

# New Metropolitan Perspectives



NMP2018

REGGIO CALABRIA MEDITERRANEA UNIVERSITY  
22.05.2018 - 25.05.2018

3RD INTERNATIONAL SYMPOSIUM



# The life cycle of clusters:

## A new perspective on the implementation of S3

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# Exploring new perspectives on the role of clusters in S3 design and implementation, with a focus on entrepreneurial discovery process (EDP).

PURPOSE

| **CONTEXT**

| QUESTION

| METHODOLOGY

| DISCUSSION

| FINDINGS

# S3...

“

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“*Smart specialisation is a policy concept that has enjoyed a short but very exciting life! [...] a perfect example of “policy running ahead of theory”.*

*Foray et al. (2012)*

## ...and Clusters

“*Clusters offer a huge potential for implementing smart specialisation strategies by providing and mobilising the necessary resources for that purpose.*

*Foray et al. (2012)*

# S3 and Clusters

## Leverage Points

Prioritization

Integrated policy mixes

Smart, evidence-based policy-making

Multi-level governance

Cross-border dimension

Sustained stakeholders engagement

“ [...]to take in consideration the level of clusters development.

Ketels et al. (2013)

“ Different policy measures vary in their effectiveness over the clusters life cycle.

Brenner and Schlump (2011)

“ The state-of-the-art exploration of smart specialization from a cluster life cycle perspective is an invaluable [resource] for academics [...] and regional policy-makers.

Fornahl and Hassink (2017)

# What is the potential role of clusters life cycle and spatial analysis towards guiding the EDP ???

# 3 Steps



**Defining the stages of CLC and selecting a set of indicators according to the literature, accounting for clusters stage-specific and spatial attributes.**

Framing the indicators into a model and assigning a qualitative judgment of their strength at each stage of the CLC

Interpreting the model towards testing whether the CLC and spatial analysis display the potential to input EDP.



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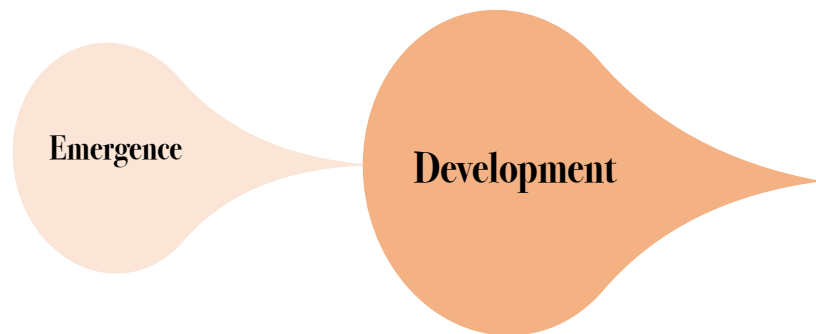
FINDINGS

# Stages of clusters Life cycle

Emergence

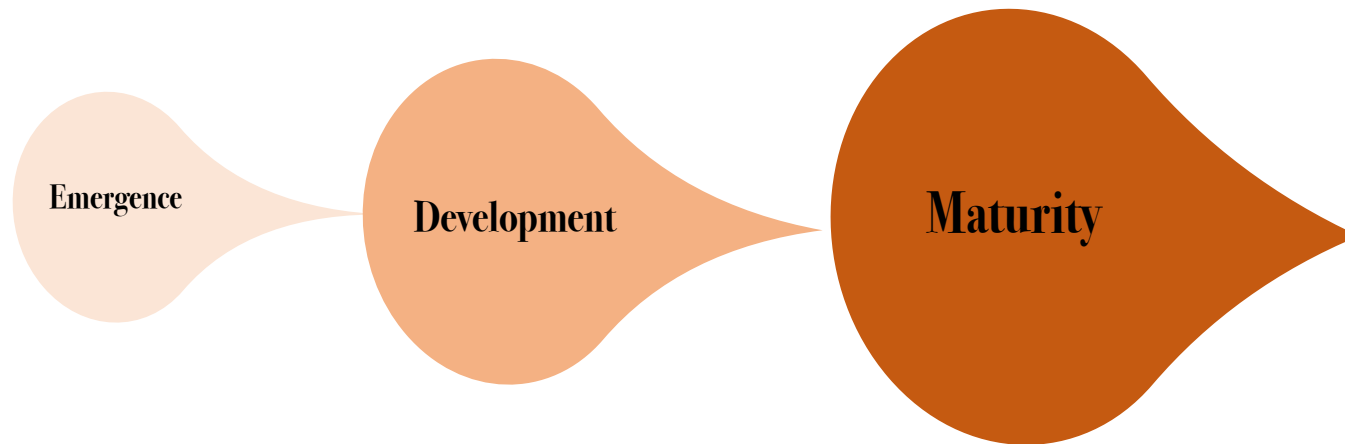
\* The figure is an Authors' elaboration

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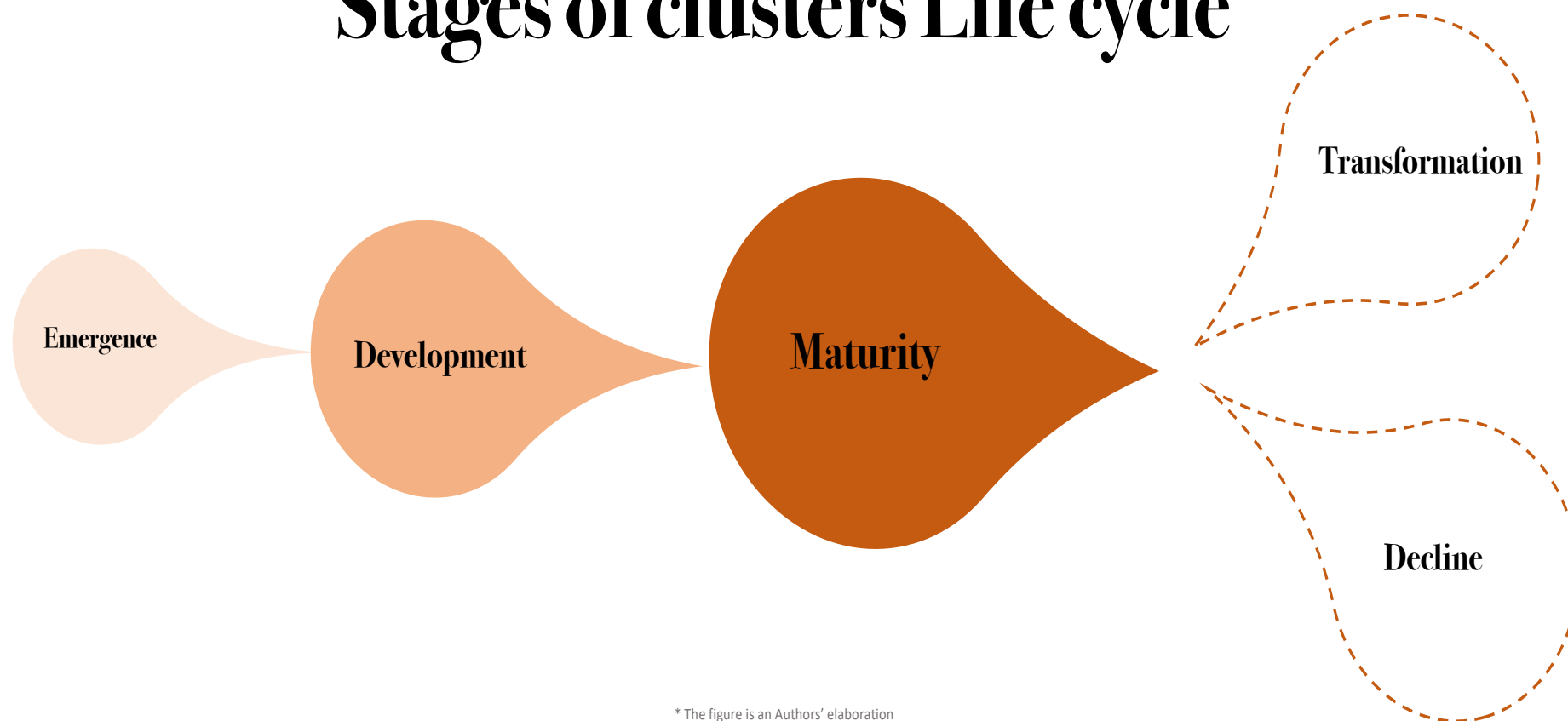
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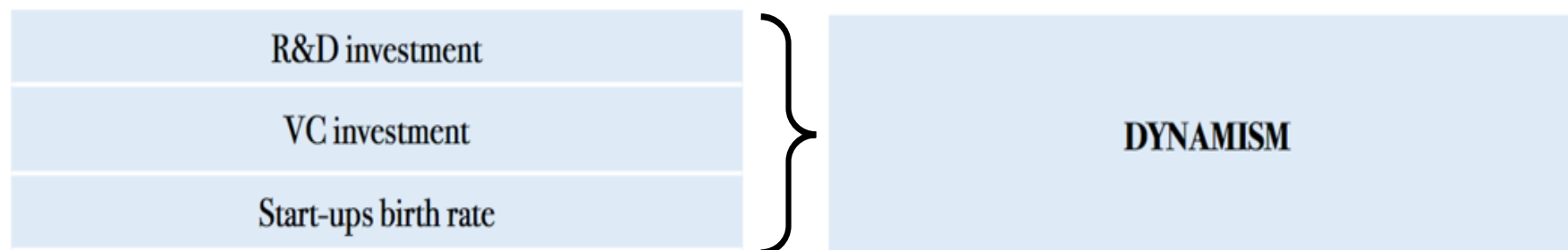
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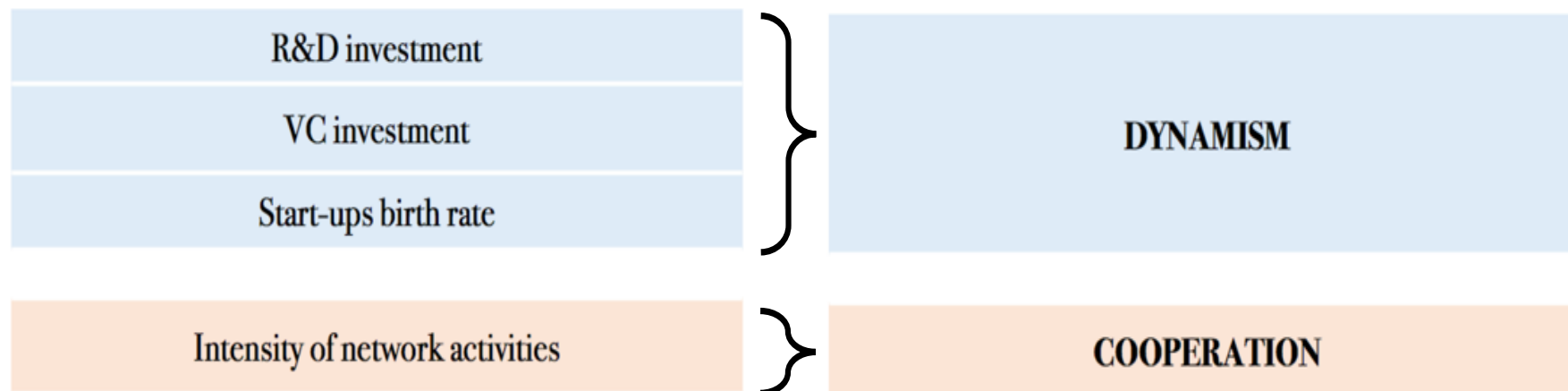
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# Indicators



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# Indicators

R&D investment	}	<b>DYNAMISM</b>
VC investment		
Start-ups birth rate		
Intensity of network activities	}	<b>COOPERATION</b>
Heterogeneity of available knowledge	}	<b>VARIETY</b>

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Heterogeneity of available knowledge	}	<b>VARIETY</b>
Specialization	}	<b>SPATIAL SIGNIFICANCE</b>
Agglomeration		

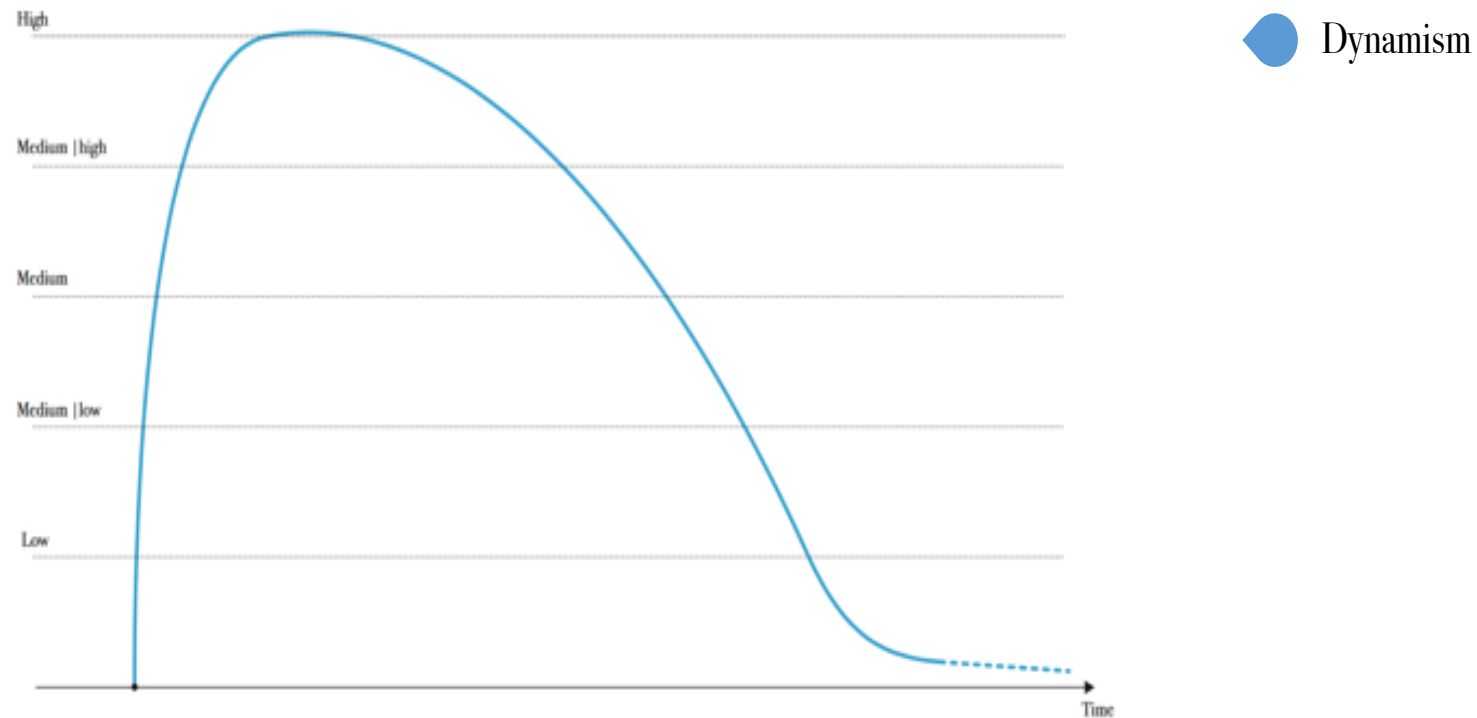
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# Theoretical Model

	DYNAMISM			COOPERATION	VARIETY	SPATIAL SIGNIFICANCE	
	R&D investment	VC investment	Start-ups birth rate	Intensity of network activities	Heterogeneity of available knowledge	Specialization	Agglomeration
Emergence	high	high	high	medium	high	low	low
Development	medium/high	medium/high	medium/high	medium/high	medium/high	medium	medium/high
Maturity	low	low	low	medium/high	low	high	high

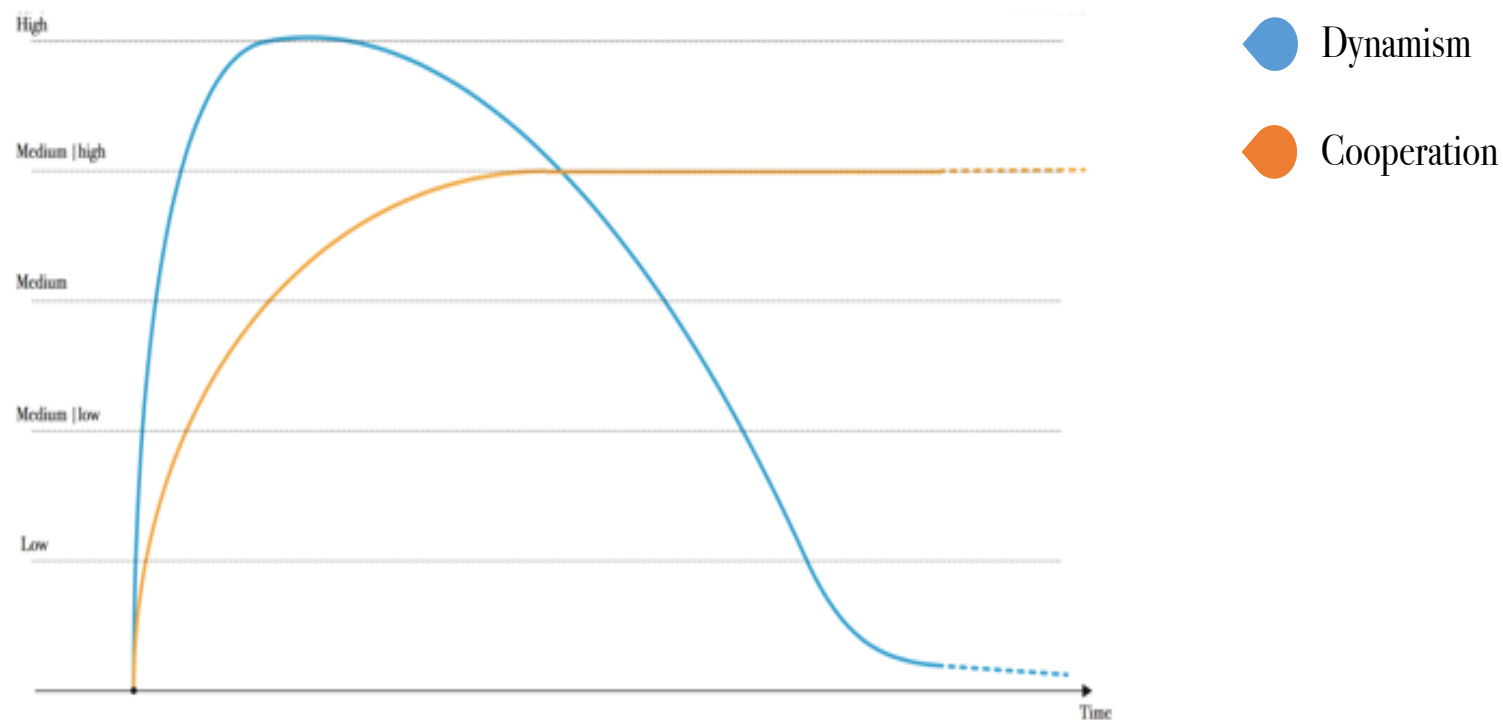
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# Model Interpretation



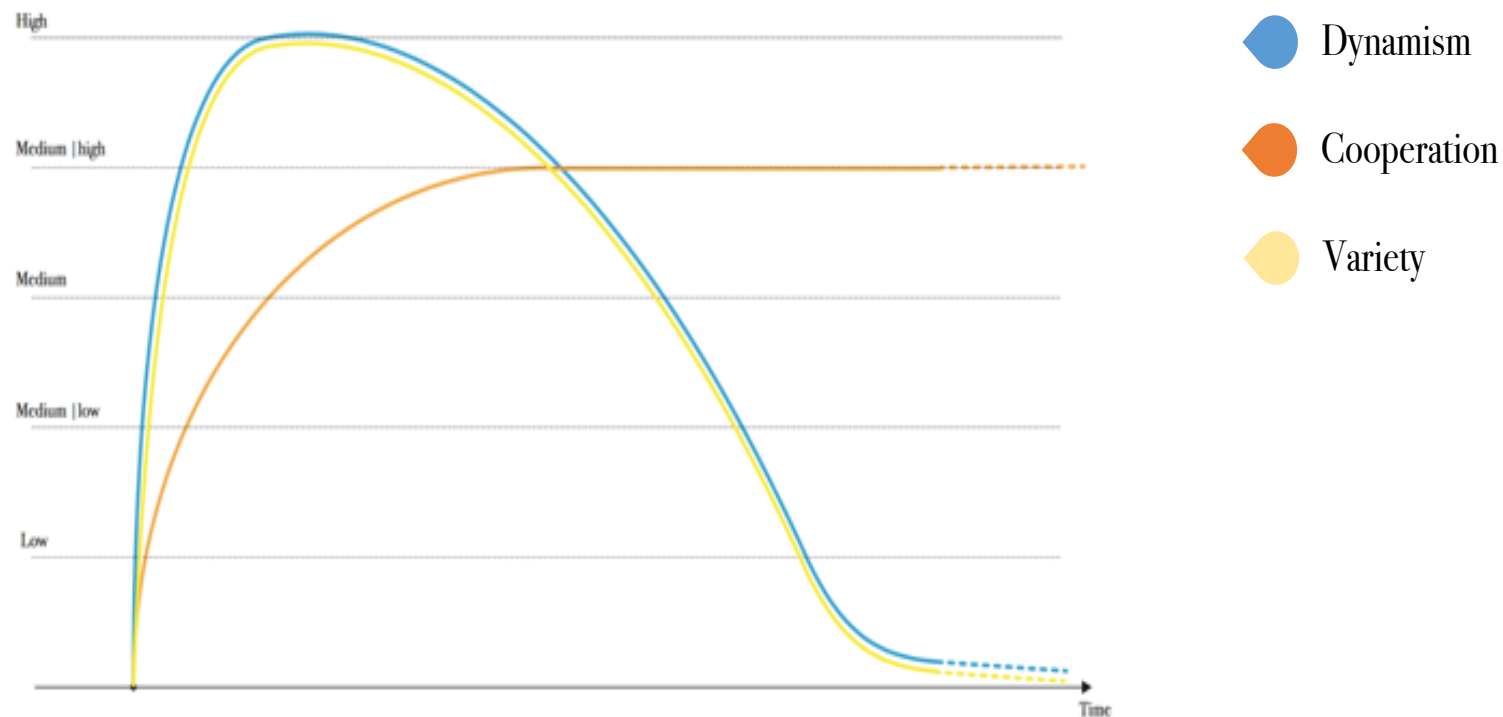
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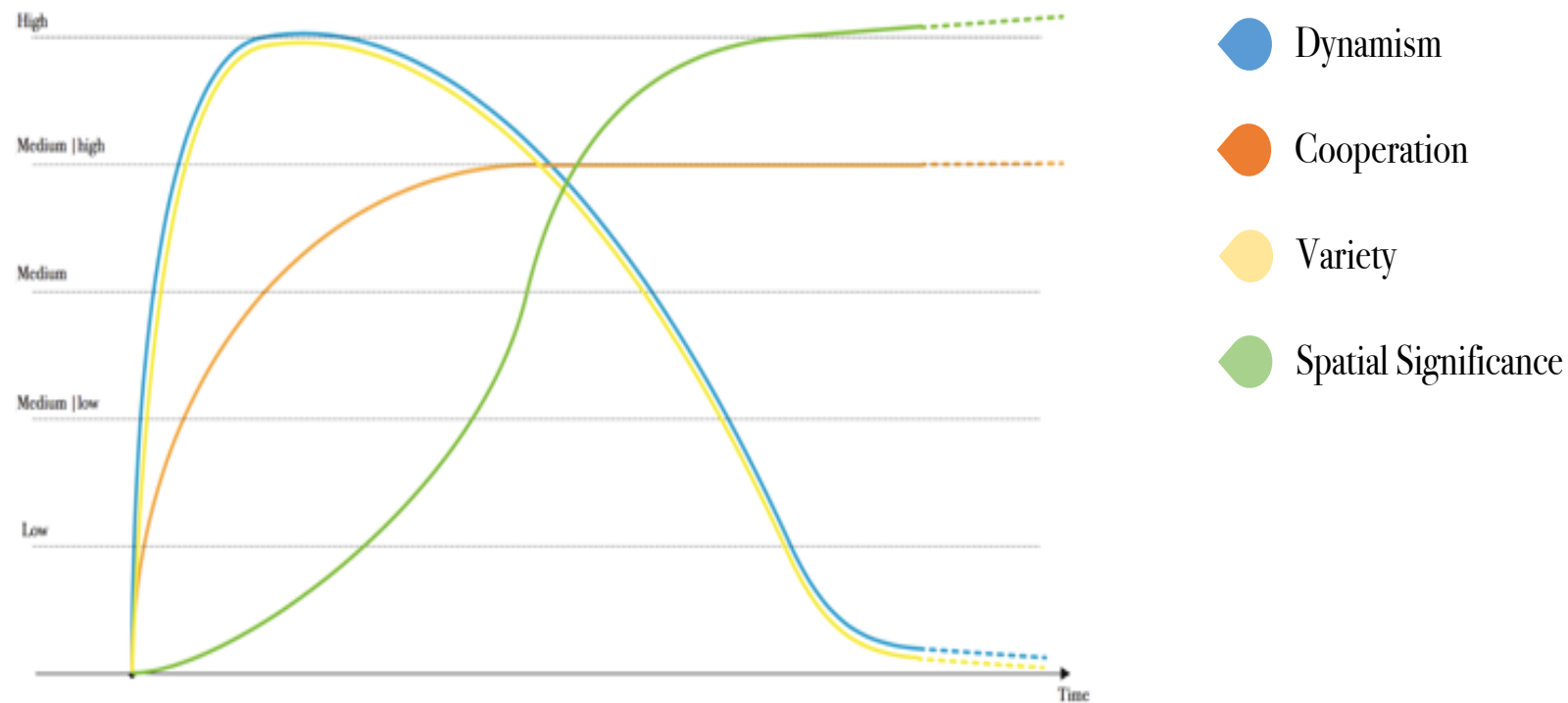
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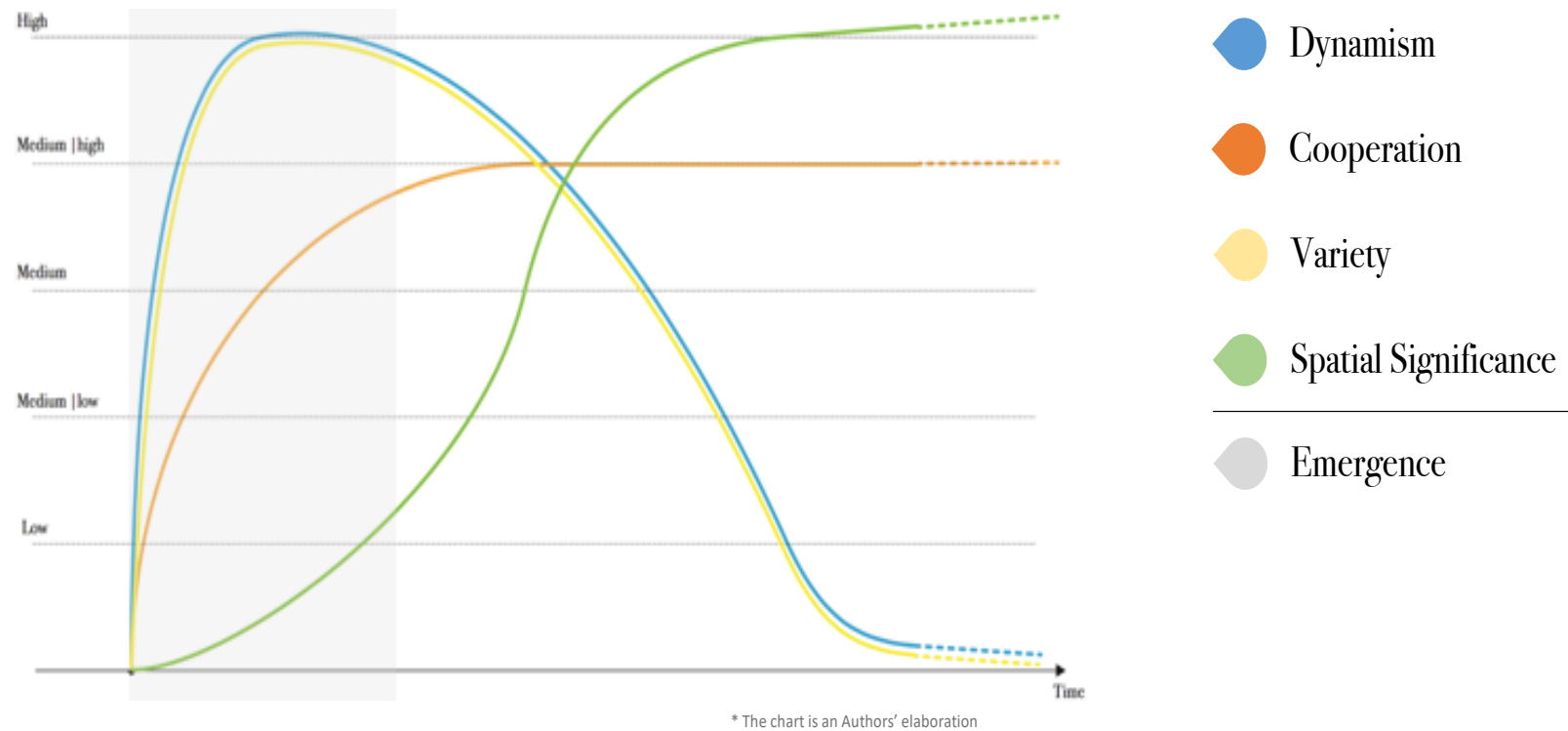
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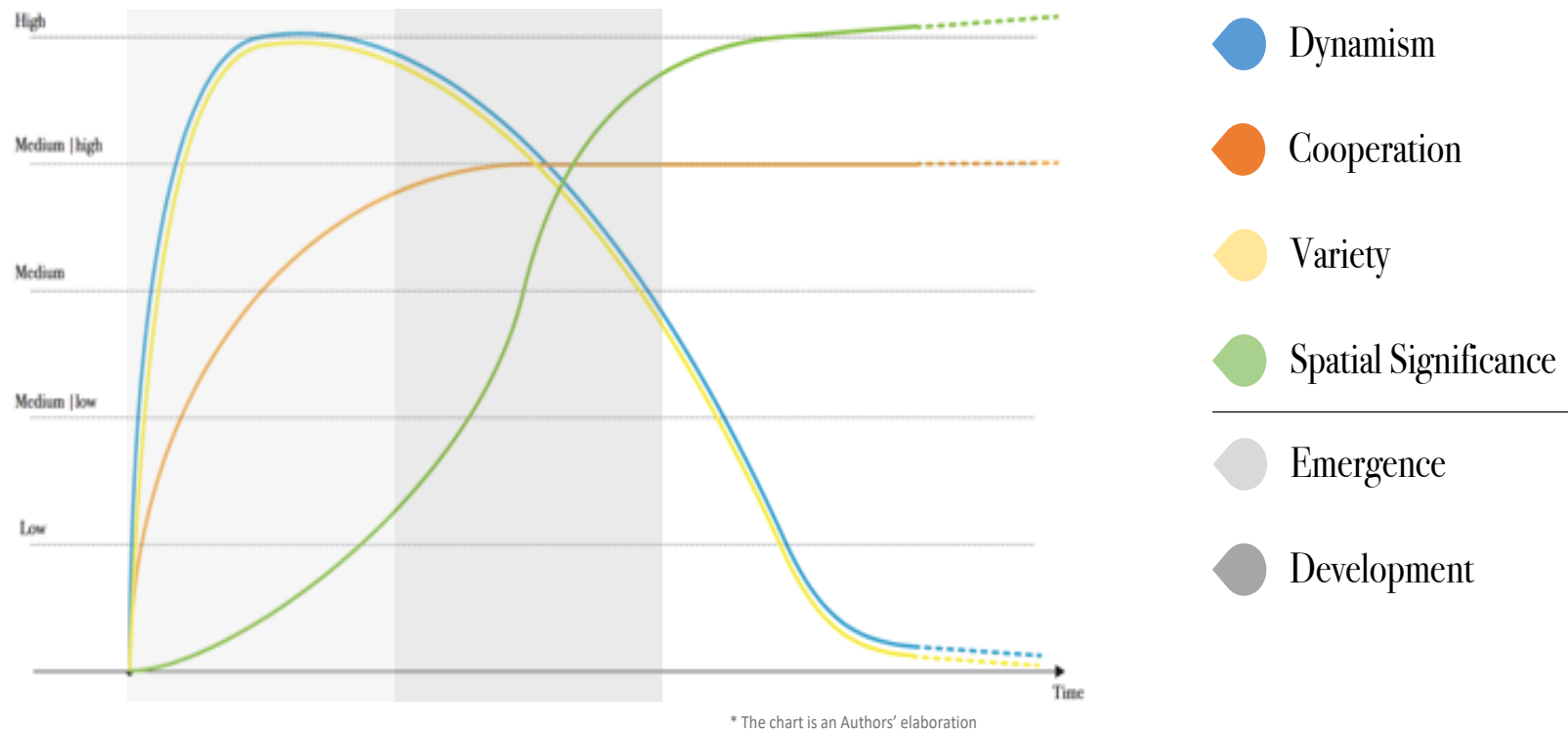
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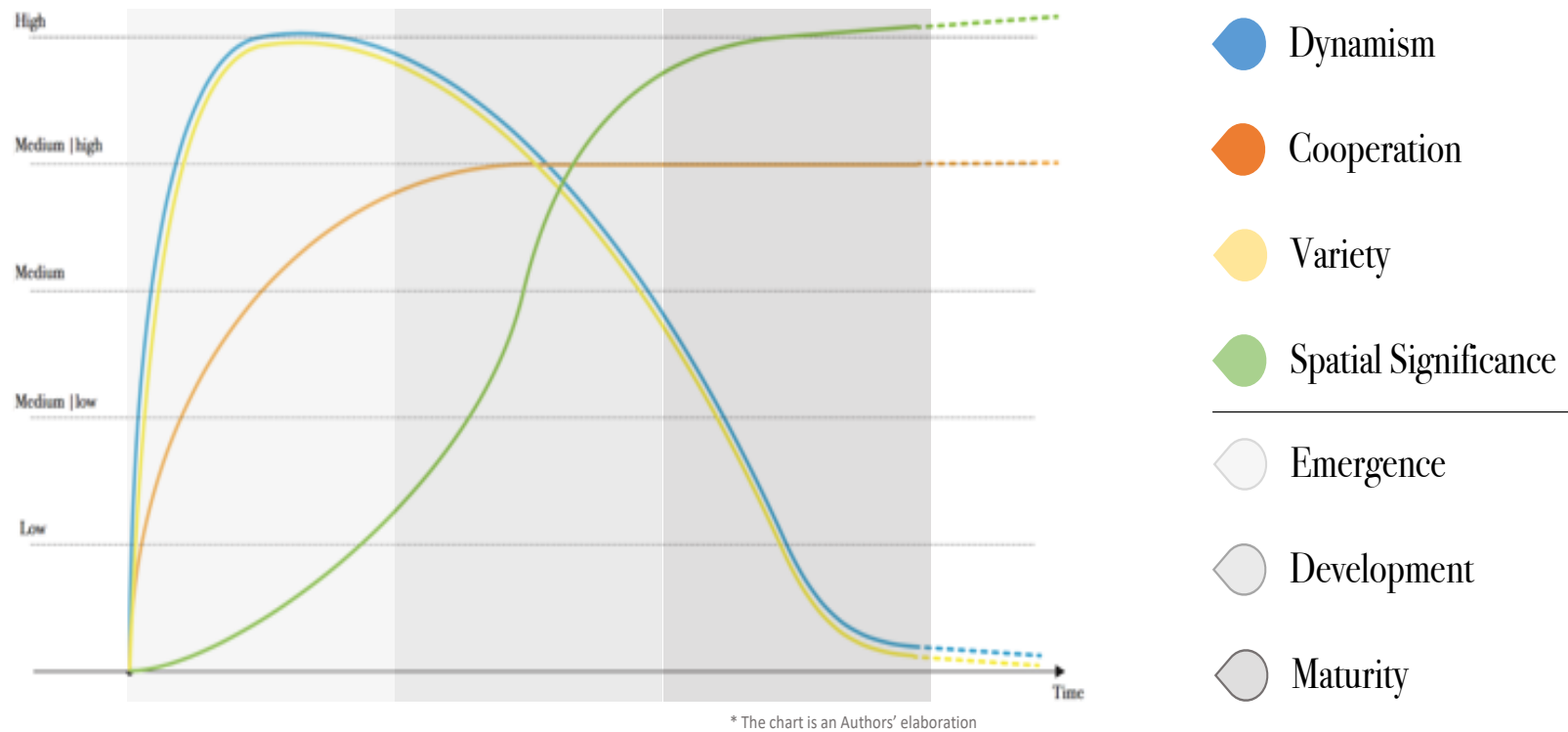




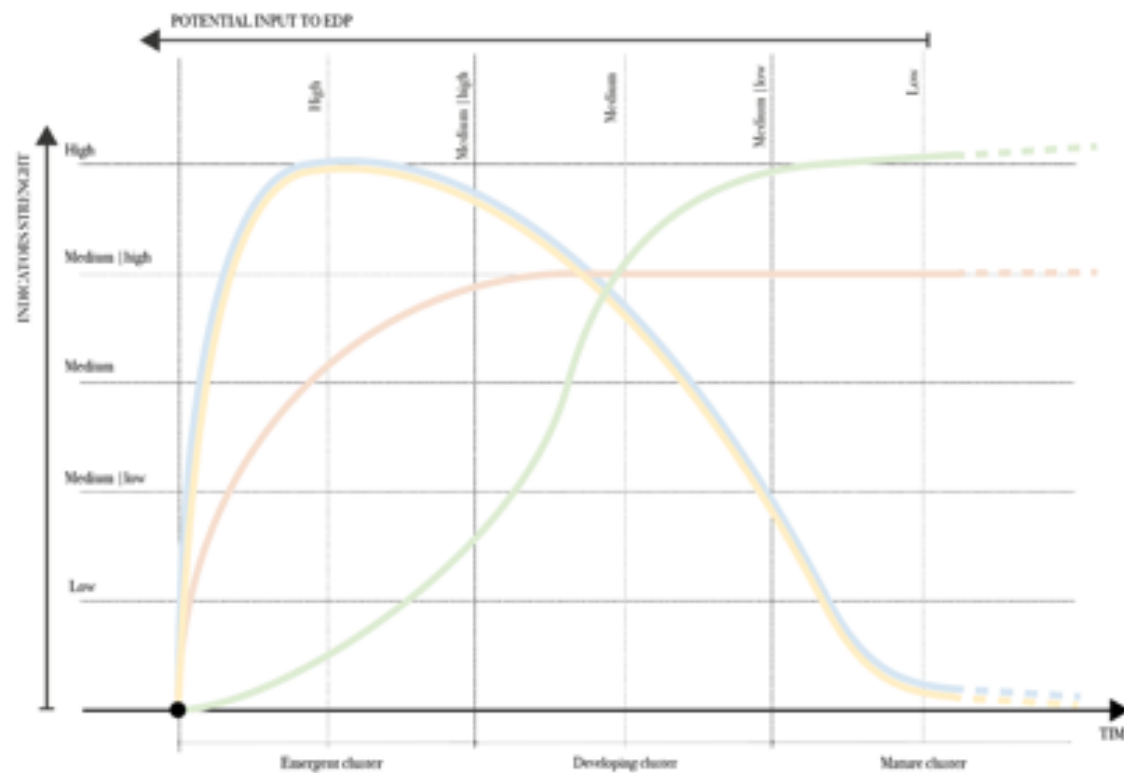
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# Model Interpretation



- Dynamism
- Cooperation
- Variety
- Spatial Significance
- Emergence
- Development
- Maturity

# Model Interpretation

	DYNAMISM			COOPERATION	VARIETY	SPATIAL SIGNIFICANCE		COMPARISON TO EDP
	R&D investment	VC investment	Start-ups birth rate	Intensity of network activities	Heterogeneity of available knowledge	Specialization	Agglomeration	Potential input to EDP
Emergence	high	high	high	medium	high	low	low	high
Development	medium/high	medium/high	medium/high	medium/high	medium/high	medium	medium/high	high
Maturity	low	low	low	medium/high	low	high	high	low

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# Findings

▶ **The EDP implementation could significantly benefit the framework conditions** for innovation, relational density, and diversity of knowledge and actors **provided by some specific stages of the CLC.**

The identification of the variations in the spatial configuration of clusters, during different phases of the CLC, can offer valuable information on the existence of a territorially localised economic potential.

According to the logical comparison of clusters' stage-specific attributes and EDP's key inputs and features, it is reasonable to target emerging and developing clusters as a suitable breeding ground towards favouring EDP implementation.

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# Thank you!

**If you have any question about the paper, please do not hesitate to contact the author:**

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