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Module 2

Territory innovation and action

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Contents

Chapter 1 – Innovation

This chapter highlights concepts, terms and understandings related to an innovation event from a structural perspective. It concentrates on structures, forms and qualities, and hence on factors stable over a given time or for a certain setting. These factors are schematically represented in fig. 1. The order of the subsections does not prescribe any inherent logic.

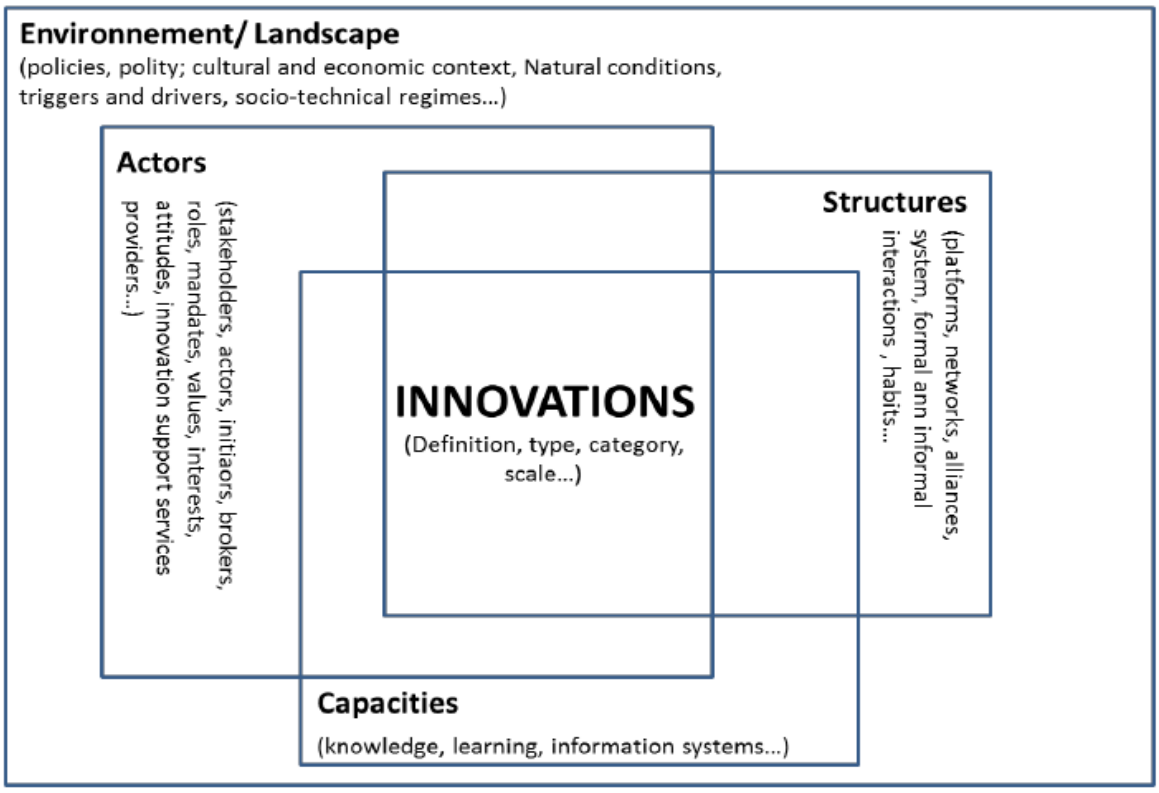


Figure 1: The structural component of innovation view

Figure 1 clarifies that innovations are developed by actors with the help of specific capacities, skills and knowledge and within structures operating in a multi-faceted environment.

1. Definition of innovations

Innovations are defined as everything that is new for an individual; a community or something that someone has not yet known or received that may help in doing things better, making things easier or solving problems etc. Adopting an innovation means change but it must be noted that not everything that is new is good, or that not everything that is old is bad, or that

innovation does not necessarily imply progress. The OECD (1997) and Eurostat (2009) further define innovation as the implementation of a new or significantly improved product (good, service or practice), a new marketing method or a new organizational method in business practices, workplace organization or external relations, while Rogers (2003) sees an innovation as an idea, practice, or object perceived as new by an individual or other unit of adoption. The adoption of an innovation is considered as a mental process by an individual or of a group and it starts with becoming aware of the innovation and ends with its practice (Planck and Ziche 1979:342).

Innovation can be characterized in various ways: as a product or a process, incremental or radical, technical or organizational. The first approach relates innovations to the novelty change in the domains of new production combinations, new markets, products, services and organizations. Another definition of innovation links its origin with an invention or a discovery that is used by an individual actor or a group of actors. This definition emphasizes the technological dimension of innovation. Invention could be related with a research activity developed by scientists or entrepreneurs. This definition implies the elicitation of innovation models that explain process of change from invention to innovations (Boutillier et al. 2014. A third group of authors (Lundvall, 1992, Edquist, 1997) considers innovation as the result of socially constructed activities that aim at providing a response to needs or overcoming constraints. This definition emphasizes the role of institutions (norms, rules, values, habits) and organizations (firms; networks, trade-unions) in innovation processes. These institutions and organizations frame interactions among actors and set up conditions that articulate resource use and creation.

2. Taxonomy of innovations

Tracing back to the works of J. Schumpeter in the 1930s, most early works on innovation related to the industry or firm. Schumpeter introduced the concept of “creative destruction”, emphasizing how a whole market can be restructured in favour of those that grasp discontinuities fastest. He relates a “company’s ability to innovate to its size (WordPress 2015). Challenged by the lack of empirical grounding of Schumpeter’s work, other economist such as

Abernathy in the 1970s differentiated incremental from radical innovation, while Porter in 1986 illustrated a similar concept called continuous and discontinuous technological changes. Other characterizations include “Incremental vs. Breakthrough” innovations (Tushman and Anderson 1986) and Conservative vs. Radical innovations (see Abernathy and Clark in: WordPress 2015). These diverse views reflect the difficulty of unanimously deciding and agreeing on the nature, categories and scales of innovation even today and can be related to what Edquist (1997) called “taxonomy of innovation”.

Business related angle

The above definitions cover four forms of innovation (for measurement purposes) (Inventta 2015):

• Product innovation**:** This involves the introduction of a good or service that is new or significantly improved with respect to its characteristics or intended uses. This includes significant improvements in technical specifications, components and materials, incorporated software, user friendliness or other functional characteristics.

• Process innovation: This has to do with the implementation of a new or significantly improved production or delivery method. This might be significant changes in techniques, equipment, and/or software.

• Marketing innovation: This involves the implementation of a new marketing method involving significant changes in product design or packaging, product placement, product promotion or pricing.

• Organizational innovation: This deals with the implementation of a new organizational method in a firm’s or another collective’s practices, collaboration organization or external relations.

Institutional angle

Institutional innovation includes norms, value and mechanisms of coordination among actors. In the context of collective change, we consider institutions as ‘prescriptions that humans use to organize all forms of repetitive and structured interactions’ (Ostrom 2005:3). Successful

innovations are often the result of synergy among three dimensions: technical, organizational and institutional. In a similar sense, Leeuwis and Aarts (2011) highlight that innovations are a combined implementation of new technologies and practices (hardware), new knowledge and ways of thinking (software) and new institutions or organization (orgware). Hence, innovations can be considered as sociotechnical hybrids (Flichy 2008).

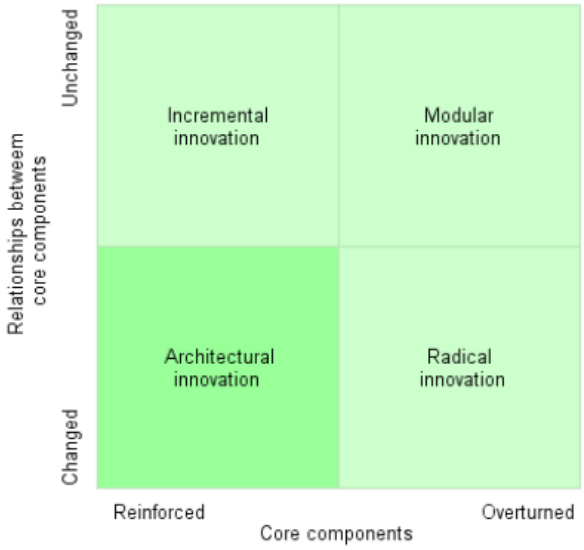
Degree of innovation newness angle

An innovation can consist of the implementation of a single significant change (= radical) or of a series of smaller changes (incremental) that together constitute a significant change. And, an innovation can affect single components of an object, a production process or an organisation (modular), or it transforms it thoroughly and structurally (architectural). This introduces us to the four different categories or levels of innovations proposed in the Henderson – Clark Model (WordPress 2015) (Fig 3).

While incremental innovations focus on making modest improvements to existing processes, products or services, radical or transformational innovation involves creating a completely new process or product in response to a market need or opportunity. Radical innovations tend to come about as a result of careful research and development into a specific issue or problem, and frequently make use of new technology to solve them. These kinds of innovations are often seen as 'breakthrough' innovations, some of which can change the entire way an organisation operates and, on occasion, can result in a new product or service that impacts an entire market sector (Gov. 2015).

Henderson and Clark noticed that the Incremental – Radical dichotomy alone was not sufficient to explain which particular company would be in a better position to innovate and under what circumstances. Their investigation led them to divide the technological knowledge required to develop new products, and consequently to introduce innovations, along two new dimensions: knowledge of the components and knowledge of the linkage between them - called architectural knowledge.

Figure 3: Matrix of core components and component relationships as affected by innovations

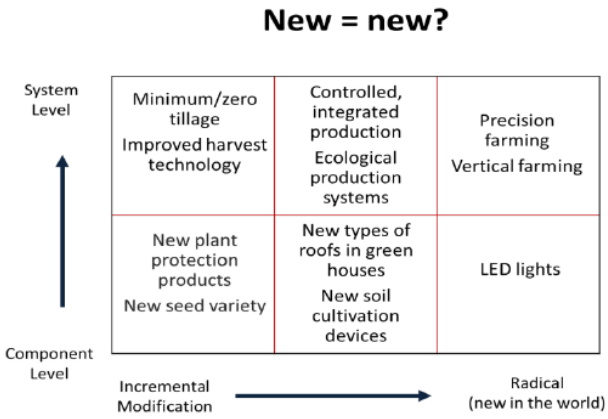


Source: adapted from WordPress (2015)

The second possible case identified by Henderson and Clark (1990) is component innovation. Component innovations require new knowledge for one or more components, but the system knowledge remains unchanged. For instance, around the 1980s most hard disk manufacturers substituted the ferrite read/write heads with thin-metal heads; this is a clear example of component innovation. This type of innovation has a great impact upon the linkage of components, but the knowledge of single system remains the same (WordPress 2015).

The figure 4 below presents some examples for each category of innovation.

Figure 4: Examples of incremental and radical innovations along the Henderson-Clark Model



3. The scale of innovation

'Scale' is considered in innovation studies in two ways. It can be expressed through the analytical frame that is applied on the innovation or when framing the innovation process in terms of scaling out and up (Pachico and Fujisaka 2004). In the first sense, scale can be addressed at territorial or organizational level. The territorial level helps to distinguish innovations according to type and where resources are mobilised (e.g. through the terroir, the supply area, agro-ecological systems etc.). The organizational level helps to address the decision making and governance level relevant to where the innovation takes place (enterprise or non-profit organization, value chain, branch or sector etc.). The choice of the relevant scale of observation depends of the nature of the innovation being considered and also of the system that support an innovation process.

The change of scale helps to identify mechanisms of innovation appropriation and adoption. This change of scale could concern geographical or governance scales. In this case innovation goes from local to regional scale, with multiplication of users, diffusion to other areas and access to new markets. This is a horizontal change or scaling-out. Change of scale could be also at an organizational level with new actors being involved in the process (e.g. new producers, new communities, intermediaries, decision makers) or new way of collaboration among actors,

new rules and policy support that foster innovation impacts. This is vertical change or scaling-up.

Innovations could emerge from niches, where a favorable context, new markets, and innovative firms prevail, called enabling environment. The latter promotes innovation maturity and dissemination at large scale (with the original design of innovation or in another form). These niches could modify the dominant socio-technical regime (Geels, 2007). The institutional environment plays an important role through rules, norms, and values that support the dominant socio-technical regime or allows the emergence of niche innovations through scale change processes.

4. The innovation structures

Innovations refer to changes. People take initiatives for change, they try to influence others to move, and this movement has effects on the system. But initiatives do not come out of thin air: they are responses to what was happening in the system that is constantly changing. Some structures make it easy to take initiatives and to make them successful, while others put high risks on deviating from what is known and normal. In order to communicate about innovation processes, we need language to distinguish the system, structures, the people who act within this system and the configurations in which these people influence each other in relation to innovations.

Systems and structures

In its most basic description, a system is a collection of components that are structurally coupled by interaction patterns. Because of these patterns, the system has properties that cannot be attributed to its constituting components. Take for example a school class: while each pupil might individually be very pleasant and cooperative, the class can become monstrous when they are all together in interaction with their teacher. In this case, we look at the class and teacher as a system. For innovation processes it is relevant to observe those

components of a system and patterns of interaction between those components that allow us to understand what induces initiatives and what effects they have on the system.

Systems do not exist in isolation. Each system is a component in a larger system and each component of a system is a system in itself. What counts for us are the system properties that affect a certain innovation process? So, the components that contribute most to the interaction patterns that cause those properties constitute the system we are interested in. If, in the example of the class, we want to understand what goes wrong and how this could be changed, we have to take the pupils and their teacher as the system. Putting the boundaries around the class of pupils it is not enough, because another teacher might have no problems with these kids.

However, this system is also part of a larger system of the school, with a certain culture, the presence (or absence) of a system for guidance for teachers in trouble, and so on. In turn, the school is part of a larger system of the neighborhood with certain cultures, socio-economic circumstances, tensions and history. Nevertheless, it is useful to determine what does and does not belong to a certain system, when we try to understand what is going on. By defining the boundaries of an innovation system, we try to distinguish what is inside and outside of this system, in order to understand what effects of actions are due to the internal dynamics of the system, and what is caused by the world outside. Boundaries between systems are most interesting when it comes to innovation processes. Because of differences in the properties of systems, people operating on the edge often have to abide by conflicting rules and expectations. They also see opportunities which are hidden from others living within the comfort zone of their system. Such persons are often the source of new initiatives.

Systems have properties that emerge from the interaction between the components that belong to the inside world of this system. Structures are constructions that channel this interaction, such as agreements, contracts, explicit or implicit rules, forms of organization, institutions, and also physical facilities such as buildings, meeting rooms, roads, infrastructure for internet, and so on. Language and culture are structures as well. Even concepts and philosophies can be considered as mental constructions that include certain ways of interaction

and exclude others. Structures provide the bedding for interaction patterns while the flow is in the actions and interactions themselves. Together they can lead to more or less stable systems with their specific properties and characteristics.

People take action to innovate, to change their practices or implement changes in structures that make it easier for others to change behavior. Good initiatives are everywhere at any time, but the environment selects.

Networks

Networks are, as aforementioned, spaces where social learning takes place through the links and interactions between actors. Therefore, "creating a purposefully designed 'space' or 'platform' which brings together experiences of those involved in purpose-driven learning and knowing processes allows for the creation of synergies and meaningful working linkages" (Hubert et al., 2012, p. 180). Literally, a network is a collection of knots that are interconnected. A human network is commonly seen as a collection of individuals who have a reason for interacting more or less regularly with each other. They might share an interest, a background, an ambition, etc. Some see their network as the collection of contacts they can turn to in case they need them. Some networks are institutionalized. This means a structure has been created with objectives, a task division, rules and more. In that case, the difference with an organization is minimal: organizations are more permanent structures than networks which are supposed to dissolve when they are no longer functional.

The concept of networks is an important addition to organization theories when it comes to change and more specifically: innovations. The dynamics of such processes cannot be understood within the boundaries of an organization as a system. People with initiatives do not follow the formal hierarchy of an organization. They seek support in informal networks and create movement with others. Such informal networks are not limited to the boundaries of an organization. Looking at innovations at farm level, there are practically always different stakeholders involved who are not linked to each other in a hierarchical way.

While trying to understand the dynamics of innovation processes, common descriptions of networks as mentioned above are not adequate. They refer to social networks where members

recognize each other as being part of this network with its particular identity. What we would like to distinguish are the people in different positions regarding the process: the ones who promote and assist the change, the ones who are supposed to be influenced in order to make the changes possible, and the once who should notice the effects. Who are the allies, who are the ones that are supposed to move, and who are out there in the system who cannot be influenced directly? By using the concept of social networks, we are confined to the first category only.

The theory of Living Networks (Wielinga, 2001, 2008) identifies three networks related to a process of change:

1. The core network: This network consists of actors who share the ambition of making a change. These actors develop strategies to influence others for making this change possible, and they act accordingly.
2. The horizontal network: This is the collection of actors who should make a move for making the change possible. Note that this network is defined by the core network, and that these actors do not recognize themselves as being part of the network for change. This will change when the core network is effective.
3. The vertical network: The innovation will have effects that go beyond the core network and the horizontal network. Actors in this larger network might be the ultimate beneficiaries of the innovation, but they might also notice negative effects.

The distinction between these three networks involved in an innovation process helps to identify which actors' matter, and how effective strategies for change might be. When, for example, a group of farmers is engaged in developing a new product for the market, this group forms the core network. Maybe they have an advisor who is really committed to the case. Then this advisor is part of the core network too. This network needs the collaboration of other actors in the system: other technicians, investors, suppliers, actors in the value chain, and maybe also administrators, before their new product is ready to enter the market and finds access. These actors are part of the horizontal network. The core network needs to identify which persons they have to approach and in what order. Ultimately, they target a certain

segment of the market. These consumers are part of the vertical network. But villagers around the farms who might not be happy with the increase of big trucks passing their homes are part of the vertical network too.

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Chapter 2 - Territorial innovation and the dynamic of innovation

The role of the territory[1]

The territory becomes a crucial factor in determining the innovative capacity of enterprises and organizations, in terms of both knowledge heritage and accumulated know-how, and as “interactive relational” areas.

The basic idea is that it is the variables in localized knowledge, "localized cognitive capital", which can guarantee, at a time of increasing globalization and standardization of production processes, long term competitive advantage. Moreover, "the more this localized knowledge is specific, not transferable to other contexts and uncodified, the more difficult it is to trigger imitative processes that can erode this advantage"[2].

The creation, dissemination, regeneration and use of this localized cognitive capital is achieved through complex processes of collective and interactive learning that are triggered by two specifics conditions: the geographical and relational proximity of the various actors involved in the process (companies, customers, suppliers, research centers, universities, institutions, etc).

The organization of fully fledged territorial innovation systems (TIS) is seen as an effective way of metabolizing these processes by different schools of thought that have analyzed the relationships existing between knowledge, territory and innovation (especially schools of thought linked to the concepts of: milieux innovateurs, regional innovation systems and learning regions)[3].

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[1] G. Canzanelli and L. Loffredo (2008) Territorial systems for innovation. Hypothesis for the human development programs

[2] Cf. R. Capello and A. Faggian (2002), "Knowledge, innovation and collective learning: theory and evidence from three different productive areas in Italy”, http://www.ersa.org/ersaconfs/ersa02/cd-rom/papers/042.pdf

[3] C. Carricazeaux and F. Gaschet (2006) "*Knowledge and the diversity of innovation systems*: *a comparative analysis of European regions*”, Cahiers du GRES - Groupement de Recherches Economiques et Sociales, http://beagle.u-bordeaux4.fr/gres/publications/2006/2006-29.pdf; For a critical review of these models see: F. Moulaert and F. Sekia, “*Territorial Innovation Models: A Critical Survey*”, in Regional Studies, Vol. 37.3, pp. 289–302, 2003; D. Doloreux, S. Parto (2004), “*Regional Innovation Systems: Current Discourse and Challenge for Future Research*”

Proximity to other actors, concentration and/or proximity to firms of the same or different sectors of a chain, proximity to places of knowledge creation, such as universities, research centres etc., are the preconditions for the establishment of knowledge spillovers, but this does not fully explain the dynamics that trigger these processes. Indeed, it is simplistic to think that the production and dissemination of knowledge spillovers comes about through "purely probabilistic contact mechanisms".[4]

The factors that determine the greater innovativeness of one area compared to another, are, in fact, much more complex. To the concept of physical proximity we must add cultural proximity, that is **a** sense of belonging to an area, capacity for interaction with others, shared common values, which, in short, determine relational capital[5]. And it is precisely relational capital, consisting of various forms of explicit and implicit cooperation between territorial actors, and of public and private partnerships, which is the essential element/prerequisite that triggers the processes of knowledge spillovers. The dissemination of knowledge in a territory, through collective learning processes, or "dynamic and cumulative knowledge production processes, is achieved through interaction mechanisms typical of an area characterized by a strong sense of belonging and strong relational synergies"[6], and therefore strong relational capital (milieux innovateurs).

Following this approach, the specific channels for the dissemination of knowledge in a territory are: the high mobility of factors relative to capital, (for example new business spin offs); knowledge (for example, stable and profitable relationships between businesses, local suppliers and customers); labor (local labor market mobility). Innovative processes are based, therefore, on paths and methods that are not consistent with the formal procedures for acquiring

[4] Cf. R. Capello and A. Faggian, op. cit

[5] Cf. M. T. Matisse (2005), Rational capital is to be understood as “the capacity of interaction - between businesses, but also between businesses and local people – arising from a strong sense of belonging to an area and strong cultural proximity”. “ *Les apports du GREMI*

[6] R. Camagni, (2003), "*Regional Clusters, Regional Competencies and Regional Competition*." In: *Cluster management* in structural policy – International experiences and consequences for Northrhine-Westfalia, http://www.ruhrpakt.de/downloads/veranstaltungsdoku/camagni_rede.pdf .

knowledge and know-how in a structured R & D laboratory, but which represent a kind of "implicit territorial laboratory".

The territory's role in determining innovation capacity is, therefore, expressed through socialized knowledge creation processes, accumulation and dissemination of knowledge and reduction of the uncertainty that usually characterizes the innovation process (risk socialization)[7].

The concept of territorial innovation systems, in fact, refers to "complex systems characterized by interaction between multiple actors and institutions that produce and reproduce knowledge and knowhow, govern how they are transferred to businesses and other local organizations, and manage how they are implemented.[8]

Due to the nature complex of these systems they need to be regulated by governance mechanisms that involve all actors to facilitate the implementation of innovative processes, avoiding the bureaucratic pitfalls of public administration and the corporate pitfalls of the special interests of different actors.

That is why more consolidated experiences always make use of innovation development agents, who are often not concentrated in a single organization but act for the wellbeing of the whole community: development agencies, service centers and technology parks and centers, universities, local authorities, educational institutions that facilitate the exchange of experiences, know-how and knowledge, urge action to meet different needs, link demand for skills and services to suppliers (both inside and outside the local area) to increase territorial planning capacity and boost its place in national and international contexts.

[7] Ibid: (cognitive outcome of the milieu innovateur) *"Local relational space is seen as a means of reducing uncertainty, since – due to geographic and cultural proximity – collecting, evaluating and particularly transcoding information, selecting decisional routines, controlling and coordinating competitors (all functions usually performed by research and development or strategic planning teams in large enterprises) are carried out collectively within the social context of the local milieu"*.

[8] Cf. G. Garofoli "Piccole imprese, innovazione e territorio: economie di apprendimento e sistema innovativo locale" in R. Camagni- R. Capello (edited by), "Apprendimento collettivo e competitività territoriale" Franco Angeli, Milan, 2002

Innovation should be seen as "*a localized (though not exclusively local) process*"[9] and therefore territorial innovation systems must be open and linked to international, national and regional innovation systems in a perspective of multilevel governance.

The dynamic of innovation

Studying the connection between territory and innovation requires above all to precisely define the dynamics of territories - and their determinants - before specifying to what extent the territorial dynamics and the innovation dynamics combine, harmoniously conjugate. Behind the formal multiplication of the number of metropolises, we must observe the economic and social realities and, more particularly, question the realities in terms of innovative activities. Several contributions aimed to shed light on these aspects and shed light on questions:

–How to analyze territories and metropolises?

–Is the focus on metropolises alone (metropolarization) relevant? And / or should it be accompanied by more detailed analyzes of territorial dynamics?

1. Territory dynamics: findings and analysis tools

The analysis of the dynamics of territories has long been based on the perception of indicators in terms of GDP per inhabitant: by taking into account the added value created per inhabitant, the analyst could rightly claim to grasp the territorial dynamics. This is no longer possible due to the disconnect between wealth creation and income within the territories. This break leads to rethinking the tools for analyzing territorial dynamics in order to precisely identify the levers and obstacles to regional development.

[9] Cf. B. Asheim and L. Coenen (2006), op. cit.

The territories which create wealth are not necessarily those which develop, as Laurent Davezies underlined in 2001. This is an unprecedented new fact for the economy of the territories which highlights a disconnection between:

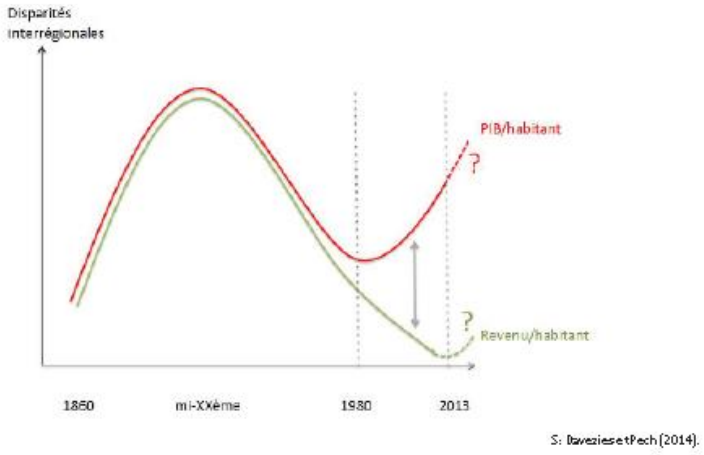
- the creation of wealth (growth) and
- improving the living conditions of the populations (development).

The mismatch is explained by the circulation of income streams spent outside the place where they were created (see Figure 1). This circulation of wealth gives rise to a particular territorial development process, based on residential attractiveness and the quality of face-to-face leverage, the economic purpose of which is to know how to attract and retain income and the populations who have such income. We then observe - between regions - income redistributions, in which the "rich" regions (in terms of GDP) will finance the "poor" regions in terms of GDP, which translates into:

- growing inter-regional disparities in terms of GDP per capita,

- less marked disparities between regions in terms of per capita income.

Figure 1 - Relations between GDP / capita and income / capita



It should be noted that these transformations are not only economic, they are societal. They can be explained because free time has become our first part of life (life expectancy continues to increase), our mobility has increased and become more complex (development of transport

infrastructure and new technologies), our temporalities - our rhythms - have accelerated… the territories of daily or occasional life have multiplied. There is no longer a single link, a single logic that would link an individual to a territory, but links, irregular, random anchorages, fluctuating according to the seasons, days and hours. Thus, for example, the retiree will settle (partially or not) in the provinces, does the employee work in a place separate from his home, etc. If the unit of place of work-income (consumption) has long been "obvious" (with the exception of the towns that emerged because of the lords, as Cantillon noted as early as 1755), it is less and less so today.

A new analysis grids

Taking into account this demarcation between wealth created (GDP) and income leads to underline a necessary distinction between the place where the wealth is created and where it is spent. It is necessary be aware of the fact that the territorial dynamic is based on four levers:

- the productive lever: the territory exports added value. The wages, the results of this production, are fed back into the local economy. They come to activate the face-to-face lever, and represent around 16% of a territory's revenue;
- the face-to-face lever: brings together all the income related to consumption on site, and includes activities intended to meet the needs of populations and businesses in a region (baker, doctor, etc.). 15 to 20% of a territory's income;
- the residential lever: constitutes the addition of retirement pensions, market and non-market tourist expenditure, income from movable and land capital, and "dormitory" income »Captured by a territory. It is based on activities and amenities that make a territory specific, and represents approximately 48% of a territory's income;
- the public social shock absorber: it includes all the income from social transfers and civil servants' salaries, and corresponds to about 16% of a territory's income. The term "Public social shock absorber" makes it possible to emphasize that these revenues come

from state decisions that largely escape local actors, but also that they can have a function

"Shock absorber" of cyclical shocks due to their lesser dependence on the economic dynamics of the territory. This approach proposed by Laurent Davezies makes it possible to move away from a simplified, too often sectoral representation of territorial development, and centered on stocks (jobs, activities, equipment, etc.) with a vision of the economy divided into three main sectors: agriculture, industry, services. It consists in analyzing the territory to differentiate what relates to activities and income carried out or spent on the spot, in order to favor a more systemic and global approach, taking into account income flows. Its major interest is to show that the dynamics of a territory depend as much on its ability to capture wealth (income) outside "its borders" as on only producing it (GDP) and its ability to redistribute these revenues in the form of current consumption expenditure in the local economy.

The analysis of territorial dynamics as observed in the last thirty years suggests that the search for a balance between exporting productive forces, the ability to capture revenue and circulate these revenues can be a considerable advantage for the territories. This balance of research allowed as part of this work to propose a new grid that relies both on the work of INSEE and those of Laurent Davezies. It proposes a new representation of the territorial dynamics.

2. The actors of the territorial dynamics of innovation

Innovation is based on the ability of local actors - ecosystems - to mobilize to build innovative projects. Stimulating the energy of entrepreneurs is essential, but for this, building dynamics and cooperation between local actors - communities, businesses, research and training centers, is no less crucial. Four actors and the initiatives that are crucial in this dynamic:

- the role of universities and engineering schools:
- the role of the vocational training system: essential both for employees, led to training throughout life, and for companies, by providing the means to develop the skills of

employees, the vocational training system is at the heart of reforms which lead to thinking about its articulation with regional training needs;

- the role of chambers of commerce and industry: central players in local economic development,
- competitiveness clusters.

Chapter 3 - Innovation and governance of rural territories

Introduction

The idea that innovation or creativity can be the basis of the processes of development of territories has appeared only fairly recently in the literature and in public policies and actions. And it is only in the past few years that there has been an acceptance of the fact that new activities can be useful to – or even be drivers of – the growth of rural territories (Regional Science Policy and Practice, 2011). And yet, this approach is still usually confined to the high-technology or new economy sectors.

It was only in the 1990s that work was undertaken that placed innovation at the core of regional or territorial growth. It highlighted the importance, in this mechanism, of innovative firms and of clusters that brought together high-tech creative activities. It discussed the spatial dissemination of technologies and its geographic limits in terms of spillovers. Also noted were the problems relating to the capacity of absorption and the difficulties of reproducibility of innovations developed elsewhere. This movement resulted in and was accompanied by the implementation of many local, national and community policies according priority to innovation, such as the creation of science parks and technopoles, the significantly increased R & D funding or the strengthening of research-industry relationships. Almost without exception, it was the development of high-tech innovations that was favored, with an emphasis on the creation and transfer of innovations of a very high level. They were supposed to benefit to enterprises that used them as well as the network of their subcontractors, suppliers or geographical neighbors and, through a trickle-down effect, the entire local economy.

The resulting model of regional or territorial development is therefore based on high-tech activities. Innovation is considered the main engine of growth (a watered-down version of development) as well as a differentiating factor useful for overcoming competitive constraints, at least partially. International institutions (OECD, EU, etc.) and national governments, who advocate these development policies based on innovation and competitiveness, have set up mechanisms to intensify selection between territories. This often results in land planners and

managers acquiring a naive and wishful attitude, wanting to enter a competitive world and considering that valorizing local resources and supporting cutting-edge sectors are enough to generate development.

But the territories are not at an equal footing in the race for technological excellence since not all have resources that can easily be valorized or the expertise necessary to do so. This is especially true for rural territories – and for countries of the South – and thus the question of the nature of innovation and the conditions under which it can truly bloom in territories needs to be readdressed. This article's goal is to explore the links between three key elements: innovation, territorial development and governance. In the first part, we present the main development models and the various types of their implementations in rural or agricultural territories. We then discuss the role of innovation in development approaches by considering successively the approaches of territorialized innovation and policies of territorial innovation. We conclude with an analysis of modes of governance of rural and periurban spaces as expressions or vectors of innovations in territories. This analysis covers processes of negotiation and decision making, actors and governance structures and mechanisms dealing with conflicts or encouraging consultation.

I. Models of regional and territorial development

Works on the theme of development, whether focused on rural and agricultural issues or more generally attempting to define conditions for the growth and success of regional economies, most often take the form of studies of economic mechanisms. It is readily apparent that the issue of innovation, of limited interest during the post-war boom years, has now become a major component of these approaches, given that development is now closely linked to innovation in all its forms. Three major competing visions of development currently coexist, corresponding to strong analytical assumptions in which innovation is present to a lesser or greater degree (Torre and Wallet, 2012).

I.1. Development as an optimum balance

First of all is the thinking that focuses primarily on defining a balance between interests and gains derived by the various local actors of the development process and on seeking principles that will lead to the maximum satisfaction of all stakeholders. The founding approaches of neoclassical theory belong to this category. They propose a homothetic growth based on inputs of capital and work, later extended to a third, more technological, input, most often in the form of knowledge or the amount of R&D investments (Solow, 2000). In these approaches, innovation is mainly considered as an input that can improve the efficiency of the allocation and use of production factors and thus boost productivity. It is a matter of assessing the production volume and its growth and of comparing them to the optimal combination of factors and the efforts undertaken in terms of productivity or capital accumulation for example (Johansson et al., 2001). This approach, which envisages the eventual possibility of eliminating interregional disparities, has seen significant success and has only been held back by its limitations in terms of homothetic growth and of its inability to account for imbalances reported early on by the authors of polarization or by growth at the bottom for example.

I.2. Development as a source of inequality and polarization

The second, and largest, group of analyses consists of approaches that consider compromises made between local actors to be only temporary and ultimately untenable. They believe development processes always generate interregional inequalities which are hard to reduce. In contrast to the ‘optimum balance’ thinking, these analyses consider that development brings and contributes to the

widening of disparities between regions or territories, often permanently. They also highlight the existence of local systems with specific institutional, economic or technical characteristics and whose successes or failures induce fundamentally unbalanced development processes. This body of work is based on the analyses of growth poles, conceived by Perroux and developed by Mydral, Hirschmann and Higgins. Perroux’s (1961) original idea is that development cannot occur everywhere at the same time and with the same intensity. This is amply demonstrated by countries or areas that are lagging behind in development, a fact that the growth pole theory

was the first to recognize. Development relies on a process of polarization of activities, itself based on the existence of large companies which act as driving forces, located in the heart of the most developed regions. They are the vectors of innovation and of its unbalanced dissemination between territories.

With the crisis of Fordism and the inability of traditional models to account for changes in capitalism, such as the success of forms of organizations other than the large-company model, new analyses have emerged which place intangible factors at the heart of the dynamics of development. Thus, Porter (1985, 1990), whose approaches have had a wide impact, explains a region's or territory's comparative advantage in terms of four major factors, each of which needs attention in order to move ahead of competing areas: enterprise strategy, structure and rivalry; demand conditions; spatial relationships with related and supporting industries; and resource and production factors (traditional or skill-based). Analyses in terms of a residential or local, face-to-face economy, which base territorial development on an increase in external revenue, have a different view of interregional disparities (Davezies, 2008).

Analyses of localised production systems (LPSs), which began in the 1970s, are also based on the observation of spatially differentiated development processes. Initiated by studies of Italian districts (Beccatini, 1990) and followed by studies of variations in different settings, ranging from the Milieus to the agri-food systems or LPSs to clusters, these analyses are based on the systemic nature of relationships maintained by actors who belong to and jointly shape a territory through their cooperation and common projects. It is here that we find the idea of development from below – so close to authors such as Stohr (1986) – and a willingness to typify forms of development (the Italian districts; public-based systems; systems based around large companies; or based on innovation, etc.) (Markusen, 1996), but very little analysis on the development processes themselves or of their dynamics.

The notion of the New Economic Geography (NEG), conceived by Krugman (1991) and popularized by authors such as Fujita, Thisse and Ottaviano (Fujita and Thisse, 1997, 2001; Ottaviano and Thisse, 2004), then formalized the significant probability of occurrence of

phenomena of spatial polarization and concentration of activities. Questions then arise of the spillover effect of an activity at the regional level (e.g., spillover effect of construction), of the reciprocal impact of the locations of enterprises and those of their workers/consumers, and the ability to lower transportation costs, which only reinforces polarization processes to the detriment of peripheral areas.

I.3. Development as a dynamic process linked to innovation

The third and final research category is based on the idea that regional or territorial development is closely linked to the occurrence of dynamic ruptures with the past due to innovative or creative processes. This explains the varying speeds and amounts of development of different regions or territories (Dunford, 1993; Scott and Storper, 2003). Analyses of regional development based on

processes of innovation and regulation, as well as some systemic approaches, thus conclude that local systems are subjected to successive phases of growth and stagnation, even of recession (Colletis et al., 1999). These phases exacerbate or reduce inequalities between social classes, with the benefits of growth often being appropriated by certain groups or offshore businesses belonging to external capital. Above all, it is the internal shocks which can transform systems and lead to the appearance of spatial concentration of people and wealth, as well as of zones of social and spatial exclusion. Innovation, its creation and its dissemination are therefore at the heart of these approaches (Cooke and Morgan, 1998).

During the last decade, the analysis of spatial dynamics has been enriched by work rooted in evolutionary theory (Frenken and Boschma, 2007). It considers the uneven distribution of activities in space as resulting from largely contingent historical processes. The Evolutionary Economic Geography accords a predominant place to the entrepreneurial dimension, whether based on genealogy or on processes of emergence, growth, decline and cessation of business activity (Boschma and Franken, 2011). The focus is mainly on the roles played by spin-offs and labour mobility in territorial development processes (Maskell, 2001) and on mechanisms for

replicating routines within the local industrial system. Taking advantage of geographic, industrial and technological proximity between sectors (Torre, 2008) and of institutional mechanisms and network structures, these technologies spread by the snowball effect between the companies and technologically related industries, and eventually lock local systems into spatial dependencies on the growth path. This process works particularly well when the industries are emerging or are based on related technologies, with low cognitive distances being particularly conducive to the circulation of knowledge spillovers (Nooteboom, 2000).

II. Policies of development by innovation

One of the features of current development policies is their acceptance of local dynamism in innovation, production and knowledge transfer as one of the key factors in regional development. Hence the considerable efforts made by regions and local communities in this domain. Policies to encourage innovation – a source of growing income – are today part of the toolbox of all policy makers, who see in them the ultimate argument for growth and development (Hall, 1994). These policies are based on the fact that gains from innovation are difficult to appropriate and thus require State intervention to meet any possible shortfalls in R & D spending. Such strategies have not only resulted in policies to promote high-tech activities (Goldstein, 2009) and major industrial programmes such as Airbus but are also considered relevant for rural or remote areas and SMEs which lack of resources.

II.1 Technological innovation within poles of development

Approaches dealing with the role of innovation in the dynamics of territorial or regional development are based on taking into account the importance of R & D or innovation in local development. Partly inspired by Schumpeter's work, these approaches rely on the idea that innovations are key to development processes and that R&D efforts and incentives for innovation can play an important

role in the establishment and success of the dynamics of growth. It is often a matter of a systemic approach, one which emphasizes the role played by innovation transfer and dissemination at the local level (Feldman, 1994; Autant-Bernard et al., 2007). It also underlines the importance of face-toface relations and of expansion phases by setting up of spin-offs and via support of creative efforts (nurseries, incubators, etc.). The engine of development is thus found in the presence of localized spillovers of innovation or knowledge, which spread within the local system and can give rise to very competitive local systems such as technology hubs or competitive clusters. It is innovation that powers development and differentiates dynamic systems from those that are not.

Advocating the concentration of industrial investment in clearly identified clusters is now a dominant feature of European policies but one limitation is due to these policies' linear design, which ignores the importance of feedback loops and uncertainty in innovation processes. Such approaches lead to rather poor results insofar that they omit the geographic concentration of R&D and innovation in a few regions and are unaware of the use of new knowledge outside the areas being covered. Moreover, pick-the-winner policies aimed at selecting areas most conducive to innovations and the sectors most likely to create new-economy jobs (biotechnology, nano-technology) can see their usefulness and relevance being called into question (Boschma, 2009). Besides the fact that it is impossible to predict future growth regions or successful sectors since new industries are often the results of spontaneous processes rather than of planned interventions, these policies lead to the adoption of the same activities everywhere whereas industrial and innovation systems are very different and often incomplete (Camagni, 1995). The phenomena of inertia and lock-in thus lead the great majority of regions to fail to develop these industries, resulting in huge losses of public resources.

These analyses draw support from the changed perception of innovation processes: from a purely linear model to the interactive one (Lundvall, 1992). Whereas the linear model, based on the Taylorist structure of production, described innovation as an unwavering process going from an initial idea to production to commercialization, the interactive model emphasizes the interactive and iterative nature of innovation between closely linked organizations at various

stages of its development. Innovation is thus considered a social endeavor taking shape in a diversity of geographic configurations (Wolfe and Gertler, 2002). The linear model describes a spatial division of work based on a specialized functional hierarchy, with some regions benefitting from the positive effects in terms of income and growth due to their positioning and specialization in R & D activities. In contrast, the interactive model accords greater importance to the close relationships between knowledge users and knowledge creators through their geographical proximity and/or ICTs. Consequently, territorial institutional contexts are keys to explaining the potential and success of innovations with some areas proving to be much better than others in producing or adapting innovations (Malecki, 1997).

The question of the scale at which the innovation process takes place in association with the dynamics of development is also an essential element of the debate. Based on work on national innovation systems (Lundvall, 1992; Nelson, 1993; Freeman, 1995; Amable et al., 1997), studies have been conducted on how these systems are deployed at the regional scale. They have sought to understand under what conditions local and regional networks and institutional mechanisms were more or less favorable to innovation and what were the conditions propitious to their adaptation and permanence over time (Lundvall and Maskell, 2000). These studies resulted in approaches of regional innovation systems (Cooke and Morgan, 1998) seeking to find ways to anchor innovations in territories and attempting to identify conditions leading to efficient and successful systems. This research insists on the importance of the presence of certain elements such as physical and technological infrastructure, R&D links between industry and universities, highly qualified workforce available on the local labor market and the existence of venture capital mechanisms. Also necessary are fewer tangible factors relating to the local social environment such as local know-how, a regional technical culture and proximity to collective cognitive frameworks. The role of regional and local institutional mechanisms appears therefore essential to reduce uncertainty and to support coordination and collective action conducive to innovation processes. Efficient systems are thus characterized by a high level of local interactions and interdependent relationships where innovation is supported and encouraged by public or private organizations.

II.2. Innovation through knowledge creation

More recent works highlight the central role played by knowledge and its implications for territorial and regional development in association with innovation processes. According to these studies, development can be understood as the transformation of a set of assets consisting of products poorly developed and exploited by an under-qualified workforce into a set of knowledge-based assets exploited by skilled labor, with information regarded as an essential raw material (Lundvall and Maskell, 2000). Learning ability is thus revealed to be essential to the adaptive potential of territories and regions for their development. Learning is considered a collective, social and geographical process which brings about an improvement in individual or organizational understanding and capacities.

Some studies put emphasis more on the tension between individual representation and decision making and collective innovation, thus bringing the processes for creating and disseminating knowledge to the fore in the analysis. In this perspective, approaches based on territorially rooted communities of practices are marked by the use of an original conceptual framework to highlight the importance of routines and networks. Such approaches are similar to work on creative cities (Cohendet and Simon, 2008) and on evolutionary economic geography (Frenken and Boschma, 2007).

Finally, interdependent non-market relationships between institutions are key to a territory's or region's performance as measured by innovation, productivity growth and development. Relationships of trust – as well as high levels of tacit knowledge and the existence of routines – determine the structure of local mechanisms of cooperation and coordination. They can then be viewed as relational resources conducive to an increase in learning abilities and to the creation of benefits that other territories will find hard to replicate. In such a perspective, urban spaces and, more generally, urban territories are considered favorable to innovation and to knowledge creation due to the cognitive externalities they can generate (Scott and Storper, 2003).

The recognition of the role of innovation, knowledge and learning in the processes of regional and territorial development has had an impact on the evolution of development policies, which are now most often characterized by a set of infrastructure-oriented interventions (transport, high-speed telecommunications, etc.). These policies also extend support to less tangible elements such as network structuring and knowledge transfers in order to strengthen collective capacities of knowledge creation and learning. The challenge then remains to build assets that are endogenous to the territory. This is an objective that requires the mobilization of local forces in an interactive framework where the logic of experimentation (marked by an acceptance of the trial-and-error method) takes precedence over the implementation of predefined solutions, notwithstanding the constraints of public finances. This is why such mechanisms of public intervention are best assessed in the context of their construction rather than being assigned a universal value. Nevertheless, any examination of strategies pursued at the territorial or regional level (in addition to within a same national framework) shows the relatively low creativity of solutions put in place and the difficulty of most territories to differentiate themselves clearly and sustainably.

II.3. Towards territorial innovation.

Even though there has been undeniable progress over the last twenty years in the understanding of links between innovation, knowledge, learning and regional development, the theoretical models therefrom advanced are still characterized by the diversity and weakness of their conceptualization and formalization, as well as by an unfortunate lack of clarity in messages destined for decision makers seeking to improve public policies. Often based solely on high-tech activities, oriented by technology and by a market-focused corporate culture, these proposals narrow the field of innovation to the most technological of dimensions. In this way, they neglect not only incremental innovations but also ignore many territories which do not adhere to high-tech principles but are still characterized by other sorts of vibrant innovation activities (social, organizational, institutional, etc.). Furthermore, apart from a facade of semantic unity based on their underlying concepts, these analytical models represent, in reality,

different visions of the dynamics of innovation – hence the difficulty in establishing a clear theoretical framework.

A way forward on these issues, and in particular on including the question of innovation in an analysis that encompasses all territories, including rural ones, would be to broaden the debate to take into account the concept of territorial innovation in all its dimensions. Such a debate should lead to an improved understanding of the progress of humanity at the territorial scale (Moulaert and Sekia, 2003) and to permit analysis of innovation models actually useful to local communities. Some approaches, for example the work of the Group for European Research on Innovative Environments (GREMI) on the concept of the innovative milieus (Camagni and Maillat, 2006), have investigated the concept of territorial innovation in the most rural or underdeveloped territories based on organizational innovations and on the mobilization of local populations. The rules for collective action and institutional mechanisms are then considered as factors explaining innovative territorial dynamics. Innovation is viewed as a social construct conditioned by the geographical context in which it occurs; rooted in practices, it is therefore necessarily located in the space. The issue of territorial innovation is also addressed by the emerging fields of social and solidarity-based economy and sustainable development (Zaoual, 2008). New concepts have been created such as that of social innovation (Klein and Harrison, 2007; Hillier et al., 2004) which describes a set of corporate innovative practices in response to social needs which have been little met or unmet and/or implementing processes to incorporate an approach for social transformation over time. These initiatives show the prominent role played by territories as crucibles of new forms of organization and of innovative partnerships, both in urban and rural areas.

III. What form of governance to help innovation emerge in rural and periurban areas?

Originally centered mainly around economic aspects, the analysis of the development process has gradually opened itself to the question of innovation by considering the interplay of local social and institutional relationships as well as the interactions and overlaps between geographical scales and levels. This increased complexity requires the issue of territorial governance to be addressed not only with an objective of helping innovative processes to emerge but also of incorporating the various aspirations and wishes of the local populations and to link them with overall policies and regulations.

Territorial governance processes are today undergoing intense upheavals. These latter shapes the phases of territorial innovation and thus constitute an engine of development and growth in rural or urban territories. Such governance mechanisms can be viewed as laboratories of change because they accompany and sometimes anticipate the changes underway in the territories by giving them shape, by helping maintain a dialogue and expressions of opposition and by preventing violent confrontations or failures of development due to sluggishness or expatriation. These changes are embodied in the opposing and twin forms of conflict and consultation which constitute the modes of expression and the vehicles of transmission of ongoing innovations at the territorial level.

III.1. Consultation and negotiation to define a shared vision

To begin with, this concerns negotiation mechanisms, in particular those of consultation and their implementations at the local level. According to Beuret (2006), we can distinguish between different types of operations, characterized by increasing levels of involvement, that can be called upon within participatory approaches and which contribute at various levels to

the territorial governance processes. Communication methods are used to convey messages and to obtain public support for proposals. Instead of relying on the balance of power, these methods can be used as part of participatory approaches, for example when it is a matter of convincing some groups that it is in their interest to participate. Information can be used to transmit data that would allow target individuals or groups to form an opinion and to participate in discussions. The actors' views can be ascertained via consultations but without any express guarantee that they will be accepted. Dialogue can draw participants closer together and lead to the establishment of a common language and references. Consultations encourage joint action and decision making and can be used to build a collective vision or goal and to set up joint projects. Finally, negotiations can be used to reach a decision acceptable to all participants.

In recent decades, these mechanisms have resulted in inventions and interventions of various kinds, all with the common purpose of facilitating the implementation of the consultation paradigm. The work of Ostrom (1990, 2005) is a successful example in creating mechanisms for governance of shared natural resources through the prism of property rights as defined by local communities. Nevertheless, it must be admitted that, on the whole, these mechanisms do not seem to be fully stabilized; in fact, they have set off debates and generated many controversies on their utility (Blatrix et al., 2007, Mermet and Berlan-Darqué, 2009). A relative consensus has, however, emerged to acknowledge that various forms of participation by private or semi-public actors in debates or in public decision making does lead to more harmonious and democratic territorial governance processes. The result is a number of territorial governance mechanisms and tools. Examples from France are the 1983 Bouchardeau Act and the 2002 Law on local democracy; increasing complexity of the decision-making process relating to public infrastructure projects with the declaration of public utility, public hearings, and the setting up of the National Public Debate Commission; consultations before the creation or revision of urban master plans; and consultative commissions on local public services and utilities.

The consultation processes, characterized by a cooperative intent, form an important laboratory of coordination for improved territorial governance. The collective construction of

these processes, based on the establishment of a structured and sustainable relationship between actors willing to share information, discuss problems or specific issues in order to agree on common objectives and possible collective action (Bourque 2008), distinguishes them from other forms of cooperation and public-action participation. This consultative approach therefore encompasses 'processes of collective construction of visions, goals and joint projects in order to act or decide together' (Beuret, 2006). It can also be used by a third-party actor, such as an agent of development, to encourage coordination between various parties. It takes shape on stages – or arenas – around which revolve exchanges between groups of persons and entities characterized by the same actions relating to the subject under discussion and by the same attitudes and stances. In its history, the consultation process has often been subject to one or more controversies but the fact remains that its script is not written in advance and has to be developed on the fly as it follows a path of consultation.

III.2. The role of conflicts in the processes of innovation

Our research into conflicts in rural and periurban areas (Torre et al., 2006, 2010) shows that this dimension is also key in processes of territorial management, regional development or the governance of various local activities. It appears in the form of litigation, media events or violent protests. In most cases, land-use conflicts are not blind oppositions or purely egoistical in origin but constitute a way of initiating discussions on the issues and paths of territorial development and of influencing decisions by participating in processes underway from which one had been excluded (Dowding et al., 2000). That is why they have a bearing, either on the decisions on land use and management (arbitrated negotiation) or on the composition and representativeness of the bodies responsible for taking decisions (arbitral negotiation). The conflict thus becomes an integral part of the deliberative process at the local level by allowing an expression of local democracy and the preinclusion of participants who were forgotten or deliberately excluded during earlier project development stages.

Land-use conflicts thus constitute one form of resistance and expression of opposition to decisions that leave part of the local population unsatisfied (Darly and Torre, 2011). Some local innovations, whether technical or organizational in nature, give rise to resistance which can turn into conflict. Major changes requiring reconfiguration of the use of space (creation of transport, energy or waste processing infrastructure, new urban master plans, territorial or environmental zoning, etc.) generate conflicts whose spatial and social extent can quickly grow. Conflicts are signals of social, technological and economic changes, indicators of novelty and innovations. They demonstrate the opposition aroused by the latter, lead to discussions on their implementations and their possible (non-) acceptability as well as on the adoption of governance procedures and their transformation under the influence of the dynamics of change. All changes encounter opposition or resistance of varying relevance and justification. But it would however be simplistic to see this resistance as a systemic sign of reactionary opposition to change because, in a number of cases, they are more a reflection of differences over the direction taken by the new initiatives that are being imposed on the public than of a stubborn desire to maintain the status quo. During these phases of conflict, social and interest groups tend to reconstitute themselves and may even undergo technical or legal changes. Once a conflict ends, it leaves behind new local agreements, new modes of governance, new configurations of discussion forums as well as new technical procedures (changes in direction, various adjustments, changes in urban planning documents, etc.), all arrived at during the negotiations. Harbingers of territorial innovation, conflicts are thus both the result as well as the cause of territorial changes.

Territorial governance is therefore not limited to an idyllic vision of economic and social relationships, i.e., to forms of cooperation and common constructions. It is also involving interactions between forces favoring cooperation and those pushing towards conflict (Torre and Traversac, 2011). Far from resembling a smoothly flowing course, territorial development processes and their implementations over time are made up not only of processes of negotiation, collaboration or appeasement but also of more lively or confrontational phases during which some groups or category of actors face off, sometimes violently, in order to define

the way forward and to make choices. The process of territorial governance therefore presents two complementary aspects whose mutual importance varies with time and situations. It feeds on these opposing tendencies (Glazer and Konrad, 2005), with their synthesis and combination revealing paths of territorial development.

Part II: Characteristic of the territorial innovation.

Chapter 4. Innovations and Resources

INTRODUCTION

In a general context of transformation and recompositing of rural territories, we note that at European level there is no process of convergence of the trajectory of rural territories in the strict sense, but there are strong spatial contrasts. This complexity of rurality is accompanied by a diversification of agricultural systems and dynamics through the mobilization of new resources which benefit the quality of agri-food products. The quality policy being carried out in France and Western Europe is thus the corollary of the emergence of new forms of rurality and the consequences of the Fordist model and its effects in economic, social, spatial and environmental terms. Indeed, the emergence of agri-food quality is to be linked to the major contemporary transformations which contribute to increasing the uncertainty on the definitions of the product, with the consequence of making quality "a socio-economic issue of primary importance in current economies". Even if the concerns about quality are very old, the products under official sign of quality and origin will know a real expansion from the 1980s. What is called quality is also quite complex, but it can be grouped into two main families: generic quality, which calls for standards and therefore objectified rules (e.g. health standards, organic farming) and the specific quality, carrying its own characteristics, localized and not reproducible as is the case of products linked to the soil. The conditions of its emergence can be understood from the point of view of the territorial construction of the product or of the quality (analysis in terms of actors and resources), but also from the point of view of the "agricultural context", in terms of operating structures, orientation, etc., in which quality emerges. In a world marked by an increased differentiation of territories, the construction of quality can emerge within marginalized territories which are in search of renewed development levers.

These territories can be characterized by their ability to adapt to globalization, and by the way in which they organize their resources. In fact, despite certain major converging changes in rural areas such as the decline in agricultural activity, the tertiarization of activities, etc., since the 1980s, we have witnessed an increased complexity and differentiation of the territories, particularly around quality, in extremely diverse regional and national contexts. This is why today, to perceive the challenges in terms of development and territorial qualification, preservation of resources, territorial recompositing, and the leverage effects they represent, the look at the issue of quality must continue. to be renewed, in particular on a larger scale than the local one. In this objective, we propose an approach at the interface between rural development, rural geography and regional economy in order to confront the question of quality with that of the development of these rural territories. Replacing quality in a development objective should allow us to question in a new way the conditions for the emergence of qualification.

Quality is often expected by society, both in deeds consumption but also in many other circumstances which sometimes express concerns among our fellow citizens. It is constantly displayed by the media, mentioned by manufacturers or by companies that legitimize their behavior or their economic or production action in a context of sustainability and environmental protection.

There is a border between a pure verbal invocation among the actors and a real improvement in goods, services or behavior; this border can be thin or, on the contrary, vast and therefore creating sources of ambiguity. However, quality is a concern of consumers, businesses, or states for at least three reasons:

First, the increasing wealth of nations made the consumers or users who are more demanding about their purchasing possibilities; fashions and their standards of living intermingle to form a "quality of life". Quality of life is a relative notion, it is a "differential" concept since individuals do not integrate the same things into it. Depending on our experiences, our experience, the quality of life can be built. Or more precisely, what is judged as contributing to quality of life or

not can be arbitrated. Everything happens as if, initially anyway, the quality of life was common to everyone. It's an intrinsic value. Subsequently, things change and are transformed and we no longer conceive, individually and each other, the same "quality of life". There are, in a way, multiple worlds between each individual. Over time these boundaries emerge and we would have, it seems, an area in which acceptance or rejection of lifestyles and standards of living operate. One might even wonder if it is not a function of the "intelligibility" that one grants to one's experience and to the territories that one treads. Depending on the level of training, of education that one has, the quality of life can be a representation and become an endless quest when it is perhaps simply what one sees in front of us every day. Is it an awareness of what we are in our environment, in our environment and which is offered to us after each of our actions, our reflections? We can assume that the quality of life is also based on the management of paradoxes, some of them are linked to the condition of life and of our actions in society.

Finally, the quality of life can be confronted with its accessibility, multiple forms of "distance" will appear which will lead the individual to seek to attenuate them as much as possible.

Second, the expansion of market size through the process of regional integration and globalization of trade has increased competition between firms, pushing to focus on quality. This is a well-known mechanism and one which is probably more prominent today in a context where major economic regions around the world must take advantage of their advantage in this area. This is how we can observe, at European level, a specialization of national economies on quality scales. The European Union as a whole is positioned in high-end products thanks in particular to the countries of northern Europe in the industrial sector.

Third, modern societies are organized into production, communication and transport networks, which makes them dependent on the performance of this network. Juran (1999), one of the promoters of the notion of total quality, took the example of his native village in Romania. For him, quality had little meaning in his native village in Romania. Stopping public transport or electricity was no problem because "everything" was accessible in the village and its surroundings: all you had to do was walk a little. In his example, individuals were able to

compensate for network failure by adjusting to these new situations. With the growth of technology and networks, “our” dependence on the risks of product and service failure has become total and it is this problem which is today central to the perception of quality, which does not is not necessarily identifiable a priori, but which becomes understandable and identifiable a posteriori when a failure of a product or service occurs in a territory.

Thus, the creation of wealth has been accompanied by a growing complexity and fragility of organizational methods and exchanges. Strategies around quality are one of the responses to stem this fragility. With the help of standards, guarantees, contracts, companies seek to develop reliable production processes, from their supply of raw materials to the use made by the consumer of their product or service. In the area of networks, standardization is also increasingly important in order to avoid blockages that would arise as a result of congestion or network failure.

Quality is a multifaceted concept and at the same time represents a common trait to be achieved in many situations. The complexity of its definition generates a variety of components, especially when we talk about food quality, this will be broken down into health quality, organoleptic quality, nutritional quality or quality of use for example. It is indeed a complex construction that calls for the will of actors to converge towards this objective. Quality is often amalgamated with the issue of traceability is something different since it is the idea of building a route from raw material to final consumption without necessarily guarantee of quality. Quality always has a positive connotation marking the value of an element, of an object with a certain capacity. A quality is also a characteristic or a set of characteristics. It can also be intrinsic, the object has a quality independent of all other characteristics, or relational, in the sense that it has relative to others, characteristics in a possible set of characteristics.

Definitions exist in the literature, but we will simply turn to two definitions. A first extract from the dictionary, the 1993 edition of Petit Robert, defines quality as "what makes something more or less recommendable", or even as "the higher or lower degree of a scale of values. practice ". On this first definition, what is striking is that quality produces a social relationship in

the sense that the thing that is qualified is recommended or not by a person or an individual, this is what engages this individual. Quality can be the result of a social process, and therefore social acceptance. The second variation amounts to dealing with the question of uses in the sense that practical values are the result of a qualification process and not one of the elements of composition of this qualification.

Another definition on an international scale is the International Organization for Standardization (ISO) which offers it: "Quality is all the properties and characteristics of a product, process or service that give it the ability to meet implicit and explicit needs. »Explicit needs can be translated into quantitative indicators, while implicit needs are by definition non-quantitative. There is therefore, through the ISO definition, a degree of interpretation of standards and labels which means that the implicit dimension can dominate within a company. This may be the case with the quality of life which will be based on subjective judgments which cannot or with difficulty be translated into quantitative data. The common point between these definitions is the existence of classifications depending on the individual's judgment. On the other hand, establish a classification on the basis of quality, prestige or character, considered as important. The term of quality includes different notions, which vary according to the type of products or services, the social contexts or the historical periods considered.

Quality therefore incorporates a double component, both market and not market, which can be combined. In its dimension no market, quality can encompass multiple considerations such as environmental values, social values or values in terms of knowledge which will make it difficult to estimate its importance in the qualification process. In this logic, we can ask the following question: how does the territory intervene in this relationship with quality and what does the territory contribute?

Through the issue of territorial qualification, it is good this is what it is about when we question the relationship between quality territories and resources. In this introduction, it is difficult to define the notion of territorial qualification because it is the subject of an evolution in the sense that rural territories are no longer the only ones to be solicited by this process. A very

significant number of areas, and we can also think of maritime areas, are subject to qualification as marine reserve areas for the protection of the seabed and their coastline. This shows the importance that the territorial qualification represents today both as a concept allowing to understand the way in which societies perceive the territories today but also as an instrument of public action which could future, become operational in many local or regional situations.

More cautiously, the territorial qualification can be mobilized by terms of concept but also as instruments of public action in order to be able to reintroduce rural planning into the challenges of regional planning. The territorial qualification brings together a number of justifications:

- it makes it possible to understand the recomposition of rural activities carried out by logics more internal to the space, which sometimes lead to the empowerment of territories and the development of a more specific model of rurality;
- it is also a tool for managing the reoccupation of European countryside because in this situation, contemporary rural recompositions are underway and affect the European space as a whole, from the West to the East as well as from the South to the North;
- it also makes it possible to make the relationships often intelligible complexes that operate between urban and rural areas through questions of mobility and more precisely, in the reconstruction of local food territories.

Investing in this field of territorial qualification should make it possible to synthesize the debates of many researchers who today are studying the issue of territorial development.

According to us, territorial qualification is a way of doing territorial development, because it encounters the same questions as territorial development but in a synergy where quality becomes the pivotal element of a form of recognition and justifications for development. We can therefore reasonably propose our contribution to a broader hypothesis concerning "the qualitative planning of space". This formulation, which remains in the minority in the planning

community, encounters a number of difficulties because development is too often still perceived through families of material objects that cover our rural and urban areas.

Quality, resources and territories through the prism of qualification

For the geographer, the territory is a natural and social space occupied by a social group which appropriates it and with which he can identify[10]. Territoriality[11], for its part, results from relationships that are both individual and collective and between actors (or agents to use economic terminology) with their spatialized environments, and it is therefore a multidimensionality of the territorial[12] experience of each socialized individual that is reflection and expression[13]. In this approach, interactions are above all spatial. The flows, the territorial changes, the processes of constructions and representations dictate the economic dynamics and the latter in return produce traces and stigmata that forge or reorganize the space and the forms of territoriality. This "feed-back" movement is often left to the economist alone who explains territorial changes by that of the economy, while many disciplines make their contribution to the understanding of spatial processes. Few of the work of economists who consider space as an actor in economic and social life and whose impulses or even the origin of its dynamics emanates from space itself. For the economist, space and territory are thought of as the result of economic actors who acted in a given time and from a given place. Institutions, companies, markets generate spaces (or places) of coordination from which the dynamics are set up in diversified frameworks. In fact, the initial spatial differentiation is never a trigger for the coordination of actors, the causal relationship will only flow in one direction where institutional, entrepreneurial market rules can free themselves from spatial roughness.

Through this question arises that of inherited elements that go much more than before, take action and explain certain dynamics current economic and territorial. We want to start from a double entry. On the one hand, space is a social construct and at the same time time, it is a

[10] Di Méo G., Buléon P. (2005). *L'espace social. Lecture géographique des sociétés*, Paris, Armand Colin, 304 p.
[11] Vanier M. (2008). *Le pouvoir des territoires : essai sur l'interterritorialité*, Paris, Economica, Anthropos, 160 p.
[12] Raffestin C. (1980). *Pour une géographie du pouvoir*, Paris, Litec, 250 p.
[13] Levy J., Lussault M (2003). Territorialité, in *Dictionnaire de la géographie et de l'espace des sociétés*, Paris, Belin, p. 919.

producer of effects that come into action because they are appropriate and condition the dynamics of territories in general because space is also an area where the results of history accumulate. Production activities in this hypothesis can be tangible and intangible, which makes it possible to say that the types of resources mobilized can have very different statuses and characteristics. But also, going beyond the idea that space is a "black box" is useful in particular in the discourse of multidisciplinary which today is necessary for the understanding of territories and their development. If economists are not disinterested in geography, science for a long time, economics considered space as a given and, in fact, led to a split between geography and economics to the point where the latter has dominated the social sciences for the past thirty years. Economists believed that space was not manipulability, was not variable and contained elements that were relatively fixed but were nevertheless useful for the development of market economies and societies. But it can be under certain conditions, or rather, the territory where it registers can be manipulated.

Our starting hypothesis is as follows: *The quality of space can under certain conditions be the incubator of production and consumption processes. In the issue of territorial qualification, this is an angle of approach that should not be overlooked in order to make the current territorial dynamics intelligible and to understand the governance and planning processes of certain areas at stake in terms of development.*

The economist's tools to advance in this direction are few many because the angle of the quality of space has so far generated few emulations. It is therefore necessary to build our reflection in several phases; the conception of space in economics can sometimes integrate its qualitative dimension. This characteristic, on the other hand, is fully contained in the industrial economy, part of the regional economy and its derivatives. Secondly, it is also the way in which the qualification instruments will institutionalize the link between space and territorial dynamics. From these interrelationships arises the question of both the process of anchoring labeling and the shifting of systems from qualification to the phenomena of valuation and planning. Is the designation of origin system, for example, still a transferable model and how are other devices or instruments today inspired by territorial qualification to evolve?

Quality, resource and territory: a triptych to be used?

In general, the question of qualification is related to meters in relation quality / resource and territory search objects in a non-juxtaposition context other than co-construction. In the preceding trajectories, we identified three aircraft in the field of agriculture, for example, which reduce the qualitative quality of terrestrial products on the basis of a territorial qualification of the agriculture, including the Terrorist agriculture is non-localizable under its own identity, and since its territory is non-transportable it depends on the localization of physical capital and formal capital in both transportable areas. It is important to position the place of each "object" in these articulations.

A) A need to articulate concepts to go beyond their limits

1) Quality and space: what links?

The space in the economic literature is related to the interchange. Space is the receptacle of economic activity. The general idea from this point of view is that activities, even if they are local, can be related to space. Its only consideration concerns commercial exchanges through distance which will generate private costs. The outcome of this process is that the space, indirectly, engages a specialization in the production of goods for which the territory has the economic advantages the most important and significant. More recently, this exchange approach has led to the integration of the mobility of factors of production in the international economy (example of inexpensive labor in some countries). The failure of this approach lies in forgetting the increasing returns. The theory assumes constant returns and concludes that the wealth produced in the territories subject to exchange is equalized, which is a conceptual utopia. On the other hand, distance finds an interest in the fact that part of the territorial qualification integrates the processes of exchanges and mobility that should be questioned.

Space as a location for activity has also been an important source of inspiration for the space economy and part of the regional economy. In this set of works, the space is metric. The location of agents (consumers or producers) depends on choices calculated on the basis of an optimization of their preferences under cost constraints. Transport costs are integrated so as to

establish a trade-off between several possible locations. The economic benefits of a preferential location come down to maximizing the utility (satisfaction) of the consumer or maximizing the supply (quantity produced for a producer). This same analysis can also be formulated when several agents distribute the space. Hotelling's model (1929)[14] with the example of ice cream vendors on a beach illustrates the role of other agents in the choice of location of two producers in relation to a linear market. More recently, the industrial organization of firms has gone in this direction, considering that one could distinguish between the choices of economic activity and the choice of location. The choice of a location does not have the same frequency as the choice of the production activity, the costs and their management do not have the same temporality. However, if we take into account the more qualitative elements of the space, the location of activities can partly reflect processes no longer linked to cost logic in the strict sense but to elements that are not always integrated into the market rules. It is also the design of space in terms of the location of an activity linked to the living environment that should be retained. Work on rural areas in the mid-1980s and developed more recently [15] have shown that part of the choice of location of the economic activities of certain rural households could be based on elements related to quality of life. It has been demonstrated, for example, that the very complex location of industrial activities favored the living environment in contexts where the business economy was based on know-how almost exclusively[16]. In this case, it is the location of people and their knowledge that is favored over that of other forms of resources such as market logics linked to distances, which shows the importance, for example, of know-how in certain forms. location. In the 1990s, for example, we observed that a large part of the new forms of wine-growing activity in Languedoc-Roussillon chose a prestressed location on terraces or benches on the outskirts of the Languedoc hinterland. These neo-rural winegrowers chose this location no longer simply because of the ability to work the vines in a logic of profitability, but sought the location in connection with a

[14] Hotelling H. (1929). Stability in competition, *Economic Journal*, cité par P. Aydalot (1985). *Économie régionale et urbaine*, Paris, Economica, p. 42 et sv.
[15] Chevalier P., Dedeire M. (2009). Entreprises non agricoles et facteurs de localisation : quels avantages à la localisation rurale ? *Revue Économie et Management MECAS*, 4, p. 115-129.
[16] Chevalier P., Dedeire M., Michun S. (2007). Ressources entrepreneuriales et territoires ruraux, *Revue de l'économie méridionale*, 217-218, p. 27-51.

certain type of wine to be produced responding in addition to a relocation of the vineyard in these deserted areas since the 18th century[17].

Space, under certain conditions, can be identified with characteristics of an economic good. The central idea of this approach is to consider that goods have, in part, spatial characteristics, an idea that is relatively common in products or services. The fact of having a color (for a car for example), an engine and also an immediate availability on the place where you wish to acquire it constitutes an additional characteristic for a good. Moreover, in real estate logic, spatial differentiation by the characteristics of the property is almost systematic. The absence of this characteristic means that location is treated the same as other characteristics. Space is therefore implied in the choice of an agent or a consumer. By extension, we can consider that to meet all of their needs, consumers will travel to several places, which changes their preferences. We have worked on this issue in certain works[18] by paving the way with "the processes of choice built by the consumer in space". In this work, management sciences imagined that part of the choices could be changed over time. By extension and in connection with the question of qualification, we have built a reflection on the importance of places and spaces in the construction of representations and therefore of the characteristics of economic goods associated with these spaces. This territoriality is thus constructed or reconstructed through this process.

More recently, some work shows that space is a source proximity[19] effects. A large number of firms located in a region leads to a wide variety of goods offered locally. The competition is also strong, which theoretically leads to a fall in prices in this region. The diversity of goods offered and favorable price trends are a source of attraction for consumers which leads them to choose this location. This grouping of consumers in space reactivates the attraction of producer sellers who will be tempted to locate in this region. In tourism economics, this mechanism is frequent.

[17] Dedeire M. (1995). Recomposition sociale et reconquête économique des milieux ruraux agricoles : entre terroirs et territoires, *Cahiers de l'économie méridionale*, 19, p. 59-95
[18] Dedeire M. (2001). L'appropriation des signaux de qualité et l'attribution de valeur aux produits ruraux : une conjonction du temps et de l'espace, in A. Berger (dir.), *Dynamique rurale, environnement et stratégies spatiales*, Montpellier, Service des Publications de l'Université Paul Valéry, p. 425-438.
[19] Torre A., Beuret J.-E. (2012). *Proximités territoriales*, Paris, Economica, Anthropos, 112 p.

A dynamic effect can be initiated and becomes a generator agglomeration of companies in this limited space. Other forms of externalities may also operate, Marshallian or location externalities (the honey producer and the farmer) or the externalities linked to technologies for example are "qualitative complementarities". Psychological externalities can be integrated by considering the advantages and benefits that individuals experience in one place over another. This point is also a way in the problems of tourist territories which play on the territorial qualification[20]. Informational externalities can also influence the consumer or the producer, they can play a role of training and retroactive effects (positive or negative) on the economy of a territory. There may be situations where proximity intolerance exists. The model of Schelling (1980)[21] presents situations where a modification in the location of a company of the same activity modifies the location of others. The relationship with the neighborhood is disrupted by the relocation of a company, which generates dissatisfaction among the remaining companies. The transformation of the initial environment leads companies of the same activity to come together in a single territory where the neighborhood is exclusively made up of competing companies. In the qualification process, proximity is essential.

Space can also be seen as a scarce resource. This latter conception considers the relative and absolute scarcity of space as a resource[22]. The characteristic of space and its market consists in taking into account an inelastic supply and a perfectly elastic demand which currently constitutes an atypical market compared to other resources or factors of production. The scarcity of space and its value can also integrate a qualitative dimension. The land rent resulting from relative scarcity can in certain cases take this dimension into account without however being explicit. Ricardo, for example, on the differential rent was the first to take into account the quality of the soil to explain the value of a land. Soil productivity can in this case be a valuable element of this quality.

[20] Point que nous développerons dans la partie III.
[21] C'est l'idée d'intolérance de la proximité, in T. Schelling (1986). *La stratégie du conflit*, Paris, PUF.
[22] Aydalot P. (1985). *Économie régionale et urbaine*, Paris, Economica, 487 p.

By way of conclusion on this first point, we will note that the whole Concerns of Economics centers around the issue of firm competition in space because it is considered homogeneous. Few of the initiatives situate the role of the attributes of space in economic analysis. However, recently, this problem has become active and the scientific community, on sometimes opposing themes, converges on a central point, the quality of space as a resource for the development of territories. When one questions the quality in its relations to space, little work provides food for thought, while the stakes are high. How is quality integrated into economics and what are the approaches to the quality of space?

The quality of space as a determining factor in locations of activities is a little exploited niche because it is considered as little determining. Systematically, standard microeconomic models that are interested in quality assume that it is always contractualized a priori. It is hypothetically a given from which one never knows where it comes from and how it is constituted. In the literature on this issue, we usually distinguish two fields in which the economy of quality takes its place: industrial economics and the economics of conventions[23]. The first is part of the orthodoxy in economic thought and considers quality as a given, while the second is sensitive to the social construction of quality as a mode of non-market coordination.

Quality and space: a dimension to focus on territory planning

Since the mid-1990s, the territory has gradually invited and imposed in social science analyzes, first in geography, then regional planning and sociology. Object Many debates, often contested, the notion of territory occupies an important place in these analyzes to the point that some evoke a science of territory like Vanier (2008)[24]. Referenced for a long time to physical criteria of the environment, or to socio-economic or planning policy questions, it has an increased "reality" with the perception that the various actors who operate there have of the phenomena of globalization and consequences that result from it. Even if the territory is by nature pluri-

[23] Ce terme d'économie des conventions est un peu usurpé, certains préfèrent parler d'école ou de théorie des conventions car elle se positionne entre la sociologie, la gestion et l'économie.
[24] Vanier M. (2008). *Le pouvoir des territoires : essai sur l'interterritorialité*, Paris, Economica, Anthropos, 160 p.

scalar articulating local, national, global scales, etc., in constant back and forth[25], it is manifest and perceived as such in a local dimension, because it can appear as a refuge, in reaction to the dominant processes of globalization of exchanges, cultures and societies. Refuge, or simple component of this globalization, its topicality asserts itself all the more since we are in the presence of modern and industrialized societies, allowing to find in the territory a specificity recognized by its own actors but also by the external actors in terms of location.

The definition of a territory, in a dynamic and proactive dimension of enhancement and development, is based on three sets of characteristics.

The first, the most commonly mentioned, groups the parameters physical aspects of the space concerned: nature of the relief, climatological data, nature of land occupation and use, presence of spaces qualified as natural, etc.

The second set is based on the potential of the environment, potentials already operational or likely to be developed. These local resources may see their appreciation evolve over time. What could be considered in the past, in a different socio-economic, demographic and technological context, as a territorial disadvantage, or more simply completely ignored, can now turn out, in a different context, as a favorable asset for the territory. This process is all the clearer that the effects of globalization often play in this direction. Conversely, advantages that will be qualified as historical may appear now or in the near future as negative for the territory or quite simply no longer play any role in the framework of territorial development[26].

The promotion of territorial potentialities is associated with the concept of quality. It is indeed through the qualitative affirmation of one or more resources that local officials will have to rely on to build or rebuild a development strategy. Quality is not only limited to the technological dimension of the production process, the zero-defect approach is only one component of the concept of quality, itself inscribed in the framework of global competition. Indeed, this renewed quality covers multiple realities, ranging from the affirmation of the specificity of certain

[25] Di Méo G., Buléon P. (2005). *L'espace social. Lecture géographique des sociétés*, Paris, Armand Colin, 304 p.
[26] Une publication récente sur cette notion est proposée par Campagne P., Pecqueur B. (2014). *Le développement territorial*, Lausanne, Charles Léopold Mayer, 268 p.

products which thus allows them to extricate themselves from a dominant and globalized market to position themselves on more restricted markets, sources of more- capital gains, to the renewal of local human capital through migration.

The third set is based on the nature of the different actors who intervene in the territory. They can be actors who are located there as well as actors outside but intervening there. They can also be actors of very different sizes, which some refer to as mesoactors, regional actors or local actors. Behind all these categorizations of actors, the human factor is always present and essential. The specific characteristics of populations, the emergence and role of certain groups or certain leaders appear to be major factors in determining the territory and the strategies put in place for its development. The territorial analysis must therefore be carried out based on these three groups thus designated, focusing more particularly on the interactions that are emerging between them and on which a development logic must be based.

a) The three challenges of quality territories

The territories of quality lead to questioning three issues. The first is that of the potential for disseminating quality within territories. Then, to the extent that it consists in understanding how the actors appropriate the organizational process of quality and how it becomes a fundamental element for the territory, it is about questioning the potential for appropriation. Finally, the last issue raises the question of the identification and differentiation of quality assuming that the latter is an emanation of the situation organizational and structural of the territory.

- A challenge in terms of distribution

The qualitative lift of the territory, that is to say the capacity of a territory to "take off" a qualifying project, is determined by the qualitative elements that compose it. This lift reflects a kind capacity of a territory to support a qualitative load. Its dissemination is possible, not because of the concentration of territorial potentials and more generally of territorial resources but rather by the quality of the territorial anchoring of which they are the object.

The territory's capacity to use quality is also directly linked to the question of the density of its resources or assets. In this sense, we can say that some territories are more apt than others to show a tendency to qualification. In general, even if the territories can develop qualitative lift, the difference between them usually comes from the nature of the quality implemented. For example, the territories of industrial capacity, tourist capacity or environmental quality, are concretely open to dissemination. This trend is in fact more linked to external contexts (innovation, resource, attractiveness of the territory in terms of consumption), that to real intrinsic potential of territory. The latter can then, in this case, reverse its functionalities for the benefit of new forms of attractiveness. The case of tourism is one striking example. As it develops, it can, generally in a related way, generate activities based on other types of functions, complementarities being reinforced and participating in the dissemination of the quality territory. The centripetal forces are, in this case, contained by the forces centrifuges and their capacity to diffuse the qualitative lift of the territory are facilitated. This trend towards homogenization of the territory of quality has the effect, in the medium term, of possibly reducing its development capacities.

The territory also has the potential to disseminate quality to through individuals who use it reactively or cognitively. In the reactive case, the territory of quality translates into a better effectiveness of its understanding and therefore of its use. Make effective uses that we wish to implement by exploiting the qualities of territory refers to questions of efficiency. If we start from the principle that efficiency is an expected result by mobilizing the smallest effort for its realization, in this case, the reactive actor18 is the one who optimizes the quality offered using the decryptors of the territory. This is the example the choice of routes made by individuals. In the situation of a cognitive actor, things are more complex. His representation of territory can be shifted in time and space. This actor, everything being far from the territory, can use the potential of dissemination of the quality. This is for example the case with the consumption of local products which takes place outside the original space. The territory also has a potential for disseminating quality to through individuals who use it reactively or cognitively. In the reactive case, the territory of quality translates into a better effectiveness of its understanding and

therefore of its use. Make effective uses that we wish to implement by exploiting the qualities of territory refers to questions of efficiency. If we start from the principle that efficiency is an expected result by mobilizing the smallest effort for its realization, in this case, the reactive actor[27] is the one who optimizes the quality offered using the decryptors of the territory. This is the example the choice of routes made by individuals. In the situation of a cognitive actor, things are more complex. His representation of territory can be shifted in time and space. This actor, everything being far from the territory, can use the potential of dissemination of the quality. This is for example the case with the consumption of local products which takes place outside the original space.

The type of organization of the territory also has an influence on dissemination of quality. The question of the spatial homogenization of landmarks generates a relationship between a territory and qualitative lift. Conversely, when landmarks are spatially heterogeneous, they make the territory more complex to understand, and therefore partially block its qualitative significance. One of the questions can then be oriented towards the cognitive capacity of individuals and their capacity to carry out a diffusion of quality within spaces thanks to their knowledge. This diffusion, because it is larger than the single portion of an individual, becomes collective diffusion and, by its nature, can go beyond initial boundaries.

Territories of quality then generate new territories of the knowledge. On this point, these territories under construction are created and energized thanks to a society that identifies with them. However, their dissemination potential reflects a difficulty related to the relationship real distance / cognitive distance between the territory and the individuals. In as a result, there may be a gap between the territory of quality perceived and the real where it emerges. This shift can then be conducive to the appropriation of the quality factor by nearby territories. The problem boundary between real quality and perceived quality is a problem permanent quality territories and development to a mission very particular in this case.

- A challenge in terms of ownership

[27] Gaussier N., Laroque P., Cuperlier N., Quoy M., Moga S., Gaussier P. (2006). L'espace au coeur des stratégies individuelles : un regard croisé économie-robotique, *Revue de l'économie méridionale*, numéro spécial Qualités et territoires, 213, p. 79-95.

The first aspect of ownership concerns the relationship, or more exactly the interactions, between individuals and groups. Thanks to their behavior, this appropriation generates a form of co-construction of quality territories. The behavior of individuals consists, for the most part, in appropriating territorial elements likely to give sufficient credit to the qualification of their products, their services or their environment. We then observe forms of competition which can be explained by the search for the appropriation of a territorial rent, a concept proposed by Lacroix et al. (1997)[28]. This rent becomes the object of conflicts and engages the territory in a greater dependence vis-à-vis the qualification process. This situation often disrupts the relationship between producers and consumers. Conflicts of use are recurring issues, especially when they originate from territorial differentiation. These differentiations are, however, a form of economic advantage and an asset for local development, even if conflicts lead to dis-economies within the production system. The increasing complexity of interpretation can make it more difficult for consumers to read the territory as well as for ordinary users of the living space.

One of the last aspects concerns the relationship between collective space and representations of the territory. Marketing develops this question. Society, and in particular the tourist clientele, are appropriating potential, through the territorial dimension of marketing. The latter constitutes a set of elements that people expect to find when they go to "consume" the tourist territory. In this case, customer dissatisfaction can be significant if tourists, when apprehending the real territory, feel a disconnect between the dissemination potential (expressed by marketing) and the reality they perceive.

- A challenge in terms of differentiation

Through identification and differentiation, a process takes place appropriation of the place coveted by individuals, actors of the territory. This identification allows territorial differentiation when the quality is highlighted by the actors. It also highlights different

[28] Lacroix A., Mollard A., Pecqueur B. (1997). La production d'une rente de qualité territoriale comme stratégie de développement : le cas des Baronnies, *33 e Colloque Renouveau régional, renouveau urbain. Association de science régionale de langue française*, Lille, Faculté des sciences économiques et sociales.

spatialities likely to exist between a territory of perceived quality and of constructed quality. The differentiation of quality territories is now bringing new economic dynamics, notably through an upsurge in more distinctive products, more specific to the territories. All in all, we are playing on these differences which offer new market opportunities. The identification of a quality territory is often experienced by users through its historical dimension. In everyday language, tourist or gastronomic territories often combine traditions, which today raises the question of the resources mobilized in their historical dimensions and according to their historical roots.

When it comes to economically developing spaces, quality territories subtly play on the temporal and spatial dimension. Their renewal is as important a problem as the question of their identification because their sustainability is confronted with questions of identification. Can we maintain a territory under a certain mode of production, at the risk of remaining or of being more and more faced with competition from other territories?

Through this question, it is a reflection on the forms of identification that make it possible to differentiate the quality territories from one another. Their ability to disseminate identification is already a form of differentiation. We are very close to the questions of territorial marketing. There is also a real coordination of actors to implement this identification, and to make it known to consumers, users or local populations. This last issue shows to what extent the territories of quality are today constructed territories, developed by the actors in a strategic way, thanks to the organization they implement.

b) Territory and resources: transcending the quality of the territory

The relationships between the organizational processes of territories and their potential as resources constitute the axes currently favored by research on territorial dynamics. In fact, the analysis of the construction and mobilization of resources reveals the dynamics of territories and their challenges in terms of attractiveness. In the process of building territories, recognition around the notion of quality is therefore a major development issue. The environmental

resource, cultural or human, in response to a social demand and its mobilization by the actors, determines a potential currently taken into account in territorial development policies.

Today, in the context of a global economy, a double observation can be made. In a context of increased globalization of trade, sustained development of mobility, lifestyles and consumption have become largely homogenized and have structured the territories accordingly. Their integration into the dominant economic model is then determined by their ability to adapt to an economic system that seeks, in each territory, advantages that meet the demands of globalization. In this case, the competitiveness that exists between the territories emphasizes the mobilization of certain territorial resources, of which social and human capital constitutes a major reference.

Faced with the cogs of economic globalization and the relative standardization of global strategies, more original forms of productive restructuring take place in the territories and generated often fundamental territorial anchors. In the In the context of the globalization of economies, both in the field of production and in that of consumption, we can observe a dramatic and powerful rise in localized practices. As such, new notions based on quality have come into conflict with so-called mass productions. This phenomenon is reflected in a process of re-territorialities of production methods. For example, the territories where appellations of controlled origin (A.O.C.[29] and A.O.P.[30]) are located in France show an economic turnaround of the territories in relation to their position in the national whole without necessarily adopting the dominant model. The number of products with an AOC is higher in the southern departments of the country[31].

- Resources and qualitative strategies

The search for local specificity then emphasizes a development based on small businesses, the mobilization of local resources, both human and material and the development competitive

[29] A.O. C. Appellation d'origine contrôlée - Controlled designation of origin.
[30] A.O.P Appellation d'origine protégée. - Protected designation of origin.
[31] Dedeire M. (2002a). La prise en compte du long terme en science régionale pour une autre lecture des dynamiques spatiales de l'agriculture françaises (1840-1990), *Revue d'économie régionale et urbaine*, 4, p. 597-618.

advantages linked to the re-territorialization movement and valuation of territorial externalities. This anchoring founds a certain number of works on industrial districts, production systems local and the various forms of territorial productive organizations.

With the phenomenon of saturation of many needs, consumers are above all looking for style, quality and novelty. Territorialized products, primarily food, but also tangible or intangible, are the subject of increasingly strong demands. These territorialized productions were formerly, in the field of manufactured products, the fact of urban and industrial spaces. Offshoring and the internationalization of markets have reduced this aspect of industrial production in urban areas. Today, the association between the produced product and the production area is found in certain areas, for example certain forms of craftsmanship or tourism. This results in a modification of the concept of label, with a wider and more effective territorialization of local productions. These new links with the territory can take on multiple aspects ranging from a simple reference to the production support space for the produced product, to an association and even the integration of the production space into the good or the service. In all these approaches, the objective is to differentiate the product or service created from a standardized set without territorial identification, generally developed under better conditions of yield and cost and whose competition would be difficult to bear.

This last situation emphasizes the quality and specific features of territories, their capacity to sell themselves and to position themselves in relation to a specific social demand. It also examines the modes of production and their forms of installation in upstream territories, but also the distribution of products and the conquest of markets downstream. It also questions the strategies and efforts of actors and social groups in terms of know-how, innovation, quality promotion.

The issue of quality can also be analyzed in terms of comparative advantages. Indeed, within the framework of a global economy, questions today relate to the competitiveness of the territories and their capacity to mobilize their local resources, to communicate on them, while developing the competitive advantages linked to the re-territorialization of modes of

production. This can then participate in the construction, by a multitude of actors, of local production systems, as well as in the emergence of the notions of qualification, quality, labeling, and the planning and development actions associated with them. As such, the proposed illustration is based on the development of tourist routes in the case of a wine-growing area. In Languedoc-Roussillon, as in the case of New World wines (Argentina, South Africa, California to name just a few countries), wine tourism often complements an organizational and technical renovation of the production system. Indeed, the search for new grape varieties, adapted to the natural environment, makes it possible to set up marketing strategies that use the territorial resources mobilized by the producers.

Thus, this improves the relationship between consumers and wine producers without focusing the development of the production system on the product but rather integrating it into a tourism dynamic. In this case, wine tourism is a territorial resource in its own right[32].

- A broadening of the concept of resources

These processes then go through systems for the enhancement of space, constrained or oriented by territorial characteristics (environmental, social, cultural), intentionally regulated (governance) or not, and capable or not of generating social mobilization. Thus, the attractiveness of territories requires an affirmation and recognition of comparative advantages increasingly oriented towards the notion of quality, itself increasingly complex to define.

Today, the development of new production functions in the agricultural or non-agricultural fields, residential function or new consumption functions are indicative of the emergence and taking into account by the various actors of new comparative advantages based on the intrinsic quality of the territories. This perception of the quality of the territories is now very sensitive at the level of economic agents and can totally or partially explain the choice of location of the activity. It is also expressed at the level of individuals and determines their residential, permanent or temporary location or their consumption practice.

[32] Vandecandelaere E., Jarrige F. (2006). Le tourisme de terroir certifié en Saint- Chinian ou les paradoxes de l'authenticité labélisée, *Revue de l'économie méridionale*, 213, p. 31-46.

In the past, the notion of quality in the analysis of comparative advantages limited to the realm of the natural environment. Perceived mainly by companies, the quality of land for agriculture or materials firsts for industry, allowed differentiation of territories and explained, at a time when modes of transport were limited, the dynamics of certain regions. The quality of the natural resource then played a decisive and major role in the attractiveness of the territories. She explained the differentiation between spaces in terms of intensification or specialization of agricultural production for example without, however, have significant effects on the dynamics of territories. Indeed, and paradoxically, the most efficient rural areas in the field agricultural and giving rise to the most intensive productions were often the least populated.

Today, it obviously remains at the center of concerns, especially in the agricultural sector where successive food crises have fostered awareness of the environmental problem. In fact, taking into account the quality of territories is now reflected in the emergence of new modes of production. The development of farm and terroir agriculture is one example. The terroir service then appears as a new asset that the territory provides.

Entry in the social sphere and emphasizing the labor factor, quality is also expressed by the characteristics of the labor force, especially on the income level of wages. Today, at least at a national level, the comparative advantages resulting from the characteristics of the local labor force no longer seem to play a major role in the decision to locate activities.

c) Quality and comparative advantages of the territories

More generally, the perception of quality by economic agents is not limited to these two aspects, the company seeking in the choice of its location or its maintenance the comparative advantages which are apparently the most favorable to it. And if the concentration of people and activities is always a guarantee of quality in terms of economies of scale, by favoring metropolitan areas, it contributes today to the deterioration of the quality of life, the increase in the price of land linked to its scarcity, and alters, in a certain way, for certain economic sectors, the attractiveness of the territory by promoting new forms of territorial organization, such as peri-urbanization.

In fact, what was generally perceived as an external diseconomy, such as distance from markets and decision-making centers or isolation from other competitors, can today, on the contrary, be considered by certain economic players as a possible quality.

The processes of concentration and congestion in urban centers, the alteration of lifestyles also modify the perception that individuals on the quality of certain territories. This perception can determine the movements of consumers or users. The quality of the territories, based on non-mobile elements - the landscapes, the air, the living environment, etc. -, are at the origin of the emergence and extension of the residential and recreational function of spaces. The phenomenon is already old and has taken on an increasingly large and diverse dimension over time. Thus, faced with the growing urbanization of society and the rise in living standards, certain territories are able to offer spaces capable of welcoming new populations. The availability of space, often offered at a lower cost, the nature and working conditions, the characteristics of the social environment, the possibilities of a different habitat, a different living environment and a different way of life then correspond to their concerns in terms of quality of life.

The quality attributed to territories is now based on collective account of a number of parameters responding current concerns in society. This taking into account of a particular heritage mobilizes and often organizes the actors around approaches to enhance the attributes of the territories.

Mobilization takes place at all levels. At the International scale as national, policies set targets for protection of certain attributes of the territories. Quality is expressed then through actions whose effects, predicted over the long term, have aim to meet growing social demand by referring to the idea of harmonious and qualitative development of the territory.

For a long time, men have been sensitive to the more or less attractive characteristics of certain landscapes, their insertion in the commercial sphere has only recently taken on a clearly asserted dimension in the rural environment. The collective awareness of the need to maintain

the landscape, to prevent its degradation and its closure, leads to a set of agri-environmental type measures assumed by society as a whole.

From now on, the question of quality is approached at the political level through the concept of sustainable development, a broader vision than the simple environmental reference. This notion involves both interactions between actors and requires that all economic, social and environmental policies be approached in a spirit of synergy and long term, from global to local. In this conception, the mobilization of a multitude of actors around the search for quality refers to the different strategies of individuals who, depending on the scale or the issues (local, national, international), use a set of tools adapted to each territory. This raises the question of the interweaving of these tools and their effects on the territories and their compatibility with one another.

Territory and food relations: a stake in the quality, resource and territory triptych

In order to support the reasoning on the renewal of the territorial utility of agriculture (1), we propose to couple the questions of rurality and the management of agricultural space with that of qualification. Food, a question often addressed in the literature, is linked to forms of agriculture in the emergence and in the construction of territorial qualification (2).

From the spatial utility to the territorial utility of agriculture

Economic development in the second half of the twentieth century led the French rural society to follow the overall economic dynamics. After several decades of growth between the 1960s and the end of the 1970s, transformations occurred during the economic crisis that followed within the entire national production system. These changes fed back on the agricultural sector as they had influenced the industrial system. This development model, previously qualified as the Fordist model, experienced four major ruptures that often explain this trend reversal:

In the first place, industrial accumulation, and especially investment, has shifted from Europe to the countries of Southeast Asia and Japan. At the same time, neither the industry nor the

service sector is able, after the crisis, to absorb the flow of agricultural populations seeking non-agricultural employment. Agricultural Europe, increasingly in production surplus, is becoming closely dependent on the disposal of surpluses and the difficulty of finding solvent demand. Faced with European and world competition, within Europe is a redistribution of areas with economically efficient agricultural vocations, it is moreover the official discourse that is broadcast. Finally, in a professional agricultural environment where the family farm is a business with a high capital coefficient, the increasingly heavy investment slows down the social reproduction of this sector of activity and introduces a greater dependence of the agricultural world on banking companies, particularly in relation to financing needs. At this precise moment, economic logic predominates in particular through the search for price competitiveness which does not favor the emergence of agricultural products of territorial quality.

These four ruptures constitute the visible elements of the crisis. These difficulties are linked to a more global question, which is that of calling into question the mode of development of "Fordist" agriculture at a time when the latter is also showing significant effects on the environment.

The territorial qualification is for the understanding of the concept of “food desert” insofar as it is a question of coupling access to food to a healthy and balanced diet which can in part be contained in the forms of agriculture of quality present in our territories.

The connections that emerge between the agricultural world and society are no longer nurtured by the “agricultural ideal,” which prevailed during the glorious thirties. Other expectations such as; consequences to feed specific local situations, the issue of food quality, respect for the most respectable ways of producing the environment, the social reproduction of the agricultural world, the relationship between agriculture and rural development, questions about the movement of goods, food and people. These low expectations allow us to ask the question of the place of the territory in regulating these connections, and especially the place

of the territorial qualification of agriculture as an expression and inclusion of these various issues.

This notion used little as such can be defined as forms of construction and adaptation of agriculture in the territorial contexts of consumption and production. The quality of the resulting products creates the types of characteristics of food products which can sometimes be very much related to the resources localized and mobilized by the actors.

Territorial concerns or renewal of the "territorial utility" of agriculture

However, the break with the Fordist development for agriculture and rural areas to the extent that the industry has developed similarly to the industrial sector. The most industrial forms of agriculture emancipated themselves in a context where urbanization was the dominant model of town-country relations. From the moment the ruptures began to generate dysfunctions in the virtuous loop of Fordism, the rather urban concentration processes began to fade or in any case no longer function as before and took on new forms. One of the manifestations of this rupture is the return of previously urban populations to rural areas which offer new opportunities in terms of lifestyle and especially of living environment. These populations have reinvested in purely rural economic activity sectors and have invested in particular new sectors of agriculture but also fields of activity linked to the tertiary, craft or construction sectors. In the agricultural field, these neo-agricultural and neo-rural populations in part have brought new ways of understanding agriculture, not always in its ways of producing but especially in its ways of marketing products and creating. new relationships with diverse urban societies.

A production crisis supported by an active policy of structuring of the productive system which today allows territories hitherto weakly affected by the weakness of their system productive to initiate a modernization of their production capacities. The manifestation of this dynamic is productivity growth which comes in symmetry of a standardization of the products necessary for meet increased demand for food products. From this crisis of production, special attention is given to the reintroduction production methods that are more respectful of resources, with

the account of plant and animal species, in particular which incorporate undeniable taste qualities.

The consumer crisis is linked to the evolution of demand following a multitude of factors (price, taste, marketing, product quality, value chain, etc.), somehow ruling out or removing possible product standardization. Homogenization, when considering food, must include two components, that of a tendency to standardize production systems and the other, a generalization of a stalled mode of food consumption with specific features regional and indigenous. There is therefore a form of paradox between a diversification of demand and the homogenization of food modes, particularly in urban food, well known to food distributors. It would seem that, in this area, a mixed system is being set up and making the relations between productive systems and response to demand.

The environmental crisis, with agriculture facing ecological crises, which manifest themselves through local, regional and national conflicts, is also a persistent threat. Better consideration of the positive and negative effects of agriculture on the territories and in particular the management of natural resources is being organized while meeting the increased demands of the markets (quality, price, ecological products, preservation of local products for example.). In this area, the importance of territorial qualification is justified by a form of standardization and certification which should measure its effects and which today constitutes a form of labeling expected by society.

The crisis of confidence that is heating up among consumers requires great vigilance from public actors, businesses and in general the whole industry in terms of regulation, control and information on the nature of society's expectations in terms of food, taking into account local and market constraints. It is therefore also an examination of social concerns, in a spatial context, where the development of local populations is sometimes strongly linked to the strength of local nutritious agriculture, and at the same time, to the latter’s desire to access the products that are consumed easier and consumed.

As expressed perfectly Berque, "in what has become our urbanity, the pursuit of nature destroys nature." [33]If we agree with our position by reflecting on the impact on changes in the agricultural space of the rural world, the compactness of the most industrial agricultural territories would be a possibility of preserving the natural character of rural territories, and therefore of leaving the rural world possible reversibility of their natural trajectories for areas not concerned by the most productive forms of industrial agriculture. This therefore expresses a paradox, in our opinion, between the discourse on the withdrawal of agricultural land and the desire to maintain a form of nature "remote" from the spatial forms of urbanity.

Agricultural policies must be plural if we want to maintain the most natural spaces possible, we cannot have a rural policy at all agricultural and in all agricultural, the universal productive mono-system where the agro-industrial character predominates. This would make uncontrollable the agricultural areas less dedicated to an efficient agriculture on the agro-industrial level, and paradoxically, this policy would be the most beneficial to the residual areas for their natural character and preservation.

[33] Berque A. (2011). Le rural, le sauvage, l'urbain, *Études rurales*, 187, p. 51-61, ici p. 59

Chapter 5 – Innovation and quality.

1. The territorial qualification: what's the place in the local development?

This work feeds the reflection on territorial qualification and this part is the deepening. Territorial qualification appeals to the way in which local development can take hold of it and participate in its implementation. There is indeed in the process of territorial qualification, a play of scale and it is through the local scale that one can question a certain number of components and characteristics that forge this qualification. We are talking about a form of local development when we talk about territorial qualification. In line with the work by Bernard Pecqueur and Pierre Campagne (2014), one or more models of territorial development are currently in use, particularly when these models mobilize the creation of value, which they consider to be central to quality rent. territorial, also a relationship to the market because it reflects a satisfaction of the needs of the populations in particular, and which question the awareness of local actors. But a territorial qualification is also a common good through effects of mutual valorization which articulate, for example, agricultural development and tourism development, also operators who can share innovations and strategies, and finally public policies organizing emulations. endogenous in a bottom-up development model. Finally, the territorial qualification is linked to the sustainability issues which consist in better revealing but also managing local resources, and are associated with a particular form of governance which structures the different levels of intervention and where local actors have a capital[34] role.

Territorial qualification is a form of local development. Indeed, even if local development has a fragile theoretical basis, we can consider that local development emerges from an empirical definition that borrows from sociology, economics, political science and geography[35].

Territorial qualification has its origin at the local level through how the stakeholder set will mobilize or activate resources. These tangible and intangible resources participate in this

[34] Campagne P., Pecqueur B. (2014), *op. cit.*
[35] Chevalier P. (2014). *Action locale et développement rural en Europe*, Bruxelles, P.I.E. Peter Lang, coll. « Regional integration and social cohesion », p. 29.

emergence and its consolidation under a protection system and allow the territories to structure themselves and bring out a mode of territorial development.

But territorial qualification is also based on local strategies and in interaction with extra regional public policy mechanisms around qualifications. There are therefore local forms of qualification in development and we will offer some examples in the second development of this part.

1. The role of actors in resource mobilization

Bernard Pecqueur and Hervé Gumuchian[36] present us a transversal analysis of the way in which the territorial resource is deployed in a certain number of registers, from the analysis of the potentialities of an intrinsically speaking territory to the capacity of actors to specify the resource in the context of territorial development.

We can explain their analysis on the basis of four "no time 'which each have a translation in the way the actors involve:

- The first implication is the way the resource is translated in terms of capability, the change from the status of resources to that of assets implies the problem of accumulation which may or may not be favorable to the resource itself. He there may be territories where the resource is subject to reduction of accumulation, and we find the problems environment, for example, or contexts where the working around resources produces an asset that generates accumulation of value in addition to a physical accumulation of the very resource. In this register, territorial knowledge, for example, can be considered as a resource likely to accumulate in an expansive way through the idea of territorial memory developed in the first part
- The second register is that to translate a resource into an asset perspective, it is necessary to have a certain territorial consciousness shared collectively. It is in this that we can speak of a community aware of its local potential, and can act by structuring

[36] Gumuchian H., Pecqueur B. (dir.) (2007). *La ressource territoriale*, Paris, Economica, 252 p.

social networks both for the deployment of the resource but also in a broader way, participating in territorial development. The cognitive dimension of the resource is therefore not negligible in this register.

- The third register is that of temporality, which is often lacking in the analysis that researchers can make of resources. The resource is in a temporal context and makes it possible to be in phase with the context of the moment or on the contrary to be out of step. In these two situations, mutations take place and territories that are the bearers of a certain number of development effects may at a given point in history find themselves in a crisis situation because the contexts have changed. The territorial spring represented by the resource must therefore be placed in a context of globalization where the territories have a capacity for reversal, for bifurcation translated in terms of trajectory which will lead to the design of new opportunities for the resources which are present[37] there.
- Finally, part of the territorial potential is crossed by mobility, and we can consider that mobility is a circulatory[38] resource likely to be considered in terms of specificity. We can find in these examples, areas of knowledge that have direct and indirect effects on local development.

2. Territorial resources and qualifications

The notion of territorial resources is theoretically structured from four fundamental[39] characteristics. The first concerns the material status or not of the resource. Then there is its spatial dimension which can be expressed in terms, for example, of location often mobilized in the analysis of resources activated in a qualification process. The resource is also the object of multiple interactions between private and public properties, goods or services, but also in its

[37] Peyrache-Gadeau V., Perron L., Janin (2010). Les temporalités de la ressource territoriale : enseignements à partir d'expériences en Rhône-Alpes, *Colloque ASRDLF Identité, qualité et compétitivité*, 20-22 septembre, Aoste, Italie, 25 p.
[38] La notion de ressource circulatoire est utilisée dans le cadre des territoires multisitués, notamment autour du lien espace et migration, la migration étant ressource, in Cortes G, Pesche D. (2013). Territoires multisitués, *L'Espace géographique*, 42, p. 289-292.

[39] Gumuchian H., Pecqueur B. (2007), *op. cit.*, p. 7-8.

natural or artificial dimension, for example. These interactions result in a great complexity in its definition as in its mobilization at the operational level. Finally, the resource is the object of a temporality which can largely exceed that of men and which in any situation and at any point, is to be integrated in the process of its revelation, its mobilization, its development and its preservation. We are therefore led to wonder about the link between resources and qualifications taking into account these four properties.

3. Resources and qualification

a) The notion of resources in its confrontation over the long term

The concept of resources, frequently used by many disciplines such as geography, economics or the natural sciences, is often at the heart of research approaches that implement the territorial issue. This question of resources refers to the link between resources / production systems / territory / environment. There would in fact be both standard resources and resources directly resulting from the territorial[40] dynamic.

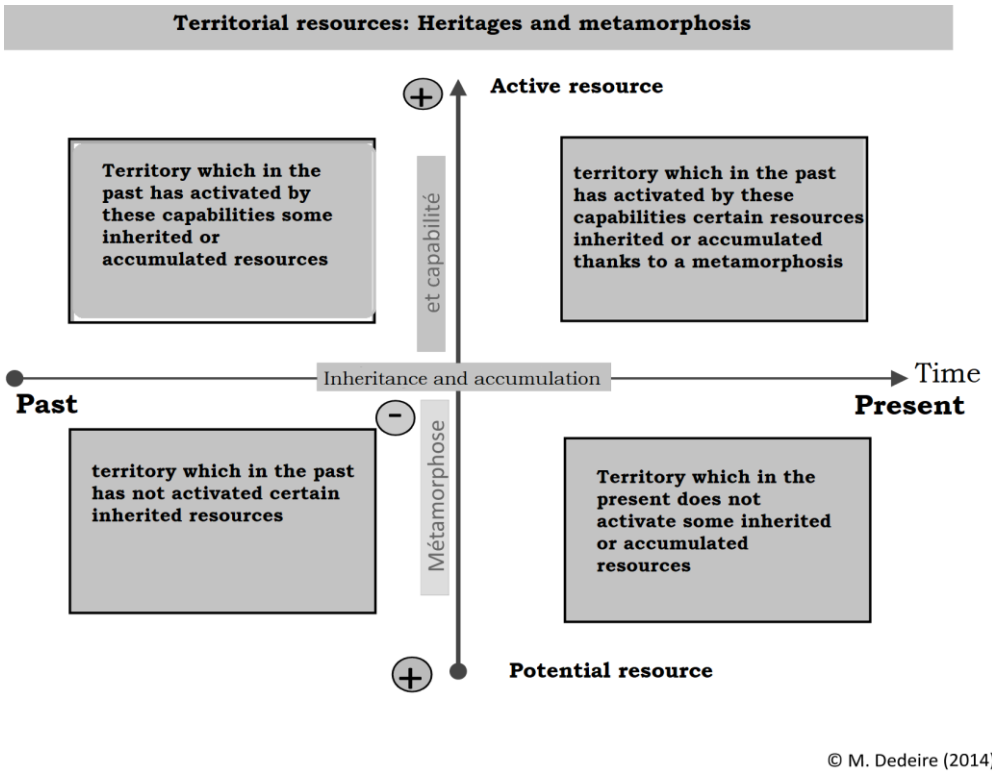
"Resources are understood here as all the means available to man for his own use. In other words, it is about all the elements which, potentially, can serve, be useful in a production process, that is to say all the objects identified as being able to form part of a process of production of goods or services. Resources are therefore conceived here as a set of four processes: creation and destruction, which primarily concern the object (raw material, energy, knowledge, know-how, etc.), the identification and updating which concern how resources are incorporated and articulated in the production system. Objects are elements (raw material, technical knowledge, etc.) brought into play in the technical production process. The elements relating to social coordination between the different actors of production (trust, professional culture, human resources management, etc.) are considered here as modes of coordination. There is therefore in the notion of resources, a rather institutional approach, and a heritage approach according to which space constitutes a living environment and it is the economic and social activity that transforms this living environment into resources, at a moment and for a given time by assigning it to one or more particular[41] uses"

n our approach to territorial qualification, we identify most of the time, a certain number of resources inscribed in the long term and which at a given moment in contemporary history, will be mobilized by a set of actors with a new perspective. of development. This idea is central to the work of P. Campagne and B. Pecqueur when they distinguish between potential resources

[40] Crevoisier O., Kebir L. (2004). Dynamiques des ressources et milieux innovateurs, in R. Camagni, D. Maillat, A. Matteaccioli (dir.), *Ressources naturelles et culturelles, milieux et développement local*, Neuchâtel, Suisse, Institut de recherches économiques et régionales, p. 261-290.
[41] Crevoisier O., Kebir L. (2004), *op. cit.*, p. 267.

and activated resources. For these authors, resources can be deployed and transformed following their passage from hidden or invisible resources to that of revealed, visible, central resources, and explain this shift by the idea of metamorphosis, a real constructed process of the resource. from the moment it is socialized in the game of often local actors. Activation is therefore a transformation process emanating from the social sphere, but can be much more complex with, for example, the need for its protection, and also the impact that the new development strategy can have on the structural change of the resource. The idea of metamorphosis is therefore fundamental and refers, in terms of the play of the actors, to the notion of capability (figure 8).

Figure 8. Potential and activated territorial resources



Territorial resources also have a temporality that can very well not to be appropriate or adapted to the local situation of the moment. On the other hand, resources constitute and are made up of inheritance, which when put end to end have a significant level of accumulation that can be mobilized by the game of actors. In works on the notion of territorial capital,

Roberto Camagni[42] illustrates this temporal dimension in the way in which a resource has or does not have an absolute advantage. For this author, the principle of comparative advantages in absolute terms is not relevant at the local level since one cannot measure the capacity of a local territory to overcome the various parameters of macroeconomics. For us, the resources mobilized by the actors can be translated in terms of relative advantages since territorial resources are taken into account in their two dimensions, the qualitative and the quantitative dimension. The issue of territorial qualification is the work of agents who intervene in companies, for example, and in the development of resources that they will find in the local environment, the support necessary to reduce economic or market uncertainty. In this, the bet on quality makes it possible to circumvent the difficulty of uncertainty, especially when local and national politics accompany the process of revealing resources.

b) Can we speak of a territorial qualification trajectory?

From the diagram proposed previously (figure 8) and which identified the territorial resources in terms of inheritance and metamorphosis, we propose a synthetic approach of a few territorial situations that fit into each of the proposed cases. From the analysis grid, we can schematize the qualification trajectory of a certain number of territories (figure 9). Four situations can be imagined, without being exhaustive, two cases where the territorial qualification does not emerge from the fact and we will speak of territories in decline (left part), even if the term is a little restrictive.

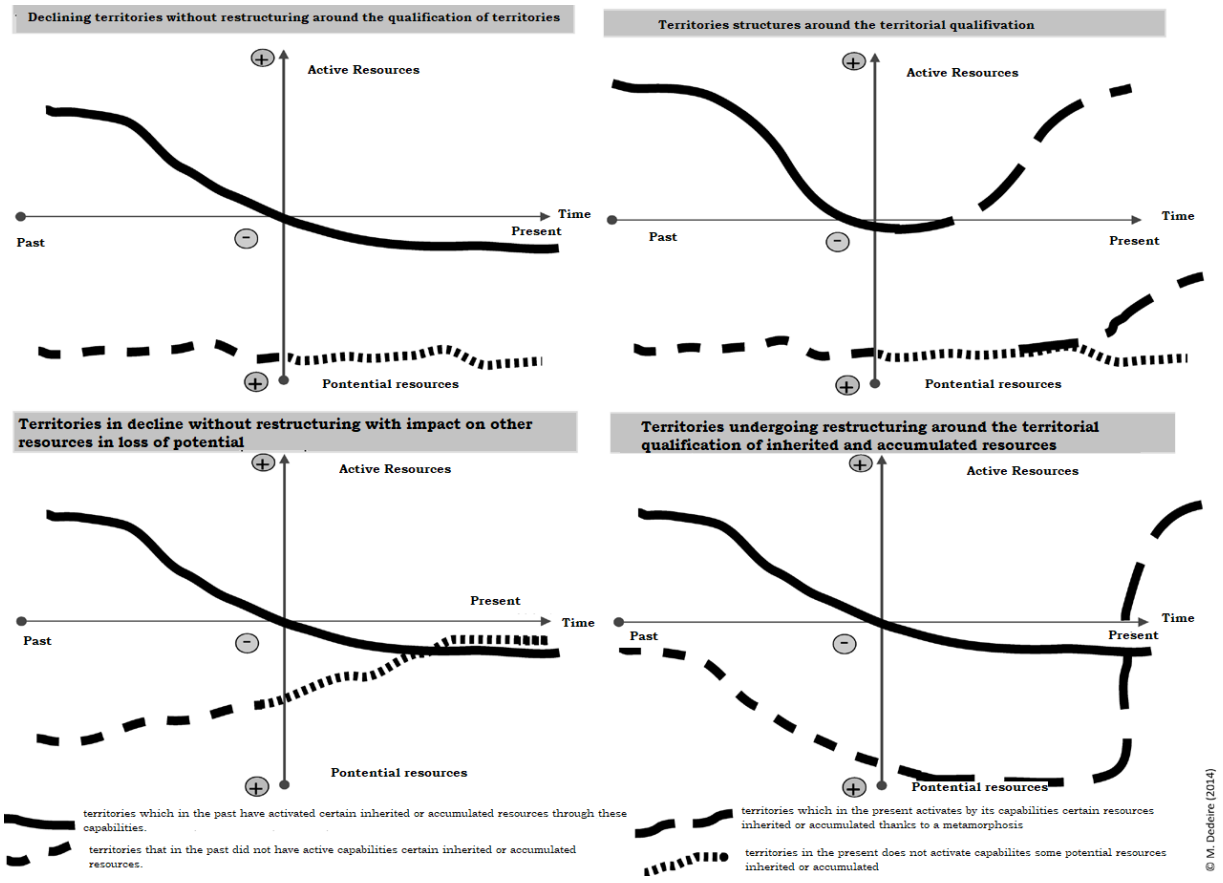
These declining territories may experience a different situation on the plan of their resources with a first case where the resource activated in the story becomes unsuitable in the context either of an old productive system or in connection with the emergence of other more favorable situations but this local territory does not occur not to argue. In this situation, the territory declines while losing its capacities and the activated resources become very low

[42] Camagni R. (2009). Modelling future of regional development and the concept of territoial capital, *Conference of Colloquium on Sustainability, Disparaities and Polycentricity*, Praha, October 19, 2009 ; Camagni R. (2006). Compétitivité territoriale : la recherche d'avantages absolus, *Reflets et perspectives de la vie économique*, 45, p. 95-115.

because of a strongly impacted potential, this is the case for example of territories which draw on mining or natural resources for their development. In this situation, we notice that some potential resources may very well exist without the capacity to develop them at the local level.

Another situation can be identified from the territories in decline without restructuring and where the other resources present in the territory are also impacted by the territorial dynamics and governance that are created around the initial resource valued in the history of the territory. We observe in this second situation that the potential on other resources decreases sharply and we see a convergence of the main territorial resources towards a low potential but also a low level of possible activation.

Figure 9. Examples of territories according to the trajectories of potential and activated resources



On the right side of Figure 9, we have the situation of territories that we have qualified for the controlled territories and territorial restructuring.

In the first case, which we qualify as territories structured around qualification, the trajectory of resources is inscribed in the long term with an awareness of the actors which will cause the territorial qualification to occur on the past resources that remain potentially important and historically activated. Even if the levels of activation have decreased somewhat in recent history, the awareness of local actors around a heritage and their productive system or their natural resources makes it possible to collectively bring about an action towards territorial qualification. In this hypothesis, it is the same resource, mobilized beforehand, which becomes the central element of the territorial dynamic from which the territorial qualification takes place. This is the typical example of the designation of origin models which are inscribed in history and whose forms of peasant agriculture, for example, will resist until they are recognized at different spatial levels. Local actors also have a capacity to mobilize other resources which are potential in the territory and which will at a given moment also participate in the qualification process, this is the example of landscape and tourist resources, which participate in the global dynamic and create a territory of qualification.

In the case of territories undergoing restructuring around qualification territory of inherited or accumulated resources, we can see on the graph that in the past, the development of this territory impacts a strongly mobilized resource which loses potential while at the same time, other resources are created in this movement of exploitation of the or initial resources. While the territory imprints on history, an industrial dynamic for example, will be generated at the same time, related or joined resources which initially increase the potential without necessarily being activated by the local society of the moment. Then, in the more recent period, these accumulated resources and inherited by the old system and which represented one of the traces of the industrial past, will become the object of a collective awareness at the local level. From this awareness, a desire for territorial qualification may emerge which implies an activation of the accumulated resources and produce a territorial development effect. The most

telling example of this type of trajectory is certainly the recent territorial qualification carried out in 2012 by UNESCO with the Nord-Pas-de-Calais mining basin in France. The Nord-Pas-de-Calais mining basin is the French part of the North-West European coal seam[43]. In a plain wide open and rich by the agricultural quality of its ground, it stretches for about 120 km, crossing the two departments of Nord and Pas-de-Calais. The Nord-Pas-de-Calais mining basin presents a so-called living evolutionary cultural landscape, exceptional by its continuity and homogeneity. It provides an important and well-preserved example of the collieries and the town planning associated with it, during two centuries of intensive coal mining, from the end of the 18th century to the last third of the 20th century. What is striking in the landscape are all the traces and vestiges still intact of this industrial past. Through industrial methods bringing together a large number of workers located very close to the wells, town planning has generated specific resources with the settlements. This succession of landscapes resulting from an almost mono-extractive industry includes: physical and geographic elements (slag heaps, agricultural land, mining subsidence ponds, wood), mining industrial heritage (pit tiles, residual industrial buildings, headframes), remains of so-called "rider" transport equipment (canals, railroads, conveyors), workers' housing and characteristic town planning (settlements, garden cities, residential housing, rental buildings), monumental and architectural elements that bear witness to social life (churches, schools, leaders 'castles, company headquarters, workers' union premises, train stations, town halls, hospitals and health centers, party halls, sports facilities), and finally places of memory and celebration of the history of the Basin and its miners.

This analysis of potential and activated resources shows the importance of the time dimension in the logic and models of qualification. The last two examples around AOCs or UNESCO labels are striking from this point of view, and we can perceive the importance of analyzing the types of resources activated but also their interaction with others.

[43] Voir sur le site de l'UNESCO, http://whc.unesco.org/fr/list/1360.

4. The logic of spatial diffusion by means of mobility and the alteration of quality from the case of food products: effects of the subjective dimension of the space of territorial qualification.

The various pressures exerted on rural areas constitute forms of annexation of space through land, appropriation by tourism or more broadly, the function residential which tends to become widespread. In this fundamental movement, rural spaces are considered as territories with sustained dynamics, the economic fabrics are being renewed in a way that is more anchored to territories and space. Coupled with the ever-present territorial approaches, research is oriented more frankly on themes of integration of the demand and supply of products of territorial quality[44]. The idea of a basket of goods is a "set of complementary goods and services which are reinforce in local markets; a combination of private and public goods that help develop the quality image and reputation of the territory; interactive coordination between basket producers (club) in order to internalize the territorial quality rent ". We adhere to this theoretical framework insofar as the territorial constructions around quality lead to rent situations and overall market and non-market benefits. On the other hand, beyond this analysis, we have a problem more related to the interface or the interrelationships between producers and consumers.

Traditionally, mobility has been a form of movement of populations in space, without necessarily taking into account the scales (local, regional, international for example) or their spatio-temporal dimensions (every day, monthly, annually for example). Mobility is “a powerful factor in social and territorial reconfiguration”[45]. Spatial mobility is not simply a displacement, it is also an encounter, a correspondence between various places originating from or constructed from different cultures. There is therefore, through this mobility, the possibility of potential exchanges which make it possible to imagine the processes of permanent recomposition of food culture.

[44] Lacroix A., Mollard A., Pecqueur B. (2000). Origine et produits de qualité territoriales : du signal à l’attribut ?, *Revue d’économie régionale et urbaine*, 4, p. 683- 706
[45] Capron G., Cortes G., Guetat H. (2005). *Liens et lieux de la mobilité, ces autres territoires*, Paris, Belin, p 9.

Figure 10. Consumption space - production space and mobility

		Consumption Spaces	
		Sedentaritis	Mobility
ESPACE DE PRODUCTION	Spatial anchoring	Local food, local produce	Imports of original products
	Social anchoring	Adaptation of food products	A-spatial and nomadic food

Source: M. Dedeire (2014)

Through mobility and if we mobilize the idea of physical and cognitive distance, one of the answers or one of the analytical grids that can make it possible to understand the role of eating behaviors in the process of movement, and idea of anchoring confronted with the question of mobility. We can consider that the anchoring processes can be assimilated to taking into account the spaces of production, while the mobility processes will make it possible to relate and understand the spaces of consumption. This is a double gate entry that we propose to put into perspective in order to identify the various reconstructions (Figure 10).

To use the expression of Capron et al. (2005), “individuals mobiles transport and convey with them a set of goods, value, expectations, skills that they may or may not mobilize in the places they pass through, borrow, or live ". They are also receptors and therefore the question is that

of the co-construction of each other in the process of exchanges. This is what we have called the interface[46], due to geographic proximity, acculturation or territorial memory.

Food is understood in its broadest sense, as all the representations, speeches and practices of the different actors relating to the production, market and non-market exchanges, distribution, preparation and consumption of food products[47]. We can therefore consider food through the interface between production space and consumption space. Food can be assimilated to a form of heritage which would not fall strictly within the world of domestic relations nor within civic space. It is a common good which makes it possible to articulate the territorial dimension and the heritage dimension. Food, in the heritage sense of the term, would be "a resource or a tool that allows individuals to build this link to the territory for those who do not have a family or historical link as a point of support"[48].

To the extent that food is accessible according to resources available on site or elsewhere, spatial anchoring comes down to considering the anchoring of resources that would be available in a space

considered. Conversely, social anchoring considers food as a cultural resource that allows one to emancipate from distance. We are in this case in the cognitive domain. In this case, we can consider consumption spaces as being a manifestation in certain cases of taking into account the sometimes spatial and sometimes social anchoring and sometimes a combination of the two. Social anchoring is a driving force behind the consumption of food resources from remote areas (figure 10).

5. The local strategies of qualification: towards a qualitative improvement of space.

The study of the links that operate between the "original" space, the user of the space and their behavior is an essential point. These links are still unknown for researchers either because this research is from adjacent disciplinary fields such as management sciences, economics or

[46] Cf. Partie I.

[47] Suremain (de) C.-É, Chaudat P. (dir.) (2006). *Journal des anthropologues* (Des normes à boire et à manger. Production, transformation et consommation des normes alimentaires), p. 106-107.
[48] Gumuchian H., Pecqueur B. (2007), *op. cit.*

cognitive sciences, or because the spatial planning has too little invested in the question. quality in its work. However, the question of the use of the developed space is a relay, an extension of the developed space. Derognat in 1990 proposed that "economic decisions are made with reference to mental spaces, amounts to saying that the decisions observed, experienced, are better decisions with regard to the mental space of the individual than with regard to the objective space… better economic forecasts are likely to be made in the state of knowledge of the structure of mental spaces: efforts to formalize space must therefore be directed towards the representation of cognitive decision-making spaces[49].

Through their behavior, individuals are more and more sensitive to the territorial dimension of goods and services consumed or used, especially when we are interested in food products with spatial reference. In each act of consumption, the individual is put in relation with an objective and subjective dimension of quality, which he learns to identify and know in a learning process. From this perspective, the territorial dimension of food goods can take several forms. Many products are considered to be foods with a high territorial sounding. Today, the French AOC model is a benchmark[50]. Its success activates the idea that the spatial and territorial dimension of the quality of goods enters into the act of consumption. How does the consumer come into contact with the territory in this process? How does space become a variable in the processes of perception and construction of the consumption and uses of goods and services? How to reactivate the territorial imaginaries in the territorial qualification when the distances can vary?

The other essential aspect of territorial qualification is the problem of distance and therefore in reciprocal that of the delimitation of the qualification in space, and therefore that of its border. We know that the distance from the consumer of a product of geographical origin is certainly an important issue in the construction and especially in the development of territories in the

[49] Derognat I. (1990). Vers une axiomatique de la distance cognitive: la distance-transport mentale, *Revue d'économie régionale et urbaine*, 2, p. 239.

[50] Barham E. (2003). Translating terroir: the global challenge of french AOC labelling, *Journal of Rural Studies*, 19, p. 127-138. Voir aussi Tregear A., Kuznesof S., Moxey A. (1998) qui exposent l'enjeu des consommations alimentaires régionales dans le cadre de politiques publiques adaptées, in A. Tregear, S. Kuznesof, A. Moxey (1998). Policy initiatives for regional foods: some insights from consumer research, *Food Policy*, 23-5, p. 383-394.

future[51]. More and more often, the territorial reputation of properties is affirmed or invalidated by social networks which will influence communities of actors or groups. If we generalize our point, there may be a number of scenarios from which public policies can propose solutions in terms of territorial qualification. These solutions must be proposed based on a diagnosis of the objective and subjective space, subject to qualification.

[51] Dedeire M., Giraudel J.-L. (2008), *op. cit.*

Chapter 6 – Innovation and skills

Introduction

The territorial dimension of employment policies is at the heart of economic news, the repeated success of the Days of Territorial Initiatives in favor of Employment (JTE) 2 organized every year since 2014 by the Ministry of Labor attests to the the enthusiasm of an increasingly large audience. Two reasons combine to explain this emergence. The first reason is regulatory, in fact the decentralization of employment policies at the regional level has become effective with the NOTRe Law of August 7, 20153. Thus, the Regions which wish to do so can act on the law and act directly on local employment policies. employment. Consequently, many new actors appear in these gatherings in order to understand the successes and innovations of other territories and possibly to be able to take them up in their own region or territory. The second, older reason is that the territory has become a relevant analytical prism for employment policies. Also, these territories are in the spotlight when they record successes in terms of employment or at least in terms of player dynamics. Thus, this movement of territorialization is not the result of chance, but these two combined reasons attest that in parallel with national policies, there is room for maneuver and also a will on the part of the territories to build real adapted policies. to local contexts and issues.

1. The place of specific skills, between human capital and territorial social capital

On the one hand, works on human capital marginally address the territorial context and, on the other hand, those on territorialized social capital are constructed in a way that is distanced from considerations of the labor market and the management of skills. It is at the crossroads of these two major theoretical sets that we locate the place of the territory as an interface for the creation and operation of specific skills. The latter lie at the limits of the two spheres and seem beyond the reach of our current instruments of observation. However, in our opinion, they could perform the essential function of allowing the passage from general individual competences to collective competences irrigating territorial development. Recent work has

been carried out on the crossing of skills and territory and some are in progress to better qualify the specificities of skills in different Local Productive Systems (LPS). In this frame of reference, we have chosen to address four important axes for our analysis of the subject. The first highlights the territorial determinants of job mobility and the anchoring of the population. In particular, we seek to focus on the fact that having a job or losing it is not enough to explain geographic mobility.

From there, the second axis of this theoretical framework seeks to highlight the importance of the territory which is a space endowed with particular properties, respectively collective with a desire and a consciousness. The territory is embodied by two elements, networks and cooperation between actors, all of this forms the territorial social capital. From there, how can the territory be a factor in organizing the labor market? How to “manage” collective work and skills? In a competitive logic, what are the theoretical foundations of collaboration at work and skills?

The third axis of this theoretical framework questions human capital as a set of productive capacities. How is human capital linked to the territory? What is the place of specific skills in a human capital approach?

Finally, the last axis seeks to question the place of specific individual and collective skills as an integral part of territorial social capital. How is the existence of these particular skills justified? The two spheres, that of human capital and that of territorial social capital, have their own analytical frameworks. Human capital and its components in terms of general skills have a rather individual vocation, helping to irrigate the local economic dynamic, and the territorialized social capital reserving a large place for collective skills, is for its part tended towards a vocation of territorial development. Between the two, there appears a space where skills emerge which have in common that they “go beyond” the boundaries of the company and are geographically located: specific territorial skills.

2. The territorial perspective for an approach to managing jobs and skills

The notion of territory has many definitions. We will stand that the territory is a space formalized by an administrative boundary, but also by “local arrangements” that come from the challenges experienced by the actors. Among all the perceptions of possible issues, that of a common issue for the development of employment and economic activity is a way of thinking about space to make it useful for human activities. The existence of a "community" of perspectives on economic development and employment issues forms the basis on which a social co-operation group operates. The usefulness of the notion of territory is expressed, in our opinion, in the form of resources; a resource for employees finding relationships, homes and work there, for companies that rely on tangible and intangible activated resources to create a competitive advantage. In this review of the literature, we are looking for elements of territory that focus on the territory of human resource management and especially those that are able to relate to a greater specification of collective and individual capabilities.

The territory, in a forward-looking management approach for jobs and skills, is a priori a space for managing geographic and professional mobility. Faced with the importance given to the mobility of workers vis-à-vis employers and in public policies (du Parquet et al., 2011), we seek to highlight the fact that geographic mobility is not so common. and, above all, that the decision to change territory is taken taking into account many other considerations than employment. Thus, to understand the anchoring of the active population as well as the mobility of employees, which both depend on many considerations other than the sole issue of employment, a territorial perspective makes it possible to discern locally all these criteria and their combination.

First, we gradually define the notion of territory through the intersection between its “containers” placed on a discipline and a “content” in terms of human resources. There are many definitions in relation to each discipline and that our research leads us to choose what is most appropriate for our approach and to specify it in human resource matters. This content will be treated from two perspectives, that of labor supply and that of labor demand. On the

labor supply side, we have chosen entry by anchoring assets by providing the best professional paths and this, in relation to life projects. On the labor demand side, our entry is made by companies, the territory becomes a space for the management of general and specific human resources, a place to expand the company, or in other words, an "Extended" company (Défélix and Picq, 2013).

We will focus on a definition which highlights the dynamics of jobs and in particular skills. This dynamic can be analyzed according to two types of factors: structural factors and more specific factors. Rather external and structural factors include the development and distribution of the territory's activity sectors, the qualifications or diplomas of working people in the territory, the logics of residential mobility, and the competitiveness of the territory (Bazillier et al., 2014). Internal factors, more specific to the territory, concern the quality of the local workforce (loyalty to the company, interpersonal skills, etc.) or the collective dynamics of local actors.

By focusing on specific local dynamics, the mobilization of local actors can make it possible to better manage local employment conditions and economic activity. In other words, a dynamic territory favors a "process of building knowledge, interpretive codes, models of cooperation and decision" (Camagni, 2002, p.2) which in turn builds the territorial economy. Thus, the place of actors and institutions in territoriality (Vanier, 2009), that is to say in the process of construction of the territory, is a central element in the definition of territory. Beyond this place, at the heart of relations between actors, our focus is on social embedding (Granovetter, 2000) and in particular on the combination in the same space of the strong and weak links that constitute social capital (Callois, 2006).

3. Social capital in a territorial logic of management of jobs and skills

In the notion of social capital, are two elements that seem to us essential to the dynamics of specific skills, namely networks and cooperation. Indeed, for us, the networks are embodied in part only in the form of physical networks (internet, road, railroad tracks, etc.), the other part of the networks being invisible and taking the form of a set of relationships that individuals

maintain. How do interpersonal relationships interfere with local employment dynamics? How can they gain importance in economic relations?

Since the mid-1990s, the notion of social capital has experienced significant popularity in academic literature (Ponthieux, 2006). The notion perhaps responds to the need for a new prism, the analysis of a phenomenon which has hitherto been relatively little explored, namely

the interweaving of economic and social spheres and the need to find in their interweaving the factors explaining the dynamics observed. Two important elements in the management of jobs and territorial skills seem to us to constitute social capital, namely the networks which form its base and the cooperation which can be considered as one of the most important results of social capital.

3.1. In social capital, the importance of networks to respond to the territorial economic dynamics

In their work entitled social capital and dynamics of territorial development, Angeon and Callois (2006) define social capital as a set of norms and networks that facilitate collective action. For an individual, this is a non-market resource "which can be mobilized to his advantage" (Callois, 2004, p. 554), more precisely in his professional activity. In other words, social capital is the set of resources for individuals who are linked to social relationships (p. 553). This approach seems to us to establish a link between social elements such as relations between actors and the economic foundations of collective action. Starting from the definition of social capital by Angeon and Callois (2006), we will retain this approach, that of the links (weak, strong, closed or open) between the actors and of embedding as an analytical framework because it is is particularly suited to understanding the relationship of employment and skills to the territory. From there, social capital, through the strength of its actors, becomes a lever of the territorial development process insofar as it promotes the circulation of information while being a basis for collective action (Angeon and Callois , 2006).

Collective action requires a spatial framework that becomes territory from the moment each actor is able to situate himself in relation to the others within an established network (Pecqueur, 2015). In the small space, personal and professional networks overlap, people know each other in the professional sphere, but also outside in the context of leisure, cultural or political activities. Thus, it seems particularly important in this context to clarify the notion of social embeddedness proposed by Granovetter (1974). Granovetter's contribution is focused on three main ideas. The first concerns the formalization of a threshold beyond which we can explain collective action as that of individuals. This idea leads to the "meso" level, an intermediary which makes it possible to understand the formalization of social capital in a territorial framework. Thus, at this level, collective action highlights the fact that the individual level does not make it possible to mobilize sufficient resources and in an efficient manner to solve problems that are common.

Social capital becomes territorial by building itself through interactions between individuals linked by geographic and organized proximity. The territory is not the place of a collectivization of a problem and of individual resources but a space favorable to the development of relational dynamics based on reputation, trust or even reciprocity. Social capital is at the heart of local action involving, beyond the individual and the public authorities alone, civil society in the process of steering local policies (Chevalier et al., 2014). By analogy, we see this involvement of actors in local employment and training policies. For these authors, this implication is located on three levels. The first level is that of "problematization" which consists in designating oneself as actors in the situation, in sealing alliances in order to achieve a given goal. The second level of involvement is "incentive" which consists of voluntarily taking on a role assigned to them by the partners; Caillon (1986) and Latour (1984) will speak of "translation" but for our purposes, it seems to us that the integration of the subject is more important with the term of interest. Finally, the third level is "enrollment" consisting of actually playing the role initially proposed. These three levels seem to us to characterize fairly accurately the situations of territorial cooperation that may be encountered in the course of local employment policies.

Granovetter's second important idea concerns the flow of information. The segmentation of the labor market into multiple local markets results in information asymmetry. Economic agents, and in particular entrepreneurs, can be led to make inefficient decisions due to a lack of information. According to Granovetter, the resolution of this difficulty lies in the existence of two types of links that you have to know how to mobilize differently: strong ties and weak ties. Strong ties allow the transmission of

knowledge and knowledge, while weak ties tend to transmit information. Social capital is based in part on the existence of weak ties maintained by individuals within networks. Weak ties are ties created during brief and occasional contact. Unlike strong ties, they need little investment to exist and, in turn, they can be effective sources of information. Callois (2006) specifies from the focus on rural territories and employment dynamics, that there is not one but two categories of social ties constituting the social capital of Putnam (1995). A first category of "closed" social links or bonding corresponds to the relationships woven between individuals within the elementary social cells of the territory. These links ensure the social coherence of the territory. A second category of social ties woven outside the territory called bridging, which in turn ensure the opening of the territory to others. It thus follows on from the work of Coleman, which is based on rational choices and places them in the logics of general sociology (Ponthieux, 2006).

Granovetter's third contribution is based on the notion of embeddedness or embedding. He argues that modern societies also operate on the basis of varying degrees of embeddedness in economic and social spheres. In fact, in contexts where economic choices are very numerous and in constant interaction, "economic rationalities can only be understood through the mediation of personal networks which partly explain the option finally selected" (Laville, 2008, p. 3).). This is especially true for social relations on a local basis. In the Boston area, on work carried out in the 1970s, Granovetter set out to demonstrate the porosity between private and professional relationships as an important element which tends to facilitate the search for management employment. Thus, in the extension of his ideas, it seems to us that the interweaving, on a territory, of social relations, family and professional networks constitutes a central element in the employment economy. The mobility decisions of employees and companies can thus obey personal considerations linked to the preservation of relational networks. These local networks circulate information more efficiently, they allow individual employment choices to be made and create a silo between individuals belonging to networks and those who do not belong to local networks.

The management of employment, skills and mobility is more effective in a territorial perspective understood as a spatial but also a relational framework. The "rapprochement between territory, knowledge, learning and the knowledge society is one of the most important justifications for the notion of territory" (Pesqueux, 2015, p. 49). Indeed, it is based on knowledge management in a cooperative situation by promoting the development of common relational resources (Salvetat et al., 2011). In the

process of knowledge management that rival firms set up, the authors question this relationship when they enter into a particular process of cooperation while they are usually in a competitive relationship. Coopetition is a term for relationships based as much on competition as on cooperation. The authors thus studied 37 organizations in the aeronautical and space sector in order to understand how the specificity of knowledge management is illustrated in such a framework. This coopetition materializes in particular when it comes to managing together this situation of skills and employment shortages. However, for coopetition to take place, it is also necessary to base the relationship on mutual trust obtained from a common territory and common relations.

In this context, “trust is often considered as constitutive of forms of territorial organization. It plays several positive roles: reducing uncertainty (which is exerted on competition and on market developments) and reducing information asymmetry between suppliers and customers. ”(Guerin and Sencébé, 2001, p. 3).

Social capital allows the efficient transmission of information, the control of opportunism and therefore that each individual respect collective rules of operation and, finally, it opens up prospects for collective action. On the other hand, social capital can also convey negative effects that lock the territory into itself by insufficiently capturing the potential gains from exchange. This is particularly the case when bonding-type trust relationships become predominant, and thus commercial relationships are no longer based on price but on other relational considerations. In addition, social capital can also oppose innovations by promoting mutual aid mechanisms, a source of positive externality which discourages potential entrepreneurs from embarking on a project from which they would receive only a small share of the benefits, and favors the logics of assistantship, leading to a “poverty trap” (p. 231). Finally, social capital can also promote collusion and thus discrimination based on a monopoly income captured by small groups excluding any competitor emerging within the territory or coming from outside.

Bonding and bridging are two distinct forms corresponding to two sides of the same coin which is social capital; they open up perspectives for analysis on one of its most important expressions, which is cooperation.

4. The territorial specificities of human capital through the local dynamics of employment.

In this section, we examine the literature that highlights these specific skills by explaining them in a rather rural context of a competitive market. The first step is to understand the existence of specific skills as an essential element of the functioning of the economy and in particular of the labor market. From there, the second step is about locating specific skills. They play a key role for companies in the territories where they compete. They take an important part in their competitive strategies by giving them a comparative advantage. Specific skills would therefore not only be “marginal” skills as one might have thought at the start of this work, but they would be essential to economic dynamics.

Several areas or segments of the labor market can coexist simultaneously and each can be considered as an economic subset with relatively autonomous functioning. They are often described as internal or external markets, primary or secondary markets within which specific mechanisms can apply and whose employees do not compete with those in other markets. As early as the 19th century, Cairnes began to describe the main compartmentalizing phenomena in the labor market. This work was supplemented over the course of the twentieth century, notably by the use of space and qualification factors.

4. 1- Specificity and spatial segmentation of the labor market

From the middle of the 19th century, it appears that the labor market can function sustainably in a compartmentalized manner. The existence of "non-competing groups" on the labor market is linked to the grouping of employees according to their membership in "social classes and / or level of education" (Dimou, 2007, p. 113).

The economic principles of labor market segmentation have been described in particular by Doeringer and Piore (1971). At the origin of this concept of segmentation or "balkanization" of the labor market, the authors highlight the differentiation between employees in an internal and external market of the firm and thus go further by translating the logics specific to each

group. population. The differentiation between employees depends on a classification process that is based on industry, age, education, gender, etc. Each population group is thus in one of these categories, referring to specific internal logics in terms of mobility, remuneration and promotion, without possible or in any case difficult transition to one of the other categories.

Among the causes of this phenomenon which contravenes the principles of the unified market, two are particularly important to us: one is related to training and the other to space. The first is based on theories of matching and brings together the factors of heterogeneity following professional logic and essentially based on the match between the positions to be filled and the qualifications available to employees. In other words, the efficiency of the productive apparatus depends on the quality of this pairing (Jovanovic, 1979). The observed productivity is the result not of the qualification or the equipment considered independently, but of the correspondence between the two to perform the required tasks. The larger the market and the denser and more diverse the population of employees and positions, the more productive the result of the match. In fact, the more contacts there are between suppliers and applicants, the higher the probability of obtaining an effective match.

The second cause of segmentation which is central in brings together the factors of heterogeneity according to spatial logics. According to Becker (1964), training (but also health and education) increases the productive capacities of people; he reasoning by analogy with physical capital, considering that there is capitalization and return on investment. Overall, on-the-job training is all the more important as adjustments are possible and even necessary between the position and the employee. The investment of companies in the training of employees allows the accumulation of knowledge and experience. It increases “directly operational productive skills” (Gautié, 2004, p. 36), thus creating wage reconciliations between internal and external markets. The second element of Becker's contribution concerns the almost fixed aspect of these skills. Indeed, the accumulation of human capital within companies is encouraged by their investment in training. Therefore, if the workforce needs to be adjusted, companies prefer to operate on the most recently hired workforce (Gautié, p. 36). In fact, companies participate via the accumulation of human capital in promoting a certain inertia and

ultimately in the low transferability of the workforce. Becker thus contributes to an enrichment of theoretical thought on the segmentation of the labor market.

In the 1990s, the revival of the geographic economy, led in particular by Paul Krugman, strongly contributed to putting the factors of competitiveness of companies linked to space back to the heart of concerns. Following on from Krugman's work, Thisse and Zénou (1997) focused their attention on the spatial segmentation of the labor market. Their hypotheses attribute the origin of one of these segments to local space. According to these authors, the causes of segmentation are to be found in economic models where the distance from a central point is essential. Workers and companies located mainly in urban centers experience better matches. The productive apparatus is more efficient, generating higher net income for employees and higher profits for companies. Employees have more financial means and can afford to stay near cities, thus forcing other employees to move away. The segmentation of the labor market is based on the location of companies via agglomeration effects.

Rural areas, for their part, do not have a large pool of labor and businesses, so they are forced to operate via local adaptations, which leads to accentuating the spatial segmentation of the labor market on the basis of qualifications. In this situation where manpower and positions are scarce, both employees and companies deploy strategies to attract and retain jobs, for some, and for others, employees, thus contributing to the viscosity of the labor market. This effect is combined with that of the specificity of the assets of which the human resource is a part. This local specialization of human resources and their skills is justified in the eyes of companies in the context of an open and competitive market. At the same time, however, it has the effect of considerably increasing the costs of transferring from one territory to another. The following section details the economic mechanisms that lead to the anchoring of assets and therefore to their territorial specificity.

4.2- An interpretation of segmentation by specific human capital

Williamson brings us a complementary element concerning the localization of companies via the human resources that he develops in the theory of transactions. Following on from Coase, he argues that transaction costs are at the origin of a new analysis of the firm and its relations with its competitors. These relationships are not only based on competition and can take the form of contracts or alliances with the ultimate goal of reducing transaction costs (Ghertman, 2003). These costs are classified into two categories, ex-ante costs and ex-post costs. The ex-ante costs are prior to an agreement between the agents, they relate to the costs of negotiation, drafting an agreement and taking guarantees. The ex-post costs arise after the agreement, during the execution of the contract. They relate to the costs of monitoring the execution of the agreement, correcting poor adaptations, adjusting and bargaining in the face of unforeseen events, as well as the costs of organization and operation to settle any conflicts. Therefore, it will be necessary to readjust and negotiate over time, resulting in costs to be absorbed. Williamson, for example, speaks of "opportunistic behavior of agents" as a generator of costs, including cunning, concealment or even lying in order to take advantage of an asymmetry of information. This is the case, for example, when a person presents a fake Curriculum Vitae to their future employer. All of these behaviors are at the source of costs for the company. Consequently, firms do not blindly trust the market, they integrate these behaviors into their internal functioning. However, the costs are not the same depending on the product exchanged, the nature of the economic agent (individual or another company) and the partnership. Each transaction is constructed on the basis of its relative uncertainty, of its frequency and finally of the specificity of the assets involved. It is these three attributes of the transactions which, combined, determine its true cost and consequently the arbitrage between modes of economic governance. Williamson thus introduces a theoretical justification for different “hybrid” forms based on contracts with adapted governance and which can permanently exist between the two reference institutions that are the firm and the market (Ghertman, 2003, p. 45).

The notion of specific asset in this theoretical set by Williamson breaks with the analysis that everything is standardized and tradable. According to Williamson, an asset is defined in reference to the degree to which it can be redeployed either for another use or for the same use by other users. So, there are investments that cannot be transferred to other partners because they are specific to this use. Several categories of specific assets (Lavastre, 2001) can thus be identified: assets located in a specific place, specific physical assets, dedicated assets, specific intangible assets and finally specific human assets. Our interest is in the category of specific human assets located in a place. Williamson thus repositioned the question of skills at the heart of firms' strategy; we will see later that this approach opens up important developments for our subject. But first, it is about better understanding how, in its conception, a skill can be specific.

The specificity can be relative to the human resource. In the labor market, for an individual who has skills as a welder for example, we will say that he has a low specificity because his skill can be used by different companies. The same individual, if he specializes in underwater welding, still has a welding skill, but in this precise case, his specificity is great. The assets are hardly redeployable, except for a certain type of contractors. From this example, we can better understand what the concept of specific asset means. Specialization can become an important component of an individual's qualification. In addition, by combining skills with experience, the evolution of the person and their adaptive capacity, this combination gives individuals their own competence and very little substitutable. Note that this competence is not only intrinsic to the individual but must also be analyzed through the organization within which he evolves. This cross between individual and organization is the heart of the specificity of human skills. Thus, what characterizes specificity is the degree of transferability or reuse of the skill by another company.

In short, on the analysis of the specificities of human resources at the territorial level and thus borrows from the concept the low transferability of certain skills characteristic of the local human resource. Williamson incorporates the specific human resource into his concept of idiosyncratic asset. Thus, the latter becomes a component of transaction costs, an explanatory

factor of economic cooperation. To function, the market must simultaneously take into account several forms of economic coordination, the operating costs of which can be very high.

In a territorial framework, the specific assets and in particular the specificity of the human resource via skills is justified in a logic of improving competitive competitiveness. Companies seek to differentiate themselves from competitors by having skills that they consider strategic. Much academic work has been done to better qualify these strategic skills. We are looking in particular at those which are not transferable since they may, in our opinion, correspond to specific territorial competences.

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Part III: The problematic of the sustainable development

Chapter 7 – Innovation for sustainable rural development.

1. Introduction

The relationship between innovation and sustainable development is often taken for granted, but by analysing them we are able to deconstruct the connection between these two concepts. While technological innovation can be driven by conventional and alternative proposals, including ecological proposals, this is not the case with economic and policy innovation.

In fact, the phrase “policy and institutional innovation” can be considered, like phrases such as “economic solidarity” or “inclusive growth”, to be an oxymoron. But, beyond its inherent contradictions, it is important to examine the relationship between innovation and sustainable development from different perspectives, including the technical and policy perspective.

From the technical point of view, the capacity of sustainable development to promote institutional, economic or policy innovation is non-existent. When the notion of sustainable development was invented (as it is neither a concept nor a paradigm), the expression was quickly associated with change, appearing on the agendas of United Nations agencies, governments, NGOs and multinationals, and became a tagline promoted by the media. Of course, sustainable development was a blessing to interest groups and global powers as it was a new concept without links to more radical ideas previously put forward, which posed a greater threat to the established economic order.

The theoretical content of sustainable development was, and still is, much less innovative than similar proposals by Ivan Illich (1972), Georgescu-Roegen’s analysis of the entropy of the economic process (1971; 1978) that foreshadowed the decline of political ecology, or even the Club of Rome’s “zero growth” proposal (1972) and Ignacy Sachs’ eco-development concept (1980).

Sustainable development led to the leopardization of the notion of development by emphasizing superficial changes without any real change. Technically, the real policy, institutional and economic innovations came before the invention of sustainable development. The problem is that these innovations were forgotten. In fact, the notion of sustainable development continues to be an interesting utopian proposal with no theoretical basis.

From the policy perspective, the story is slightly different. Even if sustainable development is not radically innovative compared to the economic perspective, policymakers are obliged to offer policy alternatives, be pragmatic, and act conscientiously. They must work together to develop new policies despite the obstacles and contradictions they face, and within the confines of their knowledge. But, as Boaventura de Sousa Santos (2016) points out, now that the aim of sustainable development is universally recognized in line with the Millennium Development Goals, a more innovative definition is needed that is more radical and democratic than in the past.

This document is divided into three sections. The first offers a brief overview of systems of innovation for sustainable development focused on family farming and rural areas. The second focuses on institutional mechanisms and policy instruments that promote innovation for family farming systems in the region. Finally, the third section notes some challenges facing innovation systems for them to provide effective and operational instruments and policy options for sustainable rural development in Latin America and the Caribbean.

2. Background on innovation for development

First, innovation is a permanent process of adaptation and rarely just a mechanism for creation and dissemination. For Schumpeter (1935), innovation is the creation of new combinations between different resources (production factors) with different economic and social purposes. For Flichy (1995), technological innovation, as well as social, organizational and institutional innovation, whether in business or public policies, is a process of creativity and the application of knowledge.

According to Gondard (1991), who revisited the distinction between innovation and invention established by Schumpeter, innovation is a successful invention that is used by people.

Secondly, innovation is based on collective action. Darré (1986) showed that farmers can innovate individually on their own plot of land or production unit, but this innovation is based on interactions with other farmers and with various actors in networks and groups, such as the socio-technical networks analysed by Bruno Latour and Michel Callon (1986; 1991)4 , among others.

According to B. Latour (1989), new knowledge or technical innovation is developed through the partnership between individuals and organizations in social-technical networks. Therefore, the success of an innovation depends on the size and strength of the socio-technical network where it was developed (Akrich, et al., 1988).

Callon (1986) defines the process as a set of tasks and steps to establish and stabilize the socio-technical network.

These interactions consider technical innovation as part of a set of social and institutional innovations and learning processes in the context of collective action involving producers, agricultural services, as well as the suppliers of inputs, commercial firms, research centres and universities, banks and even the media (Alter 2000). In the context of collective action, learning can be defined as the production and transformation of knowledge through the coordination between stakeholders based on the standards and rules governing such actions (Dutrenit and Suchs, 2014).

Indeed, according to Hatchuel (2000), it is not possible to separate knowledge from the relationship between stakeholders and other entities in the learning process. For Ostrom (1990, 1992), in the centre of collective action, the learning process is the practical implementation of knowledge, norms and rules.

3. Institutional mechanisms and public policy instruments for innovation in family farming

Rural extension or technical assistance policies for family farming have played a key role in the sharing of inputs and technology that have led to successes in the green revolution. According to Schumacher (1973) and Sachs (1980), in the 1970s various national centres for technical assistance and rural extension (ATER) in Latin America (Embrater, Brazil; INTA, Argentina; Guatemala, Peru, etc.), tried to evolve by adopting alternative technologies. However, dictatorships in these countries and the vested interests of suppliers quickly ended these attempts. From that period on, these centres, with exceptions often linked to agro-ecology (Argentina, Cuba, Brazil) or the use of the Internet (Uruguay and Chile), ceased to be truly innovative in their methods or to promote technological innovations for more sustainable development.

A 2014 study by Red PP-AL on family farming policies in Latin America and the Caribbean, which was published by ECLAC and IICA (Sabourin et al, 2015), shows progress in the area of credit and support for farmers' organizations with specific policy instruments for family farming. However, it also shows limited innovation in rural extension policies and instruments at the government level. The exceptions are mainly found in Uruguay with its CREA farming groups and digital education (Alzugaray et al, 2014), and Chile with its public agriculture program, INDAP, and digital technical support. It is also worth mentioning an initiative in Central America focused on providing public support for Farmer-to-Farmer (Campesino a Campesino) programs in Nicaragua, Costa Rica, Guatemala and Ecuador, and the proposed launch of an agro-ecological ATER in Brazil in 2013 (Petersen, 2006), which has been delayed by the fall of former President, Dilma Rousseff.

Alternative initiatives have come from civil society and, in particular, farmers' collectives that have shared ideas through agricultural innovation networks, such as the Campesino a Campesino experience in Central America, the Rural Family Schools in the Southern Cone and Brazil, and the Andean alternative technology groups in Bolivia, Peru, Ecuador and Colombia.

Currently in Latin America, civil organizations, farmers' collectives and public institutes in Bolivia, Chile, Cuba and Uruguay are making progress in terms of knowledge sharing among farmers for the agro-ecological transition (Pra et al, 2016), although some setbacks in this process have been observed in Brazil, Argentina and Paraguay.

2.3.1 POLICY INSTRUMENTS FOR MARKET ACCESS

Another area that has benefitted from policy innovation is public support for farmers' access to markets. There are three types of instruments, although it should be noted that these are embedded in the current liberalization of markets and are no longer implemented through structural support for agricultural chains or the regulation of prices that is now prohibited by WTO rules (unless used covertly by countries like the USA, Canada, Australia and the European Union).

Support for organization or commercialization: this includes public procurement programs from family farming for public institutions (schools, hospitals, national parks), under Brazil's Food Purchase Program (PAA in Portuguese), which has been widely disseminated in the region with FAO's support.

Support for separate market spaces for farmers: these include markets of producers in the Andean countries (Bazan and Sagasti, 2014), farmers markets in Argentina and Chile, agro-ecological markets in Brazil, and community initiatives in urban/peri-urban areas or other types of support to shorten supply chains or facilitate exports (Chambers of commerce for certain products, or productive linkages through small producers' associations in Chile and Colombia).

Instruments for the certification of the quality, origin and processing of products. Currently, the majority of Latin American countries provide such instruments but Brazil stands out with important initiatives in the area of participatory certification and certification by social control organizations known as OCS (Pra et al, 2016).

2.3.2 THE NEW MIXED POLICIES FOR FAMILY FARMING OR "POLICY MIX"

Faced with a diversity of national, sub-regional and territorial situations, Red PP-AL's regional study (Sabourin et al, 2015) pointed out an existing mixture of public policy innovations. In this regard, the study recommends a "policy mix", which reflects the specific conditions of family farming in different countries, as an alternative to the agricultural modernization policies of the 1970s and 1980s, which were characterized by their homogeneity and lack of adaptation to local conditions.

Specifically, the study noted the coexistence of transversal policies (sustainable development, environment, regional development, food security, fight against poverty) and sector-specific policies, which are usually overseen by ministries other than the Ministry of Agriculture (for example, ministries of rural development, social development, family economy and solidarity, among others). This trend, although sometimes disturbing in terms of the segmentation of target populations, differs little from dual agricultural policies. In countries like Brazil, agri-business continues to be regulated by the "real" Ministry of Agriculture, while dealing with family agriculture, poverty and ethnic diversity, is entrusted to other ministries or secretariats, such as the former Ministry of Agrarian Development, with a lower allocation of resources and power.

Based on the historical development of agricultural policies in certain countries, this can be interpreted as a victory for social movements and alternative groups long marginalized or ignored. However, it may be a false victory since it can be a way of providing social protection for some producers, even as their economic marginalization continues, opening more space and productive and financial support for agribusiness.

Public policies concerned with family farming and land development have a dual purpose. On the one hand, policy instruments are used to strengthen the rural economy based on family labour, contributing to the development of territories where family farming produces a significant proportion of food and income, and is the basis for important value chains. In this

way, territorial development programs, including the management of agro-ecosystems, sustainable management of biodiversity and natural resources, or adaptation to climate change help to improve conditions and prospects for family farmers.

But the role of family farming is not limited to agricultural production, but is closely associated with other economic activities, livelihoods and rural ways of life, as well as influencing social fabrics and cultural identities. Therefore, policies, processes and technical assistance initiatives are needed that address family farming and land development in an integrated way.

2.4.1 THE NEED FOR A SYSTEMS INTERFACE MECHANISM

Reciprocal systems, which thrive within collectives, and the business exchange system in markets for goods, services and labour, need a systems interface mechanism.

The first possible mechanism depends on whether the collective or community maintain control of their rules and structures of reciprocity, such as mutual aid, shared management of resources, etc. (Temple, 2003). For example, in the commercialization of products, the control of the transaction by the producer is possible in the case of direct sales in their production unit or local market, or through networks of economic solidarity. Apart from the control of supply chains, direct sales through physical encounters between producers and consumers, create, in addition to a commercial relationship, a face-to-face relationship of reciprocity, which favours human relationships and generates values of respect, friendship and trust (Sabourin, 2012).

The second possibility depends on the existence of public policies or legislation that facilitate a systems interface mechanism (Temple, 2003). Firstly, the practices and relationships of reciprocity should not be destroyed only to promote the "development" of commercial exchange, which often happens through the state's redistribution policies. One possibility, in this regard, is to protect territory-based reciprocal economic arrangements (or mixed) through public policies. This could be through production rights such as quotas, private markets, public procurement, etc., or by promoting processes of qualification and certification of quality or origin of products.

Reciprocal social relationships generate specific ethical and emotional values. However, these do not resolve everything and technical and institutional competencies are also needed with a suitable legal framework. This is essential, since together with fostering ethical and emotional values, they contribute to the restarting and reproduction of cycles of cooperation.

Systems interfaces constitute what Ploeg (2008) called conversion mechanisms: joint reciprocal/exchange mechanisms allow a conversion of meaning and values. However, the identification, experimentation, analysis and validation of exchange systems require research in real conditions over time.

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Chapter 8 – Challenges to strengthening agricultural innovation systems

1. Agricultural innovation second time around

Since the earliest days of development assistance, investments in agriculture through research and technology transfer have been central to rural development strategies. After falling from grace in the 1990s, a rush of new initiatives and the publication of the 2008 World Development Report on agriculture suggest that agriculture and agricultural science and technology are once again riding high in the development assistance world.

New this time around is the focus on innovation and the idea of innovation systems. The shift in viewpoint that this signal is simple, but fundamental. If we are interested in development, and if we agree that development is about change, let us worry less about the supply of new knowledge and technology from research and concentrate instead on the conditions needed to demand and use knowledge to bring about that change.

There are now so many initiatives with an agricultural innovation component, many of them flagging their use of the innovation systems concept, that it is impossible to mention all of them here. Some are new and some, like the Innovation and Communication group at Wageningen Agricultural University, have been working with these ideas for many years. And this is not just the case in Anglophone regions and literature, but is a theme that is also emerging in Francophone West Africa and in Latin America.

1.1. AGRICULTURAL SCIENCE: A HISTORY OF FALSE DICHOTOMIES

If one steps back from this new interest in agricultural innovation, it is possible to see this as part of a much longer story of arguments about how agricultural knowledge should be used for development. Some of our recent research on the evolution of the International Agricultural Research Centres found that this has been hotly debated by scientists since the 1960s.

These arguments include: Should plant breeding be conducted in on-station trials or in farmers' fields? Should research be organised around commodities or around eco-regions? Should it take the form of traditional research, farming systems research or farmer participatory research? Is farmer knowledge superior to scientific knowledge? Should technology be modern or intermediate? What types of research lie in the public domain and what in the private? What constitutes international public good research and what is locally-relevant, applied research and development?

For every convincing narrative of one position, there is an equally convincing counter-narrative: High-yielding cereal revolutionized food production in Asia, but failed to do so in Africa. Privatization of seed supply systems improves client orientation in India, but not in Bangladesh. Participatory plant breeding is more client-orientated, but genetic mark-assisted selection is cheaper.

The innovation studies literature has been good at categorizing different styles of agricultural innovation and this, in combination with the efforts of practitioners to promote different approaches, has led to recognizable eras or paradigms of agricultural innovation. Table 1 (see below) presents an overview. The debates mentioned above among agricultural scientists and authors like myself (and table 1, 2 and 3 are illustrations of this) have tended to imply an "either/ or" dichotomy — it is either farming systems research or it is farmer participatory research. Of course, in reality, these approaches are additive, but our tendency is to promote the new by vilifying the old. This has left us with a debate characterised by a history of false dichotomies.

Table 1. Characteristics of different paradigms of agricultural innovation

Paradigm	Transfer of Technology	Farming Systems Research	Farmer First / Farmer Participatory Research	Interactive Learning for Change/ Innovation Systems
Era	Widespread since the 1960s, but building on a very long history	Starting in the 1970s and '80s	Starting in the 1990s	Work in progress
Organisation focus	Agricultural research organisation arranged as a National Agricultural research organisation	Agricultural research organisation arranged as a National Agricultural research organisation NARS	NARS as part of AKIS including agricultural extension and education organisations	NARS as part of agricultural innovation systems
Mental model of activities	Supply through pipeline	Learn through survey	Collaborate in research	Interact and learn for innovation
Farmers seen by scientists as	Progressive adopters, laggards	Objects of study and sources of info	Colleagues	Key actors among many others
Farmers' roles	Learn, adopt, conform	Provide information for scientists	Diagnose, experiment, test, adapt	Co-generate knowledge, processes and innovation
Scope	Productivity	Input-output relationships	Farm-based	Beyond the farm gate
Core element	Technology packages	Modified packages to overcome constraints	Joint production of knowledge	Facilitated interactive innovation, learning and change
Driver	Supply push from research	Scientists' need to learn about farmers' conditions and needs	Demand pull from farmers	Responsiveness to changing contexts
Key changes Sought	Farmer behaviour	Scientists' knowledge	Scientist-farmer relationships	Institutional, professional and personal, affecting interactions and relationships between all actors
Intended outcome	Technology transfer and uptake	Technology produced with better fit to farming systems	Co-evolved technology with better fit to livelihood systems	Enhanced capacities to innovate
Innovators	Scientists	Scientists adapt packages	Farmers and scientists together	Potentially all actors
Intervention mode	Core funding of research and research infrastructure development	Core funding of research and research infrastructure development	Decentralised technology development and planning	Strengthening systemic capacity to innovate
Role of policy	Set priorities and allocate resources for research	Set priorities and allocate resources for research	Set priorities and allocate resources for research in consultation with different stakeholders	Integral part of innovation capacity. Strengthening enabling environment and support system coordination

Source: Adapted from an unpublished note by Robert Chambers, Andy Hall and others, and developed at the IAASTD meeting, Montpellier, France, 2005

The same goes for the phasing that we have ascribed to different modes of innovation capacity building, although it does acknowledge slightly better the additive nature of these ideas (see table 3). These are useful presentational devices, but seem somewhat at odds with the eclecticism that systems thinkers like me would claim to espouse.

Table 2. The evolution of agricultural innovation capacity development frameworks

Defining features	Classic NARS	Classic AKIS (as defined by FAO-World Bank 2002)	Agricultural Innovation Systems
What this is	Organising framework for planning capacity for agricultural research, technology development and transfer	Organising framework for strengthening communication and knowledge delivery services to people in the rural sector	Organising framework to strengthen the capacity to innovate and create novelty throughout the agricultural production and marketing system
Who this	1. National Agricultural Research Organisations 2. Agricultural Universities or Faculties 3. Extension services 4. Farmers	1. National Agricultural Research Organisations 2. Agricultural Universities or Faculties 3 Extension services 4. Farmers 5. NGOs and entrepreneurs in rural areas	Potential all actors in the public and private sectors involved in the creation, diffusion, adaptation and use of all types of knowledge relevant to agricultural production and marketing.
Outcome	Technological invention and technology transfer	Technology adoption and innovation in agricultural production and marketing in rural areas	Combinations of technical and institutional innovations throughout the production, marketing, policy research and enterprise domains.
Organising principle	Using science to create knowledge Invention-driven	Accessing agricultural knowledge Invention-driven	Creating change for social and economic change Innovation-driven
Theory of innovation	Transfer of technology	Interactive learning	Interactive learning
Degree of market integration	Nil	Low	High
Role of policy	Resource allocation, priority setting	Enabling framework	Integrated component and enabling framework
Nature of capacity strengthening	Infrastructure and human resource development	Strengthening communication between actors in rural areas.	Same as NARS and AKIS and in addition: Combination of: strengthening linkages and interaction; institutional developments to support interaction, learning and innovation, the creating of an enabling policy environment

World bank 2006

2. Creating space for diversity and sharing innovation experiences

Ultimately, the question of organizing interactions for innovation is a question of what policies and institutional regimes are going to be needed to make this happen, and happen in ways that best balance the trade-offs among societies' multiple goals. It appears there are two priorities here if we want to help stimulate institutional and policy change.

The first is to create the space for the diversity of different ways of organising interactions to emerge. The greater the diversity we create, the more innovation experiences there are to help us understand how best to organise for innovation. This, in turn, helps us develop policies and institutions that support the collective intelligence approach across the agricultural sector and the wider society it is located in. This is the virtual spiral of innovation practice and policy learning I mentioned in my introduction.

The problem here is that to bring about policy and institutional changes one needs sufficient diversity of innovation experiences to build our repertoire, draw generalities from and make the case for change. Often, however, policy and institutional settings stifle the diversity of approaches. Anybody working in large agricultural research organisations will know all too well the restrictions placed on doing things differently. I experienced this myself working with participatory research methods in East Africa in the earlier 1990s. We experienced it again in 2007 with the CGIAR's reluctance to accept FARA's Sub-Saharan Africa Challenge Programme's experiment with the development of what it terms an integrated agricultural research for development approach.

This is why policy and institutional change is important. Similarly, this is also why special projects and groups working at the margins of research organisations' mandates are so critical in making space for doing things differently. One can imagine a ratchet effect where new innovation experiences bring about small policy changes that, in turn, open up new space. However, the history of agricultural research and innovation suggests that this process is very slow.

Special projects, non-government organisations, and the private sector have been steadily generating different innovation experiences. Similarly, the innovation studies community — while relatively small — has also built on a large body of different experiences and come up with a range of often overlapping policy perspectives on how to promote agricultural and rural innovation.

Maija Hirvonen recently completed a "LINK Tourist Guide to Agricultural Innovation Studies" (Forthcoming, 2008) and identified six distinctly different, although overlapping schools of thought on this topic. (i) The social learning and communications school, with its roots in agricultural extension and pioneered by the Wageningen group; (ii) The local innovation processes/ farmers knowledge school, a very wide category with its roots in the Farmer First movement and championed by, among many others, by PROLINOVA. (iii) The science and society school with IDS as a leading player; (iv) The institutional learning and change (ILAC) school (v) The agricultural innovation systems school; (vi) The market systems and innovation school, championed by KIT, CIAT, and CIP/ Papa Andean/ Condesan in Latin America.

On reflection there probably should be a category for Boru Douthwait's learning selection genre of studies and one for the institutional histories approach that Boru and his colleagues from CIAT have developed. Rural innovation in alternative institutional settings with its roots in studying innovation in civil society and the pioneering work of Shambu Prasad and his unique genre of historical accounts of rural innovation And I am sure that the list could be extended. Note here my tendency to categorise and pigeonhole these different sets of innovation narratives! Let me stress that they are all important.

So why then haven't these different innovation experiences been better deployed in institutional and policy change? I believe the underlying problem here is related to the issue raised earlier about the way the diversity of approaches and experiences has led to atomisation and contending coalitions rather than coherence and collective learning.

The second priority for helping with institutional and policy change is therefore to mobilise the existing diversity of innovation experiences. At first glance it might seem that there is little

common ground in these experiences. What is common, however, is the experience of how to successfully organise interaction for innovation.

In practical terms, what this means is establishing mechanisms and structures to facilitate the sharing of these experiences across the global agricultural and rural development community — including practitioners, policymakers, donors, entrepreneurs and scientists. This sort of approach is usually referred to as a Community of Practice approach.

Do we need it? Well, it seems quite clear that currently the “space” and process to effectively share different innovation experiences and ideas are absent. In the same vein, the disconnected efforts of different innovation groups have not been sufficient to kickstart the institutional and policy change process at a sufficient scale or speed. To answer my introductory question, this is why we are still here today and it is something all of have a responsibility to address.

So if we are really serious about agricultural innovation systems as a way of achieving our development goals, we must reflect on the sorts of alliances and activities needed to consolidate and share what is known about innovation — in all its diverse forms — and to share these experiences in an effort to stimulate the virtuous spiral of innovation practice and policy learning.

If we don’t do this I can look forward to attending another conference in IDS on the same issues at around the time I start to collect my pension in 2027.

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Part IV: Social innovation and territorial development

Chapter 9 – The social innovation and territorial development

Introduction

Social innovation is a concept significant in scientific research, business administration, public debate and ethical controversy. As we will see in the next section, the term is not new, especially in the scientific world. But it has returned to prominence in the last 15 years, after a period of neglect. It is used in ideological and theoretical debates about the nature and role of innovation in contemporary society (Hillier et al. 2004), either to confront mainstream concepts of technological and organizational innovation, or as a conceptual extension of the innovative character of socio-economic development. That is, the concept enlarges the economic and technological reading of the role of innovation in development to encompass a more comprehensive societal transformation of human relations and practices (Moulaert and Nussbaumer 2008). A variety of life-spheres and academic disciplines have taken on board the concept of social innovation. To begin with, social innovation is a hot topic in business administration where it refers to two new foci. The first one gives more attention to the social character of the firm: the firm as a network of social relations and as a community in which technological and administrative changes are just one part of the innovation picture, the institutional and social being of at least equal importance. To put it more strongly: the business administration literature increasingly stresses how many technological innovations fail if they are not integrated into a broader perspective in which changes in social relations within, but also embedding, the firm play a key role. If this sounds like the ultimate form of capitalism, that is, the commodification of all social relations within and across firms, it also refers to a second concern, which is to let firms play a more active social role in society – discursive or real. This sought-for social role often reflects a pure marketing strategy in the sense of ‘make the firm look more socially responsible so as to sell better’; but it can also stand for a real alternative,

ranging from a diversity of 'Corporate Social Responsibility' initiatives to the establishment of new units or subsidiaries that are fully active in the social economy, or/and have resolutely opted for ecologically and socially sustainable outputs and production models (Moulaert and Nussbaumer 2008). But social innovation is not only back on stage in business administration, it is the driving force of many NGOs, a structuring principle of social economy organizations, a bridge between emancipating collective arts initiatives and the transformation of social relations in human communities. This edited volume is about social innovation and territorial development. It focuses on social innovation not only within a spatial context, but also as 'transformer' of spatial relations. It defines social innovation as the satisfaction of alienated human needs through the transformation of social relations: transformations which 'improve' the governance systems that guide and regulate the allocation of goods and services meant to satisfy those needs, and which establish new governance structures and organizations (discussion fora, political decision-making systems, firms, interfaces, allocation systems, and so on). Territorially speaking, this means that social innovation involves, among others, the transformation of social relations in space, the reproduction of place-bound and spatially exchanged identities and culture, and the establishment of place-based and scale-related governance structures. This also means that social innovation is quite often either locally or regionally specific, or/and spatially negotiated between agents and institutions that have a strong territorial affiliation. Before focusing, in the third section of this chapter, on social innovation in and through space, I first adopt a more historical perspective and examine how the concept of social innovation has been present in academic literature since the beginning of the twentieth century, and even before.

1. Social Innovation in Contemporary Social Science

In contemporary social science, there is growing interest in the idea of social innovation. I have singled out four spheres, or approaches, utilizing the concept which I present briefly here. The first sphere is that of management science and its potential to share themes with other social science disciplines. For instance, within social science literature, authors emphasize opportunities for improving social capital which would allow economic organizations either to

function better or to change; this would produce positive effects on social innovation in both the profit and non-profit sectors. This emphasis on and reinterpretation of social capital, which has also been taken on board in management science, would include economic aspects of human development, an ethical and stable entrepreneurial culture, and so forth, and thus facilitate the integration of broader economic agendas, such as those which advocate strong ethical norms (fair business practices, respect for workers' rights) or models of stable reproduction of societal norms (justice, solidarity, cooperation and so on) within the very core of the various entrepreneurial communities. However, the price paid for this sharing of the social capital concept across disciplines is that it has become highly ambiguous, and its analytical relevance is increasingly questioned (Moulaert and Nussbaumer 2005b). The second sphere arises from the fields of arts and creativity. It encompasses the role of social innovation in social and intellectual creation. Michael Mumford unlocks this idea in a paper which defines social innovation as:

> l'émergence et la mise en œuvre d'idées nouvelles sur la manière dont les individus devraient organiser les activités interpersonnelles ou les interactions sociales afin de dégager un ou plusieurs objectifs communs. Au même titre que d'autres formes d'innovation, la production résultant de l'innovation sociale devrait varier en fonction de son ampleur et de son impact. (2002,253) (2002, 253)
>
> [the emergence and implementation of new ideas about how people should organize interpersonal activities, or social interactions, to meet one or more common goals. As with other forms of innovation, results produced by social innovation may vary with regard to breadth and impact.]

Mumford, author of several articles on social innovation in the sphere of arts and creativity, posits a range of innovations from the 'macro-innovations' of Martin Luther King, Henry Ford or Karl Marx to 'micro-innovations' such as new procedures to promote cooperative working practices, the introduction of new core social practices within a group or the development of new business practices (2002, 253). Mumford presents his own view of social innovation

employing three main 'lines of work': the life history of notable people whose contributions were primarily in the social or political arena; the identification of capacities leaders must possess to solve organizational problems; the development, introduction and adaptation of innovations in industrial organizations. He then applies a mixed reading along these three lines to an examination of the work of Benjamin Franklin and arrives at a definition that parallels and shows synergies within the approach of the 'Sociologist as an Artist'. The third sphere concerns social innovation in territorial development. Moulaert (2000) stresses local development problems in the context of European towns: the diffusion of skills and experience amongst the various sectors involved in the formation of urban and local development policies; the lack of integration between the spatial levels; and, above all, neglect of the needs of deprived groups within urban society. To overcome these difficulties, Laville et al. (1994) and Favreau and Lévesque (1999) put forward neighborhood and community development models. Moulaert and his partners in the IAD project have suggested organizing neighborhood development along the lines of the Integrated Area Development approach, (the Développement Territorial Intégré) which brings together the various spheres of social development and the roles of the principal actors by structuring them around the principle of social innovation. This principle links the satisfaction of human needs to innovation in the social relationships of governance. In particular, it underlines the role of socio-political capacity (or incapacity) and access to the necessary resources in achieving the satisfaction of human needs; this is understood to require participation in political decision making within structures that previously have often been alienating, if not oppressive (Moulaert et al. 2007). A similar approach has been proposed for regional development policy: the 'Social Region' model offers an alternative to the market logic of Territorial Innovation Models (TIM; see Moulaert and Sekia 2003), replacing it with a community logic of social innovation (Moulaert and Nussbaumer 2005a). The fourth sphere in which social innovation is the order of the day is that of political science and public administration. Criticisms of the hierarchical character of political and bureaucratic decision-making systems are well known and are at the root of new proposals concerned with change in the political system and, above all, in the system of public administration. Several approaches

or initiatives have been developed: the use of territorial decentralization (regionalization, enlarging the power and competence base of localities) in order to promote citizen access to governance and government; an increase in the transparency of public administration; the democratization of administrative systems by promoting horizontal communication; a reduction in the number of bureaucratic layers. All are designed to give more control and influence to both users and other 'stakeholders' (Swyngedouw 2005; Novy and Leubolt 2005).

2. Social Innovation and Territorial Development

Social innovation analysis and practice have devoted particular attention to the local and regional territory. In Western Europe, but also in other 'post-industrial' world regions like North America and Latin America, urban neighborhoods have been the privileged spatial focus of territorial development based on social innovation. There are many explanations for this focus. First, there is the high tangibility of decline and restructuring in urban neighborhoods: plant closure in the neighborhood or within its vicinity erodes the local job market; high density of low-income social groups manifests in spending behavior and social interaction; lived experience of the consequences of physical and bio topical decline affects community life, and so on. Because of spatial concentration, in general, the social relations, governance dynamics and agents 'responsible for' the decline are more easily identifiable in urban neighborhoods than in lower density areas or at higher spatial scales. Proximity feeds depression, fatalism, localized déjà-vus, and so on. But, second, spatial density simultaneously works as a catalyst for revealing alternatives, however meagre they may be; urban neighborhoods spatially showcase the cracks of hope in the system (to paraphrase CityMine(d) which uses the term KRAX, or urban ruptures or crack lines – see KRAX Journadas n.d.). Their proximity to the institutional and economic arenas underscores the ambiguity of these neighborhoods: they are both hearths of doom – they could not avoid or even 'architecture' the decline – and ambits of hope – these arenas of dense human interaction show and often become loci of new types of social relations and drivers of alternative agendas. The ambiguity of the status of local territories as breeding grounds of socially innovative development is well known in the literature. On the one hand these territories very often have lived long histories of 'disintegration': being cut off from

prosperous economic dynamics, fragmentation of local social capital, breakdown of traditional and often beneficial professional relations, loss of quality of policy delivery systems, and so on. In this context Moulaert and Leontidou (1995) have called such areas disintegrated areas (see also Moulaert 2000). On the other hand, several of these areas have been hosts for dynamic populations and creative migration flows which have been instrumental in (partly) revalorizing social, institutional, artistic and professional assets from the past, discovering new assets and networking these into flights towards the future. In this sense, there is an artificial split within the local community-based development literature between the more traditional 'needs satisfaction', 'problem solving' approach, and the more diversity-based, future-oriented community development approach which looks in particular at the identification of aspirations, strengths and assets of communities to move into a future of hope (see Chapter 2, by Gibson-Graham and Roelvink, in this book; Kretzmann and McKnight 1993).

A thesis defended throughout the chapters in this book is that needs satisfaction and assets for development approaches cannot be separated, either for the purpose of analysing local socio-economic development trajectories of the past, or for the construction of alternatives for the present and future. The philosophy of the Integrated Area Development approach is based on the satisfaction of basic needs in ways that reflect not only the alienation and deprivation of the past, but also the aspirations of the new future. This satisfaction should be effectuated by the combination of several processes:

- the revealing of needs, and of potentials to meet them, by social movements and institutional dynamics – within and outside the state sphere, with a focus, but a non-exclusive focus, on the local scale;
- the integration of groups of deprived citizens into the labor market and the local social economy production systems (referring to activities such as housing construction, ecological production activities, social services);
- education and professional training leading to integration into the labor market, but also to more active participation in consultation and decision making on the future of the territory. The institutional dynamics should continually enrich local democracy, the

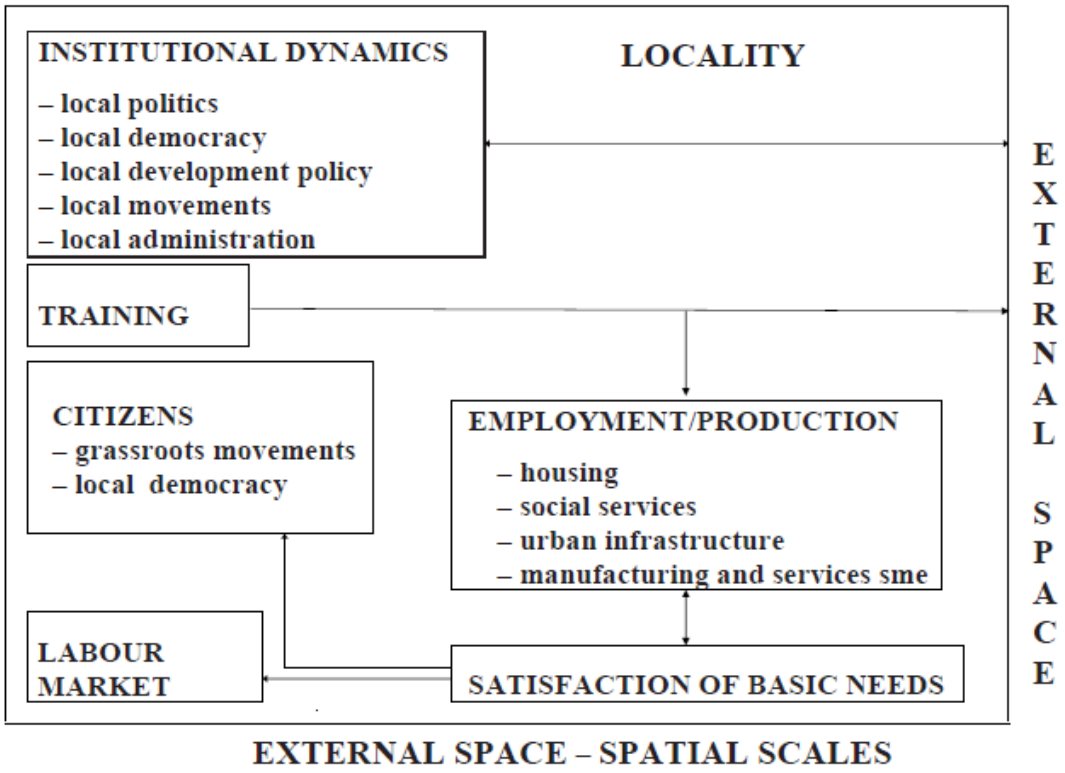
relations with the local authorities and the other public as well as private partners situated outside the locality but taking part in the local development. The local community could in this way seek to regain control of its own governance, and put its own movements and assets at the heart of this process of renaissance (Martens and Vervaeke 1997; Mayer forthcoming; García 2006).

Looking more closely at how the above processes are materialized, Integrated Area Development is socially innovative in at least two senses. First of all, from a sociological perspective, IAD involves innovation in the relations between individuals as well as within and among groups. The organization of groups and communities, the building of communication channels between privileged and disfavored citizens within urban society, the creation of a people's democracy at the local level (neighborhood, small communities, groups of homeless or long term unemployed, and so on) are factors of innovation in social relations. Governance relations are a part of the social relations of Integrated Area Development; without transformation of institutions and practices of governance, it becomes more or less impossible to overcome the fractures caused by different disintegration factors within communities and their local territories (Garcia 2006; LeGalès 2002). The second meaning of social innovation within IAD reinforces the first: it evokes the 'social' of the social economy and social work (Amin et al. 1999). The challenge here is to meet the fundamental needs of groups of citizens deprived (démunis) of a minimum income, of access to quality education and other benefits of an economy from which their community has been excluded. There are different opinions on the nature of fundamental or basic needs, but a consensus is developing that a contextual definition is needed, according to which the reference 'basket' of basic needs depends on the state of development of the national/regional economy to which a locality belongs. 'State of development' here refers to the income per capita, the distribution of income and wealth and the cultural dynamics and norms determining so-called secondary needs. The combination of these two readings of social innovation stresses the importance of creating 'bottom-up' institutions for participation and decision-making, as well as for production and allocation of goods and services (see Figure 1.1). The mobilization of political forces which will be capable of

promoting integrated development is based on the empowerment of citizens deprived of essential material goods and services, and of social and political rights. Such a mobilization should involve a needs-revealing process different from that of the market, which reveals only necessities expressed through a demand backed up by purchasing power – the only demand that is recognized in orthodox economics. In a decently working Welfare State/economy persons and groups without sufficient purchasing power could address themselves to the existing systems of social assistance and welfare for the satisfaction of their needs. But these sources of goods and services are often downsized by the austerity policy of the neoliberal state or by the dominance of allocation criteria based on individual merits; they therefore do not always provide an acceptable level or quality. Experiences of alternative territorial development, inspired and/or steered by socially innovative agencies and processes, unveil different aspects of the double definition of social innovation at the level of cities and urban neighborhoods. Professional training targets the reintegration of unemployed into the regular labor market but also into new production initiatives in the construction sector, the consumption goods sector, ecological production activities, and so on (Community Development Foundation 1992). In many localities, new networks for production, training and neighborhood governance are being explicitly constructed (Jacquier 1991; OECD-OCDE 1998; Favreau and Levesque 1999; Fontan et al. 2004; Drewe et al. 2008). But to achieve the ambitions of Integrated Area Development, the different pillars of IAD (territorially based needs satisfaction, innovation in social relations and socio-political empowerment) should be effectively materialized and connected. Far from seeking to impose an 'integral integration', connecting all the theoretical constituents of the approach, we consider territorial development projects as integrated when at least two 'sectors' (sectors of materialized IAD pillars are: training and education, labour market, employment and local production) are linked and when an active governance (reproduced through community empowerment and institutional dynamics) steers or feeds this connection (Moulaert 2000). Socially innovative governance in IAD has as an objective the democratization of local development, through activating local politics and policy-making, simplifying the functioning of institutions and

attributing a more significant role to local populations and social movements (Novy and Leubolt 2005). The empowerment of the local population is primordial to democratic governance and the building of connections between the sections of the local system. It is, in the first place, implemented by jointly designed procedures of consultation and shared decision making about the needs to be revealed and met, and about the assets that could be put on track to this end.

Figure 1.1 Social innovation and integrated area development Source: Based on Moulaert et al. (2000).



3. The Social Relations of Territorial Community Development

There exist many different orientations for strategies of social innovation at the level of neighbourhoods and localities (cultural, technological, artistic, artisanal; and equitable provision of 'proximity services' – see City 2004; André et al. Chapter 9 in this book). This book (especially the second part) focuses on territorially integrated experiences or projects that

combine various initiatives built on forces that are socially organized at diverse but articulated spatial scales, with the purpose of satisfying the existential needs of inhabitants, and in the first place those inhabitants deprived of resources. The rich diversity of research into such initiatives allows exploration of the relationship between path dependence, the present and the future of neighbourhoods, as well as between the analysis of and the strategies for territorial and community development. These relationships are difficult and refer as much to the problems raised by the (structural, institutional) determinants stemming from socioeconomic history as from the potential conflicts and opportunities that the confrontation of 'past' and 'future' as well as 'here' and 'elsewhere' can generate. In this respect, the analysis of path dependency as embedded in territorial development helps to avoid a deterministic reading of both the past and the structural–institutional context in which territorial and community development (should) take(s) place. Thus considered, the 'va et vient' between lived development and pro-active development, has generated a number of observations on the nexus of social relations and territorial development:

- The social relations of territorial development are not legible in general terms, but require an explication of the nature of development, the type of socio-political development, the nature of the strategic actors and the relationships with the territory – in all its social, political, economic, etc. dimensions.
- The same holds for the analysis of social capital within territorial social relations, where one should avoid at any price an instrumental interpretation. Social capital is socially embedded – and this is not a tautological observation but rather a confirmation of the fragmented nature of social relations and their links with the economic, cultural and symbolic capital of individuals and groups that belong to specific social communities (Moulaert and Nussbaumer 2005b). From this viewpoint, social innovation means not only the (re)production of social capital(s) in view of the implementation of development agendas, but also their protection from fragmentation/segmentation, and the valorization of their territorial and communal specificity through the organization and mobilization of excluded or disfavoured groups and territories.

I conclude that social innovation in territorial development must be addressed through a detailed analysis of how social and territorial logics interact with each other. In Lefebvrian terms (1991 [1974]) one should indeed devote reflection to the following questions:

- How does social innovation relate to the social production of space?
- Should it only be interpreted in terms of production (and production of perceived space) or is it also part of conceived and lived space?

Within much of the literature, social innovation in its territorial dynamics is expressed in terms of the representation of space, or even of spatial practice. But in reality, its materialization depends significantly on its relations with the lived space and its perception; in fact, it is this lived space that will produce the images and the symbols to develop a new language, and the Imagineering tools to conceptualize a future social space.

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Part V: Case study

Chapter 10 – Methodology of case study. Diagnostic methodology for the territory project: an approach using spatial models.

The diagnosis of territory, an approach to be built

Public policies make territorial diagnosis a prerequisite for any territorial procedure and, increasingly, for any local development action. Far from being a simple inventory of a situation or the photograph of a given space, the diagnosis of a territory is first of all the moment when the actors of the territory are empowered to act. It is therefore a “tensioning”.

The diagnosis of a territory is constitutive of a territorial development approach, "conceived as increasing the capacity of the actors of a territory to control the processes which concern them" (Deffontaines et al., 2001). It does not primarily seek to detect the symptoms of dysfunction of a territory that is going badly, but rather to bring out the leeway of the players in order to influence the current dynamics. It is therefore a hybrid exercise.

The diagnosis of the territory must allow the formulation of a judgment on the coherence of the territory, but also the mobilization of the actors. It supports a change in the behavior of actors and in the transformations of space, with a view to territorial development (Piveteau and Lardon, 2002).

Different types of actors are concerned, they do not all have the same expectations, interests or decision-making powers. Their roles are evolving and interweaving in new modes of territorial governance (Pecqueur, 2001), at the intersection of institutional incentives and local initiatives. The constitution of the countries within the framework of the LOADDT (1999) is a good illustration of these new situations where State services, local authorities, professionals and civil society must compose, within diverse and evolving territories (Lajarge, 2002). The territorial diagnosis is addressed to the actors, so that they mobilize within the limits of their

means and their skills, while respecting the subsidiarity between the different levels of organization, decision-making and action.

The territorial diagnosis is applied at different scales and for different objectives, whether in the land management of peri-urban municipalities or in the master plans of large agglomerations, in the planning of city districts or the development of multi-use agricultural areas… These different situations all have in common the search for synergies between natural processes and human activities with the desire to transform the territory. They call for the construction of projects, in a perspective of sustainable development (Minot, 2001).

The diagnosis of the territory is a privileged moment for building a common vision of the territory. It brings together the different "world views" of the actors, so that they share the same future. It is therefore just as much an opportunity as a means for actors from various backgrounds to work together in order to coordinate their actions. How then to promote the participation of actors in this collective construction? Can we constitute a repository for action, adaptable to each situation? What support to design? The diagnosis of the territory cannot be enough of external expertise or accumulated experience; it cannot be a “ready-to-wear” nor a recipe to follow. We consider that it corresponds to a collective learning and, as such, it must be appropriate by the actors.

Researchers have a role to play in this field, because the tools and methods are lacking, to meet the challenge of opening the debate between the actors and of developing, beyond the differences of points of view, an analysis of the situation and a common project. This is why we offer a modular, iterative and interactive methodology for territory diagnosis. It is aimed at intermediate actors, development agents, technicians and facilitators, who support territorial development processes. Designed and tested within the framework of a research-training system, this methodology aims to support the actors of the territories in the elaboration of a development project, by collectively constructing spatial representations of the territory (Lardon et al., 2001). It puts spatial reasoning at the heart of the process (Piveteau and Lardon, op. Cit.). On the one hand, the methodological itinerary proposed explains the different stages

and key moments of the reasoning, on the other hand, the graphic models serve as a guideline to link the different spatial information and knowledge. In doing so, our methodology allows actors to express their own territoriality and to compare it with others (Debarbieux and Vanier, 2002). It brings out territorial project figures, in response to the identified challenges of the territory (Debarbieux and Lardon, 2003). We postulate that the reasoned use of spatial representations contributes to the participation of actors in territorial development approaches (Lardon et al., 2005c) and for this we propose concepts and methods of territorial engineering.

A methodological proposal for a territory diagnosis

The proposed approach was gradually developed during various training sessions on diagnosis and territory project. It is based on several conceptual principles from which derives a proposed methodological itinerary, applied here to the question of rural dynamics, in connection with the constitution of the country.

Principles of the territory diagnostic process

The three conceptual principles that guide our approach refer to the social, spatial and institutional dynamics of the territories. They strive to understand and support the construction of forms of territorial organization. We are working within the framework of a regional planning research and training system, to test the methodology and ensure relative leeway in the design of the approach.

To prepare for action, we integrate the strategic and prospective phases of territorial development into the territorial diagnosis. We go through several registers of analysis, in order to take into account, the multiple facets of the construction of territories.

A RESEARCH-TRAINING DEVICE

The training is a relevant framework for meeting the challenge of learning spatial reasoning from a territorial development perspective. It is a test of the outputs of research. It allows the

methodological proposals to be tested and improved. The repetition of the experiments, while remaining under the same experimental conditions, makes it possible to establish the domain of validity of the approach and to adapt it to different situations. In doing so, it generates new questions for the researcher and encourages him to formalize the acquired knowledge, to make it a generalizable methodology. In addition, it is addressed to interlocutors who are both critical and constructive, current or future actors in the territories who will be able to pass on their skills in the field.

Training is also a political issue, because it responds to the need for a methodology that can be appropriated by the actors. Indeed, while having a requirement of rendering, the relationship with the actors is easier in a framework of training than in that of research. There is a "kind of contract" with the actors, who participate in the training objective. Trainees can and must take a step back from the actors' games. They have room for maneuver to mirror their visions of the territory to the actors and question them. In doing so, the proposed methods and tools are gradually validated with the stakeholders, which confirms the feasibility of their appropriation. Training is thus a good mediator between research and action (Lardon et al., Op. Cit.).

AN APPROACH FOR ACTION

The diagnosis is an important moment in the development process of a territory. He instructs it, accompanies it and seeks to guide it. It results in a dynamic of actions which must be prepared. For this, we assume that it has four articulated phases (fig. 1):

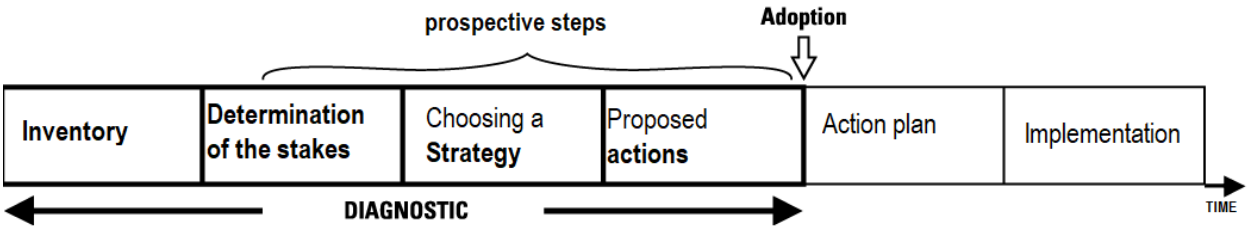
- the actual inventory: that is to say, the organized analysis of the facts and actions that characterize a territory. The inventory often consists of considering the territory as an organized and hierarchical system, of which we analyze both the structuring elements and the relationships between these elements;

- determination of the stakes: this is the formulation in economic, social or environmental terms of the possible effects of the dynamics at work and the risks incurred;

- the choice of a strategy: it is the prioritization of the issues according to the dynamics observed and the objectives targeted;

- the proposal of possible courses of action: this is the open argumentation of measures or actions allowing change in the direction desired by the actors.

Figure 1: The different phases of the territory diagnosis



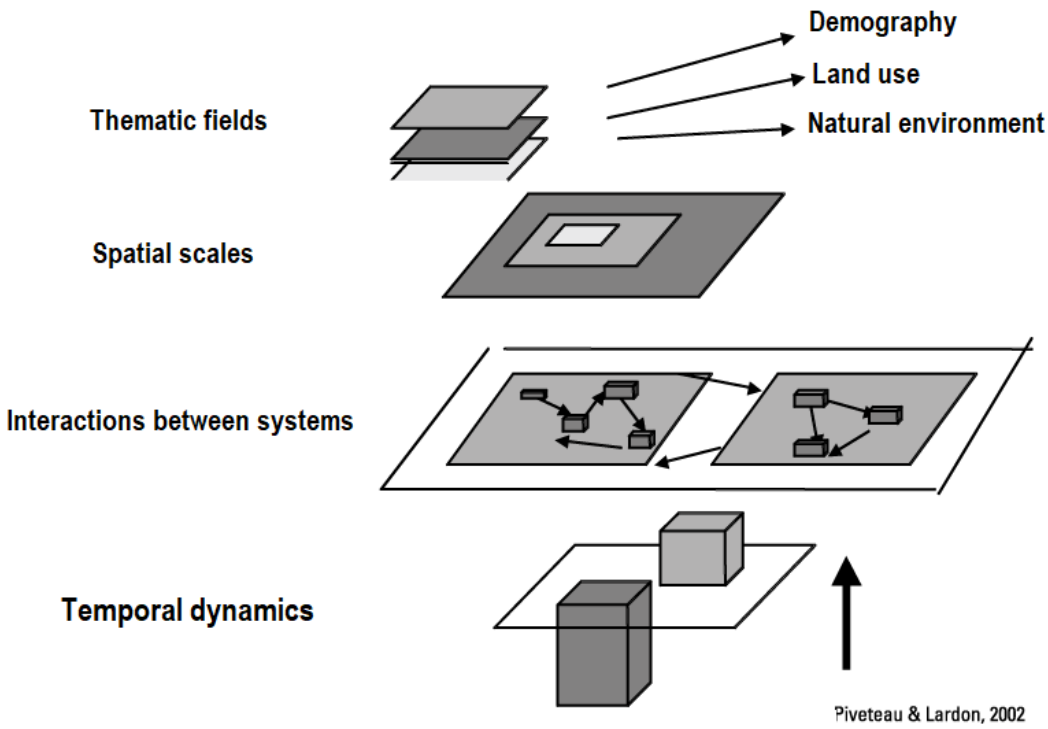
In the situations observed, it is not uncommon to go directly from the inventory to the proposals for action, reducing, or even ignoring, the statement of issues and the choice of strategies. This can be to avoid conflict or opposition, but it is most of the time because these steps are difficult and there is a lack of methods to implement them. Sometimes, the territory diagnostic command serves to legitimize already defined action proposals. We must then reconstruct the approach and negotiate new proposals, if the diagnosis updates information contradicting the initial choices.

Two main types of approach taken by local authorities are commonly observed: the top-down approach, mainly developed by service technicians whose risk is to overlook the interests of local actors, and the bottom-up approach emanating from the latter who can omit constraints. regulatory or general interest considerations. A link between these two approaches must therefore be found. The methodological effort to be made is in the passage from one phase to another and in the complementarity of information and knowledge of the actors concerned.

A COURSE ON SEVERAL REGISTERS

It is important to develop a global vision of the territory, to identify the main forces that drive it. It is also necessary not to drown in the overload of information that does not lead to action. To find this happy medium, the framework of the territory diagnosis methodology is built on four registers of analysis (fig. 2);

Figure 2: The four registers of the analysis (Piveteau and Lardon, 2002)



- the combination of fields: these are the different themes to be considered, relating to the main current dynamics and the initiatives observed;
- the articulation of spatial scales: they are both internal to the territory and encompassing, to register the territory in its various links of belonging;

- taking into account the interactions between subsystems: it is a matter of being attentive to the different functional logics which intersect;
- temporal variations: the temporalities of both natural and human processes interfere and the present is part of an evolutionary trajectory.

It is not only a question of taking into account different thematic fields but also and above all of putting them in relation. Even more, it is necessary to understand their interactions with neighboring or complementary subsystems, as it is true that the social dynamics at work largely interfere within a territory. All the spatial scales into which the territories are inserted must be considered, as well as the different temporalities, both past and future, to understand the evolution of a territory. For this, it is necessary to have a common tool, which serves as a translation language between these different registers and a support for integrating the various information and knowledge produced.

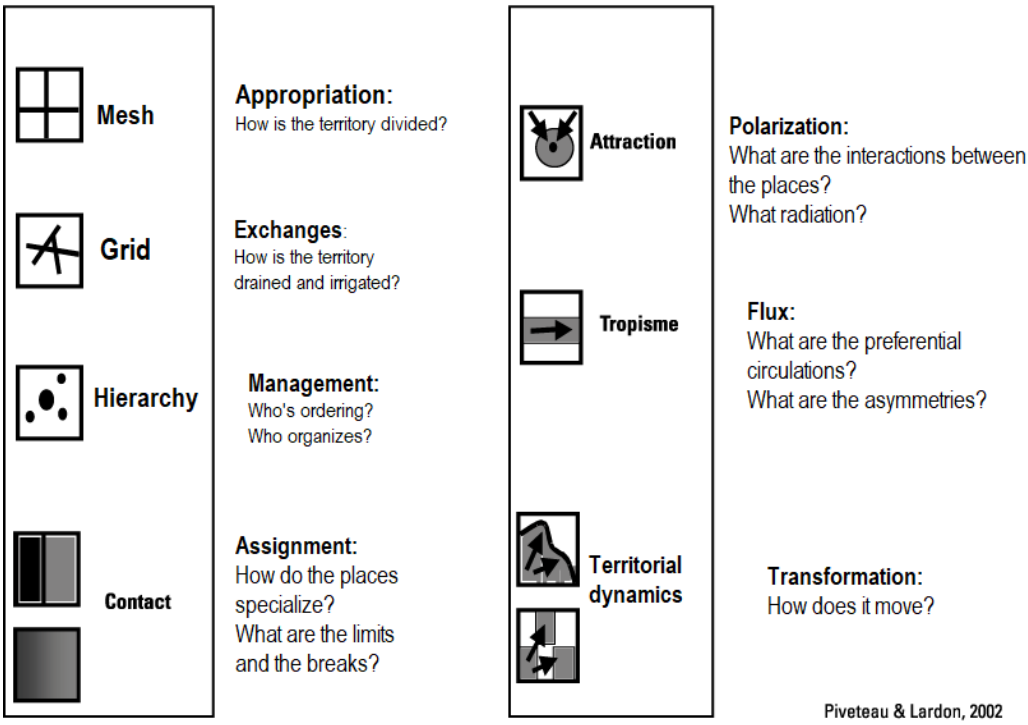
A methodological itinerary based on spatial models

We pose the methodological itinerary as the way of articulating different methods of processing information, but also of mobilizing actors, around the production of spatial representations, to gradually build a shared and strategic vision of the territory. The filiation of spatial representations during this methodological itinerary takes into account the construction of reasoning, compulsory crossing points and possible alternative paths. The itinerary includes the framework and the layout principle of a modular approach. It thus constitutes a guide for anticipating the adaptation of methods to different situations.

We use graphic modeling as the guiding principle of the process and as a common language. Originally developed by geographers, the method consists of an alphabet of elementary chromes whose combination accounts for spatial organizations (Brunet, 1986). Agronomists have adapted the chromatic grid by distinguishing what relates to structures (spatial objects considered) or dynamics (spatial processes of which these objects are the seat), and by making more explicit what is of the order of the transformable, that is, that is, what it is possible to

intervene on (Deffontaines et al., 1990). The simplified grid to respond to regional planning issues takes up the seven organizing principles of space as so many questions to ask and elementary models to which to refer to build and interpret the forms of spatial organization observed in the territories. (fig. 3)

Figure 3: The seven organizing principles



The structures are divided into four choremes. The mesh explains how the territory is divided. The grid accounts for the means of communication and networks, both material and information, which drain and irrigate the territory. The hierarchy specifies the different entities and their role in the territory. The contact accounts for the specialization of places and the factors of ruptures and discontinuities, which can be contrasted or in gradient. This differentiation of space is often a characteristic feature agricultural and regional planning issues.

The dynamics are broken down into three choremes. Attraction results from the polarization of a center and its influence on its periphery. Tropism is linked to the flows that cross the territory and can induce preferential circulation of people, material or information. Territorial dynamics reflect the way in which space is transformed, in a frontal or mosaic process. The issues of regional planning, insofar as they reconfigure space, often refer to these dynamics of transformation.

The choremes are used as the guiding principle of the process, by a systematic translation of information into spatial models. Graphic modeling is used to build reasoning about space, by successively exploring the spatial representations of structures, dynamics and projects on the territory, in order to understand their organization. It makes it possible to interpret the strategies of the actors, to explain the diversity of their visions of the territory and to explain the blocking factors that we often come up against in the field, by referring the main issues set out to the underlying development models. Finally, it generates action proposals compatible with the constraints and resources of the territory by providing elements to build a path from the current situation to the desired future situation.

The approach therefore consists in systematically translating, in the form of choremes, the information and knowledge produced at each stage of the methodological itinerary. We thus have a powerful tool for synthesizing dynamics, confronting points of view and moving from one level of organization to another, for better territorial integration.

THE STAGES OF THE METHODOLOGICAL ITINERARY

The methodological itinerary mobilizes different sources of information, from "cold data" corresponding to objective information, to "hot data" from the statements of stakeholders. It compares this different information and puts it into perspective in a global vision of the territory. It consists of a decomposition-recomposition of the main structures and dynamics of the territory, to develop scenarios of evolution. The feedback to stakeholders highlights the challenges of the territory and brings into debate the strategic choices and proposals for action.

In a training situation, we propose a methodological itinerary in seven stages (table 1).

Table 1: The different stages of the methodological itinerary

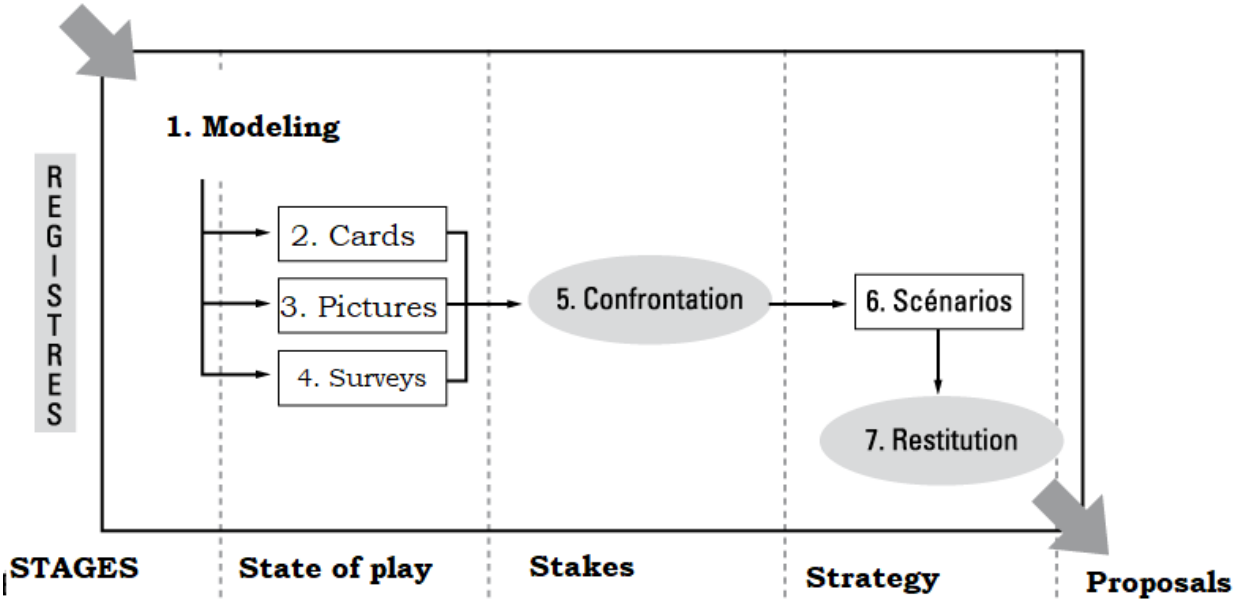
Stage 1	Understand the territory and define the question of development Focus on understanding the command and rephrasing the original question. Become familiar with the territory to be studied and sketch a first outline (drawing). Look for reference spatial models to analyze the territory (choremes).
Stage 2	Spatial analysis from "cold data" (statistics and themes) Characterize the structures and dynamics of the territory from the study of various existing cartographic or statistical documents (maps). Create a simplified representation of the main structures of the territory ("model background"), using spatial structural models (choremes). Represent the main dynamics of the territory, classifying them by theme (agriculture, demography, etc.), using spatial models of dynamic (choremes)
Stage 3	Spatial analysis from “warm data” (images, landscapes, regulatory documents). Depending on the scales, an additional analysis can relate to existing spatial information, but which can be interpreted in various ways. This is true of the landscape, of the forms of communication through images (such as logos, tourist brochures, etc.) or of certain existing regulatory documents (PLU, SCOT, etc.). Have a sensitive approach to the landscape, to perceive the identity of the territory and a functional reading, to relate to the practices of the actors in the space. Consult the communication documents of the various bodies concerned (such as logos, tourist brochures, etc.) and ask those responsible for their distribution methods.

	Consult the existing regulatory documents (PLU, SCOT, etc.) and ask the managers about the management methods. Translate this information into spatial patterns (choremes).
Stage 4	Spatial analysis from “hot data” (stakeholder surveys) Make stakeholders express their points of view and visions of the territory (drawing). Explain the issues they identify for the territory (drawing). Explain the projects they have for the territory (drawing). Translate this information into spatial patterns (choremes).
Stage 5	Confront spatial analyzes to identify the main issues of the territory Characterize the dynamics of activities in the territory. Identify the places of divergence of points of view, which constitute as many challenges for the territory. Take into account the different logics of the organization of the territory, more or less compatible with these issues. Identify the models underlying the projects of the actors. Translate them into spatial patterns (choremes).
Stage 6	Develop evolution scenarios From the different points of view stated, extract the important elements, carrying dynamics contrasting, in response to the issues identified. Translate them into “caricatured” scenarios that do not do not respect a foreseeable reality, but which amplify a desired or feared tendency (choremes).
Stage 7	Restore the diagnosis

	Report on the structures, dynamics and projects of territory (choremes). Present the different visions of the territory carried by the actors and possible development scenarios (choremes). Discuss these different spatial representations to prioritize the issues with the actors and seek forms of action responding to these challenges

This typical methodological itinerary can serve as a framework for many situations of management or governance of territories (fig. 4). It responds to the stated principles of the territory diagnosis process.

Figure 4: Typical methodological route for territory diagnosis



It covers the four phases of the territory diagnosis. The inventory is carried out during steps 2, 3 and 4, from the various possible sources of information, from already existing cartographic and

statistical documents, from observations of both the landscape produced and the images put into circulation, or statements by actors at different levels of organization. The determination of the stakes requires the formulation of the possible effects of dynamics at work in step 5, with reference to the objectives and benchmarks assigned in step 1.

The choice of a strategy, by prioritizing the issues and expressing the goals set, is done in steps 6 and 7. Preparation for action, through the avenues opened and the measures proposed, results from the entire procedure and opens up possibilities for change, more or less advanced depending on the participation of actors carrying projects.

The methodological itinerary includes the four suggested registers of analysis. The different fields and interactions between subsystems are discussed, based on the forces that energize the territory and which concerns the actors. The significant spatial and temporal scales are determined by a systematic opening of the reference frames, by moving the look at other places and other periods, while inscribing it in terms of spatial organization and evolutionary trajectory. Steps 2, 3, 4 are important for performing the analysis. The arguments provided in steps 6 and 7 to support the debate with the actors are based on prior formalization in step 1, a necessary condition to make intelligible, in step 5, the challenges of the territory.

The methodological itinerary is adaptable to different situations, to take into account the actors concerned and the objectives sought. We have applied it mainly to the design issues of territorial projects.

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Topic 11 – (Case study) how we can implement this case in Albania.

Topic 12 - (Case study) how we can implement this case in Albania.