FACULTY OF INFORMATICS
MASARYK UNIVERSITY

Knowledge Management

Department of Computer Systems and Communications

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The role of Service Logic and Systems Thinking in managing social and economic complexity

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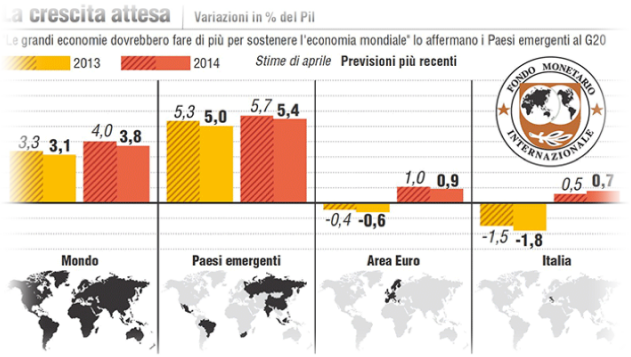
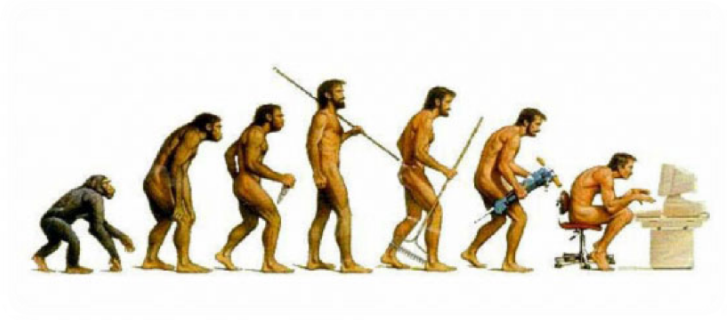
Conceptual logic

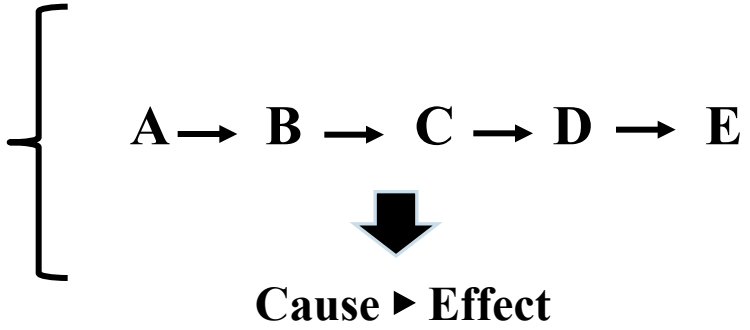
Traditional managerial models are not able to understand and to explain recent economic and social changes

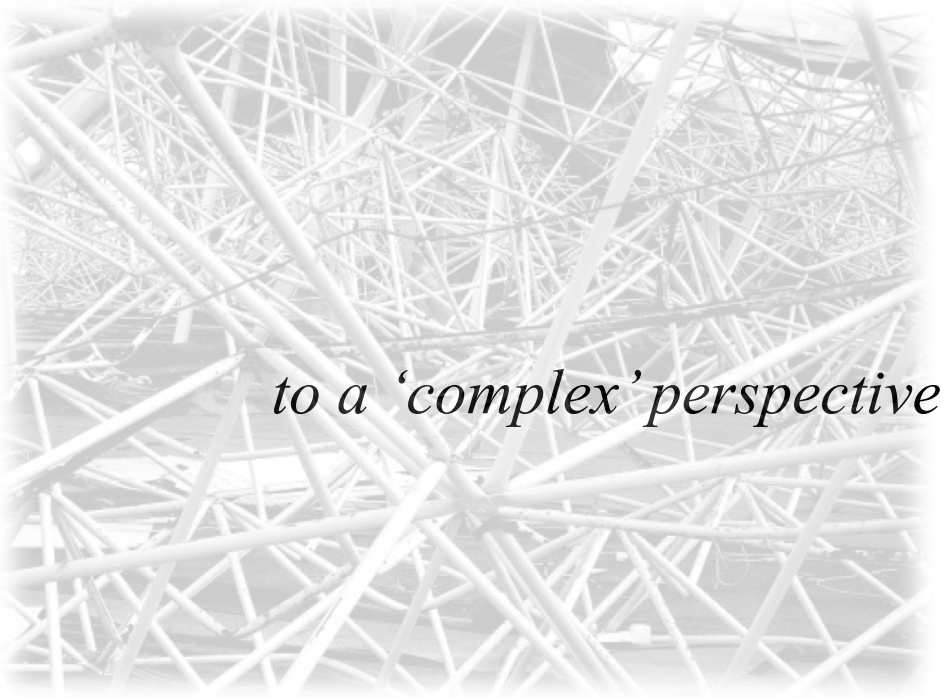




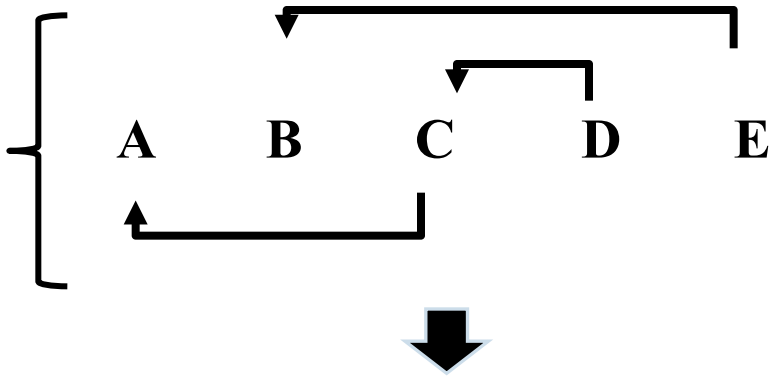
Conceptual logic: what is the complexity?

Shift from Linear perspective



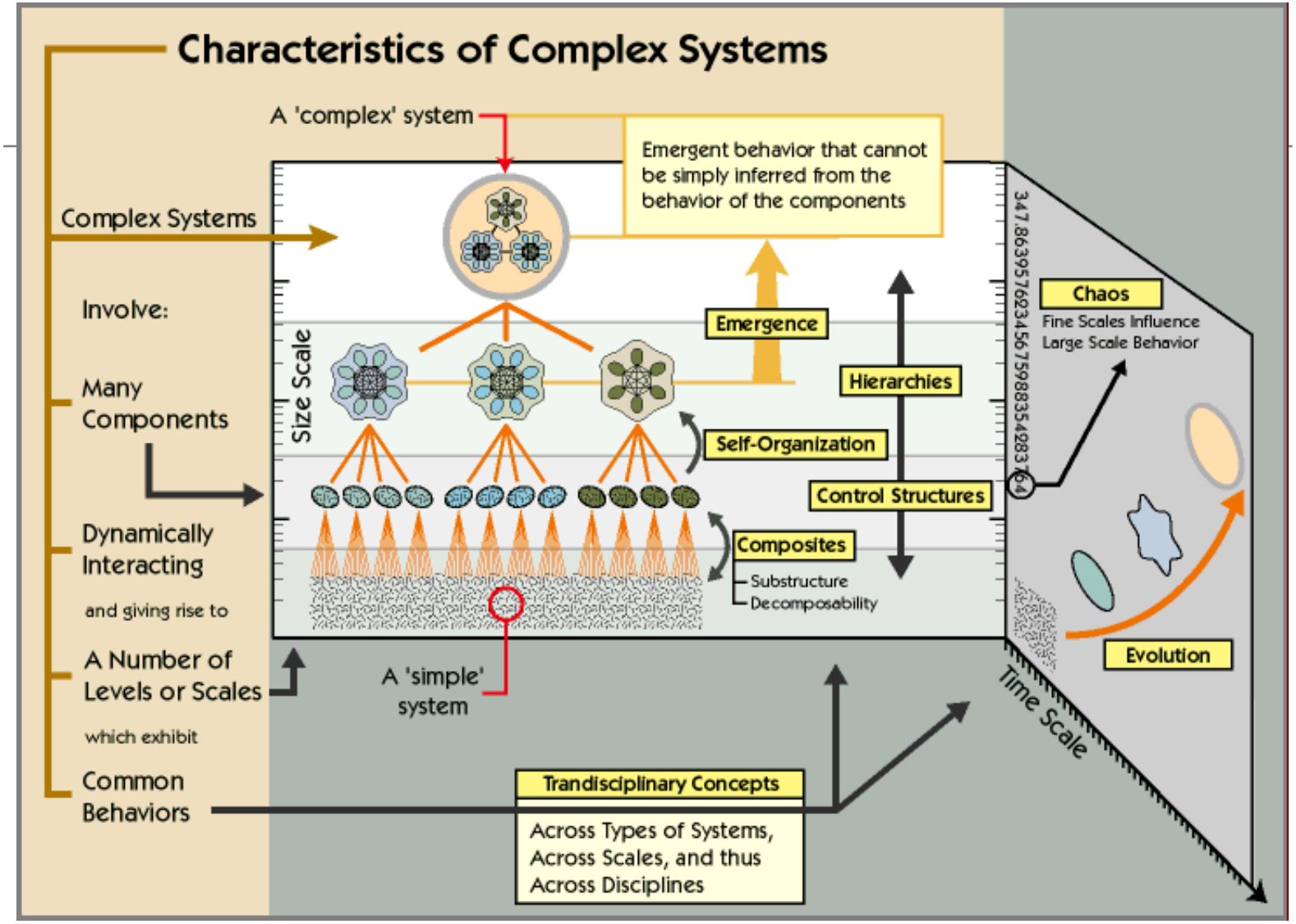


to a 'complex' perspective

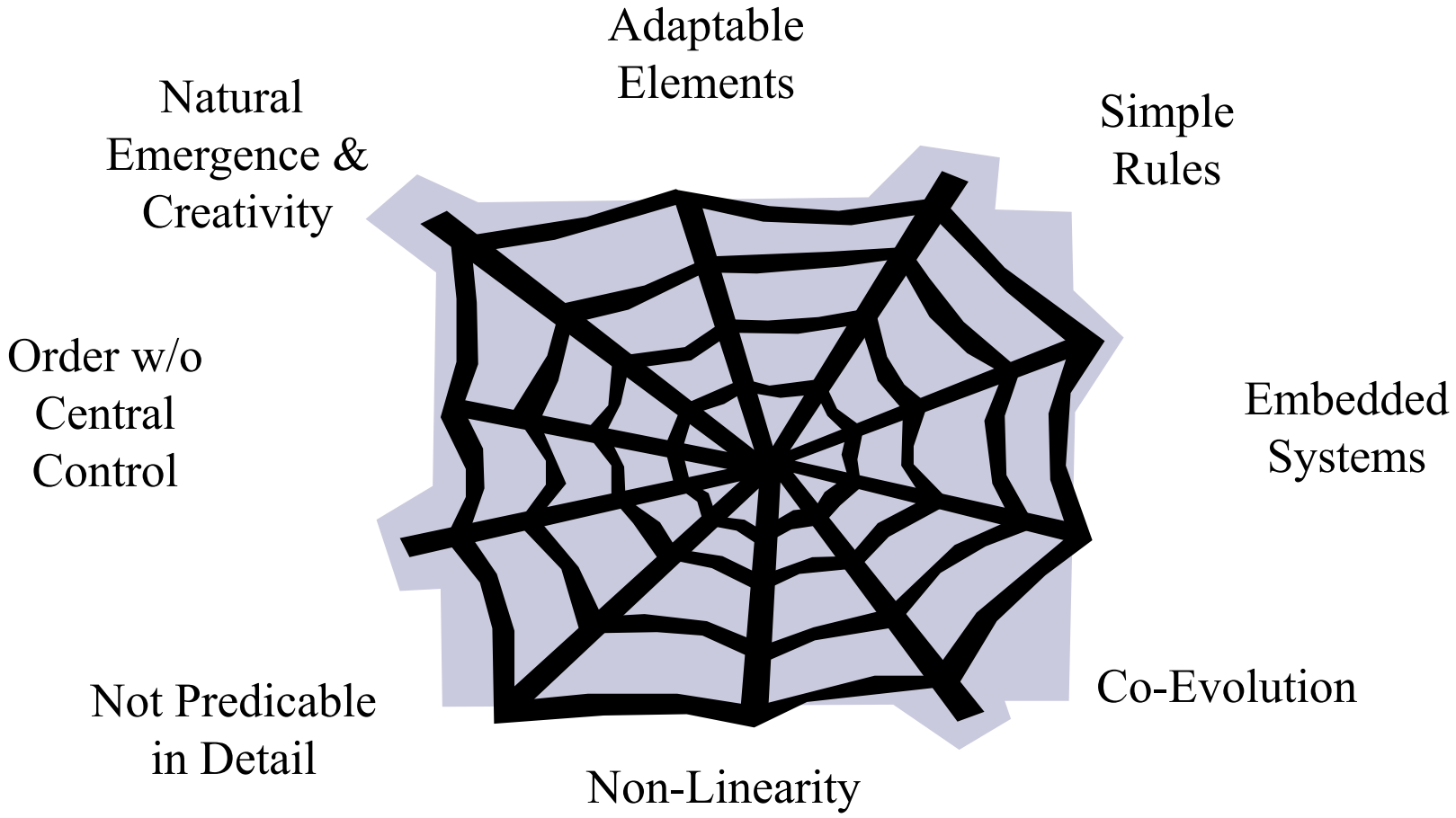


More contextual causes
produce different contextual effects

Conceptual logic: what is the complexity?

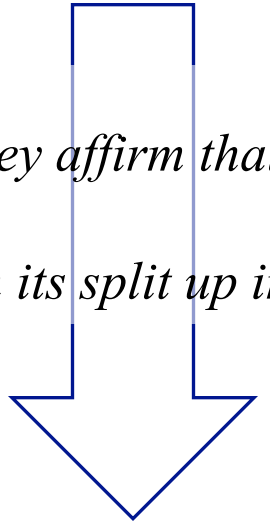


Conceptual logic: what is the complexity?



Conceptual logic: what is the complexity?

Traditional managerial and interpretative models consider the complexity an objective feature of problem/situation.



By building on this reflection they affirm that the only way to solve a complex problem is based on its split up into elementary parts.

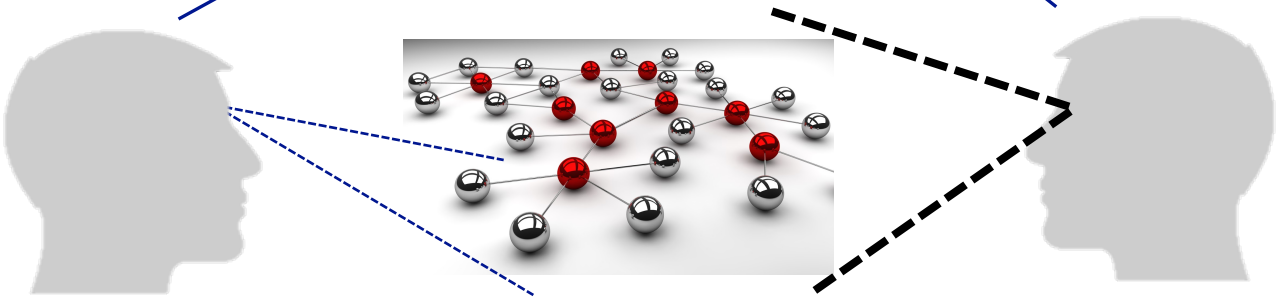
By adopting this pathway researchers lost many of the specific features of investigated problems.

Conceptual logic

How to overcome the limitations of useless traditional predictive models?

Systems thinking

According to Odum and Barrett (1971), it is need to shift the attention from the reductionist approach to the holistic one

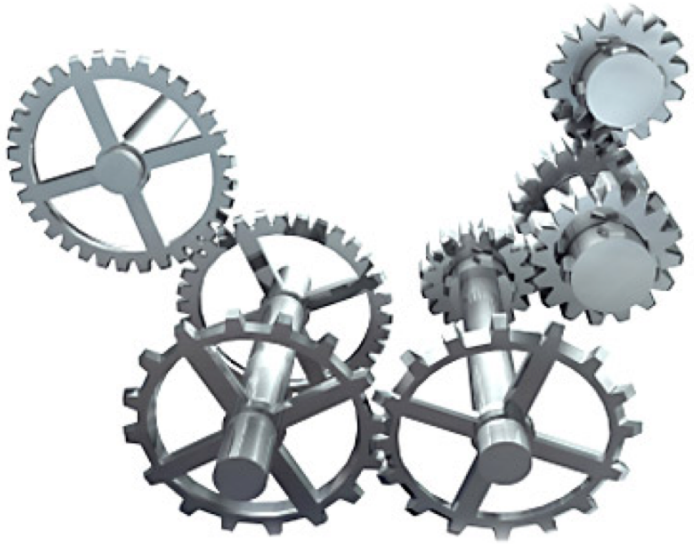


Every organizations, individuals, groups can be considered systems

"A system is any group of interacting, interrelated, or interdependent parts that form a complex and unified whole that has a specific purpose" *(Koskinen, 2013: 15)*.

Characteristics of Systems

- ✓ Systems have a purpose that defines it as a discrete entity that holds it together
- ✓ All parts must be present for a system to carry out its purpose optimally
- ✓ The order in which parts are arranged affects the performance of a system
- ✓ Feedback provides information to the system that lets it know how it is doing relative to some desired state



Characteristics of Systems

Every Systems can be analyzed from two different perspective:

Structural and Dynamic

- ✓ How a system is composed?
- ✓ How each elements interact with each other?
- ✓ What are the effects of feedback processes?

Viable System Model (VSM)

(Beer, 1981; Espejo, 1990)

- ✓ How a system emerges?
- ✓ How can be explained aims and pathways of a systems?
- ✓ Why different systems interact?

Viable Systems Approach (*vSA*)

(Barile, 2000, 2009; Golinelli, 2000, 2010)

Viable Systems Model (VSM)

The Viable Systems Model is based
on the five functions of the human nervous system

The five functions recur at each level of organization:

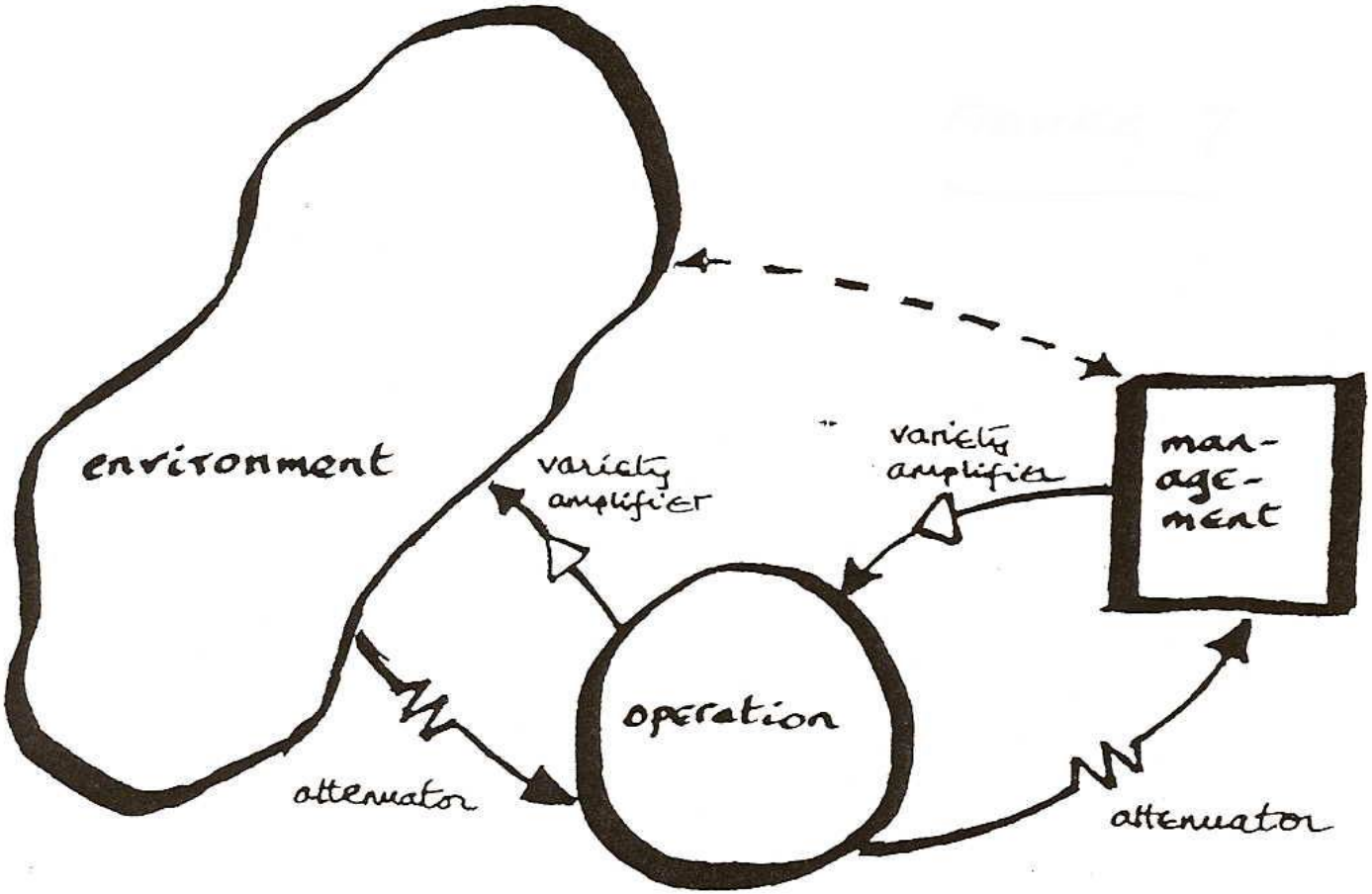
- **System one** – the producing units
- **System two** – coordinates the producing units
- **System three** – middle management, defines a "resource bargain" with the system ones
- **System four** – does long-range planning, designs the next product or service
- **System five** – controls the rate of innovation, defines the organization's values

Source: Beer, 1981

The VSM …

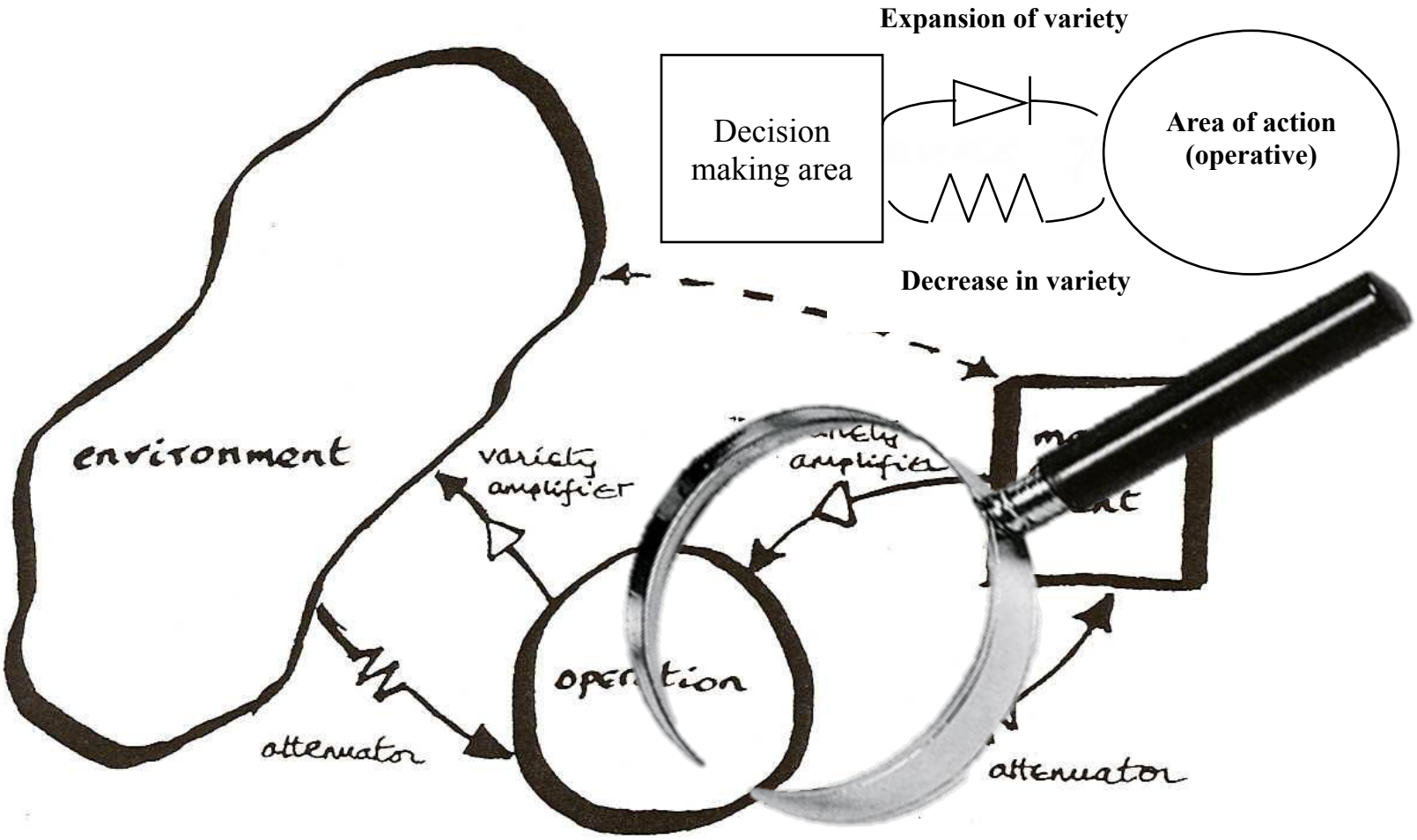
… is a diagnostic tool that support understanding of organizational structure
… defines all the elements that it is needs to control and the way to control it
… shows how to support innovation and to regulate it

Viable Systems Model (VSM)



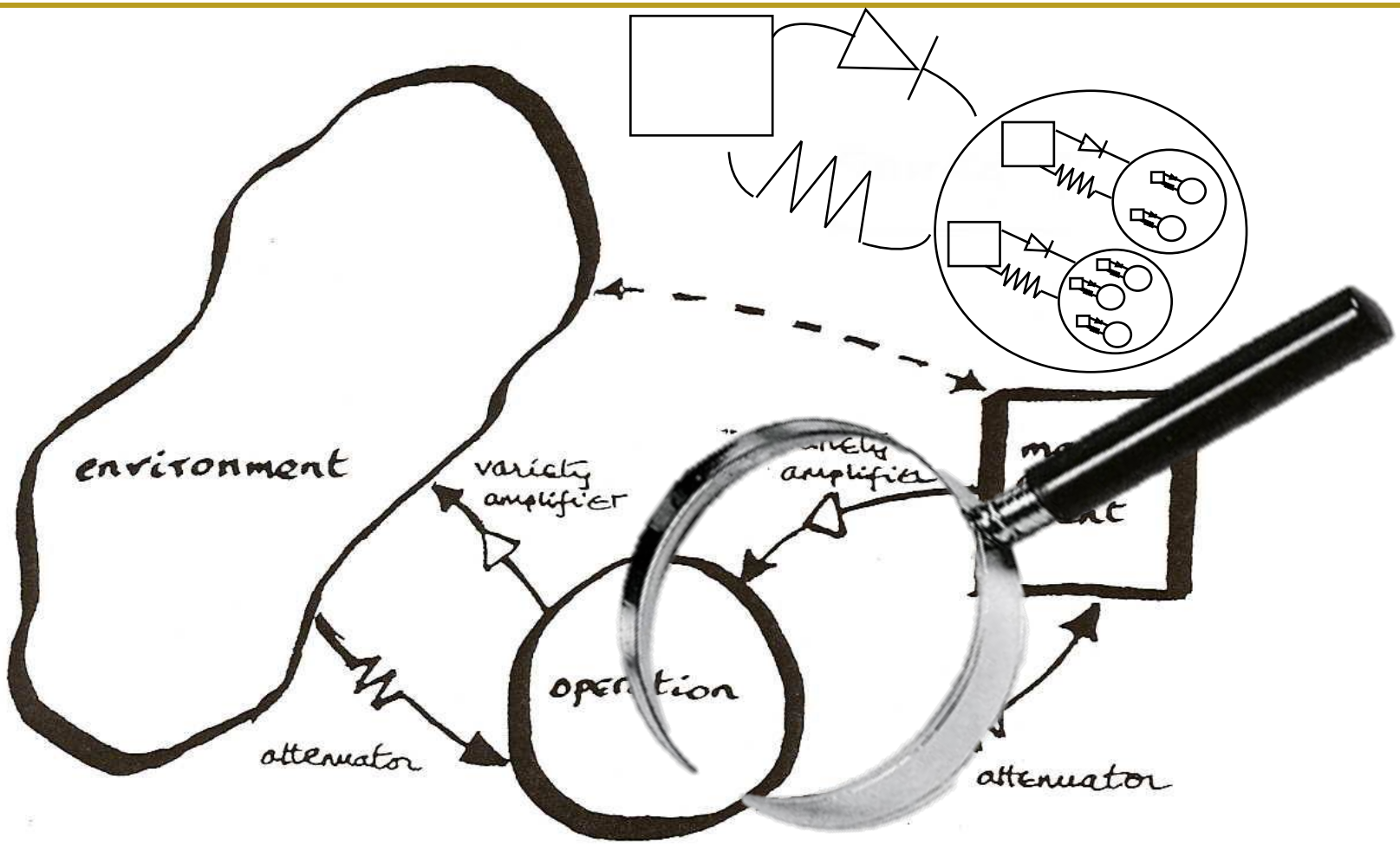
Source: Beer, 1981

Viable Systems Model (VSM)



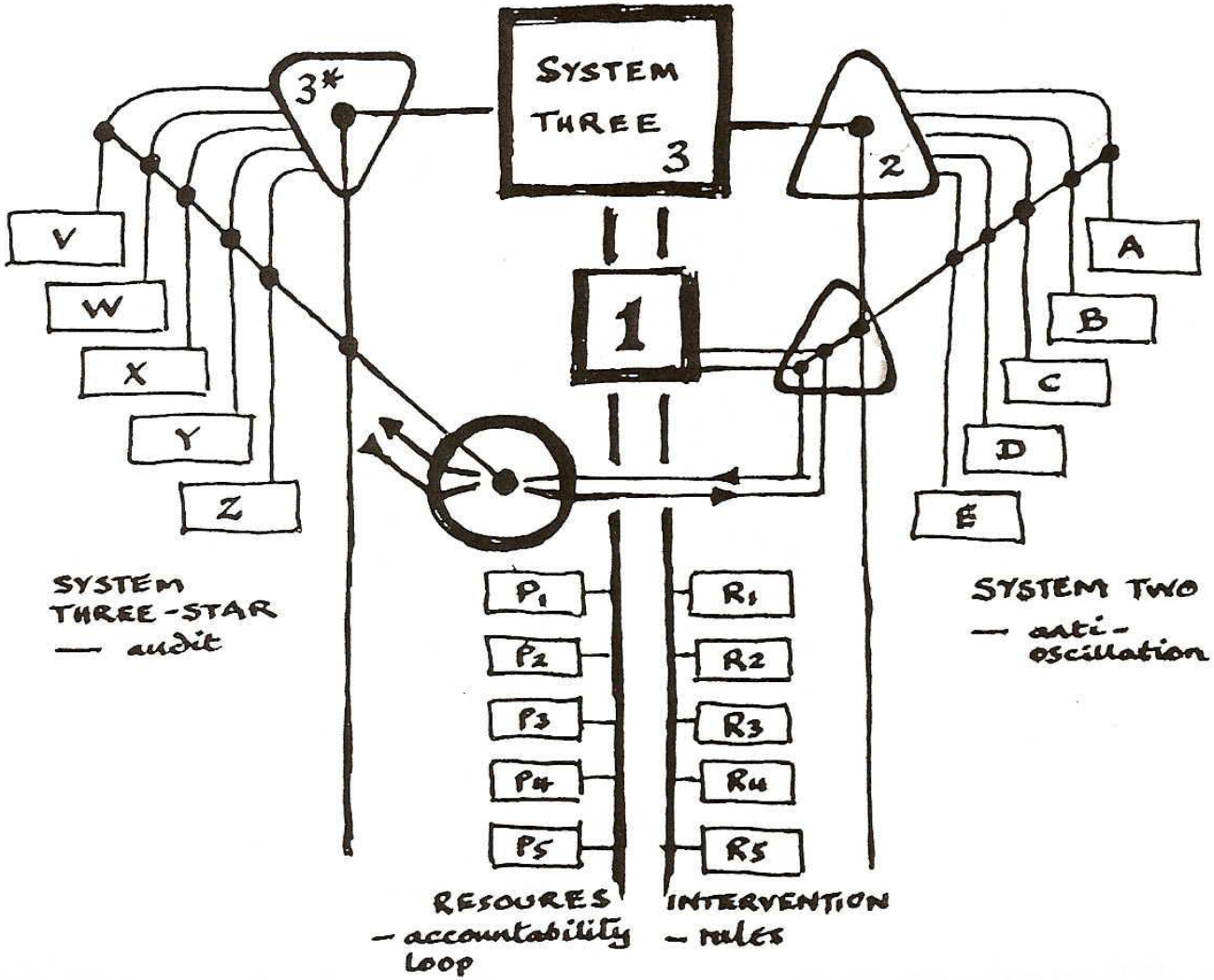
Source: Beer, 1981

Viable Systems Model (VSM)



Source: Beer, 1981

Viable Systems Model (VSM)



Source: Beer, 1981

Viable Systems Approach (VSA)

The Viable Systems Approach (VSA) is built upon the Stafford Beer's Viable System Model

The *VSA* support decision makers in *studying* and *governing* business as well as social organizations.

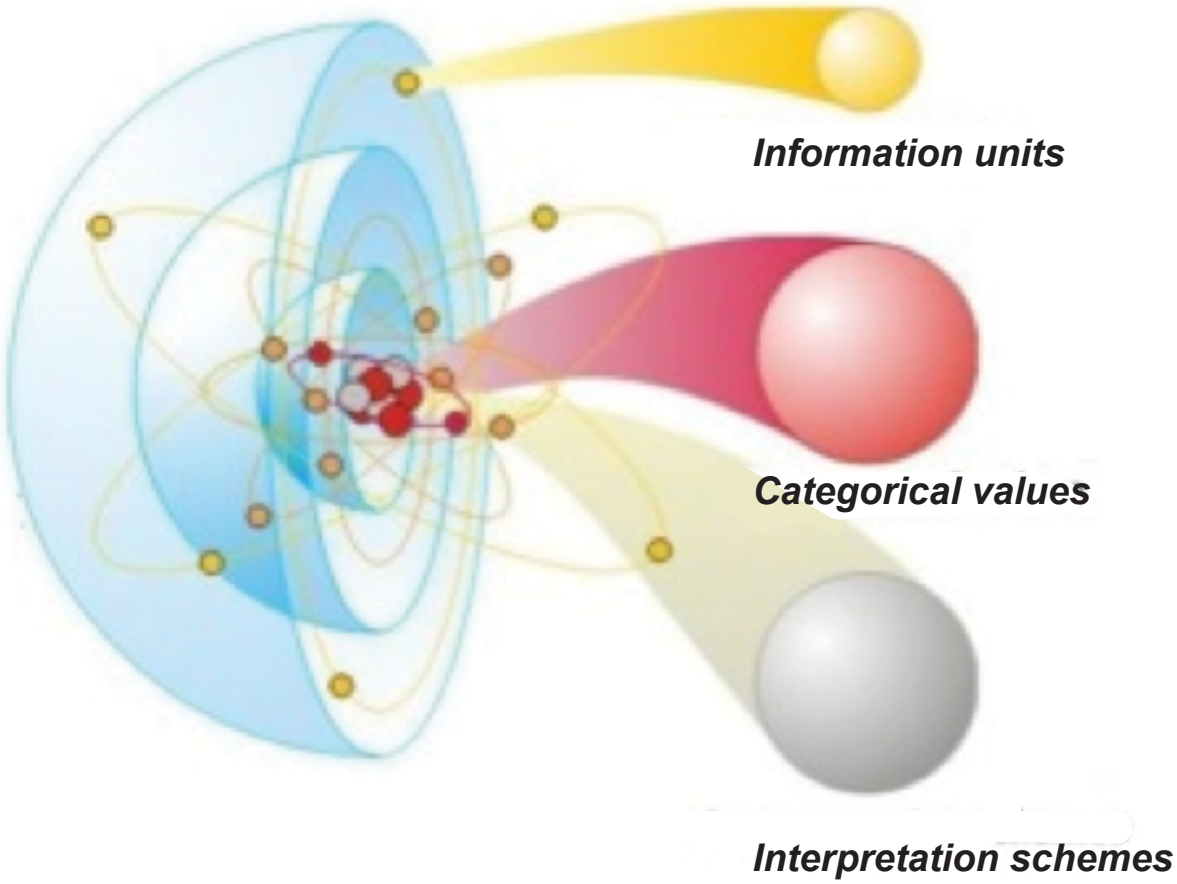
It has been developed within the disciplinary field of **business management** from the early works of Barile (2000) and Golinelli (2000) following a rich research stream of systems theories (Ashby, 1958; von Bertalanffy, 1968; Beer 1972; Parsons 1971; Maturana & Varela 1975 ; Forrester, 1994).

Source: Saviano, 2013

The *vSa* …

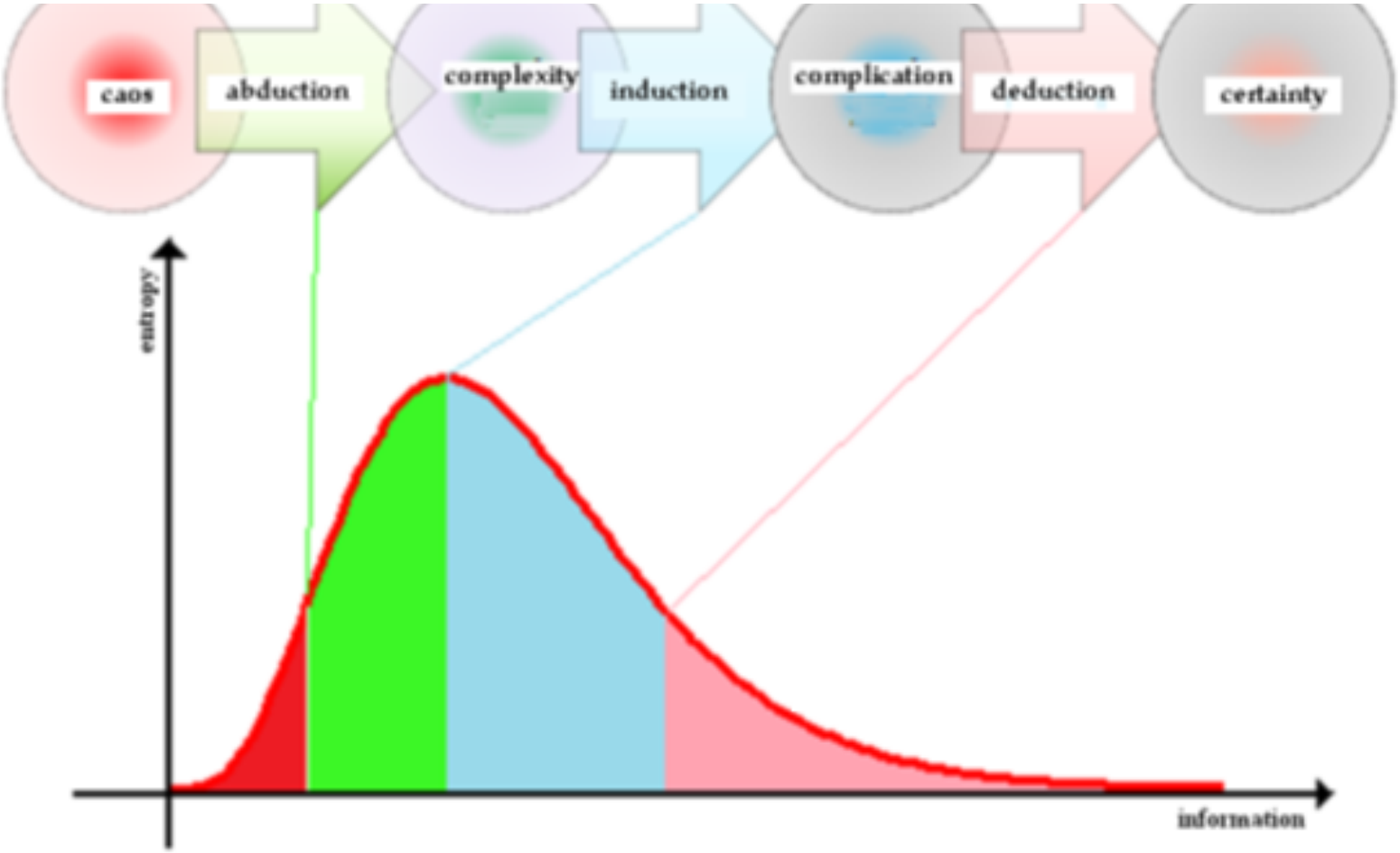
… supports decision makers in understanding of contextual dynamics
… offers an holistic view of system functioning
… helps desion makers in planning and evaluating system's strategies and actions

Viable Systems Approach (VSA)



Source: Barile, 2013, www.asvsa.org

Viable Systems Approach (VSA)



Source: Barile, 2009, www.asvsa.org

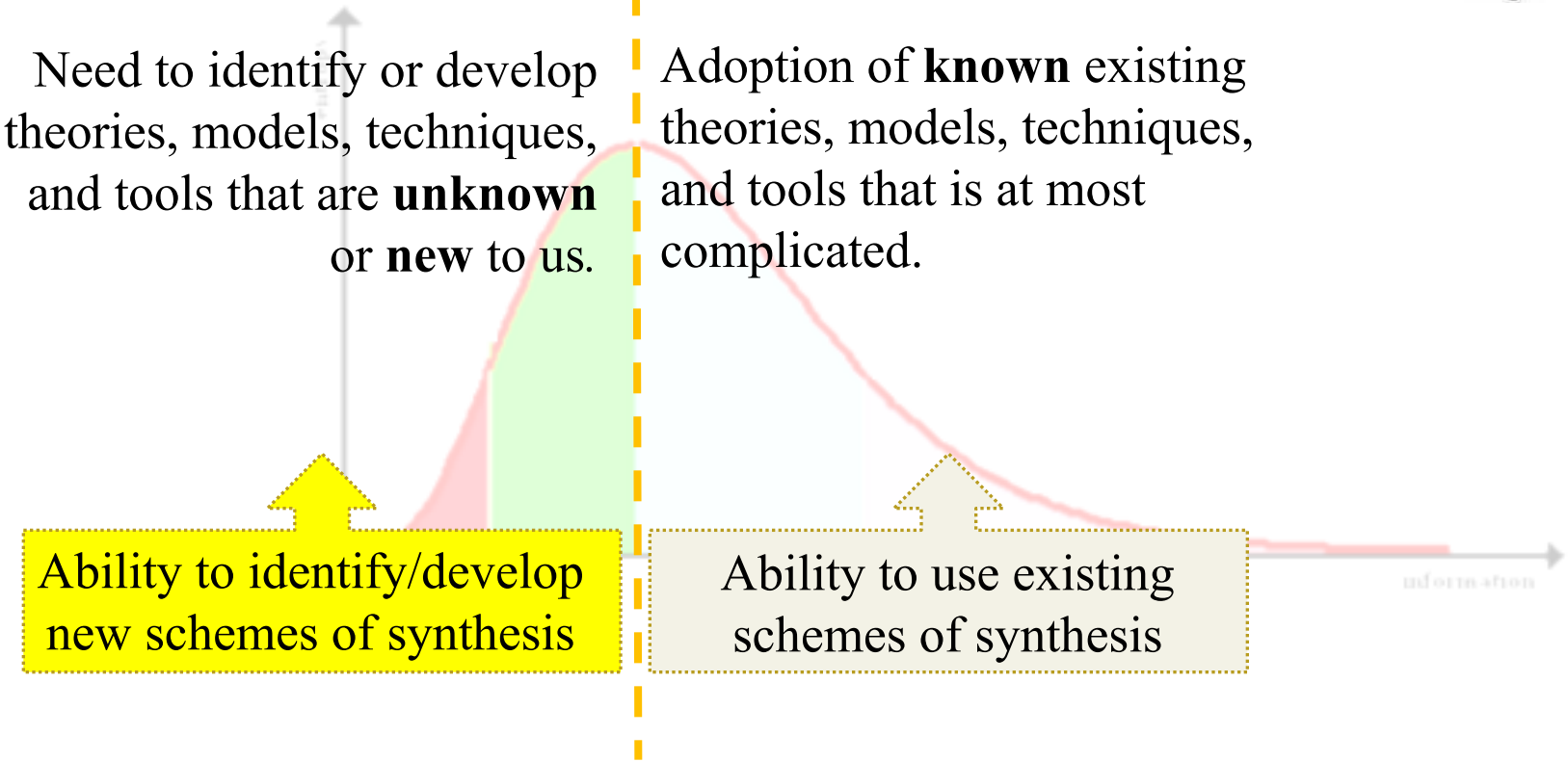
Viable Systems Approach (VSA)

Decision Making

Need to identify or develop theories, models, techniques, and tools that are **unknown** or **new** to us.

Problem Solving

Adoption of **known** existing theories, models, techniques, and tools that is at most complicated.



Viable Systems Approach (VSA)

Perspective change

Dynamic view

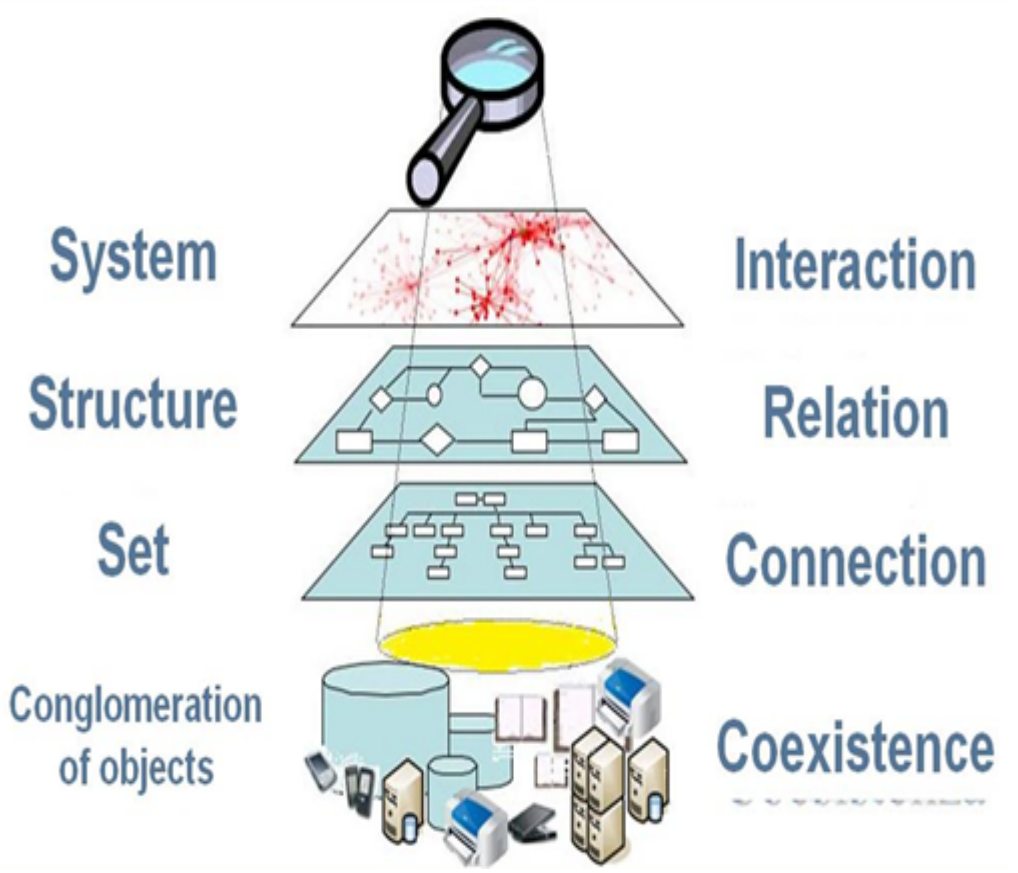
Static view

Holistic view
(whole)

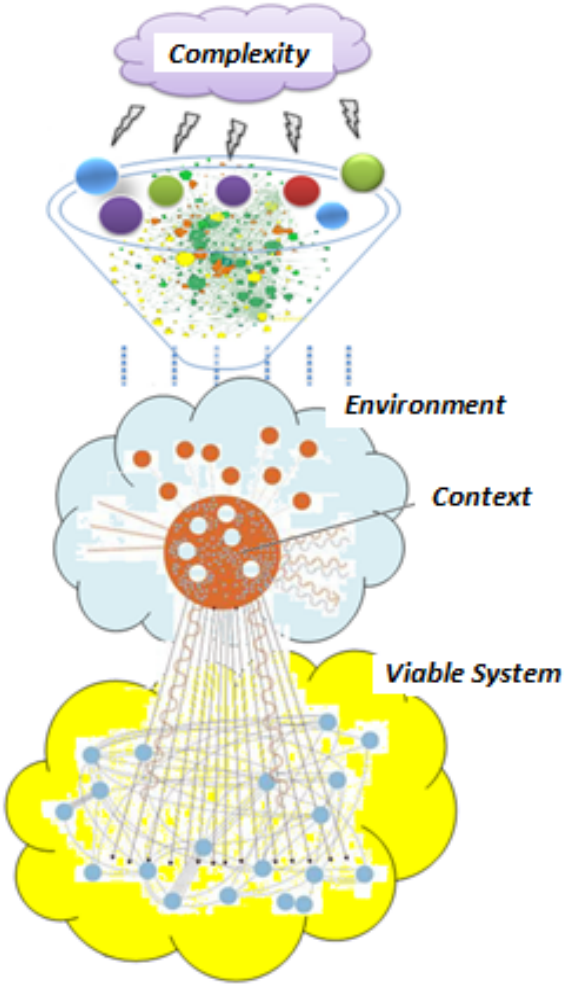
Systems view
(interaction)

Structure view
(relation)

Reductionist view
(parts)



Viable Systems Approach (VSA)



Different environments can be viewed from the complexity of reality

Different contexts can be extracted from the same environment

The system emerges from the structure

Different systems can emerge from the same structure

A system can emerge from different structures

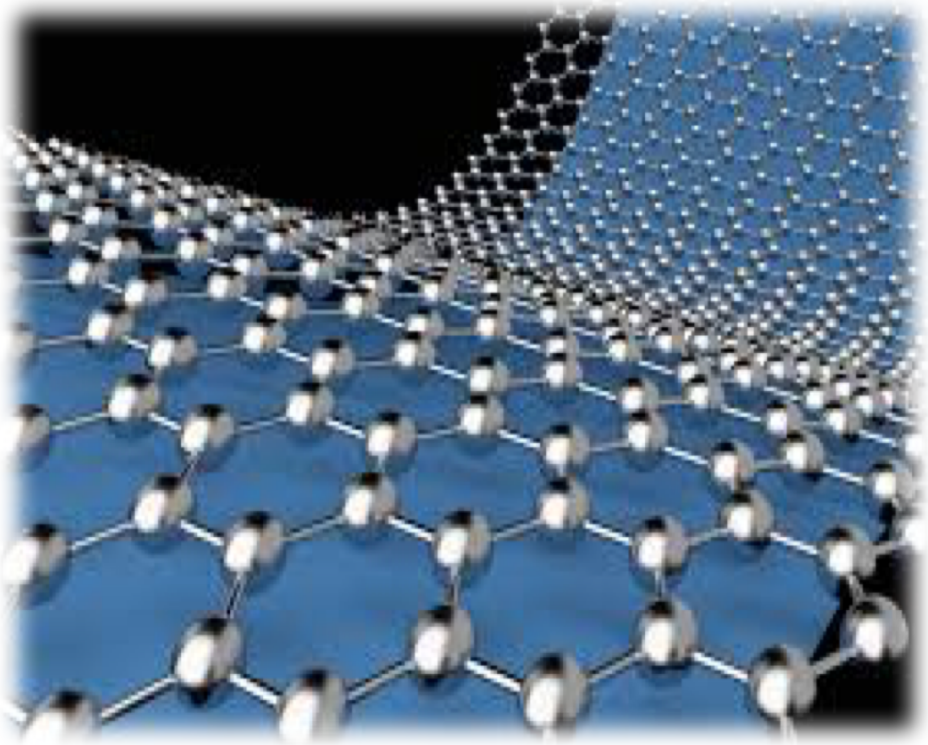
Conceptual logic

In which ways is possible to wider the perspective of observation?

How it is possible to explain relationships among different systems?

Service thinking

According to Lusch and Vargo (2006), to understand what are the reasons for a relationship it is need to understand what are the needs of involved actors and how they think that the relationships can help them in achieve their aims.



Service Dominant Logic (SDL)

The Service Dominant Logic (SDL) is a conceptual framework direct to change the perspective in managerial and governance approaches

The SDL is based on 10 fundamentals principles (Vargo & Lusch, 2008):

- ✓ **FP1:** Service is the fundamental basis of exchange
- ✓ **FP2 :** Indirect exchange masks the fundamental basis of exchange
- ✓ **FP3:** Goods are a distribution mechanism for service provision
- ✓ **FP4:** Operant resources are the fundamental source of competitive advantage
- ✓ **FP5:** All economies are service economies
- ✓ **FP6:** The customer is always a cocreator of value
- ✓ **FP7:** The enterprise cannot deliver value, but only offer value propositions
- ✓ **FP8:** A service-centered view is inherently customer oriented and relational
- ✓ **FP9:** All social and economic actors are resource integrators
- ✓ **FP10:** Value is always uniquely and phenomenologically determined by the beneficiary

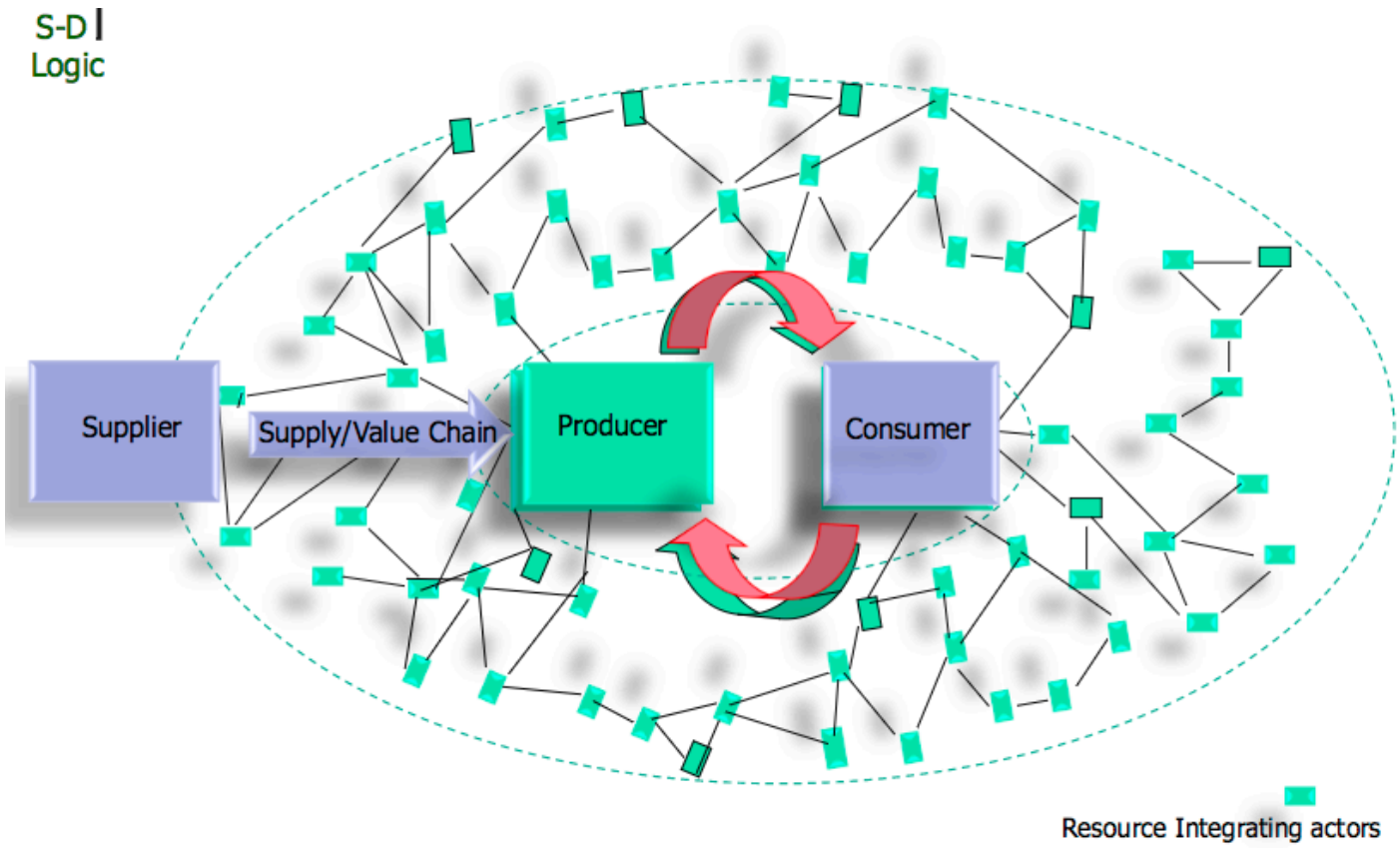
Source: Vargo & Lusch, 2005

The *SDL* …

… identifies core competences, knowledge and skills that represent a potential competitive advantages.

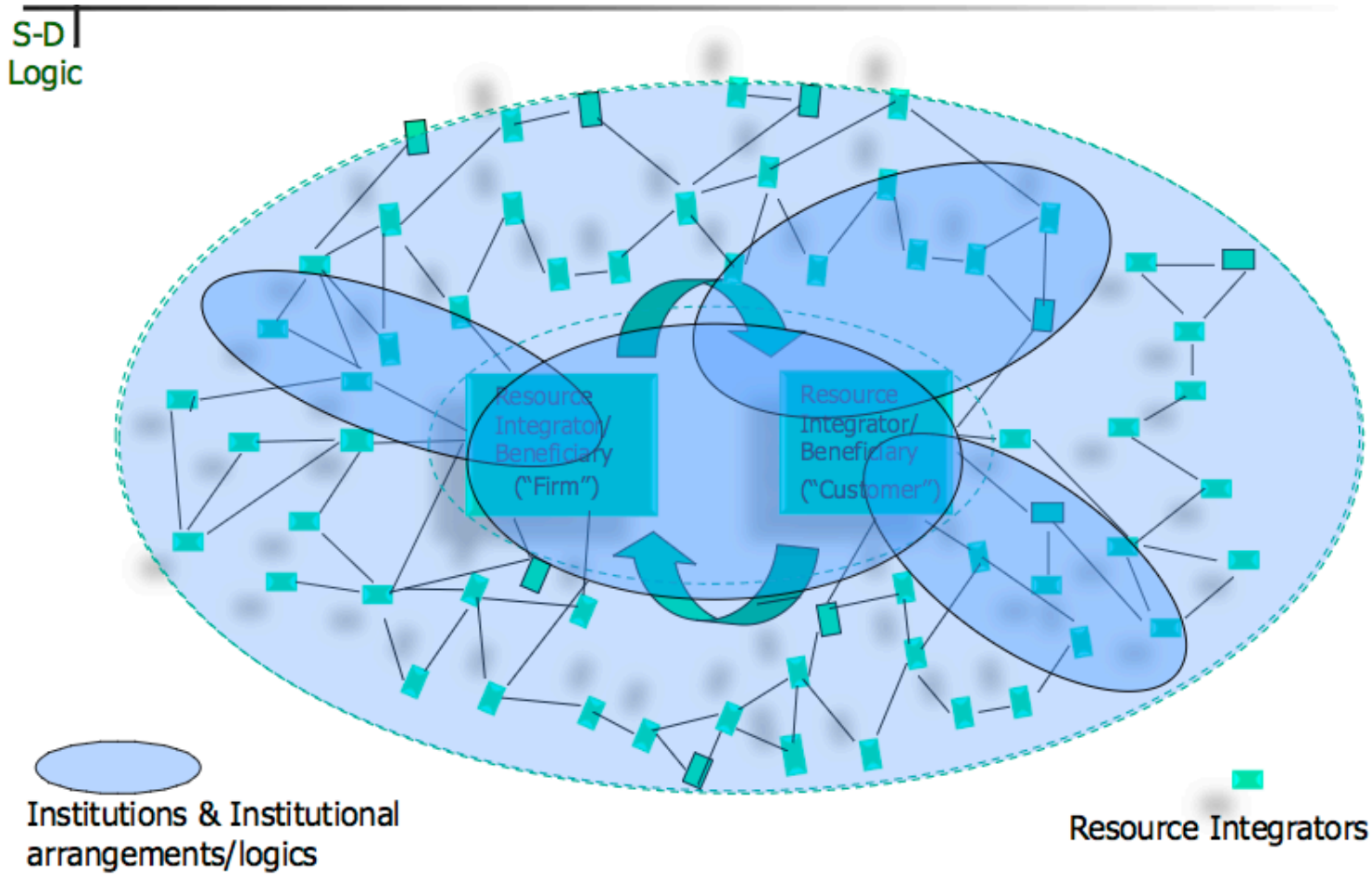
… supports decision makers in cultating relationships with stakeholders.

Service Dominant Logic (SDL)



Source: Vargo, 2015, http://sdlogic.net/index.html

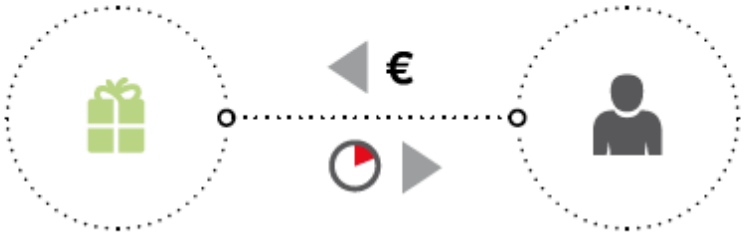
Service Dominant Logic (SDL)



Source: Vargo, 2015, http://sdlogic.net/index.html

Towards a new logic in market relationships

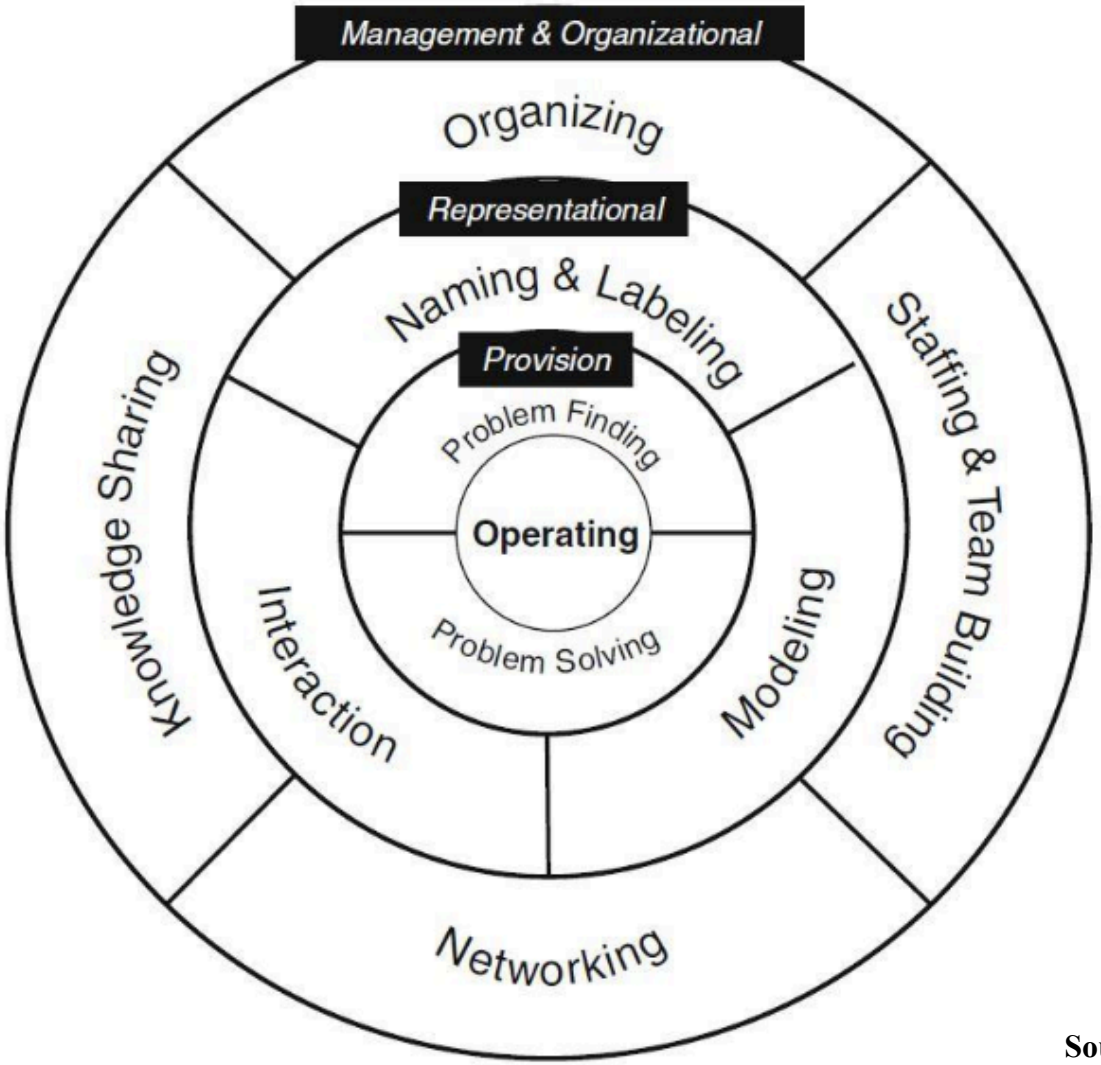
Value-in-Exchange



Value-in-Use

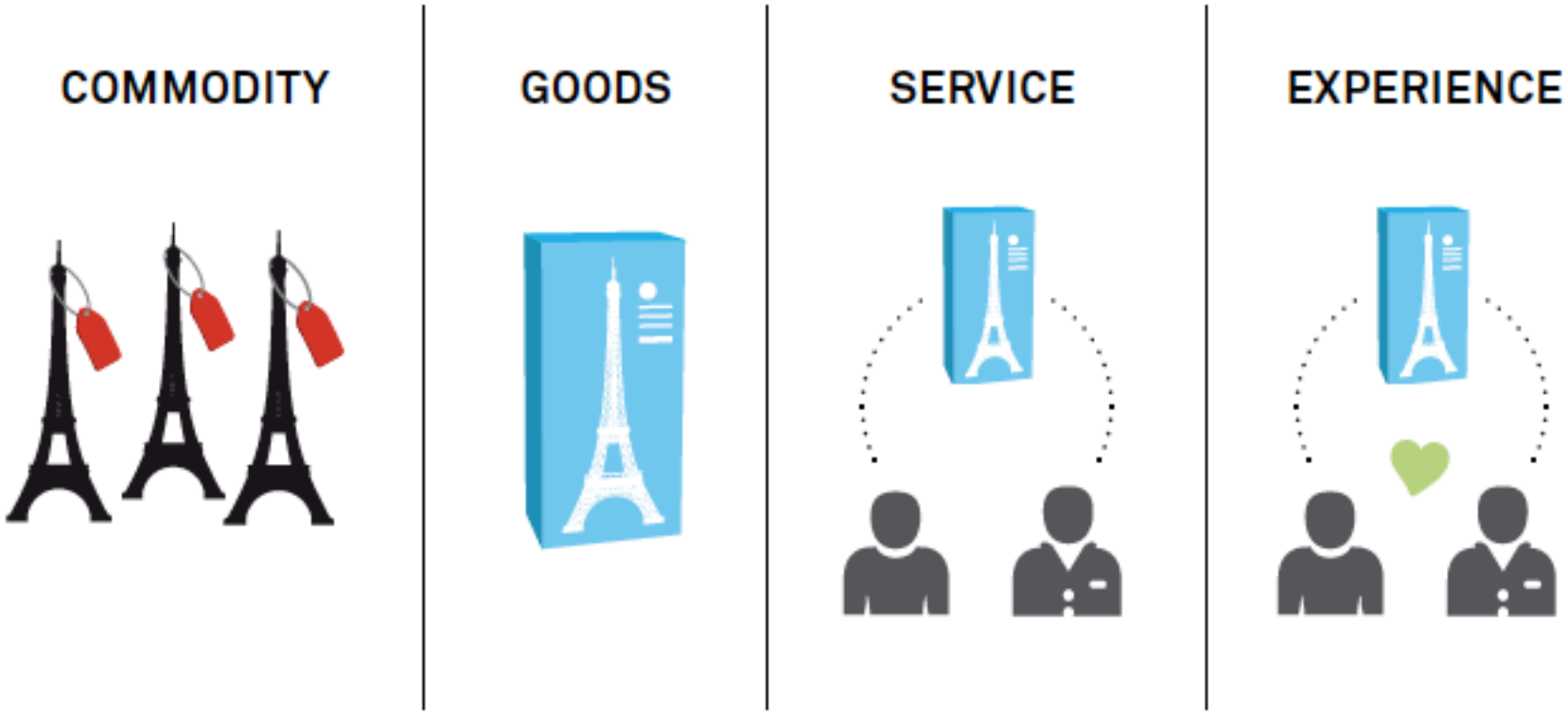
Value co-creation

Towards a new logic in market relationships



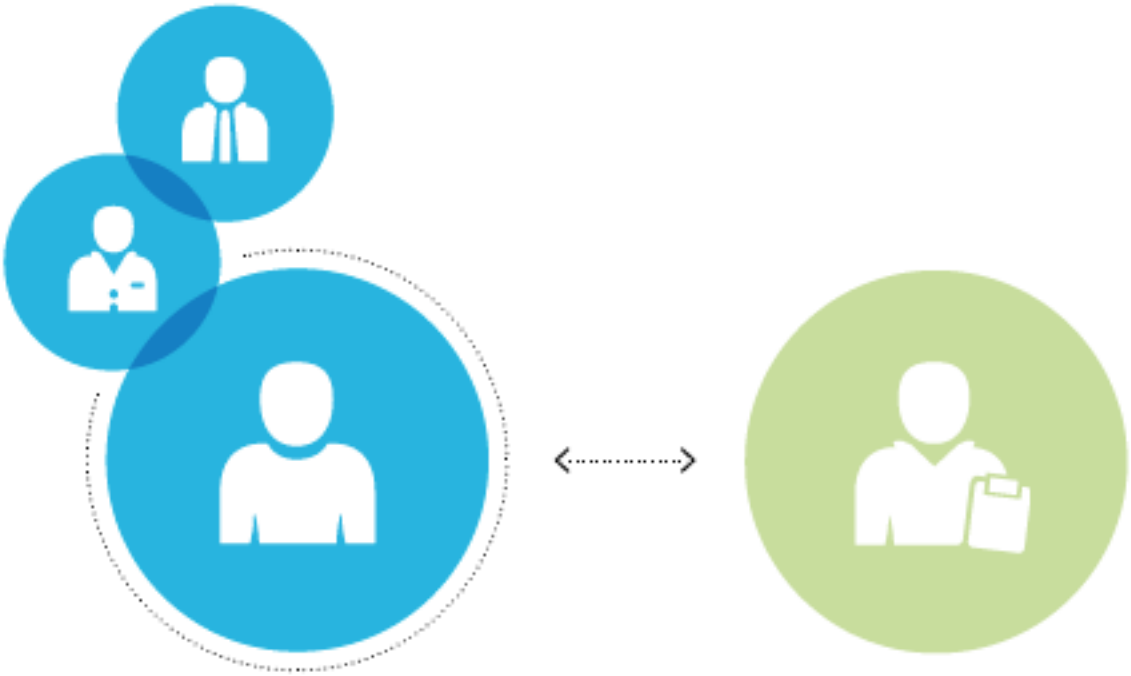
Source: Vargo and Lusch, 2004

The evolution of focuses in market relationships

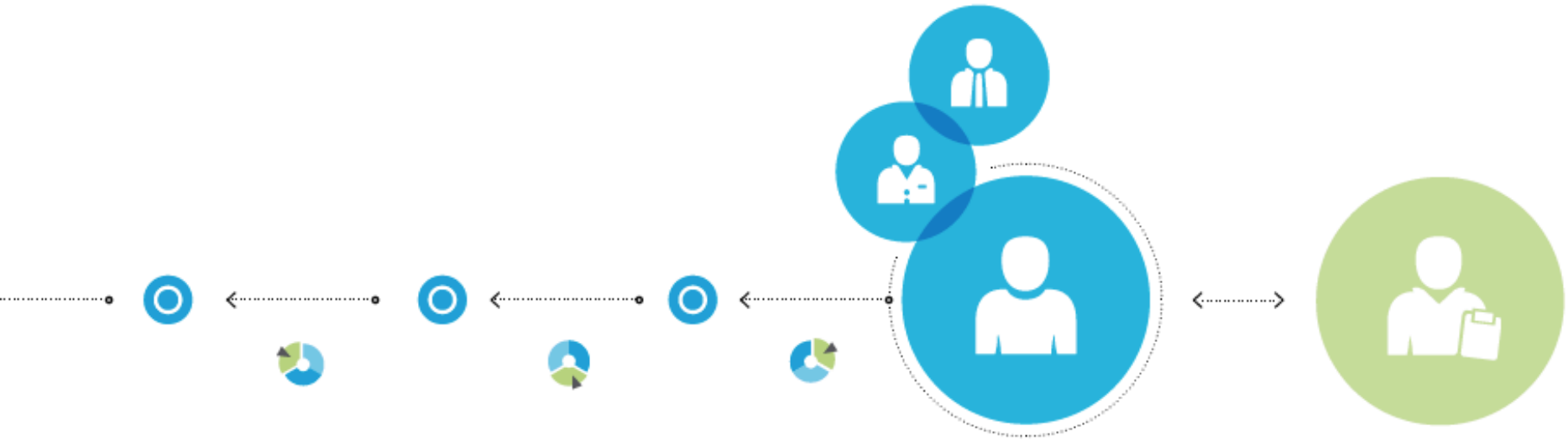


A new logic for the management of complexity: user centred

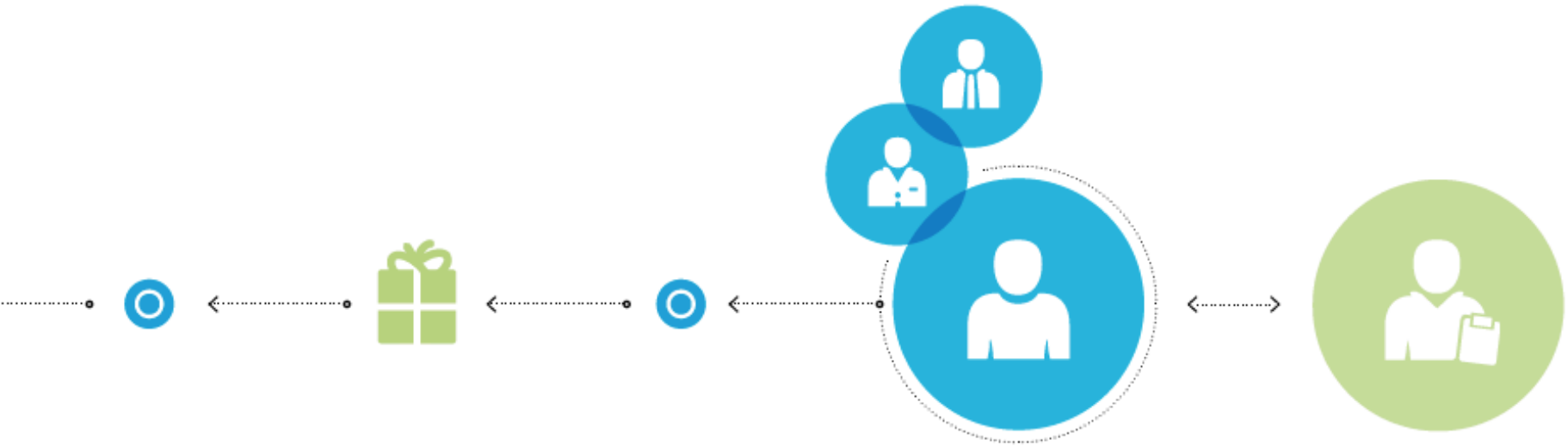
A new logic for the management of complexity: co-creative



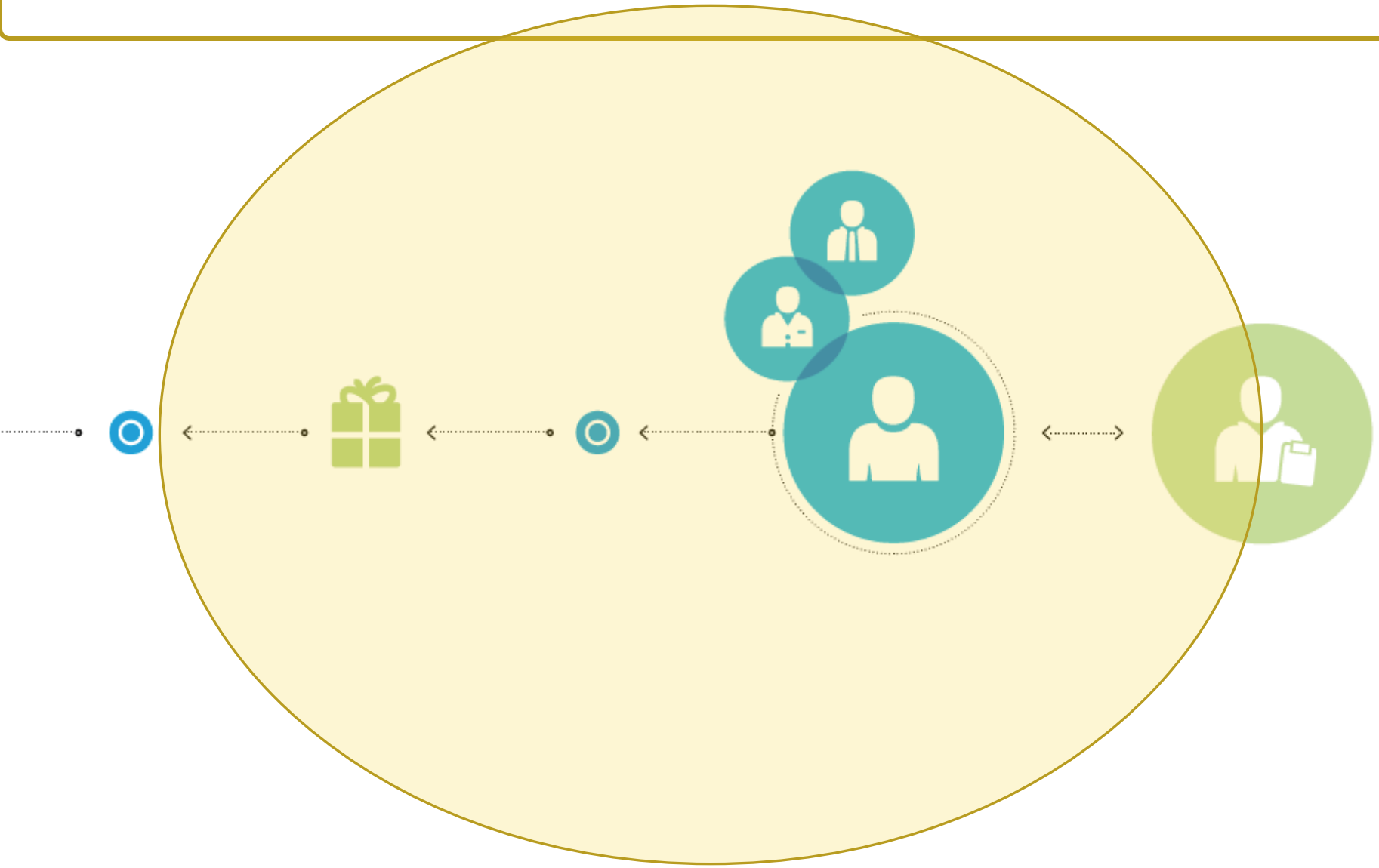
A new logic for the management of complexity: sequencing



A new logic for the management of complexity: evidencing



A new logic for the management of complexity: holistic



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Questions ???