



# CLUSTERS3

Interreg Europe



European Union  
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## CHALLENGES OF EVALUATING CLUSTERS AND CLUSTER POLICIES

**Emily Wise** (Lund University)

**James Wilson** (Orkestra & Deusto Business School)

20th June, 2017 | 4<sup>th</sup> Open Conference in Inverness

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# The Challenge

Despite the proliferation of cluster initiatives, there is a shortage of evaluation research and practice

- Leaves cluster policies open to questions
- Prevents learning within clusters
- Prevents learning about policy

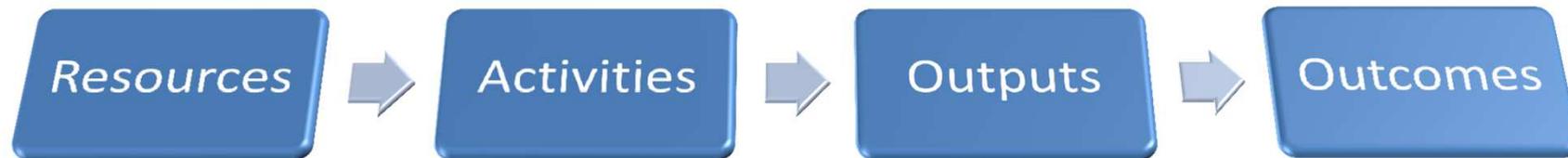


How do we develop better approaches to capture the impact of clusters and cluster policies and foster learning around how to improve them?



# Choosing an evaluation approach

- Some form of *logic model* is often used to order indicators:



- But there is an important set of questions to ask first: ***Why do we want to evaluate? Who is the audience? What are their needs?***

**Summative evaluation:**  
measures outcomes for  
*accountability purposes*

**Formative evaluation:**  
Geared towards *learning and  
ongoing change*

# Why is cluster evaluation so challenging?

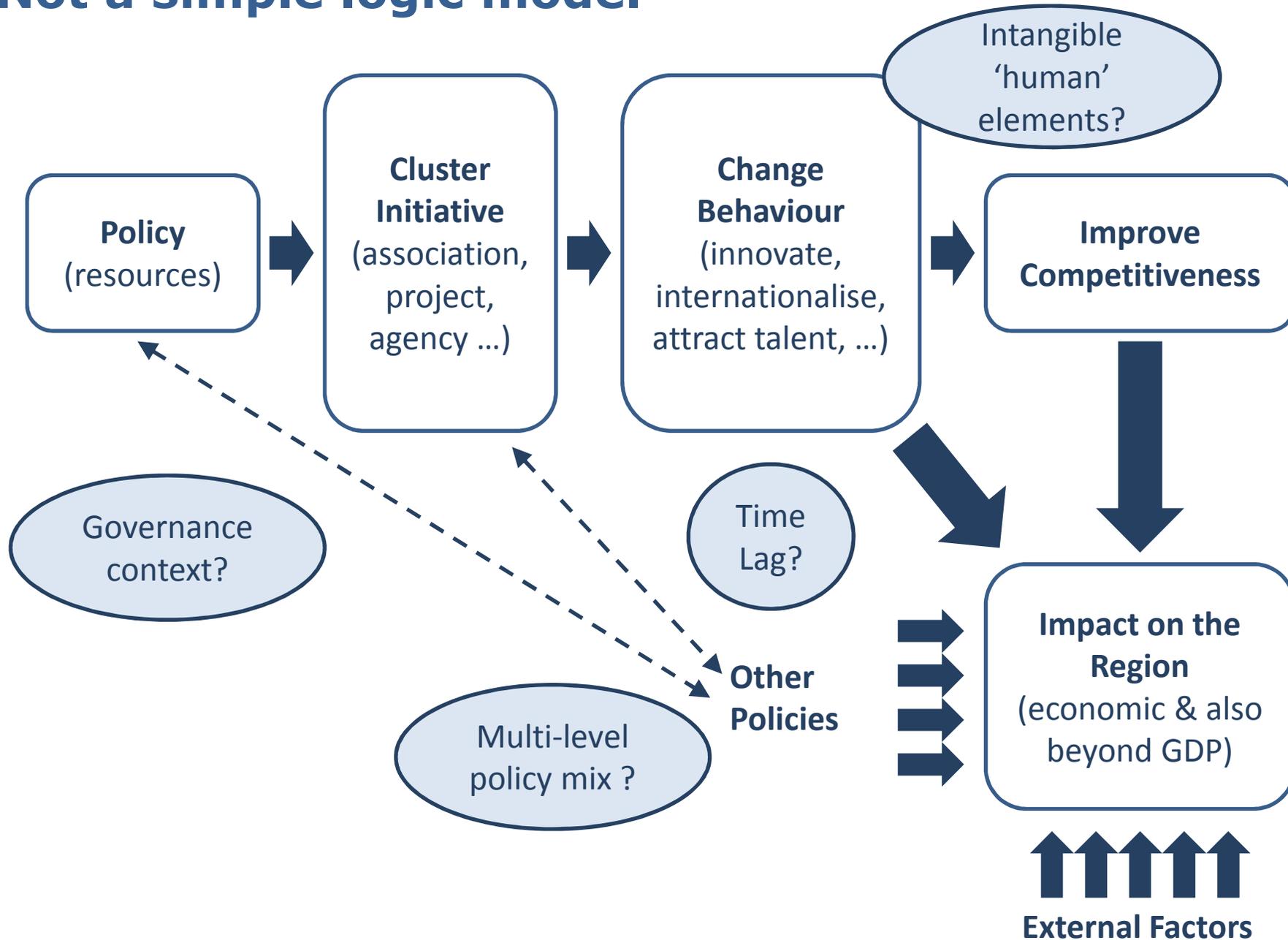
The impacts of working with clusters are hard to measure because they are intangible and difficult to isolate

- Clusters generate space for tackling issues that may only generate solutions in the longer term
- Clusters generate higher trust and social capital
- Cluster activities spill over to agents outside the cluster initiative
- Cluster policies interact with other competitiveness policies
- Clusters are extremely heterogeneous

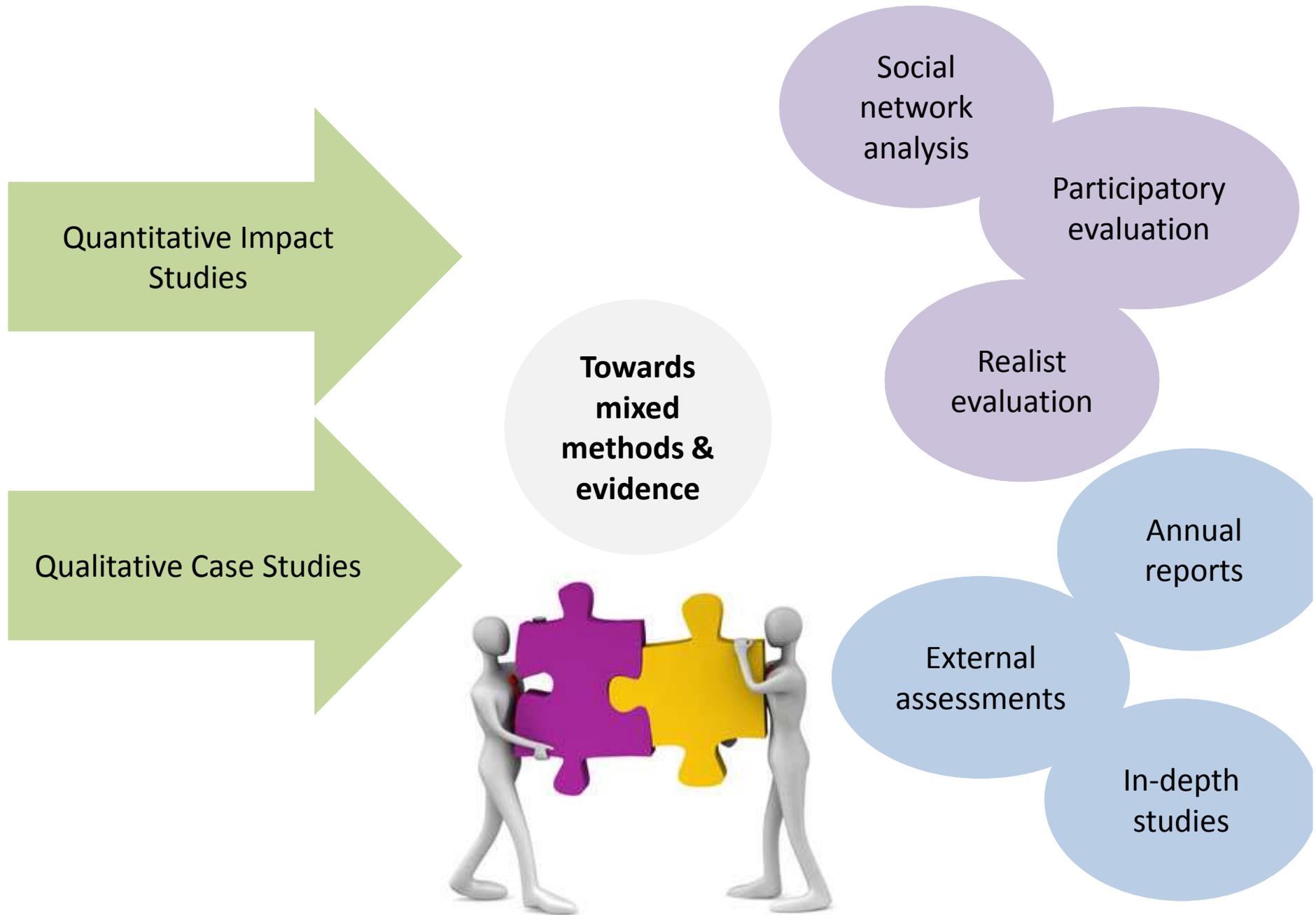
Thus it is difficult to rigorously show whether or not cluster policy has positive effects

- “pick and mix of research evidence” (Perry, 2005)

# Not a simple logic model



# Emerging Approaches to Cluster Evaluation



# Cluster evaluation as learning

New techniques and approaches are needed to address these challenges, but above all we need a paradigm shift:

- Evaluation is too often seen as a threat or challenge because it is associated narrowly with accountability, rather than seeing *evaluation as learning*
- The solution lies in truly integrating evaluation into the day-to-day of clusters and cluster policy processes so that it becomes an essential part of policy governance
- It should be an integral part of the policy process, not something that is done ‘afterwards’ to justify activities
- It should look to influence policy improvement and cluster management improvement simultaneously

“Policy-makers need to become more comfortable with strategies that aim to influence rather than control”

*OECD (2009)*

# TCI cluster evaluation group



- A forum for learning collectively around these common, complex & important evaluation challenges
- Sharing learning
- Identifying gaps
- Trying new approaches



# TCI cluster evaluation group



the global practitioners network for competitiveness, clusters and innovation



**Workshop  
Forres**



**Workshop  
Belfast**

**Workshop  
Rzeszow**

**Workshop  
Barcelona**



2013

2014

2015

2016

2017

Coming Up  
in 2017

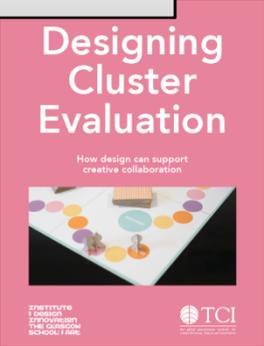
**Oslo  
Bogota**

**TCI  
Conference  
Kolding**

**TCI  
Conference  
Monterrey**

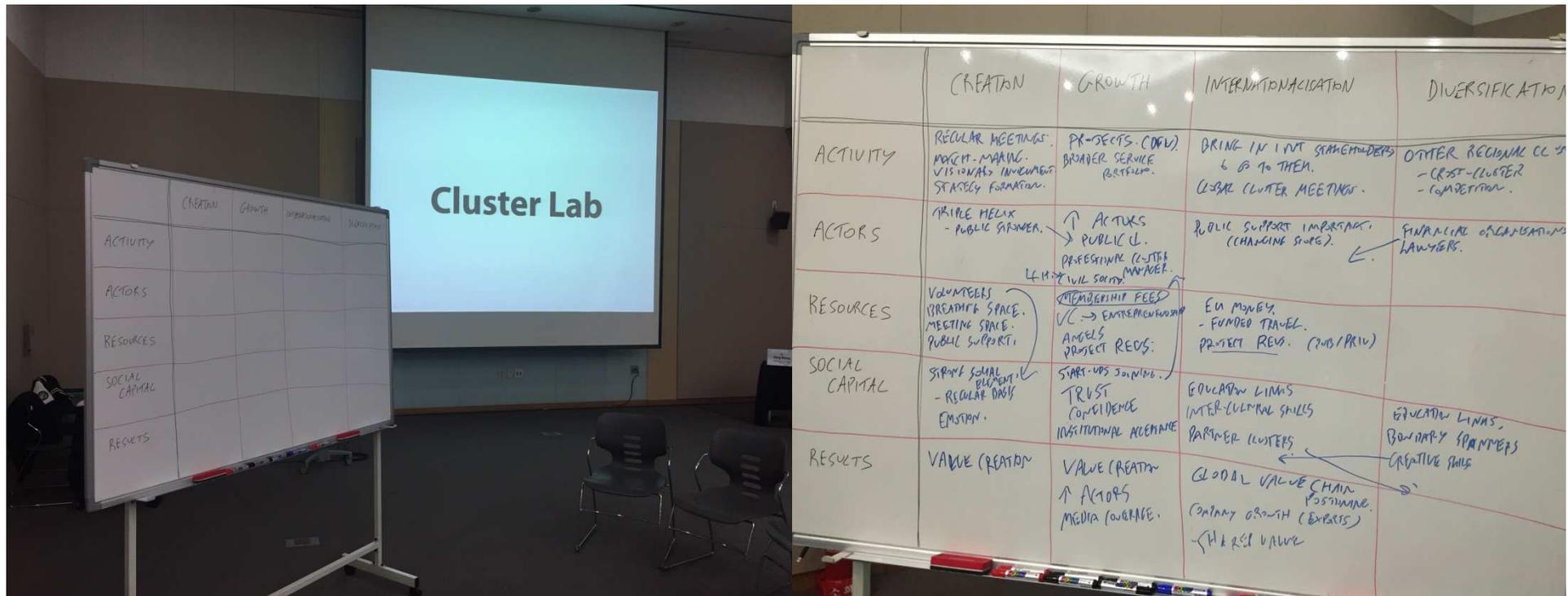
**TCI  
Conference  
Daegu**

**TCI  
Conference  
Eindhoven**



# The perfect cluster framework

- A user journey story from the perspective of the cluster



- Result of Daegu Cluster Lab (November 2015)
- Framework validated & fine-tuned in Barcelona (May 2016)

# Part 1: Evidencing cluster emergence & growth

	Emergence of the Cluster	Growth of the Cluster
<b>Activities: What is happening?</b>	<ul style="list-style-type: none"> <li>- (Regular) networking and interactive meetings/workshops across cluster actors</li> <li>- Capability and market mapping</li> <li>- Matchmaking</li> <li>- Understanding target markets</li> <li>- Defining area of specialization/value chain that draws initial perimeters of the cluster</li> <li>- Establishing basis for a common vision/strategy</li> <li>- Developing cluster brand</li> <li>- Forming institutions (unique organisations/funds) to coordinate action</li> <li>- Cluster intelligence</li> <li>- Communication strategy and action plan (internal and external)</li> </ul>	<ul style="list-style-type: none"> <li>- Strategic planning</li> <li>- Understanding and addressing barriers</li> <li>- Identifying (longer-term) opportunities</li> <li>- Development projects between different players (latest research being put into play)</li> <li>- Skills' training, workforce development</li> <li>- Proactively strengthening industry-academic partnerships</li> <li>- Building capability for the region</li> </ul>
<b>Actors: Who is involved?</b>	<p>A broad/diverse group: critical mass of interested actors engaged in related activities</p> <ul style="list-style-type: none"> <li>- SMEs (drivers) and large companies (enablers/accelerators)</li> <li>- Researchers (thinkers)</li> <li>- Practitioners (do'ers)</li> <li>- Supportive government actors (but not too "directive")</li> </ul>	<ul style="list-style-type: none"> <li>- Professional cluster manager/facilitator and core leadership group</li> <li>- Entrepreneurs</li> <li>- New cluster actors (expanding network)</li> <li>- Government involvement aligned with cluster strategy</li> <li>- Civil society</li> </ul>
<b>Resources: What money and physical assets are being used?</b>	<ul style="list-style-type: none"> <li>- Internal support; volunteers, in particular committed industry leaders</li> <li>- Meeting space</li> <li>- External (maybe public sector) support/seed financing</li> <li>- Potential qualified management (resource-dependent)</li> </ul>	<ul style="list-style-type: none"> <li>- Membership fees</li> <li>- Project resources</li> <li>- Private sector R&amp;D investments</li> <li>- VC/entrepreneurship investments</li> <li>- Public investment (within policy/programme)</li> <li>- New joint facilities (test/demo, incubators)</li> <li>- Knowledge resources (e.g. training)</li> <li>- Cluster brand</li> </ul>
<b>Human Elements: What are the characteristics and behaviours of people involved?*</b>	<ul style="list-style-type: none"> <li>- Willingness to engage</li> <li>- Regular basis</li> <li>- Strong social element and trust among regional actors</li> <li>- Information sharing</li> <li>- Positive atmosphere and behaviours</li> <li>- Open minded</li> </ul>	<ul style="list-style-type: none"> <li>- Mobility between actors within the cluster</li> <li>- More complex projects</li> <li>- Knowledge-sharing and spillovers</li> <li>- Commitment to solving common (wicked) problems</li> <li>- Developing ways of operating</li> <li>- Trust, confidence in the added value of the cluster members</li> <li>- Strong and frequent internal communication</li> </ul>
<b>Results: What is being generated?</b>	<ul style="list-style-type: none"> <li>- New collaborative projects between small and larger companies in collaboration</li> <li>- Foundations for value creation</li> </ul>	<ul style="list-style-type: none"> <li>- Spin-off businesses</li> <li>- New companies; new actors</li> <li>- Successful projects; value creation</li> <li>- Local to regional spread (company, cluster + regional impacts)</li> <li>- Media coverage</li> <li>- Widening of cluster ecosystem &amp; potential changes in cluster perimeters</li> <li>- Opening up of specific development paths based on internationalization &amp;/or diversification (see second table)</li> </ul>

## Part 2: Evidencing different development paths

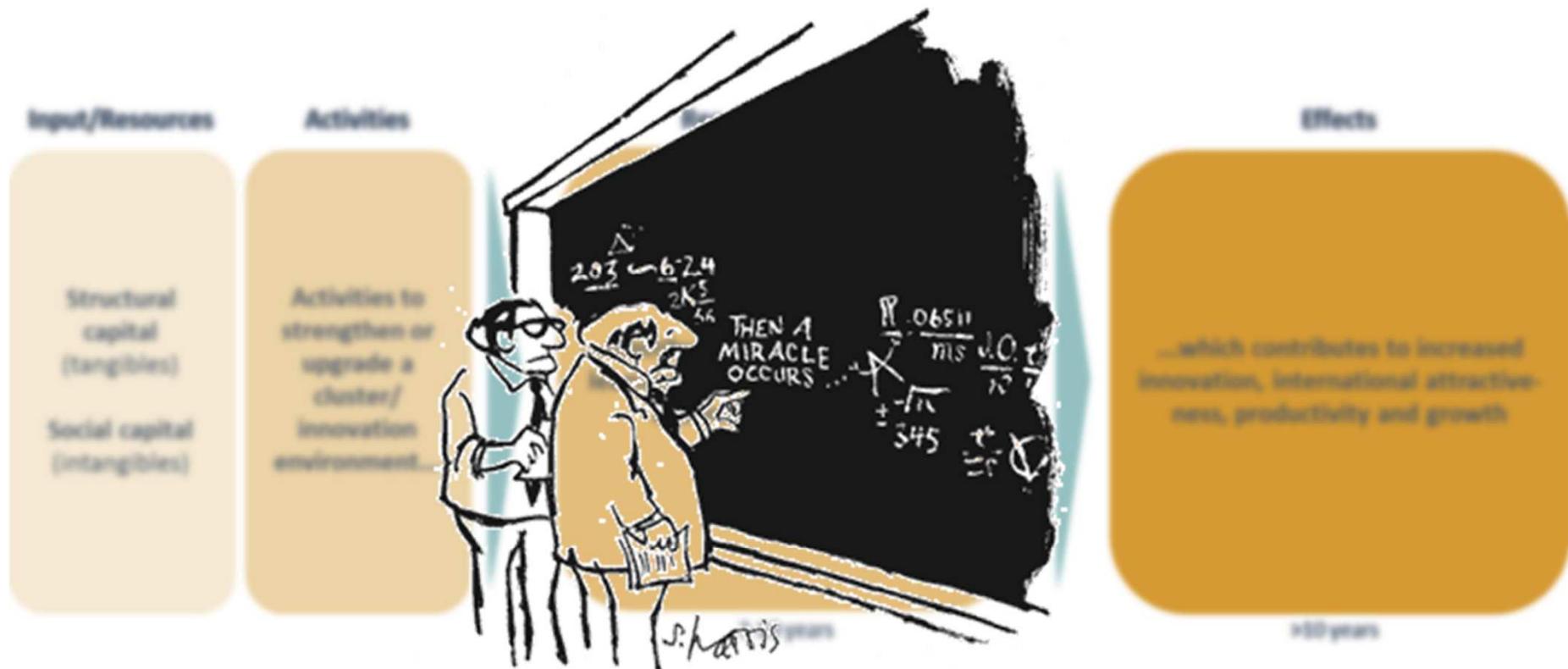
	Internationalising the Cluster	Diversifying the Cluster
<b>Activities: What is happening?</b>	<ul style="list-style-type: none"> <li>- Filling capability gaps</li> <li>- Exploiting opportunities</li> <li>- Identifying international partners; linkages with hubs internationally</li> <li>- Development projects with new partners (outside cluster)</li> </ul>	<ul style="list-style-type: none"> <li>- More (and more ambitious) projects</li> <li>- Different types of projects</li> <li>- Cross-cluster platforms</li> <li>- Other regional clusters</li> <li>- Clusters of clusters</li> <li>- International clusters/ partnerships</li> </ul>
<b>Actors: Who is involved?</b>	<ul style="list-style-type: none"> <li>- Participants in regional strategy; cluster actors in other activities</li> <li>- Other clusters and research actors outside region (including internationally)</li> <li>- Venture capital (including international)</li> <li>- Public support important (changing scope)</li> <li>- Lawyers</li> </ul>	<ul style="list-style-type: none"> <li>- Participants in regional strategy; cluster actors in other activities</li> <li>- Financial organisations</li> <li>- Lawyers</li> <li>- Venture capital (including international)</li> <li>- Public support important (changing scope)</li> </ul>
<b>Resources: What money and physical assets are being used?</b>	<ul style="list-style-type: none"> <li>- More private sector investments</li> <li>- Transnational programme funding (e.g. EU)</li> <li>- Project resources</li> <li>- Intangibles (e.g. databases) and structured ways of working</li> </ul>	<ul style="list-style-type: none"> <li>- Transnational programme funding (e.g. EU)</li> <li>- Project resources</li> <li>- Intangibles and structured ways of working</li> </ul>
<b>Social Capital: What are the characteristics and behaviours of people involved?*</b>	<ul style="list-style-type: none"> <li>- International partners</li> <li>- More expansive and inclusive</li> <li>- Intercultural skills</li> <li>- Creative skills</li> <li>- Education links</li> <li>- Finding commonality with other clusters</li> </ul>	<ul style="list-style-type: none"> <li>- New sector partners</li> <li>- Partner clusters</li> <li>- Education links</li> <li>- Creative skills</li> <li>- Boundary spanners</li> </ul>
<b>Results: What is being generated?</b>	<ul style="list-style-type: none"> <li>- Better knowledge; new insights</li> <li>- New business models</li> <li>- Shared value</li> <li>- Company growth (exports)</li> <li>- Integration in global value chains</li> </ul>	<ul style="list-style-type: none"> <li>- New knowledge</li> <li>- Spin-off businesses in new areas</li> <li>- New markets</li> <li>- Shared value</li> </ul>

# Cluster survey



- In an effort to better understand “the miracle in the middle”, design of a standard firm-level question set
- Validated with TCI Working Group in Barcelona (May 2016)
- Tested in Australia, Colombia, England, and Norway before TCI Conference in Eindhoven
- Additional tests were planned in Basque country, Catalonia, and possibly Sweden
- A work in progress! At next TCI WG meeting:
  - Plan to synthesize results from different tests – highlighting challenging aspects and alternative approaches to get at the answers
  - Proposals for adjustments to questions and methods of data collection
- Ambitions to develop a tool to be useful for cluster managers (which can be used on broader/European/international level)

# Exploring ways to better understand the "miracle" in the middle



"I THINK YOU SHOULD BE MORE EXPLICIT HERE IN STEP TWO."

# Need to evaluate impact on both collaborative dynamics and economic performance



## Impacts on Collaborative Dynamics (aka **the human element**) (engagement, linkages/interaction, collaboration/collective action)

### Data/Indicators:

- ? Number/type/strength of engagement of actors in cluster initiative
- ? Number/type/strength of alliances/collaborations among cluster participants
- ? Number/type/strength of alliances/collaborations with related actors outside the cluster

### Methods of data collection/analysis:

- Surveys
- Interviews
- Social network analysis

## Impacts on Economic Performance (intermediate outcomes and productivity)

### Data/Indicators:

- Number/quality of publications and patents (and other IP)
- Number of new products/processes/ services
- Number of new firms/firm growth
- Level of investments attracted (VC, FDI)
  
- Firm-level revenue/growth; export/growth; employment/growth; and wages/growth

### Methods of data collection:

- Surveys
- Interviews
- Business registers/national statistics

Note: see Giuliani et al. (2014) for additional elaboration on the "two-stage" evaluation process

# What are the dimensions of collaborative dynamics we think are important to understand?

## Collaborative Dynamics can be characterized by...

- Increased interaction and knowledge sharing between different types of actors
- Increased trust and deeper types of collaboration (from information and knowledge sharing to strategic collaboration)
- Participating actors' perception of benefits from pursuing joint activities (addressing common goals)
- Participating actors' commitment to collective action (without guaranteed reciprocity)
- Participating actors' perception and support of a shared rationale or value proposition for collective action
- Participating actors' perception and support of a shared identity

(see description of "The Perfect Cluster")

## Proposed Dimensions and Indicators

- Internal and external linkages/ network ties (*structural*)
  - quantity of new linkages
  - type/proximity of partner
  - quality of linkage
- Engagement/trust/commitment (*relational*)
  - type of engagement
  - level of (company) commitment/reciprocity
- Shared vision and identity (*cognitive*)
  - common vision
  - collective action

(inspired by both academic/theoretical frames and existing monitoring/evaluation practices)

# A proposed way to monitor this development (through a firm-level survey)

## Based on theory and practice...a survey in four parts

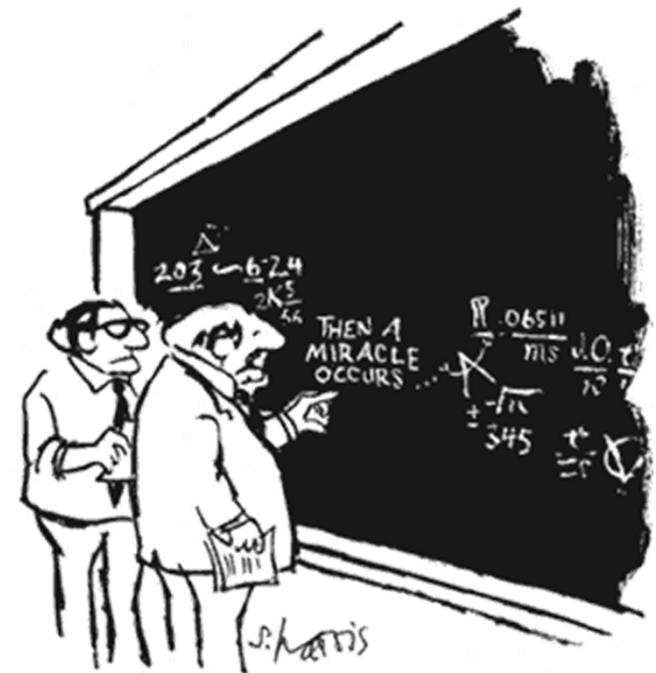
- A. Company information (2)  
(could be provided by cluster manager)
- B. Economic data (4-5) (could be sourced through business registers)
- C. Perceived value of collaborative strength (5) (*responses indicate companies' perception of social capital/shared vision and value of collective action*)
- D. Collaborative dynamics (*responses indicate the type of engagement and dynamics within the cluster initiative, and companies' perception of social capital/shared vision and value of engaging in collaborative activities*)
  - Number and type of new linkages (4)
  - Engagement in collaborative activities (5)
  - Perceived value of collaborative activities (5)

# Cluster evaluation principles

- ***Evaluation for change***
  - Evaluation is about learning, not just audit
- ***Different audiences need different outputs***
  - Understand the audience & tell stories as well as facts
- ***Evaluation needs to reflect real world context***
  - Understand external environment & interactions with other policies
- ***Capture evidence against Why, What & How***
  - Regional competitiveness, projects & programmes, collaborative dynamics
- ***Timing of evaluation***
  - Recognise long time-frame & reflect level of maturity of clusters
- ***Social capital and trust are fundamental***
  - Find ways to evidence softer issues, and link them to harder ‘results’
- ***Causality of challenging so gather basket of evidence***
  - Mixed methods, baselines

# Provoking a discussion

- Is cluster evaluation worth all of the hassle?
  - Why? Why not?
- What are reasonable (and measurable) goals for a cluster initiative?
  - For example, what would you expect in terms of results after 3 years on an investment of €100.000 a year?
- Which is more important in designing an evaluation:
  - That it generates a concrete figure that demonstrates impact/return on investment?
  - That it generates indicators and processes that can support learning?
  - Is there a trade-off between the two?
- How can policy-makers measure the contribution of clusters to the success of other policies/strategies?
  - For example, smart specialisation strategies



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# THANK YOU!

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