

# The stairway partnership model for strategic University- Business partnerships

*Todd Davey*



*Joint  
Research  
Centre*

# Todd Davey

360° UIC experience

## Academic

Researcher-collaborator

Educator-collaborator

## UIC Policy advisor

Largest intl. UIC study

## Entrepreneur (2 x spin outs)

TechAdvance

“

If you want to go  
fast, go alone. If  
you want to go far,  
go together.

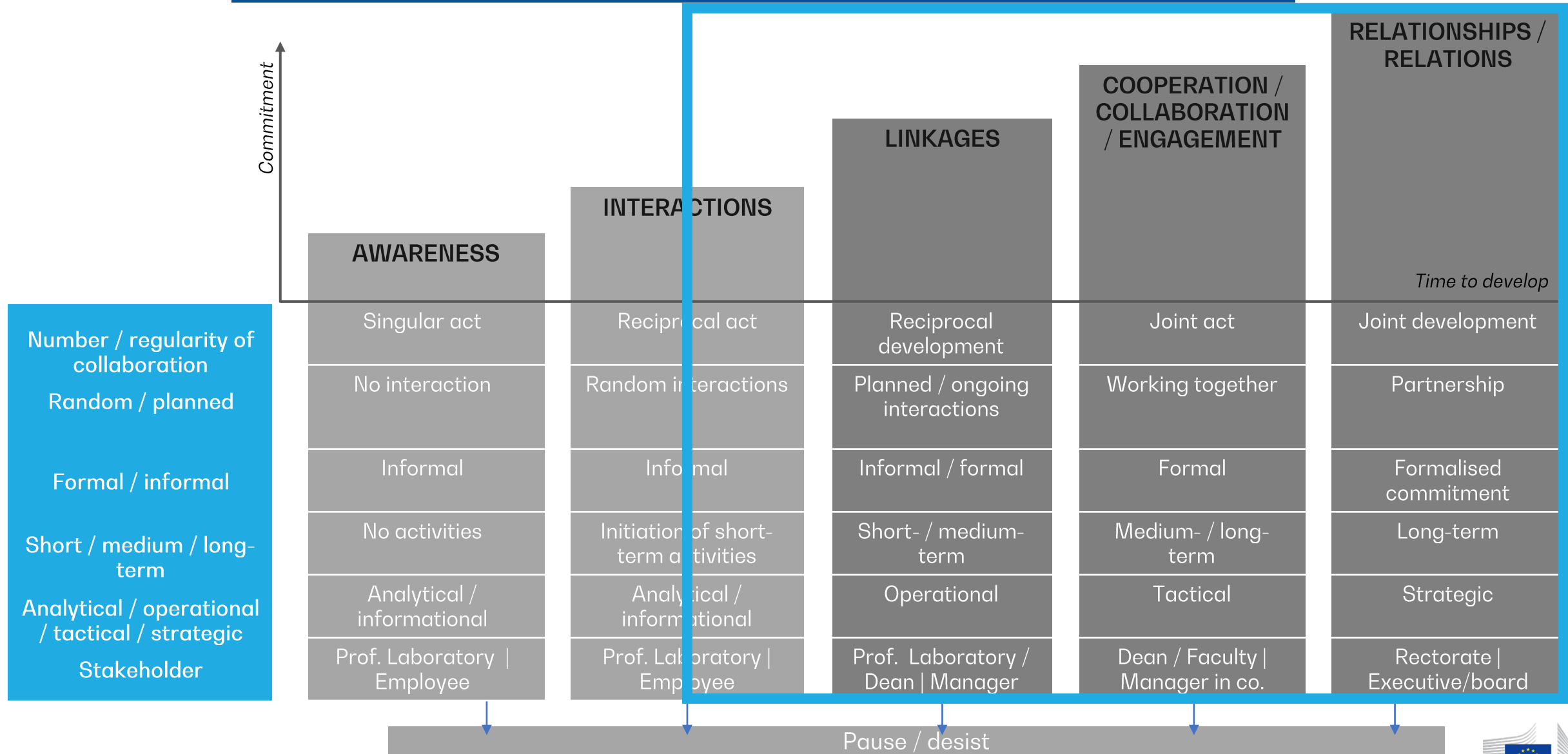
”

African proverb

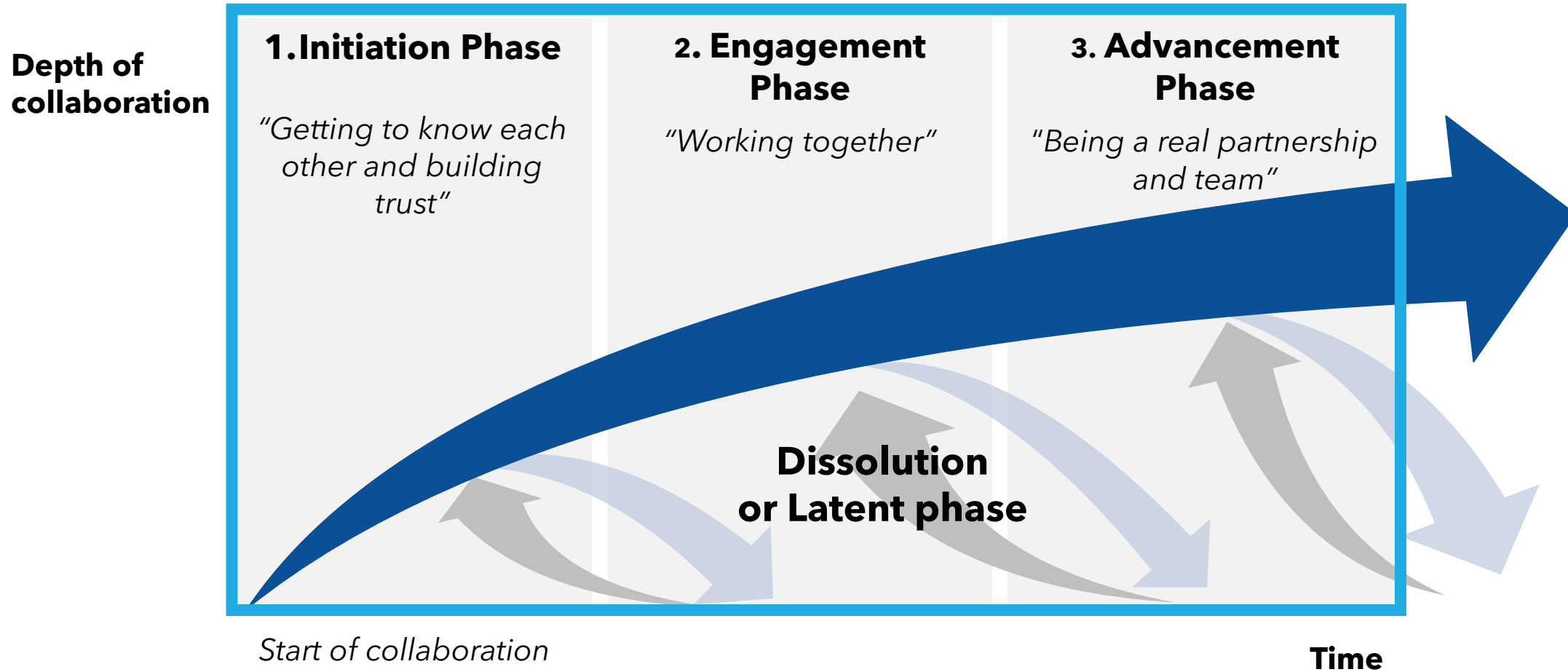
# Key outcomes of my UIC research and experience

1. University-Industry collaboration is essential for moving towards a knowledge society
2. There are a broad range of collaboration activities:  
Education | Research | Management (incl. infrastructure/equipment) | Commercialisation
3. University-Industry collaboration is driven by PEOPLE not transactions
4. Mutually-beneficial relationships underpin successful and sustainable collaboration
5. Building relationships take time and are built on mutual trust

# PARTNERSHIP STAIRWAY MODEL



# THE DIFFERENT PHASES OF ENGAGING IN UIC



# THE DIFFERENT PHASES OF ENGAGING IN UIC

Depth of collaboration	1. Initiation Phase	2. Engagement Phase	3. Advancement Phase
	"Getting to know each other and building trust"	"Working together"	"Being a real partnership and team"
Communication	Quality of communication	Bi-directional, open communication	Discussions going beyond project
Understanding	Understanding of partner's needs	Understanding partner & its environment	Acting in an integrated manner
Trust	Trust in reputation and credibility	Trust in the individual	Trust in the relationship
Relationship focus	Synergy, based on similarity	Development of personal relationship	Personal relationship, often friendship

*Start of collaboration*

**Time**

**Stage of UIC development effects what is important to focus on**

**Apply strategies for companies and academics depending on the stage and their experience with UIC**

A light gray map of Europe serves as the background. A small blue dot is located in the western part of Europe, specifically in the Shropshire region of the United Kingdom. A blue rectangular box with white text is positioned directly below this dot.

# **Dairy Crest Innovation Centre at Harper Adams University:** A comprehensive long-term agri-food collaborative relationship

*Shropshire, UK*

# Dairy Crest & Harper Adams University

- Dairy Crest (DC), a leading British dairy company
- Looked to develop capability in foodtech and food security
- Started cooperating in joint research and development R&D projects with a local university, **Harper Adams University** in Shropshire (England)
- DC also provided additional education input to the design and delivery of curricula
- Set up a £4m (€4.8m) innovation centre on the campus of Harper Adams University
- Aims to deliver 10% of year-on-year growth through new product development; with **scientific research, technology and product development** at the core of this objective
- The partnership has been awarded the 'Most Innovative Contribution to Business-University Collaboration' category in the Times Higher Education (THE) Awards 2016





A light gray world map serves as the background. A blue dot marks the location of Karlstad, Sweden, in the northern part of Europe. A blue rectangular box with white text is positioned next to the dot.

*Karlstad, Sweden*

# **The Paper Province**

A world-leading cluster in the  
forest bio-economy bringing  
together the paper supply chain



## WHAT IS PAPER PROVINCE?

Paper Province is a world-leading clusters within the forest bioeconomy in Varmland vicinity.

## THE ENTIRE VALUE CHAIN

Our member companies are all major machine suppliers, a quarter of Sweden's pulp and paper mills

Awarded Vinnväxt (Swedish UI funding) funding for **10 years** (50% co-funding).

A total of €10 million co-funded by regional government, business and university (quadruple helix)





### THE ENTIRE VALUE CHAIN

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### WHAT IS PAPER PROVINCE?

Paper Province is a world-leading clusters within the forest bioeconomy in Varmland vicinity. On behalf of

## HISTORY

Paper Province was founded in 1999 by seven companies that had the same need to recruit qualified staff. Through the years, we have initiated actions to strengthen the entire regional economy and the provision of skills within our industry. We have strengthened technology development and energy efficiency, and we have won a number of awards. We have brought young people to our industry and generated thousands of articles in both regional, national and international media. We have also helped many innovators to develop and commercialise their ideas.

# Paper Province Sweden

Regional innovation cooperation to transition paper to a sustainable development

## Aim

Wanted to be a leading region for a forest-based bio economy  
(not just paper)

Recognition of the importance of paper to the region

A need to balance tradition and future

Already existing cooperation and trust in the region

## Historic development of regional innovation system (paper)

- (i) 2005-07 OECD initiative
- (ii) 2010-14 research agreement including:  
10 Professor programme – co-funded professorships

Won Vinnväxt funding for **10 years** (50% co-funding)  
€10 million funded by regional government, business and university



# Paper Province Sweden

Inclusive co-creation of knowledge for regional innovation systems and transition to sustainable development

Embraced the quadruple helix concept (uni., Bus., Govt., Society) including societal actors e.g. Trade unions, conservation groups a women owning forest

## Initiatives

- Engaged students, thesis topics, regional innovation competitions
- Co-funded professorships
- Enacted a 'borrow a professor' for a day initiative

## Key success factors

- Buy-in and commitment from all quadruple helix actors
- All actors are knowledge producers
- Stamina is required (time, energy and resources)
- Tolerance between actors
- Change terminology e.g. chemistry to bio-design
- Long term commitment allows real development



# Any questions or comments?

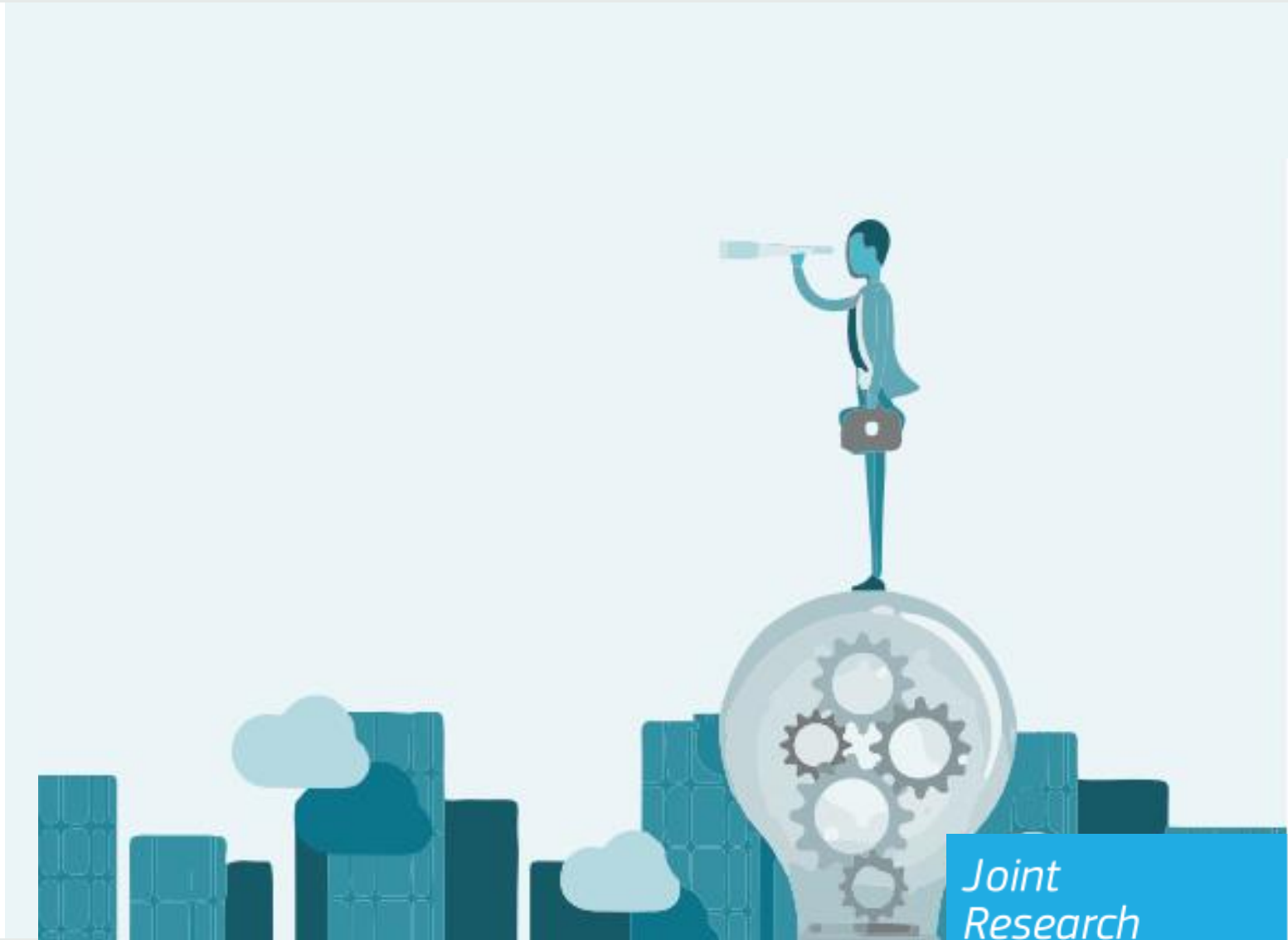
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*Joint  
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Centre*

# The profile of a Boundary Spanner

*Todd Davey*



*Joint  
Research  
Centre*

“

**Why did a true 'academic  
entrepreneur superhero'  
develop eleven biomedical  
companies?**

”



# Spanning Boundary Agent

Defining the spanning boundary agents:

*All of the following are initiating, coordinating and supporting cooperation between university and industry.*

## 1. Protagonists

Working in university / industry. May or may not be involved in the cooperation they coordinate:

- a) Academic SBA
- b) Business SBA

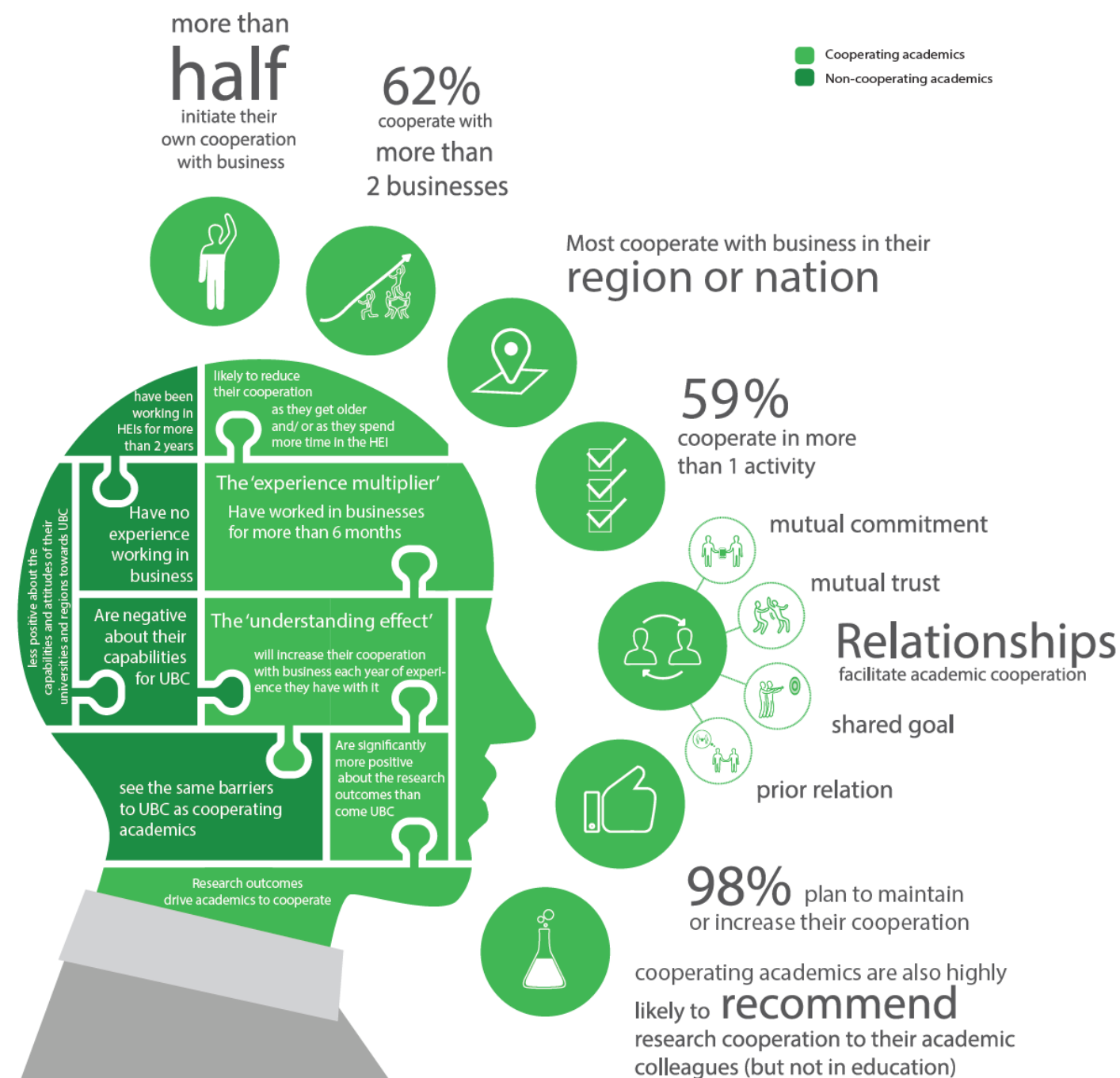
## 2. Intermediary SBA:

Working between university and business

- a) Internal intermediary - employed by one of the cooperating organisations
- b) External intermediary - are **not** employed by one of the cooperating organisations

**Source:** Spanning Boundaries  
[www.spanning-boundaries.eu/](http://www.spanning-boundaries.eu/)





## PROFILE OF THE "ACADEMIC COLLABORATOR"

### THE 'UNIVERSITY EFFECT'?



Years working at the HEI negatively impacts academics cooperation with business

### THE "UNDERSTANDING EFFECT"?

The longer an academic has worked in industry, the more they collaborate (even 6m)

### THE "EXPERIENCE MULTIPLIER"?

The longer an academic work in UI collaboration, the more they collaborate

Business cooperating   
Business not cooperating 

# PROFILE OF THE "BUSINESS COLLABORATOR"

## THE 'RESEARCH EFFECT'?

Having an R&D capability or employing PhD students positively impacts successful and fulfilling cooperation

## THE "EXPERIENCE MULTIPLIER"?

The longer a business work in UI collaboration, the more they collaborate

## Relationships

facilitate academic cooperation

mutual commitment

mutual trust

shared goal

prior relation

99% plan to maintain or increase their cooperation

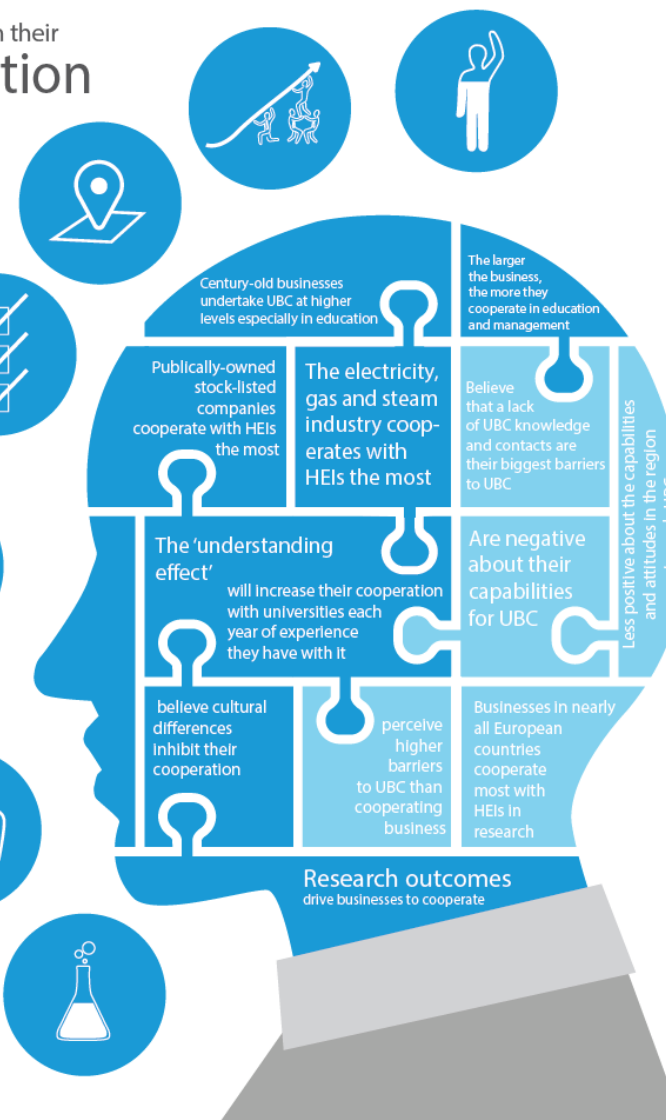
cooperating businesses are also highly likely to **recommend** research cooperation to their business colleagues (but not in education)

Most cooperate with HEIs in their region or nation

59% cooperate in more than 1 activity

72% cooperate with more than 2 HEIs

more than **half** initiate their own cooperation with HEIs





**Manuel Pérez Alonso**  
Founder, Imegen et al.  
University of Valencia

Spain



**Johannes Partanen**  
Founder, Tiimiakatemia  
Applied Sciences  
University of Jyväskylä

Finland



**Thomas Baaken**  
Founder, Science-to-  
Business Marketing  
Research Centre,

Germany





# ADD BOUNDARY SPANNER MASTERIES



**Manuel Pérez Alonso**  
Founder, Imegen et al.  
University of Valencia

Spain

A true 'academic entrepreneur superhero', Manuel Pérez Alonso, [professor of genetics in University of Valencia](#) (Spain), has migrated from the university lab to the foundation and management of [eleven biomedical companies](#) director of the [Institute of Genomic Medicine \(Imegen\)](#).

His activity as a researcher focuses on Molecular Genetics and Genomics Applied to Medicine. He has participated in numerous international research programs, including three genome sequencing consortia. He has directed more than 20 research projects and is the author of more than 50 international scientific publications, including three articles in the prestigious journal Nature. He is the author of three biotechnology patents that have been licensed to the biotechnology industry. As an entrepreneurial scientist, he is the promoter and founding partner of several biotechnology companies dedicated to Biomedicine. Founded in 2009 by a team of scientists with more than 20 years of business experience, Imegen has established itself as a leader in the field of genetics and genomics.

# Science-to-Business Marketing Research Centre, Germany

- Thomas Baaken was appointed as Vice Rector Research and Technology Transfer and applied the concept of marketing to the university's research and technology transfer activities.
- High performance in getting money for projects and research results from companies and non-profit organisations.



**Thomas Baaken**  
Founder, Science-to-Business Marketing Research Centre





# Science-to-Business Marketing Research Centre, Germany

## Key success factors

1. Vision for centre
2. Selected the right people and cared about them
3. Gave them space and freedom to work e.g. Own hours
4. Aligned the centre vision with the individuals objectives
5. Finance: Student-business projects (spending), funded projects (salary)
6. Exhibited the behaviour he expected e.g. Sought & delivered projects
7. Bend/break the rules in the university
8. Serious - fun... With a family atmosphere

# MASTRIES OF A BOUNDARY SPANNER

Source: Spanning Boundaries  
www.spanning-boundaries.eu/

MASTERY	SKILLS, KNOWLEDGE & COMPETENCIES (To know, to understand or be able to...)
Master of Strategy & Vision	To be able to apply the existing knowledge of collaboration partners to solve the problem at hand To be able to develop an image of how a cooperation should work in ideal conditions To be able to develop a clear and consistent vision for what one wants to achieve from the specific collaboration activities
Master of Collaboration	To know who to approach for collaboration To know how to evaluate knowledge for its potential usefulness to others To know how to value knowledge To be able to build a network To be able to think creatively and originally
Master of Entrepreneurial Thinking & Acting	To be able to think creatively and originally To be able to identify and mobilise resources To know how to evaluate knowledge for its potential usefulness to others To know how to value knowledge To be able to build a network To be able to think creatively and originally
Master of Partner Understanding	To know how to evaluate knowledge for its potential usefulness to others To know how to value knowledge To be able to build a network To be able to think creatively and originally
Master of Knowledge Transfer & Engagement processes	To know how to evaluate knowledge for its potential usefulness to others To know how to value knowledge To be able to build a network To be able to think creatively and originally
Master of Resource Acquisition & Mobilisation	To know how to evaluate knowledge for its potential usefulness to others To know how to value knowledge To be able to build a network To be able to think creatively and originally
Master of Negotiation	To be able to identify and secure collaboration from others to access knowledge To be able to think creatively and originally

## MASTRIES (Master of..)

## ATTRIBUTES

(To know, to understand or be able to...)

### SPANNING BOUNDARY AGENTS

Results from a large international survey of boundary spanning agents:

- Most developed in leadership skills and creativity skills
- Least developed in mobilising resources and entrepreneurship skills

### Differences between academic, business, and intermediary SBAs:

#### 1. Business SBA

- More developed in complex problem solving and diverse knowledge
- Needs to develop collaboration skills

#### 2. Academics SBA more developed mastery in creativity and specific expertise

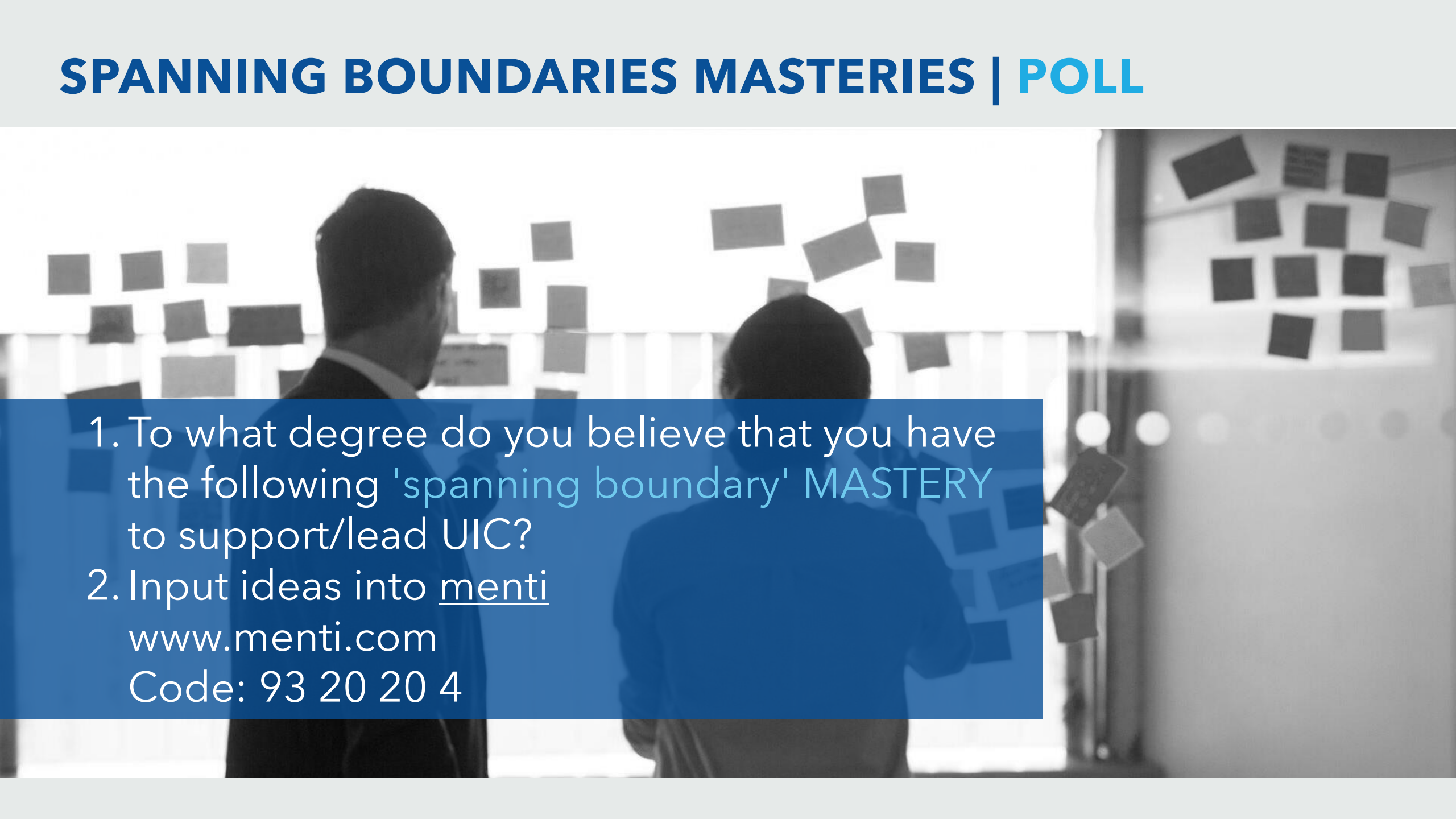
#### 3. Intermediaries more developed mastery in:

- leadership
- technical knowledge (Internal Intermediaries)
- value of knowledge (External Intermediaries)





# SPANNING BOUNDARIES MASTERIES | POLL

- 
- A blurred background image showing two people from behind, looking at a wall covered with many small, square sticky notes. The notes are arranged in a somewhat organized manner, suggesting a brainstorming or collaborative work session. The lighting is soft, and the overall tone is professional and creative.
1. To what degree do you believe that you have the following 'spanning boundary' MASTERY to support/lead UIC?
  2. Input ideas into menti  
[www.menti.com](http://www.menti.com)  
Code: 93 20 20 4

# Any questions or comments?

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