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Systems Thinking and its Contribution to Service Research:

The Viable Systems Approach (*vSA*®)

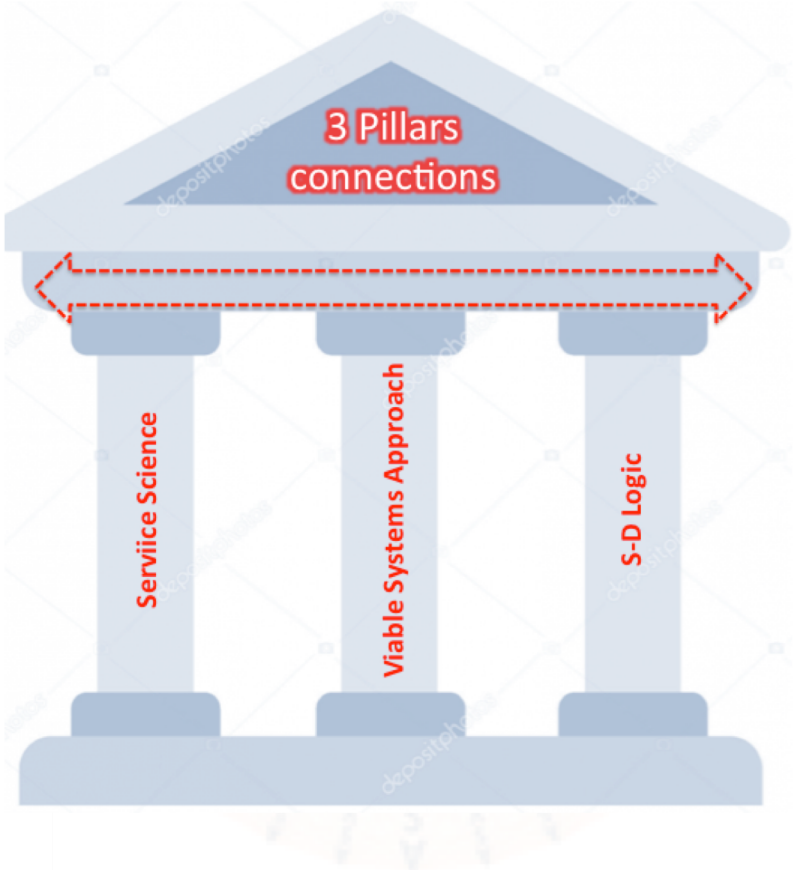
Marialuisa Saviano

President ASVSA

Association for research on Viable Systems

University of Salerno – msaviano@unisa.it

Purpose



Highlighting the contribution of systems thinking to Service research and the resulting 3 Pillars' connections by introducing the Viable Systems Approach (vSa)

Let’s start from the beginning

The heart of the story …

a renewed need of systems thinking …

THE NEED OF A CHANGE IN THE APPROACH TO THE STUDY AND MANAGEMENT OF ORGANIZATIONS

At the end of the Nineties …

a feeling of dissatisfaction with the high variety of consolidated management models and tools arose among a small group of Italian scholars who used to meet at the University of Salerno …

Joining the conversations between two Italian systems thinkers …

RE-EXPLORING THE CONTRIBUTION OF SYSTEMS THINKING

A search for a more robust and well grounded approach then started …

Going back to the 'giants' of thought …

re-exploring the contribution of ***systems thinking*** *…*

and retracing the pathway that led

to apply systems thinking to management

…

Long tradition of systems thinking contributions to social sciences and business management

(Jackson, 2000; Buckley, 1967, 1968, 2008; Emery, 1969)

A LONG TRADITION OF SYSTEMS THINKING STUDIES

A long tradition of studies …

First areas of enquiry of **systems thinking** were the *structure* and *operations* of *living* systems and their relationship with *environment*:

- **Biologists** begun to study living entities, from a dynamic-evolutionary perspective, as complex and integrated wholes (Maturana and Varela, 1975)
- **Ecologists**, opposing the mechanistic view of universe (Hannan and Freeman, 1977), looked at the earth as an integrated living whole
- **Sociologists** and **psychologists** contributed the enlightening theory of cognitivism (Clark, 1993)

- A first attempt to build **a science of structure** based on the principles of organization is due to Bogdanov (1922)
- With the work of von Bertalanffy (1968) a **General Systems Theory** (GST) has been developed as a new epistemological and methodological approach of science capable of overcoming the limits of the dominant reductionist and mechanistic approach
- With the studies of Stafford Beer (1975), then, the contribution of **cybernetics** enriched the body of knowledge of systems
- The *viable system model* of Beer is a reference in **management** studies and a basis for a systems approach (Barile, 2013; Espejo and Harnden, 1989; Golinelli, 2010; Yolles, 1999)

A LONG TRADITION OF SYSTEMS THINKING STUDIES

The relevant contribution of
General Systems Theory (GST)
(von Bertalanffy, 1968; Katz and Kahn, 1966; Luhmann, 1990; Parsons, 1971; etc.)

Systems theory has been effectively adopted in **many disciplinary domains** for it is a **general perspective capable of capturing the rules underlying the functioning of almost any phenomenon of reality**.

It has been adopted also in **management** and, more recently, **marketing**
(Pels et al., 2012; Ng et al. 2012).

A LONG TRADITION OF SYSTEMS THINKING STUDIES

An evolving systems view of firm …

which reflects dominant perspectives over time …

- from the **mechanistic** analogy of the firm as machine (Taylor, 1914)
- passing through the view of firm as an **organic** (von Bertalanffy, 1968), **cybernetic** (Beer, 1972) and **autopoietic** system (Maturana, 1975)
- up to the view of firm as a **cognitive** system (Hinterhuber, 1996)

… sometimes abusing of analogies and metaphors

(Simon, 1962; von Bertalanffy, 1968*)*

A LONG TRADITION OF SYSTEMS THINKING STUDIES

*A gradual **weakening of interest** for systems thinking …*

- Although appreciated as a new paradigm (Khun, 1962) (relieving from the limits of the mechanistic approaches) the systems approach was not recognized to offer a 'substantial' and 'complete' contribution to organizations and their management (Kastz and Rosenweig, 1975)

- It was considered **too abstract to offer a reliable representation of the specificities of given phenomena**
- Emerging **contingency views** (Kastz and Rosenweig, 1975) argued that the systems approach appeared to lack "disciplined generalizations and rigorous deductions" (Rapoport, 1968: XII)

- General systems theory was classified as a "third order study" (Philips, 1971) …
  … while "contingency theory" allowed to turn down to a "second-order" study focused on more specific characteristics and relationships in social organizations (Lorsch and Lawrence, 1970)

Seventies: Dominant need of vertical (specialized and contextualized) knowledge

A LONG TRADITION OF SYSTEMS THINKING STUDIES

Seventies

Dominant need of vertical (specialized and contextualized) knowledge.

Disciplinary knowledge development

"I-shaped" professionals

"Silos" effect

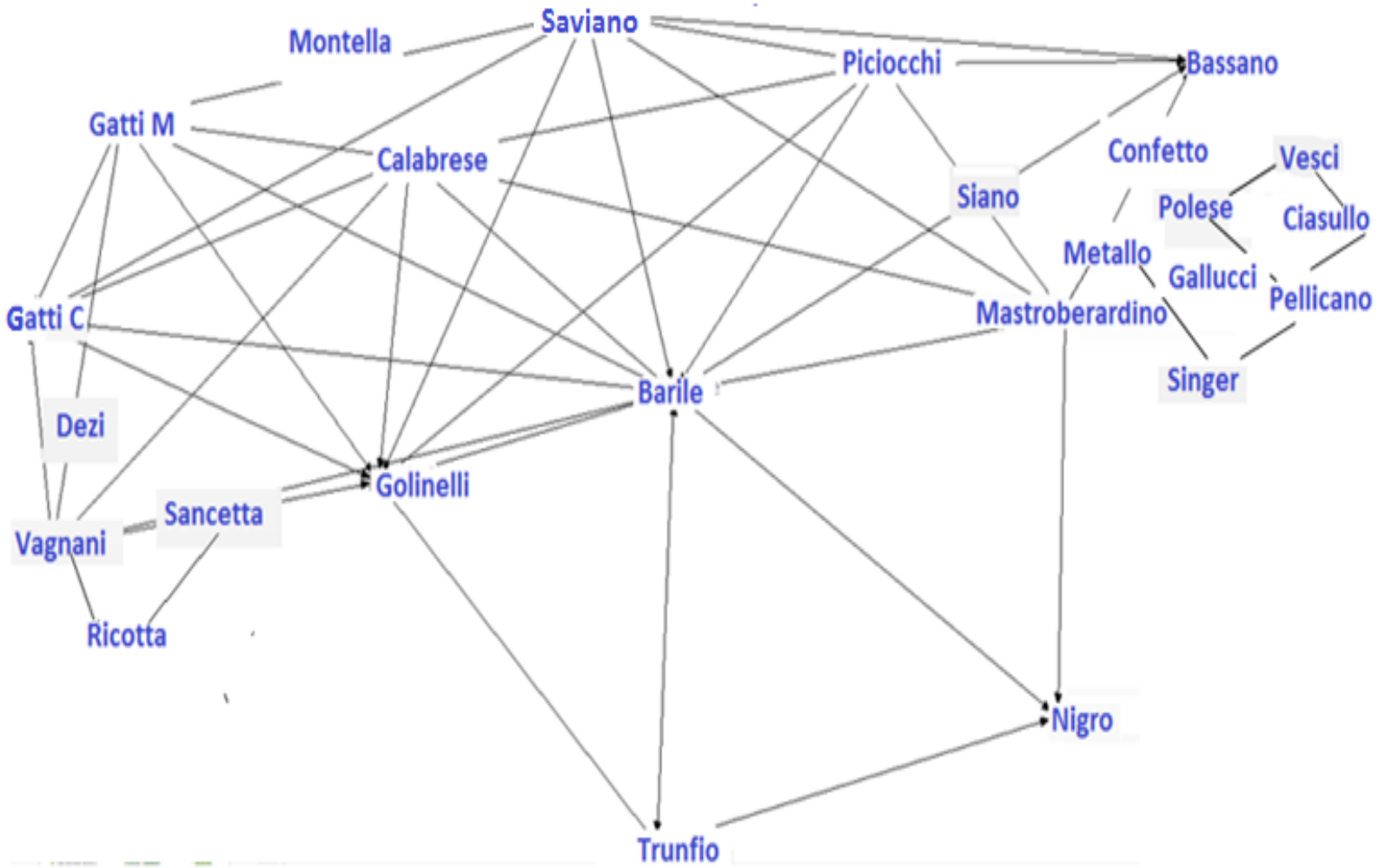
THE ITALIAN COMMUNITY'S PROPOSAL

Ninenties: Emerging need of horizontal (generalizable and linkable) knowledge

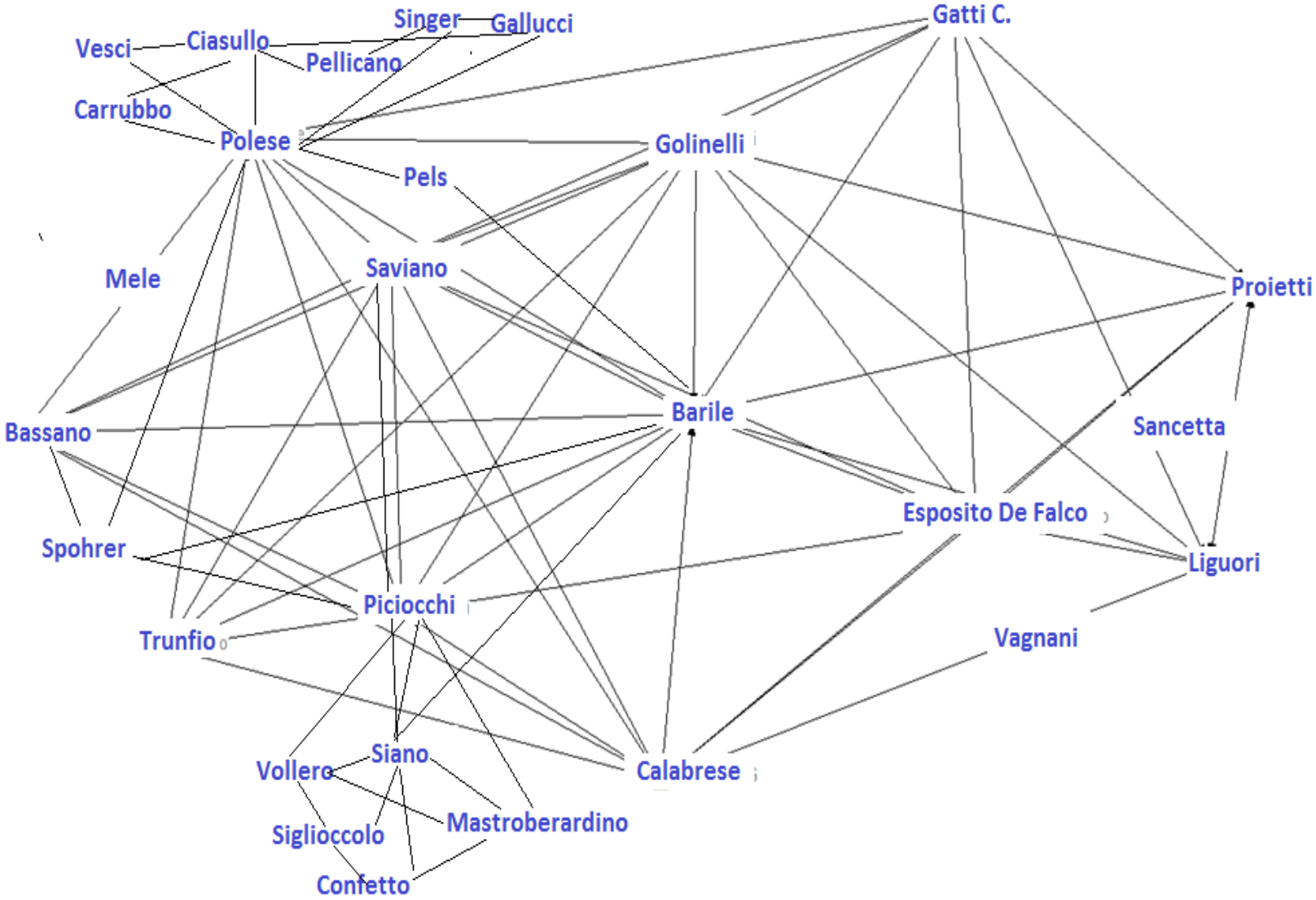
*By strongly **reaffirming the contribution of systems thinking to management**, the original Italian group engaged a growing number of scholars in a **shared scientific effort** targeted to develop a **coherent methodological framework** for a general understanding of the **essence**, the **form** and the **behaviour** of organizations and firms.*

It was the birth of the Viable Systems Approach (vSa) ...

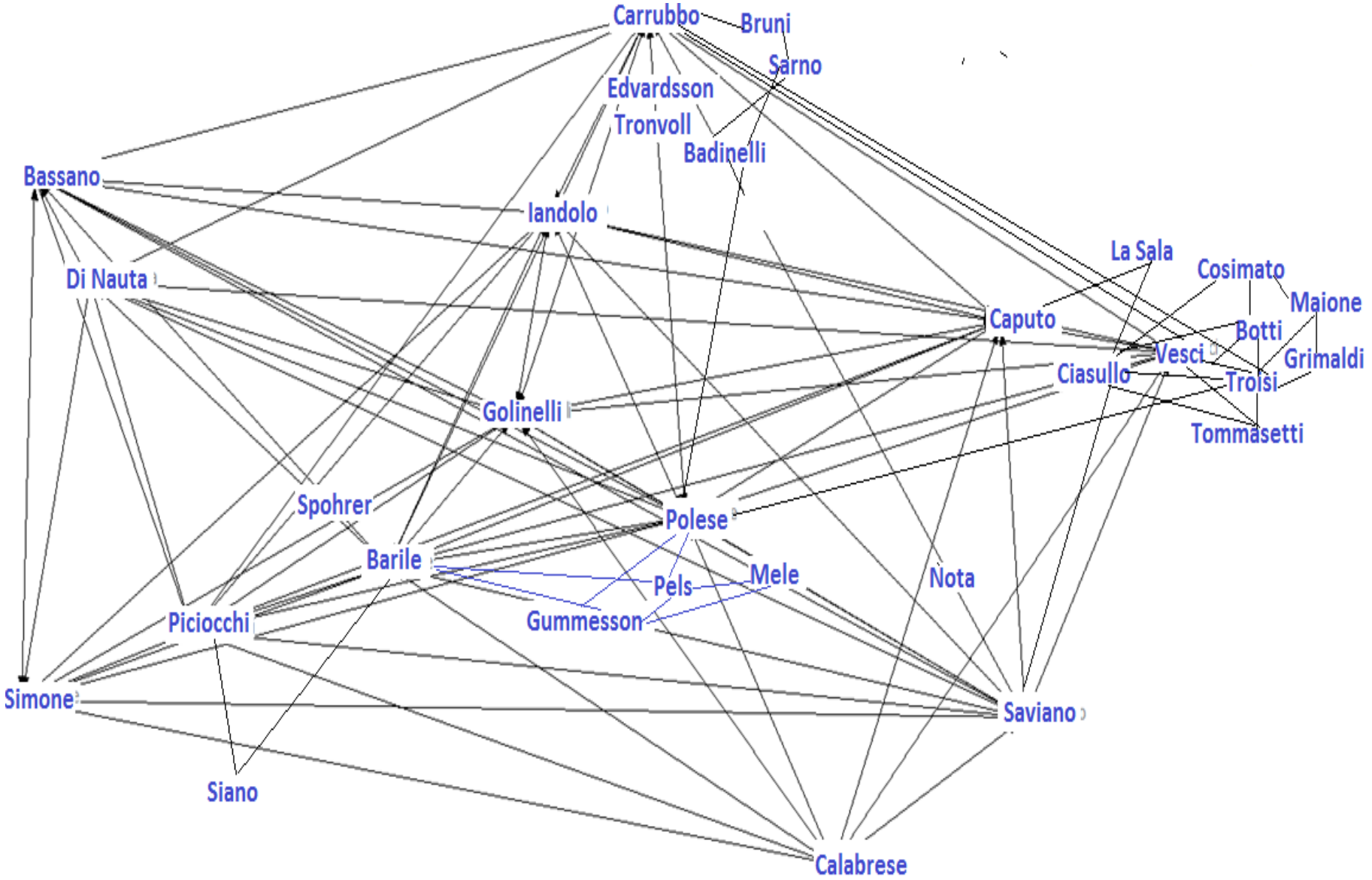
Many contributors … (1999-2004)



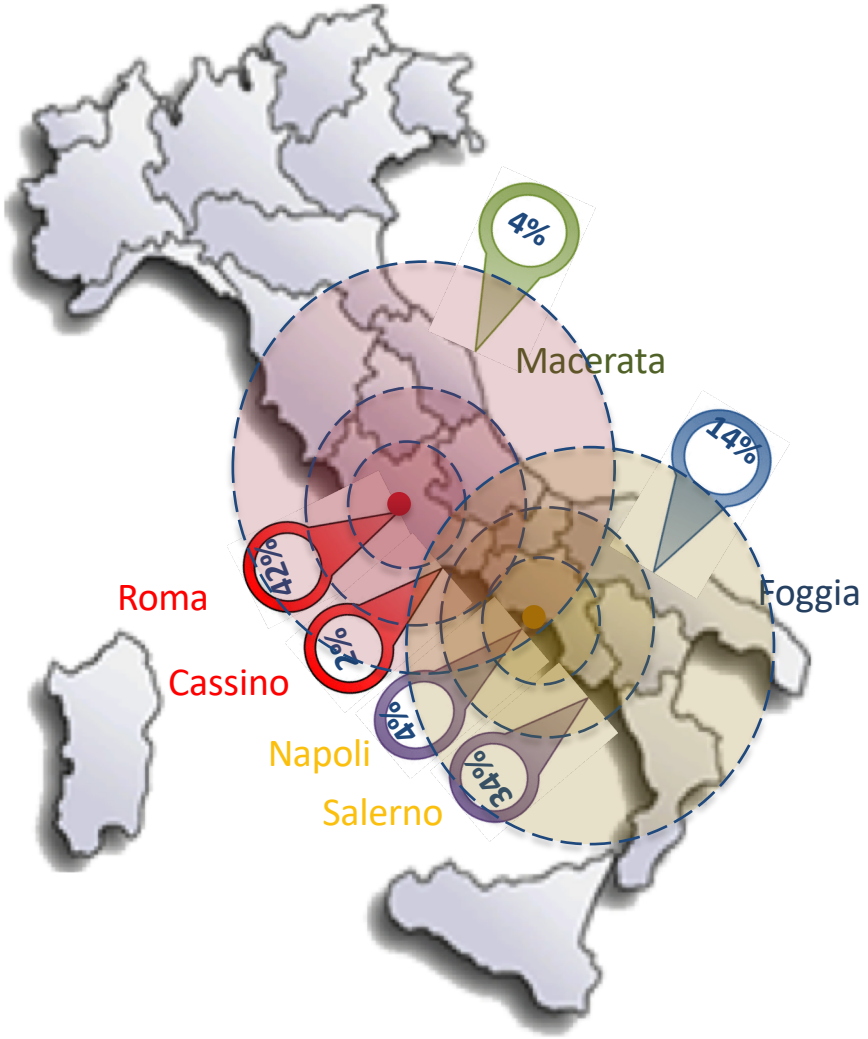
Many contributors … (2005-2010)



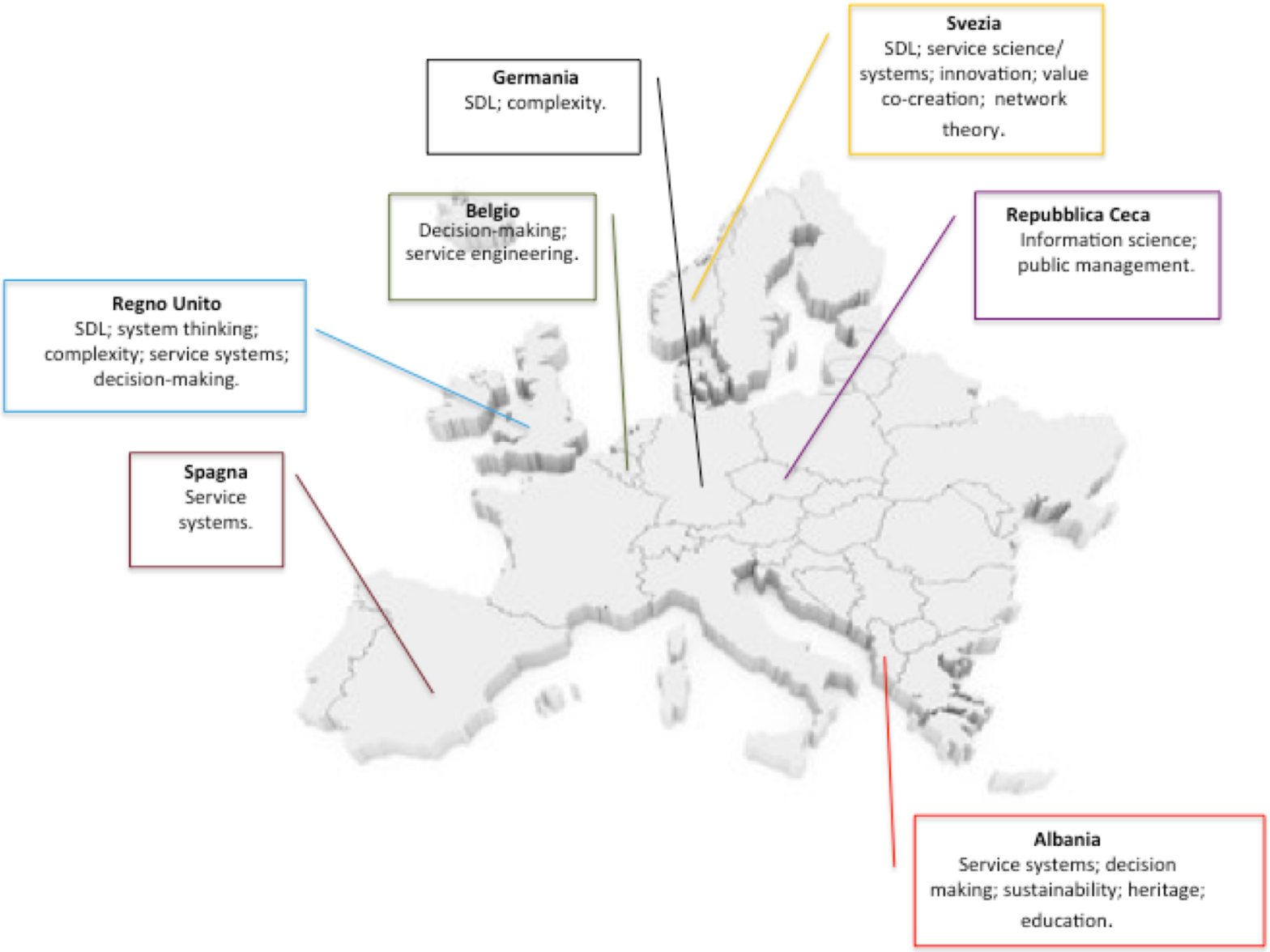
Many contributors … (2011-2017)



Mapping the Italian origins …



… and international development



… and international development

Let's go to the point…

What exactly is

the ***VIABLE SYSTEMS APPROACH?***

WHAT *vSA* IS NOT

- *It is not a theory*
- *It is not a model*
- *It is not a technique*
- *It is not a tool*

..... So, what is it?
.....What does it add to existing management theories, models, techniques and tools?

THE VIABLE SYSTEMS APPROACH *(VSA)*®

*The **Viable Systems Approach (VSA**)*

*is an **interpretative methodology**,*

rooted in systems thinking and built upon an updated version of the Stafford Beer's Viable System Model (1972),

to adopt both to study and govern

any kind of organized entity

(businesses and social organizations as well as individuals).

(Golinelli, 2000, 2005, 2010, 2011; Barile, 2000, 2008, 2009, 2011; Various Authors, 2011; Barile, Pels, Polese, Saviano, 2012)

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; Emery & Trist, 1960; von Bertalanffy, 1968; Beer 1972; Parsons 1971; Maturana & Varela 1975; Forrester, 1994).

Sergio Bariie – sergio.barile@uniroma1.it ; *Marialuisa Saviano* - msaviano@unisa.it

VSA AND MANAGEMENT

In the context of management, despite the **widely accepted view of business as a *socio-technical* 'system'**, the **implications** of this qualification are **rarely explored in depth**.

As a consequence, many **relevant *systemic* characteristics are not considered** in decision-making processes.

Hence, the purpose is to highlight:

1. **WHY a systems approach is needed**

2. **HOW the VSA can contribute**

Sergio Bariie – sergio.barile@uniroma1.it ; *Marialuisa Saviano* - msaviano@unisa.it

THE VIABLE SYSTEMS APPROACH

1. **WHY a systems approach is needed**
2. **HOW the VSA can contribute**

Marialuisa Saviano msaviano@unisa.it

1. Why a systems approach is needed

Increasing variety…
Increasing variability…
Increasing information …
Globalization …

… the more we are capable to 'see'

… the less we are capable to 'understand', hence to decide
… so experiencing complexity in decision making

vSa deals

with complexity and decision making…

Sergio Bariie – sergio.barile@uniroma1.it ; *Marialuisa Saviano* - msaviano@unisa.it

Complexity and decision making

"Things seem complex

if we don't have a ***simple way to describe them***

[…] there may be a ***simple underlying rule*** *for something,*

even though the thing itself seems to us complex"

(Wolfram, 2008)*

* http://www.stephenwolfram.com/publications/recent/complexity/

Searching for 'simple underlying rules' of experienced phenomena

Existing management models, techniques and tools are, in actual fact, **more or less codified solutions to experienced problems, whose underlying functioning rule has been already understood.** vSa calls them **specific schemes**, i.e. *schemes useful for solving specific management problems (**problem solving**)*.

e.g.: The Break Even Analysis

With growing conditions of **complexity, managers are continuously required to be capable to face problems and situations they never experienced before.** This is what vSa identifies as a ***decision making*** context, *i.e.*, a context of **uncertainty** in which decisions must be made without the interpretative support of consolidated models, techniques and tools. (Barile, 2009).

e.g.: Starting a new business

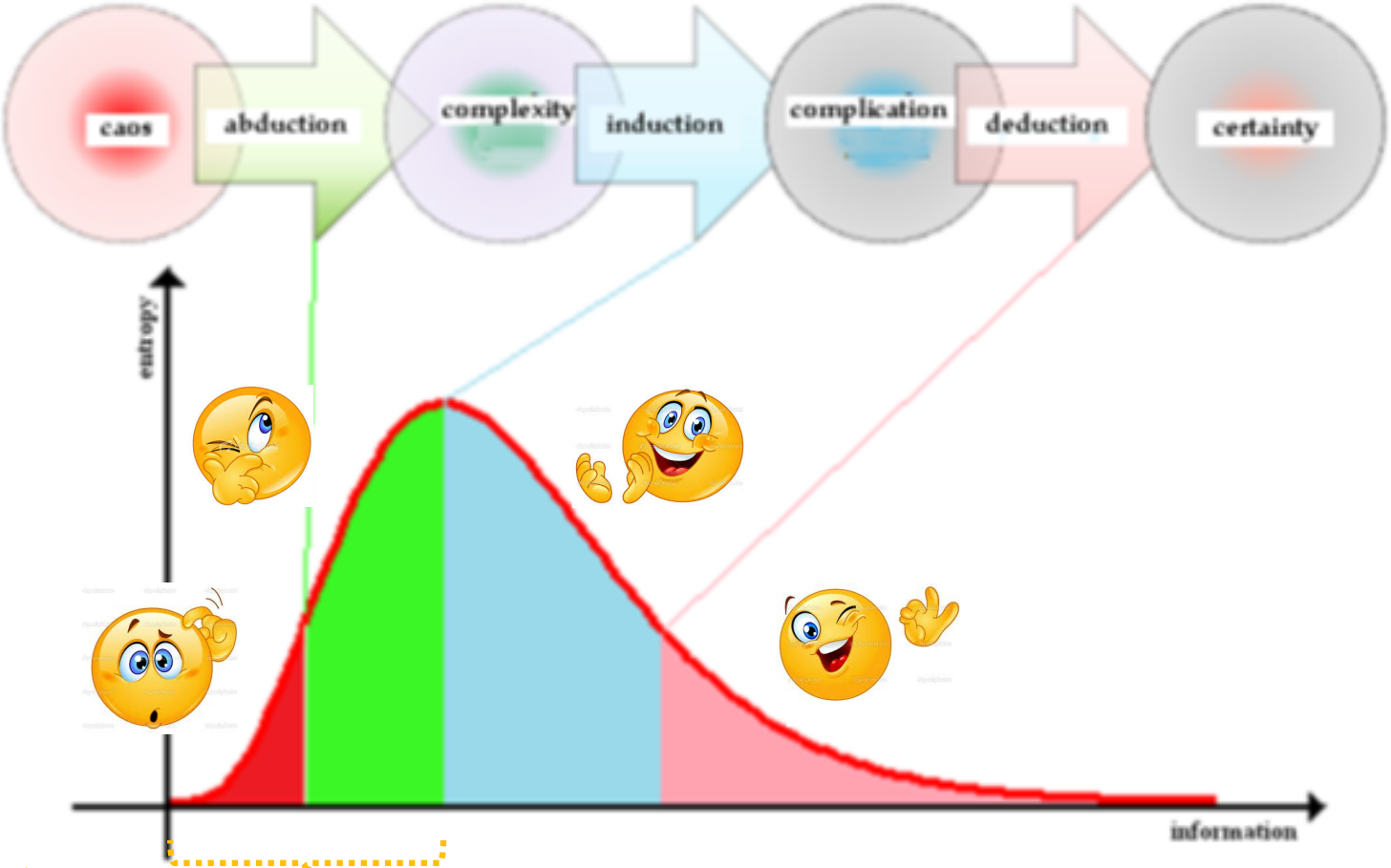
Thus, while problem solving can be addressed with a good knowledge endowment of existing theories, models, techniques and tools (i.e. specific schemes),

which endowment is required to deal with the complexity of decision making?

Searching for 'simple underlying rules' of experienced phenomena

What happens when we face
a situation/problem we are not able to solve,
hence a decision that "seems to us complex"?

Searching for 'simple underlying rules' of experienced phenomena



Knowledge gap!!!!

Source: Elaboration from Barile, 2009, www.asvsa.org

Searching for 'simple underlying rules' of experienced phenomena

Decision making

Problem solving

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

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

Ability to identify/develop new interpretative schemes

Ability to use existing interpretative schemes

Searching for 'simple underlying rules' of experienced phenomena

...which endowment is required to deal with the complexity of decision making, i.e. to be capable to develop new interpretation schemes?

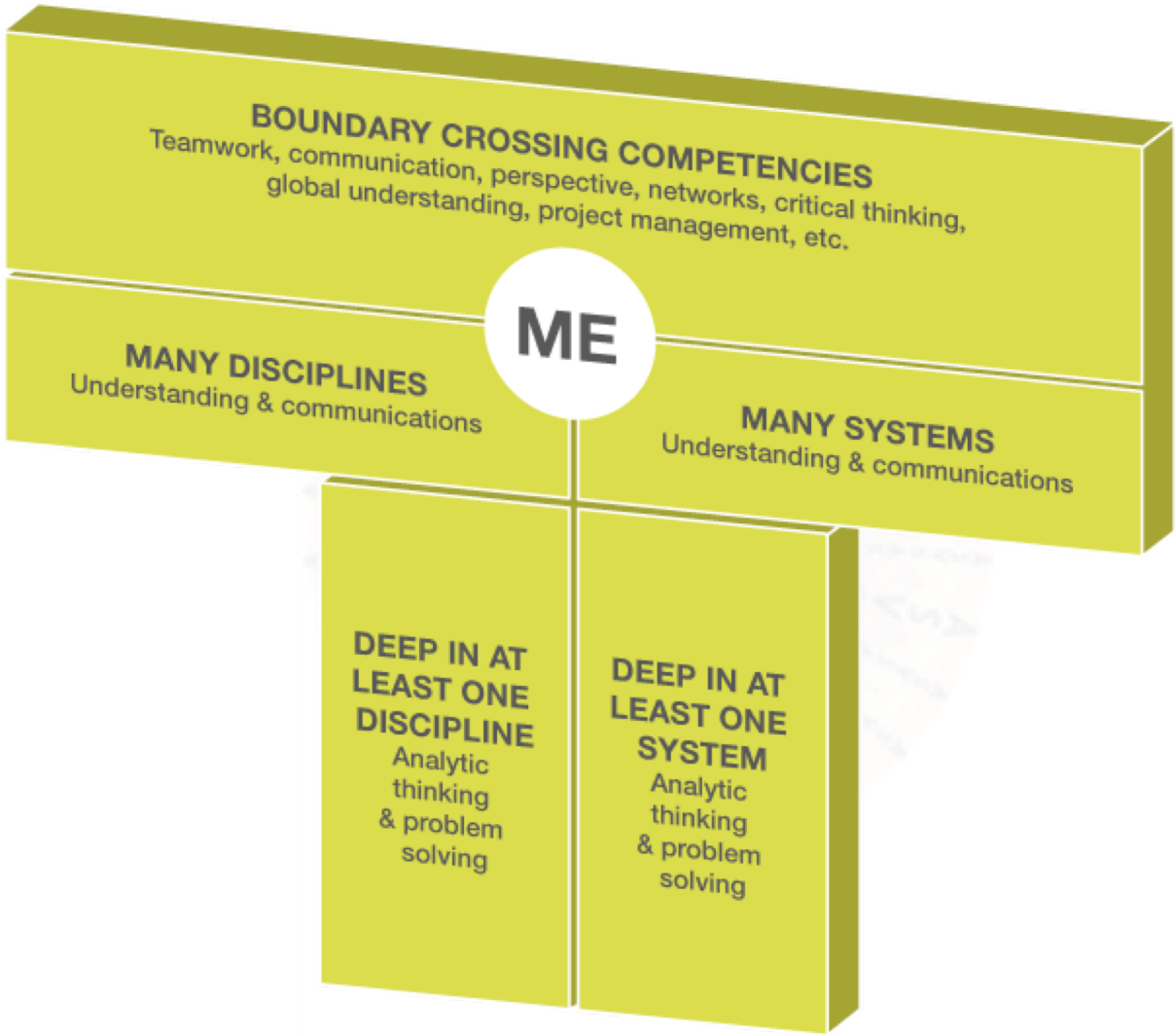
An endowment with

more **general interpretation schemes**

that can be useful **to develop new specific schemes** (solutions) by applying a **general level knowledge** (general rules) to a **specific context**, building upon existing **knowledge variety** and developing the (horizontal) **capabilities** necessary

to cross different contexts, disciplines, systems, etc.

THE SERVICE SCIENCE'S CALL FOR "T-SHAPED" PEOPLE



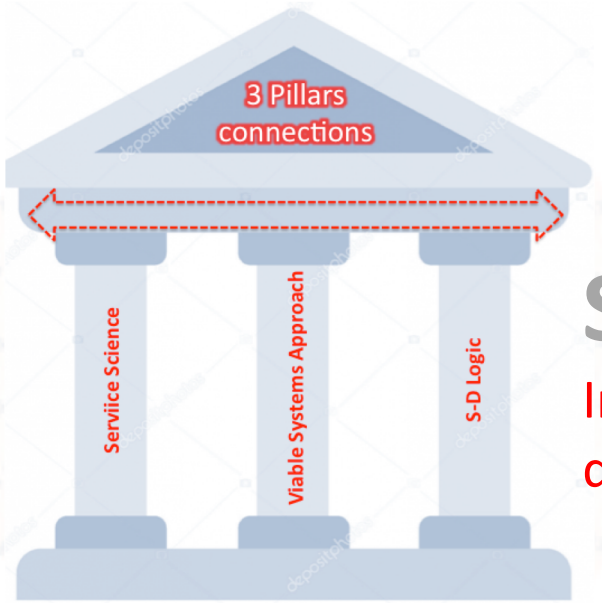
Source: http://tsummit.org/t

CONTRIBUTION TO SERVICE RESEARCH

1

Service Science

T-Shaped professionals



S-D Logic

Inter and transdiciplinary diffusion of the S-D Logic

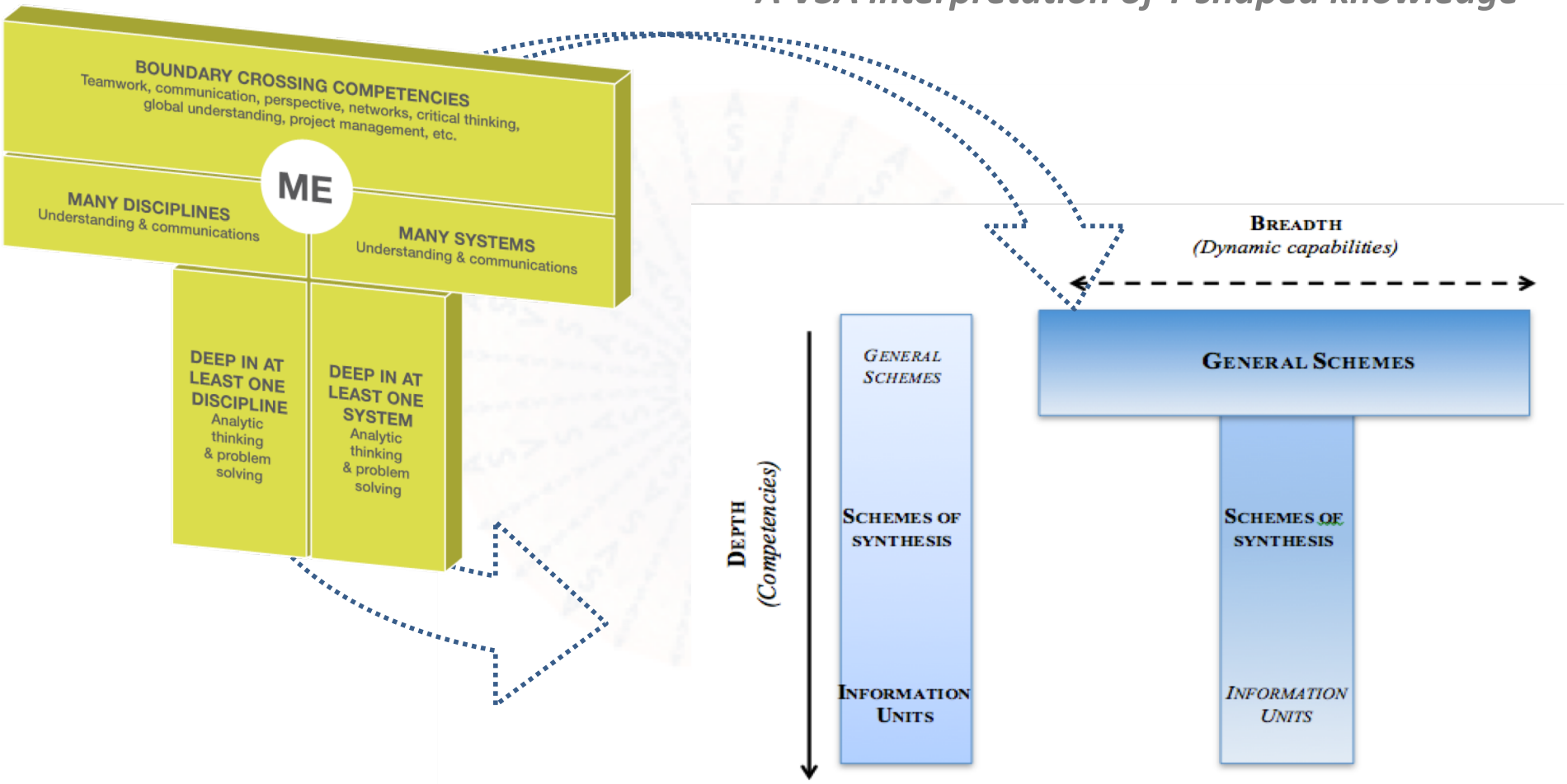
vSa

*Indicates **how to build the horizontal bar** favoring boundary-crossing interaction to co-create value*

Marialuisa Saviano msaviano@unisa.it

THE SERVICE SCIENCE'S CALL FOR "T-SHAPED" PEOPLE

A VSA interpretation of T-shaped knowledge

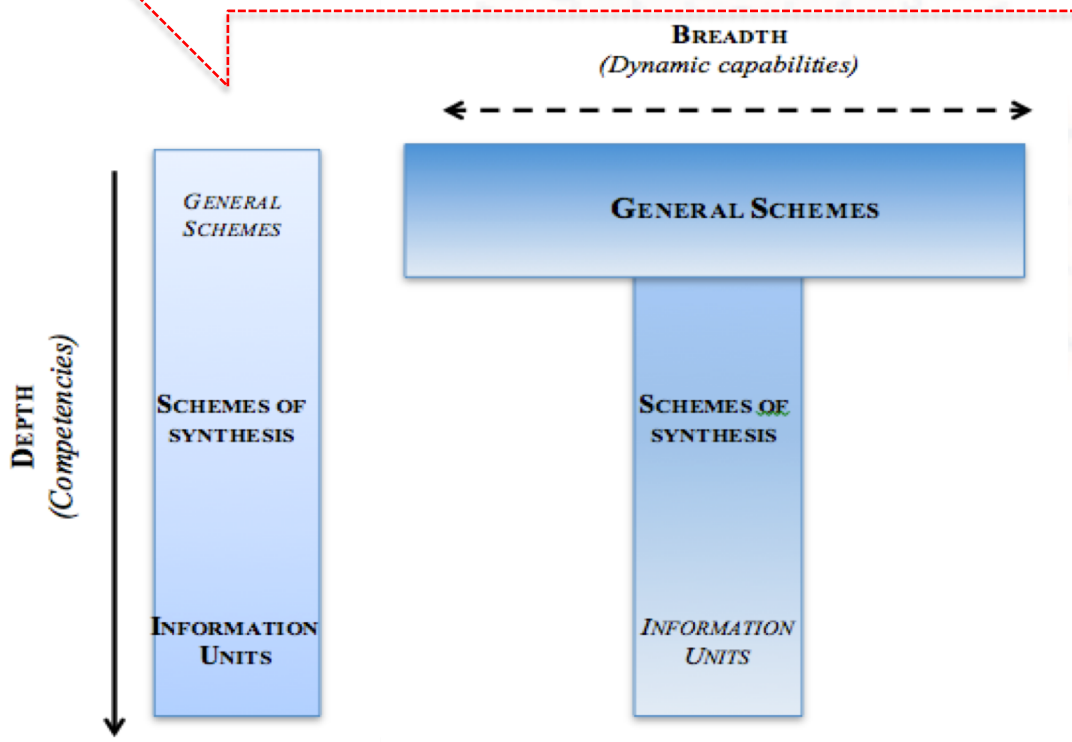


Source: Elaboration from Spohrer, Gregory, Ren, 2010: 678 and Barile & Saviano 2013: 51. Saviano et al. 2016

SYSTEMS THINKING AS THE MAIN HORIZONTAL CAPABILITY

vSa

Indicates how to build the horizontal bar by adopting the systems thinking general schemes

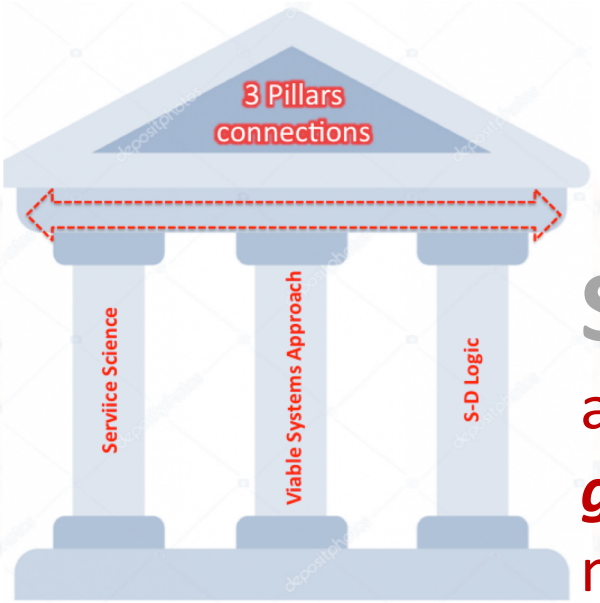


Systems thinking: General schemes for a general theory

Source: Elaboration from Barile & Saviano 2013: 51

CONTRIBUTION TO SERVICE RESEARCH

2



Service Science

aims at building a ***general*** theory of service systems

S-D Logic

aims at building a ***general*** theory of market exchange

vSa

Provides the general (systems thinking) schemes to build a general theory

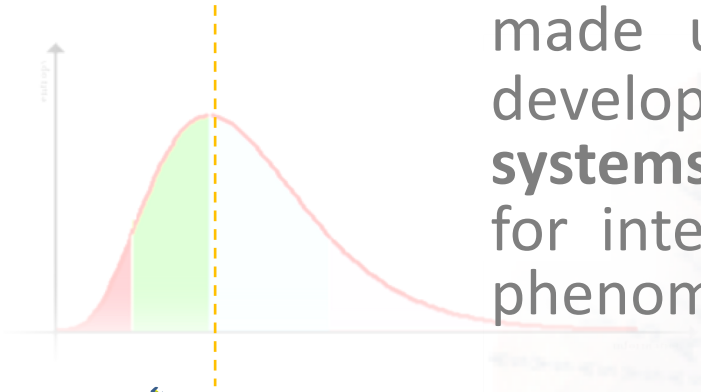
Marialuisa Saviano msaviano@unisa.it

THE VIABLE SYSTEMS APPROACH

1. WHY a systems approach is needed
2. **HOW the VSA can contribute**

Marialuisa Saviano msaviano@unisa.it

HOW the *vSa* can contribute



A **unitary conceptual framework** made up of **general schemes** developed on the basis of **general systems theory principles** to adopt for interpreting business and social phenomena in their basic dynamics.

vSA GENERAL SCHEMES
interpretative support

e.g. Life cycle

So what vSa **adds to existing interpretative methodologies** is the **general schemes** useful to move between different problematic contexts by going up to general rules and down to specific problems.

VSA OFFERS: A GENERAL REFERENCE MODEL

A **viable system** is:

"System which survives, remains united and is integral, is homeostatically balanced both internally and externally and possesses mechanisms and opportunities for growth and learning, development and adaptation, which allow it to become increasingly effective within its environment"

Beer, 1985

General reference principles

The 5 *vSa* principles

Survival	A **viable system**, living in a specific **context**, has the primary purpose of **survival**.
Eidos	The viable system in its ontological qualification may be observed from a **double perspectve**: that of the **structure** and that of the **system**.
Isotropy	The viable system is characterized by two logically distinct areas: that of **decision** and that of **action**.
Interaction	The viable system, in its existential dynamics, is influenced in the pursue of goals and in the achievement of objectives by the **interaction** with the **supra-** and **sub-systems** from which and to which, respectively, elicits and provides guidelines and rules.
Exhaustiveness	For a viable system all **external entities** are **viable systems** or components of an upper level viable system.

Source: Adapted from Barile, 2008.

GENERAL REFERENCE CONCEPTS

vSa Fundamental concepts (FCs)

FC1 - Individuals, organizations as well as social institutions can be viewed as **viable systems** that consist of components directed towards a specific goal.

FC2 - Every system (of level L) defines its **context** as a reticulum of **supra-systems**, (level L+1) and **sub-systems** (level L-1).

FC3 - The interpretation of any phenomenon requires interdisciplinary approaches whose focus can move between the parts (reductionist view) and the whole (holistic view) through the adoption of a **structure-system** perspective.

FC4 - Systems are **open** to connection with other systems for the exchange of resources. System's **boundaries** can be drawn at structural level but vanish when system's dynamics take place.

FC5 - Viable systems are **autopoietic** and **self-organizing**; that is, they are capable of self-generating internal conditions of equilibrium between internal possibilities and external constraints through self-regulation.

FC6 - The **system emerges from the structure** through the transformation of **relations** into dynamic internal and external **interactions**.

FC7 - Systems are **consonant** when there is a potential relational compatibility/complementarity between them. When consonant systems harmonically interact they can generate a systemic **resonance** (creation of value).

FC8 – The system's **viability** depends on its ability to survive pursuing its goals accomplishing a relevant **learning** process that makes it ever more effective in its environment.

FC9 - Business dynamic requires continuous **structural and systemic changes** (adaptations, transformations and restructuration) targeted to the alignment of the system's potentialities with external opportunities.

FC10 – A viable system can be viewed as an **information variety** made up of categorical value, interpretation schemes, and information units.

Source: Elaboration on Barile and Polese, 2010.

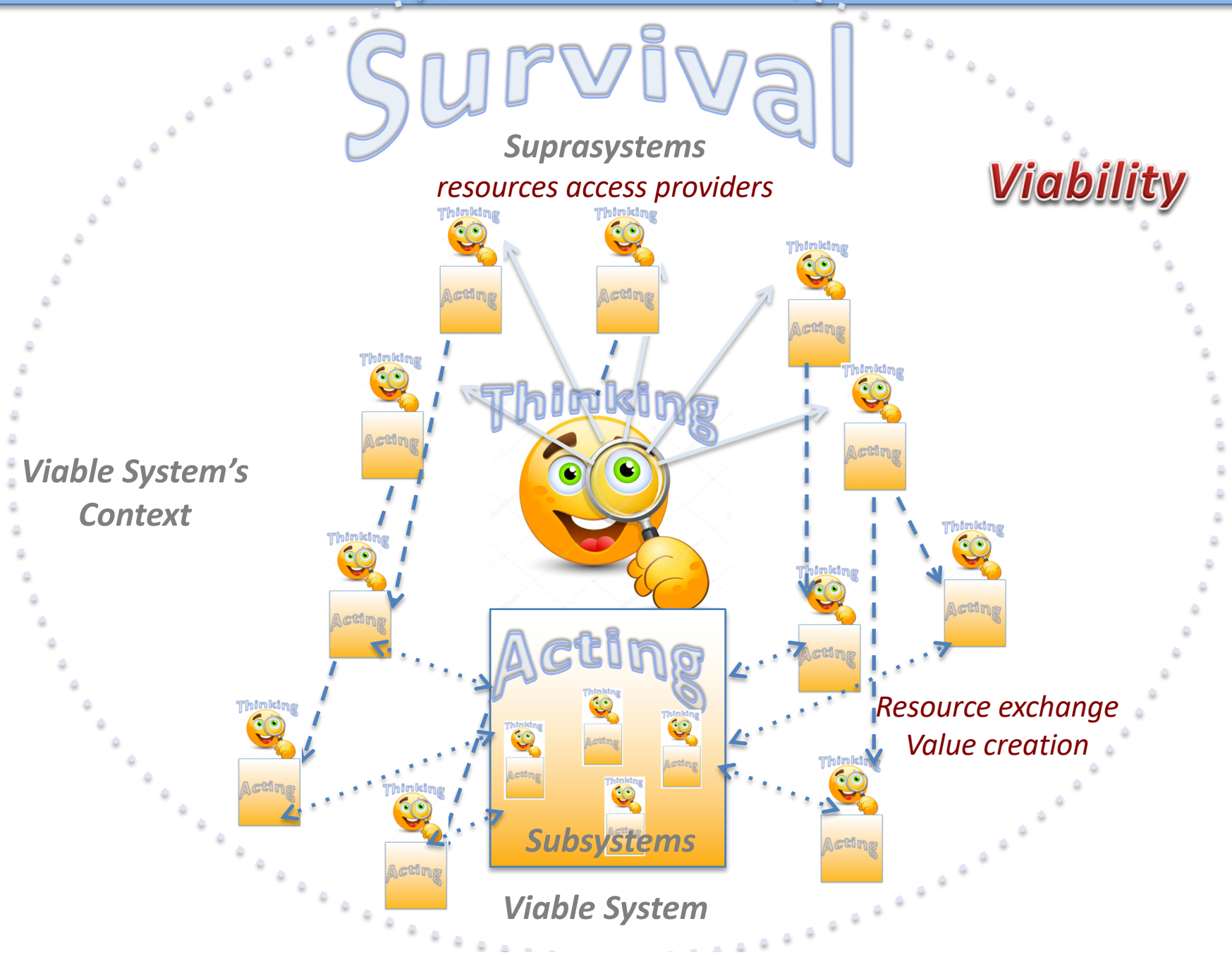
General reference propositions and connections to Service research

Focus	*vSa' propositions*	*Connections with Service Research*	*vSa literature references*
Survival	A viable system aims at surviving in its context.	The context conditions of survival of Service Systems should be investigated.	Barile, 2000, 2009, 2011a; Golinelli, 2000, 2005, 2010
Viability	A system remains viable in its context if it is able to establish relationship with other systems to gain access to resources necessary for its functioning.	The capabilities of a Service System to establish effective relationship with other systems in the context should be investigated.	Barile, 2000, 2009, 2011a; Golinelli, 2000, 2005, 2010; Saviano, Caputo, 2013
Reductionism and holism	A system can be studied by focusing both on its parts as components of the structure and on its whole functioning directed to the achievement of a goal.	A Service System should be investigated by focusing both on the analytical study of the parts that compose its operative structure and on the systemic and dynamic functioning of the whole.	Barile, 2011b; Barile & Polese, 2011
Structure-System Perspective	Any viable system can be observed through a dual perspective: that of the structure and that of the system. The system emerges from the structure when relations are finalized to the achievement of a goal.	A Service System should investigated by distinguishing the study of the structure (technical and operative functioning) from the study of the system (intra and inter-systems relationship and interaction).	Barile & Saviano, 2008, 2011a
Boundaries	A viable system has no boundaries. Only structural borders can be drawn while the systemic configuration dynamically changes depending on the changing relationship it develops in the context in the pursuing of its goals.	A Service System should be investigated in the light of the changing configuration of its links, relationship and interaction with other entities external to the physical structure.	Barile, Saviano, Polese, Di Nauta, 2012; Barile, Saviano, Polese, Di Nauta, 2013; Pels, Barile, Saviano, Polese, 2013

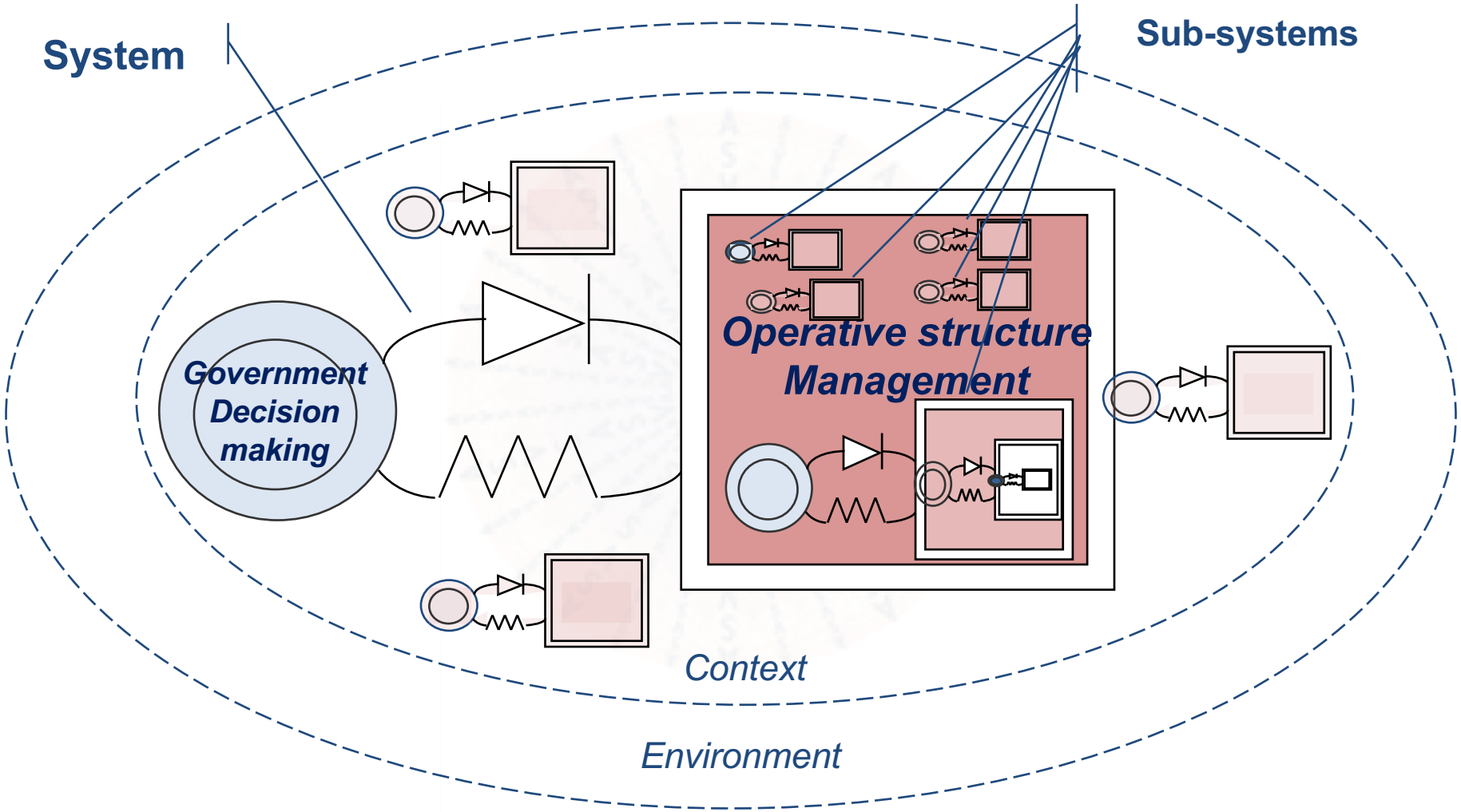
GENERAL REFERENCE PROPOSITIONS

Focus	*vSA' propositions*	*Connections with Service Research*	*vSa literature references*
Complexity	Complexity does not objectively characterize a phenomenon but subjectively arises when the decision maker is not capable to understand experienced phenomena through consolidated interpretation schemes.	Complexity in a Service System should be investigated not much in terms of complication of its structure configuration and functioning but in terms of capabilities of the decision maker to understand a dynamically changing scenario.	Barile, Saviano, 2010b; Barile, Pels, Polese, Saviano, 2012; Badinelli, Barile, Polese, Saviano, Di Nauta, 2012
Information variety	A viable system can be viewed as an information variety that qualifies its cognitive endowment in terms of information units, interpretation schemes, and categorical values.	The relational and interactional potential of a Service Systems should be investigated through the evaluation of the potential alignment of their information varieties.	Barile & Polese, 2011; Golinelli, Barile, Saviano, Polese, 2012.
Consonance and resonance	A viable system develops conditions of harmonic relationship with (supra)systems (consonance) in order to create value through synergistic interaction (resonance). Consonance can be differently achieved by acting on the three dimensions of the information variety.	The governance capability of a Service System should be investigated by evaluating its capability to develop consonant relationship aimed at creating value through effective interaction with other systems.	Barile & Polese, 2011; Golinelli, Barile, Saviano, Polese, 2012.
Consonance and competitiveness	When defining its relationship strategies, a viable system should find an equilibrium between competitiveness and consonance.	The success of a Service System depends on its capability to balance forces of competitiveness and consonance.	Barile & Polese, 2011; Golinelli, Barile, Saviano, Polese, 2012; Barile, Carrubbo, Iandolo, Caputo, 2013
Value co-creation	Viable systems co-create value trough effective consonance-based interaction. Effective interaction depends on the viable systems' capability to reciprocally align their information varieties.	Service Systems' capability to co-create value should be investigated through the analysis of the potential of alignment of their information varieties .	Barile & Saviano, 2013, 2014; Saviano, Parida, Caputo, Datta, 2014

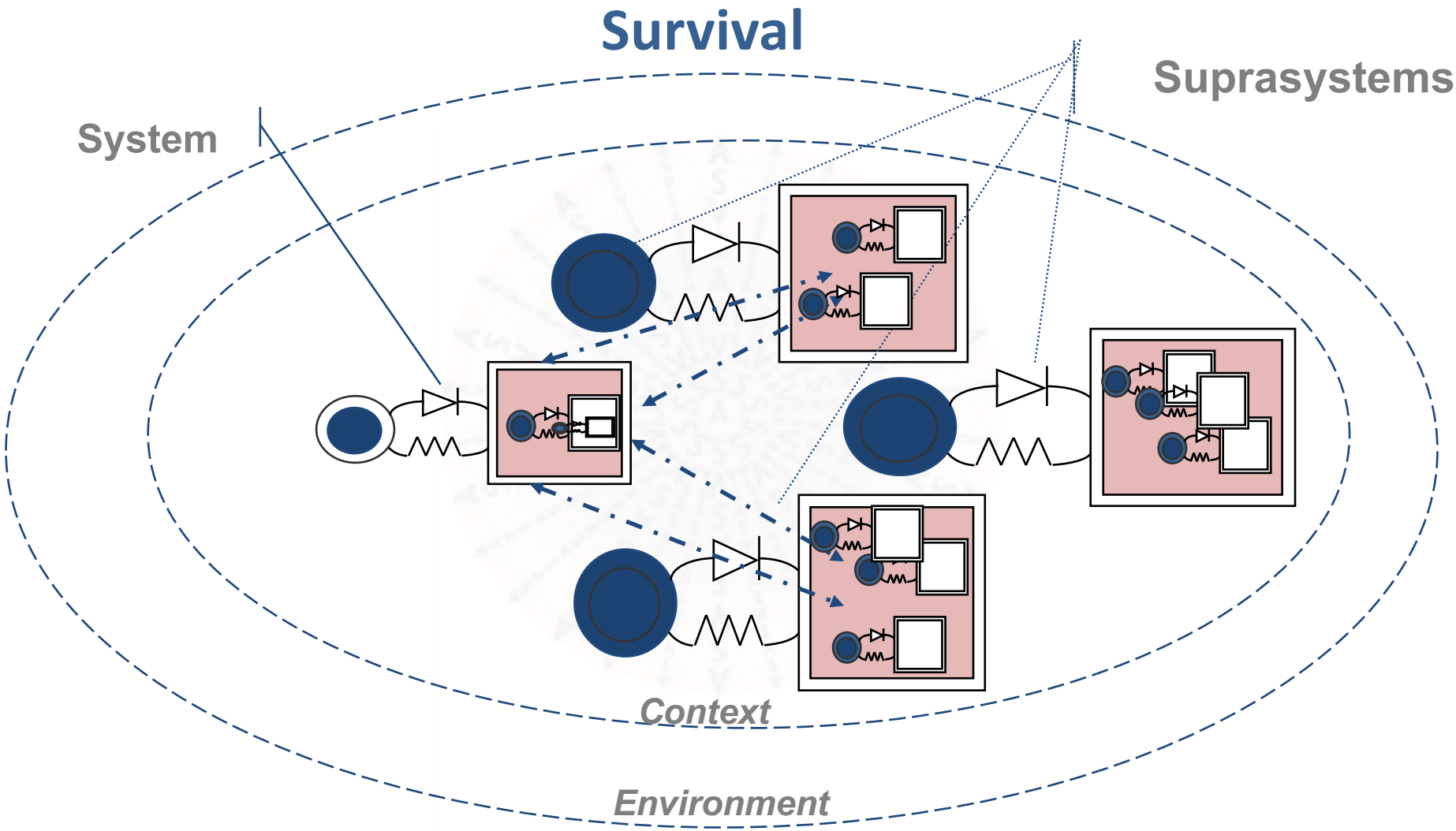
A GENERALIZABLE REPRESENTATION OF THE 5 VSA PRINCIPLES



A … 'LESS INFORMAL'…
(GENERALIZABLE) REPRESENTATION OF VIABLE SYSTEMS



A … 'MORE FORMAL'…
GENERALIZABLE REPRESENTATION OF THE VIABLE SYSTEMS

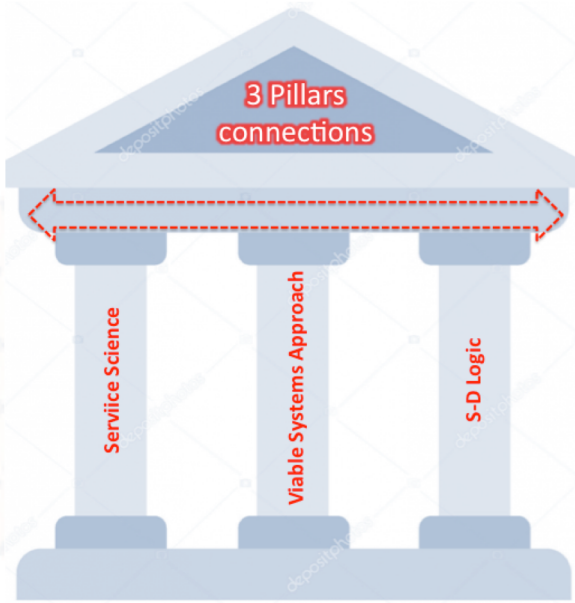


CONTRIBUTION TO SERVICE RESEARCH

3

Service Science

Nested and networked service systems



S-D Logic

Resource integration in multi-actor relationships of value co-creation

vSa

Provides a systemic interpretation of co-creation in multi-actor relational contexts

Marialuisa Saviano msaviano@unisa.it

A systemic interpretation of co-creation in multi-actor relational contexts

Systemic conditions of Viable Service Systems

A viable system satisfies three fundamental systemic conditions (Barile and Saviano 2011):

- **(partial) openness**, which is the ability to exchange resources with the other systems of the context in a selective manner;
- **contextualization**, which is the search for viability through interaction with certain privileged entities, such as supra-systems that influence its survival;
- **dynamism**, which is the development of structure in accordance with emerging changes.

A systemic interpretation of co-creation in multi-actor relational contexts

Access to resources and resources integration

In order to **survive...**

The system needs to establish **relationships with external entities** (**suprasystems**) that own the **resources** necessary to its survival and effective functioning.

Hence, the decision maker must engage suprasystems within the network relationships to gain **access** to their **resources**.

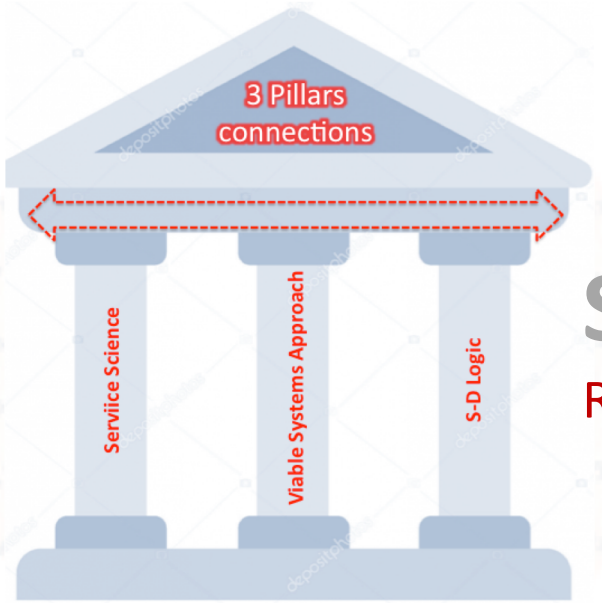
Hence, he/she must be able to harmonize **multiple perspectives and goals** toward a **common process in order to co-create value**.

CONTRIBUTION TO SERVICE RESEARCH

4

Service Science

Access rights



S-D Logic

Resource integration

vSa

*Provides **guidelines for a systemic strategy** to gain access to (suprasystems) resources*

Marialuisa Saviano msaviano@unisa.it

Guidelines of a systemic strategy to gain access to (suprasystems') resources

Step 1: Evaluation of relevance

In order to define the most appropriate **relational strategy to gain access to the suprasystems resources ...**

... the system's decision maker evaluates the supra-systems' **degree of relevance** for the system's functioning and viability.

Relevance is evaluated in terms of how critical the suprasystems' resources are (**criticality**) and how capable of influencing the system's dynamics they are (**influence**).

Guidelines of a systemic strategy to gain access to (suprasystems') resources

Step 2: creating consonance to generate resonance

In order to **harmonize the needs and expectations of supra- and sub-systems**...

the system's decision maker must govern a delicate **equilibrium** between **consonance** and **competitiveness** as opposite forces under which decision is made.

Consonance refers to the relational **compatibility/complementarity** between interconnected entities that aim at interacting for the purpose of an emerging system: it expresses the *potential* for **value to emerge**.

When consonant actors interact, they generate **Resonance** as the process and the outcome that emerge from the developed *synergies*, i.e. **(value co-creation outcome)**.

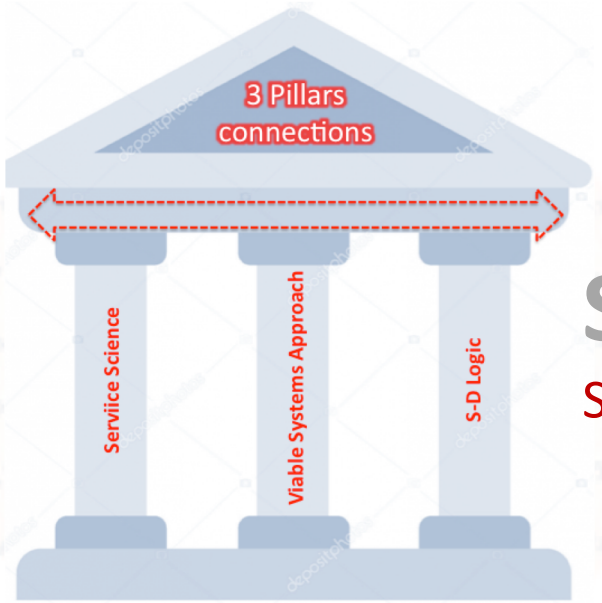
SERVICE** AS THE **RESONANT OUTCOME** OF **EFFECTIVE VALUE CO-CREATION

CONTRIBUTION TO SERVICE RESEARCH

5

Service Science

Service as a system



S-D Logic

Service as a logic

vSa

Provides a systemic interpretation of service

Marialuisa Saviano msaviano@unisa.it

A systemic interpretation of Service

Service is intrinsically ***systemic***

It can be viewed both
as the process and the outcome of interaction

- *It is interactional*
- *It is dynamic*
- *It is contextual*
- *It is emergent*

What are the implications of this systemic nature?

A systemic interpretation of Service

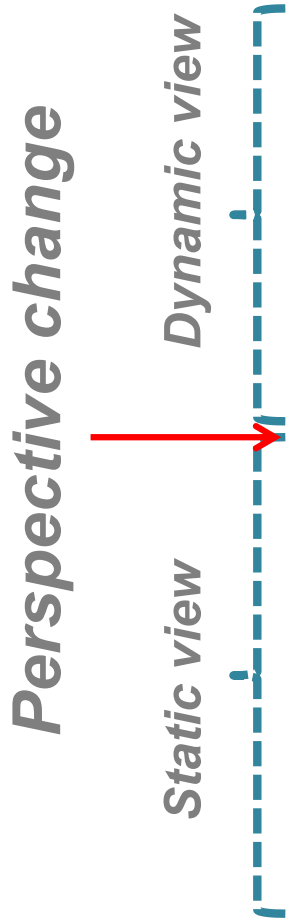
To understand the implications of the systemic nature of service

the vSa provides a very relevant general scheme:

the *"**structure/system**" distinction*

It is a **general interpretation scheme**
developed on the basis of the universal ***static/dynamic*** distinction.

The Structure-System general scheme: perspective levels

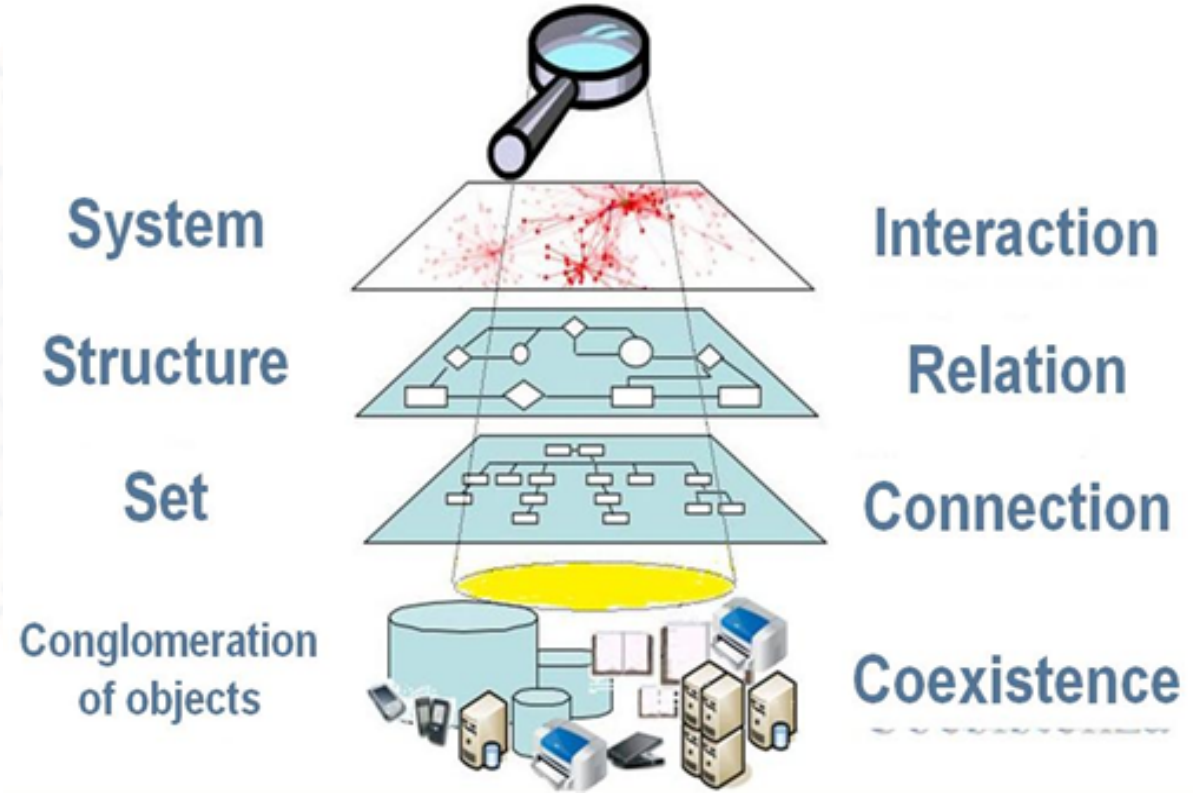


Holistic view
(whole)

Systems view
(interaction)

Structure view
(relation)

Reductionist view
(parts)



The Structure-System general scheme: between reductionism and holism

The **structure-system general scheme** proposes a dual perspective to investigate a phenomenon by focusing on (Barile and Saviano, 2008, 2011):

- how it is made (***Structure Based View – StBV***)
  static and objective view

  a perspective that focuses on *objects*, *parts, components* (*analytical reductionist approach*) and on the relations (*relational view*)

- how it functions (***Systems Based View – SyBV***)
  dynamic and subjective view

  a perspective that extends the view from the parts and relations (*static*) to the whole interaction (*dynamic*) process (*systems view*)

A bridge between reductionism and holism

CONTRIBUTION TO SERVICE RESEARCH

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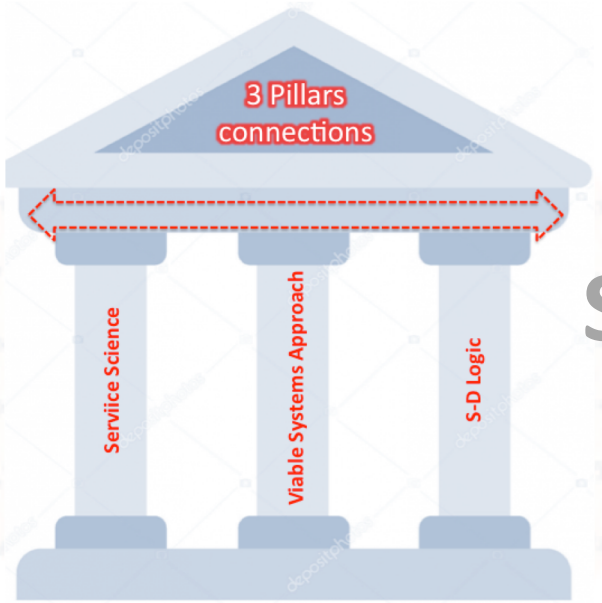
Service Science



S-D Logic

vSa

Highlights the value of

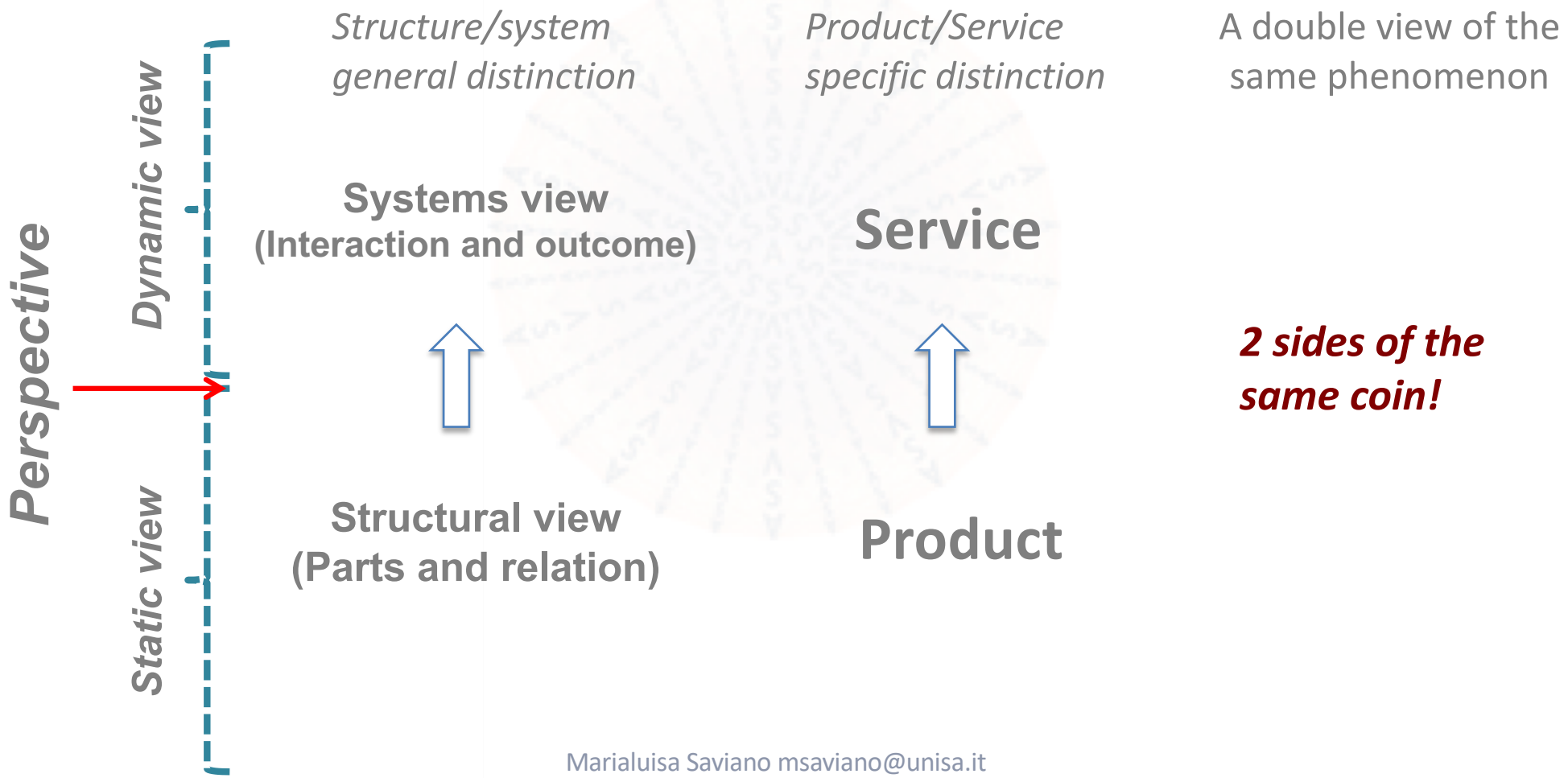
SERVICE as a general rule of interaction

(general scheme)

Far beyond marketing and management

Re-reading the distinction between Product and Service

An example of the function of general schemes



Re-reading the distinction between Product and Service

Example: printing a document

Service: Printing shop

Product: Printer

Traditional Goods-Dominant view:

Focus on tangible goods

Re-reading the distinction between Product and Service

Example: printing a document

Service: Printing shop

Product: Printer

Structural View:

Focus on parts (tangible components) and connections

Re-reading the distinction between Product and Service

Example: printing a document

Service: Solution

Process

Product: Printer

Systems view:

Focus on the process

(People;Technology; Organization; Shared information)

Re-reading the distinction between Product and Service

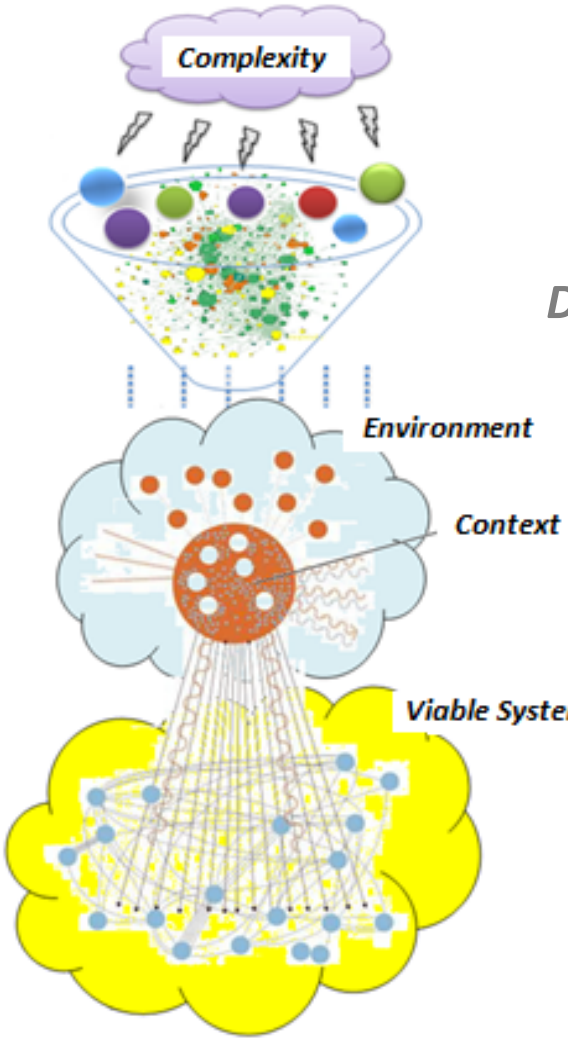
A re-interpretation of the traditional distinction **product/service**:
vSa re-interprets this distinction considering:

product *as a standardized service process "collapsed" into a physical object's structure that, to make its potential value to emerge, needs to be made 'alive' through a* ***service system****.*

Product : Structural view = *Service* : Systems view

Product/Service = Structure/System

The structure-system general scheme: relevant implications



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

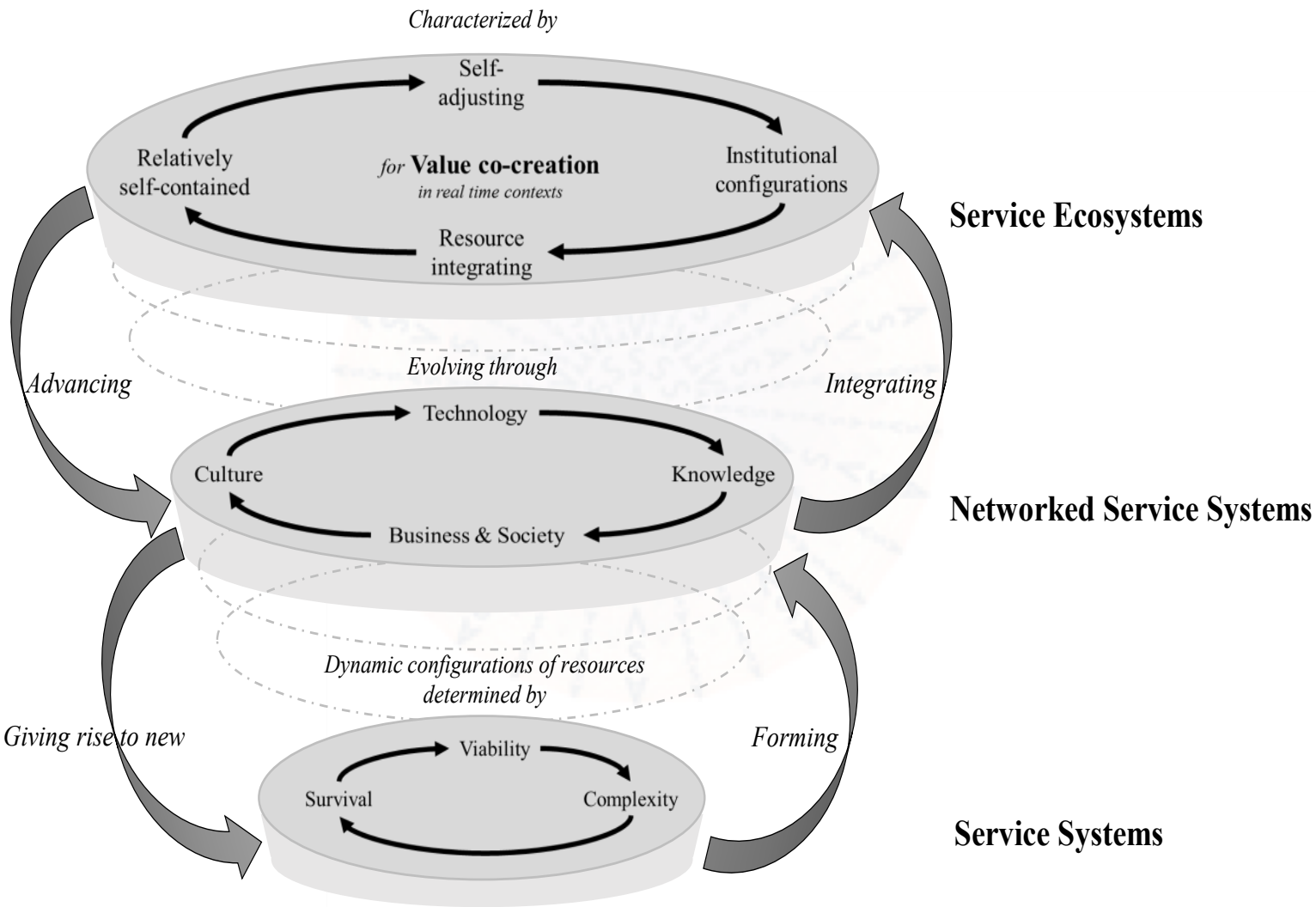
Constructivist view

Boundaries vanishing

Emergence phenomena

Complexity factors

From Service Systems to Service Eco-systems



Source: Barile et al. 2016 and Reynoso et al., 2018

CONTRIBUTION TO SERVICE RESEARCH

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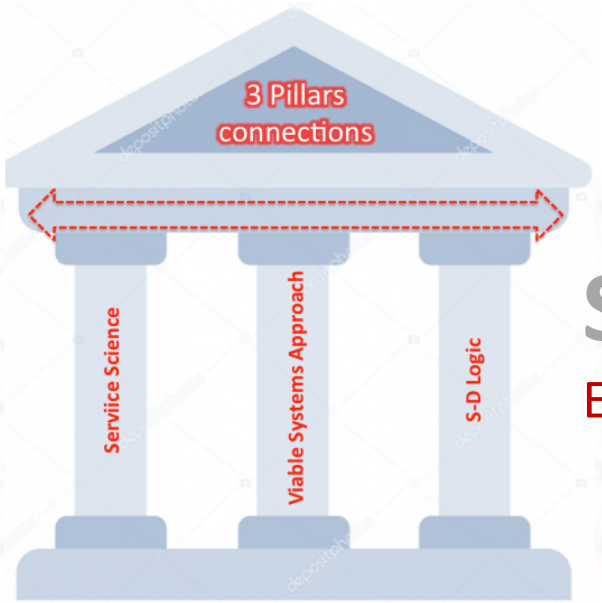
Service Science

Service as a system



S-D Logic

Eco-systems

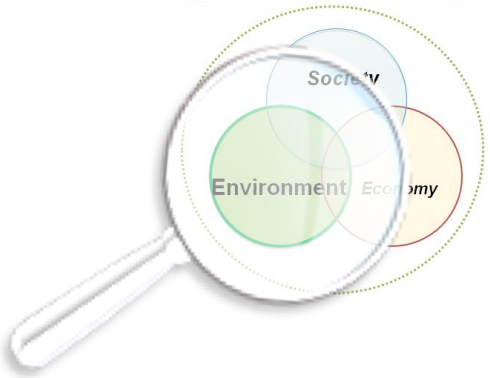
vSa

Highights the complexity of value co-creation in eco-systems (emergence phenomena)

Marialuisa Saviano msaviano@unisa.it

The complex adaptive nature of eco-systems

Eco-systems intertwine
Social-Ecological and Socio-Technical Systems

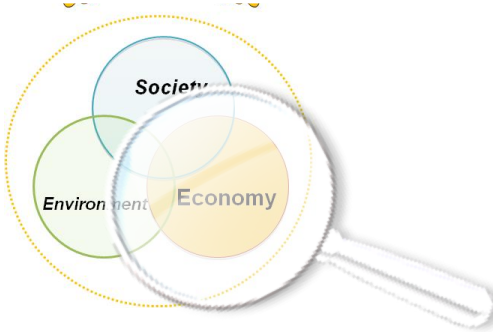


➢ ***Social-Ecological Systems*** **(SESs)** (Ostrom, 2009);

- dominant **environmental** perspective
- focus is on **humans-nature coupled systems**

➢ ***Socio-Technical Systems*** **(STSs)** (Gorman, 2010);

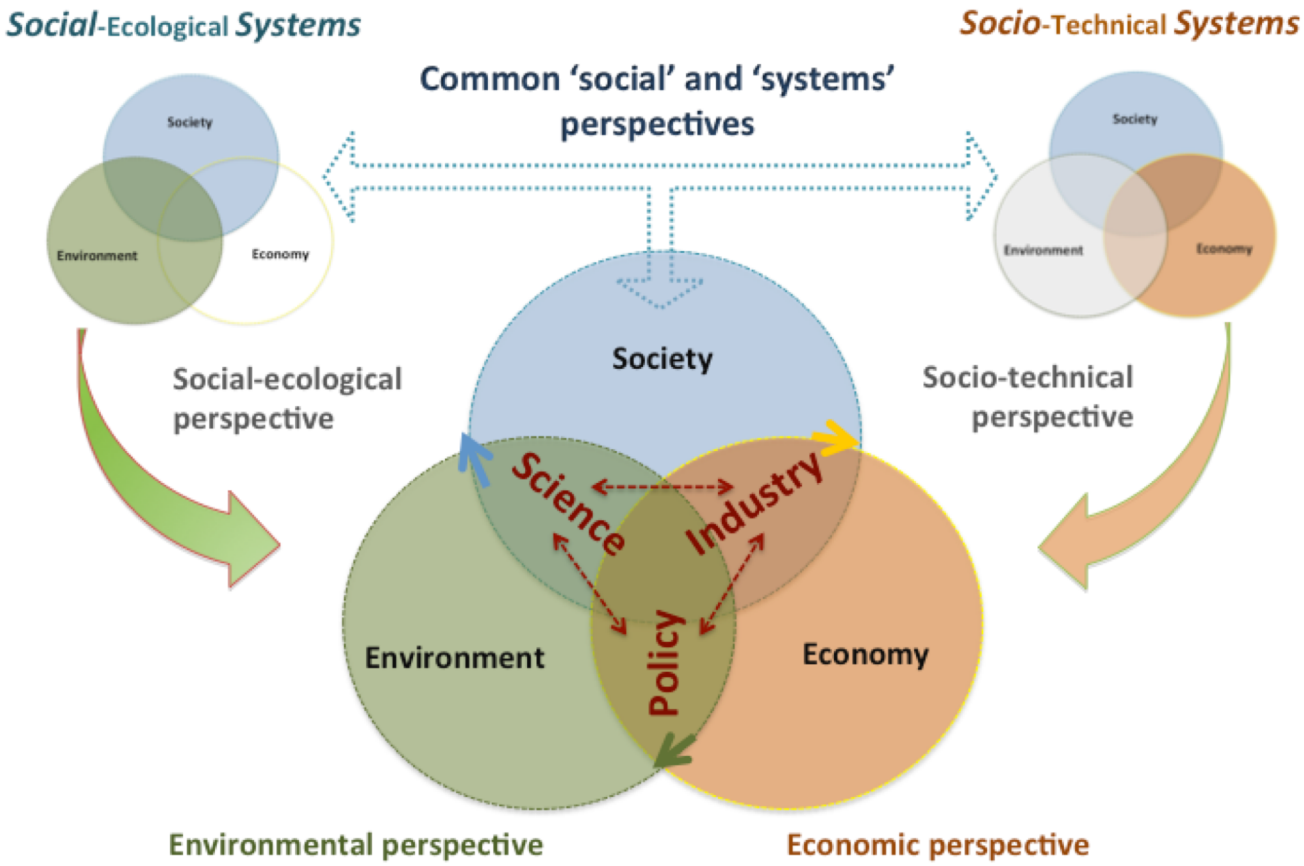
- dominant **economic (management and engineering)** perspective
- focus is on **humans-technology coupled systems**



Main global challenge:
the environmental, social and economic sustainability of humans activities

A vSa general reference framework: The Triple Helix of Sustainability

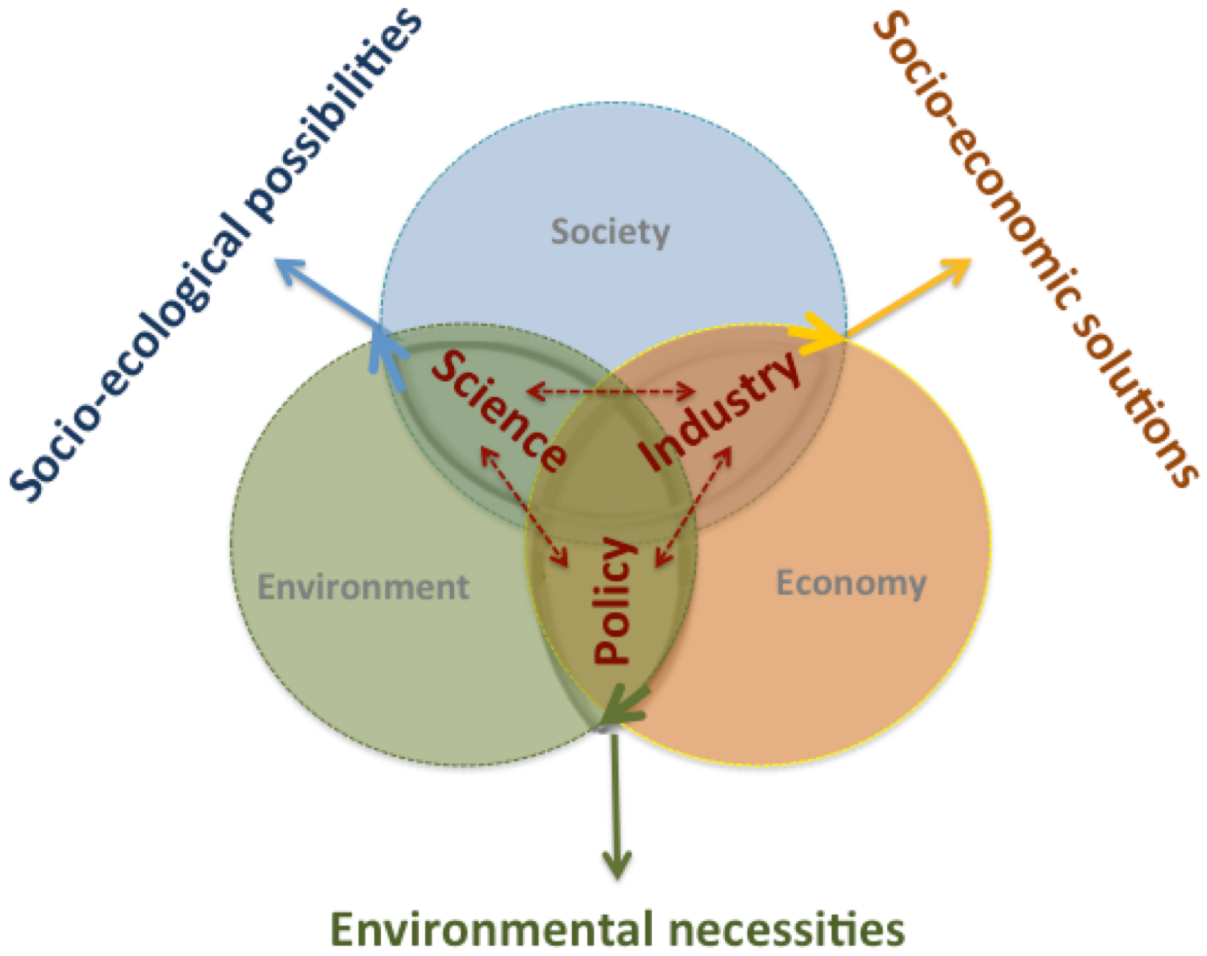
vSa integrates
the Social-Ecological and Socio-Technical Systems perspectives



Source. Saviano et al., 2019. Elaboration from Barile and Saviano 2018. www.asvsa.org.

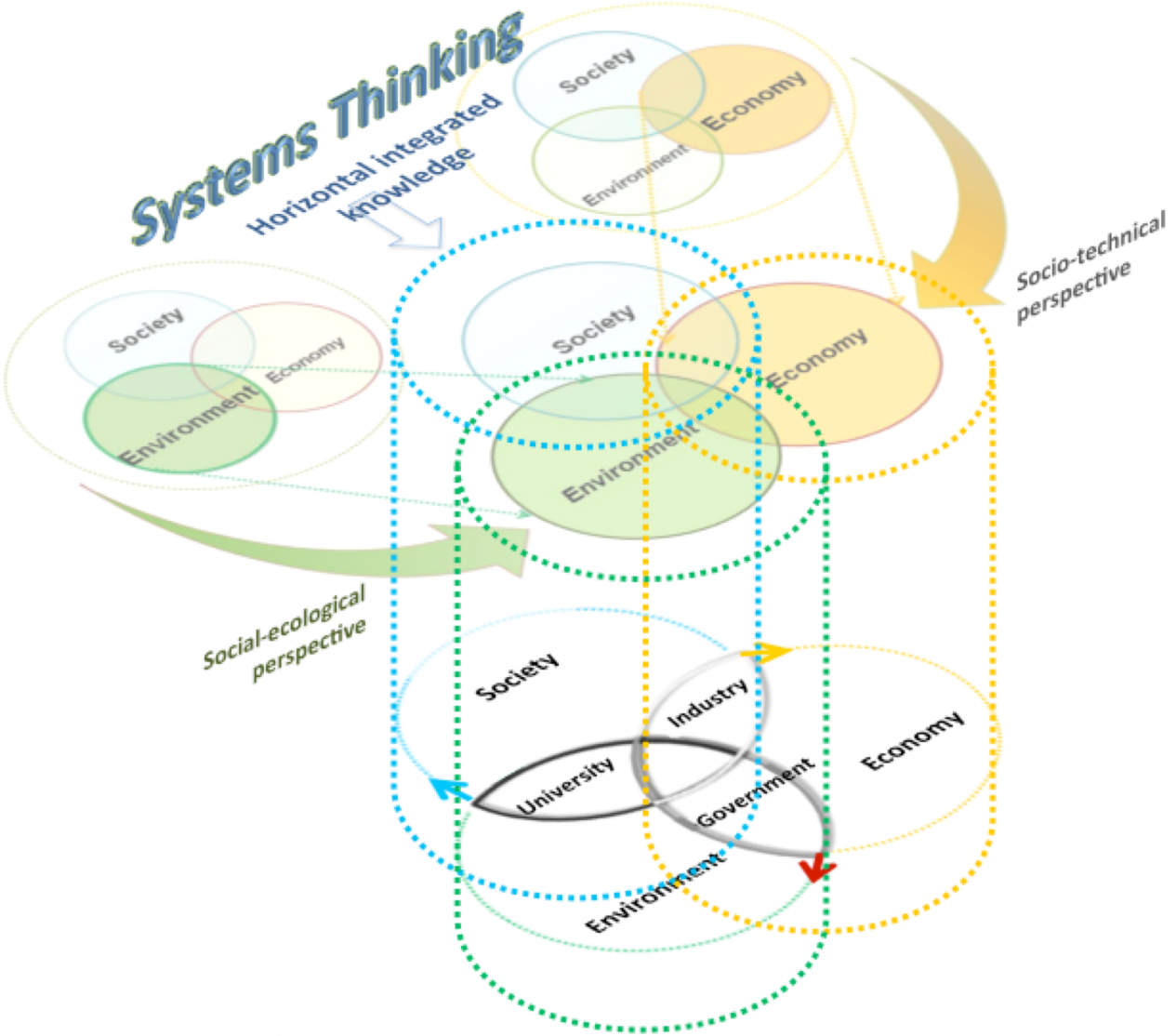
A vSa general reference framework: The Triple Helix of Sustainability

3 fundamental roles



Source. Saviano et al., 2019. Elaboration from Barile and Saviano 2018. www.asvsa.org.

A vSa general reference framework:
From silos to integrated knowledge for serving sustainability



Source. Saviano et al., 2019. Elaboration from Barile and Saviano 2018. www.asvsa.org.

CONCLUDING REMARKS

The vSa offers a systems thinking contribution to service research by providing guidelines for effective interaction in order to cocreate value in multi-actor (multi-perspective) complex contexts like ecosystems and highlighting …

1. … a still dominant reductionist view
2. … the decision maker's constructivist view of reality
3. … the implications of a double structural/systems perspective
4. … the emergent nature of systems (*emersion processes*)
5. … the complex nature of ecosystems (*emergence phenomena*)
6. … the main challenge for service research….

CONCLUDING REMARKS

… serving as a key contributor in the global engagement to achieve the Sustainable Development Goals (SDGs)

https://sustainabledevelopment.un.org/?menu=1300

Let's jojn the global community of sustainability!!!

the NAPLES FORUM on SERVICE

10th Year Ischia 4-7 June 2019

Thank you for the attention!

Marialuisa Saviano

President ASVSA

Association for research on Viable Systems

University of Salerno – msaviano@unisa.it

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