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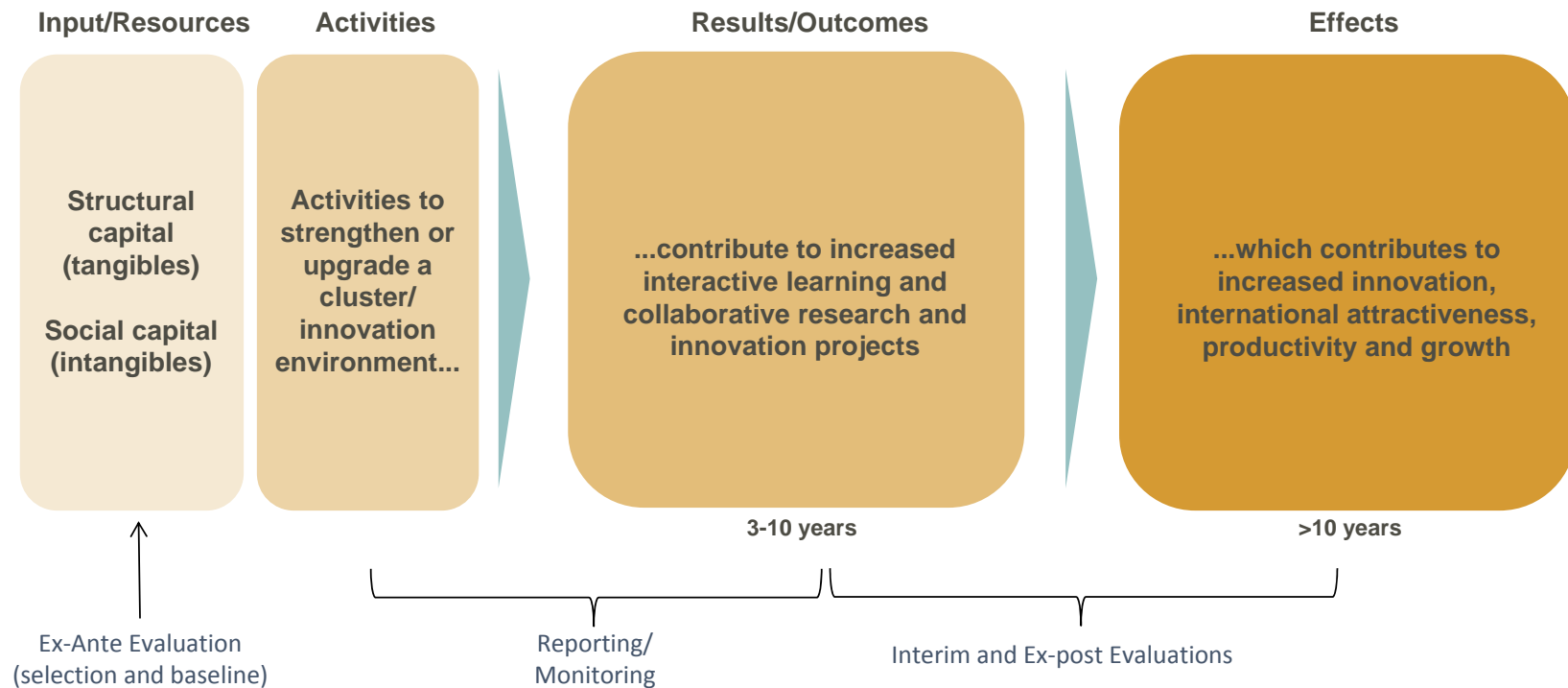


Cluster Evaluation

Different types of effects and evaluation levels

 TCI
the global practitioners network for
competitiveness, clusters and innovation

A generally accepted effect logic of cluster policy – a simplified version



Need to evaluate effects 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

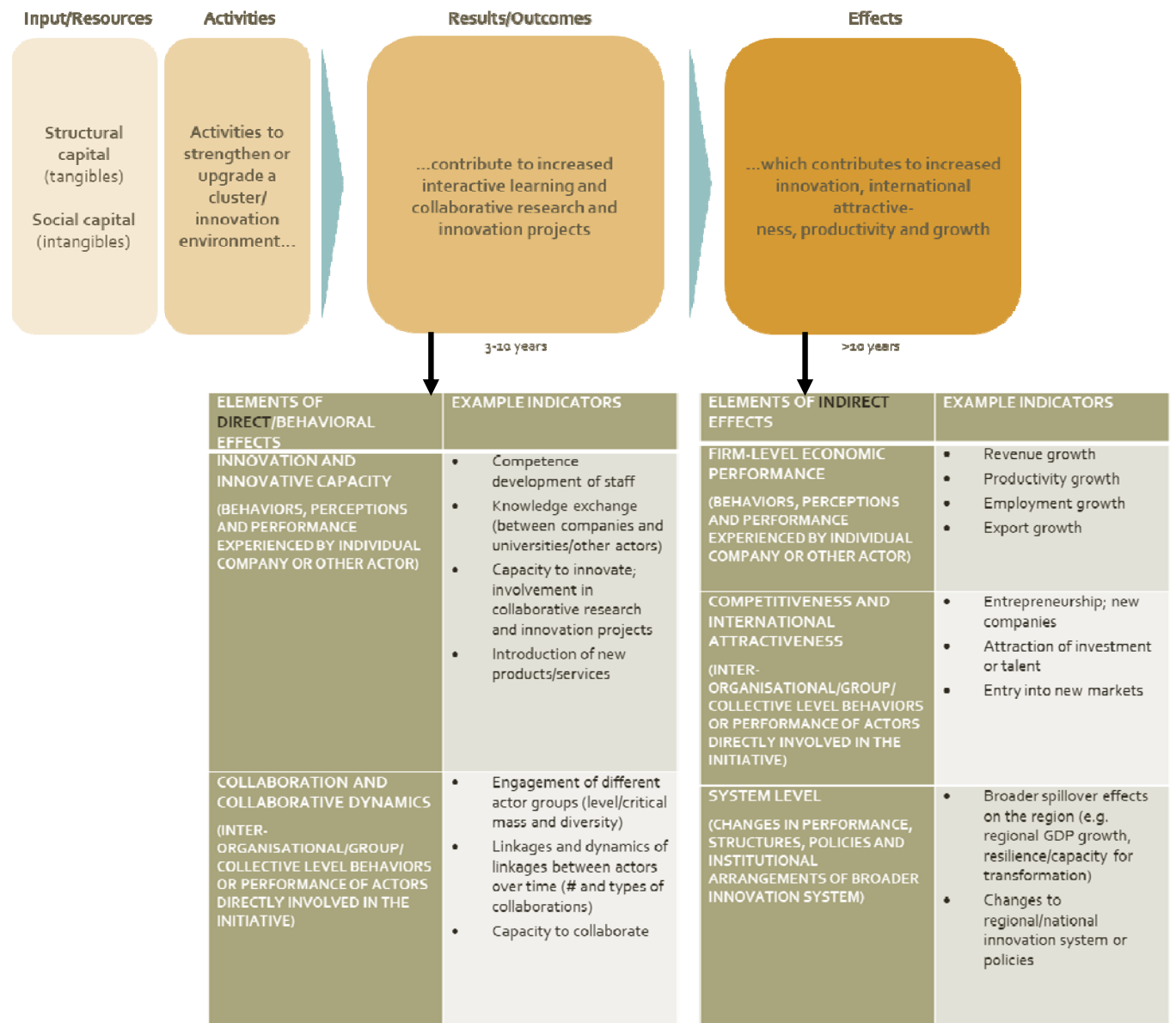
(see description of "The Perfect Cluster")

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)

Cluster programmes yield different types of effects – mirroring the (theoretical) effect logic

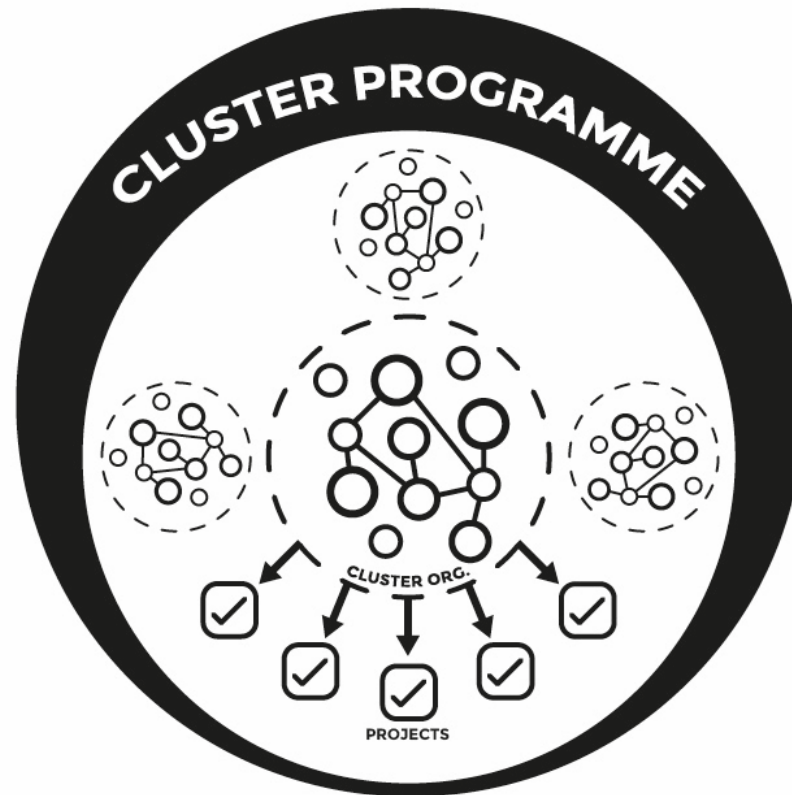


Cluster programmes yield different types of effects – mirroring the (theoretical) effect logic

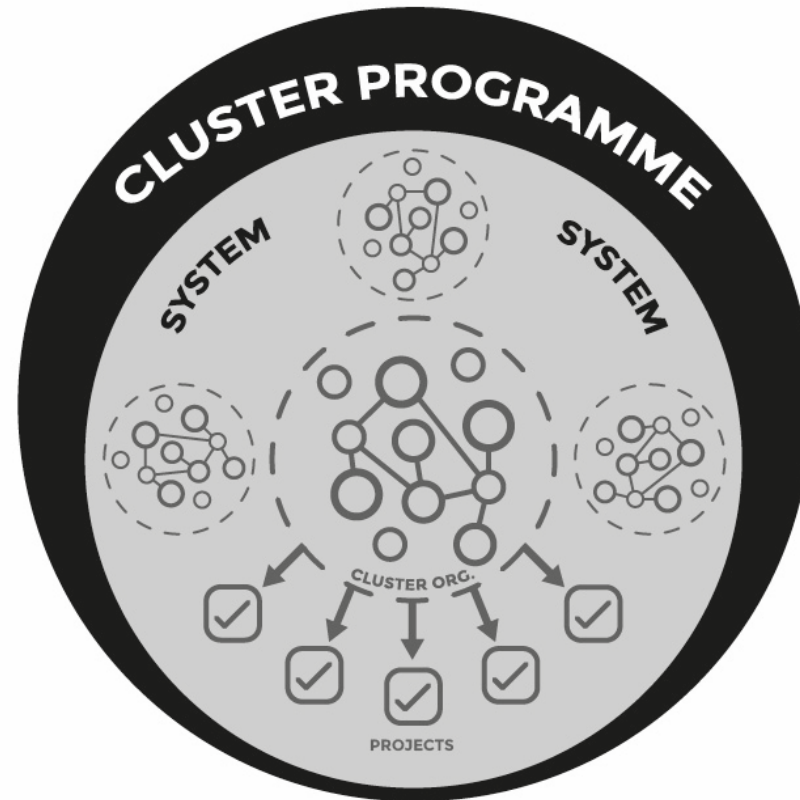
ELEMENTS OF DIRECT/BEHAVIORAL EFFECTS	EXAMPLE INDICATORS	ELEMENTS OF INDIRECT EFFECTS	EXAMPLE INDICATORS
INNOVATION AND INNOVATIVE CAPACITY (BEHAVIORS, PERCEPTIONS AND PERFORMANCE EXPERIENCED BY INDIVIDUAL COMPANY OR OTHER ACTOR)	<ul style="list-style-type: none"> • Competence development of staff • Knowledge exchange (between companies and universities/other actors) • Capacity to innovate; involvement in collaborative research and innovation projects • Introduction of new products/services 	FIRM-LEVEL ECONOMIC PERFORMANCE (BEHAVIORS, PERCEPTIONS AND PERFORMANCE EXPERIENCED BY INDIVIDUAL COMPANY OR OTHER ACTOR)	<ul style="list-style-type: none"> • Revenue growth • Productivity growth • Employment growth • Export growth
COLLABORATION AND COLLABORATIVE DYNAMICS (INTER-ORGANISATIONAL/ GROUP/ COLLECTIVE LEVEL BEHAVIORS OR PERFORMANCE OF ACTORS DIRECTLY INVOLVED IN THE INITIATIVE)	<ul style="list-style-type: none"> • Engagement of different actor groups (level/critical mass and diversity) • Linkages and dynamics of linkages between actors over time (# and types of collaborations) • Capacity to collaborate 	COMPETITIVENESS AND INTERNATIONAL ATTRACTIVENESS (INTER-ORGANISATIONAL/ GROUP/ COLLECTIVE LEVEL BEHAVIORS OR PERFORMANCE OF ACTORS DIRECTLY INVOLVED IN THE INITIATIVE)	<ul style="list-style-type: none"> • Entrepreneurship; new companies • Attraction of investment or talent • Entry into new markets
		SYSTEM LEVEL (CHANGES IN PERFORMANCE, STRUCTURES, POLICIES AND INSTITUTIONAL ARRANGEMENTS OF BROADER INNOVATION SYSTEM)	<ul style="list-style-type: none"> • Broader spillover effects on the region (e.g. regional GDP growth, resilience/capacity for transformation) • Changes to regional/national innovation system or policies

Source: Wise, Wilson and Smith (2017) *A review of cluster programme effect analyses in Sweden and internationally* for Swedish Agency for Regional and Economic Growth

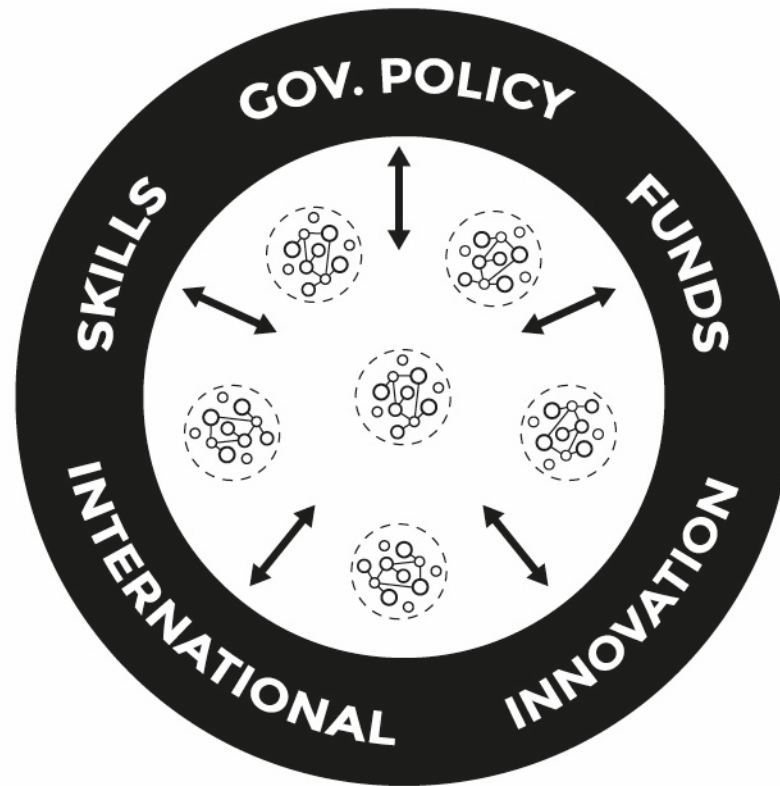
Focus of Policy Evaluation



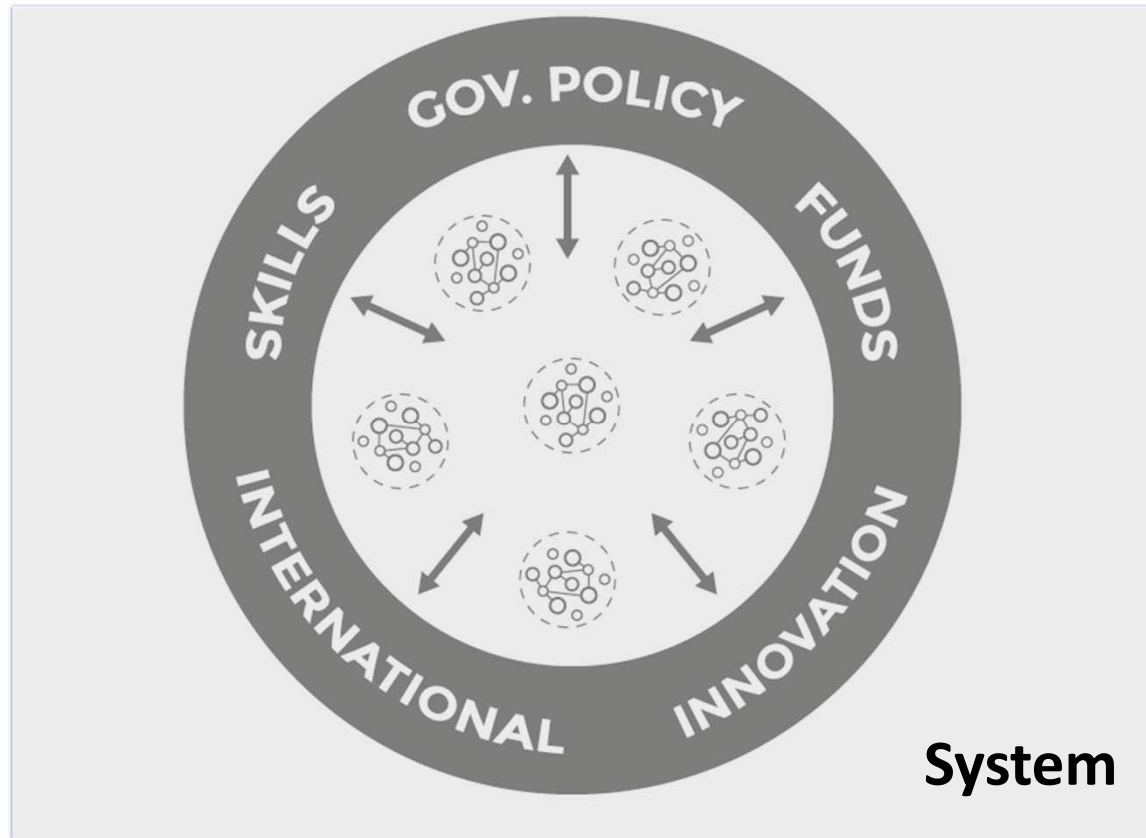
Focus of Policy Evaluation



Focus of Policy Evaluation



Focus of Policy Evaluation



Effects can be grouped into different levels

	ELEMENTS OF DIRECT/ BEHAVIORAL EFFECTS	EXAMPLE INDICATORS	ELEMENTS OF INDIRECT EFFECTS	EXAMPLE INDICATORS
Firm/actor level (changes in behavior/performance, and perceptions of an individual organisation)	INNOVATION AND INNOVATIVE CAPACITY (BEHAVIORS, PERCEPTIONS AND PERFORMANCE EXPERIENCED BY INDIVIDUAL COMPANY OR OTHER ACTOR)	<ul style="list-style-type: none"> Competence development of staff Knowledge exchange (between companies and universities/other actors) Capacity to innovate; involvement in collaborative research and innovation projects Short/Med-term results: <ul style="list-style-type: none"> Articles (academic, other) Introduction of new products/services Prototypes and patent applications 	ACTOR-LEVEL PERFORMANCE (BEHAVIORS, PERCEPTIONS AND PERFORMANCE EXPERIENCED BY INDIVIDUAL COMPANY OR OTHER ACTOR)	Short/Med-term (move some of results from column to left?) Longer Term <ul style="list-style-type: none"> Revenue growth Productivity growth Employment growth Export growth
Cluster level (changes in dynamics/relations of those directly involved; group level and direct)	COLLABORATION AND COLLABORATIVE DYNAMICS (INTER-ORGANISATIONAL/ GROUP/ COLLECTIVE LEVEL BEHAVIORS OR PERCEPTIONS OF ACTORS DIRECTLY INVOLVED IN THE INITIATIVE)	<ul style="list-style-type: none"> Engagement of different actor groups (level/critical mass and diversity) Linkages and dynamics of linkages between actors over time (# and types of collaborations) Willingness/perceived value and Capacity to collaborate 		
System level (changes in the broader innovation ecosystem and innovation support system; group level and indirect)			COMPETITIVENESS AND INTERNATIONAL ATTRACTIVENESS OF INNOVATION ECO-SYSTEM (INTER-ORGANISATIONAL/ GROUP/ COLLECTIVE LEVEL BEHAVIORS OR PERFORMANCE AFFECTED BY ACTIVITIES OR INVOLVING ACTORS INVOLVED IN THE INITIATIVE)	<ul style="list-style-type: none"> Shifts/transitions in labour market Entrepreneurship/new companies or attraction of new establishments (of existing companies) Attraction of investment and development of investment levels; Financial leverage New R&I infrastructure Stronger international visibility and engagement (FDI, collaboration)
			BUSINESS AND INNOVATION SUPPORT SYSTEM (CHANGES IN PERFORMANCE, STRUCTURES, POLICIES AND INSTITUTIONAL ARRANGEMENTS OF BUSINESS AND INNOVATION SUPPORT SYSTEM)	<ul style="list-style-type: none"> Changes to structure or dynamics of regional (or national) innovation support system Changes to policies, standards, etc. Changes to regional development strategies

In M&E practice, need to be clear about what is being analysed...what "level of evaluation"

Level	Scope (what analysed?) – examples
System (RIS/Sector)	Strength/importance of sector Characteristics of business environment (entrepreneurship, trends in industrial transformation, labour mobility, FDI, etc.) Characteristics of regional innovation (support) system
Policy/ Programme (=public investment)	Relevance and efficiency of policy/programme Results/impact from individual and portfolio of cluster-based initiatives (see cluster project/initiative and cluster actor levels below) Results/impact on system-level (see above)
Cluster Org/Mgmt	Structure and quality of organisation/mgmt, financing, services offered (ESCA label)
Cluster Initiative and its projects	Engagement of different actor groups (#, type of actor, depth of engagement) Linkages and dynamics of collaborative linkages (of different types) between actors Leverage/catalyst effect (strategy/direction of collective action and ability to 'lever up' over time) Outputs/Outcomes from CI activities/services
Firms (and other actors) in cluster	Member satisfaction with/perceived value from cluster and CO services Changes in collaborative behaviors Changes in skills/knowledge and/or innovation capacity and performance Changes in economic performance (GVA, employment, etc.)
Firms (and other actors) outside cluster	Changes in economic performance (GVA, employment, etc.)

Focus of Policy Evaluation

- Project
- Organisation
- Policy/programme
- System

