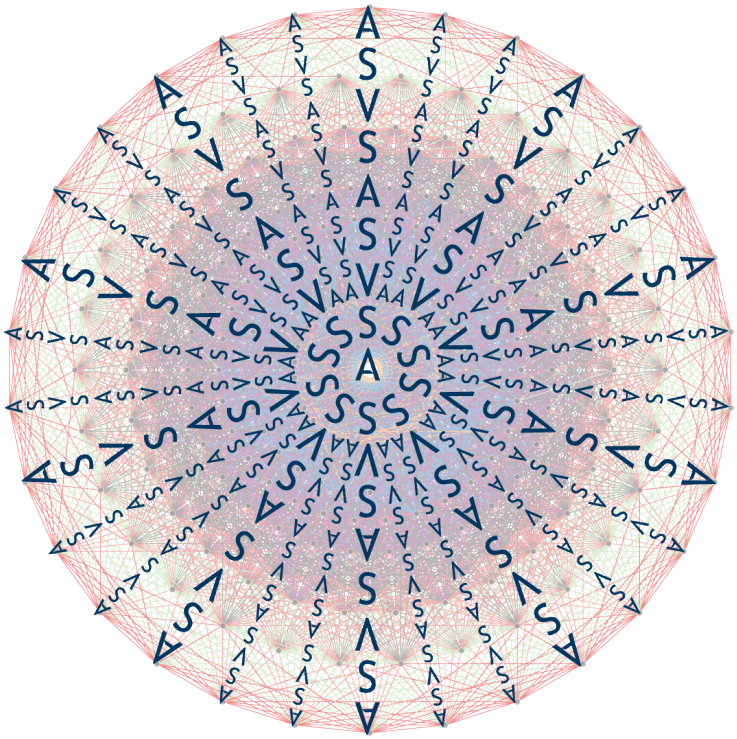

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CHAPTER VIII

VIABLE SYSTEMS APPROACH FOR TERRITORY DEVELOPMENT

Sergio Barile and Primiano Di Nauta

1. INTRODUCTION

From the early considerations developed during research meetings at the University of Salerno in the late eighties, the theory of *Viable Systems Approach* (***VSA***) (Golinelli, 2000; Barile 2002) has been greatly expanded, consolidated and formalized. Like all conceptual constructs, it went through an alternate path, characterized by acceleration, deceleration, at times afterthoughts (Katona, 1972). The current state of the art shows a sufficiently stable, flexible, easy to

use architecture, theoretically resting robust, in the words of Isaac Newton, 'on the shoulders of giants'.

The initial configuration of the conceptual matrix, which is a general pattern, useful to explain the process by which all pre-ordered change of context can be achieved, leads to the identification of typical 'forces' for *viable systems*, able of acting to address the dynamics of transformation of the context. The definition of variables describing the intra and inter systemic interacting ways, such as relevance, *consonance*, *resonance* and, last, the composition of the information variety, as the logical container which the 'knowledge' of the *viable system* has been organized, has led to the creation of interesting studies on aspects, either structural or systemic, typical of social systems and, in particular, of entrepreneurial organizations (Bogdanov, 1988; Broad 1925; Korzybski, 1978; Wiener, 1966; Ashby, 1971; Bertallanfy, 1971; Capra, 2006; Bateson, 1991; Winograd and Flores 1986; Maturana and Varela, 1992; Beer, 1991).

One of the most interesting aspects of the theoretical construct of (***VSA***) is the capacity of the proposed conceptual scheme to provide a description, either functional or operational, for organizations, in a broader sense. So, for example, it is possible to use *viable systems* models not only to represent entrepreneurial organizations, but also to illustrate the dynamic behavior of agencies, institutions and more or less formal organizations, such as territorial systems, entrepreneurial districts, supply chain systems, but also political bodies, cultural, religious and lobbying movements, and so on.

The ideas developed in the following pages intend to bring the typical issues of to the study of the territory as a *viable system* to a possible supply chain system that can be developed starting from the territory. In particular, attention is focused on the identification of those 'components', 'relations' and 'interactions' that characterize and make explicit, the mechanisms involved in the capacity of some *viable systems* to create and deliver value.

2. PRINCIPLES AND CONCEPTS OF *VIABLE SYSTEMS*

Trying to define a fundamental proposition to be placed on a priority basis, probably more deserving as the base of the *viable* systemic paradigm is the conceptual distinction between '*structure*' and '*system*' (Barile and Saviano, 2008). It is not a new distinction in

natural and social sciences, and for many to be considered trivial, but as we are going to explain, is rich in meaningful nuances of interpretation to represent, analyze and understand organizations.

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2.1. The concept of *structure*

The *structure*, intended as a composition of related elements, corresponds to several widely used semantic qualifications. Just think of the word 'business' or 'nation' or even, more simply, the 'human body'. In any *structure* it is always possible to identify components, and it is always possible to detect a form of existing connection between them.

Thus, in the 'human body' *structure*, parts or, according to immediate classifications, limbs, head, heart, lungs, and so on, are components, whereas nerves, muscles, cartilage, and so on, are connections.

Regardless of the classificatory logic adopted, it is possible to agree that some conceptual elements seem to coexist, always and however, with the definition of *structure* (Figure 1):

1. a physical boundary is delimited between what belongs to the *structure* and what does not;

2. it is possible to assign a specific function to each component. For example, in relation to the human body, we can consider the joint of a handgrip, the adaptability to surfaces and load distribution of a foot, the stabilization and amortizing of pressure of a meniscus;
3. connections between components are highly stable and are necessarily made via a direct connection, or through the connection between two or more components.

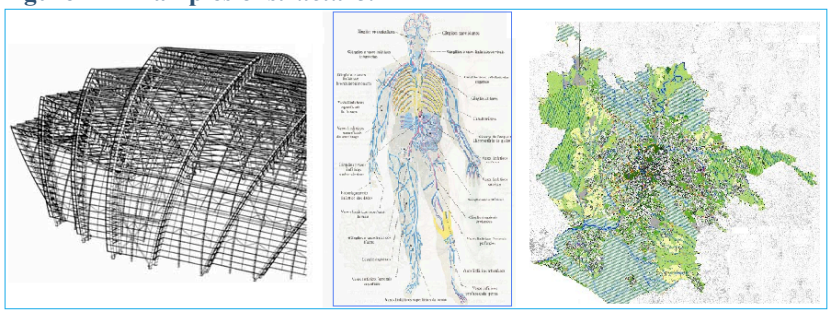
Obviously, the structural representation is not sufficient to identify issues related to the dynamic behavior of the *structure*. Just think of a human body committed to play tennis. Immediately, you realize that, the specific features of individual components or, even available resources, are to be overshadowed, as it shows a total capacity of the *structure* that, pro tempore, is focused on a set of interacting components: hands, coordinated with feet and the significant role of the menisci, create an interactive process where the function of specific components becomes less significant than the role that they play in coordinated actions.

4. Immediately obvious is the importance, not only of the connections and their sequential order, but especially the relations between the components: proper hand position on the racket, if not coordinated with a corresponding position of the foot, and adequate functionality of the meniscus, it does not effectively hit the ball.

It is immediate, as well as interesting, to note that what has been observed in relation to the human body, and some of its components involved in playing tennis, has a precise correspondence in any other *structure*.

Thus, in the case of entrepreneurial organizations, it is easy to define the functionality of a purchasing or marketing department, and it is easy to understand that the role attributed to these components is very different depending on whether it is a company such as FIAT, rather than a supermarket chain such as COOP, or whether in a peaceful expansion market phase, or in times of crisis such as the present one.

Figure 1 – Examples of *structure*.



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2.2. The concept of *system*

Even though, at this stage, it is not necessary to explain the principles and axioms useful for the achievement of the development path of a *structure* to be qualified as a *system*, it seems appropriate to highlight, according to the interpretative premises of a *structure*, the corresponding interpretation resulting from a systemic view:

1. the physical border of a *structure*, no longer applies at the system level. The tennis player, as an entity moving in a certain context, becomes a whole blended with the tennis court, the public and, through the monitor, even with all the TV viewers. It is easy to perceive how his performance depends on the maintenance of the field, weather conditions, the behavior of the public during the match, the attention of the officials and, last but not least, the feeling that comes from knowing that the match is in worldwide broadcasting, followed by millions of viewers. Similarly, just think of how FIAT and, as we shall see shortly, its *governing body* necessarily interacts and, constitutes a single entity with the systemic context in which it operates, including: trade unions, central government, movements, international scenarios and so on;
2. the proper function of each component is compressed into a certain role, deriving from the action strategy identified by a decision maker (even composite), which has a suitably programmed sequence of activities to reach a goal (a

process), in which components, interacting and integrating, play a specific role;

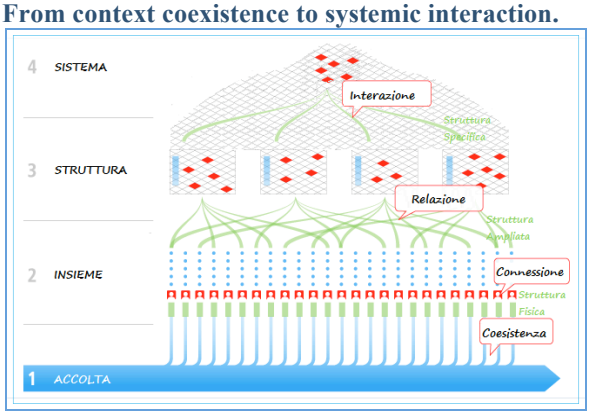
3. from the connections, defined as the physical connection between components, the emphasis is transferred on to relations, intended as a protocol to obtain interaction between components, with the awareness that a relation is also possible by using multiple connections. From the structural activated relations as a whole derives an interaction effect among the components leading to an emerging system.

Figure 2 summarizes the foregoing.

2.3. Between *reductionism* and *holism*

The *Viable Systems Approach*, recovering typical studies of business management, has allowed for a coherent representation of some seemingly contradictory interpretations which derive from considering organizations at times only from a structural perspective, and other times from a process perspective. In essence, the *Viable Systems Approach* formalized that the shift from *structure* to system cannot and should not be considered dichotomously alternative (like black and white), but must be interpreted as a fuzzy mode which allows composite representations in which structural and systemic elements are integrated and merge together (Figure 2) (Golinelli, 2000; Barile, 2000; Golinelli and Vagnani, 2000).

Figure 2 – From context coexistence to systemic interaction.



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Furthermore, if it is true that the shift from *structure* to system can be traced back to the path that from the 'function' leads to the 'role', and therefore to the 'job' ('resources' become 'capacities' which then develop into 'competencies'), in the broadest sense, the interpretative and representative effort of behavioral dynamics of social organizations need the simultaneous expression at times focused on the *structure*, other times on the system.

Figure 3 – The possible representations of a phenomenon according to (*VSA*).

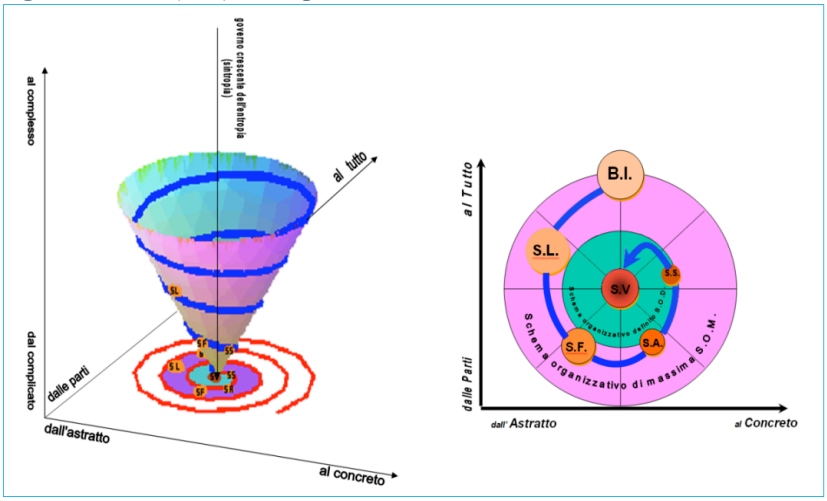
Source: www.asvsa.com

De facto, such a consideration also definitively solves a false issue, that is, whether to adopt the *reductionist* approach based on components, or the *holistic* one deriving from the behavior of the whole system.

In (***VSA***), both approaches are not only respectable in their qualification but they are to be found dynamically together in the analysis and description of organizations (Mc Closkey, 1990)[1].

[1]Perhaps the right answer to the old question about whether the reductionist and holistic approach must proceed independently, could be that of the English historical T.S. Ashton who debated about the use of alternative methods in historical research saying that it is like debating whether it is better to continue hopping on the right leg or the left. People with both legs discover it is best to use both to keep on walking.

Figure 4 – The (*VSA*) conceptual matrix.



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2.4. The (*VSA*) conceptual matrix

Figure 4 presents a (***VSA***) based scheme: the conceptual matrix. In such model, we find the main describing steps that highlight the characters gradually to give viability to the *structure* and lead to a systemic achievement.

In relation to the business system, describing the path that from the *business idea (BI)* leads to the evolution of a *Viable System (VS)*, it is necessary to consider the following phases:

- ✓ the *Business Idea (BI)*, definition of considerations on the basic guidelines that should characterize the future of a firm. This phase is the less formalized, but, at the same time, the most important for the emergence of a *Viable System* (Normann, 1992)[2];

[2]The concept of business idea has been theorized by Richard Normann, which outlined the components: the system of product, market segment and internal resources.

- ✓ the *General Organization Scheme (GOS)* (Wiener, 1966)[3]: understood as a project design, which identifies the components and the relations with the context. This is a crucial step for the subsequent definition of the *logical structure*;
- ✓ the *Logical Structure (LS)*: or a representation of axiomatic, algorithmic, grammar type can adequately represent the *Business Idea* (Leibniz, 2001)[4];
- ✓ the *Physical Structure (PS):* is the materialization of the *logical structure* through the identification of components able to effectively and efficiently carry out processes and business;
- ✓ the *Extended Structure (ES):* steps considered so far have emphasized the internal vision; it is necessary at this point, to understand what happens when we adopt an outside perspective analysis. The extended definition of the *structure* allows for the achievement of comprehension and knowledge, through unbiased and adequate information of the potential structural coupling with the components of external entities (Maturana and Varela, 1992);
- ✓ the *Defined Organization Scheme (DOS)*: represents a configuration of possible relations and interactions between the internal and external components. The defined organization scheme differs from the previous guidelines for the greater degree of detail and for the emphasis on the design of processes that will be implemented in order to allow the emergence of a *viable system*;
- ✓ the *Specific Structure (SS)*: extracted from the extended scheme, can be defined as the location identified by the decision makers (ex. government body) in order to achieve the business system goals. In other words, the *specific structure* identifies, in space and time, contingent forms in which it represents a specific organization (Biggiero, 1992);

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[3]Wiener had the general idea of scheme (pattern), as the fundamental characteristic of life, saying we are but whirlpools in a river of water flowing constantly, we are not matter that remains, but perpetuated.

[4]Leibniz did properly note that a mathematician can find the equation for each type of curve, but that no one can calculate the equations of all possible curves.

- ✓ the *Viable System (VS):* the activation of a *specific structure* allows for the emergence of the business system considered as a viable cell of the whole economic system (Zappa,1957).

2.5. The role of the *governing body*

The path shown in Figure 4 introduces a further feature of the (***VSA***) concept, which is the necessary presence of a *governing body* capable of interpreting the environment and deriving from it a *context* in which the system can emerge and survive, leading the organization through a path that gradually fades the emphasis on the constituent parts to achieve the overall perception of an entity able of solving practical problems not previously addressed. In essence, the conceptual matrix, with greater clarity and richness of content, includes and expands the traditional project management approach by returning to the subject's primary emphasis on the decision to clarify the non-linearity of the evolution based on pre-set goals of the shared *structure* leading to the emergence of a possible system.

The system emerges under the choice of a well- identified decision maker, because of his/her personal considerations about what is to be taken into account. So, for example, in the evolutionary dynamics of a large international company such as FIAT, it is undeniable that the choices made by CEO Marchionne addresses one path among the many possible, and that his choices give priority to some supra-systems instead of others[5]. Therefore, the concept of *governing body* is intended to refer to the actor of a decision making process able to make a resolution path (see three-dimensional diagram Figure 4), through an assumption (*from complex to complicated*), the selection of useful resources to the hypothesized path (*from the*

[5]On this point, consider the statements made by two 'supra-systems' in regards to the choices made by FIAT CEO. On the one hand, the general secretary of the CGIL Campania argues that the choices made will encourage the intensification of working conditions and a narrowing of the trade union freedom. See Michele Gravano, general secretary of CGIL Campania, who says the choices of Marchionne not revitalize sales and employment, in Imprese&Mercati, News, *Il denaro*, www.denaro.it, download 11 January 2011. On the other hand, Barack Obama, after visiting the Chrysler Group Kokomo plant, affirms that Marchionne made difficult choices, but necessary. See «Chrysler, Obama loda Marchionne: "Scelte difficili, ma giuste"» www.informazione.it.

components to the whole) and the effective solution of the problem (*from abstract to concrete*) (Golinelli, 2005; Barile, 2005; Barile, 2008). What emerges from the model is that the *governing body*, through a subjective interpretation, identifies the environment in which some *viable systems* are taken into account (supra-system) rather than others, and as a consequence organizes its *resources*, *capacities* and *competencies* to achieve a satisfactory outcome for itself and for the selected supra-systems. Such a mode of action is defined by (***VSA***) as the search for *systemic consonance*. Going back to the example of the tennis player, whose mind represents the *governing body* and, who decides during the match, the systemic references to be taken into greater account: the international federation, the coach, his own family and friends, or even the spectators and the public at home. Then, he player filters it all through his conscience and decides to work hard to win a tournament, rather than aim at an adequate classification, or engage in tiring the opponent to help a teammate, and so on.

So, for (***VSA***) there is no "one best way" valid anytime and anywhere for a specific organization, but there is a perspective on the decision makers who play at a specific time and place to interpret the system (Simon, 1967). The reference to business organizations leads to a particular case of *viable system* in which the identification of the body of government is largely forced on the basis of a shared and enforceable plan. It is not like this in other cases, as for example, in the government of a region or large public companies such as in the health industry. Now, let's think of a region where the real governance (governance understood as dynamic systems of government) is distributed among the subjects which are the Governor of the Region, the Government, the Regional Council, the leaders, the main trade unions, or even a Southern Italian Region engaged in spending European funds. Obviously, different decision makers experience different contexts:

- ✓ the government intends to magnify the results in terms of growth in economic key indicators of the Region;
- ✓ the board wants to maximize the results in the strategic reason for each department (production activities rather than tourism or agriculture);
- ✓ the regional board is inclined to increase profits for minimal political consensus of the various advisers;

- ✓ the directors are committed to achieving the objectives of expenditure (efficiency) and less attentive to the effectiveness of results;
- ✓ the labor unions, too often self-referential, are committed to finding their raison d'etre in terms of capacity for the representation of their members.

2.6. The definition of borders

Another significant aspect proposed by (***VSA***) is the definition and identification of structural and systemic borders. The consciousness of the existence of *structure* borders is apodictic evidence. The materiality, in its forms, implicitly contains the notion of limited nature. To perceive something, it is necessary to distinguish it from a background and, obviously the line of distinction between that 'something' and the background becomes, as a fact, the border of that 'something'. Often, in most of the literature on studies and research on systems, it has been considered obvious and evident that the concept of *structure* border should be extended to the system in most cases. Consequently, the debate has developed about the conditions that should lead to consider some systems open rather than closed and, in some case half-closed or semi-opened (Bertallanfy, 1971; Foerster, 1950-57; Foerster, 1981; Emery, 2007; Golinelli, 2010)[6].

According to (***VSA***), the system emerging from the *structure* has no borders or the typical concept of containment is not considered particularly relevant in the current consideration of *viable systems*. Let's take, for example, a *governing body* that perceives a border of any kind, in that very moment it identifies the border making part of the system. For example, the very moment a tennis player perceives the field as a third party is when he identifies the field (intended as a component) as a factor to be taken into account and, automatically includes it in the whole system, ergo it becomes part of the system. The same thing happens when he perceives a border between himself and the opponent, or himself and spectators and so on. Exemplifying in relation to the firm, if a director of a given firm believes that the

[6]The concept of border and closing are not coincidental, but in relation to the discussion herein it is not necessary to closely analyse.

consultant of a competitor could suggest strategic moves to his client from a (***VSA***) perspective, he includes the competitor's consultant in his own *viable system*, as he is influenced in his decision making. In conclusion, from a *viable systemic* perspective, all that can be thought of by the *governing body* and all the components included in that thought end up being part of government systems.

2.7. From *environment* to *context*

The transition from *environment* to *context* qualifies one of the most important moments in view of the representation of organizations from a (***VSA***) perspective.

The *governing body*, through its own assessment, selects the environment references (supra-systems), with the intention of giving, interpreting requirements, translating them into goals and designing strategy, identifying the necessary components and network of relations. The *viable system* emerges from relations, which become interactions creating the dynamic and, therefore, the business processes.

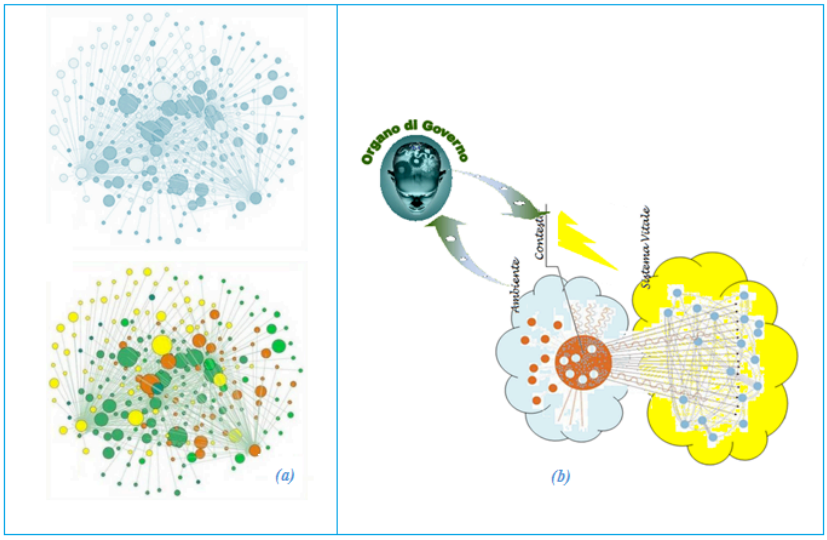
Figure 5 summarizes the steps, pointing out, in the first image (a), how from the same environment different governing bodies can extract different contexts (in different shape and colors). Image (b), more specifically, shows how in the 'cloud' identified as the *viable system*, the involved components are not only those already in the context, but appear to be more numerous, even more than the quantity represented in the starting environment next to the decision maker[7]. So clearly, as mentioned above, with the emergence of the system, the structural borders become evanescent, and new components are dynamically included.

The 'force' that encourages the *governing body* to turn its attention to some supra-systems instead of others from a (***VSA***) perspective is called *relevance*. This concept refers to the attraction degree or rather the ability to arouse interest that a supra-system exercises on the *governing body* of a specific *viable system*. The term attraction should not be misleading, and should not be understood as

[7]The purpose of the statement is to recognize that even the classification of the environment should be considered subjective and, therefore, constantly *pro tempore*.

necessarily positive. Also the perception of danger awakens interest in the dynamics of human affairs, and therefore of the *viable system*. In such terms, it is easy to understand how a supra-system, such as tax revenue may, in many cases, cause attraction in some firms: surely, not caused by pleasant memories, but because of risks due to neglect. Also, if on the one hand, supra-systems are considered attractive and interesting, on the other hand, they exercise expectations and pressure. Just think of how much the tax system or financial system oblige firms to identify them as important systems, the fulfillment of additional functional reporting assets in order to satisfy some control requirements.

Figure 5 – From environment to context.



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Similarly, the governance of any local authority, committed to meeting the demands of its voters of reference, is forced to invest time and resources not only to achieve goals, but also, and at times especially, to communicate properly so that people acknowledge the actions taken as well as the ongoing work.

2.8. *Consonance* and competitiveness

The *governing body* interacts with relevant supra-systems search for *consonance*. Such is the way the *governing body* is initially led to identify the expectations of each supra-system, which afterwards it attempts to 'align' with their evolutionary paths (Saraceno, 1970)[8].

Recently, the conceptualization of *viable systems* has found an item that is accompanied by *consonance* in the dynamic identification of strategic paths of any organization. In his latest publication, prof. Golinelli summarized, in the concept of *competitiveness,* the evolutionary impulse that contrasts, or is accompanied by, *consonance* (Golinelli, 2011).

To understand how the two drivers, *consonance* and *competitiveness*, affect the future path of an organization it is possible, metaphorically, to refer to the Newtonian dynamics of planets. Even though in a naive perspective, it is easy to understand that the motion of a celestial body (e.g. the Moon) is influenced either by the attraction of other masses within range (the *consonance* is comparable to the result, or the effect of such attraction), or the inertia, as the historic significance of a tradition of movement, such as a headway towards a certain direction related to previously invested energies. The latter force, that is, inertia, can be compared to the competitiveness, that is to say an organizational evolutionary drive resulting from its history, its investments, the sedimentation of government decisions and contextual membership. The competition may be interpreted as the "keep running" of its own race, primarily recognizing the goal and the opponents (competitors).

Another metaphor may simplify this notion. Think of a speeding car approaching a curve. Two opposing forces can be recognized: an initial force, which is identified in the will of the driver that drives the

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[8]"*Siamo […] sul terreno di una scarsa consapevolezza delle condizioni in cui si svolge oggi l'attività [...] quando sentiamo rilevare che una [organizzazione] non si vale di tutte le possibilità di azione che essa possiede per timore di suscitare reazioni sfavorevoli da parte delle pubbliche autorità, della clientela o dei concorrenti. Anche qui è agevole rendersi conto che [le organizzazioni] si pongono questi limiti proprio perché intendono evitare reazioni che potrebbero provocare comportamenti nelle superiori autorità, nella clientela o nei concorrenti capaci di compromettere in futuro la propria capacità di [sopravvivenza]. Si tratta in tutti questi casi di vincoli che l'[organizzazione] introduce nel proprio agire per evitare reazioni che diminuirebbero la sua capacità di [sopravvivenza]*."

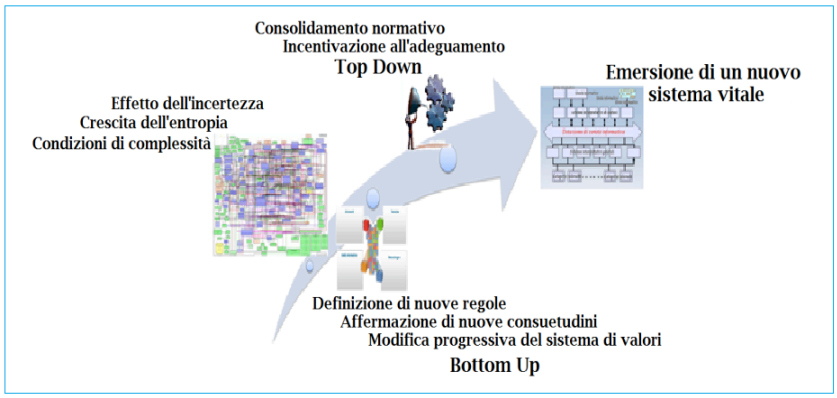
car towards a goal (*consonance*) and a second force, centrifugal, which depends on the previous path, the speed and the conformation of the road.

2.9. Context, complexity and *consonance*

So far, the described, which also applies to any organization and context, is important and valid when the environment context is particularly difficult or, in a shared terminology, when the levels of complexity appear to be particularly significant. From a *viable system* perspective, the complexity can be translated into the impossibility to substantiate the problem using traditional interpretive schemes, models, techniques and tools (Winograd and Flores, 1986).

When the *governing body* realizes the impossibility to achieve the identified goals, from the problem solving perspective, so as to understand where, why and what the strategy cannot be eligible for, it has to find the necessary capacities to imagine evolutionary paths towards new competencies (Barile, 2009a). Such is the typical condition when government capacity elevates from 'science' to 'art' (Stacey, 1996).

Figure 6 – From the emergence of new rules to the normative consolidation.



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In complex conditions, when dealing with numerous and varying entities of context, the *governing body* must work to encourage the establishment of rules and shared values around which motivation, participation and involvement can develop. This means that, as shown in Figure 6, when the conduct is no longer responsive to established rules, creating instability in the system (tending to embryonic forms), the *governing body* must read the dynamics emerging from the bottom, leading to the definition of new rules, encouraging the consolidation of regulatory and incentive adjustment, so as to enable the convergence towards new ways of co-existing on the basis of shared values and rules, therefore, the emergence of a *viable system*.

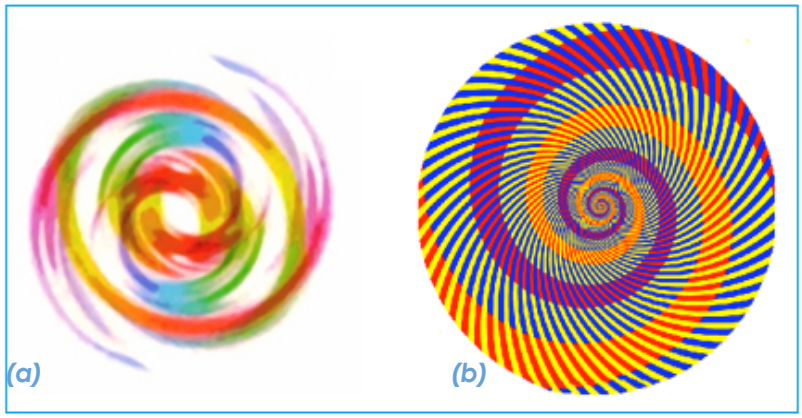
Figure 7 shows an idealized representation in which the *governing body*, starting from a vague and indistinct perception of a turbulent and varied environment, gradually does its work, alternating stimuli and dispositions towards a shared convergence, trying to avoid disagreements due to the non-compliance with customs and traditions, achieving a new-found *context consonance*.

The concept of *context consonance* deserves further study. While the *dyadic consonance* (Figure 8) can be intended as the progressive alignment where the two systems (relevance evaluation of subject and object) converge on a joint and shared evolutionary direction[9], a sort of co-coaching, the *context consonance* is, actually, more complicated. It must be intended as a dynamic composite reorientation progress made not only by the under surveying *viable system* pro tempore, but all *viable systems* due to the context itself (Esposito De Falco, *et. Al.*, 2008; Barile and Calabrese).

Figure 7 (b), imagining that each step of the strings on the spiral is a system that makes up the framework, illustrates the contemporary convergent motion which all systems are a part of together (Golinelli, Proietti, Vagnani, 2008).

[9]Think of FIAT and its subcontractors: before the Marchionne era, subcontractors depended entirely on orders from Turin; with the new CEO a new course has started shaking up the relations with entrepreneurs who for years have worked with Lingotto.

Figure 7 – The *context consonance*.



Source: www.asvsa.com

Figure 8 – The *dyadic consonance*.

Source: www.asvsa.com

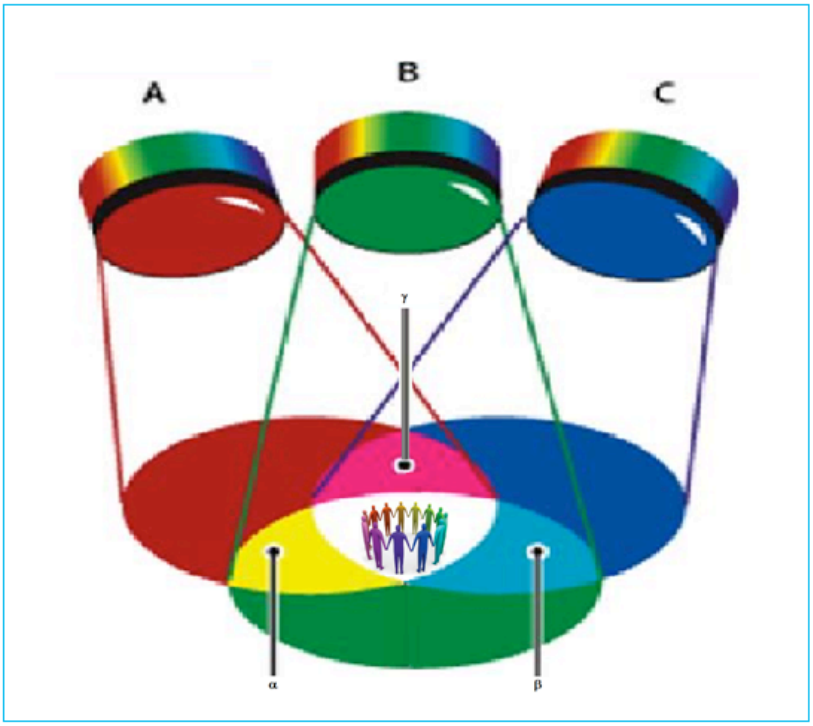
2.10. The dynamics of value creation

Another important distinction concerns the dynamics of processes through which organizations generate and distribute value from a *viable systems* perspective.

The ongoing debate on the ability to generate wealth, particularly for businesses, seems to have found the limit resulting from perceiving organizations primarily as tools to reward entrepreneurial capacities in terms of economic, financial and organizational efficiency fit for profit. By recovering different settings, some well-established, some merely proposals, (***VSA***) intends the creation of

value by a *viable system* as its capacity to increase its surviving chances in its own environment, through the selection of context made by the *governing body* (Barile and Gatti, 2007).

Figure 9 – The value creation for supra-systems.



Source: www.asvsa.com

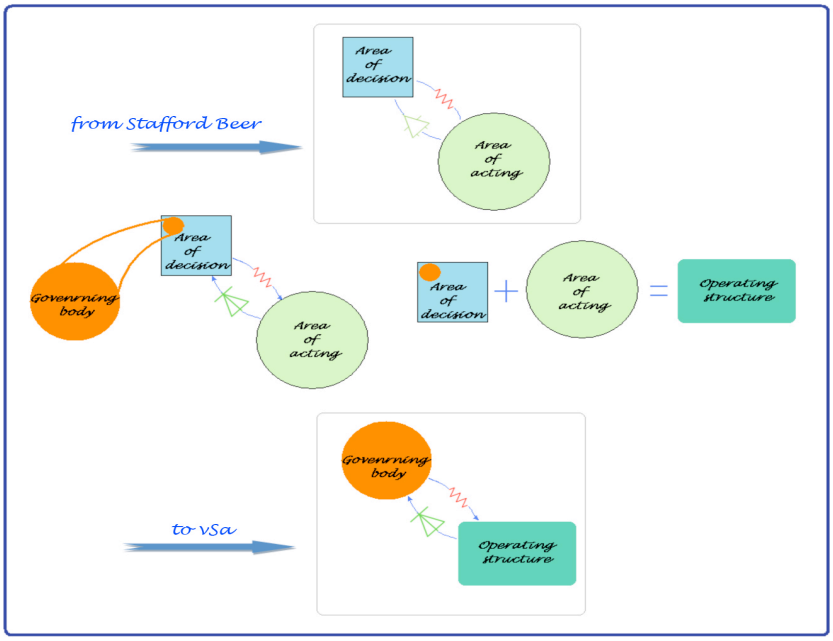
Therefore, in entrepreneurial organizations, the value derives, first of all, from the dynamic decision making aimed at finding the *dyadic consonance* - first with the supra-system property, then with consumption, and so on – at last, requiring a *consonance* that can be considered the synthesis of different dyadic values compatible with the total value creation (Figure 9) (Golinelli, 2011; Barile and Calabrese, 2009; Barile, Merola, Calabrese, 2000).

2.11. The *viable systems* model

A final argument, certainly significant aiming to apply the *Viable Systems Approach* to the *government of local development*, regards the morpho-evolutionary characteristics of the *viable system*.

The distinction, drawn from the initial idea of Stafford Beer, to design *viable systems* as configured in a *decisional area* and in an *operational area*, is redefined in (***VSA***) by proposing a recent representation of a firm as a *viable system*, in which the role of the *governing body* emerges directing the evolutionary dynamics of the *operational structure* (Figure 10).

Figure 10 – From the *viable systems* model to (*VSA*).



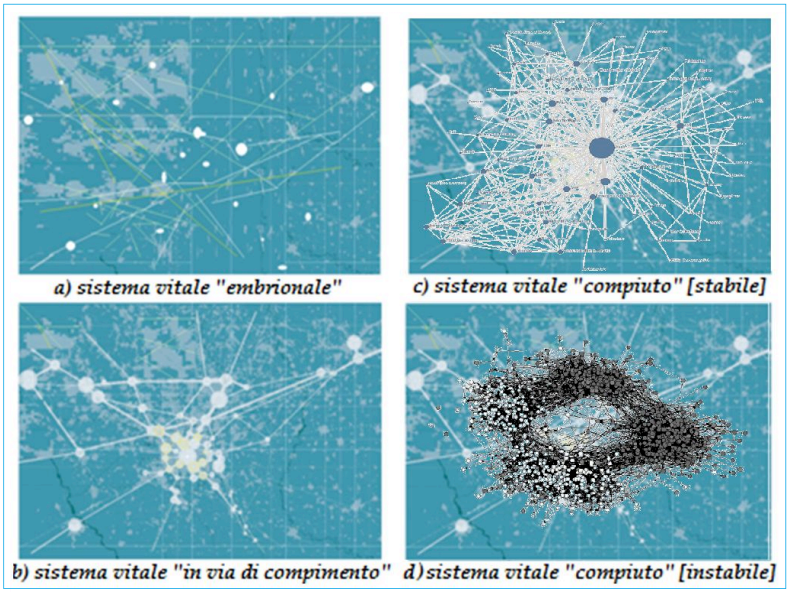
Source: www.asvsa.com

In particular, (***VSA***) redefines the initial distinction between decision and action, specifying that in organizations it is always possible to identify two decisional areas: the *governing body*, deputed to the strategic decisions (decision making) and the *operational structure*, deputed not only to executive operations, but also to operational decision making related to *problem-solving*. However,

while problem solving refers to routine problems that characterize the management purpose, decision making characterizes the purpose of the government and is essential for the *viable* development of the system, especially when operating in complex conditions (Dilts, 1998; Simon, 1988; Weick and Sutcliffe, 2010).

The representation of the *viable systems* model allows for a further distinction, useful in the interpretation of evolutionary or devolving dynamics of the conditions of system stability, including the *embryonic system*, the *accomplishing system* and the *accomplished system* (Figure 11). However, one should consider a different stage of creation of the *governing body*, with respect to the joint *operational structure*, and level of accomplishment of the *viable system*. Thus, in the case of an *embryonic system*, the *governing body* is to be identified in a consolidated set of generally accepted custom procedures. As for example, the implicit rules of the typical developing socio-economic system markets[10].

Figure 11 – From embryonic *viable system* to accomplished *viable system*.



Source: www.asvsa.com

[10]Emerging countires, such as China, India, South Africa showed little interest for the institution of a global government, preferring the role of free players.

Based on this distinction, where entrepreneurial organizations are, as systemic units, an example of accomplished *viable system* with a shared definition of *governing body* and of a corresponding *operational structure*. The case of *territorial systems*, by contrast, represents an example of an accomplishing system, characterized by the presence of a less stable and cohesive *governing body*, articulated, defined and characterized by a reduced ability to address the choices of the system, cause of a level of *consonance* that requires constant focus to detect a guiding decision. The identification of the government roles and the ability to compose and address the dynamics of the *operational structure* are central elements of the interpretation of territorial systems in the (***VSA***) perspective.

3. *VIABLE SYSTEMS APPROACH* FOR TERRITORY DEVELOPMENT

3.1. Interpretation premises

Based on previous conceptualizations, the following pages present a discussion on the guidelines for a government approach to the territory development according to the (***VSA***) perspective.

In order to delineate the underlying premise of interpretation of the present proposal, it is useful to briefly focus on the concept of development. In (***VSA***), with reference to the firm, the definition of evolutionary paths of the system lead to a matrix of evolutionary options distinguishing growth from development. The actions of growth qualify for the goal to achieve significant results from the system; the actions of development are characterized by achieving significant improvement in the use of built-in capacity (Golinelli, 2005).

However, the above interpretation of concept development, correlated with the territory, can be further clarified in the light of the duality *structure-system* perspective, so as to keep the focus on 'built-in' capacities, leading the *governing body* to develop a limited vision of internal *structure* components. The paradigm *structure-system* addresses the *governing body* to distinguish between management decisions, pertaining to the *operational structure*, and government decisions that relate to the system in the system as a whole. The focus should thus be shifted from the static view of the components, as the built-in capacities into the *structure*, to the dynamic view of the

processes realized by the system and, therefore, focused on the use of capabilities. As a fact, often, the definition of the government action highlights a *structure* vision, at times reductionistic, which prevents the achievement of opportunities arising from the systemic perspective. Such approach is generally attributed to the legacy of a dominant vision, overly focused on components instead of processes, and strongly influenced by the perception of the materiality of objects[11]. Therefore, the dualistic *structure-system* perspective reveals a dichotomous view which may cause to miss the intimate relation between *structure* and system and, the implications of the dynamics emergence of the system from the *structure*. So, the one is necessary to the other: without the *structure* the system will not emerge, but the existence of the *structure* does not automatically lead to the emergence of the intended system.

As special features, highlighted in the following pages, the government of the territory clearly 'tends' to a structural vision particularly obvious: the definition and perception of geographical, administrative (and so on) borders often preventing decision makers from developing full awareness of the recursive link that connects the dynamics of the territory to the various levels of its organization, making the concept of border irrelevant, or even misleading in a systemic approach (Beer, 1991)[12].

Such considerations lead to clarify another important aspect of the framing of the territory government approach, concerning how it should conceive the implicit borders in the 'local' concept. Also in this case, the paradigm *structure-system* helps to clarify how the same definition contained in the concept of 'local' may decline in terms of

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[11]Western society is geared to reductionism and pays attention to static issues rather than dynamic aspects because of language in use. In Italian, as in most Western languages, the construction of meaning is through the composition of individual components. In addition, emphasis is given to the 'subject' and 'direct object' rather than the verb. As if to say that actors of communication are the components that act and subjected to action and not the action itself. In terms of *viable systems*, the focus is on components and not on the report. If you read the following phrase 'Giulio truant', it is possible to realize that the attention is firstly payed to the 'who', 'when', 'why' and 'what', and not linked to the dynamics of the verb 'to play truant'. Other languages, such as Japanese, emphasize symbolism through a 'holistic' action rather than components.

[12]The recurrence was due to a fundamental theorem of *viable systems*, whereby a recursive *organizational structure* any *viable system* contains and is contained in a *viable system.*

structure and *systemic* level: a territory, as well as a local area, can be structurally identified demarcating the physical and administrative border of the area, highlighting the components that may be considered as 'built-in'. In a systemic perspective, this border becomes evanescent, not only including external components in the *structure* in reference with the 'built-in capacity' to the extended *structure*, but also by opening the system dynamics to an unpredictable set of interactions emerging from the set of processes activated at a systemic level.

From a development perspective, this issue is central and, encourages to conceive a 'systemic' vision for the territory government, open to the potential emerging from processes of interaction inside and outside the *structure*. Probably, if a border has to be selected again, it should be the one that defines the framework within which the outcomes of complex interactions fall, that is to say the territory, the area, where the action of development is promoted.

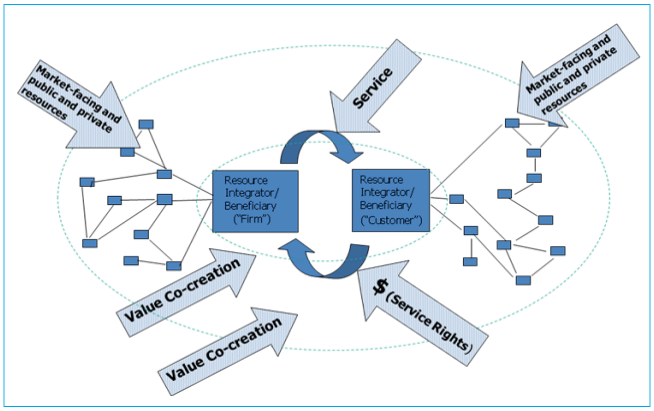
This basic specification refers to an additional element that is highlighted as central in the government activities of the territory development: the creation of value. Consistently with the proposed interpretation of 'local' development, and along the lines of (***VSA***) outlined above, value creation must be understood not so much as increase in the built-in value in the components of the territory, but as the creation of value for the territory, intended as a positive impact on the territory of the value creation process. The creation of value, therefore, derives from the components, whether present or not in the territory, acting within *specific structures* generating value for the territory.

Then, the meaning of value creation for the territory is clearly explained in (***VSA***): it is a value creation for supra-systems identified as relevant by the *governing body* (citizens, businesses, other organizations, and so on), and thus enhance the chances of system survival in the environment, through the selection of the context operated by the *governing body* oriented towards achieving *consonance*. This helps in the clarification of the concept of *enhancement*, central in any current conception of any initiative aimed at territorial development: the *enhancement* must be understood not so much as the increasing value of territorial assets, but as the ability to create value for the use of supra-systems that, expressing expectations and pressure, address the government body to focus on different goals.

The concept of *value for use* of supra-systems allows the integration, in the methodological *structure* of territory government, of a recently proposed model in the track of studies of Science Service (Maglio and Spohrer 2008a; Maglio and Spohrer 2008b; Spohrer *et al.*, 2007; Ng, I.C.L. *et al.*, 2010; Barile and Polese; Saviano, Bassano, Calabrese; Golinelli *et al.*, 2010; Spohrer *et al.*) and the Service-Dominant Logic (Vargo and Lush 2004; Vargo and Lusch, 2006; Vargo and Lusch, 2008; Barile and Polese; Barile and Saviano, 2010). This model shares the representation of customer-supplier relations conceived according to a new perspective of 'service', that recasts the traditional interpretation of the exchange of goods and services, reducing it to a pattern of interaction based on value co-creation, according to which all the actors, as integrators of resources on the basis of mutual *value proposition*, take part in the set of exchange interactions (Figure 12). The value is co-created in the dynamic process of service interaction, and is therefore conceived as a contextual *value in use*.

It is easy to imagine how such a model, designed for the 'customer-supplier' relation, may be extended to any type of interaction developing in the system, according to the *many to many* logic (Gummesson, 2006; Gummesson, 2008; Gummesson and Polese, 2009; Pels *et al.*, 2009) and, being consistent with the methodological system of (***VSA***), it can provide useful support to the representation of the dynamics of value creation in systemic organizations typically multi- subjective, such as the territorial ones.

Figure 12 – Service logic for co-creation value in the system.



Source: Vargo and Lusch, 2007.

3.2. The *viable system territory* as a reference model for the government of development

The survey of territorial development issues on the *viable system territory*, has theorized in the (***VSA***) study, a valid model for the definition of an appropriate and effective approach to government, consistent with the interpretation of the outlined premises (Barile and Golinelli, 2008).

From a (***VSA***) perspective, any organization aimed at achieving a given purpose can be conceived as a *viable system* entity. Therefore, the meaning of 'government of territory' can be summarized as references to the individual initiative to develop a specific local system as the overall synthesis of all possible systems organized within a specific territory. In what follows, we will discuss the territorial government with a broad concept that includes the government of specific *development initiatives* that have impact on a territory, and are achieved in the interest of a territory (or, rather, of its supra-systems). The assumption is the belief that, interpreting the results achieved by a specific initiative such results are always related to the dynamics of context that grow outside and inside the observed system, drawing a recursive scheme for interactions.

The *viable system territory* model offers a useful representation of the *territorial system* to support government decisions aimed at improving the chances of survival, allowing the evaluation of project proposals for:

- ✓ the heritage of a region;
- ✓ the development of a regional vocation;
- ✓ the growth of competitiveness of territorial systems.

The characterization of territorial systems as *viable* ones can be observed both in the governing bodies and in the *operational structure*. The peculiarities of the *governing body* can be related to the *multi-subjective* composite nature and, to the high articulation, if not fragmentation of the decision making process. The peculiarity of the *operational structure* is identified in its *multi-dimensional* nature, arising from the wide variety that it is characterized by. Overall, the *governing body* and the *operational structure* all together form a typically systemic *multi-stakeholder* entity, due to the variety of stakeholders involved in the *viable* dynamics of the territory.

Therefore, the *viable system territory* qualifies as a systemic entity, typically *multi-systemic*, *multi-dimensional* and *multi-stakeholder*.

As regards the governing process aiming to the development, the variety of involved or interested subjectivities in the value creation dynamics, determines a certain level of complication for the government, with particular reference to the need to develop conditions of *context consonance*. The territorial system, in fact, is characterized by the presence not only of *endowment components* (natural, artistic, cultural, structural, urban, infrastructural, and so on) that belong to the geographical area of the territory, but also systemic components (firms, social organizations, individuals, organizations and institutions) which have a main and independent capacity to generate value, and tend to project subjective expectations as the pursuit of a better chance of survival in the territorial context (Barile and Golinelli, 2008).

These aspects of the characterization of the territory, and others that will arise herein, cause the capacity action for the *governing body* to be particularly critical, and recognize (***VSA***) as a valid methodological support for the definition and evaluation of action paths (course of action).

3.3. Negotiation, consensus and *consonance* in the government of the territory

The typical operative mode for territorial organization generally leads to the definition of agreements and collaborations with many other systemic entities present or not present on the territory. Such entities become nodes able to generate more physical, financial, cognitive resources thanks to the knowledge sharing and acquisition, sharing of investment, generation of core distinctive competencies, technology transfer, creation of complementary use of resources, generation of relational capital, reduction of risk levels, and so on.

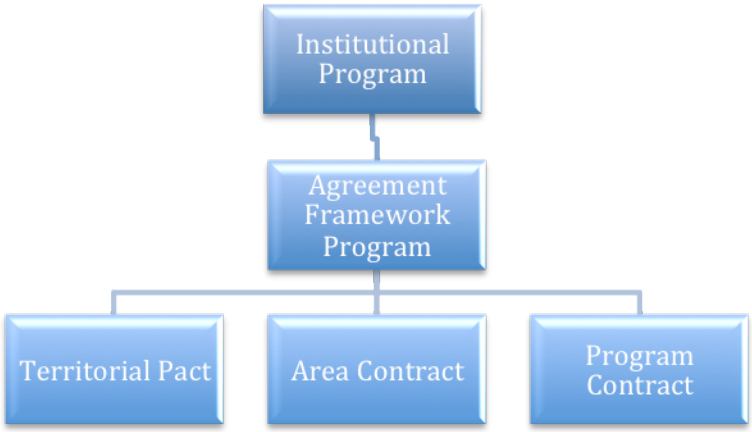
In essence, in territorial organizations, development is co-generated by the plurality of actors involved in the different project initiatives, and open to the unpredictable potential development that the *governing body* must be able to intercept and valorize.

The well known Negotiated Programming tools (Figure 11), typically used to implement development projects arranged on the territory, have been specifically designed to enable and regulate the

joint action of a variety of institutional and non-institutional actors, operating at various levels of the territory, and stakeholders whose expectations have not been satisfied. The *negotiated planning* initiatives are based on the principle of *consensus* (approval), which is essential for the recognition of the plurality of interests to be satisfied and protected by the government conduct, according to a *multi-stakeholder* approach, which requires the government body to provide feedback (Saviano and Magliocca, 2004).

Each of the actors, involved in the development initiatives, individually acts in an extracted context according to the specific goals pursued. Only concrete relational conditions between actors makes it possible to explore the opportunities for a global harmonization of interests, closely related to the logic of the principle of consultation and consensus. Specifically, the ability of each decision maker to govern a unified *structure* is even more crucial because of the pluralistic nature of the involved actors who are required to ensure an adequate intra and inter-systemic *consonance* (Golinelli *et al.*, 2008). Thus, the ability to develop the *consonance with the context* becomes fundamental: as stated above, the *governing body* must be able to govern the progressive reorientations of all the *viable systems* in the same context.

Figure 11 – Tools for Negotiated Programming.



Source: Barile and Golinelli, 2008.

Considered the composite nature of the territorial organizations, the *governing body*'s ability to address a unified decision making process is extremely relevant. By doing so, it synergistically achieves the integration of value-generating resources, allowing for the extraction of different contexts more closely compatible and coordinated, while aiming at satisfying a sufficiently consistent set of relevant supra-systems.

3.4. The composite nature of the *governing body* of territorial organizations

The multiplicity of roles that characterize the action of territorial organizations refers to a typical *multi-subjective governing body* configurations, in which the possible decision making functions coexist with the different institutional levels of the territory. The (***VSA***) provides helpful interpretive schemes for the representation and analysis of the dynamics of the generation of local systems through the identification of three logical levels of government (Barile, Golinelli, 2008):

- ✓ the *Ordinator Subject* (O.S.), usually the Governor and the Executive Board, deputed to the identification of action paths deriving from a subjective reading of the environment that, through the identification of vocations, leads to the extraction of one or more contexts to which possible coordinators should focus on;
- ✓ one or more *Coordinator Subjects* (C.S.), able to develop proposals within the context identified by the O.S.;
- ✓ one or more *Proponent Subjects* (P.S.), involved in projects connected with the proposals made by the C.S..

The distinction between subjects and roles is not rigid; generally, however, the variety of territorial government issues are such that require particular capacities rarely owned by a single subject. In addition, the role of the O.S. must necessarily be carried out by an institutional subject, while the C.S. and the P.S. may be institutional or private, or even mixed organizations together. Of course, the action paths identified by the O.S. fall within an upstream decision making context, which could refer to other subjects of higher decision making

level (a pre-ordinator subject). The various levels are structured according to a typical application effectively covered in (***VSA***).

The process of defining the local development system involves decision makers committed to planning an organized and coherent composition of choices of various degrees and, implemented by different subjects. The proposed model to support government, typically multi-layered, modular, and recurrent, proposes the project cycle represented by the (***VSA***) conceptual matrix (Figure 3). Under such conceptual matrix, targets defined by the *governing body*, based on a shared objective and *structure* (a territorial area) emerges the detection of one of the many possible development systems. In particular:

- ✓ a decision maker subject (O.S.) configures a *logical structure*, as a representation of the available resources on a territory, and the priorities in their value;
- ✓ one or more decision makers (C. S.), in the context identified by the S.O., detail the necessary capacities, establishing a certain balance between valued internal resources, specifically made resources and external resources, thus defining the extended structure;
- ✓ one or more decision makers (P.S.) contribute to the definition of the *specific structure* of the territory through the implementation of consistent and functional guidelines.

The proposed *multi-subjective configuration* of the *governing body* represents the reality of government organizations of local development, generally characterized by an institutional subjectivity which can be national and territorial. The government body of local development may be ordinators or coordinators or even proposers. A variety of proposers, including private ones may contribute to development by adopting network organizational solutions and a project approach, based on legally regulated agreements.

3.5. From environment to context: the identification of development paths for the territorial system

Considering the broad articulation of the observed systemic levels related to a territory, the distinction between *environment* and *context*

is significant. More precisely, the implications of such distinction in relation with the systemic territorial organizations need to be explained.

If, at the cognitive level, the environment qualifies a set of objects linked by differentiation, independent from the perception of any observer, the logical step from environment to context is the result of the relativization of the cognitive process of the observer, who extracts homogeneous objects from the environment, according to a criterion of differentiation and a specific purpose. As regards the territory, the *environment* is the combination of different kinds of resources residing in its geographical projection. Otherwise, the context is the product of an initiative that involves and causes the interaction of a subset of such resources, combining them with external resources and/or new internal resources. This initiative, in turn, must be characterized by the sustainability during that specific time (opportunities and feasibility) and complementarity with other contexts implemented in the territory (compatibility).

The extraction of context from a territorial environment involves a selection process whose criteria derive from the defined and shared development guidelines concerning, for example:

- ✓ internationalization policies and dissemination of local production deriving from a qualified industry experience;
- ✓ policies to attract investors, businesses and citizens, who are located in other outside geographical areas;
- ✓ policies to encourage the incoming tourists to a particular geographic area.

The concept of context is, therefore, the effort made by the synthesis of decision makers when selecting, in a given environment, possible action paths for development: the *governing body* of a territory, on the basis of a subjective assessment, identifies in the environment those references (supra-systems), which are considered necessary to draw greater attention, and interprets the requirements, extracts objectives and outlines the achievement strategy.

However, as illustrated by the emergence of active relations, the *viable system* includes not only components present in the environment, but also components beyond the environment, since with the emergence of the system; the structural borders become evanescent and dynamically include new components. This should

lead the *governing body* to develop awareness of the *systemic* dimension of the territory (as well as any organized initiative for its development), overcoming the limits of the *structural* perspective, where the vision of the *governing body* often collapses, highlighting a 'dominant' perspective affected by the perception of physical and material characteristics of territorial components.

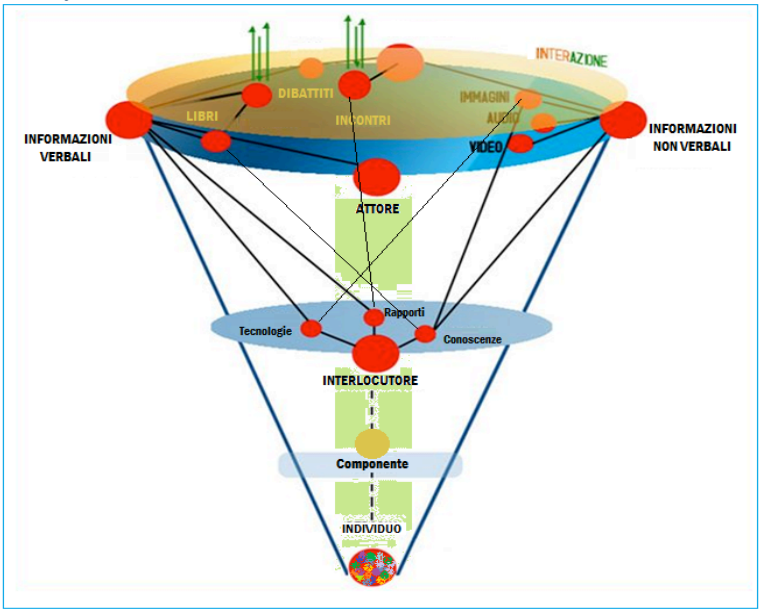
Even more evident, the value co-creation perspective, considering the actors of local development projects as 'integrators of resources', exploits the systemic contribution potential of each component (Figure 12), highlighting the implications, but also the opportunities, linked to fading borders at a systemic level. The representations of the environment and context do not capture the unexpected set of interactions that may become active at the systemic level. This is particularly true in the case of territorial organizations, characterized by a great variety of components and actors that each plays a role in the *viable system*.

The government of the territory, therefore, is an action, implemented at multi decision making levels, and aiming at:

- ✓ enhancing the value of the components of the area;
- ✓ coordinating the conduct of systemic components directly and indirectly involved in the development processes of the specific territorial system;
- ✓ attracting new resources, and therefore new components;
- ✓ trigger dyadic and *context consonance*.

The above paragraphs, that describe the action of the government, are interpreted from a system perspective as the search for a shared development purpose. Such search is carried out by setting certain priorities for the improvement of the system survival in global competition. Subsequently, government actions tend to encourage coordination, involvement and participation of the systemic components in order to achieve the conditions for the emergence of a *context consonance*. This is an essential background for public satisfaction, development of further competencies among the existing components related to the system, as well as the attraction of new components.

Figure 12 – Description of the action of the individual component on the system dynamics.



Source: www.asvsa.com

The *consonance*, as said, creates the relational conditions for mutual attraction, aligning the strategies of different actors towards a common goal. The ability to attract and qualify the components is an expression, on the one hand, of the openness of the system and, on the other hand, of its elasticity and flexibility in relation with adaptation requirements (Cafferata, 2009). Besides, an opposing force, the *competitiveness*, acts to affirm the distinctiveness - first developed exploiting existing resources and then consolidated with the influx of new resources – so as to reach a balanced state, characterized by loyalty of audiences and the aforementioned balancing of their various requirements (Golinelli, Proietti, Vagnani, 2008).

3.6. The selection of possible action paths for development

While governing the development of a local system, decision makers have the task to encourage the conduct of the various components of the system, through a coherent strategic plan, which

encourages convergence towards common goals of development, therefore, to a common *viable system* by each single actor, valuing the contribution to the system of each single actor.

Table 1 – Key elements for the government scheme of the territory from a (*VSA*) perspective.

LOGICAL LEVEL OF GOVERNMENT	ELEMENTS OF SPECIFIED ENDOWMENTS	*STRUCTURE* TYPOLOGY
Ordinator Subject (O.S.)	**Resources**: identification and classification of relevant territorial resources	*Logical Structure*
Coordinator Subject (C.S.)	**Capacities**: identification of all components and of all internal/external components able to express the identified resources	*Extended Structure*
Proponent Subject (P.S.)	**Competencies**: identification, among components, of interactions able to perform actions and processes	*Specific Structure*

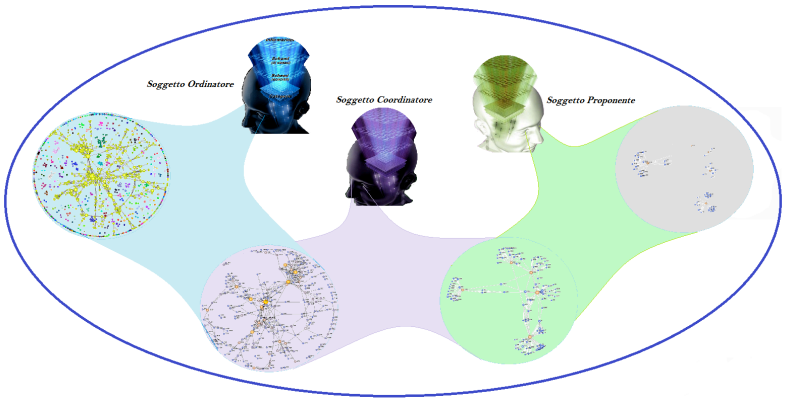
Source: Barile and Golinelli, 2008.

The conceptual assumption on the basis of the model supporting the decision making process herein proposed, is the awareness that the territorial government action corresponds to the capacity that the *governance* (often more decision makers in action) has to enhance the potential and the vocations related to an area. Actually, the potential and vocation of a territory represent factors of differentiation and attraction to which the exploitation of the territory is directly connected. And, these factors should be linked to possibilities of establishing trade relations with the outside world, in order to find those resources (investment, tourists, agreements and partnerships with other areas) useful to create a functional competitive advantage for the development purposes. It has been said, as summarized in Table 1, that the phase in which the O.S. identifies the *logical structure* of a specific set of resources, is particularly significant. This set of resources affects the definition of the evolutionary path (the *extended structure*), which, in addition to ensuring the survival of the emerging system, allows to guide activities and processes on the development path.

At this stage of the analysis, it is important to underline that the extraction of contexts happens, recursively, at all examined logical

government levels, defining the articulation shown in Figure 13. This figure, represents a specific environment or context defined by a supra-ordinate decision maker. The latter, also called *ordinator subject*, extracts a context through the identification and classification of resources considered relevant for the achievement of a specific purpose and, finally, defines the *logical structure*.

Figure 13 – The territorial contexts in the composite decisional process.



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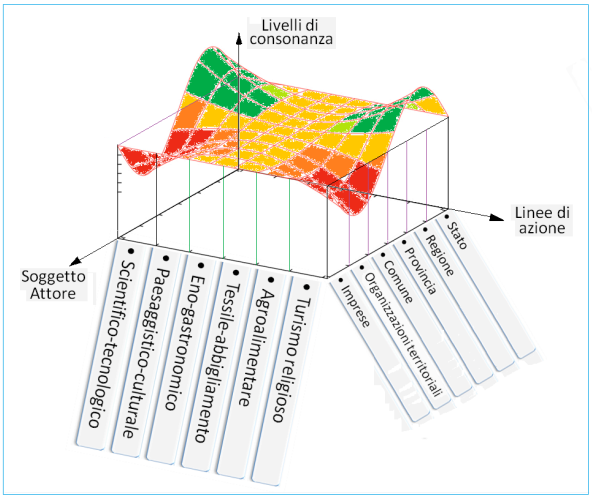
At the next level, one or more *coordinator subjects*, extract a context from the environment defined by the *ordinator subject*, detect the *extended structure*, identify all the components and the internal and external relations able to express the considered resources. At another level, one or more *proponent subjects*, extract a context from the environment defined by the *coordinator subject*, define the *specific structure*, develop interaction schemes between the components able of perform the designed activities and processes. The scheme indicates that the central moment of the territorial decision making process is the *extended structure*, more detailed in Figure 14, particularly articulated. Any entity organized for local development may, therefore, be subjectly represented by an *extended structure*, as an expression of the perception of constraints and, at the same time, opportunities for development in a specific local area. The *extended structure* becomes an expression of the process of selection of resources, carried out by a decision maker in relation to a development goal, qualifying a project idea, then a formal and conscious design of

the potential *structure* of an area. From each *extended structure*, then, a *specific structure* emerges, containing a number of more or less integrated and coordinated projects. As depicted in Figure 14, each possible action path, given the combination, generally composite contexts extracted from different decision makers, will be characterized by a certain degree of *consonance* in relation with supra-systems identified as relevant by the same subjects. Therefore, the ability of the decision makers will be important to converge towards a solution that is able to maximize the *context consonance* that, as said, is the very result of the composite dynamic of the progressive reorientations made by all the *viable systems* due to the context itself. The description of the model presents, as methodological tenets, a specific observer's observation point and the focus on structural components of a territorial context. In other words, the design of an *extended structure* was achieved. From such *extended structure* emerges a specific local system, characterized by a *specific structure*. This *structure* can be specifically detected exclusively through a process of total assessment.

Figure 14 – The *extended structure* as a model for the synthesis of the territorial decisional process.



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This screening process necessarily requires the analysis and measurement of the value attributed to the individual components and

to the intercurrent relations, as well as the deviation of such value compared to a mean value of the context. The evaluation of the components that are to be included in the various specific project structures must be carried out at different levels, gradually recovering a systemic evaluation dimension that allows, once the individual and relational features are established in a structural perspective, to formulate a systemic synthesis review of its ability to contribute to the research of *context consonance*. Therefore, the following will be determined:

- ✓ a value for the component (resource/capacity) based on the criterion of compliance with the requirements of decision makers, and the availability on the territory. This assessment should give priority to resident components, followed by non-resident components that do not exist but can be achieved by welcoming/attracting components from outside;
- ✓ a synthetic value of the capacity of components to perform as an ensemble. This evaluation process should also be transposed to the analysis of the value of *relations* among components, in order to measure the systemic potential inscribed in the *specific structure* and, therefore, the possible emergence of *resonance*;
- ✓ a subjective value of the components, regarding the appreciation of the current relevance of individual components, that is to say the ability to influence the choices of decision makers with respect to the possible identified *specific structures*. The aim, therefore, is to assess the contribution, as a percentage, of each component to the purpose of the territorial system.

Evidently, the joint assessment involves a certain complication of the decision making process, underlining the need for a synthesis of interpretation schemes that allow for a simultaneous evaluation of different variables to be considered for the selection (Barile, 2009a; Piciocchi, Saviano, Bassano, 2009; Saviano and Berardi).

3.7. A synthetic interpretation scheme for the territorial government decision making process

A synthesis model of the set of variables to be considered in the decision making process is offered by (***vSa***) *ConsulCubo* (Barile, 2009c). This allows to substantiate the context of reference, to identify relevant supra-systems and, finally, to identify a solution that, being consonant with the identified context, can be effectively achieved. It is necessary to emphasize that, in complex contexts, solutions initially considered optimal, may probably not be implemented due to a lack of *consonance*. Such is in cases in which the proposed actions (adjustments, changes, renovations and conversions) have not implemented due the existing *operational structures*. The proposed approach allows for the comparing of different design solutions (Minsky, 1985), thanks to different assumptions of context within which to analyze and measure the phenomenon of *consonance*.

It is possible to represent graphically, through a three-dimensional space, the modeling of projects (Figure 15).

The proposed figure emphasizes a whole view of information variety dimensions, of the representation level and relevance of the action, making clear and measurable:

- ✓ variables that come into play in determining the paths of *consonance*;
- ✓ the different perspectives of observation that potential solutions must match;
- ✓ the contributions of different actors to enable the achievement of the identified objectives;
- ✓ a value estimate that can be created by the different project ideas, in which the expectations of supra-systems and their degree of satisfaction are considered in relation to different proposed solutions.

The (***vSa***) *ConsulCubo* allows to identify:

- ✓ the internal *consonance* of both the context and the analyzed *viable system* (Esposito De Falco, 2008)[13];

[13]The measurement of *consonance* levels can make use of tools and techniques of market research questionnaires, and the collection of indicative factors of the dimensions included in (***vSa***) *ConsulCubo*.

- ✓ the factors that affect *resonance*, and thus favour or hinder the development of *consonance*;
- ✓ the constraints, planning assumptions and the probability of achieving the objectives.

A classical approach to evaluation of the hypothesis would require a calculation of the risk-preference value. Elements of the budget, combined with market and financial indicators would generally result in the calculation of the hypothesis to choose. Certainly, in terms of computation, possibly by using multivariate statistical analysis, it could be useful to try to estimate the confidence degree that different supra-systems have considering one or the other proposal, but in substance, and unquestionably from the calculation, derives that only one of proposals is the most appropriate.

The use of (***VSA***) *ConsulCubo* allows for the understanding that not one proposal is to be considered better than others, but rather that the prevalence of one proposal on the other is mostly due related to the level of *consonance* between the proposal and the average value of *consonance* between the firm and its context.

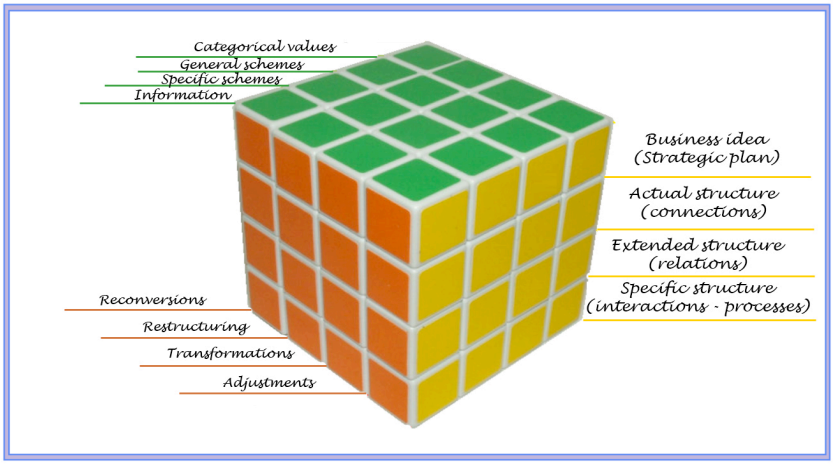
According to the proliferation of information, to the wide opportunities to be considered, and to the complication of the links and relations induced by globalization, the government of the territory development may risk to appear indecipherable and not rationally understandable. For this reason, the need to formulate, propose and verify analysis and action models that can support the difficult role of policy makers and all decision makers, public and private, involved in the territory events, is more and more evident.

The proposed methodology and model can provide a useful contribution to the evaluation of consistent proposals with a strategic action line arranged by an O.S. Specifically, the use of (***VSA***) *ConsulCubo* allows:

1. to assess the impact of *consonance* changes deriving from the acquisition of information during the adaptation phase, compared to the overall strategic plan. It corresponds to the typical attempt to establish the equilibrium of an unbalanced system, acting on marginal organizational features. Often, such approach, due to implicit information endorsed by the *operational structure*, gradually erodes the trust in the mission of the system;

2. to assess the correspondence, in terms of *consonance*, between the specific patterns of the system, and assumptions of organizational compliance. In many cases, organizational changes, apparently simple, result to be non enforceable due to the resistance of consolidated schemes;
3. to modify the *extended structure*, which means to redesign the processes related to the main functions. It requires a careful analysis of *consonance* on the perception that the *operational structure* has assumed transformation. In many cases, *structure* components have been excluded or downsized reacting negatively to the intervention;
4. to appropriatly revisit the strategy after changes, especially in deep layers (categorical values and general interpretation schemes) of the information variety.

Figure 15 – The (*VSA*) *ConsulCubo*.



Source: www.asvsa.com

In conclusion, (***VSA***) *ConsulCubo* allows for the analysis of each case regrouped in its specific components related to a mode of action. Through such tool, it is possible to achieve a broad perspective to analyze the degree of initial *consonance* and *resonance* following the application of each of the possible actions so as to determine which is the most appropriate.

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