **How will the evidence be presented?**
- **Who is responsible for collection and analysis of data and for presentation of results?**

In other words: Who is involved in the process and in what role? Who is the administrative coordinator, or the project lead?

- **Who will decide; who assesses?**

The evidence is used to provide information; next up is the assessment of the evidence. Who or what assesses? Who or what is responsible for formulating the assessment?

One university has an internal committee that assesses its strategic partnerships. The committee provides recommendations on the renewal (or otherwise) of partnerships. One university organised an evaluation to reflect and improve. The team involved in the collection, analysis and presentation was also responsible for the formulation of recommendations for the future.

The central evaluation question

An evaluation is based around a central question, that requires the collection of evidence, and the formulation of a judgement. For example:

- **With what university in country X can we best enter into a strategic partnership?**
- **Do we want to renew our strategic partnership with university Y?**
- **How can we improve our strategic partnership with university Z?**

This subsection describes typical evaluation questions. The first set of questions is centred around the ways a partnership relates to wider university strategies, policies and aspirations. The remainder of the questions are presented according to the phase of the partnership to which they relate.

Questions regarding the relationship with certain strategies / policies / aspirations

A strategic partnership is often intended to contribute to a wider university strategy, policy or aspiration. In some cases a particular strategic partnership may be the embodiment of the strategy, policy or aspiration.

One evaluation started from the initial question “How should a university-wide engagement strategy effectively consolidate the strategic partnerships with universities in this region?”

The strategy, policy or aspiration can be internal - formulated by the university - or it can be external to the university, perhaps dictated or directed by regional or national goals.

One case-study aims to make an impact across a range of societal, economic and environmental concerns as described in the United Nations Sustainable Development Goals.

Some evaluations focus on the contribution of a partnership to such strategies/policies/aspirations. The starting point for these evaluations is the strategy, policy or impact. And so in order to assess whether a partnership will contribute, or has contributed, more information is needed on the ambitions and expectations. What does the strategy or policy entail? What is it aimed at? And to what extent is it possible to identify the contribution of a strategic partnership to an impact?

One case-study involves a strategic partnership with very ambitious goals. They include the transition of the partner region to a knowledge economy, as well as ensuring a global leading position in a specific research field. Yet only a very small

number of researchers are involved. During the case several new questions were raised: How specific and well defined are the goals? How is this relatively small partnership expected to contribute? Is it possible to see a change in the knowledge economy, that can be related to the partnership?

Typical evaluation questions include:

- **To what extent does the partnership contribute to strategy X / policy Y / impact Z?**
- **How do we ensure the partnership will contribute to strategy X / policy Y / impact Z?**

Phase-specific questions

A strategic partnership evolves and changes over time, and so do evaluation questions, the reasons to evaluate and the evidence that supports an evaluation.

A typical strategic partnership can be divided into three distinct evaluation phases: (1) before the formal start of a strategic partnership; (2) during the partnership and (3) late in a term of agreement, or even afterwards.

In the EVALUATE project several evaluations were dedicated to a certain phase of the partnership.

Before: What collaborations exist with universities in this region?

This is the first in a series of questions, leading to the selection of a small portfolio of strategic partners. The project involved a multi-method investigation (bibliometric analysis, an internal survey as well as interviews) to identify the many ongoing and often informal collaborations.

During: How can we deepen the partnership and how will that happen?

The project involved interviews with researchers involved in the partnership, from both universities, to identify how they perceived the partnership and what they saw as challenging.

Later/afterwards: What can we learn from this partnership for novel future partnerships?

This included a reflection on lessons learnt, including by an internal committee. In this evaluation, the focus was on the internal organisation and not so much on the external partner.

Phase one: before the partnership

In this phase, two kinds of issue may be considered by an evaluation. The first is deciding on the partner, the second is the functioning of the strategic partnership. The latter includes aims and goals, an implementation plan, and a risk mitigation.

- **Who do we want to partner with and why?**

This question assumes that there is consensus on what a strategic partnership is, what it should look like and what it will deliver. It also assumes that this consensus will serve as a reference when selecting a potential strategic partner. However, this is not always the case. You are advised to be explicit when making choices.

One case-study involves the selection of a number of potential universities in a region. A first analysis resulted in a large selection of potential candidates that were all located in one part of that region. Those involved realised that an implicit assumption — which should have been made explicit — is that strategic partners should be spread throughout the entire region.

- **What can the partnership deliver? To us (and who is us?), the partner, society?**

This relates to the added value of a partnership, as well as the reason to enter into a partnership and the partnership's aspirations. This information informs goals, aims and implementation.

One case-study addresses a strategic partnership between a university and a collection of partners in a distant region. There are many reasons for this partnership and they relate to the benefits for the partners and the region, as well as the United Nations' Sustainable Development Goals. These arguments dominated the narrative. Little information was available on the benefits for the university.

- **What are the aims/goals and how can they be reached?**

In other words: What makes this partnership strategic? What does the implementation of the partnership look like? What are the goals? How are they operationalised? Who is involved and who should know about it?

- **What are the potential risks? How are they mitigated?**

Strategic partnerships are often discussed in terms of benefits, yet the flipside are the challenges and risks. There seem to be little attention for this, yet the risks can be substantial. Many projects require a risk assessment and risk mitigation plan.

During the EVALUATE project there were several external developments identified as risks by people involved in partnerships.

The Covid-19 pandemic had quite an influence on strategic partnerships. Physical exchanges were minimised. This had a very large impact on student exchange, and it impacted research collaboration. The pandemic was a significant and rare event, so it is reasonable to ask whether it could have been identified in advance. Yet pandemics that impacted on intercontinental travel have occurred previously.

Climate change, and the sustainability of physical exchanges, is also an ongoing concern in academia. (see literature review, **page 147**). To what extent do strategic partnerships, including the partnerships that aim to contribute to SDGs, take these concerns into account? To what extent do they anticipate the potential for future disruption, such as changes in policy or barriers on travel?

Towards the end of EVALUATE, the war in Ukraine started. It brought the issue of knowledge safety onto the agenda. This relates to dual use of knowledge (knowledge that can be used in a military context as well as a civilian one) as well as the undesirable influence of foreign nations on research and education. In at least one university researchers were asked to report their contacts with Russian partners.

Phase two: during the partnership

During the lifetime of a strategic partnership, evaluation can be used as a governance tool, to allow for reflection and implementation.

Several partners asked how to meaningfully evaluate a strategic partnership that has just started, since there are likely to be few results. It is helpful to have an idea of how a partnership develops over time and to have an implementation plan as a reference. This plan includes activities and describes who needs to be involved.

- **What can be done to improve implementation?**

For this evaluation, relevant information would include the implementation plan as well as results expected. Based on that, an inventory can be made of the activities and of initial results. A discussion with those involved in implementation and in the activities can lead to recommendations (if necessary) of the strategic partnership.

One partner analysed the results of their partnership and concluded that there was an imbalance between outgoing and incoming students. They identified several potential reasons for this imbalance, and these require different analyses. One option is that students are not well informed, raising the question of how the partnership was brought to the attention of their students. This would require desk research, and potentially a survey asking students what information they use. Another option is that the partner university is not attractive for their students, raising the question of how students that have been on exchange have experienced their stay (survey, interview), or how students interested in exchange view the partner university (again: survey, interview).

- **What can be learned for other partnerships?**

The evaluation of one partnership can lead to valuable insights for other partnerships. Of course, every partnership is unique, yet there are also common aspects.

One university decided to change their internal structure, based on the evaluation of an important strategic partnership. It was concluded that there is the need for a centrally located unit to coordinate the strategic partnerships. Until then, several units were responsible for the different parts and activities of the strategic partnership, and it lacked coordination. And so a new unit was established in the Rectors office.

Phase three: Late in, or after, the term of an agreement

- **Do we want to renew the partnership?**

Sometimes this is a straightforward decision, but more often than not new aspects are introduced. Since inception there may have been developments within the strategic partnership as well as outside of it, so initial ambitions and goals might require revision.

- **What has been achieved?**

An evaluation like this aims to capture results, impacts and benefits. Its findings might feed into the next phase of the same partnership; it might also inform other strategic partnerships. The initial goals and ambition serve as reference, but there might be unanticipated results too.

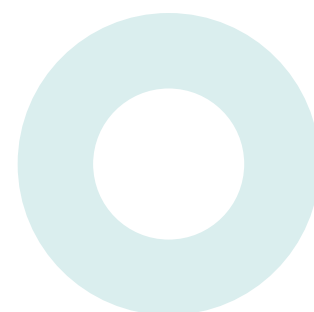
In several case studies it became clear that a strategic partnership offers a certain intangible benefit that was not anticipated. One partner named it the “confidential room”. A strategic partnership offers opportunities to build trust. With the implementation and management of a strategic partnership comes frequent contact between the counterparts at the universities involved. The partnership itself might require tough conversations, for instance when it doesn’t live up to expectations. It might also lead to the joint development of novel activities, including discussions of potential risks and provision of feedback. Based on these experiences and discussions, the counterpart sometimes becomes a trusted partner, with whom to discuss sensitive issues, out of the box ideas, and otherwise.

A reflective evaluation can include an inventory of risks and how they were mitigated. Finally it can include an inventory of further impacts.

Even when the central issue, and thus the central evaluation question, seems clear, it might be necessary to sharpen or redefine that initial question, for instance after the evidence is collected.

One case study was dedicated to assessing the benefits and limitations of strategic partnerships that include both student mobility and research. Ambitious goals have been set for both activities. The first step involved collecting evidence, including the number of students exchanged both ways. There was an imbalance between inbound and outbound students. That gave rise to very diverse new questions: Why do students want to go to a certain university, and not to another? And: How important is a balance between inbound and outbound students for the university? These new questions also implied that new forms of evidence needed to be collected. The numbers indicate that the motivations for inbound and outbound might differ, yet it requires surveys or interviews to understand the motivation, including with students who did not opt for an exchange with the strategic partner.

In sum, the first central question formulated might not be the final central question in an evaluation. In fact, revisiting and adjusting the central question, when working with the EVALUATE framework, allows for better insights about the partnership and better ground for decisions.



The partnership and its context

Taking the context of a strategic partnership into account - its history, rationale, goals, ambitions, activities, strategy, and implementation - helps encourage well informed decisions. This section addresses these aspects of the partnership. These questions ask: what do you know about the partnership? And also: who knows?

In one case study, external developments, as well as the formulation of an internal partnership policy was very much the context and focus of the evaluation.

One university identified the international trend to enter into closer and more in-depth partnerships with a select number of universities and recognised this as a way to reinforce their position. The evaluation of their first major strategic partnership was partly aimed at developing criteria for new strategic partnerships.

But information regarding the partnership and its context is not always readily available.

In one case, the initial question was: “How should a university-wide engagement strategy consolidate strategic partnerships with universities in this region effectively?” In this decentralized university with many ongoing collaborations, there was no central overview of all activities. However, the initial question more or less implied that such an overview exists. And so, the first question in a new series of questions, was: “What collaborations exist with universities in this region?”

Nor is it always clear who knows what, or what documents contain relevant information.

In another case the history and origin of a strategic partnership were unclear. This information was seen as important, in order to understand why the partnership was organized the way it was, to know whether there was an implantation plan and to know what specific goals and targets were defined. A variety of internal university documents have been collected and studied, yet very little information could be found.

Questions focused on the partners

In the EVALUATE project, “strategic partnerships” are initially defined as partnerships between two universities. However, in the literature as well as in this project, strategic partnerships included a variety of forms and partners.

One case study relates to a certain territory and includes as partners a university, a local government and a chamber of commerce. Several cases relate to a strategic partnership between two universities. However the universities are also part of larger networks, and this seems to contribute to the success of the partnership.

- **What external partners are involved (what university, or network, or other organisation)?**
- **What is your institution's history with this partner/these partners?**
Some partnerships develop over time and start with a focus on teaching or research only, before they develop into more fully fledged 'strategic' partnerships covering multiple activities, that are governed at the central level of the university. Other partnerships have a shorter history and start with a Memorandum of Understanding between two universities.
- **What departments are involved in the university?**
- **Are there any champions that play a key role in the partnership?**

Questions focused on the goals and ambitions of the partnership

Partnerships can be broad, including multiple disciplines or subjects, but they can also focus on specific themes or topics, such as health research or cultural heritage.

Several partnerships involved in the EVALUATE project involve university wide partnerships, but not all. One is focused on two specific research fields in which both universities are strong. The aim is to strengthen the reputation of both universities in these fields.

Partnerships can be part of explicit internationalisation strategies which can be general or geared to specific themes or territories (e.g. specific countries, regions or continents), or a combination of the above.

- **What is the rationale for the partnership?**
- **How is (/will be/has been) the partnership formalized?**
- **What are the goals of the partnership?**
- **And what are goals and expectation of the partner? Has this been discussed?**
- **How is the partnership implemented?**

Questions focused on the partnership activities

As discussed in this handbook's introductory chapters, in the EVALUATE project, "strategic partnerships" are initially defined as partnerships that cover all of teaching, research and administrative activities across multiple university departments. However, the literature provides multiple definitions and this variety is confirmed in practice through the various partnership at play.

One partnership is based on joint PhDs in two research fields. Several partnerships cover both student exchange, as well as research collaboration across a range of disciplines. One partnership includes on top of that activities for support staff, such as visits to the partner university and training events for junior staff.

- **What activities are part of the partnership?**
- **What is the starting situation?**
- **Who is involved in the partnership?**
- **What are strategies for the partnership?**
- **Is there an implementation plan?**
- **Does the university make funding available?**

Questions focused on expectations regarding the partnership

What are the expectations of the partnership, in terms of results, as well as in terms of further impact and value? And the risks and challenges? Generic questions include:

- **What does success/value mean? And at what cost?**
- **What results are expected?**
- **What further impact is foreseen?**
- **What are potential risks? Perceived by whom? How about risk mitigation?**

And more function/role specific questions include:

Academics might ask - How can this partnership help me to...

- publish in high quality journals?
- secure funding?
- get a promotion?
- get interesting placements for my students?
- develop my consultancy income?

Senior leaders might ask - How can this partnership help me to...

- demonstrate progress towards the strategic goals of the institution?
- balance the books?
- find champions to model behaviours?
- improve the reputation of standing of the institution?

Marketing and communication staff might ask - How can this partnership help me to...

- produce web and social media content that drives Internet traffic?

Partnerships development staff might ask - How can this partnership help me to...

- increase the number and diversity of our partnerships?

Funding development staff might ask - How can this partnership help me to...

- increase the number of grants applications?
- diversify funding sources?

Beyond professional drivers, there are personal motivations to develop partnerships.

Questions focused on these might include - **How can this partnership help me to...**

- fulfil a yearning to do good for the world?
- look successful in front of my peers?
- justify avoiding tasks I prefer not to do?
- justify travelling to places I want to go to?

Other questions about the partnership

The EVALUATE project showed that many additional factors and contexts can play a role in the development and implementation of a strategic partnership. A partnership develops and changes over time, the ambitions of the universities change, and the context changes. However, these aspects often remain implicit. When evaluating a strategic partnership, they might provide relevant information and insight.

An example of an external, political, development that affects certain partnerships to a great extent is Brexit. One implication is the reduced possibilities for British universities to participate in Erasmus +. Another implication seems to be an increased interest to collaborate with universities in Ireland, now the largest country in the European Union with English as its official language.

Relevant questions include (but are certainly not limited to):

- **What is the history of this partnership / of collaboration between the universities?**
- **What funding opportunities are available?**
- **What regional/national/supranational policies are relevant?**
- **What specific institutional policy arrangements and contexts are relevant?**

This latter question relates to differences between universities in a strategic partnership. It has become clear in EVALUATE that experience level, institutional policy context and ambition might differ between partners. This doesn't need to be a barrier, yet awareness might be beneficial.

One strategic partnership was between a university that had a long tradition of strategic partnerships, with specific schemes in place and clear goals regarding investments and return, and a university that had no previous experience, that had no schemes in place and that wanted to experience and learn from this first partnership.



Methods

In the evaluation and its context (**page 13**), a definition of evaluation was presented, which made reference to “evidence”. This paragraph is dedicated to methods that allow you to gather and analyse that evidence. The first subsection is dedicated to the collection of qualitative data; the second to quantitative data, in particular bibliometric data.

Guidelines for Qualitative Data Collection

Collection of qualitative data can be accomplished using different methods, such as surveys, focus groups or interviews. Each of these methods allows for collection of different kinds of data; relies on specific procedures and has its own biases.

This guidelines document presents three main methods to collect qualitative data: the in-depth interview, the focus group discussion and the survey. The aim is to provide you with general guidance and help you understand the purposes, processes and biases of these methods.

The in-depth interview

How does it work?

In an in-depth interview, there is one interviewee and one interviewer. The interviewer’s purpose is to gain insights using a semi-structured interview guide, or grid of questions. If conducted well, this can feel like a conversation for the interviewee. But the in-depth interview is not a two-way dialogue: only the interviewee shares their story, and the interviewer’s role is to elicit that story (Hennink *et al.*, 2020). In an in-depth interview, the questions are made to encourage the interviewee to produce “thick descriptions” (Rapley, 2004). The aim is not only about having a “yes-no-maybe” answer to the question but motivating the interviewee into sharing their perspectives.

Hennink *et al.* (2020) share several criteria for what is a good interviewing process in the case of an in-depth interview:

- Using a semi-structured interview guide to prompt the data collection
- Establishing rapport (a trust relationship) between the interviewer and the interviewee
- Asking questions in an open, empathic way
- Motivating the interviewee to tell their story by probing

Hence, good interviewing is about preparing the interview through an interview guide and having questions and themes to talk about during the conversation, but it is also mainly about your attitude *during* the interview process.

Interview

The interview is primarily about co-constructing a narrative between the interviewer and the interviewee (Fontana, 2002). It is fundamental to have in mind that the interview is all about a particular setting, a certain context: the interview and the data collected are situated (Rapkey, 2004). Interview data are not only about the topic of conversation, but are also a reflection of the social encounter between the interviewer and the interviewee (Seale, 1998).

How should you design an interview?

Who to recruit: The recruitment of interviewees is dependent on what information you want to collect - who might have a relevant and interesting perspective on the topics you are working on? One criterion could be to select participants seeking a diversity of experiences and positions to get as broad range of stories and opinions as possible. Also consider your relationship to the participant. It is important to be aware of this, because it will deeply affect the interview. It may impact how much the interviewee feels comfortable sharing their story and thus what data you will get out of the interview.

Preparing your questions/interview guide: These can be precise (structured or semi-structured), or more a set of free-flowing topics. What is most important is to be able to follow up on what the interviewee is saying and to be able to work together during the discussion. Strictly following a grid of questions can even lead you to restrict the interview and miss some information. It is impossible to predict what the interviewee is going to say and prepare the perfect question. A good interview is about listening and being reactive.

However structured your prep, it is useful to prepare some kind of interview guide to...

...remind you what information is most relevant.

...give some structure to the interaction.

...help yourself follow up on the discussion by noting down key words the interviewee has said (use this as an aide-mémoire for later discussions and questions)....help to establish you as a confident, competent interviewer

The interview guide is not a questionnaire (see the subsection on surveys, below). However, the order of questions is important.

Hennink *et al.* (2020) propose a **classic interview guide**, which can be adapted according to the specific needs of the interview:

A classic interview guide:

Introduction

Aims: engage the interviewee, remind them what the interview is about and get started with the discussion.

Example: “Thank you for accepting to take part of this discussion. To remind you, the aim of this interview is to ... and I will ask questions about”

Opening topics/questions

Aims: continue building rapport with the participant so that they feel comfortable enough to start telling their story before you come to the key questions.

Example: “First of all, can you tell me more about yourself? What is your role in the university?”

Key topics/questions

Aims: these are essential to the research topic and are designed to collect core information. They are placed deliberately in the central part of the interview to allow time for rapport to be established between the interviewer and the interviewee, so they can feel free and safe to share their stories and experience. This is the time for the interviewer to gain very detailed information, examples, explore nuances and understand the issues of the research topic from the interviewee’s perspective.

Example: “When did you start your partnership with university X? Why did you start the partnership particularly at this moment?”

Closing topics/questions

Aims: avoid abruptly ending the interview after the interviewee has finished telling their story. Closing questions are broader, general questions, and can be especially important when you deal with sensitive issues.

Example: “Do you have any more comments or suggestions you would like to make?”

The questions should be clear, short and simple. Avoid using jargon and specialist terminology, bringing biases and phrasing too informally. The questions should be focused on one issue at a time. While being simple, they should also be precise and follow the research questions of the study.

Considering the interview environment: It is important to be aware of the immediate environment of the interview. Sharing private personal information may, for example, be difficult for interviewees in some locations. If the interview is being recorded, you need to ask for the agreement of the participants. Recording is a means of not being too focused on taking notes but it can also affect the frankness of the interviewee (Rapley, 2004; Minichiello *et al*, 1995).

As interviewer, you should not be passive. Even when not asking questions, you should be showing your engagement through body language and other cues. For example, you might nod, as well as saying encouraging words. Even if you are in control of the discussion, you are engaged in it, and the results of that discussion are as much dependent on you as on the participant.

How should you analyse interview data?

Analysis is an ongoing process that starts before launching your interviews (Rapley, 2004). While reading literature, recruiting interviewees, and preparing the interview guide, some information might already be collected that enriches the analysis. For example, some interviewees might already provide comments or feedback at the time of recruiting. Writing notes immediately after the interview is a good way to capture your impressions of the talk.

Transcribing can be time consuming, but it is an opportunity to reflect on the interview by relistening to it. However, transcribing by yourself is not the only option. Recruiting a transcriber allows you to read the interview with a fresh mind, adding your comments and maybe some interesting points that were not transcribed (pauses, stress, overlapping speech, hesitations, laughs) (Rapley, 2004).

The focus group discussion

How does it work?

The main difference between a focus group and an in-depth interview is the number of participants involved, which usually varies from three to a dozen. Another major difference is the kind of data obtained through focus group discussions. The focus group is not about collecting narratives or personal stories but collecting information on a range of opinions from the participants. The opinions collected should be considered those of the group rather than those of individuals.

The role of the facilitator is to moderate the discussion by raising certain topics and issues to the participants who can then exchange and debate their respective ideas. The interviewer needs to create an environment of trust between all the participants so they can all share their ideas and opinions even if they conflict with one another.

Focus group discussions can fulfil several purposes (Hennink *et al.*, 2020):

- To explore new topics about which little is known or where issues are unclear because the method allows participants to identify a range of issues.
- To evaluate a programme, service, intervention and identify its success or failure.
- To seek diversity in a study through the group format of data collection.
- To identify norms in the study population as the group can validate some behaviours and neutralise some extreme views so that a normative behaviour is identified.
- To understand processes (i.e. decision-making) by observing how issues are discussed, how a strategy or outcome is decided.
- To design quantitative research or even following in-depth interviews by identifying relevant issues.

How should you design a focus group?

Who to recruit: The selection of participants more or less follows the same principles as the in-depth interview. However, interviewing several participants has its own specificities.

The clustering of participants into groups is very important, as this will affect the discussions and debates they will have. The participants may or may not know each other, and it is important to provide a mix of people where the participants can feel comfortable sharing their personal opinions. It is thus essential to look not only into your relationship with the participants but also into the participants' relationships with each other.

Preparing questions/a discussion guide: The discussion guide for the focus group discussion should follow similar principles to the in-depth interview guide. The structure of the discussion guide is important as it will help the moderator to introduce the topic, open the discussion, develop group rapport, focus on key topics and bring the discussion to a close. The process of the discussion can follow these principles (Hennink *et al.*, 2020):

A focus group discussion guide

Introduction

Aims: Making introductions between the participants, making them feel at ease, reviewing ethical issues, explaining how the discussion will be conducted.

Example: "Do speak up and let's try to have just one person speak at a time. I will play traffic cop and try to assure that everyone gets a turn. Finally, please say exactly what you think. Don't worry about what I think or what your neighbour thinks. We're here to exchange opinions and have fun while we do it: (Stewart and Shamdasani, 1990: pp.92-93)."

Broad opening questions

Aims: "Breaking the ice" and making participants feel comfortable by asking brief questions and focussing on inviting everyone to contribute (eg asking everyone to introduce themselves).

Example: "Before we begin our discussion, it will be helpful to us to get acquainted with one another. Let's begin with some introductory comments about ourselves. X, why don't you start and we'll go around the table and give our names and a little about what we do for a living?"(Stewart and Shamdasani, 1990: pp.92).

Key questions

Aims: "warm up" the discussion with broad topics to develop group rapport. For example, asking the group to define a term or describe a process. Then, transition to the key questions, designed to generate discussion on the key topics of the study. It is easier if you organise them into different topics.

Example: "Has any of you been involved in a partnership program before? [someone shares their experience] Did anyone have had a similar experience?"

Closing questions

Aims: general summary questions to close the discussion. Different strategies can be used, such as ranking the issues discussed or providing a brief summary of the major themes discussed and asking participants if this reflects their perspectives on the group discussion.

Example: "To sum things up, how would you describe your experience with this partner? Are there any other things about [subject] that you would like to share before we finish?"

Designing the questions

The design of specific questions for the focus group discussion follows the same principles as the in-depth interview: they should be clear, short and simple. They should be designed to promote discussion between the participants, so personal questions should be avoided. Moreover, the questions should be open (to invite comments, without restricting) and unidirectional (to avoid confusion).

Considering the focus group environment: In general, follow the guidance provided in the in-depth interviews section. Pay particular attention to engaging in active listening and being reactive as a moderator. Unlike in an interview, a key role for the moderator in a focus group is to ensure everyone gets a chance to participate in the discussion. There can be two people conducting the focus group: one being the moderator and one being the note-taker, to note impressions, even if the discussion is being recorded.

Analysing the data: Data collected from focus group discussions can be overwhelming, so data analysis may focus on data reduction: identifying core themes and categories of issues in the data, conceptualizing data and developing a framework for structuring the results (Hennink and Leavy, 2014).

The Survey

How does it work?

The survey is designed to provide statistics about a targeted population. Instead of having an open dialogue between an interviewer and interviewee(s), the survey takes the form of a list of questions that can be open or closed and that are asked to a sample of people, representative of a wider population.

How should you design a survey?

Participant recruitment: Sampling is critical. The sample should be representative of the targeted population. Key issues include:

- The size of the sample (usually only part of the sample population, for instance 10 % of exchange students),
- The sample design (i.e. the strategy used for sampling people, such as a lottery, or students whose name starts with certain letters of the alphabet. For example, a strategy that involves selecting only students that go to a certain region will not lead to a representative sample of the total population of exchange students; the selection may only be representative of outbound students to that region)
- The rate of response (i.e. the percentage of those sampled that actually responded and filled out the survey/ for whom data can actually be collected) (Fowler, 2009).

The method used to reach out to participants is also critical for tackling the issue of non-response, which can affect the representativeness of the sampled population. For example, for most mail surveys, people who have a particular interest in the subject matter of the research itself are more likely to return mail surveys than those who are less interested (Groves et al., 2006). This means that mail surveys with a low response rate may be significantly biased towards people who have a strong opinion on the research topic. These people also generally have a different gender, age, and

professional background than those who don't respond by mail (Fowler *et al.*, 2002). It is also possible to reach out to participants in person, for instance at a particular space/event (surveying academics at a conference or students on campus for example).

Several ways to reduce non-response to a request for survey participation are:

- Don't hesitate to reach out to more people than you need, with follow-up messages if you are contacting them by email, and be flexible on the schedule for in-person surveys.
- Present the purpose of the survey effectively, accurately and precisely. Make sure respondents know their help is important and how it will be useful.
- Make sure that respondents will not be threatened by the task or uses of the data.
- If the survey is being conducted by email: prepare the questionnaire interface engagingly and professionally. The layout should be clear so it is easy to see how to proceed. The questions should be attractively spaced, easy to read and uncluttered. The response task should be easy to do (avoid asking respondents to provide written answers, except by choice. The tasks can be to check a box, circle a number or some other equally simple tasks).

Designing the survey: The survey can be conducted either online or in-person, with the interviewer asking the questions to the respondent. In the case of in-person surveys, there is a risk that the respondent will try to please the interviewer in their response, even if the interviewer tries to be neutral. The person may also use words formulated from the questions, even though they wouldn't have used these terms otherwise, or modify their answer if they are too uncomfortable telling the truth in front of someone. These biases need to be considered while analysing the data collected.

Question design is critical because the way questions are formulated impacts the way respondents answer. Closed questions aim for precise information and more statistical data, but it should be noted that the respondents might answer things they would not have considered otherwise because the choice of response is limited. Open questions allow spontaneous answers to emerge, though these might be more difficult to analyse and categorise. Open questions are useful when you aim at collecting concepts, ideas, and opinions.

The order of the questions in the survey is important as well. It orientates the respondent into a certain direction. For example, a selection of questions from a survey about strategic partnerships in a certain region:

- What is your affiliation (faculty, institute, department)?
- What are your countries of expertise? [drop down menu with countries]
- Which active project(s) with partners [in the region] are you involved in?
- What are the goals, objectives and ambitions of the collaboration/project?
- With which institutions/organisations in [the region] do you recommend to collaborate in the future?
- Do you know of any other researchers that would like to participate? If so, please feel free to share the link to this survey or their names and contact details.

The first questions are neutral and easy to answer; the more sensitive and important questions are in the centre part of the survey. The final question marks the end of the survey. The questions regarding collaboration guide the respondent into thinking about collaboration in a more strategic way.

Qualitative data - further reading

This “Guidelines for Qualitative Data Collection” draws from different sources from the literature. This reading list is far from being exhaustive - the aim is to guide you through this need for self-reflexivity for preparing interviews and surveys. Several additional useful references have been added.

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Guidelines for the use of bibliometric analyses

This section provides guidelines for the use of bibliometric analysis of research collaboration. Specifically it will guide you through three types of quantitative analysis using bibliometrics:

- Collaboration analysis
- Research mobility analysis
- Analysis of funding acknowledgements.

Analysing bibliometric data requires specific skills and a thorough understanding of the scientific landscape and the citation context. The use of bibliometrics may therefore require the support of a dedicated expert or team. This subsection provides suggestions for the use of certain analyses to help you start planning, it doesn't describe the analyses in detail (El-Ouahi, Robinson-García & Costas, 2021).

Responsible bibliometrics

Before describing bibliometric methods and their uses, the below is a reflection on the responsible use of bibliometrics, and on the choice of data sources.

Bibliometric analyses and other quantitative metrics can inform experts or decision makers when deciding on strategic partnerships. However, there has been a tendency to use journal-based metrics as a single and surrogate measure of quality. This has led to concern, and to the publication of statements on the responsible use of indicators and metrics. Notable examples are the San Francisco Declaration on Research Assessment (DORA) and the Leiden Manifesto (Hicks, Wouters, Waltman, de Rijcke & Rafols, 2015).

Four of the most relevant principles for strategic partnerships from the Leiden Manifesto are:

1. Quantitative evaluation should support qualitative, expert assessment.

Bibliometric analyses provide evidence and insight, yet they are not a surrogate measure for quality. Data and analyses do not speak for themselves. The context is relevant, as well as the starting situation, and the aims and goals formulated. Bibliometric analyses cannot be a substitute for assessment and governance by experts or decision makers; however, they can provide evidence and insight and thus contribute to informed assessment.

2. Measure performance against the research missions of the institution, group or researcher.

This implies that the research context should be considered. In the case of governance and evaluation of strategic partnerships, this implies taking into account the specific partnership, its rationale, activities, ambitions and goals.

3. Protect excellence in locally relevant research.

In many parts of the world English-language publications are the norm, yet there are large numbers of scholars that publish in other, often local, languages. When choosing mainstream or classical bibliometric analyses as a source of evidence, relevant information might be overlooked. This is especially true in case of a strategic partnership with a university in a country where English is not the (only) native language.

4. Account for variation by field in publication and citation practices.

Scholarly communication cultures differ. There are substantive differences in publication practices between research fields. Also, citation rates vary substantially by field. When comparing results between fields and departments, this should be considered. One way to do that is to use field-normalized indicators. The list of indicators presented at the end of the subsection includes such indicators. The most common indicators used by CWTS to measure impact - MNCS, MNJS and PP - are designed in a way that it is normalized by field and year to avoid as much as possible bias. An additional way could be to inquire what is actually missed, when using mainstream or classical bibliometric analyses, beyond journal publications.

Data

In the case of mainstream or classical bibliometric analyses, the data refers mostly to peer reviewed, internationally-oriented journal publications. These publications can be found in data sources such as Web of Science, Scopus, and Dimensions. Several data sources offer access through an open application protocol interface (API) (Glynatsi & Knight, 2021). Otherwise, in most cases, a subscription is necessary to have access to the full data source.

These data sources contain an extensive collection of mostly academic journal publications and have worldwide coverage. Yet each of the sources has its limits, due to its content selection policy. And so, the coverage of each of the sources differs, including the coverage of English-language publications in scholarly peer reviewed journals. Next to that, some data sources include books and book chapters, others conference proceedings. The coverage of publications in other languages than English differs per data source, but is in general not high. As a result, certain fields, disciplines, languages and countries are very well presented, whereas others are clearly underrepresented (Cronin & Sugimoto, 2015; van Leeuwen, van Wijk & Wouters, 2016; Visser, Van Eck & Waltmann, 2020).

The value of a given data source depends not only on its coverage, but also on the completeness and accuracy of its data. For some purposes, it will be important to understand how often the source is updated. Another crucial issue for determining the value of a data source is the way in which the data is made available, for instance

through web interfaces, APIs, or data dumps. Finally, the conditions under which a data source can be used are of major importance (Waltman & Lariviere, 2020).

Using bibliometric analysis to evaluate international collaboration

Research collaboration is often a key part of strategic partnerships. Bibliometric analyses can provide evidence of and insight into this collaboration. These can be used at every phase of the partnership.

For a selection of publications that are co-authored by researchers of the partner universities, a **co-authorship analysis** provides an overview of the joint research output. Publications that mention the affiliations of both universities are selected. A further **citation impact** analysis of these co-authored publications provides evidence of the academic impact of these publications.

Further analyses, such as **leadership analysis**, can provide more insight into the collaboration, especially into the roles of the universities and the closeness of the partners. Co-publications with the partners in leading positions (whether first or last author, depending on the discipline) are an indication of leadership. Co-publications with only author(s) of each of the two universities, are an indication of a unique collaboration.

A **thematic analysis** provides insight into the topics of joint research. This requires the extraction of titles and abstracts of the co-publications, and an analysis of the re-occurrence and connectivity of topics. Again, results are best visualised using science mapping. A term map can illustrate the relative size and connectivity of joint research topics.

Furthermore, in order to get insight into variation across the university and over time, you can perform a **research profile analysis**. This allows you to highlight areas of higher or lower levels of collaboration. It also illustrates how collaboration has evolved over time in terms of areas of interest in the research. This can be done using the general map of Web of Science subject categories.

A final option to get insight into collaborative behavior and the development of a field, is the reconstruction of a **co-authorship network map** (as described in Liu and Xia, 2015). On a network map, authors are connected to each other based on their co-publications. Each dot represents an author. Proximity between dots represents the intensity of the collaboration between authors and size of the dot the number of co-publications. Again, it helps to visualize the map, for instance with the VOSviewer software. This tool can be applied on top of institutional co-publication-based mapping, as this goes deeper into the actual actors that articulate that cooperation between institutes.

Using bibliometric analyses to evaluate mobility

“Mobility—and in particular international mobility—of skilled human resources plays an important role in innovation. It contributes to the creation and diffusion of knowledge, particularly tacit knowledge, which is more effectively shared within a common social and geographical context.” -- OECD (2010)

Research mobility might not be the starting point or goal of strategic partnerships, yet it is inseparable from strategic partnerships. Studying the mobility of researchers can provide insight into the knowledge transferred between organisations and/or researchers, the networks established between universities, and the implicit relationships that go beyond co-publications.

One way to collect the data is by using sources such as Web of Science. The data can then be used to track scientific mobility by identifying affiliation changes over time. Another option is to use data from ORCID to identify the career pathways of researchers (Robinson-Garcia, Sugimoto, Muray, Yegros, Lariviere & Costas, 2019). The analysis of these data allows you to study mobility patterns globally, geographically, institutionally (i.e. considering the institutional affiliations of researchers) and temporally (over time). It also allows for the incorporation of other individual features, such as gender (algorithmically derived from the first names of authors); thematic specialisation (from the topics of research of individuals); and academic age (estimated from the time of researchers' first publication); etc.

This approach, especially when scientific age is combined with other variables, can offer insight into the extent to which researchers travel between strategic partners (Robinson-Garcia, Sugimoto, Muray, Yegros, Lariviere & Costas, 2019). At the end, **co-affiliation networks** can be mapped following the same method/logic as for co-authorship networks described in the previous section.

Based on the information provided across individuals' publication records, a general classification for analyzing scientific mobility using institutional affiliation changes may be identified. For example:

- Migrants: authors who have ruptures with their country of origin
- Travellers: authors who gain additional affiliations while maintaining affiliation with their country of origin.

Moreover, this classification could be done at the country level or could be expanded to incorporate the directionality of scientists' mobility (i.e., incoming and outgoing). This taxonomy of mobility types of scientists can serve to inform science policy.

Using bibliometric analyses to study funding acknowledgements

Researchers that collaborate often do so in externally funded projects. In their publications, they are generally required to mention this funding. Studying funding acknowledgments can provide insight into the history and activities of a strategic partnership. Do authors (and their universities) collaborate using external funding, and if so, did they do so already before the strategic partnership was signed? Or is their research funded by an internal scheme as part of the implementation of the strategic partnership?

It helps to make a distinction between, on the one hand, co-publishing without any clear funding ties as an indication of scientific cooperation, not based on having research grants together; and, on the other hand, co-publications as a signal of scientific cooperation including funding acknowledgments, indicating the mutual grant as basis for the cooperation.



These analyses provide insight into the sources of funding, and may provide some insight into the motivation of researchers to collaborate. However, additional data and analyses, policy documents, interviews and annual reports, are useful to provide additional insight and to enable us to assess the developments from an institutional/historical perspective.

A final word on bibliometric analyses

Bibliometric analyses can provide insight into collaboration, yet there are limits. Co-authorship is only one indication of research collaboration. It doesn't capture reasons behind a certain relationship, challenges and benefits, or the actual collaboration process. The approaches described are meant to be used descriptively rather than in an explanatory manner. They don't provide insight into factors that motivate collaboration and mobility. Other methods are necessary, including qualitative (document analysis, interviews, surveys); they add to the level of interpretation and understanding. Moreover, some research collaborations lead to other results than academic publications, such as reports and workshops. These are not captured in bibliometric databases.

Next to that, educational activities aren't visible in bibliometric analyses. Indeed, the outcome of a scientific collaboration can be diverse and is dependent on the balancing of motivations accompanying the establishment of collaborations (Mayrose & Freilich, 2015).

Finally, working with bibliometric data requires specific skills and an understanding of the scientific landscape and the citation context. When choosing to use bibliometrics, it is best to involve the support of a dedicated team of experts. They might be available at university libraries and research information offices.

Quantitative data - further reading

Blaise Cronin and Cassidy R. Sugimoto., eds. *Scholarly Metrics Under the Microscope: From Citation Analysis to Academic Auditing*. Series: ASIST Monograph. Medford: Information Today. 2015. 976 pp. ISBN-13: 978-1573874991

El-Ouahi, J., Robinson Garcia, N., & Costas, R. (2021). Analyzing scientific mobility and collaboration in the Middle East and North Africa. *Quantitative Science Studies*, 2(3), 1023-1047. https://doi.org/10.1162/qss_a_00149

Glynatsi, N.E., Knight, V.A. A bibliometric study of research topics, collaboration, and centrality in the iterated prisoner's dilemma. *Humanit Soc Sci Commun* 8, 45 (2021). <https://doi.org/10.1057/s41599-021-00718-9>.

Hicks, D., Wouters, P., Waltman, L. et al. Bibliometrics: The Leiden Manifesto for research metrics. *Nature* 520, 429–431 (2015). <https://doi.org/10.1038/520429a>

Mayrose I, Freilich S (2015) The Interplay between Scientific Overlap and Cooperation and the Resulting Gain in Co-Authorship Interactions. *PLoS ONE* 10(9): e0137856. <https://doi.org/10.1371/journal.pone.0137856>

OECD (2010), "International mobility", in *Measuring Innovation: A New Perspective*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264059474-25-en>.

Robinson-Garcia, N., Sugimoto, C.R., Murray, D., Yegros-Yegros, A., Larivière, V., Costas, R. The many faces of mobility: Using bibliometric data to measure the movement of scientists. *Journal of Informetrics*, 13(1), 50-63. [doi:10.1016/j.joi.2018.11.002](https://doi.org/10.1016/j.joi.2018.11.002)

van Leeuwen, TN, E van Wijk, and PF Wouters (2016) Bibliometric analysis of output and



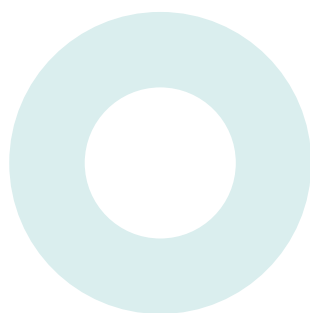
impact based on CRIS data: A case study on the registered output of a Dutch university, *Scientometrics*, 106 (1), 1-16

Visser, M., Van Eck, N. J. and Waltman, L.. *Large-scale comparison of bibliographic data sources: Scopus, Web of Science, Dimensions, Crossref, and Microsoft Academic*. 2020. arXiv: 2005. 10732 [cs.DL].

Waltman, L. & Larivière, V.; Special issue on bibliographic data sources. *Quantitative Science Studies* 2020; 1 (1): 360–362. doi: https://doi.org/10.1162/qss_e_00026

Annex to guidance on bibliometrics: CWTS main set of indicators

- Number of publications (P) indexed in the WoS of the unit of analysis in the period of analysis;
- Number of fractional publications (P[Weight]) indexed in the WoS of the unit of analysis in the period of analysis;
- Internal coverage (Int_cov) of a set of publications in the WoS is measured by the percentage of references from that set that are also indexed in the WoS;
- Total number of citations received by P during the entire period, excluding self-citations (TCS);
- Total average normalised number of citations of the publications of a unit of analysis (TNCS);
- The average number of citations without self-citations per publication (MCS); Percentage of publications not cited by others (in the given time period) (PP[Unicted]);
- Percentage of self-citations (PP[Self-cits])
- The mean field normalised citation score (MNCS); the actual number of citations (without self-citations) is divided by the expected number of citations on a per publication basis. Here, the expected number of citations is based on the world-wide average citation score (without self-citations) of all similar publications belonging to the same field in the same year. In this way, a field normalised score is calculated for each publication. Next, the MNCS indicator is computed for each unit of analysis, by taking the average of these field normalised citation scores for individual publications. A value above 1 indicates that the mean impact for the unit is above world average whereas a value below 1 indicates the opposite.
- The mean normalised journal score (MNJS) indicates the average citation impact of the journals in which the publications appeared that were published by the unit of analysis. The indicator is calculated based on the same principles as the MNCS. It shows whether the publications originating from the unit of analysis were published in top or in sub-top (in terms of citation impact) journals.
- Number of highly cited publications (P(top 10%)) of the unit of analysis in the period;
- The percentage of highly cited publications. (PP(top 10%)) The percentage of publications published by the unit that are among the upper top 10% percentile of the citation distribution for similar publications belonging to the same field in the same year.





Lessons Learned from the EVALUATE Project

The EVALUATE Project has been an extraordinary learning journey for the entire project team. Here we attempt to summarise the most important lessons learned from the process of considering how to develop and evaluate strategic partnerships. They are:

- #1 Know your stakeholders and their (naturally diverse) interests**
- #2 Integrate evaluation with existing data and systems**
- #3 Get to know evaluation methods**
- #4 Expect change in ideas about evaluation - and to invest time and effort**

Lesson 1: Know your stakeholders and their (naturally diverse) interests

At the start of the process, identify the key stakeholders and their key responsibilities/ mandates in relation to the evaluation, and create a roadmap defining clear roles, responsibilities and resources for the partnership together. There can be lots of individual and unconnected conversations between key stakeholders when it comes to international partnership. It is important to have a coordinated approach to discussions, and make sure the evaluation connects to this “partnership roadmap” in a meaningful way.

It is worth considering how each partner thinks about success in relation to strategic partnerships. The definition of success is not self-evident. Success (and, conversely, failure) can mean different things to different universities (and perhaps different things to teams within the same university). Even though it may take time to arrive at a mutual understanding, it helps later when evaluating the success. A closely related question is “What are the broader objectives of the strategic partnership for each university?” For example, does the partnership represent a key pillar of a university’s international strategy? And in what ways should the success (or otherwise) of strategic partnerships be measured against other types of university partnerships?

Lesson 2: Integrate evaluation with existing data and systems

The evaluation does not need to be independent and separate from the underlying partnership. Instead, you should look for opportunities to embed evaluative methods to existing processes and practices within the partnership. Considering the life cycle of the partnership will help you understand when to conduct evaluative actions. The “when” question is an important consideration given that some collaborative activities may have a longer lag-time to produce tangible results. Is there consensus on this question, and does there need to be in your case?

You may wish to consider where evaluation fits within the wider context of priority projects. There might be competing institutional priorities. Some will consider evaluation to be important and necessary work, other stakeholders will not. Leadership and management buy-in is essential to ensure adequate resources are provided and that the quality of the evaluation is satisfying.

Thinking about the evaluation as a capacity building exercise in terms of involving and inspiring stakeholders, rather than just collecting and analysing information, can create impactful evaluation.

To ensure that an evaluation is meaningful, the ownership of it needs to sit in the appropriate place within each institution. This could be a central service such as an international office (or similar), who can act as a hub, take care of the practicalities and coordinate the evaluation. It is also vital that there is broader ownership for the commitment, alignment and relevant use of the knowledge created by the evaluation.

Universities need to consider what data will be available that will assist with the evaluation of the partnership. Is there data that would be useful but isn't being captured (and if so, can that be remedied)? Do the partners capture different data, and if so can the data be shared and aggregated to provide an overall picture?

Tangible KPIs or outputs can be established in all areas of collaborative activity, including education, student mobility and research. KPIs can also focus on return on investment, research income, and other financial outputs. Although KPIs can be quantitative, or qualitative, in our experience it is often more challenging to identify and benchmark against qualitative indicators. The risk of this “what get measured gets managed” approach, however, is that less measurable yet important factors can be underplayed. Through the case study development, we found qualitative methods very informative, including in explaining quantitative data.

Lesson 3: Get to know evaluation methods

Workshop-based interactive and participative methods of stakeholder engagement in evaluation practice (e.g. in planning how to carry out the evaluation, and deciding on the methods together) can produce meaningful results in form of common understanding which enhances a feeling of ownership for the participants.

Many outcomes often identified as being important by a university are too broad or too indirect to be attributable to a particular partnership or indeed, suite of partnerships. This includes increases in number or quality of publications, ranking and reputation, as well as “meta-objectives” such as turning students into “global citizens”, or using research to address “global challenges”. Making bold claims that these outputs were achieved as result of a particular partnership can be problematic where a correlation may be difficult to demonstrate.

An often-overlooked criterion relates to the structural robustness of the partnership. For example, Universities might make it their objective to build the resilience necessary to allow the partnership to survive the departure of key personnel on either side, or leadership shifts.

It is important to consider who will conduct the evaluation of a specific project and to adjust expectations with stakeholders and decision makers accordingly. Do the evaluation’s subjects or audience expect it to be carried out by professional evaluators? If so, are stakeholders and decision makers willing to dedicate the resources required? Could the evaluation be carried out by other professionals, e.g. administrative staff? Will it affect the perceived legitimacy of the evaluation? Does the institution have a professional evaluation unit or could the institution be willing to invest in evaluation by hiring a professional external evaluator or engaging in internal capacity building?

Lesson 4: Expect change in ideas about evaluation - and to invest time and effort

Our understanding about the power of evaluation changed radically as a result of the intensive discovery process we went through in the course of developing case studies. In common with many experiences of radical change, our preconceptions were disrupted. We strove to find meaning. And finally, we came to terms with a new reality. It's also worth reflecting on the significant scale of this intensive discovery process - and ensuring that those involved have the time and resources they need. You can read these case studies of evaluation in action in the following section of this handbook.

Our changing understanding of how we could use evolution fits into three broad phases, illustrated in the following diagram:



First awakening.

Understanding: low

Confidence: high

Desire for simple common definitions and an evaluation framework to deliver a clear assessment.

Building awareness.

Understanding: moderate

Confidence: low

Grappling with the complexity of contextual factors and diverse stakeholder perspectives.

Maturing appreciation.

Understanding: better

Confidence: better

Understanding of the partnership, its context and evaluation methodologies to deliver a fit for purpose evaluation.



Anthology of case studies

The following case study examples of university partnership evaluations and other reflective writings are intended to provide rich explorations of evaluation in practice. The case studies are concise, candid, and have been used to inform the Evaluation Framework. All of the EVALUATE project consortium members have contributed – and while they have worked closely throughout, each of the following elements of the Anthology are the original works of the named authors.

Navigating a first strategic partnership at the University of Copenhagen

Internal reflections and insights on the concept of strategic partnerships
Anne Bruun, Director, International Education
Sara Dinesen, Associate Director, International Education

Description of the partnership

In 2017 the University of Copenhagen (UCPH) established a strategic partnership with the University of Sydney (USYD). The Priority Partnership was the first institutional strategic partnership at UCPH.

Prior to committing to this, internal talks and discussions took place at UCPH on whether engaging in institutional strategic partnerships would add value to the institution.

The International Education Office had worked to encourage discussions on strategic partnerships at UCPH in general and was very supportive of the idea of partnering with USYD. At this time, the two institutions already had a very active exchange of students. Other units at UCPH - especially on the research side - were more reluctant and unsure about whether this was the right way to go for the institution. They were concerned whether a top-down approach and priority given to a specific partner would be embraced by the research community throughout the university.

Upon signing the Priority Partnership agreement, a statement was issued by UCPH motivating the partnership:

“With this partnership, the University follows an international trend in the university sector of engaging in closer and more in-depth collaborations with select universities. We do this in order to reinforce our position in the competition for research funding and to find solutions together for the global challenges of the 21st century.”

Establishing strategic partnerships was not a stated goal in the university strategy, when the USYD partnership was established.

However, when the new university strategy was launched later the same year with the strategic goal to “*Enter into partnership agreements on research and education with the best universities in the world*”, strategic partnerships were seen as an answer to this goal.

Ambitions, goals and implementation of the partnership

According to the wording of the agreement, the purpose of the partnership was to:

“... develop a collaborative arrangement to explore and participate in collaborative teaching, training, research and other agreed activities that further enhance the relationship between the Institutions”.

The duration of the agreement was to be three years initially. During this time, the institutions were committed to working together and sharing information about their organisations to develop an enhanced understanding of each other’s capabilities and requirements; establishing a working relationship based on these capabilities and requirements; and taking advantage of opportunities to foster collaboration between their organisations.

The two institutions had a number of shared ambitions and goals for the partnership. They shared the ambition of addressing global challenges, and both saw the partnership as a way of reinforcing their position in the competition for research funding.

UCPH saw an opportunity to explore the concept of strategic partnerships and the idea of the synergy that could arise in these partnerships. Hence, the motivation on the UCPH side was to increase opportunities for students, researchers, and staff, but also to gain experience with the concept of strategic partnerships.

Contrary to UCPH, USYD entered into the partnership with experience in strategic partnerships. They were in the process of building a portfolio of such partnerships and had a fairly clear definition of what success looked like for them as an institution. In particular they wanted to gain increased research funding, and to develop joint projects.

Main components of the partnerships

The main component of the strategic partnership was a joint seed funding award to support research and teaching activities, to which each institution contributed 67,000 euros annually. This was awarded through one annual application round with two funding schemes. The first was intended mainly for research collaborations, while the other was for smaller projects focused on collaborations within education, HR and administration.

Proposals were required to be sustainable in the long-term with a plan for engagement that included leveraging external funding and publication outputs.

Other components of the partnership were an expansion of the existing institution-wide student exchange agreement with a new shared goal of increasing mobility to approximately 50 students from each institution per year - a goal which was reached and superseded early on.

The establishment of this “Super Exchange Partnership” followed many years of exchanging students between the two institutions - in this sense it was a forerunner for the Priority Partnership. The success of this part of the strategic partnership reflected that the exchange of students was the most well-established area of collaboration between the two institutions.

Following the establishment of the Priority Partnership, the two institutions initiated the process of signing a Cotutelle agreement regarding mobility of PhD students. For various reasons including questions of legislation, funding and Covid-19, it proved difficult and took some years to establish.

Implementation of the partnership

The implementation of the partnership involved delegation visits to both destinations, including senior management, researchers and administrative staff who met up with their counterparts.

The outcomes of these visits, including the signing ceremony, were a list of potential areas of collaboration and a group of ambassadors on both sides who were motivated to promote the partnership and contribute to making it a living and active relationships.

Significant resources were put into the initial visits and signing ceremony. The effect was increased knowledge of the partnership. The partnership was clearly endorsed and supported by the university leadership. However, as it turned out, when it came to the everyday life of the partnership, it proved more difficult to communicate about the partnership internally at UCPH: It was challenging to identify the relevant channels of communication as they differed across the institution and it took time to identify the relevant stakeholders and forums that could help the process along.

Evaluation of the partnership

Two years into the partnership, an internal committee at UCPH was given the task of evaluating the partnership. The members of the committee were various stakeholders reflecting the diversity of the university: Deans, researchers, management and a student representative, chosen from various faculties and representing education as well as research.

The committee was established to work with a strategic project on international partnerships, which was launched as part of a new university-wide strategy. The evaluation was one element in the greater strategic project, which also dealt with other aspects of international partnerships. The fact that the evaluation became part of the strategic project, provided a rare opportunity to engage a broad range of stakeholders in the process and get their perspectives and reflections on the partnership and how to approach future strategic partnerships.

On the basis of the evaluation, the committee should recommend whether to extend or finalize the partnership. A second purpose of the report was to inspire a UCPH working committee in developing criteria for new strategic partnerships.

The evaluation was made on the basis of UCPH material and interviews with UCPH researchers. Stakeholders from USYD were not involved in the process, mainly because the evaluation was aiming at answering whether UCPH should pursue an extension of the partnership, which was regarded an internal question.

The evaluation attempted to clarify:

- Outcomes from the partnership so far
- Whether collaboration had taken place that would not have happened without the seed-funding made available
- Whether the projects funded were sustainable

The evaluation also explored details in the application process to search for optimization - but it did not aim at exploring ways of altering the partnership substantially.

Information / evidence used in the evaluation

The main part of the evaluation focused on information and feedback on the two application rounds for the seed funding award, that had taken place at the time. 12 UCPH researchers had been awarded funding at the time, 8 agreed to participate in a 15-minute phone interview regarding the outcome of the projects, feedback on the application process and suggestions for adjustments in these types of partnerships. Some 35 non-successful applicants were contacted for written feedback, in the form of three shorter questions. In the event, 11 non-successful applicants replied.

Through the interviews it was reported that all participants expected to continue the collaboration after the funding had ended, and several of the participants were in the process of applying for new funding. They reported that this type of collaboration would not have been possible without the funding.

The evaluation report also mentioned other types of collaboration between USYD and UCPH that were considered outcomes of the partnership, including:

- Erasmus+ funding was secured for staff mobility
- USYD was included in a UCPH scholarship programme for students
- Access to summer programmes was included in the student mobility agreement
- UCPH and USYD administrative staff made joint presentations at several conferences for international education
- UCPH-representatives attended the annual USYD Partnership Summit for Priority Partners

Another outcome - and perhaps one that tends to be overlooked by most stakeholders - is the fact that the strategic partnership served as both a confidential room and an experimental laboratory. In a well-functioning partnership, partners can get honest feedback on ideas and potential projects, the risks related to potential projects can be articulated and thereby mitigated, and the consequence of a failure tends to be perceived as less severe.

An example of this was the work to include short-term summer courses in the student mobility agreement between UCPH and USYD. At UCPH a project was initiated with the aim of increasing the level of short-term mobility. The idea was to include short-term mobility in a few partnerships to begin with and develop models to include it in more partnerships.

USYD, being a strategic partner, was a natural choice of partner in this pilot project. Short-term mobility was not a very well-developed area of mobility at UCPH when the project was launched and as the project developed, partners realized that increasing mobility in this area was harder than anticipated. The project did not succeed in reaching the volume of short-term mobility it had aimed for, but it did lead to a deeper knowledge of the challenges of developing this type of mobility. Because of the nature of the partnership with USYD, the fact that the project did not fully succeed, could be perceived as a learning experience and it did not affect the partnership negatively.

USYD and UCPH also shared views and ideas for evaluation and quality assurance of exchange agreements.

Another factor is the institutional trust and legitimacy that comes with being named a strategic partner. The fact that a university's leadership has chosen to recognize a particular institution as a strategic partner makes easier it to collaborate and engage in activities with this institution rather than a non-strategic partner, which would require much more internal debate and justification.

This is becoming increasingly important as new models for collaboration are being introduced. Activities like joint courses require more than just a good relationship between two researchers. They require the involvement of a broad range of staff on both sides and access to relevant resources. Therefore, institutional trust and goodwill become increasingly important.

This outcome was not strongly articulated at UCPH when the benefits of a strategic partnership were initially discussed at senior level, presumably because more traditional KPIs are more broadly recognized as output. However, it is something that is now being emphasized - e.g. in the discussions of the outcome of participating in European Universities.

Evaluation conclusions

The internal Committee at UCPH that was given the task of recommending whether to extend or end the partnership based on the evaluation report, was quick to recommend a continuation. The argument for doing so was not only based on the results listed in the report. It was also based on the assumption that the quality and value of a strategic partnership could not show itself within a timespan of just 2-3 years.

To UCPH it was important that the funding applications submitted and awarded as part of the partnership represented a wide selection of academic areas and faculties. A large number of applications was not a goal in itself, as this might lead to many working hours being spend on unsuccessful applications. On the other hand, the number of applications also reflected a level of interest and created legitimacy. Hence it was not clear whether UCPH should aspire for large number of applications or not.

The amount of seed funding available for the individual projects would have a greater effect for younger researchers than for more established researchers. There were considerations on whether the seed funding should target the group of younger researchers to ensure maximum impact.

The number of applications for the other funding scheme - for projects focused on collaborations within education - was four. This lack of applications was a clear indication that this latter scheme was not successful. The conclusion was that there were potential projects and that the amount of seed-funding offered could make a difference, however the cause of the lack applications was not further explored.

After the assessment

This initial experience at UCPH with strategic partnerships has led to institutional reflection and adjustments:

- The experience of engaging in an institutional strategic partnership and in a European Universities alliance lead the university leadership to conclude that there was a need for a centrally located unit to coordinate the UCPH contributions to these collaborations and drive work on them across the institution. As a consequence, the unit *International Strategic Partnerships and Alliances* has been established in the Rectors office.
- Covid-19 led to a time-out of both the USYD Priority Partnership and the process of establishing the second UCPH strategic partnership.
- A new approach to establishing strategic partnerships at UCPH is now being tested. The approach attempts to engage relevant stakeholders early on in the process, encourage stakeholders to identify potential areas of collaboration and to reflect on where available funding could have the greatest impact.
- With this model, hopefully some of the questions raised by the evaluation can be addressed: What are the main goals and focus areas of the partnership? What is the best model to distribute funding? In which areas should the university aspire to collaborate in the first stages of the partnership?

Reflections

UCPH learned many valuable lessons through its first experiences with a strategic partnership, including:

Engaging in strategic partnerships is a process and there should be room to experiment and adjust along the way. There are always elements that can be improved, and it is important to create room for that improvement. Agreeing on a midway evaluation (or something similar) can be a way of ensuring this.

Institutional strategic partnerships often require collaboration across the units of Research and Education. It seems like it is often challenging to get this collaboration to work in a coherent and mutually beneficial way. There are various reasons why collaboration across units might be challenging. Being aware of the challenge and ensuring clear organizational structure and a clear “chain of command” can mitigate the risk of spending time and resources on internal differences.

A strategic partnership will typically involve many different internal stakeholders, including departments, staff and parts of the organization that you do not normally work with. **In the process of convincing new stakeholders to become involved, it is a great advantage if you are able to state a clear purpose.**

Implementing a strategic partnership requires time and resources dedicated to building up an internal network and expand activities to new parts of the institution, that might work in a different way than you are used to. It takes time to build the knowledge needed to navigate efficiently and pro-actively.

The criteria for success when initiating their first Priority Partnership were not clearly stated. **There was an underlying assumption or hope that areas of collaboration would surface, and synergy would appear.** This has happened to a lesser extent than hoped at UCPH - successful student exchange in one academic area does not necessarily lead to successful research collaboration in the same area, or vice versa.

The criteria for success changed during the duration of the partnership. The reasons for that are manifold: Covid-19 and the lessons learned, environmental awareness, the experience of engaging in a European Universities network and the lessons learned as the partnership wore on. This kind of shift is likely common to most strategic partnerships. **There must be a balance between formulating clear criteria for success, and leaving room for the partnership to evolve along the way.**

Institutional culture differs and this should be considered when implementing a strategic partnership. In some institutions the successful implementation of a strategic partnership will require an involving process, in other institutions a strong leadership endorsement will have a greater effect.

Learning about mapping value through evaluating the Galápagos - Edinburgh initiative

The University of Edinburgh's participation in the development of innovation catalysts in the Galápagos Islands provoked insights about why and how partnerships deliver value.

Jake Broadhurst, Scott McQuarrie & Derek MacLeod. Edinburgh Global, The University of Edinburgh

About the case study and accompanying reflective log

This case study describes the structure of the partnership, the strategic context, perspectives from key stakeholders in the Galápagos, a range of remarkable features of the partnership, and explores the value of the partnership. It maps perspectives on success and risk from the viewpoints of the academics involved, institutional administration and partners. Through this, it explores who decides about what success factors & risks are important, as well as how they are quantified and governed.

Throughout the development of this case study observations have been recorded and synthesised into a reflective log that follows on from the case study itself.

Data collection

This case study has been constructed from data collected from key stakeholder interviews and a range of documentary sources.

Interviews were conducted with academic and government stakeholders in the Galápagos and Ecuador; and with the academic lead for the partnership at the University of Edinburgh (UoE), Prof Soledad Garcia-Ferrari, Personal Chair of Global Urbanism and Resilience, Dean of Latin America; Dean International for the College of Arts Humanities and Social Sciences; Director of the Centre for Latin American Studies.

Documentary sources included project documentation and websites, and University governance meeting papers and minutes.

Background to the partnership

The Galápagos Islands have fascinated UoE scholars for nearly two centuries. Charles Darwin - whose theory of evolution was very much informed by his experience and observations in the Galápagos - spent a couple of years in Edinburgh studying medicine before moving to London and pursuing his interests in the natural sciences.

This case study picks up the story in the mid-2010s when a range of shared interests

between the UoE and academic, governmental and industry partners in the Galápagos picked up momentum.

A series of knowledge exchange visits culminated in 2019. Over the course of the year, numerous working parties met to forge shared interests, mobilise resources, bolster political will and build community-led understanding of sustainable development in the Galápagos. The COVID-19 pandemic took a heavy toll on the Galápagos in terms of their economy, society, and general population well-being. This threw the partnership into hiatus. In late 2021 the partnership was reinvigorated, especially through the convening power of the COP26 climate change conference.

UoE and a range of parties made formal commitments to work together and created two entities to drive innovation and sustainable development in the Galápagos. The UoE is a leading partner in the creation of two entities in 2021:

- Galápagos Sustainability, Innovation and Resilience Hub
- Galápagos Living Lab for Energy Innovation

About the Galápagos Sustainability, Innovation and Resilience Hub

The creation of a Sustainability, Innovation and Resilience Hub, built on foundations of research collaboration, education and capacity-building, was intended to assist in the realisation of the Galápagos' wider aims around boosting sustainability, achieving the UN SDGs, and supporting a transition within the islands away from an over-reliance on tourism and toward a knowledge economy.

The fundamental objective of the Hub is to develop innovation around economic recovery, energy transition and conservation of the natural heritage of the Galápagos. Its framework is rooted in the empowerment of stakeholders and the conceptualisation of sustainable and inclusive development, with appropriate recognition and management of the synergies and conflicts between different (existing and future), development and conservation initiatives, ever-present in ocean island ecosystems. By presenting an open space for dialogue on economic productivity within the principles of sustainability in such a fragile environment, the work of the Hub will enable the Galápagos to lead as a global example.

The Innovation and Resilience Hub is a truly multidisciplinary and cross-sector entity co-led by the Secretariat of Higher Education, Science, Technology and Innovation with The Government Council of The Special Regime of Galápagos, The Central University of Ecuador, The San Francisco de Quito University, The Charles Darwin Foundation, The Sustainable Environmental Investment Fund, and The UoE.

About the Galápagos Living Lab for Energy Innovation

Through a collaboration between the UoE, Universidad San Francisco de Quito and British-Ecuadorian Chamber of Commerce, the proposed Living Lab for Energy Innovation is intended to deliver the objectives of the recently approved Galápagos Plan 2030, and at the same time provide opportunities to recover from the Covid-19 crisis. This includes reinforcing existing strategies and opportunities to enhance self-

sufficiency, reduce climate crisis impacts and diversify sector dependency. The Lab will empower local communities to adjust to a rapidly changing economic and cultural landscape, creating a resource and energy system that is appropriate and maintainable.

The partners have a common interest in evaluating the technical, financial and legal conditions under which to provide assistance and advisory services regarding associated solutions, innovation and services, which are related, but not limited to, the fields of energy, environment, climate change, circular economy and development.

Perspectives from the Galápagos on the role of UoE

Colleagues in the Galápagos interviewed as part of evaluating the partnership spoke warmly of the role that the UoE, and Professor Soledad Garcia-Ferrari have played. For example, Norman Wray, former governor of the Galápagos Islands, remarked that Edinburgh was a key institution in launching the ambitious partnership and said that the university had rooted its offer to work together in a deep understanding of the social and economic situation in the Galápagos. Wray added that the work of the partnership's leader, the UoE's Professor Soledad Garcia-Ferrari, was important for building dialogue and collaboration.

Some remarkable features of the partnership

Partnership with a territory aiming to make a broad positive impact on SDGs

The nature of the partnership itself creates an additional layer of unique value by going beyond traditional one-to-one or consortium collaborations. These Galápagos-UoE initiatives are being shaped within a partnership between the University and a geographical territory that aims to make a broad positive impact across a range of societal, economic and environmental concerns. This configuration creates the possibility of finding solutions that are genuinely focused on local needs - and importantly, solutions that can be implemented on the ground.

Visionary leadership

The University's work with the Galápagos is driven by a visionary leader, Professor Soledad Garcia Ferrari. It's not unusual for university initiatives to be led by one inspirational academic, particularly in the early stages. While there are natural limitations and risks where an initiative is dependent on one person, this model has its strengths. Within the University, Professor Garcia has mobilized support from a wide range of academic colleagues, senior leaders, professional services and governance groups. She also brings an advanced level of cultural literacy and insight into collaborative working in the territory as well as the wider region. This high-level engagement within and beyond the University has been essential for the creation of a common mission and team spirit.

Relationships, trust and patient partnership development

Interviews with Professor Garcia Ferrari and her collaborators in the Galápagos revealed a high level of trust and commitment between the parties. This relational approach

to partnership working takes time and deep commitment which result in foregoing other opportunities. However, from the point of view of the project participants, the potential of the partnership is well worth the opportunity cost. This patient partnership development process is a significant feature of this unique Galápagos-Edinburgh initiative.

Exploring value for The UoE

Over several years, The UoE has played a substantial role in the conceptualisation and development of the Galápagos Innovation and Resilience Hub.

UoE strategy context

This partnership contributes to Strategy 2030¹ - the main UoE strategic plan. The plan states that “As a world-leading research-intensive University, we are here to address tomorrow’s greatest challenges. Between now and 2030 we will do that with a values-led approach to teaching, research and innovation, and through the strength of our relationships, both locally and globally.”

Investment

- Faculty time.
- Funding to cover costs of visits to the Galápagos; catering and space for meetings / workshops in Edinburgh.
- Coordination of travel and co-working.
- Brand, reputation, social capital.
- Senior leadership attention.
- Curating the partnership.
- Recruiting and onboarding partners nationally and internationally from academia, government and civil society.

Intermediate indicators of return

While the UoE has not made a direct return from the partnership yet, the Galápagos hub and living lab are powerful spaces that are likely to deliver high impact scholarship that is sustainably funded. While this initiative has yet to return major research projects or other kinds of income, there are intermediate proxy indicators that this is a high potential partnership including:

- Clear expression of societal need formulated through close, iterative consultation with a range of NGOs and community groups on the ground.
- Complex questions that can benefit from research into the challenges and their resolution.
- Government backing at provincial and national levels in Ecuador.
- Committed long-term partners.
- Broad range of scholars involved.
- Fit to strategic objectives of the UoE.

¹University of Edinburgh Strategy 2030 <https://www.ed.ac.uk/about/strategy-2030>

What could this return on investment look like?

Potential for societal impact

- Accelerate the transition to net zero in the Galápagos and beyond.
- Map a transition from fossil fuels to renewable energy.
- Make a societally just transition to a low carbon economy less dependent on tourism.
- Create transferable models for living within planetary boundaries in constrained ecosystems.
- Potential for scholarly work
- Research questions that lead to funded research projects.
- Consultancy and advisory roles.
- Educational programmes / intellectual content for new courses (case studies etc.).

Potential for financial return on investment

- Small pump priming grants (British Council Newton fund for example).
- Large consortium grants from UK research councils – especially related to Overseas Development Aid. UoE has a strong track record in £XXm awards from UK Grand Challenges Research Fund GCRF.
- Philanthropic funding for implementation research (science lead economic development, habitat restoration, Greentech innovation).
- Ecuadorian national government funding for scholarships (undergraduate, postgraduate, Ph.D., online Masters).

Note on preparedness for Overseas Development Aid ODA funding as a metric for the value of the Galápagos partnership

Why is ODA funding important?

Overseas Development Aid related funding has been a significant part of the UK government research funding landscape. UoE researchers have successfully bid for several multi-million pound research projects that are delivered with consortia in low and middle income countries. While ODA funding has been reduced due to the impact of the Covid pandemic, the UK government has committed to returning to 0.7% of GDP ODA in 2024/25.

How can the potential of the Galápagos partnership to access ODA funding be gauged?

The Galápagos partnerships are closely aligned with ODA funding criteria. The collaborative and equitable approaches used in building the Galápagos partnership mean that bid writing teams are able to provide compelling answers to the following points that typically need to be addressed in ODA funding applications: authentic co-design; consortium skills, capacities and aptitudes; research capacity building; and pathway to impact though, evidence-informed policy making and economic, societal or environmental benefits. addressing these points is not easy and many research applications fall down because they, unlike the Galápagos team, do not have genuine partnerships with universities, government and civil society.

What next for the partnership and its evaluation?

Now that the Galápagos Edinburgh partnership can be defined as a promising space, new lines of enquiry emerge - not least, the new evaluation questions for the next phase of the project.

Reflective logbook

This case study was developed to aid the creation of the strategic partnerships evaluation framework. This logbook records a range of observations and discoveries made during the process of developing the case study.

What was the question?

The focus of the evaluation changed substantially during the case study development. The original question was: “How can we robustly evaluate risk impact at the point of partnership selection to ensure our partnerships are sustainable and economically viable?”; then it shifted to “learning about governing strategic partnerships; and finally to “exploring what value means from multiple perspectives”. In the end, this more open question enabled a broader exploration of the case study.

Methods and why they were selected

Methods

- Interviews with project people and external stakeholders.
- Analysis of documentation (governance, reports, concept notes, visiting delegation schedules).
- Appreciative enquiry² into past, current and future objectives.

Why

- Methods 1 and 2 are accessible and were selected with the evaluation team.
- 3 delivers a broader and deeper understanding of value.

Data sources and their utility to the case study

Project documents:

- Helped to construct the narrative; describing the partnership, goals, planning etc.
- Describe in broad terms what the entities will do and the positive contribution that they can make for the people and environment of the Galápagos.
- Do not describe the contributions or benefits for the parties.

University governance committee papers:

- Are also useful for constructing the project narrative – progress, plans, and decisions.
- It is harder to find questions asked or feedback offered to the project and how the project responded. There are lessons here to refine the role of governance committees in steering projects.

²https://en.wikipedia.org/wiki/Appreciative_inquiry

Interviews with project members and stakeholders

- These provided rich, but partial, insight. It is therefore important to seek multiple perspectives.
- It takes considerable time, genuine interest and empathy to build trust and get full answers.

Further reflections on the case study

Boundaries must be set on the evaluation. Evaluation questions create an ever-expanding universe. Yet the team's time was limited, as was expertise in the field. The aim should be to develop proportionate methods that provide good enough insight to help manage partnerships.

Questions about evaluation help UoE to think about many dimensions of partnerships and how they can be enhanced. The team has been inspired to think about stakeholder relations, governance, information systems, roles and ways of working, and leadership among other topics.

Operational, leadership and strategic governance can be enhanced by asking evaluative questions. The following table suggests potential evaluative questions at each of these levels of governance.

	Level of governance		
	Operational	Leadership	Strategic oversight
Area of interest			
Measuring success	Are we progressing towards the target?	What is the target?	How do you set targets?
Managing risk	What is the exposure to known risks?	What are the risks?	What is the institution's risk appetite?
Planning	How is the plan implemented?	What is the plan?	How do plans fit with strategy?
Adaptive planning	What is changing?	How do we need to adapt plans to new circumstances?	How do you handle change?

The experience of developing this case study reveals that governance committees could ask more powerful questions and create richer documentation to enhance partnerships (e.g. questions asked and feedback given; responses from the project). However, before jumping to "fix" governance structures, care should be taken to avoid disrupting decision making processes and creating unintended consequences. It's also worth noting that the more nuanced exploratory conversations happen elsewhere. In comprehensive universities, partnership development functions and academic departments are often governed through separate reporting lines. Therefore, the role of partnership development functions can support academic departments to build better partnerships by helping them to ask the right questions in their own governance structures.

Trialing a paired, enhancement-led approach to evaluation with the University of Helsinki and the University of Edinburgh

Deep collaboration on a mid-term evaluation revealed richer learnings

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Background of the partnership

On August 21, 2019, the University of Helsinki (UH) and the University of Edinburgh (UoE) formalised a strategic partnership. A decision had been made to invest in seed funding in two areas, human genomics and forestry science, by establishing eight joint PhD student positions. By joining forces, the universities wanted to become world-leading in these fields and boost new research collaboration and initiatives, among them joint research positions and joint institutes.

Both UH and UoE are top European research-intensive universities. They share a long history together, and joint membership of LERU and UNICA. With Brexit introducing potential barriers to co-operation, leaders at both universities felt strongly that the time was right to strengthen ties at a more strategic level.

Discussions developed during reciprocal site visits from UoE to Helsinki, and during these visits, presentations were made by a number of researchers on a variety of possible collaboration areas. In the end, written material (short research proposals) was collected on a smaller number of very promising areas, and a final selection was made by the university leadership. The joint decision was to focus on two areas where research excellence and complementarity were present, with the potential to reach world-class leading positions. The areas selected were human genomics and forestry science.

Lesson learnt #1: We communicated about the partnership and profiled it by publishing press releases and news at the universities' external websites. But internal communication often remains insufficient (e.g. roles and responsibilities, selection process, seed funding principles). That was true in our case, too. Keep also all relevant stakeholders on board, such as Deans and College Heads.

The format was discussed at great length between the senior leadership. UH's earlier strategic partnership portfolio was based on a different approach (seed funding to research projects), while UoE was establishing a similar set of partnerships based on joint PhD students elsewhere in Europe. For UH, joint postdoctoral researchers rather than students seemed initially like an easier solution (less regulations, more flexibility) but joint PhD students were seen as a possibility worth exploring further.

During the preparatory stage, partnership managers worked with the Memorandum of Agreement, while colleagues in doctoral education worked with the Agreement on Joint PhDs. In retrospect, the Memorandum of Agreement was an easy task; the only minor challenge was stating the exact amount of funding allocated by both universities, due to the different way that PhDs are funded at both universities (salaries at UH, grants at UoE). The solution was to state the number of students funded instead of exact figures for funding. The PhD cooperation agreement was newly created, as similar earlier agreements were not available. The type of collaboration resembles both a research collaboration and an exchange programme, and elements from both types were deemed necessary, i.e., IPR and other regulatory and governance matters were included in the agreement.

Lesson learnt #2: Due to very different regulations, a practical decision was not to make a Cotutelle agreement but to choose a more flexible model (two supervisors, but one degree).

Academic leads were chosen to be responsible for the respective projects. The most important task for them was to start the process of recruiting the PhD students. At UH, one internal meeting between UH leads was arranged to clarify roles and responsibilities. At UoE, colleagues were invited to one meeting to discuss the rationale for the investment in PhD studentships and to consider next steps but this was alongside PIs who would be involved in co-supervising PhD students at other European strategic partner institutions also. There was no focused meeting to specifically consider collaboration with UH. No joint meetings between UH and UoE were arranged at this point; before the COVID-19 outbreak, as strange as it seems now, we did not use online meetings in international partnership management.

Especially in forestry science, the lack of any other funding apart from the seed funding was highlighted by the academic lead as a challenge. As a response, an application was submitted to a private foundation, which was partly successful and a provided the opportunity to arrange a kickoff event in forestry science (postponed and eventually arranged virtually in October 2021).

Lesson learnt #3: Make sure financial issues are clearly discussed and agreed with all relevant parties, including the unit hosting and the relevant Dean/Head of College.

In February 2020, Covid-19 started to halt travel; by mid-March 2020, COVID was definitely here. Universities were, in practice, shut. Understandably, the focus shifted to crisis management and urgent priorities took focus elsewhere.

Lesson learnt #4: The pandemic reduced the amount of interaction, attention and involvement – but in retrospect, these should have been intensified.

However, despite the challenges brought by the pandemic, PhD students were successfully recruited, with some delay however, in 2020 and they started their work in early 2021. Plans for joint fieldwork, research visits and exchange periods were all postponed until late 2021.

Evaluation: Reasons, goals and design

The reason to evaluate this bilateral partnership is quite straightforward. As partnership managers, we were confident that we would get eight excellent new PhDs, but what about the ambition of this collaboration reaching the absolute world-class top level with the help of modest seed funding? Is it realistic to expect seed funding to facilitate bigger institutional ambitions? How should we, as partnership managers working in the Professional Services, facilitate this process so that the ambition expressed in the signing is realised? How can collaboration at doctoral level boost other forms of collaboration?

Lesson learnt #5: Who is needed for an evaluation like this? An ideal evaluation team involves a mixture of experts in partnership management, doctoral education and evaluation from both institutions involved. We were fortunate to have this team internally!

UH had typically evaluated partnerships *before* they were forged, or *after* the funding period had ended (to evaluate the outcomes), but here a “*during*” approach was chosen with the idea that the partnership had already made some progress but it was still not too late to check the direction, goals and support, if necessary.

In addition to a mid-term focus, we decided that our evaluation approach would be:

- Paired (UH and UoE do it jointly)
- Enhancement-led (the aim was not to monitor and punish, but to develop)

PAIRED EVALUATION

If this is a strategic partnership (emphasis on both words) shouldn't we then also do the evaluation together? We thought we should. In a paired evaluation, the evaluation is designed and conducted together. Also, the results are analysed and discussed jointly, as well as the measures and actions taken.

There are pros and cons in a paired evaluation. It's a great way to truly develop the partnership together. It's also a great moment for building trust and synergy. The main drawback is that possible problems and tensions in the partnership between the partners are less likely to emerge.

ENHANCEMENT-LED EVALUATION

The focus in enhancement-led evaluation is on joint development and improvement. Thus it differs from evaluations that have an interest in quality monitoring (with possible punishments and /or rewards). And while access to new information is important, it is not the key driver for the evaluation. The main goal is always positive change.

If an evaluation is enhancement-led, it means that all phases of evaluation are designed and carried out so as to enhance mutual learning, shared information and jointly created understanding. The Finnish FINEEC (Finnish Education Evaluation Centre) is the pioneer in developing this approach. www.karvi.fi

Our goals were to:

- Monitor the current state of the partnership.
- (Re)assess and develop goals and tools.
- Provide constructive feedback to the leadership, administration/professional services and academics involved.
- Inform similar bilateral partnership developments across institutions.

While goals were easy to agree upon, we struggled a lot in formulating our research question.

How will an investment in joint doctoral students lead to bigger achievements? (And what were these bigger targets exactly?) What, who, when, why, how, with what resources? What were the bigger aims concretely, and why those? Who were needed as Champions and Facilitators to achieve these targets, when and how should they work? What resources were needed? How is symmetry achieved, which is crucial for a successful partnership? Had we been able to achieve what we wanted so far?

It became clear that we needed to narrow down the question quickly.

Lesson learnt #6: Our mid-term evaluation was turning into an intervention.

The difficulties in formulating the research question told us many things. We spent a lot of time in analysing the partnership setting: had the goals and actions been articulated clearly enough in the beginning? What kind of documentation existed?

Lesson learnt #7: A Memorandum of Agreement is necessary, but not sufficient. Draft a Road Map/Action Plan/Implementation plan for the partnership with clear timelines and divisions of labour!

We also understood more clearly that there were two different sets of goals: those that referred to the deepening of the partnership in the given areas, and those that referred to diversifying this partnership beyond the chosen discipline areas.

Lessons learnt #8: Questions that need to be asked early enough: How can we deepen the partnership and how will that happen? How can we diversify the partnership and how will that happen? By whom and with what resources?

We also discussed expectations at great length. When we started this partnership, had expectations been discussed, and if so, at all levels/with all stakeholders?

Lessons learnt #9: Outline a map of expectations of all relevant internal stakeholders. Are they similar or different? Are there differences between UH and UoE?

We also began to wonder if there really was ground for doing a mid-term evaluation, or was this in reality a kick-off check? Would we get enough data? Would our data answer our research questions?

Lesson learnt #10: Be realistic about the data that you will get during a mid-term evaluation.

Having these lessons in mind, we started to design the evaluation setting. Quantitative data were out of the question, our approach was to be a qualitative one. We decided to conduct semi structured interviews with key internal stakeholder groups:

- Academic Leads in Forestry Science and Human Genomics
- Supervisors in Forestry Science and Human Genomics
- PhD students in Forestry Science and Human Genomics
- Senior leadership of UH and UoE (at the end of the case study, with two aims: getting additional feedback but also informing about the results of the case study)

Lesson learnt #11: Don't forget the views of the partnership managers themselves. Figure out how to best incorporate their insight, even if they are the ones who are evaluating.

Our practical solution for solving the problem of a complicated research question was to structure the question around four broader themes:

- Getting started
- Expectations and defining success
- Direction:
 - How to deepen this partnership?
 - How to diversify it to other fields?
- Next steps

A qualitative approach allows tailoring and interviews are a flexible method, but this approach needed a lot of “hands and heads”. We worked a lot on our interview questions. We had the same basic set of questions for all groups, but then tailored some of them to best meet the stakeholder group in question. We also designed the roles and schedules very carefully in advance (two persons interviewing, and at least two other persons taking notes), and sent some information about the interview setting in advance to explain with this exercise was - and was not - about.

Collecting the data

The interviews were conducted in February-March 2022. We decided to conduct interviews as group interviews so that academic leads in forestry were interviewed together, as was the case with human genomics. The same applied for PIs/supervisors. Doctoral students were also interviewed as a group so that both forestry students and human genomics students were together. Participants were encouraged to reflect on their experience so far and this feedback (strengths and weaknesses) was elicited through a survey in advance to save time.

All interviews lasted no longer than one hour. Careful planning in advance (including a timetable and a plan B for questions which we would leave out if we were running out of time) made the interviews a fairly smooth process. We were not able to find a slot that would have suited everyone that we would have liked to speak to, but felt confident

we had sufficient participation so as to get a reliable overview. The discussion in the groups was active and productive, the atmosphere was good; importantly, we also felt that there was room for the interviewees to be critical. Our questions worked mostly well, but those related to success turned out to be far too complex. They sounded good while planning, less so during the interview. However, even imperfect questions bring useful insight, and may sometimes reveal insufficient awareness of the partnership's strategic goals.

Lesson learnt #12: Simplify, simplify, simplify! Questions shouldn't be too complex. Go for the simple solution and elaborate during the interview, if necessary.

We paid quite a lot of attention to our aim of collecting information about the partnership (and not, for instance about the academic content or doctoral education in general); keeping the focus was rather easy but, understandably, we also talked quite a lot about academic content. What also turned out to be a successful solution was to tailor the questions to the group in question; so, for instance, questions for PhD students focused more on their own research project and its role in the partnership and less on strategic guidance.

Lesson learnt #13: Tailor questions so that they are meaningful for each group (without sacrificing comparability - find a good balance). However, never underestimate anyone: best ideas often come from unexpected sources!

Results

Thanks to the evaluation, we got what we thought was a realistic picture of the partnership, showing the extent to which progress had been made, often with some delay due to the pandemic. **There was a feeling of a good start but a somewhat unclear future.** A strong wish for the continuity of the scientific work was expressed in all groups. Main strengths mentioned were the great potential of the partnership, with access to rich data and research infrastructure, rewarding interaction creating many new ideas, and co-supervision.

We decided not to prompt directly on the pandemic in interviews, believing that if it was a significant issue, it would emerge organically. This it certainly did. **All groups noted the pandemic as a key event that had impacted the development of the partnership.** What was slightly surprising was that the impact was seen as a wholly negative one without exceptions. In all groups, the importance of face-to-face meetings for getting to know each other and for creating new ideas was highlighted as crucially important, and this had been lacking. It seemed that online meetings to create a community had not been actively used.

Not surprisingly, **all groups also highlighted the importance of (insufficient) funding,** both in the sense of funding for various activities but also future funding for future cohorts of PhD students – in essence, the sustainability of the partnership.

We were also interested in expectations and success. What we could not study was whether expectations between UH and UoE varied - here a paired evaluation was not the best means to uncover possible divergences between the partners. What was clear was that **there was no direct connection between the ideas expressed by the university leadership and the ambitions expressed by the three groups**. The ideas from the leadership were not contested, but they rarely emerged organically in interviews, and it was pointed out that expectations had remained rather unclear. The same related to success. It was noted that what academic leaders see as success (often related to disciplinary goals) can sometimes differ a lot from the way the university leadership defines success.

Our focus on direction - how to deepen this partnership and how to diversify it to other fields - proved to be quite interesting. For deepening, there were ambitious plans that were presented as realistic and doable, but with some obstacles (pandemic, lack of funding, lack of clear structures, or lack of simply time and initiative). What seemed clear was that **there was both enthusiasm and the necessary capabilities, and that a clearer understanding of roles and responsibilities would be helpful**. But as expressed by one Academic Lead, it was very much also a question of “hands and brains”, i.e. the necessary resources.

Diversifying, in our understanding, was a question of taking the partnership to completely other academic disciplines than the two ones now chosen, or even beyond, to professional services and other activities (e.g., innovation). But it became clear that for the three groups, diversifying was seen as something taking place, very understandably, in the context of their own discipline (as one Academic Lead put it, “diversifying but not to the extent of losing focus”). This highlights that the responsibility of diversifying the partnership to other domains (such as completely new and unconnected disciplines) cannot be the responsibility of the academics involved, but must belong to someone else (e.g., partnership managers or university leadership).

To sum up, issues that emerged in all interviews were organisation and communication, but to a different degree. The key focus varied:

- For academic leads **organisation** (or lack of it) was most prominent: it was expressed that there was a lot of enthusiasm, potential and complementarities in the partnership, but no clear structures were in place to really progress in a systematic manner
- For supervisors the key issue seemed **communication** and **interaction** (or lack of both): again, the potential of partnership was highlighted but insufficient communication, little interaction and unclear goals of partnership were seen as hindering success
- For PhD students it was an issue of insufficient **information**; they were happy with their projects, their supervisors and the possibilities to spend time and get supervision from two universities, but noted that they were almost totally unaware of the bigger strategic partnership framework and how their projects contributed to this ambition

Lesson learnt #14: Who should be in the driver's seat? The answer cannot be “the University”. But who is? Clarity is needed.

Lesson learnt #15: A mid-term evaluation did not take that much effort and was well worth it. Even if we did not get any results that completely surprised us, we have now a much clearer understanding, and one backed by data.

Assessment

As stated earlier our goal was to

- Monitor the current state of the partnership
- (Re)assess and develop goals and tools
- Provide constructive feedback to the leaders, administration/professional services and academics involved
- Inform similar bilateral partnership developments across institutions

Did we succeed in this? We now have a realistic picture of the current state of the partnership: of what works well (many things!) and what does not (some improvements must be made - luckily, it is not too late for that).

Our evaluation reference point was to build on the original goals and get feedback from different angles. We have now a much better understanding of the extent to which goals are clear (not always!) and shared (not always!). “What does success look like?”, as one of the interviewees asked, is a question that must be answered in a clear way. We have some good ideas of necessary tools: a road map is needed, likewise a map of expectations, which can help to clarify goals. We are more aware that responsibilities and roles must be clear: the evaluation revealed there is an insufficient understanding of roles, responsibilities, and resources.

Lesson learnt #16: If everyone is to have a role to play in building a strategic partnership, they need to understand clearly what it is, and what success will look like.

We are confident that much of the knowledge accrued during the evaluation will help to inform other partnerships. That has actually already happened - when a new strategic partnership at UH was being forged, staff there could already draw on the lessons learnt.

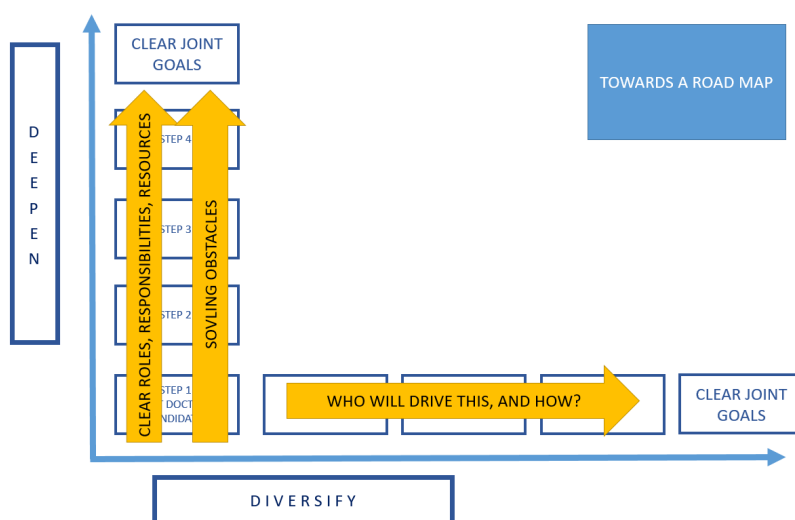
Finally, a mid-term evaluation proved to be about more than accessing interesting data and becoming better informed. It was also valuable for building trust and getting buy-in, encouragement and engagement - in both directions. As one interviewee concluded, “we should have had this session right in the beginning”.

Lesson learnt #17: Never waste a good mid-term evaluation: it's a fantastic opportunity to build commitment and trust.

Next steps

A mid-term evaluation will lead to rising expectations. It is at least implicitly - and often explicitly - assumed that things will improve in the future. What needs to happen next so that this will take place?

A road map defining clear roles, responsibilities and resources must be drafted urgently. In the future, a memorandum of understanding should always be accompanied by a road map that clarifies how the partnership will deepen and how it will diversify.



Funding needs, not surprisingly, emerged in the interviews - they need to be explored, decided, and communicated (even in the possible case of no extra funding). Resources on a broader scale must be explored - and goals reiterated if the resources are not there.

Related to funding, another important element that emerged from the interviews is the sustainability of the partnership. Will there be future cohorts? What will happen after this first 4-year stage - and when is that decided?

Ownership is a crucial feature. Who has ownership of this partnership? Can that be broadened, and would that lead to new proactive initiatives?

Finally, an interview and feedback session with the leadership is an important part of this exercise. We held this session in early June 2022, where we briefly outlined the key outcomes of the case study and discussed the actions that we would take in the future.

There are three key questions that a mid-term evaluation must tackle.

The first is: **how will we use the insight from our mid-term evaluation?** It is already clear that there is much relevance for still improving the current partnership. But the insight accrued can also inform similar partnerships across the institutions and has already impacted the way new partnerships are being forged.

The second is: **what can - and what cannot - be implemented?** These decisions are ultimately made at the leadership level, which is part of what makes a feedback session with leaders so important.

The third is: **who exactly is responsible for the actions?** This is a major question that will be specified in the road map, now in the making.

Aligning different partnership types at the University of Sydney

Bringing together education and research partnerships delivered some benefits, but there are limits to an alignment strategy.

Thommy Gatling, Head of International Agreements, Sydney Global Mobility

Amanda Sayan, Director, Office of Global Engagement

Executive Summary

This case study explores the University of Sydney (USYD)'s "strategic partnership" with an overseas university. The authors decided not to identify the partner university, so as to allow for more flexibility in external reporting on the partnership. Accordingly, the partner university, which is located in Western Europe, shall be called "University X". Like USYD, University X is a well-ranked university with significant research and teaching pedigree and a large student body.

Historically, USYD did not have strategic partnerships that encompassed both research and student mobility. However, in 2016 USYD developed 2 new partnership models:

1. "Priority research partnerships" (research partnerships supported by annual funding from their central research office); and
2. Student exchange "super partnerships" (very large exchange partnerships allowing mobility of up to 100 students a year).

These two partnership models were unconnected to each other. They were implemented by different teams at USYD, had different goals and expectations, and were often implemented with different partner universities.

In 2017, USYD decided to make University X one of its "research priority partners". Then, USYD took a calculated risk: it decided to also make University X a student exchange super partner based upon the selection of that partner as a priority research partner. They called this the "alignment strategy".

At the time of drafting this case study, USYD and University X are at the end of the first term (**Round One**) of the research engagement agreement (**Research MOU**) and the super exchange agreement (**Super Exchange Agreement**) and it is time to take stock.

Aim of the case study

This case study evaluates the partnership between USYD and University X with the following aims:

1. To describe USYD's approach to choosing and implementing strategic university partnerships.
2. To evaluate the success of Round One of the strategic partnership with University X, as measured by the separate KPIs for research and student mobility.
3. To evaluate the success of the alignment strategy: what was achieved in aligning research and mobility? Did alignment lead to improved partnership outcomes that were greater than the sum of their individual parts? Is there a symbiosis between mobility and research?

Background

Pre 2016

USYD has a long history of engagement with international partners. As of 2016, there were more than 400 formal partnerships in place at the university, spanning all faculties and disciplines. In the research space, many of these partnerships were initiated from the bottom-up (i.e., arising from individual collaborators, with little or no central strategic oversight and limited scope beyond the school or faculty of origin). Furthermore, many research partnerships were initiated without dedicated funding, and very little input from central teams to support activities or monitor progress.

New strategic plan 2016-2020 and new models of partnership:

The University of Sydney Strategic Plan 2016-2020 (Strategic Plan) sought to create a more focused approach to global engagement, with emphasis on investing and supporting collaborative research and increased rates of student mobility. Notably, the Strategic Plan:

- Called for the creation of active and high-impact alliances with 15 to 20 preferred global partner universities that are aligned with USYD's strategic objectives for research and educational engagement.
- Established a 50% student mobility target (by 2020).

Building upon the high-level guiding principles set out in the Strategic Plan, work was undertaken to devise operational plans and establish key performance indicators in the areas of research engagement and student mobility. Notably, although the Strategic Plan spoke to both research and student mobility, it did not address the alignment of both areas. Consequently, the two distinct models of collaborative engagement arose.

Priority research partnerships

Background and goals: In its Strategic Plan, USYD had a goal of creating partnerships with a select number of complementary research-intensive universities that would drive the university's research excellence and enable the institution to make a difference globally. These partnerships would be disciplinarily broad, deep-diving in terms of commitment and would be coordinated and encouraged at a central level through seed funding of collaborative projects.

USYD's goals for the research collaboration component of the strategic partnership were:

- **Goal 1:** Increase high quality research, education and other collaborative outputs (measured, for example, by an increase in the number of publications).
- **Goal 2:** Foster research and leverage external funding.
- **Goal 3:** Provide opportunities for early and mid-career researchers to collaborate with international priority partners.
- **Goal 4:** Create a critical mass of engagement and activity in order for the partnership to become self-sustaining over time (without needing ongoing seed funding after the initial term).

How are priority research partners chosen?

A data-driven approach was adopted to evaluate and identify prospective partners. A comprehensive report was compiled, looking in detail at all 145 non-Australian universities appearing in the top 100 of major rankings systems, as well as to some of the University's other existing priority partners and significant collaborators to make a total of 158 universities.

The list was then refined according to the following factors:

- Level of existing collaboration (number of publications and quality of publications).
- Comprehensive universities, with a preference for centralised governance structure.
- Discipline strengths - joint areas of research strength.
- Existing research links & agreements.
- Mobility linkages.
- Future research directions.
- Ability to mutually pursue external funding opportunities.
- The partner university's capacity to fund joint research projects.
- Identified academic champions.

Once a shortlist was produced, consultation took place with faculties, schools, and USYD's multidisciplinary institutes to seek feedback on the shortlisted institutions. Comprehensive briefing documents were drafted for each of the shortlisted universities and were shared with internal stakeholders. Between 2016 and 2020, priority research partnerships were formed with 20 partner institutions, all of whom USYD considered to have met the selection criteria outlined above.

Exchange "super partnerships"

Background: Building upon Strategic Plan, USYD developed operational plans for student mobility that centered around the following goals:

- **Goal 1:** Grow the number of USYD students participating in an overseas academic mobility experience, in line with the Strategic Plan's 50% student mobility target (outbound mobility goal).
- **Goal 2:** Increase student exchange capacity with top-tier partners, to be able to reduce other, non-productive exchange partnerships (partner management goal).
- **Goal 3:** Build and maintain student diversity in USYD classrooms (inbound goal).

The **Sydney Global Mobility Plan 2017-2020** established the concept of student exchange “super partnerships”, which are formalized by a “Super Exchange Agreement”. Exchange super partners would be USYD’s flagship exchange partners, with whom USYD would aim to exchange up to 100 students a year, equal to 50 Full-Time Equivalent places (FTE).

How are exchange super partners chosen?

USYD’s Sydney Global Mobility team (SGM) selected exchange super partnerships based on a range of criteria:

- Focus on existing exchange partners, who had already been vetted by SGM, and with whom there was proven student interest (with a particular focus on outbound interest).
- Focus on large, top ranked comprehensive universities (within top 100 of THE World University Rankings).
- Geographic diversity (ensuring coverage in key destination countries, and ensuring that super exchange partners don’t “compete” for the same pool of outbound students).
- Availability of a broad range of units of study taught in English.
- Preference for “free-trade” arrangements with centralised universities (where we can nominate students via a single contact-point in a central office, and where balancing numbers between individual faculties is not required).

Between 2016 and 2018, exchange super partnerships were formed with 7 partner institutions, all of whom USYD considered to have met the selection criteria outlined above.

Priority partnership with university X

Tying the knot

Following on from an extensive evaluation process, USYD’s Office of Global Engagement (OGE) decided to designate University X as one of its priority research partners in 2017.

At around the same time, SGM decided that it needed a exchange super partner from that university’s home country. At that point, SGM had a range of existing university-wide exchange partners in the country, several of which were medium volume arrangements (exchanging between 5 and 10 students a year) with top-ranked comprehensive universities. University X was one of these existing partners.

Upon hearing about OGE’s decision, SGM decided to follow suit, and designate University X as one of its exchange super partners. Informing this decision was an expectation that there would be tangible benefits to aligning research and student mobility partnerships. This alignment strategy was aimed at promoting clarity and cut through in messaging (both internal and external), and was intended to promote USYD’s preference for a transition towards holding fewer, more muscular partnerships. It was also hoped that the alignment between research and mobility would allow for shared information and briefs and would offer opportunities to maximise leverage and cost-effectiveness from partnership events, delegations and joint meetings.

Consequently, at a ceremony in Sydney in April 2017, USYD and University X signed both a Research MOU and a Super Exchange Agreement. The Research MOU allowed for an initial three-year term during which time both parties would contribute seed funding on a matched funding basis. The Super Exchange Agreement had an initial five-year term and allowed for an annual exchange of up to 50 FTE on a university-wide basis.

What are the goals of the partnership with University X?

The research goals of the partnership with University X were broadly defined in the introductory paragraph of the partnership agreement - to foster high quality research, education and other collaborative activities and provide opportunities for early and mid-career researchers. When USYD developed the partnership's goals, the university aspired to increase the number of joint publications, increase the quality of these publications, and leverage external funding to sustain the projects over time. Seed funding via the Partnership Collaboration Awards was the mechanism to achieve these goals.

Other desirable outcomes were education initiatives such as joint teaching, COIL programs, articulation and joint PhD arrangements. It is important to note that although USYD communicated its overall goals for the research partnership with University X, it didn't formally establish any KPIs or mutual commitments aside from facilitating the seed funding scheme.

For SGM, the goal of increasing the number of students exchanged between USYD and University X was expressly agreed to by the two parties and was written into the student exchange agreement. USYD's other goals for exchange super partnerships (reducing overall number of exchange partners and increasing student diversity at USYD) were not specific to the partnership with University X, but instead were understood by USYD to be goals that would be achieved upon successful implementation of the super partnership model more broadly. Consequently, they were not formalized in the student exchange agreement or other documents between the parties. It is important to note that USYD did not formally establish KPIs or mutual commitments with University X other than increasing student numbers.

In terms of student mobility, this partnership is not intended to operate on a commercial basis (since the exchange program is run on a fee-waiver basis).

Inputs and activities undertaken pursuant to this strategic partnership

The following activities were undertaken at various times during the partnership:

- Student mobility and activities to support mobility.
- Joint research projects, joint workshops, joint grant applications, joint publications, academic mobility and ECR and MCR development, joint presentations at international educational conferences i.e., APAIE, AIEA, EAIE etc.
- Launch of a joint Global Strategic Partnership Fund to support research & education and other collaborative activities. The institutions will contribute funds on a matched fund basis, with each institution allocating up to AUD\$100,000 (approximately

70,000) annually for 3 years to support joint projects or collaborative activities each year.

- Participation in an annual Sydney Summit, which is a gathering organised by USYD to discuss contemporary challenges and opportunities for international universities.
- Visits to both institutions by both professional and academic staff.

Where is the partnership now?

At the time of drafting this case study, USYD has reached the end of Round One of the Research MOU and the Super Exchange Agreement with University X. It is therefore an optimal time to evaluate the partnership before moving forward, while assessing options for next steps.

What criteria are used to evaluate the partnership?

USYD has adopted a data-driven approach to partnership evaluation. The following parameters (both qualitative and quantitative) were used to measure the effectiveness and success of the strategic partnership, with some of the actual data presented in the following paragraphs:

- Leveraged funding - \$ external funding awarded to partner projects/\$ invested into partners projects.
- Publications, including research performance (Field Weighted Citation Index, publications in top 10% journals) collected in SciVal before/after investing funding.
- Quality of traditional and non-traditional outputs and Sustainability of collaborations (as measured by collaborations ongoing after the seed funded project terms ended).
- Development of networks of researchers including early and mid-career researchers and doctoral students.
- Projects which are multidisciplinary.
- Number of researchers engaged in the partnership (number of ECRs and mid-career researchers).
- Researcher mobility and engagement opportunities.

The overall level of engagement is measured by the number of current collaborative projects, research income and other activities such as joint workshops, academic mobility, joint teaching, summer schools and global classrooms.

Some of the missing data, at qualitative level, includes internal stakeholder engagement, and feedback on whether Faculties, Schools and Multidisciplinary Institutes are keen to continue to engage with the partner. Another central parameter, reputational uplift resulting from the partnership, was more difficult to measure, and the contribution from the partnership to an improvement in rankings or reputation is not specifically measurable.

Measures of student mobility success included:

- Sustainable two-way flow of students (required from a compliance perspective).
- Student numbers near to target 50 FTE by the end of Round One of the super partnership.

- Good ongoing engagement with partner through a range of supporting activities (e.g., responsiveness to emails, providing access to syllabi, participation in promotional events).
- Secondary objectives (e.g., reduce overall number of student exchange partners).

How does USYD measure these parameters?

Project outputs were captured through a report pro-forma. Researchers are requested to fill in a report pro-forma 3 months after completion of the project so USYD can measure the outputs from the projects, which helps determine the overall success of the partnership. Aside from collating outputs that can be easily measured, USYD also captured information on workshop participants and awardees such as career stage and progression, enabling USYD to record the number of opportunities given to early career researchers.

However, it must be noted that some of the metrics used - such as publications-related metrics - have a lag effect and a publication may not appear until some years later which makes a short-term evaluation more difficult to measure. It was also important to assess which data were available “centrally”, so to speak, and which relied on the active participation of students or researchers (because, for reasons that will be discussed, those were harder to come by).

For student mobility, the objectives of the super partnership were measurable (student numbers), relevant (contributing to broader strategies) and time-bound (5 year term). However, the objectives lacked specificity (50 FTE were indicated, but a scaffolded plan to achieve that number was not set out) and were extremely ambitious even in normal circumstances (and leaving aside the disruption cause by COVID-19).

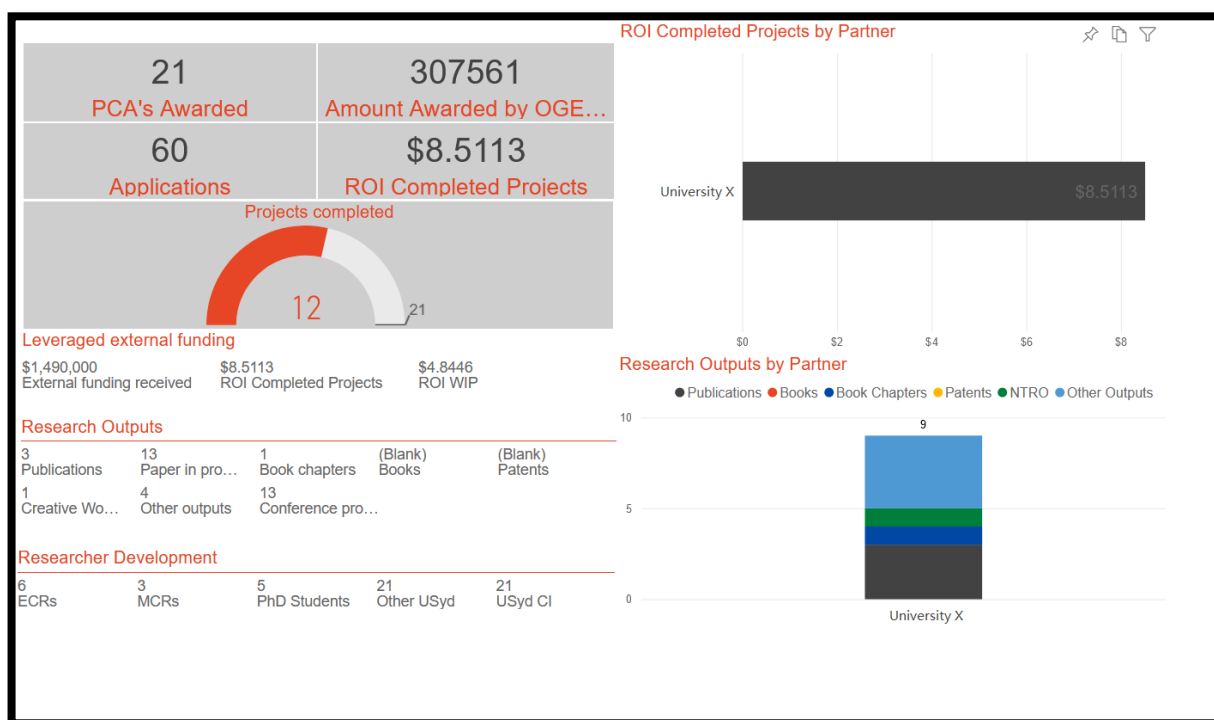
Evaluation of outcomes from Round One of the partnership

Research-related outcomes

Through the Partnership Collaboration Awards a total of 20 projects were funded from 2017-2019. Overall, the research partnership with University X yielded good results as demonstrated by some of the metrics outlined in the dashboard below:



Figure 1. Return on investment for University X



USYD has achieved success with University X in terms of the quality of research outputs, as evidenced by the increased number of co-authored papers since the partnership commenced and the high FWCI on the joint papers. In addition, projects with University X leveraged the most external funding compared to other priority research partnerships in Europe. However, research outputs for this partner are the lowest in overall numbers compared to USYD’s other European partners, which also include UK partners.

Despite project outcomes and high-quality research papers, the level and breadth of engagement between the universities hasn’t achieved the outcomes USYD hoped for, and this does raise concerns as to the long-term sustainability of this partnership. The research outputs were concentrated around a small number of researchers as opposed to broader engagement across the various faculties and schools. Researchers with existing links prior to the partnership were more likely to engage with the partner through seed funding and other opportunities. However, more consultation with our internal stakeholders is needed to gauge their interest in continuing their collaborative activities. In addition, more engagement with our early and mid-career researchers is required as one of the partnership goals is to provide them with researcher support via our priority partners.

USYD’s aspirations for priority research partnerships is that, whilst the initial contacts are typically top-down, through the introduction of targeted seed funding, the relationships should transition to research groups and faculties and become self-sustaining overtime. However, with University X, the research partnership does not appear to have reached the point of achieving sustainability without “central” support.

Student mobility outcomes

Outbound student mobility grew at a moderate level during the period of Round One of the Super Exchange Agreement. In 2020, USYD students spent 8.5 FTE years at University X on exchange (the equivalent of 17 semester places), up from 3 FTE in 2017. Student mobility ceased abruptly after 2020 in response to the COVID-19 pandemic, which prevented any mobility in the final full year of Round One of the Super Exchange Agreement. However, had the trend of 2017 to 2020 continued, USYD would have expected to send between 10-12 FTE in 2021.

Under the super partnership, inbound student mobility (87 FTE) has significantly outstripped outbound mobility (18.5 FTE).

USYD students applying to go on exchange are required to list, in order, their top 3 “outbound” destination universities. SGM seeks to place students as their first preference, but this depends on several factors, including availability of places, partner admission requirements, and available disciplines at the partner university. University X is:

- 18th overall for students’ first preferences (out of USYD’s 250+ exchange partners).
- 7th overall for super exchange partners (out of 7 super exchange partners).
- The destination university with the most first preferences within Country X (but with very close competition from two other partner universities in the same country).

USYD requests that returning exchange students respond to a student experience survey. However, the non-compulsory nature of the survey typically results in a low response rate. USYD did not receive enough survey responses about University X to be able to draw any reliable conclusions about student satisfaction with University X as an exchange destination.

Lessons learnt from Round One of the partnership

COVID-19 has played a significant disruptive role

COVID-19 has had a significant impact on partnership outcomes. Such a force majeure event was not anticipated in the initial planning phase or the KPIs established for the partnership with University X. Multiple factors, in particular travel restrictions of students and researchers, closure of campuses and research facilities, and imposition of austerity measures, have undoubtedly prevented this partnership from achieving its full-potential and meeting overall KPIs.

Inbound mobility outstrips outbound mobility

In Round One there has been very strong inbound student demand from University X. Outbound USYD student numbers have risen since establishing the super partnership in 2017 (from 3 FTE in 2016 to 8.5 FTE in 2019) but have not kept pace with inbound demand. There appears to be two main barriers to growing outbound numbers:

- University X faces strong competition from other exchange partners in Country X, and University X has not emerged as the clear front-runner for student preferences. This is

despite the availability of additional scholarship funding that attaches to University X as an exchange super partner.

- A lack of student accommodation at University X (this is a structural barrier that defies easy resolution).

SGM has learnt that we would benefit from more analysis of the balance of inbound vs outbound mobility prior to establishing new mobility partnerships, including identifying any barriers to reciprocity and growth.

There are limits to the benefits of aligning mobility and research goals within one “strategic partnership”

As discussed above, USYD took a calculated risk in choosing University X as an exchange super partner based upon the prior selection of that partner as a priority research partner. There have definitely been positive aspects to this alignment strategy:

- Anecdotally, the feedback from central teams at USYD is that they felt “positive” about the partnership and enjoyed the perception that the partnership traversed boundaries and allowed teams to operate outside of their silos.
- It seems likely that there have been some moderate savings on delegations and visits, and that delegations and visits between USYD and University X have achieved a prominence that they would not have otherwise achieved, had they focused purely on research engagement or student mobility (and not both).
- There is some evidence that the alignment between research and student mobility has encouraged faculties to adopt a more holistic view of university partnerships (including seeking to deepen engagement with existing “uni-wide” partners, instead of pursuing new partnerships on a faculty-specific basis).

However, our key conclusion based upon the partnership with University X is that student mobility and research engagement are essentially “non-overlapping magisteria”³, or distinct categories of activity. This means that key research partners do not necessarily translate into successful mobility partners (and vice versa). Put another way, a high level of success with research engagement will not jump-start, or drive, or have any real effect on student mobility (and vice versa). These areas are sufficiently distinct as to make any cross-pollination unlikely.

A couple of questions that warrant further consideration:

- Would the “key conclusion” be different, if the partnership goals weren’t so high (50 FTE for student mobility) or input dependent (ongoing seed-funding for research priority partners)?
- Might there be opportunities to cross-pollinate these distinctive activities, using a vehicle such as a joint PhD program (sometimes called Cotutelles), which involve mobility of research students? This avenue was not explored with University X.

³To borrow a phrase from the evolutionary biologist, Professor Stephen Jay Gould.

A scaffolded approach to student mobility is better than a liberal approach

When establishing the exchange super partnership, SGM initially signaled to University X that it could send as many students as it wished, and USYD would catch up over the term of the Agreement. In retrospect, USYD would have been better served by putting scaffolding in place that would allow a structured, better-paced growth towards 50 FTE, at the same time ensuring that balance was being maintained year-on-year.

There is a need to establish better defined KPIs for priority partnerships (to assist later evaluation of outcomes and impact)

On reflection, this partnership would have benefitted from open dialogue on the partners' expectations and KPIs for Round One. A lack of shared understanding on these points made it difficult to assess the outcomes from Round One, or to put the outcomes in context. In future, it is recommended that USYD develop a deeper understanding of "what success looks like" for its strategic partnerships. This would allow USYD to then establish clearer key performance indicators measure of outcomes and impact, which would then help inform decision-making for future partnership renewals. It is recommended that, wherever possible, these KPIs should be discussed and agreed with the partner university.

Recommendations for the research part of the partnership include:

- Introduce long-term or longitudinal assessment of impact on research trajectory (ideally using multiple channels, e.g., surveys and focus groups), 1-3 years post funding at least.
- Introduce structured faculty consultation during and after the funding to gather high-quality, non-quantitative information on how the partnership is perceived at local level.
- Implement stronger and more robust qualitative assessment for research impact during the partnership, e.g., including questions on perceived impact on career trajectory and perceived impact on international network building.
- Create a "PCA Awardees network" that alumni can join after the end of their funding, to further promote internal and external collaboration.
- Develop a better governance structure for internal stakeholders.
- More reporting on the progress of the partnership through central committees.
- Following up with funded researchers 6 - 12 months after the completion of the project to measure additional outputs. It is also noted that the measurement of research performance (as assessed by SciVal data) is imperfect, partly due to the lag in publishing research data and partly due to the essential "weakness" of the citation system as a proxy for high-quality research.

Based on its experience with University X and other exchange super partners, the following KPIs are proposed (as a minimum) for exchange super partners:

- Capacity: aim to achieve the target FTE by the end of agreement term, or at least a record a significant upwards trajectory over the term of the agreement.

- Reciprocity: Ensure that the inbound / outbound mobility is in balance (or close to balance)⁴.
- Shared commitment to information and pre-departure sessions, and access to syllabi and credit mapping (with consideration given to priority disciplines).
- Shared commitment to securing external funding (e.g., New Colombo Plan or Erasmus+ applications).
- Accommodation: ensure that there is housing available to meet target FTE.
- Shared commitment to providing virtual mobility opportunities.
- Mandatory student satisfaction surveys for all students.

More ongoing consultation is needed with the partner about the progress of the partnership

We would recommend regular meetings with our partners (not less than once a year) to discuss the progress of the partnerships (e.g., number of funded projects and other activities that have been undertaken) and some planning for the year ahead. It is important to note that our partners may have different KPIs than us and an initial conversation to agree on mutual expectations is important for the success of the partnership. For example, University X was happy to focus on a few research themes and build on them, whereas USYD sought broader engagement across the faculties and schools.

Need for more consultation with researchers and follow-up about the sustainability of their projects

More in-depth communication with researchers and other internal stakeholders is required to better understand the nature of the partnership. It may be necessary to look at the thematic areas when looking at the seed funding to make sure that they align with current government and other priorities if using leveraged funding as a KPI. A more personalized approach is recommended, and this would also give USYD an opportunity to measure additional outputs. It is known that there is a lag effect when measuring research outputs.

Difficulty in expanding scope of existing research connections

A key aim in establishing priority research partnerships has been to transform the nature of the researchers' connections from personal to institutional and to broaden the engagement opportunities to benefit the university-wide community. Unfortunately, as seen above, this did not seem to have been achieved in the case of University X. The challenge is to encourage the sustainability of projects and to ensure that there are various touch points across the university. Incentivizing researchers through seed funding may not have been enough to encourage more collaborative activity across the university. In retrospect, the partnership with university X could have been promoted more widely. Workshops could have been organised to engage researchers as opposed to relying on the seed funding as the mechanism to encourage collaboration.

⁴Noting that reciprocity is a legal requirement under Part 6.10.1(a) of the Higher Education Provider Guidelines (made under the *Higher Education Support Act 2003* (Cth))

Stakeholder Engagement and Evaluation – lessons from University College Dublin

Deep cultural understanding and a clear plan of action are required to get the most out of all participants.

Shane Lordan, Andrew McCartan, Abigail Lalor, University College Dublin

Introduction: Producing engaging partnerships

The purpose of this case study is to make the case for a “stakeholder engagement” approach to evaluating your partnership, recognising that there is no current best practice or well-established procedure for evaluating stakeholder engagement within international strategic partnerships (ISPs) between higher education institutions. The chapter has been informed by extensive literature reviews on stakeholder engagement as a broad concept within corporate and business management theory and as it relates more specifically to international strategic partnerships and HEIs. General themes and insights from the literature were considered together with the authors’ own experiences of undertaking relevant work at University College Dublin. The central thesis of the chapter is that evaluation through stakeholder engagement within your ISP should be conceived of as a **change process that creates common ground for collaboration and continuous feedback between stakeholders and partners** (see **Section A2**).

Achieving commonality and mutual ownership of the shared working practices and evaluation methods requires partners and stakeholders to adapt to new ways of thinking around how they create their work spaces. In this way, ISPs form and operate within what has been termed the “third space” of HEIs, drawing from Soja’s (1996) conceptualisation of third space as the coming together of physical and social space to generate new knowledges combining the subjective and objective. Here, we use the concept of “third space” to describe spatial relationships that work across different social and cultural dimensions, and create a “new arena of negotiation, meaning and representation” (Whitchurch, 2012: 1), or a common ground of shared endeavour. For HEIs, third space can describe the nexus between academic and operational work wherein academic and professional staff work together on projects that require the combination of their different skills, perspectives, and expertise to create the abstract and concrete imaginings and realities of the institution. This creates new communities of practice with distinct expectations of how activities will be carried out in ways that can differ from traditional operations. Chief characteristics can include:

- Teams are “fluid”, in that responsibilities may flow between people as team membership changes over time, and how they can be harnessed to support a variety of different needs for the partnership.
- Staff are “blended professionals”, in that they may have mixed backgrounds that

may encompass both academic and professional experience, they are flexible and adaptable to undertake different functions and projects at a given time, and they understand their role in relation to others within the partnership.

- Workload is shared, but more than just a combination of the individual workloads.
- Leadership is distributed, so power and ownership is held across different stakeholders.
- Spaces are in flux, where there may not be new physical spaces and spaces are unfixed and changing as the partnership progresses.

Workspaces in your ISP will be produced and maintained through interactions that occur within “new constellations of people” shaped by “the common motive they share” in ways that provide “freedom to explore new possibilities outside the constraints of established modes of working” (McAlpine and Hopwood, 2009: 159). The activities of your ISP may therefore exist beyond the organizational structures of the partner institutions and individual job descriptions. These new spaces can become “integrated space” by being recognised by university management and embedded into the organization structure of the institution. Or, they may remain as independent or semi-autonomous, temporary spaces within the institution.

The cultural shift to stakeholder engagement can seem daunting, but this chapter works to reassure you of the value of adopting this approach by discussing the benefits of our approach and offering tools to assist you in implementing our recommendations. We have chosen to concentrate on the beginning of a partnership, as the majority of stakeholder engagement takes place before activities begin. However, the themes and tools we discuss can remain relevant and important across the rest of the partnership lifecycle as well. Therefore, this chapter provides all readers with a resource they can draw from on a case-by-case basis, whatever stage their partnership is at, or adapt according to their specific institutional circumstances.

A: Stakeholder Engagement and Strategic HEI Partnerships

This section of the chapter introduces the concept of “stakeholder engagement” and explains how to apply it within an ISP. In **Section A1**, we pull out insights from academic literature to discuss what we mean by “stakeholders” and explore which stakeholder groups you might consider relevant in evaluating your partnership. In **Section A2**, we build on the current literature to offer our own definition of stakeholder engagement as it relates specifically to ISPs between HEIs. Here we build on the notion of “stakeholder” as a change process to create “third space” as first mentioned in the chapter introduction. **Section A3** then explores the benefits of implementing a stakeholder engagement approach in the context of your ISP, particularly as it relates to building value and trust for your stakeholders. In going through this section, readers should reflect on their knowledge of their institutions’ current practices and the potential benefits that may arise specific to their case.

A1: Stakeholders in academic international strategic partnerships

A “stakeholder” may be understood as an **individual, organisation, agency, group, or specific cohort with an interest in or influence over an activity and its outcomes**

- in this case an ISP. ISPs between academic institutions such as your own have a range of stakeholders across multiple locations. These will consist of higher education stakeholders from each partner institution with other stakeholders specifically related to the partnership. Some stakeholders are internal in that they participate actively or passively in the everyday activities of the partnership, whereas external stakeholders will be people and organisations who (typically) have an indirect interest in the partnership. In many circumstances, traditional academic and operational departments within HEIs will seemingly operate separately with little overlap between the everyday activities of each other. However, the disciplinary and administrative boundaries between these two spaces of HEIs are increasingly blurred in the context of ISPs where partnership activities are not purely academic or organisational but encompass actions and objectives requiring input from stakeholders across multiple different spaces of university faculty, administration, and management, that would not normally come into contact with each other. For example, at University College Dublin, the development of an international partnership involves consultations and contributions from relevant academics, the bursar, international affairs staff, registry, legal affairs and governance.

Stakeholders are grouped together into cohorts rather than treated as individuals, although in practice these cohorts may be represented by single colleagues in the activities of your ISP. For example, a single staff member from your registry may represent the interests and needs of that entire department while providing expert advice. Not all stakeholder groups will necessarily interact with each other, but it is vital to establish a clear relationship between each group and the partnership as well as the intensity of that relationship. Stakeholder groups for ISPs between HEIs will largely be comprised of different university departments and offices, existing in the nexus between academic and operational departments produced by the collaboration of academic and professional staff. Other stakeholder groups include those who could be considered as consumers or customers of the partnership such as students, parents, and community groups. Table 1 outlines a broad range of some common potential stakeholders you should consider.

Table. 1: Core HEI stakeholder groups.

Internal Stakeholders (Those who participate in the daily life of the HEI)	External Stakeholders (Those with an interest in the HEI)
Academic faculty	Employers
Non-academic/Professional staff	Parents
University Management	Government bodies/agencies
Students	NGOs
“The institution”	Residents
	Businesses/Commercial enterprises
	Financial institutions

The range of stakeholders in each context may vary significantly across partner institutions according to institutional and cultural differences. It is vital for partners to agree on a common understanding of stakeholders at the beginning of the ISP so that different stakeholder groups will be evaluated in the same way at all institutions,

allowing you to produce meaningful and comparable results. Partners should agree on and define stakeholder parameters at the beginning of the partnership without being either too expansive or vague. For example, if your institution is more focussed on stakeholder groups representing one area of partnership activity (such as research) while your partners' focus is on stakeholders in another area, this could lead to challenges in producing comparable evaluations. By agreeing in advance a similar range of broad stakeholders and a common core group of stakeholders you can ensure consistency and compatibility throughout the process of the partnership and its evaluation. It may be tempting to conduct additional evaluation on other internal stakeholders, but this will undermine the entire exercise as any results will influence your interpretation of shared evaluation results.

A2: Stakeholder engagement: A change process to create common ground for collaboration

Stakeholder engagement requires that you understand your ISP as a “sociotechnical system” comprised of complex relationships and interactions mediated within the spaces, technologies, and actions of the partnership. Your partners will have multiple sets of stakeholder responsibilities and obligations, while all stakeholders themselves will have a range of skills and value propositions that they can bring into the partnership at various points of interaction. In practice, this means that throughout an ISP stakeholders will want to participate to varying degrees. Some stakeholders will also come to your project with competing perceptions of their involvement in partnership activities. Therefore, the success of an ISP depends on building stakeholder consensus around a core set of beliefs, norms, and mechanisms that service its goals. This is the challenge but also the value of a stakeholder engagement approach, which can be viewed as a **change process to create common ground involving cycles of collaboration with continuous feedback between stakeholders and partners.**

Stakeholder theory draws on elements of thought from several areas including corporate management and organisational behaviour to provide perspective on stakeholder interaction. Initially, it viewed stakeholders predominantly as subjects to be *managed* within top-down power structures that require them to conform to project parameters. However, consensus has shifted to view stakeholders as subjects to be *engaged* through a range of processes that involve them in the design, operations, and outcomes of partnerships. This shift means stakeholders are not just kept informed of partnership activities through the sharing of meaningful and accessible data, but are also consulted for their specialist perspectives, knowledge and ideas, enabled to participate in decision-making with specified power over decisions, and empowered to collaborate directly with partners.

We recommend that readers undertake engagement actions within specific institutional and cultural contexts according to what will work for certain stakeholders. This requires ISPs to plan and evaluate how stakeholders will engage within the partnership, requiring the creation, management, and review of “extensive interconnections [that] facilitate the exchange of information and the development of common norms among partners” and between stakeholders (Savage *et al.*, 2010: 21). To achieve this, Proctor (2016) recommends 5 key areas of focus for creating impactful stakeholder engagement:

- Ensuring close cooperation between stakeholders.
- Developing frameworks of communication between stakeholders.
- Developing and reviewing clear policy and processes relating to the partnership.
- Developing templates and tools to support engagement.
- Developing ICT systems to further support engagement.

The literature on change management shows that forming new ISPs, increasing the status of existing ISPs and institutionalizing stakeholder engagement within the culture of an ISP is likely to involve substantial institutional change that transcends and transforms your institution's regular operation. Colleagues from diverse (and potentially adversarial) backgrounds will need to buy into new sets of presuppositions around how their institution should operate. Moreover, they need to trust that their partner institutions will share those beliefs and implement the same changes. Daily practices within HEIs will be constrained or enabled by institutional norms and rules, while in extreme cases it may be necessary to restructure departments and institutions, adjust business models, and modernise processes and systems to ensure partner compatibility and align with stakeholder needs.

Such a cultural change should not be expected to occur instantly, but rather you should expect it may take several partnership iterations before the change in the culture is fully embedded. Nonetheless, this does not mean the change process of implementing stakeholder engagement has to be substantial or onerous. In practice, new ways of thinking around partnership activities can be institutionalized through big ideas that manifest as small and/or incremental on-the-ground changes. This can be achieved through initial exchanges that demonstrate a willingness to trust and an openness to conduct meaningful dialogue with the other partners.

Creating common ground also requires “**continuous feedback**”, and viable change depends on ongoing dialogue and deliberation between partners and stakeholders. This means successful stakeholder engagement relies on effective communication and the ease of “relational exchange” between a wide range of stakeholders through joint interpretive schemes and regular points of contact. Partners must be conscious of the stakeholder culture they are creating, with the aim of developing a people-oriented, community-focused culture that breaks up hierarchies and avoids competition, to instead support professional development and create opportunities for stakeholders. In this way, implementing successful stakeholder engagement can be a process of social innovation and entrepreneurship.

Following Kotter's (1996) principles for change management, this will require appropriate leadership for establishing direction for the ISP, forming teams and collaborations within the partnership, and motivating or inspiring stakeholders to participate in ways that align with the values of the ISP. It has been recognised that ISPs have commonly relied on close personal relationships between individuals in senior positions and/or vocal individuals with institutional power and influence to prioritize the partnership. While partnerships can and should strengthen existing interpersonal relationships and foster new ones, the focus should also be on the cultural environments in which those relationships are embedded. ISPs should foster greater cooperation

and collaboration between departments, and institutions, so that the common ground created is sustainable beyond the individual relationships between people who may come and go from the partnership or institution(s).

Overall, when committing to principles of stakeholder engagement, stakeholders become understood as interdependent groups in a network of process-oriented relationships, wherein engagement describes the *intensity* of participation in the partnership's activities. Stakeholder engagement is thus a responsive process and dependent on the nature of the stakeholders involved. Each of your stakeholder groups and individuals will have their own priorities, expectations, and interactions with the partnership over its lifetime, that will be informed by their unique perceptions, values, and experiences as well as the operational remits of their departments.

A3: Benefits of implementing stakeholder engagement

As with any period of organisational change, stakeholders may become apprehensive or unwilling to engage if they are uncertain about the purpose and outcomes of the ISP, and you may encounter resistance. If faculty and staff believe their role will be made unnecessarily more difficult by the shift to a third space mindset, then the success of the ISP risks being hindered by institutional inertia. This is particularly relevant for collaborations blending internal and external stakeholders, or senior management who may not be familiar with the ISP's dynamics. Stakeholder concerns should be addressed and dealt with as early as possible, so that expectations are managed, and workloads and resources are allocated appropriately to staff within the ISP.

The creation of the new shared spaces of the partnership needs to be welcomed and desired by stakeholders, which relies on achieving buy-in or an ideological commitment from different stakeholder groups by demonstrating the benefits and rewards for personal, professional, and scholarly development. There are many potential benefits of implementing stakeholder engagement. It is important for partnership managers to be fully aware of how partnership activities will benefit different stakeholders, and to articulate the benefits clearly at the on-set to gain the support of stakeholders and foster their trust in the partnership. Articulating stakeholder benefits may also help ameliorate any uncertainty, and help them adjust to and support the change process of implementing stakeholder engagement. Benefits may be universal or changeable for different stakeholder groups.

Six key benefits of strategic stakeholder engagement are:

1. The production of intrinsic and extrinsic value to the partnership and its stakeholders.
2. The creation of *impact* at local, institutional, and national levels.
3. The development of *trust* between stakeholders and partners.
4. The growth of *reputation* for institutions and partnerships.
5. The *empowering* of stakeholders to take on responsibilities for the partnership.
6. The sharing of *risk* experience between stakeholders.

Careful stakeholder engagement can produce strategic, ethical, financial, and reputational value. The impact of stakeholder engagement may also relate to the

HEI's strategies for sustainability, corporate responsibility, and the creation of civic wealth. It is therefore important to work out definitions for value and impact with your stakeholders during the initial consultation periods: what does this look like to them (for example, is it about raising revenue or generating new knowledge or ideas?); how will they recognise both at the end of the partnership? Are there any specific ways in which they need to report on both to colleagues or management within their stakeholder cohort? Understandings of value and impact need to encompass and articulate as many benefits as possible across the stakeholder spectrum. This can help to identify what we term "engagement criteria" and determine how they will be measured, tracked, and communicated, as discussed later.

Strategic stakeholder engagement improves communication and collaboration on decision making to build trust that the actions of the partnership are reasoned and agreed. It also helps create a reputation that the institutions involved are competent, efficient and effective partners. When interactions between stakeholders are planned to be concise and clutter free with clarity of purpose, stakeholder engagement helps reorientate HEIs towards a "lean" management approach that seeks to continuously improve the ISP by eliminating waste and increasing value for stakeholders. This can help sustain current partnerships and help attract new partners. ISPs rely on this trust and reputation for stakeholders to buy-in and engage with a partnership. Trust can build local and foreign reputation, which leads to increased loyalty and supportive behaviours and outcomes. In turn, loyalty may also lead to stakeholders taking on responsibilities beyond their initial role, increasing the productivity of the partnership. However, there will be different cultural definitions of trust, so, again, definitions must be agreed upon by partners at the outset.

Engaging stakeholders also recognises and builds "stakeholder agency" where stakeholders feel empowered to participate when they believe their contributions are valued and make a difference to the partnership. Nurturing stakeholder satisfaction through engagement plays a crucial role in determining the success of a partnership, as satisfaction gives stakeholders a sense of ownership over a partnership product or outcome, and a willingness to be associated with the ISP. This results in a sense of co-branded identity, strengthening stakeholder buy in and commitment. Practicing strategic stakeholder engagement also directly benefits those within stakeholder groups who can use their engagement to up-skill and develop their personal competences with the support of partnership leaders. Stakeholder engagement also builds "social innovation competences" for the partnership, and allows stakeholder groups and partners to strengthen collaborative and transformational competences that they can bring to other partnerships and activities. Satisfaction has a positive relation with retention and promotion, where stakeholder engagement can increase the likelihood of sustained partnerships, and the attraction of new partners.

B: Understanding stakeholders within your ISP to aid stakeholder engagement

Although you might have an understanding of who the various stakeholder groups in your ISP are, not all of your stakeholders will have the same level and intensity of interaction with the partnership. This section offers tools that will aid the cultural shift towards successful stakeholder engagement by exploring how to "map" and understand

your stakeholders to get a clear sense of their influence within the partnership. This will guide how you include stakeholders in your partnership evaluations. **Section B1** begins by discussing the importance of creating up-to-date stakeholder registers, team charters and communications strategies. **Section B2** then gives an overview of tools for categorizing stakeholder groups for their power, influence, and salience, walking you through steps that should allow you to gather the information necessary to populate your stakeholder register and develop your communications strategy. **Section B3** then prompts you to think about cultural dynamics, and how you might prepare your stakeholders for working in an international team. Lastly, **Section B4** shifts to consider how you can make initial contact with different stakeholder groups to get them onboard with the partnership.

B1: Mapping your partnership

Given the potential complexity of an ISP's stakeholders it is important for partners to agree on how they will interact with the stakeholder community at the outset of the partnership. This also includes the organisational structure of the ISP through which stakeholder engagement will occur. Getting this right is important as it will minimise the chances of miscommunication or workflow conflicts. Three key outputs from this process will be your stakeholder register, team charters, and communications strategy.

The **stakeholder register** is a living database that lists and orders all stakeholders and their influence within and closeness to the project. It should serve the ISP leadership and team by capturing all essential information as agreed at the outset of the partnership. Creating the register requires mapping your partnership to identify the stakeholders that need to be engaged during the rest of this process, and the main criteria by which you will all understand your performance. Keeping stakeholder registers accurate and up to date is key for engagement as it guides how best to use your time and who to prioritise engagement with to optimise the value produced by stakeholder engagement. Stakeholder registers can take any form as long as the information recorded is consistent and helpful. Microsoft Excel can be quite useful for this task.

Figure 1: example of an Excel-based stakeholder register

Stakeholder Register							
Project Name:	ISP One						
ISP Leads:	Ann Smith	University of Technology					
	Professor M. Murphy	City University					
Stakeholder Name	Role	Institution	Contact	ISP Role	Type of Stakeholder	Communication Requirements	Primary Expectations for the ISP
Caroline Jones	Head of International Office	University of Technology	000 555-555-555 / c.jones@UT.com	Research lead (ISP)	High interest, low engagement	Regular updates and follow ups on deliverables	Institutional reputation enhancement
Liam Barry	Head of Strategy and Policy	City University	001 444-444-444 / l.barry@CU.com	Project Manager (CU)	Actively engaged	Weekly meetings	

Team charters are another useful type of document for aiding the bringing together of stakeholders from different parts of the partner institutions. Team charters help individuals to find their place within an integrated team that works together, rather than as different departments/individuals working separately. Team charters do this by encouraging the early creation of group norms that will shape how the stakeholder

teams develop and work together. The team charter acts as a guiding document for how the teams will operate and “empowers the team to act” (Wilkinson and Moran, 1998: 355). Like the register, it can include any information that partners agree is helpful. Some headings to consider include:

- Mission & Objectives
- Institutional Context
- Roles & Responsibilities
- Resource Management

The **communications strategy** is the plan that structures the activities and interactions that produce the partnership, making clear the objectives of each partnership communication and who owns the intellectual property of partnership communications. Such strategy is crucial for engaging stakeholders by making clear the conditions of involvement of different stakeholders at all stages of the ISP lifecycle. This involves clear delineation of partnership leaders, teams, and points of contact, and requires decisions to be made over leadership style, and levels of staff engagement, procurement, and professional development. It also entails forming the components of the partnership’s culture that will foster interaction between stakeholders, planning and implementing the partnership’s communication routines.

It is beneficial to have effective stakeholder registers, team charters, and communications strategy to foster interpersonal relationships through a cost-benefit analysis that encourages stakeholder engagement and the formation of teams across stakeholder groups rather than having different stakeholder groups working as “little kingdoms” with little interaction with each other (Slowinski *et al.*, 1993). As relationships between stakeholders are embedded in the social environment of the ISP, you should also consider environmental and implementation factors that may support or restrict stakeholder engagement in communication routines. For example, it is important to recognise and manage areas where there is a lack of ownership, resource deficiencies, conflict/dissonance among staff, and over-stretched team workloads (Borg and Freytag, 2012). Establishing communication routines that allow personal and professional, scheduled and unscheduled interactions, such as social media pages, intranets, and online communities of practice can assist overcome these obstacles (Butt *et al.*, 2016). Fostering such phased relationship-building around short-term milestones can nurture a sense of community and so assist with the change process of creating common ground (Alves *et al.*, 2010).

B2: Tools for stakeholder mapping

Stakeholder mapping involves analyzing, recording, and balancing stakeholder interests and actions. Understanding these stakeholder aspects can assist you in evaluating who can provide the most support to the success of the ISP, and any problem stakeholders who could endanger successful outcomes. It can also help you prepare responses to their actions or interest in the ISP. Newcomb (2003) outlines 3 key considerations for stakeholder mapping:

- How likely will the stakeholder group want to enforce its expectations on the partnership?
- Does the stakeholder group have the means (power) to enforce its expectations?
- What is the likely impact of stakeholder expectations on the future operations of the partnership?

Tools from customer relationship management theory, such as the IDIC model, can be adapted to create a framework for:

Identifying stakeholder needs.

Differentiating stakeholders.

Interacting with stakeholders to understand their expectations.

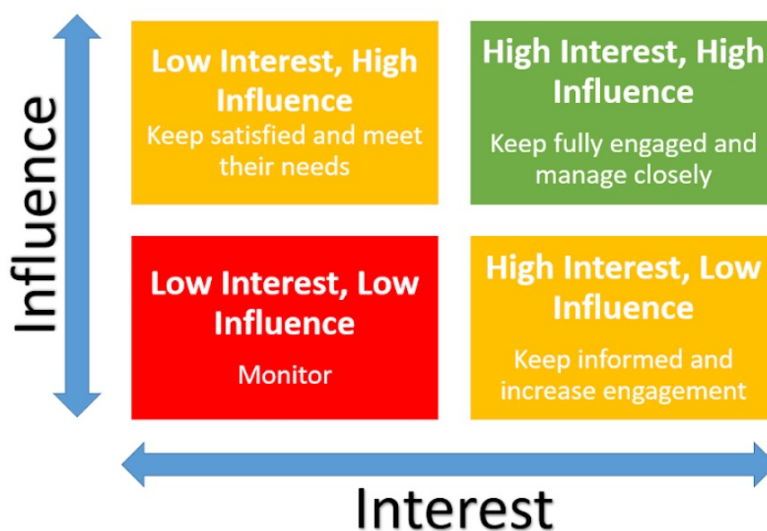
Customizing and communicating with stakeholders during the partnership.

However, mapping can be most effective in a visual medium. Below are overviews of three of the most commonly-used stakeholder mapping tools which can help you understand the level of engagement you should encourage from different stakeholder groups.

i) Power and influence grid

This involves positioning stakeholders on a matrix to plot the predictability of their actions and the level of their interest in the partnership against their power/influence within it. It can help you determine how to handle their expectations and respond to efforts - positive or negative - to interact with the ISP.

Figure 2: Stakeholder Power and Influence Grid.



ii) Stakeholder salience chart

Mapping can also assess “stakeholder salience”, which labels the priority which partners will give to the claims of a stakeholder group or individual. This includes assessing the perceived desirability of stakeholder interests to pull out common interests that match the shared values identified between partners. As the relative importance and influence of stakeholders in the ISP may vary, salience should be assessed based on their:

1. **Power** (how great is their ability to influence the partnership).
2. **Legitimacy** (how desirable or central are their interests to the partnership).
3. **Urgency** (how much of a stake they have in the partnership).

Assessing stakeholder salience is useful to be able to group stakeholders by type, as shown in Figure 3 below, where the numbers mapped in the diagram correspond with the types listed below. Stakeholders considered to have only one of the stakeholder salience attributes are termed “**latent stakeholders**”. There are 3 kinds of latent stakeholder groups:

4. **Dormant stakeholders**, who only have power, but no legitimacy or urgency within the partnership.
5. **Discretionary stakeholders**, who have legitimacy, but not power or urgency.
6. **Demanding stakeholders**, who have urgency, but not power or legitimacy.

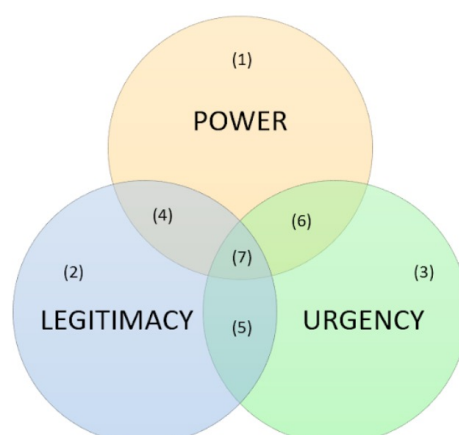
If a stakeholder group is assessed to have two of the stakeholder salience attributes then they are termed “**expectant stakeholders**”, and again there are 3 types:

1. **Dominant stakeholders**, who have both power and legitimacy, but not urgency.
2. **Dependent stakeholders**, who have both legitimacy and urgency, but no power.
3. **Dangerous stakeholders**, who have both power and urgency, but no legitimacy.

Finally, a stakeholder group may have all three of the salience attributes:

7. **Definitive stakeholders**, have power, urgency, and legitimacy, and should be considered indispensable to the success of your ISP.

Figure 3: Stakeholder Salience Chart.



Stakeholder salience has implications for engagement as it will determine how you prioritize measures of performance within the capacity of the partnership. Stakeholder salience is, however, shifting and can change over the course of a partnership as stakeholders adapt and change their behaviour within it. Stakeholder groups can move up a level to become either expectant or definitive stakeholders. This requires you as partnership manager or stakeholder coordinator to be aware of and responsive to your stakeholder dynamics and needs.

iii) Responsible, Accountable, Consult, Inform – RACI Chart

Once stakeholders are identified and mapped, their points of interaction within the partnership should be planned out and agreed. A “RACI” chart can be useful for designating roles amongst stakeholders, and assigning and monitoring tasks distributed across different groups. RACI charts assess the activities of the partnership by who is responsible, accountable, consulted, and informed about each action to be completed.

- **Responsible** - These are the stakeholder groups or individuals who are responsible for completing a particular action.
- **Accountable** - These are the stakeholder groups or individuals who are responsible for monitoring and reviewing the action and ensuring those responsible for its completion do so on time.
- **Consulted** - These are the stakeholder groups or individuals who are not responsible for the completion of the action but who give input and feedback at various stages of its completion (e.g. a Quality Office).
- **Informed** - These are the stakeholders who are not directly involved in the activity but who should nonetheless be kept up to date on its progress as it might impact the work they have been assigned responsibility for.

By making clear where responsibility and accountability lies for each partnership activity, RACI charts can help aid communication and collaboration to successfully achieve partnership milestones and increase stakeholder engagement.

Figure 4: RACI chart

	Stakeholder 1	Stakeholder 2	Stakeholder 3	Stakeholder 4
Activity 1	R	A	I	C
Activity 2	C	R	A	
Activity 3		I	R	A
Activity 4	A	C	I	R
Activity 5	R		A	

R = Responsible A = Accountable C = Consulted I = Informed

B3: Intercultural preparedness

It is also important to consider intercultural competences and awareness as part of your scoping exercise. Within your partnership, some stakeholders will have to hold certain responsibilities and roles by virtue of their expertise or position, and will be expected to interact with their counterparts holding similar positions in the partner institutions. Where partners are affiliated with institutions in other countries there will be differences in cultures. This makes it important to ask yourself if your key ISP stakeholders require specific cultural or social knowledge to successfully interact with their partners, and are they aware of their counterparts' needs or expectations around, for example, communication styles?

Successfully engaging stakeholders within the common ground of an ISP may require you to assess your team's "intercultural sensitivity"; that is, their preparedness to collaborate across cultures and provide resources or training where necessary. Assessing and planning for this early on in the ISP will greatly help to maintain mutual understanding of how key activities are approached, conducted, interpreted, understood, and received at each stage of its lifecycle.

Intercultural sensitivity involves having both an awareness of one's own worldview in relation to others' cultural backgrounds and an awareness and respect for the ways in which others will hold different worldviews. Resources such as the "***Intercultural Development Continuum***" can be a useful roadmap to help you assess your stakeholders' readiness to collaborate across cultures. Based on sociologist Milton Bennet's Developmental Model of Intercultural Sensitivity, it charts an individual's intercultural sensitivity from the denial of difference to "adaptation". Adaptation means moving beyond acceptance that your own culture is just one of many complex cultural worldviews, and towards demonstrating a "capability to make ethical judgements taking into consideration the disparity between different cultural values" (Beutel and Tangen, 2018: 171).

At the beginning of the partnership, stakeholders should be encouraged to increase their intercultural awareness by responding to a series of prompts or a self-reflection quiz provided to them by partnership leaders. A good example of such an exercise is for individuals to assess themselves on the "eight cultural scales" proposed by Erin Meyer in her book *The Culture Map*. These scales allow individuals to map their cultural profile against that of their international colleagues to determine where they both lie on certain characteristics, such as communication and openness.

B4: Onboarding activities

Senior stakeholders

Senior stakeholders such as University Presidents or Deans will often lack the time to be involved in the development of work packages, timelines, and routine project management needs. Yet, buy-in from senior stakeholders in a university is necessary to allow academics and staff to garner institutional support to develop the partnership strategically. Institutional leaders can also initiate representation to assist with the partnership such as a central research unit. Therefore, opportunities need to be created

to build and develop relationships at senior levels between partners on both sides. As a partnership grows and develops to be deemed strategic it is important to demonstrate that decision. Engagement criteria and data to back up impact is an important piece in ensuring senior leadership buy in. Further, high-level, well-organised events and delegations can become instrumental to ensure that senior leaders have the appropriate time with their counterparts. Detailed itineraries and briefings on the strengths of the partnership and how the institutions can benefit from the partnership should be highlighted within briefings along with an overview of the partnership to date.

Strategic partnerships can also benefit from involvement from state agencies and diplomatic representatives. In some jurisdictions, strategic partnerships that involve joint programmes require oversight and sign off from ministries of education. Having connections within the country a partner is located and contacts can be of great value to a university in securing approval and support. Stakeholder engagement in this area would be developing appropriate missions abroad that include connections to local or national government officials. Diplomatic and state agencies can assist with setting up appropriate introductions to valuable connections and the alumni network in a country can also assist with connections that could be beneficial for a strategic partnership.

Internal stakeholders

Each member of a partnership should first conduct an internal onboarding exercise. This can take whatever form you wish (individual consultations, Town hall Meetings, select advisory group, future modelling exercise), but it should:

Build trust

Establish values

Share priorities/ambitions

Table further engagement criteria - existing and desired.

Introduce main stakeholders to the broader partnership (& ideally each other)

After this exercise you should understand your academic and professional staff champions, and have a preliminary vision for the partnership that you can bring to your partner(s).

Partners should then come together to share their positions and align, reconcile, or merge the particulars for their respective visions. This exercise should ideally take the form of a group meeting, where champions on both sides can meet one another and be given the opportunity to discuss their specific areas of shared interest. It should accomplish the five actions above (BESTI) but also:

1. Produce mutual understanding
2. Ensure all key stakeholders have been identified and consulted
3. Finalise the Engagement Criteria to be used for this performance evaluation

Community engagement

Further to engaging senior and internal stakeholders your ISP may wish to engage external, community stakeholders. Communities can be defined in different ways, being either place-based, identity-based, and/or interaction-based. Broadly, HEIs are

understood to have certain civic responsibilities and duties to meet public needs, and over the last couple of decades have increasingly engaged in civil missions to benefit and bring value to local, regional, and national communities. Partnerships that view a two-way relationship between institutional and community partners will benefit from including a community engagement strategy in the development of their partnership activities, although consideration is necessary to choose a strategy that will increase the net benefits to the partners and community stakeholders.

C: Engagement criteria and how they can assist stakeholder engagement and evaluation

This section shifts to understanding the points of engagement that stakeholders will have with the partnership and how to lay the groundwork for evaluating this engagement successfully. In this section, we introduce “engagement criteria” as a way of understanding how success is defined and achieved through the managed interactions between stakeholders in the shared spaces of the partnership. **Section C1** discusses the importance of creating a partnership plan as a non-binding agreement that connects your team charters to the engagement criteria of the partnership. **Section C2** defines the conceptual framework of engagement criteria, to make clear how it fits with practices of stakeholder engagement and evaluation. **Section C3** contextualises the concept to show how it relates to current best practice for monitoring the activities of ISPs at HEIs, drawing on our own experiences at University College Dublin. **Section C4** then explains the steps for selecting and developing engagement criteria for your current ISP.

C1: Producing a partnership plan

The common space created for the partnership can be captured in a **partnership plan**. This is separate to the official Memorandum of Understanding or legally-founded agreement that will be in place to govern the specific set of activities within your partnership, but will need to adhere to the conditions laid out in the MoU. The partnership plan is non-binding and governs the meta-life of the partnership itself. This document is an internal working document signed off by appropriate stakeholders on the key outputs for the partnership. It should set out the aspirations for the partnership’s success, its priorities, values, and ways of working. It is best to keep it focused to maximum three main goals with a note on how to implement it, who is responsible and how that will be measured and monitored.

Once established, the partnership plan will help shape the common ground of your ISP to reflect the sense of the power that comes from working collectively within the space. The plan helps create the understanding that stakeholders within the ISP are a collective unit, through planning for integration and cooperation around a common commitment. A partnership plan will examine the team charters against the engagement criteria agreed upon to consider the inputs that each team or stakeholder group will be bringing into the partnership, as well as considering the outputs that each of these groups are expecting to produce and receive. This leads to what Cameron *et al.* (2008) term **value flow-mapping**, as the process of recognising how different stakeholders work with their inputs and outputs to create “value chains” that produce and pass on

value from the interactions of the partnership for other stakeholders.

The purpose of producing a partnership plan is to develop a plan for the partnership in cooperation with the partner(s), and it will need to take on board all and any mandated high-level partnership criteria such as goals, engagement criteria, deadlines etc. The partnership plan should focus on establishing:

- Partnership-level work packages and associated timelines for delivery.
- Project milestones.
- Project roles and responsibilities.
- Evaluation measures for tracking and understanding engagement criteria performance.

Risk can manifest unexpectedly and disrupt partnership progress. While it is never possible to eliminate all risk from a project, you can identify and plan for the most likely risks to minimise their potential disruption. When creating the partnership plan, you and your partner(s) should complete a risk assessment, including naming a person responsible for ensuring that mitigation is enacted if required. Examples of partnership risks could include hidden costs, staff changes, loss of funding, lack or loss of trust, breakdown in workflow or communications, competing priorities between stakeholder departments, or geo-political issues. Each partner will also have their own internal set of risks for which they may wish to analyse and plan. These should be approached in the same way as partnership-level risks and added to the register for consistency.

C2: Introducing engagement criteria

International strategic partnerships are thought of as transformational relationships or “value networks” that combine rather than trade resources to build common ground over time. As we conceive ISPs in this way, understanding their progress, trajectory, and ultimately outcome requires all partners to agree on clear and precise principles that encapsulate their ambitions, values, and desired impact. Successfully engaging stakeholders within an ISP further requires an agreement on measurable points of activity or collaboration within the strategies and scope of the ISP that are communicated to stakeholders in ways they can understand and appreciate. There must also be a commitment to ongoing review of performance related to these principles, as it is necessary to evaluate whether the partnership manages to become and stay transformational, or recognise if the partnership has become inactive, dormant, parasitic, enabling, or transactional and in need of intervention.

Capturing and reporting on an ISP’s points of activity and strategic principles is arguably best served through recognising what we here term “engagement criteria”. We define engagement criteria as **any measurable factor illustrating an aspect of ISP performance against ambitions for the partnership such as a strategic institutional priority**. Understood this way, engagement criteria act as indicators of your ISP’s activities and outcomes as read through the lens of the principles and strategies underpinning the partnership. This offers a useful means of assessing whether the ISP’s outcomes are meeting the strategic goals of your institution.

In some cases, indicators will present themselves. For example, if your ISP is research focused then indicators may be co-authored publications and research grants awarded. In other cases, indicators may be mandated by senior stakeholders. While indicators are typically quantifiable (such as research outputs or student exchange numbers) you should also consider qualitative criteria such as administrative cooperation, perceived and added value, student and staff satisfaction or experience. In all cases, indicators should be sustainable, replicable, and adaptable to meet the shifting needs of new and future partnerships.

In this way, engagement criteria serve as anchors, tethering the interests of multiple and diverse stakeholder cohorts to a single plan and, over time, a single partnership that may span multiple iterations. Engagement criteria represent a mutually intelligible process for capturing, analysing, and presenting relevant data that can indicate the level to which the ISP is achieving its desired value and impact for one or more stakeholder groups. This can be particularly useful for retaining the attention of senior stakeholders who may not have the time or interest to engage with an ISP's full performance. A clear and mutually-agreed set of engagement criteria also reduces the risk of conflicting information on ISP performance.

C3: Engagement criteria selection and development

Your choice of engagement criteria depends on the specific dynamics of the ISP but should always be mutually agreed between partners. Therefore, all indicators require two conditions to be successful:

1. **Buy-in from senior stakeholders**, achieved through a selection and development process that leads to common understanding of why certain indicators are chosen.
2. **A transparent rubric for the ongoing review of indicators** that illustrates the performance of ISP principles in an intelligible and accessible way.

Engagement criteria connect the activities and outcomes of an ISP to the partners' strategic plans. Although these can vary between institutions, partners within an ISP must work with the same criteria for evaluation to be effective and meaningful. The process of selecting and developing indicators requires bringing together your key stakeholders to analyze the desired goals, outputs, systems, resources, and capacity for the ISP. This discussion should take place at the outset of the ISP, establishing:

1. The principles to be evaluated (e.g. Research).
2. The activities captured that will illustrate those principles (e.g. outputs).
3. The specific indicators that will provide the data on those activities (e.g. co-authored publications).
4. The data sources required to inform each indicator (e.g. SciVal).
5. The importance of each indicator for the relevant stakeholder group (e.g. why publications and not the amount of funding awarded).
6. The value of each indicator for overall ISP analysis (e.g. how do co-authored publications illustrate the ISP's value to each partner's institutional strategy.).

To aid with the selection and development of engagement criteria, Wise *et al.* (2020) suggests developing an inventory either through formal surveys or informal discussions

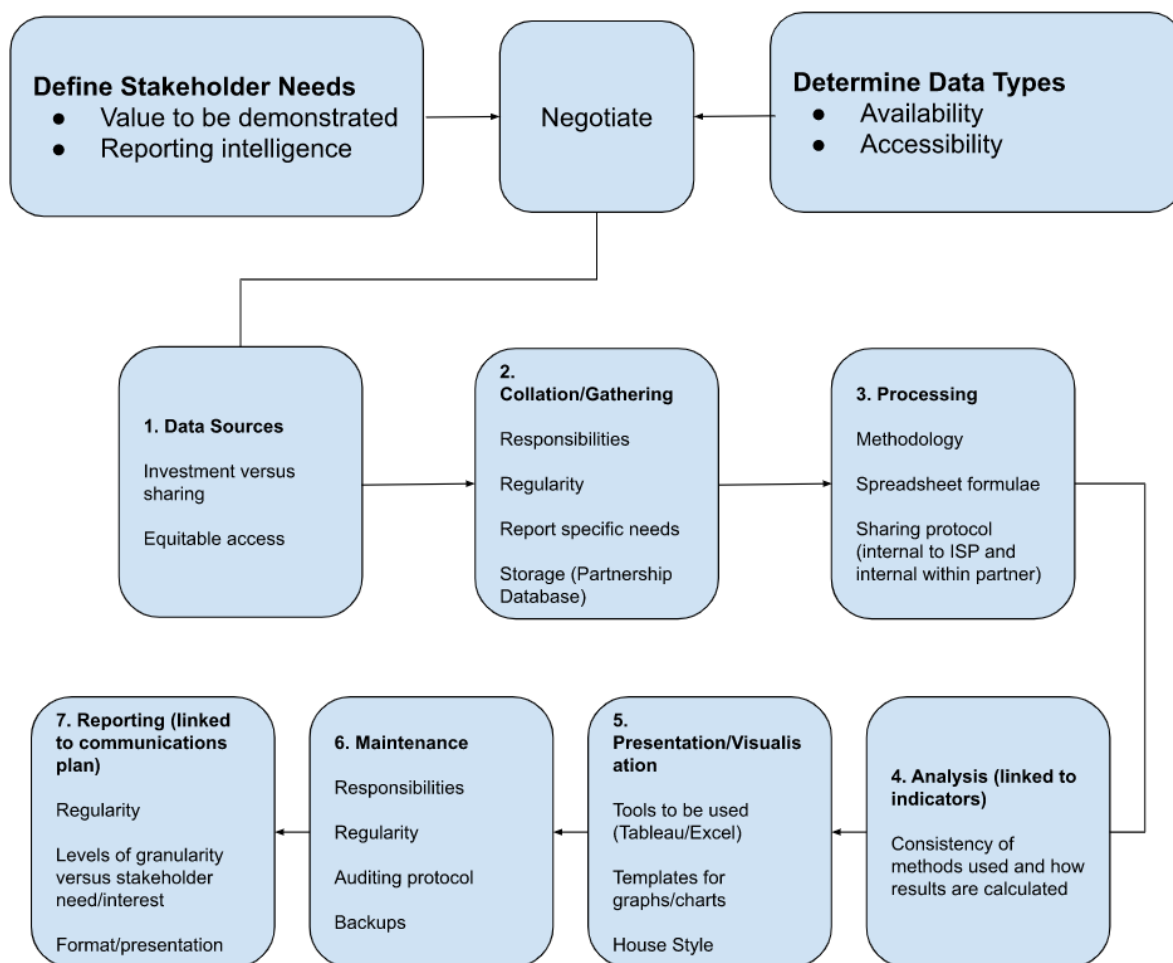
of valuable campus resources available to the partnership, including feedback from those already engaged in other partnerships, and to assess how this aligns with resources in the partner institutions abroad. Partnership leaders should then gather and consider input from all stakeholders to inform how the interactions of the partnership are managed and sustained in compliance with institutional protocols and procedures.

Having selected their criteria, partners should develop them in such a way that they support understanding of the ISP principle to which they relate. That is, how findings or data will be used and interpreted so that they provide meaningful insight on an agreed “value”. For example, if student mobility is one of your ISP’s principles, then the quantifiable headcount of students moving between your institutions over a period of time will likely be a key indicator. In this case, partners may agree to translate headcount data into their Full Time Equivalent to illustrate how much of the principle’s potential is being realised or underutilised on each side. This could be particularly useful for illustrating value where partners operate using a set mobility balance (such as in an Erasmus+ bilateral agreement) or agree a tolerance over or below a set number.

How you develop and review your engagement criteria will depend on stakeholder needs but also the availability of data to inform what you can report on. As data availability may determine both the selection and development of criteria themselves, it is vital to work with partners in identifying where and how the necessary data will be sourced, handled, processed, and presented. This may require identifying or creating cloud-based or other data sharing platforms to ensure robust and comparable data. For example, research publication data may come from databases like SciVal or JSTOR, while student mobility data may come from platforms such as MoveOn or be supplied by each partner to a shared resource such as a collaborative spreadsheet. Partners may need to invest resources to access new data or create systems to support collation and processing. Therefore it is advisable that partners seek a balance between new investment and employing existing resources so as not to overburden the partnership on one or both sides. In either case, it will be important to establish a partnership database where both sides can store, access, and update all agreed indicator data. This database should be managed by partnership leads, with access and responsibilities clearly laid out as part of the partnership plan.

Below is a suggested governance process for the identification and management of indicator data. It recommends a series of decision steps around the sourcing, storage, processing, analysis, and presentation of data, as well as its maintenance and reporting. It is important that partners use data consistently to prevent misunderstanding, divergent interpretations or conflicting results.

Figure 5: Draft flowchart illustrating governance steps for defining indicator data



C4: Engagement Criteria in Practice

The term “engagement criteria” re-conceptualises and standardises a broad range of possible practices for measuring and reporting on the successes of your partnerships that may already be in place at your institution. You will already be familiar with your own institutional procedures for doing this, but may not be clear on how these procedures relate to the principles of stakeholder engagement. Rethinking and perhaps reworking these procedures under the banner of engagement criteria aligns these practices with the strategies of your ISP. To illustrate what we mean by this, we will walk you through three examples of frameworks for evaluating stakeholder engagement within ISPs between HEIs that can be thought of as examples of possible ways to work with engagement criteria. These are the University of Queensland’s Partner Engagement Framework (UoQ PEF), the University of Calgary’s International Partnerships Assessment Rating Index (UoC IPARI), and University College Dublin’s Global Partnerships Framework (UCD GPF).

UoQ PEF

The UoQ PEF measures the institution’s engagement with its strategic partners through 16 performance indicators grouped into the categories of **Learning** (relating

to teaching related partnership strategy goals including total student numbers for student exchange, study abroad, undergraduate programs, and postgraduate programs), **Discovery** (relating to research related partnership strategy goals including numbers for PhD students, joint publications, joint PhD programs, sponsored alumni, and collaborative research projects), and **Engagement** (relating to staff that have a qualification from the partner institution). The framework collects the total figures for each indicator providing quantitative evidence through which to evaluate the partnership. UoQ also developed a Country Engagement Framework that ranked performance by country rather than individual institutions. This allows the creation of partnership maps that reveals where top partners are located and informs future region-based strategies.

Yet while, for example, the PEF may tell us the total number of joint publications, it does not tell us how we should understand the figure in relation to the strategies of the ISP. Samlimova *et al.* (2014) suggest that the performance of ISPs need to be assessed on priority, complexity, longevity, institutional cooperation, exchange of assets, efficiency, manageability, stability, and risk diversification. Marshall (2018) has explored a range of quality frameworks and indicators, and lists 16 considerations that should be taken when developing measures for evaluation to ensure the measures are logical, reliable, timely, clear, cost-effective, consistent, and satisfy completeness, validity, and scope. Engagement criteria should describe an important and necessary outcome or characteristic of the ISP's activities and should enable improvements.

UoC IPARI

To this end, the UoC IPARI alternatively categorises the activities of their partnerships and then assigns scores to them according to a standardised scoring system. The UoC identified three broad categories of **academic programs and collaborations** (with subcategories for articulation programs, PhD cotutelle programs, training programs, and special projects), **mobility programs** (with subcategories for student exchanges, faculty and staff exchanges, and niche collaborations), and **research collaborations** (with subcategories for publications, special agreements, connection to strategic themes, and other activities). Each category was assigned a total amount of points, and a committee developed a ranking index with the criteria that would need to be met to gain points. The UoC IPARI also recognises the usefulness of qualitative principles in developing and evaluating ISPs. The evaluating of partnerships can in this way engage with satisfaction models of evaluation. Further, structured comparisons of HEIs through “collaborative benchmarking” between similar departments in each of the partner institutions can help reveal best practices across the partners and keep departments engaged.

UCD GPF

Following the appointment of UCD's first Vice-President for Global Engagement in 2015, the Global Office was empowered and resourced to assess, monitor, and nurture international partnerships as a key enabler for the University's international objectives. It was acknowledged that, given the large number of partnership types, regions, and areas of development (e.g. research), success depended on engaging stakeholders around the University. The core of UCD's solution was to create a partnerships database

providing oversight of all key stakeholder interests and accessible to all staff. This database draws on a range of UCD IT systems and records to populate partner profiles with data on key activities such as student mobility, research publications, and other formal collaborations. Building it with stakeholder groups in mind gave the Global Office a means of engaging their interests and participation in partnership management. It also gave UCD global engagement leadership the “bird’s eye view” to review all international partnerships and determine which ones could be considered “strategic”.

Having collated the necessary “intelligence”, UCD Global then embarked on the UCD GPF. The methodology of grounding assessment in a broad spectrum of criteria enabled University leadership to seek stakeholder support by demonstrating the benefits of this exercise for their own areas of interest or activity. Chief among these was the support the GPF offered for partnership decision-making at local level, such as where to concentrate efforts and resources. After the initial presentation to University leadership a committee was formed to develop the framework with representation from all academic faculties, the research office, and IT services. Again, this level of internal stakeholder engagement in UCD was pivotal for identifying the University’s strategic partners.

In order to identify these partners, weighted criteria were developed to understand UCD’s engagement with partner universities against institutional priorities and needs. This encompassed activities including: student mobility, student recruitment, research grants, research publications, the number of agreements signed, the number of shared networks, and informal visits. Analysing this data gave us a clear understanding of the most active university partnerships, leading to a tiered list of partnerships. As was expected, results showed a small number of “priority partnerships”, a significant number of university-wide partnerships, followed by a majority of College and School partnerships.

Figure 6: The UCD Global Partnerships Framework



The GPF allowed UCD Global to share findings with key stakeholders around the University which ensured stakeholder engagement and buy-in from senior leadership for what UCD termed “Priority Partnerships”. In order to build intelligence on the university-

wide partnerships and College/School-level partnerships, UCD Global worked with Colleges to develop faculty-specific plans. The data in UCD's GPF was presented to key stakeholders in each UCD College (faculties), allowing the Global Office to demonstrate key areas for development and benchmarking with the wider University. The GPF was developed around quantitative data and the College plans allowed us to gather qualitative data from students and academics involved in the partnerships to workshop what was working and not working, which ultimately informed development plans.

D: Qualitative evaluation in partnerships at University College Dublin

The previous section introduced UCD Global's system for capturing, assessing, and positioning our global partnerships. Their Global Partnerships Framework used quantifiable data to assess eight areas of activity or "engagement criteria", an approach largely informed by the nature of previous partnership evaluation processes. However, this precluded evaluation of qualitative aspects such as staff relationships, cooperation, and perceived value. As a result, the framework unwittingly prevented partnerships with a particularly qualitative set of benefits from being assessed on their full merits.

Therefore, in 2020 UCD Global worked closely with College stakeholders on a project to devise College level partnership strategies. This exercise revealed a wealth of qualitative information about how partnerships are experienced in a variety of scenarios that the central office do not always encounter or hear about. Stakeholders frequently drew on qualitative elements to argue for or against partnership renewal or adaptation, which alerted UCD to the importance of "experiencing" a partnership in action to fully understand it.

One example that readily presented itself was UCD's long-standing and broad-ranging partnership with the Universiteit van Amsterdam (UvA). This partnership had long been recognised for its qualitative value, but had never been evaluated. Therefore, the UCD Evaluate team undertook an assessment to determine the partnership's exact qualitative value for stakeholders, and how to express or demonstrate this for others.

As part of this exercise, UCD undertook consultations with key UvA stakeholders to gather their ambitions for the partnership. They have now identified specific areas of expertise where we can learn from one another, and will create a plan to formalise our knowledge sharing. UCD will concentrate on partnership management, while UvA will focus on best practice in student support. Section D1 gives an overview of the history and activities of the partnership between UCD and UvA. Section D2 then discusses UCD's strategic evaluation of the partnership, highlighting the value of qualitative data for understanding the success of engagement criteria.

D1: The Partnership: History and Strategic Value

The partnership between University College Dublin (UCD) and the Universiteit van Amsterdam (UvA) is almost 30 years old. It has grown organically since both institutions became founding members of the UNICA network in 1990 and agreed to cooperate on common interests and priorities. The earliest formal collaboration on record is the Faculty of Humanities Erasmus+ agreement in English and History signed c.1994, however as early Erasmus+ agreements were based on academic contacts it is

likely that this reflects pre-existing collaboration. UvA had around this time established an English-language programme for exchange students which was well suited to the academic needs of UCD students.

Universitas 21 collaboration

By 2010 both UCD and UvA had joined Universitas 21, a global network of research intensive universities collaborating across multiple areas - from student mobility, to joint research and development projects. This brought about UCD's first university-wide mobility agreement and the creation of additional student placements in support of Network agendas. The older bilateral agreements between UCD and UvA were retained for their strategic academic value, and at UvA's suggestion we added additional places at Amsterdam University College which teaches entirely through English. This gives us 11 FTE places for our student exchanges, one of the largest mobility capacities of any UCD partner.

Our joint membership of Universitas 21 (U21) has also been the catalyst for greater and broader collaboration, as it allows stakeholders across the academic and professional communities to cooperate with their counterparts in their areas of professional or academic expertise, and to share best practice. Involving senior academic and management staff in both institutions has allowed joint initiatives and collaboration to flourish at every level. However, one of the most important results of U21 membership has been the shift from liaising with individual faculties to UvA's central Office of International Student Affairs (OISA). Having a central point of contact for the partnership has enabled the growth of relationships between staff in UCD Global and OISA, which have greatly accelerated the partnership's success over the past decade. It has meant greater oversight of opportunities for collaboration, but more importantly it has generated a high degree of peer-to-peer trust between stakeholders. This network of relationships has informed the universities' mutual success in two key strategic areas of partnership cooperation which we focussed on for this case study: staff training and Erasmus+ funded projects.

Training

U21 International Staff Weeks are subject-specific training events aimed at early career staff working in the area of global engagement. UvA has organised and hosted U21 Staff Weeks in conjunction with the University of Edinburgh, giving younger colleagues an invaluable opportunity to learn aspects of professional culture and vision directly from trusted and experienced partners. This inculcates an "intergenerational" bond between offices and teams, meaning ownership and responsibility for the partnership are not seen as the preserve of senior management only. In 2018 and 2019, senior UCD Global staff presented at staff weeks in UvA, focussing on internationalisation at home and to scope concepts for an Erasmus+ KA2 project. Also in 2019, UCD and UvA colleagues co-hosted a staff week in Krakow for one of the projects below.

Outside of U21, UCD Global and OISA colleagues have exchanged knowledge and best practice in several areas, most notably intercultural competencies. This aspect of the partnership began in 2018 when UvA staff came to UCD and delivered a training seminar for colleagues working in internationalisation, which led to UCD's

Faculty of Engineering & Architecture establishing its own programme in intercultural training. Since then, UCD's College of Business has developed classes in intercultural competences and communication to prepare its students and staff to undertake international experiences successfully.

The success of these initiatives has led to intercultural competences becoming a key element in UCD's international outlook and a priority desiderata for all staff and students under our new Global Engagement Strategy 2021-2024.

Funded initiatives

The UCD Global / OISA relationship acts as a nexus for cooperation between the two institutions more broadly, as the trust between colleagues encourages experimentation and a spirit of innovation. Therefore if U21 membership can be described as the engine for this partnership, then Erasmus+ funding is the fuel that powers it. Since 2011 UCD and UvA have collaborated on five Erasmus Mundus Action 2 and three Erasmus+ KA2 Cooperation Partnership projects. These collaborations allowed UCD colleagues to showcase their strengths and build new competences and expertise alongside their international peers. Two of our most important KA2 collaborations are the Network for Intercultural Competence to facilitate Entrepreneurship (NICE), and DIGIPASS. These projects have resulted in institution-wide programmes supporting entrepreneurial skills development and mobility preparedness that are enabling UCD and UvA to grow their student interconnectivity.

Another important funding mechanism is the "U21 travel bursary" which supports students to attend three-week summer schools at a U21 partner. UCD has been working directly with UvA's Graduate School of Social Sciences since 2018, and has supported 13 students to complete UvA summer schools with plans to support up to 10 more in 2022. This is an important and achievable avenue for students with fewer opportunities to undertake an international experience, making UvA's academic compatibility here strategically vital for us. Student feedback has been very positive and we now have a good working relationship with the team in the Graduate School of Social Sciences. The only drawback of working directly with this unit is that it doesn't allow UCD to capitalise on their relationship with OISA.

Ambitions & Goals for the Partnership

This multifaceted partnership has been truly entrepreneurial, and transformative for both partners. The mutual value and experience it has created has shown UCD what it can and should strive to have with strategic partners. A proven track record of evolution and reinvention over the past decade means both sides are committed to ensuring that it remains sustainable beyond the interpersonal ties that drive it. They will achieve this through closer cooperation on key student-focussed initiatives such as the NICE project, for which both partners plan to allocate additional funding. They are also in talks with the University of Edinburgh on creating a staff week for DIGIPASS, to build a common culture between our three institutions in the area of mobility support.

D2: Evaluation of the partnership

The central evaluation question investigated by UCD was “how do we define a partnership’s qualitative value for future evaluations?” This question was prompted by the fact that, while UCD knew their partnership with UvA was valuable, they did not know how to articulate this to stakeholders immediately outside of the UCD Global/OISA nexus. The goal of examining this evaluation question in depth was to understand what makes the UvA partnership so valuable to UCD, with the intention of establishing an analytical model for future evaluations. Having come through two partnership evaluation processes in recent years, UCD knew they needed a means of understanding the qualitative side to our partnerships. By investigating and therefore learning how to articulate this value to themselves and other partnership stakeholders, the UCD Global team aimed to define a set of qualitative (or experiential) criteria which can be used in future partnership evaluations. They also aimed to identify what data types and data holders are required to better understand the qualitative side of partnerships, which could inform tools or resources that allow us to gather, analyse, and interpret their “health”.

Goals:

- Draw out and articulate exactly what is meant by “qualitative value”.
- Establish indicators to capture a rounded qualitative performance.
- Create tools or pathways for investigating these indicators.

Evaluation Design

Reflection

- The UCD Evaluate team asked UCD Global stakeholders to reflect individually on the questions “Why does our partnership with UvA mean so much to us?”, and “What do we value about the partnership”?
- This group then came together to exchange views and experiences of the partnership in order to build up a picture of its impact and value. They also pooled their collective knowledge of the partnership to trace its evolution, and so better understand its dynamics.

Mapping

- The evaluation team “mapped” the key activity areas for this partnership and gathered relevant data including stakeholders, bibliometrics, funding, student mobility, and network activity. This allowed them to identify the areas for which they lacked oversight, while consultation with the Evaluate CWTS team identified additional layers of potential activity with qualitative value such as postdoctoral movement, visiting professorships, and alumni.

Understanding

- Next, the team examined the benefits, risks, challenges and opportunities for each of these activity areas, taking data into account where possible. In particular, they focussed on how to articulate the qualitative evidence we were seeing in order to better communicate what qualitative value looks like in a partnership.

- The team took the decision to consult with key UvA colleagues after this step so that they could map their input onto our view of the partnership as formulated for the exercise itself. In particular, their conversations focused on the experience of partnering with UCD, the institutional value for UvA, and future ambitions for the partnership. They also discussed tools and strategies to gather qualitative evidence in key activity areas at both institutions so as to compare experiences equally. These included surveys for students, staff, and other stakeholders, as well as agreement on some key data types that we will track for comparison in the future.

Testing

- In March 2022 the team piloted some of these tools with UCD cohorts to test suitability for gathering the evidence we need. Providing UvA colleagues with the same tools or methods for comparable investigation will enable both sides to perform a paired evaluation on key activity areas.

Preparing

- After these tools and approaches have been tested and refined with the help of UCD and UvA stakeholders we will have a suite of measures including an expanded partnership stakeholder map which we can adapt to other partnerships. In this way we can carry out qualitative investigation into our key partnerships in complement to the UCD Global Partnerships Framework.

Evidence Gathering

UCD divided the investigation into seven areas, capturing the main types of partnership activity identified as offering potential value. Advice from CWTS colleagues helped to inform these choices, and the types of data that we could search for:

- Mobility
- Research
- International Office and Erasmus+ Collaboration
- U21 Collaboration
- Alumni
- Teaching & Learning
- Postdoctoral Movement

Much of the time was spent on sourcing data to inform these areas. While slow, it did establish some new stakeholders that would not have traditionally been included in partnership analysis. At several points GDPR restrictions limited the analysis, such as data availability around alumni nationality and prior education. This meant we were unable to discern any patterns in the movement of Dutch students to and from UCD. The team also found that requesting qualitative feedback via surveys is not an effective means of engaging stakeholders. The one cohort that enthusiastically engaged with questions were the students, which could be because they felt they were being given a voice at an institutional level or because of positive experiences with UvA/Amsterdam.

The most significant piece of intelligence to emerge from this exercise was that there is a clear divide in how partnership stakeholders understand and view a partnership. This divide falls between colleagues who guide or manage a partnership (International office), and colleagues who enact the majority of its activities (Academics, students, senior stakeholders) This has taught UCD global that they need to consider more effective methods of engaging individual cohorts and how we communicate the “idea” of a partnership in its fullest sense. The evidence we have gathered gives us the building blocks to tell the UCD-UvA story, and articulate to different stakeholder groups what it means to work as part of this partnership. This kind of storytelling can be an important accompaniment to stakeholder engagement, as it helps different groups to see where their interests sit or intersect with others within a multi-faceted partnership.

Assessment

Assess to understand

Once UCD had established the key activity areas for examination they determined whether they possessed data for them or not, and if not where they might source it. This fed into their analysis as (i) it prompted us to expand their “definition” of a partnership stakeholder, and (ii) they felt incomplete or unavailable data on an activity area should be classed as a risk.

Apart from building a picture of the partnership through data and experiential feedback, the most important assessment they carried out was on the interpersonal relationships between UCD Global and OISA. Coming out of this the team recognised that these connections underpin the partnership’s success and its potential but also pose the greatest risk and challenge. Should enough key figures on either side depart or change roles then the momentum and trust driving the partnership diminishes or evaporates. Untangling this dynamic gave us the “inroad” to address partnership sustainability, and in conversation with UvA peers we have developed the idea of a partnership “logbook”. This will enable both sides to keep a record of partnership interactions and their own experience. In the event of stakeholder change, this resource will enable a “qualitative handover”, whereby new colleagues get to know the partnership and its culture through the eyes of its current managers.

Value of the evidence

The evidence gathered from this case study has a unique value for UCD Global staff and partnership stakeholders on two fronts.

First, digging into the partnership’s performance and dynamics gave a full picture of this partnership for the first time. UCD could see why it works, how it works, where it works and where it does not. Evidence of how well or not experiential surveys work will help to refine these tools for future use. Early results suggested that partnership surveys do not adequately engage a broad range of academic stakeholders, many of whom did not realise there was a broader partnership landscape outside of their own activities with UvA. The team will learn if they are asking the right questions of the right people, and whether what they think is important to know about a partnership matches the expectations and needs of those working “in” it. This will build a rounded model of qualitative partnership value that can serve a variety of stakeholder groups in the future

Second, the evidence gave the building blocks to tell the UCD-UvA story, and articulate to different stakeholder groups what it means to work as part of this partnership. This will be particularly important as the partnership hinges around two central offices/core groups, whereas other stakeholder groups may only have tangential involvement and do not see the partnership's full value and potential. Furthermore, this assessment has given a clear narrative to explain the value of Network membership.

After the assessment: What has been achieved to date

- A full and mutually understood view of one of UCD's longest-running partnerships, and agendas for progress and future proofing, including a partnership logbook where both sides will regularly record interactions, their experience, and reflections.
- A coherent "story" for UCD's UvA partnership, including a clear articulation of where the value lies and what makes this a strong partnership deserving of institutional support and development.
- A greater understanding of the partnership's stakeholder landscape.
- UvA was engaged in the process of evaluation and will continue to work with UCD to understand specific areas of activity and potential in more detail.
- A preliminary set of data types/sources and tools for gathering qualitative feedback that can build a working image of a UCD partnership.

E: Reflecting on stakeholder engagement

This chapter has introduced you to the principles of engagement criteria and how they can be deployed with your stakeholders. This short final section asks you to reflect on your own understanding and experience of stakeholder engagement and evaluation at your institution. These initial reflections may help you to prepare for the first phase of the process of implementing stakeholder engagement practices for your ISP.

- What do engagement and evaluation processes look like in your institution?
- How do different cohorts or types of stakeholders at your institution approach engagement and evaluation?
- In your experience, what works and does not work? Compile a lessons learned document to avoid repetition or duplicate work.
- How do you demonstrate the university's global impact via strategic partnerships to academic colleagues?
- How do you report on global strategic partnerships to senior university leadership?
- How do you gather information on your strategic partnerships?
- Do you have the systems to develop metrics for engagement?

Having reflected on engagement and evaluation, identify and collate available resources:

- What established mechanisms, systems or tools does your team have at its disposal?
- Where can you seek advice and guidance before embarking on this process?

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Further reading

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Literature review

International strategic partnership: Diversity in Arrangements and Goals,
Concepts and Literatures

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Introduction



This section contains a literature review, surveying the academic and policy literature on “international strategic partnerships” between higher education institutions (HEIs). It aims to establish what research is available on the evaluation of such partnerships, and then to understand the general themes and insights that inform the development of the EVALUATE framework.

This review differs significantly in tone and style to the rest of the handbook, as it is an academic literature review. It aims to give an overview of available literature relevant to understand international strategic partnerships from an academic perspective. It surveys the available literature and also aims to give the reader insight into the content of this literature through summaries of relevant insights derived from the literature.

As there are no other existing literature reviews on this topic, it is a unique resource, which formed the evidence base for the development of the evaluation framework in this handbook. It is relevant background knowledge for those wanting to understand the framework and the ways in which the questions relate to the available literature. Next to understanding the different meanings of the term international strategic partnerships, perhaps the most important questions are: what are their goals and aims? Why do we have these partnerships and to what end?

The internationalisation strategies of universities provide their readers with multiple reasons why internationalisation is important, but often not in a very systematic and detailed way. However, university statements on why internationalisation is important are mostly grounded in existing research on internationalisation and its benefits. As we will show, this is a very rich literature and it takes considerable effort and time to read and analyse this all.

The good news is that you do not have to do this yourself, as we have done it for you. The bad news is that what results is still a substantial document. But we think that everyone working in Higher Education, and especially those working in the area of internationalisation, will benefit from reading it. It provides a relatively easy and accessible way in to a very complex debate on internationalisation, spanning several decades and encompassing different views, including more recent ones on equality, diversity and sustainability of internationalisation.

While literature reviews are mostly the starting point of reports, we have decided to put the review at the end of this handbook for readability reasons. The risk of this decision is that readers of the handbook will skip this section. However, the literature review has preceded the development of the evaluation framework and reading it before, after or in parallel will certainly increase your understanding of the reasons for evaluation and the type of questions that are asked in the framework. Moreover, reading it will help you to adequately answer questions and improve the quality of the evaluation process and the insights it delivers.

Our approach to review the literature

It is important to note, that while there is a wide body of knowledge on evaluation in general, there is not any work available on evaluation of international strategic partnerships in universities. Moreover, literature on all aspects of international strategic partnerships is scarce, as the term is not well defined and established in the literature. In fact, a broad and straightforward search query to find literature on “strategic partnerships” returns 449 articles, reviews, and book chapters, but many of these are not relevant for our purposes, or at least only indirectly so, such as the large literature on strategic partnerships between private firms and between nation states.

Only 19 documents are classified into categories associated with higher education or Higher Education Institution (HEI) research management, but these 19 papers neither cite one another nor do they reference the same literature, reflecting that these papers have very different subject matter to one another. Only 11 papers appeared to concern activities related to Higher Education Institution-International Strategic Partnerships (HEI-ISPs), with seven focusing on describing and analysing particular partnerships between HEIs or between sets of HEIs in different regions and only four papers making contributions that have a general scope that can feed into the EVALUATE project (Kristensen & Karlsen, 2018; Woodfield, 2018; Arrowood & Hitch, 2016; Otieno & Otieno, 2016).

As such, we begin this literature review by (i) examining the complexities involved in defining strategic partnerships and (ii) surveying the academic literature on strategic partnerships through more complex search techniques. Through this, we find a great diversity of different arrangements between HEIs that are currently labelled under the “strategic partnership” banner, including student mobility partnerships, international branch campuses, policy advocacy arrangements, and research arrangements. Furthermore, there are a plethora of different strategic objectives underlying the inception of different partnerships, such as enhancing market competitiveness, addressing particular societal goals, and empowering students. This heterogeneity in both types of arrangement and their different strategic objectives represents a significant challenge in evaluating “strategic partnerships” under a common framework, but also for surveying the relevant evidence base that can inform such a framework.

Given the diversity of different arrangements that fall under the “strategic partnership” label, any framework for evaluation will need to consist of a variety of tools and approaches that can be used to evaluate different kinds of activities and their specific goals.

To this end, we systematically retrieved a large body of potentially relevant literature to feed into the development of the EVALUATE framework, and mapped this via citation network analysis into prominent research topics. We follow this general overview with a more in depth summary of literature on the main topics relevant for our work: (iii) internationalisation, (iv) mobility and (v) sustainability. However, based on our literature review, we come to recommend that the term “strategic partnership”, while possibly rhetorically useful, ought to be more carefully specified in evaluation; the specific activities of strategic partnerships and their particular strategic objectives ought to be the focus.

Defining strategic partnerships

While universities enter into strategic partnerships with a range of different kinds of actors, such as HEIs, private companies, and nongovernmental organisations (NGOs), the EVALUATE project focusses primarily on international strategic partnerships between HEIs, referred to from here as HEI-ISPs. Before relevant literature can be found, or indeed before an evaluation framework can be built, we need to define specifically what is meant by HEI-ISPs. For the purpose of what follows, we define HEI-ISPs as formal arrangements between two or more HEIs located in different nation states. Either a legally binding contract or a non-legally binding agreement must be in place between at least two institutions, such as a Memorandum of Understanding. Such a partnership must be coordinated at a central level, with strategic senior level support and resources provided by all partners, and be driven by the explicit goal of combining partner resources in such a way as to achieve their established strategic objectives.

Further to the definition established in an earlier section of this handbook, the term “strategic partnership” is typically used as an umbrella term in HEI strategies to describe at least four distinct categories of activities:

- i. Research arrangements** (e.g. HEIs that seek to form closer collaborative working relations in terms of research output or that are involved in developing research capacity).
- ii. Academic and student mobility arrangements** (e.g. student exchange arrangements; academic visit arrangements; work placements; co-supervision of PhDs).
- iii. Transnational education (TNE) arrangements**, aka international branch campus, (IBC) (e.g. Franchise arrangements; degree validation arrangements; joint awarding of a degree; articulation and progression arrangements).
- iv. Knowledge sharing, advocacy, and policy arrangements** (e.g. multilateral strategic alliances such as membership of Universitas 21 or The Guild of European Research-Intensive Universities, or bilateral arrangements on specific policy or advocacy issues of public outreach or societal impact projects).

While any given partnership may involve all four of the above classes of activity, the evaluation of each of these activities will need to be performed separately.

To complicate matters, there are many different terms used to describe similar arrangements currently in both the academic and policy literature and there is a great diversity in subcategories of activity, e.g. research collaborations; collaborative taught programmes; joint doctoral programmes; international networks; staff mobility; student mobility. This diversity of activities that can fall under the HEI-ISP umbrella, and the

diverse goals that such activities are initiated to achieve, makes the drawing up of a common evaluation framework particularly difficult. Indeed, this difficulty extends to establishing the relevant evidence base for such a framework, as this will need to cover a diverse set of different literatures that focus on specific types of activity, such as international research collaboration and mobility. This diversity requires a flexible evaluation framework that can be moulded around the specific objectives of partners, their particular strengths and weaknesses, and their broader context (e.g. policy, funding, and research environment).

Capturing relevant literature

As discussed, there are substantial challenges in constructing a common framework to evaluate HEI-ISPs; and these difficulties extend to finding and evaluating the likely relevant evidence base for this. Specifically, the flexibility of meaning in the term “strategic partnership”, as well as their diverse and complex compositions, makes systematically capturing relevant academic literature on such partnerships challenging.

In what follows, through a series of Boolean queries designed to capture relevant strands of the literature on HEI-ISPs and their various activities, we attempt to map the evidence base via bibliometric network analysis. We retrieve relevant data via Web of Science (WoS) Core Collection⁵, which is a large bibliometric database that has high quality bibliometric data amenable to network analyses. We restrict all following searches to primary search articles, reviews, or book chapters published in the English language.

First, a very broad search query was used to find literature on “strategic partnerships”. For this, we use the following topic search (TS=), which searches for terms in the title, abstract, or associated keywords of indexed publications.

TS = ((“*strategic partner*”) AND (“*international*” OR “*transnational*” OR “*global*”))

As mentioned before, this returns 449 articles, only 11 appeared to concern activities related to HEI-ISPs. Seven focussed on describing and analysing particular partnerships between HEIs or between sets of HEIs in different regions. They describe cases from many different countries, and the partnership activities they describe are heterogeneous. Kletke *et al.* (2020) analyse the development of a partnership between the University of Toronto (UoT) and Addis Ababa University (AAU) concerning the feasibility of launching a paediatric ophthalmology fellowship at AAU supported by UoT. Bowan & Dallon (2020) examine the launch of a joint course in sustainable tourism education that relied on Colorado State University’s system resources in Todos Santos, Mexico. Williamson *et al.* (2019) examine the formation of a large network of organisations (HEIs, private companies, governments) and their role in developing a rapid response course in coding skills to meet growing demand. Oleksiyenko (2019) examines aspects of an anonymous university’s process of forming policies related to internationalisation and selecting and managing strategic partnerships. Cid (2018) examines a “strategic partnership” between the Latin America-Caribbean region and Mexico in the provision of Public Policy & Administration courses via a comparative

⁵<https://www.webofknowledge.com/>

analysis 301 Masters programmes in Latin America, Mexico, and the US. This paper is primarily focussed on understanding differences in the design, content, and attendance of courses. Katsarska (2017) discusses the importance of harmonisation of aviation training, and describes a joint aviation course co-developed between the National Military University in Bulgaria, the Air Force Academy of Romania, and the War Studies University in Poland. Interestingly, the paper claims this course was developed following the “framework of Strategic Partnerships” as established by the Erasmus+ program, citing the “Erasmus mobility exchanges and the Bologna process”. Karle (2006) discusses the World Health Organisations and World Federation for Medical Education strategic partnership focussed on improving medical education worldwide by establishing standards and rules for new accreditation systems. Due to the different focusses of each paper, and because none included a broader discussion of lessons to be learnt for HEI-ISPs in general, there is little to be gleaned from this small literature for the EVALUATE project.

The remaining four papers touched on broader themes. Woodfield (2018) reflects on the importance of developing a national strategy for the internationalisation of higher education in the UK, highlighting the difficulties caused by the current institution-led approaches that has led to a disorganised and fragmented approach at the national level. Kristensen & Karlsen (2018) analysed how “internationalisation” was conceptualised in the strategies of 27 technical universities in Sweden, Norway, Iceland, Finland, and Denmark, and how such strategies were implemented. Arrowood & Hitch (2016), in a chapter written for a book on selecting and evaluating university partnerships⁶, analyse the promise and difficulties faced by international strategic partnerships. The authors highlight the administrative challenges of such partnerships, with difficulties in collaborating and coordinating across different cultures and languages often arising. This chapter is primarily about the importance of faculty involvement in the selection, maintenance, and evaluation of partnerships. The authors claim that faculty involvement is key to cultivating profitable and lasting partnerships. They highlight the importance of the financial returns of such partnerships, and raise a note of scepticism with regard to the apparent aim of fostering the next generation of “global citizens”. In the same book, Otieno & Otieno (2016) discuss the pros and cons of academic faculty exchanges within strategic partnerships by examining an exchange between Bluegrass Community and Technical College in Kentucky, US and Maseno University in Kenya, Africa. The authors go into depth about the rationale for the partnership, the process of selection, and the successes and failures of the partnership.

They end by listing a series of recommendations for future partnerships:

- 1. Clearly establish the reason for such a partnership** and how it will further each partner’s goals.
- 2. Actively seek support from within both institutions**, and get key stakeholders, particularly faculty, to be involved as early as possible.
- 3. Select partners carefully.** In particular, there needs to be enough “common ground in the missions of the two institutions so that each party can derive some benefits”.
- 4. Be aware of resource limits.** Central funding alone might be dangerous to rely on alone, and external funding for such a partnership should be sought.

⁶University Partnerships For Academic Programs And Professional Development
<https://www.emerald.com/insight/publication/doi/10.1108/S2055-364120167>

5. Be flexible. Partnerships will likely have to adjust their initial expectations as new opportunities and challenges arise.

6. Be innovative. The authors recommend holding specific events both in-house and at the partner institution to get different people, from different places to become familiar and at ease with one another.

7. Formalize. It is important to establish an agreement in writing, such as through a Memorandum of Understanding.

To summarise, this first query was only able to capture a very small literature that appeared from terms in the title, abstract or associated keywords to be relevant to international strategic partnerships. So in order to find relevant literature, we engaged in another strategy: understanding the meanings of international strategic partnerships in Higher Education and the different activities that universities employ under the umbrella of strategic partnerships, to refine and widen the terms used to search for relevant literature.

Various queries leading towards citation network analysis to explore main topics

The previous search query likely missed many relevant papers. Given the content of both the academic and policy examined so far, we might expect that the relevant evidence-base for the EVALUATE project will not be concerned with HEI-ISPs in general, but focussed instead on specific kinds of activities, such as evaluating joint-degree programs or TNEs, collaboration, or discussing the evaluation of specific partnerships. As such, we constructed various a series of queries designed to capture literature on (i) International Branch Campuses (IBCs) and Transnational Education Initiatives (TNE); (ii) student mobility, academic mobility, and mobility partnerships that also seem to be the most common kind of activity strategic partnerships are involved in; (iii) international research collaboration partnerships, knowledge exchange partnerships, and research capacity partnerships; (iv) internationalisation of higher education and research, which seems to be the broader context many writers focus on when discussing strategic partnerships.⁷

In short, as the term “strategic partnership” seems inherently vague and is not commonly used in the academic literature to discuss the activities of HEIs, we decided to instead try to capture literatures examining certain activities typically associated with strategic partnerships. The queries used were purposefully broad so as to maximise the chance of identifying relevant literature. However, the size of this literature makes manually screening difficult and time consuming. In order to establish topics in these literatures, we therefore applied citation network analysis to these data retrieved from the Web of Science for each query. Citation network analysis is a method used to “map” the scientific literature, and clustering algorithms have been shown to be an effective tool for identifying topics (Price 1965; Klavans & Boyack, 2017; Leng & Leng, 2021). A citation network represents specific documents as “nodes” and citation links between documents as “edges” between pairs of nodes.⁸

The following diagrams demonstrate the results of the analysis - each colour represents a cluster, each of which covers a specific topic:

- Internationalisation: Definitions, drivers and rationales. [blue]
- Internationalisation: Student intercultural competencies and experiences. [red]
- Student mobility, determinants and destinations. [light green]
- International Branch Campuses (IBCs) and Transnational Education Initiatives (TNEs). [orange]
- English language teaching.[light blue]
- Internationalisation & globalisation, developed and developing country experiences. [pink]
- International research collaboration partnerships and arrangements. [purple]
- Academic mobility. [dark green] ⁹



⁷The queries used were as follows:

TS = (((“international” OR “global” OR “transnational” OR “cross border”) AND (“partner” OR “collaboration” OR “cooperation”)) AND (“evalut*” OR “assess*” OR “apprais*”) NEAR/3 (“framework*”)) AND (“higher education” OR “universit*”)) returned eight articles and reviews.

TS= ((“Transnational education”) AND (“universit” OR “higher education” OR “college*”)) returned a total of 204 articles, reviews, and book chapters.

TS= ((“international branch campus”) AND (“universit*” OR “higher education” OR “college*”)) returns 96 articles, reviews, and book chapters.

TS= ((“student mobility” OR “student migration” OR “student exchange” OR “academic mobility” OR “mobility partnership”) AND (“universit*” OR “higher education”) AND (“international” OR “global” OR “transnational”)) returned 736 articles, reviews, and book chapters.

TS= ((“research collaboration” OR “knowledge exchange” OR “research capacity”) AND (“partner”) AND (“universit*” OR “higher education”) AND (“international” OR “global” OR “transnational”)) returning a total of 106 articles, reviews, and book chapters.

TS= ((“research” OR “academia” OR “science” OR “education” OR “teaching”) AND (“universit” OR “higher education”) AND (“internationalisation”)) returning a total of 2,709 articles, reviews, and book chapters.

⁸We decided to merge the results of all four queries described previously to construct a large dataset of 3,500 articles, reviews, and books chapters on TNEs, IBCs, student and academic mobility, research collaboration, and internationalisation of higher education. Using Sci2 (2009), we parsed these data into an ‘edge list’ that records all references from a document to others, and a ‘node-attribute-list’ that records information about a document (e.g. authors, title, journal of publication, year of publication). The network was then visualised in Gephi 0.9.2 (Bastian *et al.* 2009), and clustering was performed via modularity maximisation via the Leiden algorithm (Traag *et al.* 2019). The network was visualised via the Lin-log ForceAtlas 2 layout algorithm (Jacomy *et al.*, 2014). We retained only nodes in the largest component, and filtered out any nodes with a degree less than five. On this network, we then performed modularity maximisation (Newman & Girvan, 2004) via the Leiden algorithm (Traag *et al.* 2019) – which clusters nodes in zones that have a higher density of citations to other nodes in that region compared to other regions in the network. Figure 3 shows the citation network, with nodes coloured by their cluster membership (a total of 11 clusters). For full information on the analysis, see the original report.

⁹The other clusters were relatively small and less relevant, e.g. attending to student mobility in the context of health education and training; and on internationalisation of higher education in Vietnam.

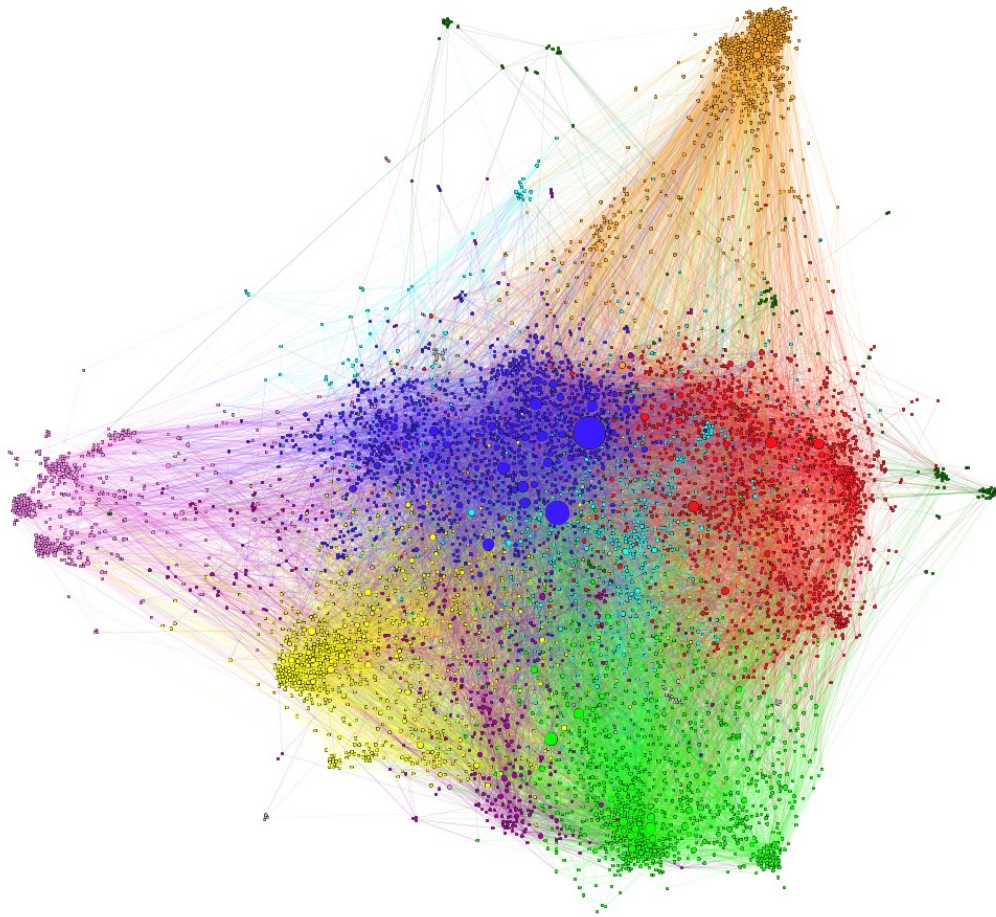


Figure 3: Citation network of literature on activities associated with HEI-ISPs ($n=6,175$; $m=41,243$) Nodes are coloured by cluster membership as determined via the Leiden algorithm ($Q=0.524$ | 11 clusters). Nodes are sized by their in-degree - the total number of citations from other nodes in this network. Lin-log ForceAtlas 2 is the layout algorithm, which positions nodes close to other nodes to which they are an edge, and into clusters of nodes that share a high density of cross citation.

Alternatively, we can visualise each cluster by retaining only intracluster edges to get a sense of the comparative size of different clusters (Fig 4).¹⁰

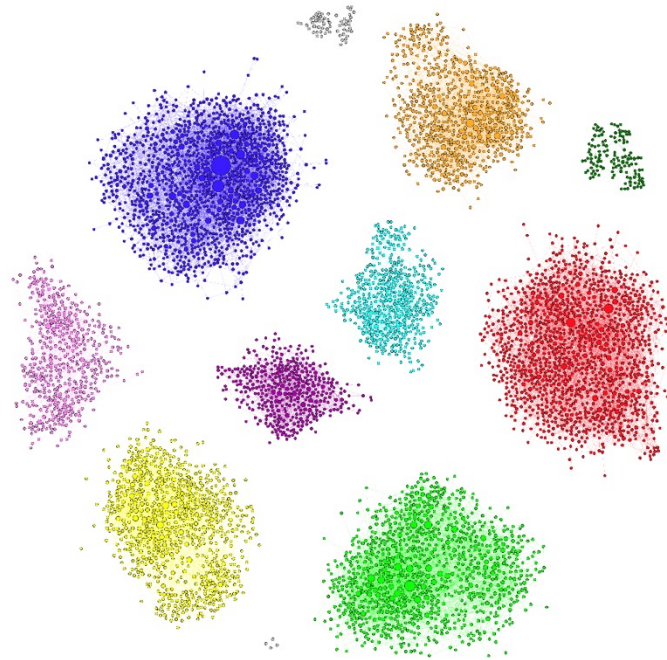


Figure 4: Citation network of literature on activities associated with HEI-ISPs, including only intercluster edges. Nodes are coloured by cluster membership as determined via the Leiden algorithm ($Q=0.524$ | 11 clusters). Nodes are sized by their in-degree – the total number of citations from other nodes in this network. Lin-log ForceAtlas 2 is the layout algorithm, which positions nodes close to other nodes to which they are an edge, and into clusters of nodes that share a high density of cross citation.

After this general overview, we will use the remainder of this chapter to dive deeper in the relevant themes in line with the main topics above, internationalisation and mobility. In addition, we have added a theme that is not yet part appearing in the literature search but which is high on the academic agenda: sustainability and its relation to academic research and international exchange.

¹⁰To understand the level of interaction between literature clusters, we examined the level of cross citation within and between clusters.

Internationalisation

A main topic which speaks to the context and understanding of international strategic partnerships concerns the concept of internationalisation, which features in Higher Education Studies (hereinafter HES) and Science and Technology Studies (hereinafter STS). While according to almost all accounts, both higher education and scientific research have always had an international dimension, it is rather recently that the concept of internationalisation emerged and gained interests in scholarly and policy circles.

With the advent of globalisation (i.e. the higher and more intense connectedness of countries since the 1980s), as higher education and scientific research started to be perceived as an asset to compete in the global economy, internationalisation in these fields began to be regarded as the means to increase economic growth and promote well-being and human development. Higher education and science, in other words, were to become more internationalised. But what does internationalisation actually mean? With the popularization of internationalisation strategies since the 1990s, internationalisation has become a buzzword and container concept that includes everything that relates to the international and thereby also losing its meaning to some extent (de Haan 2014; de Wit 2001).

Reflecting on the meaning of internationalisation is not only a matter of scholarly interest, as this literature emerged together with the development of university policy on internationalisation, resulting in both HEI-ISPs as well as the administrative units that manage them, the so-called internationalisation or global offices. In short, this literature provides the background on the reasons and rationales for the existence of these parts of contemporary HEIs and the HEI-ISPs they construct. It most importantly shows how internationalisation as we know it now is a relatively recent phenomenon: it is the result of various developments in science and education and it has both positive and negative aspects. As such, literature on internationalisation sketches the broader context in which all HEI-ISPs are created, and how the creation of HEI-ISPs is reifying internationalisation, contributing to the movement towards internationalization of HEI. This information is relevant when evaluating HEI-ISP as it does not only contextualise specific internationalisation activities, but also helps to define its broader aims and goals, as well as existing challenges.

In this section, we also describe how, despite recent developments in its conceptualisation, internationalisation continues to be perceived primarily as a positive and unproblematic phenomenon and not as a transformation process involving complex power dynamics. This results mostly from intellectual and policy developments coming from the Global North that have formulated the dominant view of internationalisation we see in both academic and policy spheres (Liscovsky, 2022). This unproblematic

conceptualisation, by which internationalisation is regarded as a desired outcome and a tool to cope with the challenges of globalisation, forms the core of the “dominant discourse of internationalisation”. Consequently, we discuss the meaning of the concept of internationalisation beyond the lenses of the dominant discourse, reviewing past and contemporary literature in Latin American STS. By focusing on questions of dependency, asymmetries and development, academic discussions in this region have tended to describe scientific internationalisation as a dilemma: to internationalise or perish. Yet, unlike the well-known “publish or perish” aphorism, “perishing” here denotes not only a pressure to publish and obtain international recognition but also a risk of losing scientific autonomy, understood in cognitive, material and socio-political terms.

Defining internationalisation

According to the Cambridge dictionary, internationalisation is defined as “the action of becoming or making something become international” (2020). The reason for selecting this dictionary definition as a starting point is to show that from a general point of view, the notion of internationalisation is connected to a transformation capacity. In fact, this transformative quality of internationalisation has been the subject of extensive scholarly debate over the last three decades, mostly within American and European HES. The university is considered the one institution to have been historically international and the most important global force for the production and circulation of knowledge (Altbach 1998; Scott 2011).

Initially, discussions revolved around the term *international education* that sprung up to denote a concern with practice and implementing education policy as opposed to the term *comparative education*, which indicated more an scholarly interest in explaining why educational systems vary across countries (Epstein 1994). According to de Wit (2013), this applied character and the related notion of practice and policy implementation has been historically present in the discourse on international education, expressing itself in the names of the key associations dealing with international cooperation and exchange, such as the *Institute of International Education* (IIE), the *Association of International Educators* (NAFSA) or the *European Association for International Education* (EAIE) among several others across the world (p.18-19).

These names still exist, but in the meantime the term international or internationalisation is much more commonly used. This shift or evolution in language is important, as with the introduction of different words, the meaning also often shifts. For instance, as we will continue to show, internationalisation and globalisation do not carry the exact same meaning, and so it matters what name you choose for your activities. This applies, also, on the policy level, as concepts have different meanings and connotations which also evolve over time. Understanding the meaning of words that are also used to name specific policy activities, is therefore a crucial aspect of governance, including the development and evaluation of HEI-ISPs.

De Wit (2001) notes that it is not clear when the term transitioned from international to *internationalisation* of (higher) education (p.104-109). However, what we know, he later claims, is that “it is only in the 1990s that the term ‘internationalisation’ really takes over from ‘international education’ as describing the *different ways* the international

dimensions in higher education are taking shape” (de Wit 2013, 19 my emphasis). As I describe in the next section, while these “different ways” express distinct and, in some cases, opposite interpretations and policy strategies, together they form the dominant discourse which regards internationalisation as a positive and desired outcome.

In terms of the evolution of the concept in HES, De Haan (2014, 243–45) identifies at least three clear phases from the early 1990s until the present day. A first phase involves a shift from an activity-focused to a *strategy-focused* perspective in the conceptualisation of internationalisation. In the early stages, internationalisation was defined in terms of the multiple activities that had an international dimension, including short-term programs of student and staff exchange and cooperation. Gradually, with the increasing complexity of international activities, internationalisation started to gain importance to the point strategic management was introduced to the internationalisation process. Internationalisation became something that could be managed and thus controlled.

Table 1. Evolution of the Definitions of Internationalization (source: de Haan 2014)

Scholar	Year	Level of focus	Meaning of internationalization	Definition
Arum and van de Water	1992	Institutional	Activities	“The multiple activities, programs and services that fall within international studies, international educational exchange and technical cooperation” (p.202)
Knight	1994	Institutional	Process	“The process of integrating an international and intercultural dimension into the teaching, research and service functions of the institution” (p. 7)
Rudzki	1995	Institutional/ sectoral	Defined feature	“A defining feature of all universities, encompassing organisational change, curriculum innovation, staff development and student mobility, for the purposes of achieving excellence in teaching and research” (p. 421)
Van de Water	1997	National	Systematic efforts	“Any systematic effort aimed at making higher education responsive to the requirements and challenges related to the globalisation of society, economy and labour markets” (p. 18)

Ellingboe	1998	Institutional	Strategic management	The process of integrating an international perspective into a college or university system” (p.199)
Söderqvist	2002	Institutional	Changing process	“A change process from a national higher education institution to an international higher education institution leading to the inclusion of an international dimension in all aspects of its holistic management in order to enhance the quality of teaching and learning and to achieve the desired competencies” (p. 29)
Knight	2003	Sectoral/ national	Process	“The process of integrating an international, intercultural or global dimension into the purpose, functions or delivery of postsecondary education”(p. 2)
Teichler	2004	National	Changing process	“Internationalization can best be defined as the totality of substantial changes in the context and inner life of higher education relative to an increasing frequency of border-crossing activities amidst a persistence of national systems”(p. 22)

A second phase shifts the early focus on educational activities (e.g. Knight 1994), to the impact of internationalisation on the whole higher education system that could reach sectoral, national or even regional levels, whereby internationalisation transforms into a multi-level phenomenon. The third and last evolution in the definition of internationalisation is the transformation of the study of internationalisation from fragmented studies to a unified field of research. In this transformation, the notions of process and integration are fully embraced and remain as the most important elements of the definitions of internationalisation in education. Overall, de Haan argues, these evolutions eventually led to a synthetic view of internationalisation, giving the concept its ultimate transformative quality, expressed in Jane Knight’s famous definition:

Internationalization at the national, sector, and institutional levels is defined as the *process of integrating* an international, intercultural, or global dimension into the purpose, functions or delivery of postsecondary education (Knight 2003, 2 our emphasis).

Knight further explains what the different components of the above synthetic definition imply in practical terms. The term process, she claims, is deliberately used to convey that the concept of internationalisation has a developmental quality (Knight 2004, 11). The concept of integration is specifically used to denote “the process of infusing or embedding the international and intercultural dimension into policies and programs to ensure that the international dimension remains central, not marginal, and is sustainable” (Knight 2003, 3). The *International, intercultural, and global* dimensions, she continues, are used as a triad. Internationalisation is synonymous with *social relations* between nations, countries or cultures, even within countries thus providing a social network perspective to the concept, which relates again to methods to analyse internationalisation (see methods section).

The latest development in the definition of internationalisation has been the introduction of the terms “cross-border education” (Knight 2006) and “internationalisation at home” (Nilsson 2003). Both terms represents to some extent a broadening of the concept of academic mobility beyond students and staff. In the case of “cross-border education”, the concept extends the notion of mobility to include programmes, providers (including institutions and companies), projects and policies in a context driven by a higher demand of higher and continuing education (Knight 2006, 346). Because of the amplified interest on international academic mobility, the “at home” concept has been developed to emphasise the importance of the international and intercultural dimension in any educative activity with the exception of outbound student mobility (Knight 2013, 85; Nilsson 2003).

Altogether, these developments show the intellectual efforts to define a complex phenomenon that throughout the years became more and more prominent in the higher education policy agenda. Thereby, internationalisation is to be regarded as a desired outcome that could be increasingly managed. However, this vision results mainly from intellectual and policy paradigms coming from the Global North.

The dominant discourse of internationalisation

To complicate things further the meaning and impact of internationalisation also differ depending on place, for example within what is now often called the Global North or South. In short, internationalisation as a concept has emerged in the North but has also deep implications for research and education in the Global South, which are perhaps not surprisingly, often more negative. This is key in the creation and evaluation of HEI-ISPs as they need to be aware of these inequalities in both the meaning of the concepts used, and their materialisation into actions and their effects. This becomes most clear when designing HEI-ISPs that include partners in the Global South, but also in all other cases it is relevant, as for instance their absence is also affecting them, if this is intended or not.

Goldman notes that while internationalisation implies the existence of nation-states, studying internationalisation is exploring a process where *distinctive units lose their distinctiveness* (2001: 9). This nation-state erosion or deficit comes in different formats and results from application of different policies of internationalisation, mostly in Europe and North America. Yet despite the different policy paradigms that inform the rationale of their policies, they share an uncritical view of the phenomenon of

internationalisation. Altogether, the dialectical tension between major policy paradigms (e.g. internationalisation and transnationalisation) as well as the different projects of regional integration in both sides of the North Atlantic form the core of the dominant discourse of internationalisation.

As explained previously, the term “internationalisation” emerges in the higher education literature in the 1990s. Not surprisingly, this was a key period for higher education worldwide as various internationalisation reform strategies were set in motion seeking to cope with the challenges and opportunities raised by globalisation (de Wit and Merckx 2012). In general, the literature describes a global debate throughout this period between two policy strategies to carry out such reform. Sustained by different theoretical assumptions and policy objectives, each strategy advocated contrasting roles of the nation-state as regulator of education services.

On the one hand, based on an intergovernmental approach and led by the United Nations Educational, Scientific and Cultural Organization (UNESCO), the *internationalisation* of higher education sought the promotion of cooperation and networking activities between nation-states who were thought to keep domestic control of education services by defining rules for suppliers and consumers. On the other hand, the Trade World Organization (WTO), based on a neoliberal approach that materialised in the General Agreement in Trade and Services (GATS), propounded a process of transnationalisation, which affected various services sectors including education. Moreover, in this *transnationalisation* process, nation-states were to be detached from their traditional role as regulators of domestic educational activities, to avoid protecting national suppliers from foreign competition (Knight 1999; Coraggio 1995; Verger 2013; Botto 2015; 2016).

According to Botto, this global debate also arrived at the regional level through the so-called New Regionalisms; a new wave of regional integration processes taking place throughout the 1990s that, to a large extent, reflected transnationalisation processes occurring at the global level within the framework of the WTO. Nevertheless, she notes, the literature on regionalism and higher education is divided in terms of how alternative and innovative these processes were when compared to the ideas that came from the global arena. In Europe, the shift towards internationalisation was very much stimulated by the Framework Programme and the Erasmus mobility scheme of the European Commission, seeking to increase cooperation between member states in education and promote regional integration further (de Wit 2013). Moreover, according to Van den Besselaar *et al.* (2012), policies developed at the European level have not only played a major role in setting and disseminating internationalisation as a policy objective to be achieved, they have also given rise to a distinct form of internationalisation: Europeanisation. The latter constitutes a restricted form of international standing, which is strongly affected by policies aiming to effectively integrating Member States’ national education and research agendas, and promote European integration.

In North America, contrary to the European case where the reform process laid in the hands of governments, the internationalisation agenda of higher education pushed forward by the North American Free Trade Agreement (NAFTA) - a closed-type arrangement limited to the free movement of goods, services and investments

involving the U.S, Canada and Mexico - was driven by the private services sector who lobbied in favour of *transnationalisation* (Botto 2015). However, Botto (2016) affirms, New Regionalisms ended up creating a regional space for higher education focused on student mobility programs and degree accreditation with its own regional practices and norms, which reflected in both strategies of internationalisation and transnationalisation (p.167-168).

The conceptualisation of internationalisation as a set of strategies, programmes and policies implemented to respond to globalisation derives from the notion that the forces of globalisation (e.g. the use of English as the dominant language of communication or the emergence of an international knowledge network) are beyond the control of single institutions (Altbach 2006; Altbach, Reisberg, and Rumbley 2010). However, the literature on higher education often stresses the relationship between the concepts of internationalisation and globalisation as rather complex (Knight 2004, 11; Teichler 2004; Scott 2005; Altbach 2006; H. de Wit 2013). For some the relationship between globalisation and internationalisation is best described as symbiotic. For instance, as noted by Jane Knight (2004): “internationalisation is changing the world of higher education, and globalisation is changing the world of internationalisation” (p.5). In line with this, Maringe and Foskett (2013) argue that internationalisation and globalisation are reciprocal processes. The growth of international student mobility, which may result from an institutional strategy, they note, contributes the further intensification of globalisation. Similarly, intensifying curriculum internationalisation processes can contribute to increase the value of educational products and therefore help to increase student mobility (p. 2).

For others, however, the distinction between globalisation and internationalisation is rather normative. Frans van Vught *et al.* (2002), for instance, note:

In terms of both practice and perceptions, internationalization is closer to the well-established tradition of international cooperation and mobility and to the core values of quality and excellence, whereas globalization refers more to competition, pushing the concept of higher education as a tradable commodity (p. 17).

Uwe Brandenburg and Hans de Wit have warned that these types of definitions often lead to a constructed antagonism between internationalisation and globalisation where internationalisation is considered as synonymous with “doing good” and globalisation as “bad”. This, they further observe, makes people less inclined to question the nature of internationalisation or acknowledge that activities more related to the concept of globalisation (e.g. the commodification of higher education) are increasingly executed under the flag of internationalisation (Brandenburg and de Wit 2015, 16-17). According to Teichler (2004), the complexity of the relationship between globalisation and internationalisation in higher education has often led to the substitution of the term globalisation for internationalisation, resulting also in a shift of meanings. “No interest is paid anymore”, he argues, “to whether the phenomena are linked to a blurring or vanishing of borders. Rather, the term tends to be used for any supra-regional phenomenon related to higher education... and/or anything on a global scale related to higher education characterised by market and competition” (p. 23).

In light of the growing importance of internationalisation as a policy objective, De Wit (2001) noted that “as the international dimension of higher education gains more attention and recognition, people tend to use it in the way that best suits their purpose” (p.14). By matching internationalisation to different rationales and objectives, these policies hence became materialisations of the different meanings of internationalisation. However, despite these variations, a dominant discourse of internationalisation can be identified. This mostly Global North discourse is built around an uncritical view of the phenomenon of internationalisation that transcends the dialectical tension between the policy paradigms of internationalisation and transnationalisation, on the one hand and between internationalisation and globalisation, on the other. Even though they propounded different meanings, in each of the strategies discussed above, internationalisation was conceived as a desirable outcome. The international dimension of higher education systems was something that needed to be increased through more mobility, collaboration, recruitment, with more or less state intervention, etc., in order to cope with the challenges and opportunities raised by globalisation. Whereas in Europe the *europianisation* of higher education was designed as a key driver of European integration, in North America transnationalisation was supposed to increase the region’s competitiveness at the global stage. Following Brandenburg and de Wit (2015, 16), in both cases internationalisation became the *main objective*.

Critical perspectives on internationalisation of higher education

What to do with all these different conceptualizations, meanings and effects of words? This is a relevant question for scholars of internationalisation, but also for those creating and evaluating its policies. The answer lies in a critical stance towards the use and the meaning of these terms, something that is fundamental to evaluation practice too: understanding the meaning of central concepts and sharing that understanding, for instance with the partner university.

Recently, some of the most central voices in this debate have started to call for a critical reflection on the changing concept of internationalisation. Concerned about the present devaluation of the concept, these new critical perspectives begun addressing some of the most common misinterpretations about internationalisation that result from the instrumental approach to internationalisation discussed before.

For instance, Knight (2011) discusses five myths of internationalisation:

1. Considering foreign students as internationalisation agents.
2. Equating international reputation with quality.
3. Believing that the greater number of international agreements or network memberships a university has the more prestigious and attractive it is to other institutions and students.
4. The tendency to acquire more international accreditation to internationalise an institution.
5. Assuming that the purpose of a university’s internationalization efforts is to improve global brand or standing.

Similarly, de Wit (2015, 6–7) describes nine misconceptions whereby internationalisation is regarded as a programmatic goal. These include:

1. Internationalisation is education in the English language.
2. Internationalisation is studying or staying abroad.
3. Internationalisation equals an international subject.
4. Internationalisation implies having many international students.
5. Having a few international students in the classroom makes internationalisation into a success.
6. There is no need to test intercultural and international competencies specifically.
7. The more partnerships, the more international.
8. Higher education is international by nature.
9. Internationalisation is a goal in itself.

For de Haan (2014), however, this newly emerging view of misconceptions is a central characteristic of the synthetic concept of internationalisation (or as I described it, the *dominant discourse of internationalisation*) by which interpretations are cherry-picked to keep the container consistent. In turn, following Callan's assertion that interpretations of internationalisation do not develop in a vacuum but are affected by the organisation and consciousness of professional practice (Callan 2000), de Haan (2014) argues that such "misinformed" pieces are not misconceptions or misinterpretations but perceptions that are significant because they represent how people working in higher education are making sense of internationalisation (p. 254). This refers directly to the connection between literature on the meanings of internationalisation and the practice of internationalisation, e.g. the creation of HEI-ISPs. As practitioners will realise by now, a lot of the myths of internationalisation mentioned above are present in internationalisation policies and a good evaluation would be able to question these problematic uses of the concept of internationalisation, including their translation into practice.

Perhaps the most important reflection among the recent critical perspectives in HES refers to the reasons for constantly *rethinking* the concept of internationalisation. Hans de Wit (2013) criticises the emergence of new labels such as *mainstreaming*, *comprehensive*, *holistic*, *integrated* and *deep internationalisation* that, in his view, do not help bring the concept a step forward. To do so, he argues, we not only need to look at its misconceptions but also (1) acknowledge that the (*dominant*) discourse of internationalisation does not always meet the reality; (2) move away from a western, neo-colonial concept and incorporate views coming from developing countries; (3) ensure that no single approach or paradigm dominates the discourse; and (4) see internationalisation not as a goal in itself, but as a means to enhance the quality of student's education and research (Jones and de Wit 2012; de Wit 2013). For now, however, this is still far from becoming the dominant discourse in HES and it is also not yet integrated in practice. We hope this literature and the evaluation framework we have developed in this handbook, will help to do so, by stimulating critical reflections and by pointing towards existing analysis that help to be critical about internationalisation discourses and policies.

The literature on internationalisation is dominated by HES and vice versa, internationalisation is a dominant topic in HES. Certainly, the literature on higher education internationalisation overshadows both in depth and numbers the literature about scientific internationalisation but some parallels with the intellectual developments in higher education described above can be drawn. Similar to literature from HEI that focuses on education, there is another body of literature that deals with internationalisation of research, coming from Science and Technology Studies (STS). There is an overlap in this literature, but as education and research are not exactly the same activities, there are clear differences and these need to be also taken into account in internationalisation governance and its evaluation. In general, there are at least three elements that can be subject to comparison between HES and STS with regards to the concept of internationalisation: (1) the geographical paradox of science; (2) the incidence of globalisation; and (3) the emergence of critical perspectives on scientific internationalisation.

The geographical paradox of science

The evolution of the concept of internationalisation of higher education has been marked by the dual nature of the university: an international and global vocation on one side and a clear national orientation and function on the other. In science, a similar dichotomy can be found: to exist, internationalisation requires the *national*. As noted by Livingstone (2003), scientific knowledge is geographically paradoxical. On the one hand, science claims to produce universal knowledge yet at the same time we know science significantly depends on local contexts¹¹. Almost all the consulted STS literature in this project begins by acknowledging the international character of scientific practice. Science is by definition international: scientific practice has historically trespassed national borders. Beaver and Rosen (1978) for instance, investigated the professional origins of scientific co-authorship and traced back international collaborative linkages to as early as the nineteenth century. They concluded that scientific internationalisation is correlated with increasing professionalization of science. For its part, international mobility stretches even further back in time, to the early days of the medieval university when research was conducted internationally through the tradition of the “wandering” scholar (Welch and Denman 1997; Scott 2011; Woldegiyorgis, Proctor, and de Wit 2018). Nevertheless, scholars have also long recognised the significance of local contexts for the production of knowledge (Somsen 2008). Not only locality matters in science (Shapin 1998) but also internationalisation does not imply the de-nationalisation of science. Scholars, for instance, have noted that funding remains mainly national and allocated to national priorities, career trajectories are nationally-based and the institutional framework is still mainly national (Patel and Pavitt 1991; Crawford, Shinn, and Sörlin 1993; Zitt and Bassecoulard 2004). These are the features that explain the relevance of the National System of Innovation from an academic and policy

¹¹Such argument from Livingstone and others (Ophir and Shapin, 1991; Harris, 1998) founded the “geography of science” in the STS literature. More recently, works in this field of research have demonstrated that contrary to the idea of a concentration of the scientific production in the biggest cities in the world – mostly located in the Global North (Matthiesen, Schwarz and Find, 2010), there is a spatial deconcentration of science worldwide (Grossetti *et al.*, 2016; Maisonobe, Jégou and Cabanac, 2019). Indeed, cities located in countries like China, Iran or South Korea have increased their share in the scientific production (calculated based on research papers indexed in the Web of Science database). These cities are not only major megacities but increasingly medium-sized ones, across all continents. This argument demonstrates that investments toward major cities, and encouraging the fusion of research institutions to appear in the rankings, deny the rising scientific productivity of smaller-sized localities and institutions.

perspective (Lundvall 1992; Freeman 1995). In sum, like higher education, scientific internationalisation is shaped by this spatial tension.

The incidence of globalisation on scientific practice

Whether or not scientific internationalisation is a new phenomenon, a major point of agreement in the literature is that globalisation has increased and intensified the international character of scientific practices. The growth of collaborative networks as well as the average collaboration distance per publication induced by new forms of communication and reduction of travel costs (Wagner and Leydesdorff 2005; Waltman, Tijssen, and Eck 2011); the rise of world university rankings and the ensuing global competition for talent and resources (Hazelkorn 2011); the use of English as a global language of scientific communication (Ammon 2001; Ferguson 2007); the appearance of new forms of science policy-making and funding schemes at the supranational level which have become an important source of coordination and funding for the internationalisation of research (Glänzel, Schubert, and Czerwon 1999; Hoekman, Frenken, and Tijssen 2010); these are just a few of the many indicators frequently used by scholars to show the impact of globalisation on the internationalisation of research. As such, like in HES, it is common to find in the STS literature an interchangeable use of both terms. However, the tendency to treat globalisation and internationalisation as synonymous in HES results from an extensive debate about the complex relationship between both terms. In contrast, while in STS scholars have sought to reveal the character and consequences of globalisation (see Anderson 2009), only a few of those have established a normative distinction between internationalisation and globalisation where the latter is assigned overly positive connotations (see Gornitzka, Gulbrandsen, and Trondal 2003). In science studies, internationalisation is therefore seen as a product of the incidence of globalisation that leads to greater research quality, cooperation, sharing of resources and costs, visibility and knowledge diffusion as well as training of human resources (Dasgupta and David 1994; Licha 1996; Katz and Martin 1997; RICYT 2007; De Filippo, Casado, and Gómez 2009).

Critical perspectives on scientific internationalisation

In spite of the lesser amount of discussion around the concept of scientific internationalisation, there have been some scholars that, while not necessarily discussing the concept of internationalisation, have called into question the taken-for-granted nature of related notions such as internationalism or universalism. For instance, according to Somsen (2008), while the inherent international character of scientific practice can be rejected, its power of self-representation cannot be denied. That is, science might not be universal or international, but scientists often view it in such terms. Therefore, as he shows, throughout history, concepts like “universal” or “international” are simply codewords for “Western” or “European”. Similarly, Hakala (1998) notes that although there is a clear increase in transnational and multinational activity, it would be misleading to say that internationalisation of science equals globalisation of science (p. 52). Following Leclerc and Gagné (1994), Hakala argues it would be more apt to speak about *continentalisation* or *westernisation* as the vast majority of these increased interactions involve world regions which have traditionally shared strong links (e.g. Europe and North America). As with HES, these critical perspectives show how the dominant understanding of internationalisation is, above all, a Western construct. This is

not say that there are few critical perspectives in STS with regards to the phenomenon of internationalisation (or globalisation). However, as I will discuss later, these perspectives deal more with issues like knowledge production and diffusion - where internationalisation is certainly treated as a key dimension - but not with the concept of internationalisation itself.

Modes and patterns of scientific internationalisation

In STS, the lack of discussion on the concept of internationalisation has often resulted in scholars taking for granted the nature of scientific internationalisation (Woldegiyorgis, Proctor, and de Wit 2018). Nevertheless, a great deal of attention in the STS literature has been paid to the study of different modes of scientific internationalisation and the description of patterns that emerge when internationalisation is observed from a distance. In science, internationalisation expresses in various *modes or practices*, of which cross-national mobility and collaboration (e.g. co-authorships) are some, if not the most, recognisable. Both practices constitute major drivers of knowledge production and diffusion, and scholars have widely studied their growth as a consequence of globalisation (Glänzel, Debackere, and Meyer 2008; Franzoni, Scellato, and Stephan 2012; Auriol, Misu, and Freeman 2013).

Modes: mobility and collaboration

Scientific mobility is a concept that comprises geographical, institutional, sectoral and career-based movements that can have significant consequences for individual researchers and the research system as a whole (Fernández-Zubieta, Geuna, and Lawson 2015). Mobility facilitates the creation and diffusion of knowledge, particularly tacit knowledge, which is often transmitted through direct personal interactions (Jaffe, Trajtenberg, and Henderson 1993; Audretsch and Feldman, 1996; OECD 2005; 2010; Basri *et al.* 2008). Moreover, travelling researchers ensure that the knowledge they have acquired is available in other distant locations (often in their respective home countries) and act as key brokers maintaining networks that facilitate continuing knowledge exchange and collaboration (Appelt *et al.* 2015; Rodrigues, Nimrichter, and Cordero 2016). Various studies have measured the exponential growth of international mobility worldwide and have concluded that, in the context of globalisation, mobility is an important positive factor for knowledge production and diffusion that should be considered a major policy objective for countries (De Filippo, Casado, and Gómez 2009; Basri *et al.* 2008; OECD 2001; 2013; Wagner and Jonkers 2017; for a detail review see Gureyev *et al.* 2020).

Similarly, the growth of international collaboration is well documented in the literature (Georghiou 1998; Newman 2001; Persson, Glänzel, and Danell 2004; Glänzel and Schubert 2005; Leydesdorff and Wagner 2008; Waltman, Tijssen, and Eck 2011). In light of this, some scholars have argued that international collaboration in science can be considered a different communication network than national systems with their own internal dynamics: while nations have policies and institutions that mediate scientific communication, the international collaborative network exists primarily as a self-organizing system (Hicks and Katz 1996; Wagner and Leydesdorff 2005; Wagner 2008). Moreover, international collaboration takes place in a variety of forms. It can involve individuals, research groups, institutions, sectors or even countries who come



together to co-author a scientific paper, participate in a large-scale research project or simply exchange resources such as infrastructures, protocols or training. For this reason, Katz and Martin (1997) argue that scientific collaboration is a fuzzy concept open to negotiation. Olechnicka and colleagues (2018, 41) however note that a key component of scientific collaboration is the existence of a common goal, which allows differentiating collaboration from other forms of interaction in science. In addition, other authors had distinguished between strong and weak modes of collaboration on the one hand - the former is directly associated to a specific research process; the later indirectly associated or independent - (Laudel 2002) and complementary or integrative depending on the degree of interaction and interdependence between collaborators (Hara *et al.* 2003).

Patterns of internationalisation

The study of international mobility and collaboration has also provided insights about patterns of internationalisation and the structure of the global scientific system. For Gorniztka *et al.* (2003, 10), despite the long history of internationalisation, a distinction can be made between *traditional* and *emerging* patterns of internationalisation. Traditional patterns, they argue, are particularly related to the mobility of students and researchers, a practice that is strongly tied to “informal” institutions like scientific disciplines. The underlying rationales of this traditional form of internationalisation are academic, economic, military, social or cultural. In turn, emerging patterns of internationalisation are more routinized, institutionalised and formalised at different levels (i.e. institutional, national and supranational), and dominated by economic rationales and market control mechanisms. Well-known examples of traditional internationalisation are the so-called Big Science projects like CERN, EMBL and international institutions oriented to science policy like the OECD and UNESCO. Furthermore, Gorniztka and colleagues (*Ibid*) identified the transnationalisation reform policies of the 1990s (see previous section on the dominant discourse of internationalisation) as examples of emerging forms of internationalisation. However, in practice, they acknowledge that these new forms are more difficult to identify because they have become a more generic characteristic of research and higher education (*Ibid*, 29). For Johnathan Adams (2013), in turn, the intensity and overarching presence of these “new” forms of internationalisation can be observed in the rise of international collaboration. This, he claims, is evidence that we have entered “the fourth age of research”, which constitutes a progression from the ages of the individual, the institutional, and the national, which determined the way research was conducted previously.

Other scholars have also revealed different patterns of internationalisation across scientific disciplines. Kyvik and Larsen (1997) and Hakala (2002), for instance, have analysed patterns of internationality across “hard” and “soft” as well as “pure” and “applied” fields. The higher international activity of hard and applied scientific disciplines according to these studies is explained by a mixture of factors including the “universal” nature of their topics as well as reward structures and publishing traditions oriented to international and English-spoken journals, which are associated with greater research quality. Moreover, several works have found the number of multi-national co-authorships - a proxy to measure international collaboration - to be greater in applied, experimental and resource-intensive fields such as the life sciences, chemistry and experimental physics than engineering and agriculture or other more theory-oriented



such as mathematics (Newman 2001; Glänzel and de Lange 2002; Abt 2007; Wuchty, Jones, and Uzzi 2007; Mattsson *et al.* 2008; Gazni, Sugimoto, and Didegah 2012). Similar trends have been found in relation to international mobility (Rothwell 2002; Rodrigues, Nimrichter, and Cordero 2016).

Lastly, when analysing international collaboration and mobility practices, scholars have noted the formation of core-periphery patterns of internationalisation (see Schott 1991). For Olechnicka and colleagues (2018), the collaborative turn in science described by Adams and others, presents a global hierarchical structure that results from the international division of scientific labour. Such division, they observe, produces core-periphery dynamics in the international network of scientific collaboration illustrated by the uneven access to facilities, resources, knowledge and expertise (Ibid, 45-52). In studies of scientific mobility, much of the literature focuses on the famous “brain drain” phenomenon; a term coined by the Royal Society of London in the 1960s to describe the massive migration of British engineers and scientists to the United States (Rhode 1991; RS 2011). Nowadays the term refers more broadly to the unidirectional migration of skilled workers from less developed to more developed countries or regions (Fernández-Zubieta, Geuna, and Lawson 2015).

Methods for studying scientific internationalisation

Studies of scientific internationalisation are either quantitative studies based largely on scientometric and bibliometric methods or detailed qualitative case studies exploring the driving factors behind international collaboration, mobility and the impact of multilateral policy initiatives designed to stimulate scientific internationalisation. A limited number of studies have used a mixed-method approach to study dynamics of scientific internationalisation.

From a quantitative perspective, internationalisation is not regarded as a transformation process but as a “quality that objects or matters can possess to varying degrees” (Gornitzka, Gulbrandsen, and Trondal 2003, 18) and can thus be subject to measurement through scientometric techniques or survey methods. Quantitative studies of internationalisation aim to describe the international dimension of research systems, institutions and networks by looking at empirically observable outputs such as international recruitment rates, share of internationally co-authored papers, internationalisation of R&D expenditure, technological balance of payments, etc. (Godin and Lane 2014). Quantitative studies of international mobility in science on the other hand have drawn on various types and sources of data, including targeted surveys, general surveys and censuses, repositories of curricula vitae or a combination thereof (Appelt *et al.* 2015, 180).

While providing a systematic assessment of patterns of scientific internationalisation, quantitative analyses leave unexplored the reasons behind the increase of scientific collaboration and its precise character (Vermeulen, Parker, and Penders 2013) or the factors inducing scientific mobility (Appelt *et al.* 2015; Baruffaldi and Landoni 2016). Qualitative studies have attempted to fill this gap by exploring the motivations of scientists to engage in internationalist behaviour, considering sociocultural contexts as well as analysing the functioning and impact of organisations and policies (see Mahroum 1998; 1999; 2005; Ackers 2005; 2008; Hwang 2008; Villanueva-Felez, Woolley, and Cañibano 2015; García, Mera, and Villavicencio 2017). Another very important

focus of qualitative research is the study of transnational organisations devoted to the promotion of scientific internationalisation and the use of indicators to account for the efficient allocation of national resources. Among these, the large empirical work conducted by Benoît Godin within the Project for the History and Sociology of STI Statistics on the role of the Organisation for Economic Co-operation and Development (OECD) stands out (Godin 2002; 2008). In the case of the EU, the works of Edler *et al.* (2003) Ackers (2008) and Granieri and Renda (2012) have extensively covered the rationale and impact of regional instruments such as the Framework Programmes (FP) and the EU Research Area.

Lastly, mixed-method studies have recently become more frequent. In the study of scientific mobility, research conducted by De Filippo *et al.* (2009), Jonkers and Cruz-Castro (2013) and Yafmashita and Yoshinaga (2014) stand out. These studies make use of both quantitative and qualitative approaches to investigate driving factors of international mobility. Data sources in these studies vary from interviews and questionnaires to data mining from bibliometric data bases. The combination of these techniques allowed these researchers to verify and supplement the results obtained by one method with the results based on other techniques, although it should be noted that the capacity of replication of their results is limited (Gureyev *et al.* 2020, 1615). For its part, on scientific collaboration, some scholars have sought to address the relationship between the character and structure of organisations and the internal dynamics of science (see Corley, Boardman, and Bozeman 2006; Youtie, Libaers, and Bozeman 2006). In network studies too, Wagner and Fukuyama have used a mix of quantitative and qualitative data to “describe global networks and identify the rules that fuel their operation and growth” (Wagner and Fukuyama 2008, 2). Overall, mixed-method studies seek to establish links between micro and macro levels of analysis.

Critical perspectives on internationalisation

While critical perspectives on related concepts such as universalism, transnational, multinational and globalisation exist in the STS literature (Leclerc and Gagné 1994; Hakala 1998; Somsen 2008), it is in Latin American STS where researchers can find a long and rich record of research on internationalisation with a strong critical component. Nearly thirty years before the concept was developed in HES, the first STS thinkers in this region stood up to denounce inequalities present in the international scientific system (see Sabato and Botana 1968; Varsavsky 1969; Herrera 1972). This mixed group of pioneers linked the underdevelopment of Latin American countries to dynamics of dependency and asymmetry in international science and technology, which they saw reflected in the programmes sponsored by international organisations such as the OAS and UNESCO throughout the 1950s and 1960s.

From the 1980s onwards, Latin American STS began a process of consolidation in which sociological and anthropological research based on case studies gained predominance over the normative analyses of the previous decades (Martínez Vidal and Marí 2002; Thomas 2010). The Latin American STS literature came to fill a gap in the social study of internationalisation and develop a critical perspective that was missing in internationalisation studies. Though sometimes breaking with the classical diffusionist model while in others embracing it fully, this new critical perspective continued to focus on the development question of the previous decades. Particularly, case studies aimed to show how internationalisation both enables and hinders scientific research in

the periphery (Cueto 1989; Vessuri 1994; Vessuri, Guédon, and Cetto 2013; Velho 1996; Kreimer 2006; Kreimer and Zabala 2006).

For instance, research conducted by Vessuri and colleagues (Díaz, Texera, and Vessuri 1983; for a good review see also Vessuri 2016) showed that the articulation of local knowledge with “mainstream” international science (i.e. European or U.S.) took different shapes depending on historical and ideological contexts. In some cases, such production entailed a “direct dependency” that at times could resemble a mimetic isomorphism, whereas in others, scientific production showed degrees of “relative autonomy” and was more geared towards local dynamics and problems. In the 1990s, Vessuri concluded that a key feature of peripheral science is the disjunctive “international” versus “national” and its impact on the notion of utility (i.e. the local relevance of research), which according to her, does not affect North American or European researchers in the same manner as scientists in developing countries (see Vessuri 1993; 1994b; 1994a).

Vessuri has also explored in more detail the notion of *asymmetry*. Her recent study on the cooperative behaviour among Mexican social scientists, co-authored with Rodríguez Medina (2018), showed that international cooperation involves not only an uneven distribution of resources (i.e. static perspective), but also an equal capability of processing and disseminating scientific knowledge (i.e. dynamic perspective). These asymmetries, Vessuri and Rodríguez Medina conclude, explain why Latin American scientists tend to acquire a strategic and mercantilist vision of their careers through which internationalisation becomes a means towards greater capitalisation thereby risking losing creativity and autonomy (Ibid, p.31).

The above conclusion is derived from earlier studies conducted by Vessuri and colleagues (Vessuri, Guédon, and Cetto 2013) on the normative power of bibliometric databases¹². There she describes these international databases as global mechanisms that reproduce biased notions of internationalisation and which are blind to development issues (Ibid p.653). Vessuri further claims that by transforming quality into a ranking measure, these databases have introduced competition as the management tool of the global research system and, at the same time, they have defined the rules of such competition based almost exclusively on North American and European evaluation practices. The implementation of evaluation policies based on citation measures tends to work against development as it leads to the adoption of the “international” research agenda while indefinitely postponing scientific attention to local problems (Ibid). This constitutes a reinforcement of the dependentist thesis by which internationalisation is synonymous with the notion of “research excellence” and placed in opposition to the concept of “local usability” of scientific knowledge.

Pablo Kreimer is perhaps the STS scholar who has most developed the study of scientific internationalisation in Latin America. Kreimer’s work therefore brings together the concepts of internationalisation, periphery, excellence and utility characteristics of Latin American STS in an unorthodox manner. Kreimer updated the dependentist thesis of the 1970s and further explored the relationship between the notions of “periphery” and “internationalisation” pointed out by Vessuri in the 1980s and 1990s. Kreimer’s work

¹²Other studies have shown the lack of representation of Latin American journals and the existence of language biases in international citation databases as well as the strong patterns of international collaboration that exist between Latin American countries and extra-regional countries (see Fernández Muñoz, Gómez Caridad, and Sebastián 1998; Gómez, Teresa Fernández, and Sebastián 1999; Lewison, Fawcett-Jones, and Kessler 2005; Sancho *et al.* 2006; Russell *et al.* 2007; De Filippo, Barrere, and Gómez 2010).



examines scientific internationalisation from a socio-historical perspective and argues that the autonomy of Latin American science has gradually reduced over the years. For Kreimer, internationalisation has been present in the region since the late 19th century when the personal relationships that local scientists forged with research leaders in Europe favoured the development and institutionalisation of the first modern scientific fields. This initial phase, which he labelled “Founder Internationalisation”, was followed by a second phase that he describes as “the long phase of Liberal Internationalisation” and which modified the nature of the relationships between scientists. This second phase was characterised by the “subordinated integration” of Latin American science to the research themes and resources of the central countries (Kreimer 2006; 2013). By “subordinated integration”, Kreimer meant a dilemma that resulted from the links local research groups maintained with international research partners. On the one hand, because the training of the majority of leading Latin American scientists took place in institutions of central countries with whom they collaborated, the latter often retained a *cognitive control* (and most of the time also an *economic control*) of the research. Yet at the same time, collaborations with these prestigious institutions was a necessity for Latin American research groups as they provided a basis for greater local legitimacy in terms of the quality and international visibility of their research (Kreimer 2013, 443; Kreimer and Zukerfeld 2014).

His work on the history of molecular biology in Argentina (Kreimer and Lugones 2002; Kreimer 2011) is particularly illustrative of these dynamics. Kreimer described the key transformation process the discipline underwent as a result of its subordinated integration to mainstream international molecular biology. Foreign postdoctoral trainings and the conservation of international cooperation networks established upon their return, assured the adoption of research lines developed in laboratories from the U.S and Europe and gave Argentinean molecular biology an imitative. Nowadays, according to Kreimer, the integration of Latin American scientists into the international research community has deteriorated. The international division of research labour, greater developments in information and communication technologies and the expansion of international research in the form of mega research networks, have further restricted the boundaries of negotiation for peripheral research groups as well as reinforced a “false notion of autonomy” (Kreimer 2006; 2013; Kreimer and Meyer 2008). These three developments show that nowadays the biggest tensions refer to the limited relevance and potential local application of research produced by strongly internationalised research groups. In light of this, Kreimer and others went on to argue that contemporary dynamics in internationalisation leave little space for attending to local problems (Kreimer 2006; Bonfiglioli, and Marí 2005; Kreimer and Thomas 2003; Kreimer and Levin 2011; Kreimer 2006).

In sum, scholarly discussions around scientific internationalisation in this region have been linked historically to wider questions about dependency, asymmetries and development in (and beyond) science, which continue until present days. Visions of internationalisation in Latin America often portray a mixture of positive and negative connotations, which indicate a more complex conceptualisation of this phenomenon that is often observed elsewhere (Kreimer 2013).

International mobility

This section presents a review of the relevant literature on the topic of international scientific mobility as well as recent developments in methodologies for studying this phenomenon. As discussed in the previous section, scientific mobility is a key mode of scientific internationalisation. Pushed by the exponential growth of international mobility worldwide in recent years, several studies have confirmed the importance of encouraging mobility from a science policy perspective given the key role mobility plays in facilitating dynamics of knowledge production and diffusion in science (Jaffe, Trajtenberg, and Henderson 1993; Audretsch and Feldman, 1996; Basri *et al.* 2008; De Filippo, Casado, and Gómez 2009; Basri *et al.* 2008; OECD 2001; 2005; 2010; 2013; Wagner and Jonkers 2017). As such, the concept of international mobility often stands close to the notion of research excellence, whereby increasing geographical mobility is thought to lead to higher research quality. However, the relationship between international mobility and excellence is fuzzy and has been increasingly called into question. Despite this, international mobility continues to be regarded as a key policy objective, which has increased the interest of policymakers for efficient methods to track and analyse the mobility trajectories of the scientific workforce.

This section first discusses the concept of scientific mobility and its connection to the notion of scientific internationalisation. Secondly, it describes the contrast between the concepts of “brain gain/drain” and “brain circulation”, which constitute the biggest debate in studies of scientific mobility. Thirdly, we examine the relationship between international mobility and research excellence and review critical perspectives that exist on this topic. In the fourth section, we provide more insights into the notion of research excellence as viewed from the periphery. In the fifth section, we review quantitative methods to study the geographical mobility of researchers and their limitations, and describe recent developments in bibliometrics to study mobility trajectories more efficiently.

Mobility in science

The concept of scientific mobility is multidimensional and comprises geographical, institutional, sectoral and career-based movements that can have significant consequences for individual researchers and the research system as a whole (Fernández-Zubieta, Geuna, and Lawson 2015). International mobility in particular refers to the mobility of scientists across national borders. As such, the notion of mobility is closely related to the concept of internationalisation. In this relationship, the dominant discourse of internationalisation plays a key role in shaping the notion of international mobility, understood as a practice that brings mainly positive transformations to the scientific enterprise (Wagner and Jonkers 2017; Sugimoto *et al.* 2017). It follows that international scientific mobility is perceived as a powerful mechanism that has a positive impact on researchers’ career paths and that facilitates collaboration and knowledge diffusion.

Jacob and Meek (2013), for instance, describe the relationship between scientific mobility and knowledge transfer in terms of three interrelated dimensions. First, international mobility fosters the formation of human capital by allowing researchers to acquire knowledge and skills that may not be available in their home countries. Second, mobility is key for building scientific social-capital networks as researchers often establish fruitful collaborations with peers in institutions where they worked. Third, these social-capital networks can operate as “conduits of knowledge” that leverage information, expertise, and knowledge at a distance and as facilitators of collaborative research. Therefore, in the context of an increasingly globalised research community and based on the assumption that it increases the Scientific and Technological Human Capital of researchers (Bozeman, Dietz, and Gaughan 2001), international mobility has become a key policy objective for many countries (OECD 2001; Basri *et al.* 2008; Edler, Fier, and Grimpe 2011).

Neither geographical mobility nor the possible associated effects are new phenomena though. The international travels of early scientists demonstrate the historical relevance of the geographical mobility of researchers and its costs and benefits (Franzoni, Scellato, and Stephan 2015). Nevertheless, in academic and policy circles there has been a widespread debate over the implications of mobility for countries and their research systems.

Brain gain/drain vs Brain circulation

In the dominant discourse of scientific internationalisation, mobility is regarded as a highly positive practice that boosts quality and excellence. This vision feeds the rationales of policies and strategies of internationalisation where policymakers hope to achieve efficiency in higher education systems, improve competitive structures, import of relevant knowledge, guarantee quality assurance and promote improvements in knowledge production and dissemination (Gornitzka, Gulbrandsen, and Trondal 2003, 132). However, there is also increasing concern over the negative effects of internationalisation, which include pressure in peripheral areas to work and publish in English, or losing intellectual and financial autonomy as a result of participating in international collaborative alliances (Gibbons 1994; Vessuri 1994; Kreimer 2006; 2015; Rodriguez Medina and Vessuri 2018). This tension affects scientific mobility with special emphasis as illustrated by the “brain drain-gain” and the “brain circulation” debate.

The term “brain drain-gain” was coined by the Royal Society of London in the 1960s to describe the massive migration of British engineers and scientists to the U.S. (Rhode 1991; RS 2011). Nowadays, the term refers more broadly to the unidirectional migration of skilled workers from less developed to more developed countries or regions (Fernández-Zubieta, Geuna, and Lawson 2015). This body of literature tends to focus on the size and direction of migratory flows to identify clear “winners” and “losers” (Ackers 2005).

In turn, the term “brain circulation” rests on the assumption that geographical mobility is a reciprocal process without winners and losers, and considers that knowledge diffusion can take place without the physical presence of individual migrants (J. Meyer 2001; Barré *et al.* 2003; Ackers 2005). Ultimately, each approach perceives mobility

differently. Whereas the brain drain-gain approach sees mobility as a unilateral phenomenon affecting mostly developing countries or regions (Fernández-Zubieta, Geuna, and Lawson 2015), the brain circulation approach perceives mobility as multidirectional affecting developed as well as developing countries or regions (J.-B. Meyer 2003).

Mobility and research excellence

The concepts of “scientific mobility” and “highly skilled migration” are often used interchangeably. Although this shows the relevance of scientific mobility as a research topic for migration, economics and policy studies (and thus beyond the social study of science), it is also indicative of the strong correlation between mobility and the notion of excellence that is frequently found in the study of researchers’ geographical mobility.

High levels of physical (i.e. geographical) mobility have long been the standard in academia, especially in the natural sciences, further reinforcing the relationship between excellency and internationalisation from an evaluative perspective (Ackers 2008). Well-known examples of these trends are the so-called “Big Science” disciplines such as astronomy or high-energy physics where the physical disposition of instruments prompt mobility and long-distance collaborations. Moreover, as noted by Ackers (2008, 413), when describing scientific mobility scholars often use a language that echoes an implicit Social Darwinism by using expressions such as “the brightest and the best” (Mahroum 1998); “the youngest and most able” (Salt 1997) or “skimming and poaching” (Wood 2004).

Along with the policy interest in the internationalisation-excellence tandem, scientometrics methods have also been used increasingly to study the social dimensions of this relationship. In particular, contemporary quantitative studies of science have revived the interest in the determinants of research excellence with a focus on the modes of internationalisation. A wide amount of empirical work, for instance, has demonstrated the positive correlation that exists between international mobility - as a measure of internationalisation - and the number of publications and citations - as measures of excellence (Sugimoto *et al.* 2017; Robinson-Garcia *et al.* 2019; Halevi, Moed, & Bar-Ilan, 2016; Aksnes, Rørstad, Piro, & Sivertsen, 2013; Halevi, Moed, & Bar-Ilan, 2015; Hunter, Oswald, & Charlton, 2009; Jonkers and Cruz-Castro 2013; Edler, 2007; Edler *et al.*, 2011).

However, like internationalisation, excellence is a contested concept and, from an evaluative perspective, the relationship between these two terms has also been questioned. On the one hand, excellence, understood as favourable research environments and institutional prestige, is commonly regarded as a key pull and push factor of scientific mobility (see Mahroum 1998; Franzoni, Scellato, and Stephan 2012; Rodrigues, Nimrichter, and Cordero 2016). Mahroum, for instance, argues that mobility and excellence are reciprocally constitutive to the extent that highly talented scientists are attracted to scientific sites which are reputed for excellence, and these in turn increase their credibility and prestige by hosting such leading scientists (see Mahroum 1999). Evidence of the impact of this perspective in policy-making are the 16 national initiatives registered by the OECD in the form of “centre for excellence grants

for internationalisation in public research". Among them, Chile's Millennium Science Initiative (ICM), for example, aims to promote the development of innovative scientific and technological research in the country to reduce the "brain drain", as well as attracting excellent Chilean and foreign scientists currently working in other countries to the national system of scientific-technological research (OECD 2019).

On the other hand, the connection between mobility and excellence is fuzzy. As noted by Ackers (2008), while mobility has long been associated and encouraged in academia - especially in physics and the life sciences (see Rothwell 2002; Rodrigues, Nimrichter, and Cordero 2016) - this practice has become deeply embedded in the career structures of scientists to the point at which it has become an "expectation" (p.418). Ackers goes on to criticise the direct relationship between levels of internationalisation (in mobility terms) and individual excellence or quality (e.g. as number of publications and citations from an evaluative perspective). She recalls that mobility is just one way among many to achieve excellence in research and argues against Mahroum's assertion that mobility and excellence are reciprocally constitutive by stressing that scientific mobility is shaped as much by "push" factors (e.g. limited opportunity) as it is by the "draw" of excellence (Ibid). As a result, Ackers does not contest the definition of excellence per se; she only calls into question its direct association with internationalisation. Moreover, it should be noted that Ackers' arguments are based on data extracted from interviews with European researchers and oriented to evaluate European policy exclusively.

A view from the periphery

Outside the Global North, the notion of excellence, and therefore, its connection with the practice of international mobility has been put into question. In Latin America, for instance, the challenging of the notion of excellence has long been a major topic among scholars who have been concerned with unveiling and denouncing dynamics of colonialism and dependency in scientific research (see Varsavsky 1969; Herrera 1972; Fals Borda, Herrera Farfán, and López Guzmán 2014; Díaz, Texera, and Vessuri 1983; Cueto 1989). According to Fernanda Beigel (2016), recently the discussion on intellectual dependency has been revived in the concept of "colonialism of knowledge", which describes a Eurocentric construction of knowledge, successfully portrayed as superior and universal. This, she argues, has led to two distinct streams of thought. One based on Alatas' (2003) theory of academic dependency, which claims that certain scientific communities (i.e. those located in the central countries) are able to expand themselves following certain criteria of development and progress, whereas others (i.e. those located in developing countries) can only do so by mirroring such expansion with the subsequent negative effects for their own development. Overall, an international division of scientific labour sustains such dynamics of international dependency.

The second stream, of which Beigel is part, is heir to 1960s Third World regionalism and aims to dismantle the assumption that there exists an "original" knowledge out there emerging in "pure" fields of knowledge production free from external interferences. Following this, Beigel (2013; 2014; 2016) developed a relational approach to the concept of academic dependency that allows her to put into question the notions of excellence and international prestige in science. Instead of considering "centrality" as an equivalent of intellectual autonomy and "periphery" of heteronomy, she argues that academic

dependency involves an uneven structure for knowledge production and circulation. This dependency is sustained by the publication-based evaluation system that reinforces a hierarchy built on the basis of three principles: institutional development, discipline and proficiency in English (Beigel 2014, 621). This structure, she concludes, has historically been built in the central countries (in the U.S. mostly) and has defined our understanding of research excellence without the participation of the periphery.

Measuring scientific mobility

In the study of international mobility, a great deal of work has relied on quantitative methods. Quantitative studies of international mobility in science have drawn on various types and sources of data, including targeted surveys, general surveys and censuses, repositories of curricula vitae or a combination thereof (Appelt *et al.* 2015, 180). However, measuring scientific mobility is a highly complex and costly task and very few governments have been able to systematically track the international mobility of the scientific workforce. Meanwhile, there is virtually no data that allow for consistent comparisons of mobility patterns across countries (Franzoni, Scellato, and Stephan 2015). As noted by Appelt and colleagues (2015, 180), it is precisely the various types of data sources that studies on scientific mobility relied on that make practically impossible to replicate findings across studies.

Bibliometric databases provide an alternative source of data to analyse mobility trajectories by tracking the changes in the researchers' affiliations across time (OECD 2013). However, researchers' affiliations are not a static attribute. Scientists have career paths in which changing institutions and even countries is highly frequent. While changes in institutional affiliations, as reported on publications, are not always related to actual changes in scientists' location, they can nevertheless serve as a reasonably good proxy measure of mobility and they provide a more comprehensive coverage across all countries than surveys (Appelt *et al.* 2015).

Recently, the OECD has developed an indicator that tracks changes in the affiliation of scientific authors using bibliometric data, providing a cheaper and more comprehensive coverage across countries than surveys (Appelt *et al.* 2015, 179). However, indicator-based studies like the OECD's tend to apply a brain drain/gain perspective of mobility that disregards authors' multiple affiliations over time and thus provides a reductionist and homogeneous view on the phenomenon (Robinson-Garcia *et al.* 2019). When analysing mobility trajectories based on bibliometric data researchers therefore are often faced with a decision to discard publications that express multiple institutional affiliations in order to fit the data into their models (Appelt *et al.* 2015). However, multiple institutional affiliations are a common aspect of researchers' career trajectories, particularly in the hard sciences. Researchers might travel abroad in the form of short-term visits to conduct specific experiments and/or to receive training. A key indicator of these mobility experiences are the double or multiple affiliations recorded in the most common output of these knowledge transfers, a published paper. Therefore, ignoring multiple affiliations means neglecting crucial aspects of geographical mobility in science and of knowledge diffusion and circulation.

Since the development of automatic author name disambiguation techniques (see Moed, Aisati, and Plume 2013; Moed and Halevi 2014; Sugimoto *et al.* 2017), major bibliographic databases such as Scopus and - to a lesser extent - WoS now have a sizeable proportion of publications that include linkages between authors and their specific institutional affiliations. This has allowed researchers to differentiate between authors who have a single affiliation and those that had multiple institutional affiliations over time and eventually provide a better understanding of scientific mobility (Robinson-Garcia *et al.* 2019, 51). A key example of these developments is the taxonomy developed by Robinson-Garcia *et al.* (2019), which distinguishes between different types of mobility events and classes using affiliation data stored in scientific publications. According to this methodology, a mobility event refers to each of the different possible permutations of international affiliation instances that a researcher can have between two points in time. The presence of specific mobility events in the profile of researchers further allows establishing different individual-level mobility classes (Ibid: p.53-54).

In particular, the authors distinguish between three types of mobility events:

1. “*Directionality*”: indicates whether it is possible to reliably establish if an author has been chronologically affiliated first to his/her country of first affiliation and then to any other country, which is different from the country of origin.
2. “*Rupture*”: refers to a mobility event where a researcher’s country at t_n ($t=0$) are not found among the affiliations of the researcher at t_{n+} .
3. “*Origin*”: refers to the researcher’s country (or countries) of origin and therefore denotes a lack of mobility.

Consequently, researchers can be classified as either “migrants”, “directional travellers”, “non-directional travellers” or “non-mobile”:

- a) *Migrant* researchers are those who display a directional mobility event and a point of rupture with their country of origin ($t=0$) at any point in time.
- b) *Directional Travellers* are those researchers who display a directionality event but no rupture throughout their publication history.
- c) *Non-Directional Travellers* are those researchers who have had at least one mobility event but no directionality and no rupture with their country of origin.
- d) *Non-mobile* researchers are those who lack any mobility event throughout their careers (Ibid).

The first three classes refer to different types of mobility trajectories whereas the fourth denotes an absence of mobility.

Table 1. Example of a researcher’s international mobility trajectory.

Au-id	pub year	country	t	event type	mobility class
60001812493	2003	Argentina	0	Origin	Migrant
60001812493	2007	Argentina	4	Origin	Migrant
60001812493	2007	United Kingdom	4	Directionality	Migrant
60001812493	2007	Argentina	4	Origin	Migrant
60001812493	2008	United Kingdom	5	Rupture	Migrant
60001812493	2009	United Kingdom	6	Rupture	Migrant
60001812493	2010	United Kingdom	7	Rupture	Migrant
60001812493	2011	United Kingdom	8	Rupture	Migrant
60001812493	2012	Argentina	9	Origin	Migrant

This approach has nevertheless several shortcomings that should be clarified beforehand. In the first place, because this approach relies exclusively on publications to map researchers’ mobility, the classification of mobility is therefore dependent on scientists’ research output. Second, this method is likely to underrepresent short-term stays that do not result in a publication or which may not warrant adding an affiliation. Third, reliance on publication data limits the tracking of mobility to the level of the year, thus obscuring more high-frequency mobility events. Fourth, delays in publication also mean that the observed mobility is a delayed event from the actual mobility. Lastly, data is limited to publications in indexed databases (e.g. Scopus) which underrepresent certain countries and languages (Ibid: 61).

Environmental impacts of research: Insights for universities' sustainability policies and international partnerships

The literature review we conducted provided no results related to environmental changes and the impacts on academic mobility and strategic partnerships, however we believe it is an important issue to be addressed. Indeed, the intensification of environmental changes and global warming have raised concerns among the research community. This section provides a non-exhaustive literature review analysis giving an account of the issues raised by global change to the mobility practices of researchers and especially, what it means for the universities' policies around sustainability and international partnerships. The main issue in this literature, which draws from both social sciences and environmental research is around reconsidering the practices of “hypermobility² of researchers, and especially the urge for attending numerous conferences. It also criticizes the role of universities' policies which encourage the travel of researchers while aiming for sustainable practices - which aeromobility is not. Thus considering this literature is important for building sustainable strategic partnerships, because they often imply staff and student exchange or organising conferences; having an environmental impact which needs to be taken into account. Indeed, this need of travelling can clash with the sustainability and sustainable travel policies of universities.

Reconsidering the mobilities of researchers against a “climate hypocrisy”

Addressing the issue of the environmental impacts of research implies first and foremost discussions about the mobilities needs and practices of the scientists. Several papers hence review how mobility, and in particular aeromobility is an imperative in a researcher's career (Hoffman 2009; Bjørkdahl & Santiago Franco Duharte 2022; Caset *et al.* 2018; Hopkins, Higham *et al.* 2019; Høyer *et al.* 2001; Lassen 2010; Storme *et al.* 2013; Storme 2014). The first ones to critically address the mobility practices of the researchers were Høyer and Næss in 2001, who discuss the paradox of travelling to conferences in tourism research because of the environmental impact it implies. They highlight the discomfort of this position through the notion of “conference tourism”, which Høyer develops further in a 2009 paper. “Conference tourism” they argue, is a practice related to leisure activity and connected to globalization, to the globalization of academia. As he puts it, “conference tourism is a global industry where competition on a global market is an important factor” (p.67). He thus connects the high mobility of the researchers to conferences, with competition within a global market of academia, which is also an analysis shared by Storme *et al.* (2013). They argue that this need for mobility must be understood through the internationalization of higher education. They analyse the travel strategies of tenured academics at Ghent University and show how the internationalisation of the university leads to travel-intensive academic roles, meaning that travel has become a major working practice. For the academics they interviewed, travelling was a response to the expectations to internationalise academic work. More than expectations, travelling seems to be an urgent necessity, as Nursey-Bray *et al.*

(2019) argue in their paper. The researchers face a “fear of not flying” because “plane travel is perceived as a key driver for career progression and this is an ongoing barrier to pro-environmental behaviour” (p.1). With their case study the Australian University of Adelaide, they highlight the role of higher education institutions in this urge for flying, detrimental to the environment.

For some papers, these practices of flying are not so much a need but rather a privilege, as Nevins (2014) argues in his paper about the mobility practices of researchers, which he cynically calls “academic jet-setting”, echoing Hoyer’s argument about “conference tourism”. He claims that travelling for researchers is not essential and is so developed because the academics can afford to. Air travel to conferences is an “ecological privilege”, which he defines as “socially constructed advantages gained by virtue of membership in a particular social group, not by virtue of merit. It leads to, for those who enjoy it, greater options, access to and control over resources, social power, and socioeconomic and biophysical security” (p.302). To him, “To contend that professional academic travel is an exercise in privilege is not to suggest that privilege cannot be put to good use. That said, we must acknowledge that such action always and inherently also brings about injury.” (p.306). Philippe (2008) also connects academic flying to larger economic phenomena, the economic growth, which relates to Høyer’s (2009) argument about how “conference tourism” is a product of the globalization of academia. He discusses the processes and expectations in academia that urges the scientists to travel, like the grant evaluation criteria. Indeed, those evaluations often consider the number of presentations given at international conferences and the international partnerships in which the researchers are involved, which leads to a “significant impact on the environment” (p.265).

As demonstrated in the precedent literature analysis on international mobility in science, mobility is a key feature of academic practices and is closely linked to research excellence. Thus, Philippe’s (2008) argument about the criteria of academic evaluation encouraging hypermobility of research resonates with a range of the literature which has demonstrated the correlation between measures of international mobility and measures of excellence (Sugimoto *et al.* 2017; Robinson-Garcia *et al.* 2019; Halevi, Moed, & Bar-Ilan, 2016; Aksnes, Rørstad, Piro, & Sivertsen, 2013; Halevi, Moed, & Bar-Ilan, 2015; Hunter, Oswald, & Charlton, 2009; Jonkers and Cruz-Castro 2013; Edler, 2007; Edler *et al.*, 2011). Wynes *et al.* (2019) have demonstrated that, in fact, air travel has limited influence on professional success, based on air travel emissions data and bibliometric measurements. They find no positive correlation between the travel emissions of researchers and their publications. They conclude that, based on this evidence, researchers can reduce their travel without risking their careers. If this study, considering only bibliometric data to assess “professional success”, is biased, it reflects at least a trend towards reconsidering the link between travelling and academic career at a time where researchers are at the forefront of climate change awareness in society.

Indeed, this literature often resonates with a discourse towards a “paradox”, a “climate hypocrisy”, a responsibility of specialists of the environment to not extensively contribute to what they denounce and to have exemplary practices themselves. This literature thus emerged at the beginning of the 2000s with researchers adopting a self-reflexive approach toward their practices of flying. In 2008, David Grémillet, an

ornithologist, raised in the renowned journal *Nature* the idea of a “paradox of flying”, when expressing his concern over his many travels to conferences. He wondered whether his undertaking of studying environmental changes were sufficient to counterbalance the environmental footprint of his mobility practices. Such questions first raise the issue of the value of conferences: are they worth impacting the environment?

The same question should apply to other practices in academia which involve flying. But as we look through the literature, conferences are the most cited practice to be reconsidered. Fieldwork, for instance, is seen as a “legitimate” practice, if it is even mentioned as a source of impact. Few researchers have raised the issue of flying to the field site, like the geographer Madeleine Griselin (2010) who ask, about her fieldwork in the High-Arctic archipelago of Svalbard: “At a time of abundance of satellite images, at a time when our computers see their capacities increase tenfold every 18 months, at a time of automatic data transmission and high-technological development unthinkable only a few years ago, is it still necessary for a scientist to be present in the field? Is it reasonable to contribute to global warming by repeatedly flying to the Arctic to better understand the effects of global warming?” (p.27). The rest of her paper demonstrates that, indeed, she needs to be present in the field because someone needs to retrieve the data, because wildlife can damage their material and because direct observations is irreplaceable. This paper is only one of the few retrieved which directly ask the question of the need for being in the field considering the ecological footprints it can entail. Mostly, these papers are related to polar regions, where the intensity of global change is the most concerning (Bezanson, Stowe and Watts, 2013; Brooks, 2014; Hughes, 2010; Kennicutt *et al.*, 2010; Montarroyos, *et al.*, 2019; Saville, 2018; Tin *et al.*, 2009).

What are the solutions to this “paradox of flying”?

The papers we retrieved not only raise a concern about the contribution of the academic world to global warming, but also raise the question of a necessary *profound* change in practices. As we have already pointed out, the practices of the scientific world and the policies that result from them are largely oriented toward internationalisation, the development of inter-institutional (especially international) scientific mobility, from which the constitution of strategic partnerships between HEIs follows directly. The papers often state the participation of the academic world in environmental changes and generally call for a change in practices, but they first seek to propose concrete solutions, which are mainly deployed in a limitation of mobility, the systematisation of carbon impact calculations, more localised measures, and the involvement of all actors from the academic system.

A major focus of the discussions is the travel to conferences, which can involve flying several hours, tens of thousands of kilometres, for a few days of conferences. Papers discuss the necessity of such travel, and how they can be reduced or optimized. The main proposals put forward are to reduce the number of conferences attended by scientists, particularly those that attract thousands of researchers from all over the world (Bonnett, 2006; Hall, 2007; Lester, 2007; Roberts and Godlee, 2007; Philippe, 2008; Fox *et al.*, 2009; Young, 2009; Nathans and Sterling, 2016; Bjorkdhal and Duharte, 2021). In addition to reducing the number of conferences, researchers



advocate optimising both their duration, to avoid researchers travelling long distances for just one or two days of discussions, and their location, precisely to limit the use of aeroplanes (Philippe, 2008; Bossdorf *et al.*, 2010; Nathans and Sterling, 2016). Some papers calculate the most optimal location for a conference but insist on the risks of inequalities if strictly following environmental rules, which could be detrimental to the integration of Global South countries into the map of conferences (Ponnette-Gonzales and Byrnes, 2011; Orsi, 2012; Spinellis and Louridas, 2013; Stroud and Feely, 2015; Wenner *et al.* 2019). Even before the covid crises emerged, some papers called for online-only conferences (Green and Drife, 2008; Coroama *et al.*, 2012; Avery-Gomm *et al.*, 2015), although these also have an environmental impact, notably due to server capacity requirements. However, the covid crisis has democratised having conferences online, and in hybrid formats. Changes also need to be made during conferences (Holden *et al.*, 2017), by providing opportunities for offsets (Lester, 2007; Bossdorf *et al.*, 2010), recycling, using local providers or carpooling (Jarchow *et al.*, 2011). Holden *et al.* (2017) even suggest boycotting conferences that do not take steps to reduce their environmental impact.

A major aspect of the discussions is the introduction of systematic calculations of the environmental impact of research, which was already undertaken episodically in papers calculating the footprint of conferences (Callister and Griffiths, 2007; Desiere, 2016; Neugebauer *et al.*, 2020; Jäckle, 2021). More generally, Le Quéré *et al.* (2015) propose to monitor the emissions of academic researchers, arguing that they are “among the highest emitters, primarily as a result of emissions from flying to conferences, project meetings, and fieldwork” (p.3). They propose to develop a roadmap to reduce the emissions and have developed a tool, the Tyndall Travel Tracker, which provides information on the carbon impact of researchers. They argue that if individual changes are key, it is also important to consider changes at a larger scale, involving all institutions, to change the general research culture. This is also key for the relationship between science and society, to build trust and ensure the credibility of scientists who argue for a change of practices, while also having a deep impact. Such an argument on the credibility of science has largely been discussed in the literature (Grémillet, 2008; Favaro, 2014; Attari *et al.*, 2016; Caset *et al.*, 2018).

It is worth mentioning an initiative that has emerged in France, the labo1point5, which wishes to change practices of French research institutions more profoundly. The initiative is led by a group of researchers in 2019, who relayed a call in the national newspaper *Le Monde*. They are calling for a profound change in the research system, based on an “environmental research ethics” that requires breaking out of the “era of academic productivism” to reduce the footprint of research activities. Their initiative is not limited to reducing air travel, but more generally to forming a discussion and pressure group to change the way research institutions operate. On their initiative, discussion groups are being launched in research units, with the support of national research institutions, such as the CNRS (French Centre for National Scientific Research), to raise awareness among the community of researchers, to inform about the responsibility of academics and potential solutions that can be provided. One major contribution they are aspiring to at first, is to calculate the environmental footprint of research, thus developing relevant tools to determine it. For instance, contrary to most of the literature, they identify that the highest impact on the environment from



research laboratories comes from purchasing materials and services, and not travel. Thus, they insist that travel is just one of the many changes that need to be undertaken in research to help reduce global warming. In addition to these tools that they provide to all research units wishing to be involved, they lead many seminars, conferences and workshops to raise awareness, engage researchers and create discussions around this topic. Such initiative might not only be restricted to France and in general, shows the recent trend toward decreasing the environmental impact of research, which mainly is expressed through a decrease in international mobility. As it is a rising concern which will be even more important in the following years considering the perspectives for global warming, we consider it is a relevant issue to address when considering strategic partnerships between HEIs. Indeed, several papers in the literature identified that the changes do not only come from the researchers but are and should be integrated into the research policies of universities. The next section thus discusses the role of HEIs in this trend.

The role of Higher Education and implications for strategic partnerships

The role of HEIs in contributing to environmental change through research can be seen as twofold, even paradoxical. On the one hand, many universities are committed to the fight against global warming, producing policies aimed at boosting sustainability, for example by encouraging researchers to fly less. In 2007, Rappaport and others highlighted the fundamental role of HEIs in the fight against climate change, both in their internal functioning and their role for society, because by training students and researchers, they allow the dissemination and production of knowledge on the environment. On the other hand, they maintain the system inherent in the academic world which encourages international mobility, and make it a more or less implicit condition for professional success and excellence. Storme's work has thus explored the way in which professional expectations in research are largely directed towards mobility. In a 2013 paper written with other colleagues, he builds on the study of Ghent University, Belgium, and demonstrates the role of the university's internal policies aimed at internationalisation, in the mobility needs of researchers. However, they find that some researchers manage to develop compromise practices, which allow them to meet both the expectations of their institutions and of themselves. They emphasise that not all researchers have intensive travel practices, but rather those who develop project management responsibilities, whose success depends on their ability to develop and maintain a network, preferably an international one. The paper by Storme *et al.*, and Storme's thesis published in 2014, does not focus specifically on the environment, although it is an argument they mention. They do, however, demonstrate the profound role of HEIs in researcher's mobility practices, and how individual researchers internalise these expectations.

Other papers have looked more upfront at the ambivalence of university policies of sustainability and internationalisation. The article by Nursey-Bray *et al.* (2019) summarises this paradox well, and proposes some solutions. They explain that: "Universities are both disseminators and producers of the climate knowledge needed to institute the social and cultural change required for climate adaptation and mitigation to occur. They also have the opportunity to lead and model pro-environmental behaviour, yet often have large carbon budgets, partly caused by staff travel." (p.1) Based on the

case study of the University of Adelaide, South Australia, they investigate the tension between academic requirements to travel and the institution's formal commitment to sustainability. On the level of academics, they identify that if most of them are concerned about climate change, few are concretely willing to change their travel behaviour, because of what they call a "fear of not flying", reflecting the perception that travel is a key driver for career progression. They argue that because of this reality, HEIs have the responsibility to change that system, if they wish to achieve their sustainability plans. Change, they argue, should not remain at individual stage but involve institutional and political stakeholders. Some solutions they advance are:

- Increasing the cost of travel to force academic to prioritize their travels
- Making the carbon footprint data publicly available and establishing an internal carbon tax
- The Australian Research Council should add a carbon test to its national interest test
- The development of Strategic Plans for university could actively explore ways of changing the discourse, practice and metrics around what constitute career progression in university, so staff could travel less yet still being competitive
- Make active investments in climate smart technologies
- Mainstream the issue of staff plane travel within a wider organizational sustainability agenda
- Adopt travel guidelines within each faculty

These solutions are suggestions but demonstrate, for the authors, how concrete actions can be made, sometimes profound, sometimes easier to put in place. The fourth solution is the most relevant when considering this issue through strategic partnerships, as they suggest that strategies of universities should seek to change the weight of metrics and discourses of competitiveness and excellence between universities, which are based on injunctions to international mobility. Interestingly, this call for action is made in the context of a wider call for rethinking research metrics, e.g. the DORA declaration.

Few papers actively explore the role of internationalisation policies in universities related to sustainability goals, but most of the papers we have retrieved address the profound career expectations associated with international mobility and the non-compatibility of this with the fight against global warming. Such argument might be more and more important throughout the years, as awareness is rising in academia. Individual strategies to reduce plane travel may be undertaken but what is sought is also the involvement of all stakeholders within research, as the case of the labo1point5 initiative or the book of Rappaport and Hammond Creighton, *Degrees That Matter: Climate change and the University*, demonstrate.




Conclusion



We have provided you in the above with a broad overview of relevant literature for international strategic partnerships, which underpin the development of the framework. As we have shown, there is no literature available on the evaluation of international strategic partnerships, so this indicates the importance of our project developing a framework to do so.

In this literature review we discussed different bodies of literature, that address specific topics and refer to one another, as such forming a debate on the specific topic. It is worth continuing to follow these academic debates, as we have shown how they are developing over time and they will continue to do so, after this handbook is complete. For example, the literature on internationalization that addresses the differences between the originally Western dominated discourse and more current views from the Global South, is expected to develop further in the context of debates on equality and diversity in research and policy. Moreover, the literature we added on sustainability in research and academia more broadly, including its implications for international strategic partnerships, is a new area which does not yet appear in literature searches on international strategic partnerships, but will undoubtedly get more interwoven with the other debates too.

There are also bodies of literature which we have not specifically addressed here, but who are also relevant for the governance of international strategic partnerships, e.g. literature on Responsible Metrics (as mentioned in the literature review) and literature discussing university rankings and their many problems. It would be good to follow these debates alongside the creation and evaluation of partnerships and keep thinking about connections between academic discussions and practice. As will have become apparent by the above review, theory and practice are very much interwoven and with this handbook we hope to contribute to stronger connections between the two and empower readers to do the same.



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