

Innovative region, social region?

An alternative view of regional innovation

FIRST DRAFT

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1. Introduction

Over the last fifteen years, regional economists, geographers and planners have devoted a considerable part of their time and energy to the search for a 'new' model of regional development. Once the euphoria of the reconstruction after world war II had faded away, the structural economic weaknesses of especially traditional manufacturing regions became increasingly visible. Inspired by location theory, premiums were granted to corporations which came to invest in these regions (Brown and Burrows 1977). And in the logic of the growth pole model (Perroux 1955), infrastructure works combined with significant aid to investment were expected to generate the necessary production initiatives in the lagging regions.

The effects of these policies on lagging regions remained ambiguous. On the one hand, these infrastructure and cost subsidizing measures encouraged new employment in local firms, and the attraction of external direct investments to the regions, offsetting at least partially the loss of employment in traditional industries. But on the other hand, in many regions, there was a lack of structural linkages between the new investments (often assembly branch plants) and the economic tradition of the region (Martinelli 1998). This became tangible with the advent of the economic crisis in the mid 1970s, when many branch plants began to reduce their activities, or simply closed down, together with more mines, steel and textile plants, shipyards, ... and when central governments had to take budgetary measures, and therefore became increasing selective in their regional development policy (de Montricher 1995, p.). This selectivity meant in the first place a shift in 'clientèle' from loss-making old industrial firms to promising new initiatives applying new technology and advanced services. This selectivity was furthered by the creation of the European competitive space (European Union) and by the several rounds in GATT negotiations which led to increasing 'market watch' by the geoeconomic regions (North America, Europe, Japan, ...) over each other's industrial and competition policy (see GENEVA Papers and Progress Newsletters). 2

•2 For a theoretical analysis of the tension between competition and regional policy in the European Community, see Martin and Steinen (1995).

It is in this climate that, starting in the 1980s, an appeal on (endogenous) local and regional initiatives of economic development was made. Both in the SME sector and in academic circles, strong voices rose to revalorise the local and regional development potential.

In academic circles, on the European scene, the lead was taken by Aydalot (1986) and the GREMI who laid the grounds for the regional endogenous development approach. And more in the footsteps of “ orthodox ” growth theory, a regional version of the endogenous growth model was put forward (Barro and Sala-i-Martin 1992). Growth and development factors such as human capital, local business culture and schooling system, infrastructure, quality of production factors and systems, learning from the regional experience for renewed regional development (Ratti 1992)) were put in a context of territorial innovation dynamics. In this way, the basis was laid for the now almost fifteen years old literature on territorial development and regional innovation systems (Kafkalas 1998).

Many convergent or competitive academic currents took part in the debate. The Californian school of economic geography stressed the relationship between technical innovation, industrial organisation and location (Storper and Walker, 1989) and launched the notion of New Industrial Spaces (Storper and Scott 1988). The industrial district school, which historically preceded the GREMI, but became only later internationally known, focused on the quality of formal and informal social, economic and political relations in the district as a determinate factor of long-term economic development (Brusco 1982; Beccatini 1981, Garofoli 1992).

The regulationist school, in line with its institutional tradition, modeled some of the archetypes of industrial relations accompanying successful application of technological innovation. It gave a social and territorial content to the concept of ‘technological paradigm’ and system of innovation (Leborgne and Lipietz, 1988). Recently the ‘regional innovation system’ and the ‘learning region’ model provided a new interpretation (a synthesis?) of the territorial innovation model (Braczyk, Cooke and Heidenreich eds. 1998).

After fifteen years of theoretical debate, analysis and policy implementation the *territorial innovation models* (TIM) are up for a critical evaluation. This paper seeks to contribute to this evaluation and pursues to this effect three tasks:

- The presentation of the territorial innovation model from Bagnasco and Aydalot till today's learning region, indicating as much as possible the varieties found in the literature (section 2);
- The analysis of the theoretical building blocks on which this model was built: evolutionary innovation theory, regional development theory, institutional economics (section 3);
- The formulation of an alternative model for regional and local innovative development (section 4). This model should be based on a multi-dimensional view of social innovation, combining various views of this notion. It would allow a proper dialogue between territorial innovation and institutionalist planning, recognizing the reality of power relations at various spatial scales.

2. The territorial innovation model

As indicated before, the 'territorial innovation model' is used here as a generic name for models of regional innovation in which *local institutional dynamics* play a significant role. In the original French model, which was the basis for the synthesis produced by GREMI (Aydalot, 1986), the endogenous institutional potential to generate innovative dynamics firms is emphasized. The same basic idea is found in the industrial district model, stressing even more the role of cooperation and partnership in the innovation process. Other models of territorial innovation lie more in the tradition of the systems of innovation: a translation of the institutional coordination found in the sectoral and national innovation systems to the regional level (Edquist, 1997) or an evolutionist interpretation of the regional learning economy (Cooke, 1996; Cooke and Morgan, 1998). A third tradition stems from the Californian School of Economic Geography: the New Industrial Spaces

(Storper and Scott 1988; Saxenian 1994). A residual category, with little affinity to regional economics but close to Porter's clusters of innovation, are the spatial clusters of innovation.

2.1 In the theory of 'milieu innovateur' the firm is not an isolated innovative agent, but part of a milieu with an innovative capacity. In theoretical and empirical works, the GREMI authors seek to analyse the relationships between firms and their environment and to study modes of organisation characterising them (Ratti 1992, p. 54). They distinguish between three functional spaces for the firm: the production, the market and the support space. It is the support space that should empower the enterprise to face uncertainty. The support space is constituted around three types of relations: (i) qualified or privileged relations with regard to the organisation of production factors; (ii) strategic relations between the firm, its partners, suppliers and clients; (iii) strategic relations with agents belonging to the territorial environment. It is especially the support space that will determine the relations between firm innovation and spatial development; it is this space which qualifies the nature of the 'milieu' (Ratti 1989, Ratti 1992, p. 56). The current research agenda of the GREMI stresses the concept of apprenticeship, which means that the innovative capacity of the different members of the milieu depends on the capacity of learning. Learning enables them to perceive changes in their environment and help them to adapt their behaviour accordingly. Today, the apprenticeship dynamics and the cooperative organisation based on interaction constitute the core of the "milieu innovateur" theory and converges quite well with the contemporary established theory of the 'learning region' (Camagni 1991).

2.2 The theory of the Industrial District, originating with Bagnasco in 1977, stresses the innovative capacity of SME's belonging to the same industry and local space. The industrial district is commonly defined as a geographically localized productive system, based on a strong local division of work between small firms specialized in different steps in the production and distribution cycle of an industrial sector, a dominant activity, or a limited number of activities. There are multiple relationships between the firms, and between the firms and the local community, inside as well as outside the market. The latter relationships are based on trust and reciprocity. This hybrid mode of organization, combining competition and cooperation, formal and

informal institutional relations, cannot be understood without mentioning the role of historical and socio-economic factors crucial to the success of a district (Moulaert and Delvainquière 1994).

In many ways the Industrial District comes quite close to the Innovative Milieu. Beccatini (1981) talks about the Industrial District as a 'creative milieu', to which he as well as Brusco (1982) attribute features which also calibrate the nature of the Milieu Innovateur - especially those fostering the support space of firms (Kafkalas 1998 p. 6).

2.3 The notion of New Industrial Spaces was launched by Storper and Scott in 1988. It combines insights from the literature on Industrial Districts (Brusco 1986), the flexible production systems (Piore and Sabel 1984), social regulation (Boyer 1986; Lipietz 1986) and local community dynamics (Storper and Walker 1983). Storper and Scott (1988) identify flexible production systems by referring to

'forms of production characterized by a well developed ability both to shift promptly from one process and/or product configuration to another, and to adjust quantities of output rapidly up or down the short run without any strongly deleterious effects on levels of efficiency.' (p. 24)

The authors link the efficiency of the flexible production system to locational agglomeration of a selected set of producers:

'This locational strategy enables them to reduce the spatially-dependent costs of external transactions. In flexible production systems, the tendency to agglomeration is reinforced not only by externalization but also by intensified re-transacting, just-in-time processing, idiosyncratic and variable forms of inter-unit transacting, and the proliferation of many small-scale linkages with high unit costs.' (p. 26)

Referring to the history of industrial districts and other spaces of activity, the authors observe that the flexible production system fostered well in places unburdened by fordist institutional legacies. New Industrial Spaces involve more than agglomerated production systems, but also provide answers to the problem of social regulation with respect to:

‘(i) the coordination of interfirm transactions and the dynamics of entrepreneurial activity; (ii) the organization of local labor markets and social reproduction of workers; and (iii) the dynamics of community formation and social reproduction’ (p. 29).

While we observe that this list of challenges to regulation shows significant overlaps with the definition of the ‘espace de soutien’ of the GREMI, it is not evident that these three domains of regulation can be conciliated through an economic approach (see sections 2 and 3).

2.4 An offshoot of the New Industrial Spaces literature is the [spatial or regional] ‘cluster of innovation’. Enright (1994) provides a good survey of the literature on this topic. Unfortunately, the cluster of innovation approach offers no analytical coherence, except for its reference to Marshall’s (1920) analysis of the advantages of localized systems. One of the most cited sources is Saxenian and her work on Silicon Valley (Saxenian 1994), in which she underscores the role of local institutions and culture as well as industrial structure and corporate organization for economic performance. She contrasts the creative impact of the net-work based industrial system in Silicon Valley with the integrated corporate structure of Route 128 (cited from Ehrnberg and Jacobsson 1997, pp. 333-334).

In our opinion, the literature surveys (Enright 1994; Ehrnberg and Jacobson 1997) enforce an artificial relationship between Saxenian’s work on regional innovation in Silicon Valley and Porter’s notion of clusters of innovation. Saxenian’s work lies directly in the line of combining agglomeration economies, industrial organization, flexible production systems and regional governance. It is much richer than Porter’s original model, which emphasized market and competition rather than networking and social interaction as success factors for clusters of innovation, and showed only a marginal interest in regional dimensions of innovation (Porter 1990). Still as so many concepts in management science and economics the cluster concept became embraced by geographers. Porter’s view of the sources and nature of technological development, his short prayer to localized processes and the gradual ‘networking of the clusters’ lay the grounds for the spatial operationalization of the ‘regional cluster’ as the most practice

oriented, but also the most efficiency led version of the model of territorial innovation (see Legendijk 1998).

. . .

Other models of territorial innovation lie more in the tradition of the systems of innovation literature: a translation of the evolutionist view of economic development and of institutional coordination found in the sectoral and national innovation systems to the regional level (Edquist, 1997). Here we mainly think of the regional systems of innovation (Braczyk, Cooke and Heidenreich 1998) and the regional learning economy (Cooke, 1996; Cooke and Morgan, 1998).

2.5 The theory of Regional Innovation Systems insists on the role of collective learning, which in turn refers to deep cooperative relationships between members of the system. This theory is indebted to the evolutionary theory of technical change. Rather than a result of a research activity, innovation is a creative process, with the following features: the interaction between agents of the process (built on feed-back), the cumulative aspect and increasing return to the innovative process and the "problem-solving" orientation, showing thus the specific nature of the innovation. Moreover, innovation is not only a technological process, it is also organizational. And it is this organisational part which is paramount and determines the technological innovation itself. There is little risk in arguing that the regional innovation system is a lower-scale offshoot of the National Innovation System - whatever the latter's definition may be (Edquist 1997, chapter 1). Still, as Legendijk (1998) indicates there are in this theoretical corpus at least two basic interpretations of the region as an innovation system: either as a subsystem of national or sector-based systems, or as a reduced version of the National System of Innovation, with its own dynamics.

2.6 This notion of the **learning region** was launched by Cooke, Morgan, Asheim and others, and could be considered as a intermediate synthesis in the debate on the territorial innovation model (Cooke 1998; Morgan and Nauwelaers 1998). The model integrates innovation systems literature, institutional-evolutionary economics, learning processes, and the specificity of regional

institutional dynamics. Morgan (1997) provides an excellent summary of the logic of the learning region. The purpose of his article, the author declares is “to connect the concepts of the network [or associational] paradigm – like interactive innovation and social capital - to the problems of regional development in Europe .” (p. 492). First, Morgan highlights the state of knowledge in evolutionary economics by stressing two of its main propositions: innovation is an interactive process; and innovation is shaped by a variety of institutional routines and social conventions. (p. 493) Together these propositions have helped “to stimulate an interesting, and highly significant, debate about the nature of capitalism as a learning economy” – see section 3. On this issue, Morgan cites Lundvall (1994) telling that “knowledge is the most important strategic resource and learning the most important process.” Then, Morgan underscores the importance of the growing interests of economic geographers, planners, etc. in innovation dynamics: “Within economic geography a number of tentative efforts have been made to utilise some of the insights of evolutionary economic theory, especially with respect to learning, innovation and the role of institutions in regional development.” (p. 494). Morgan especially refers to as ‘the fullest attempt to marry the two disciplines’. Storper recognises ‘the principal dilemma’ of economic geography as the re-emergence of regional economies at this time of globalisation . He explains this phenomenon by the association between organisational and technological learning within agglomeration , based on traded (input-output relations) and untraded interdependencies (labour markets, regional conventions, norms and values, public or semi-public institutions). This new synthesis of territorial innovation dynamics, does not offer more conceptual clarity than the original ‘milieu innovateur’ or ‘new industrial spaces’ literature. In fact it does not even cite this literature – a subdued form of plagiarism?

Figure 1 summarizes the various approaches according to a number of dimensions which enable us to distinguish the view of innovation represented in each of the sub-models: 1) definition of innovation; 2) definition of institutions and organisations; 3) view of regional development (evolution learning, role of culture); 4) view of culture; 5) type of relations between different development agents (network concept); 6) type of relations with the outside world.

Figure 1 Views of innovation in territorial innovation theory

Model	Milieu innovateur (Innovative milieu)	Industrial District	Regional System of Innovation	New Industrial Spaces
Features				
Innovation	Capacity of a firms to innovate through the relationships with other agents of the same milieu	Capacity of actors to implement innovation in a system of common values	Innovation as an interactive, cumulative and specific process of research and development (path dependency).	A result of R&D and its implementation; application of new production methods (JIT, etc.)
Institutions	Very important role of institutions in the research process (university, firms, public agencies, etc.)	Institutions are "agents" and enabling social regulation, fostering innovation and development	As in the NSI, the definitions vary according to authors. But they all agree that the institution lead to a regulation of behaviour, both inside and outside organisations	Social regulation for the coordination of interfirm transactions and the dynamics of entrepreneurial activity
Regional development	Territorial view based on "milieux innovateurs and on agent's capacity of innovating in a cooperative atmosphere	Territorial viw based on spatial solidarity and flexibility of districts. This flexibility is an element of this innovation	View of the region as a system of "learning by interacting/ and by steering regulation »	Interaction between social regulation and agglomerated production systems
Culture	Enables MI agents to create trust and reciprocity links	Enables DI's agents to share a same values. Trust and reciprocity	The source of "learning by interacting"	Culture of networking and social interaction
Types of relations among agents	The role of the support space: strategic relations between the firm, its partners, suppliers and clients	The network is a social regulation mode and a source of discipline. It enables a coexistence of both cooperation and competition	The network is an organisational mode of "interactive learning"	Interfirm transactions
Type of relation with the environment	Capacity of agents in modifying their behaviour according to the changes in their environment. Very 'rich' relations: third dimension of support space	The relationships with the environment impose some constraints and new ideas. Must be able to react to changes in the environment. 'Rich' relations. Limited spatial view of environment	Balance between inside specific relations and environment constraints. 'Rich' relations	The dynamics of community formation and social reproduction

3. The building blocks of the territorial innovation model

According to the synthesis which we presented in the previous section, regional innovation models are built by the variable use of 'pre-existing' or simultaneously developed theories (evolutionary economics, endogenous growth and development theory, systems theory,...) or concepts (agglomeration economies, externalities, networks,...) inspiring relevant theories. Below we will present the most important among them and illustrate how they are used in a diverse and often ambiguous way in the various TIM.

a) Economies of agglomeration.

The debate on the appropriate notion of economies of agglomeration for regional economics is far from finished. Various viewpoints oscillate today between the original Weberian formulation in terms of minimum transportation costs and industrial organisation, the Marshallian external economies and the Hooverian reformulation in terms of localisation and urbanisation economies. Recent contributions to the debate were offered by Camagni and Salone (1993) and Moulaert and Djellal (1995), who made a plea to involve various spatial scales in the debate, Malmberg and Maskell (1997) who enrich the notion by a targeted qualitative analysis of the network dynamics in regionally specialized agglomerations, Moulaert and Djellal (1995) by providing a qualitative interpretation of locational and urbanisation economies, and several authors who in the tradition of the regional innovation literature pursue the 'qualitative calibration' of the agglomeration concept (Moulaert and Djellal 1995; Malmberg and Maskell 1997). The anti-climax is given by Porter (1996) who argues that 'it is time to shed 'agglomeration economies' (p. 87, cited from Lagendijk) and concentrate on the nature of the network externalities.

The concept of agglomeration economies is explicitly used in the New Industrial Spaces and the clusters of innovation models. In the district and the milieu innovateur model the economies of agglomeration come in through the Marshallian backdoor, stressing the role of externalities for industrial organisation. When used in TIM, 'agglomeration economies' tend to receive a rather

qualitative content, stressing the externalities stemming from business cultural, learning by clustering and networking, urbanisation economies stemming from the education system, the research complexes, the cultural infrastructures in large agglomerations.

But the use of the concept of economics of agglomeration within the definition of the territorial innovation models, leaves a tremendous ambiguity regarding their spatial character. The effect of agglomeration may refer to transportation costs and industrial organisation (Weber), industrial organisation without transportation or proximity calculus (Marshall), urbanisation dynamics (Hoover, Isard), nodes in networks (Camagni, Djellal and Moulaert), cultural dynamics nourished by proximity ranging from business culture *stricto sensu* to socio-cultural and socio-political networking (Malmberg and Maskell). As to the latter, we understand that they are key-elements in the industrial district model and in the new industrial spaces. But we observe that even in these more institutional models the interpretation of culture varies according to the discourse in which the notion of district or of industrial space is used. Meanings range from institutional capability to carry technological innovation policy (technology determined institutional dynamics) to endogenous institutional dynamics of localities determining socio-political choices or lack thereof.

b) Endogenous development theory

Regional endogenous development theory combines the 3 principal dimensions of development: the economic dimension, found in the concept of economic growth using inputs which are at least partly available or generated locally; the socio-cultural dimension, which reflects cultural needs and community identity; and the political dimension, relative to political decision-making and involvement of groups and individuals in the policy process. In the literature, a large range of interpretations and combinations of the three dimensions can be found. Endogenous inputs can be defined in a technical-economic way, looking at natural resources, human resources, entrepreneurial experiences, existence of an industrial structure, technical education, etc. (Coffey and Polese 1984; Garofoli 1984); or they can include the wider socio-cultural fabric of growth coalitions involving the educational system, chambers of commerce, professional associations, leading to the definition of territory in terms of 'the clustering of social relations, the place where

local culture and other non-transferable local features are superimposed' (Garofoli 1992, p. 4; Stöhr 1984; Friedmann and Weaver 1979); or, at the other end of the spectrum, they involve in the first place the institutional dynamics of all groups in the local population (Friedmann 1992). In this case endogenous development is derived from the empowerment of deprived groups whose needs are structurally alienated, and who gradually manage to establish their bottom-up development models. Another important dimension of the plurality in interpretation of endogenous development is the relation of endogenous to exogenous development factors, and how significant the endogenous part of the development assets should be (Garofoli 1992).

The issue of spatial scale is an important debate in the endogenous development literature: how 'far' should a locality or a region go in its endogenous strategy? Is endogenous development a response to destabilising external factors? (Stöhr 1984). Beyond the polarisation between self sufficiency - quite unrealistic - and complete openness to competing external resources - which means abandoning the political possibilities of self-determination - there is the analysis of the decision-making process about the type of local potential that should be valorised, and which external assets integrated to the regional development cocktail. Stöhr and Tödling (1977) speak in this respect of the 'selective regional closure', referring to a strategy aiming at spatial equity between groups of human beings, at the level of material wellbeing, but also with respect to the right of being different and seeking self-fulfilment. The strategy should not be autartic, but rather a combination of territorial aspirations and functional exigencies. This means that endogenous development involves a dose of regional preferences with respect to production and exchange, as well as a selection of relations with the extra-regional environment. The Stöhr-Tödling view implies a 'co-habitation' of two logics that are hard to conciliate: the functional logic - national or international, embodied in the strategies of TNCs at least till the first part of the 1980s; and the various aspirations of local communities (economic, socio-cultural, political) of local communities whose objective is to effectuate their own development, based on their own identity. Pecqueur (1989) explains the local aspirations of the communities as an 'autonomous reaction' to the constraints originating from the extra-territorial environment (qualifying them as 'heronomous pressure'). The core of endogenous development theory is a new conception of space: territorial space replaces functional space. Or an internal dynamics of development replaces space as a

‘simple’ support of economic functions. ³ In the territorial approach, in addition to (or in interaction with?) the usual economic attributes privileged by anterior theories of regional development, space is ‘upgraded’ with a new content of socio-cultural values and traces of the local history. Economic space is now differentiated, and contains the ‘milieu de vie’ of a human community where the members are mutually linked by economic, cultural and historical values. Territorial space is a ‘cadre d’action’ of a particular human group. It is a small step from this ethical judgement to an ecological development approach. Human beings live in harmony with their natural environment, in order to valorise local resources, in full respect of the environment. However, when employed in ‘a practical’ economic development context, this enriched view of territorial development becomes easily re-functionalised.

Sachs (1980) in his eco-development approach analyses the cohabitation of two different logics as in the theory of endogenous development. The author stresses that the eco development approach ‘allows to solve the increasingly dramatic conflict between growth and the state of nature, in ways different from stopping growth ‘ (p. 12). One finds a similar analysis in regional economics in what Perrin (1983) calls the ‘eco-ecological paradigm’. Briefly, this ‘paradigm’ illustrates the dialectical relation between economic organisation and the ecological organisation of human activity; these dialectics create the possibility of ‘autonomous territorial organisation’. In a similar analysis the theory of endogenous development, stresses that the process of development originates partly from the local capacity to organise, without wasting the natural resources; this attitude requires an almost perfect knowledge of the natural local environment, of which one may assume that the local communities control them the best. However, despite the original link between the eco-development and the endogenous development approaches, the recent theory of sustainable development has been designed in complete independence from regional development theory.

•³ Distance, representing a transportation cost; or a technical view of space according to Perroux; or space as a ‘temporality’ of a social division of labour in the theory of spatial division of labour).

In territorial innovation models, the combination of the three dimensions fabricating endogeneity often receives a strong economic-deterministic flavour. The orientation is towards local and regional growth defined with reference to the dominating growth images: high technology production, new producer services, capital intensive cultural filières, etc. Forces of globalisation and regionalisation can be integrated in innovative milieux, as Genosko (1997) argues. But contrary to this author's beliefs, local dynamics are coloured by the dominant growth images. Only political forces could counter this dominance. But in realty politics legitimise and catalyse this globalised endogenous growth strategy. The growth coalition model is therefore the most celebrated conception of institutional dynamics within a locality or a region seeking to reconcile the global with the local: which institutional forces should be geared towards the appropriate (but usually 'exogenously' pre-cooked) endogenous development strategy? How can socio-political forces be adapted to the right model? We are in generally confronted here with 'institutional instrumentalism', whose sole endogenous ingredient is the capability to produce the orgware and the human resources which can accomplish the growth agenda. The other sides of the institutional dynamics such as participatory governance (Amin 1995a,b), basic needs determination (Friedmann 1992), bottom-up innovation in governance systems (Moulaert et al. 1999) are left out of the picture.

c) Systems of innovation, evolution and learning

The diverse character of these dimensions of the 'innovation and learning process' has been discussed quite openly in the scientific literature (see for example Edquist 1997). We pick some grains from the scientific exchanges, sufficiently forceful to show our argument.

The first debate about the nature of the innovation process led to the gradual recognition that innovation is neither a one way diffusion process, nor a factor-impact relationship between the

creative innovative entrepreneur and the firm, but a process or a system of innovation. One dimension of this debate was a confrontation between epidemic diffusion models and organisational learning processes (Ratti 1992). The second concerns the various interpretations of Schumpeter's theory on the innovative entrepreneur (Gallouj 1994). A third one concerns the dynamic aspects of the innovation process.

The second debate deals with the nature of national innovation systems, and especially the way institutional dynamics are interpreted (Edquist and Johnson 1997; Lundvall 1992). Here appears the whole range of views on the role of institutions, the opposition between technological and organisational determinism, the social and political dimensions of learning, ... There is growing consensus in this literature that innovation is a socio-organisational process; but there is still quite some divergence in opinion on the relationship between technological and organisational innovation. And there is by far no answer to the question what the role of social dynamics and democratic decision-making in innovation trajectories should be. One lives with the impression that the socio-organisational dimension is now fully integrated in the technological innovation debate; but that innovation remains in the first place subject to market laws and economic efficiency.

The third debate is on the nature of the innovation process at the local and regional level. Most of the contributions on the nature of innovation in the territorial innovation model, refer to innovative dynamics based on technological change, organisational learning and path dependency. We are here at the heart of the application of contemporary concepts of evolutionary economics: How does a technological paradigm emanate itself at the local level? The theories of the technological paradigm and trajectory (Dosi 1988) were a good starting point, but became soon criticised by the founding fathers themselves (Dosi and Marengo 1994), and by authors of the regulationist school for lacking the proper dynamics of the social fabric within leading (innovating) firms and across territories (Leborgne and Lipietz 1988; Djellal 1993). Organisational dynamics, learning processes, path dependency, networks, institutions, governance, etc. became distinct elements of the new theories (Carlsson and Jacobsson 1998), which probably managed to take more distance from the economically determinist interpretation of the innovation process than the critical authors

participating in the first and second debate (Storper 1997). Also, it is explicitly recognised by economists of (evolutionary) innovation that

‘Learning and technological change are therefore rooted in the present economic structure; they are local in nature and include strong elements of path dependency’ (Carlsson and Jacobsson 1998, p. 267)

In any case, there seems to be more clarity about the role of innovation used in the territorial innovation theory, than is the case for agglomeration economies or endogenous growth potential. Still the diversity in interpretation reaches far, ranging from technological determinism in the cluster approach to socio-organisational innovation trajectories in some of the district, NIS or milieu analysis. Especially the work of Saxenian (1994), Malmberg and Maskell (1997) and Storper (1997) is encouraging in this respect. However, also for these authors, innovation remains a process obeying market-economic logic. We will argue later that this means a deadlock for territorial innovation theory.

d) Network theory

As can be seen from figure 2, most of the territorial innovation models cited in this paper use the network concept as a key-element. The district literature, the milieu innovateur, the Storper-Scott and Saxenian version of the New Industrial Spaces and the learning region use a network approach which bypasses more or less the technocratic interpretation of the professional, technological or industry network. A good synthesis of the use of the network concept in socio-economics is provided by Gernot Grabher (1993). According to Grabher, there can be identified a generic form of exchange called ‘network’ which obeys to the following four basic features: (i) reciprocity; (ii) interdependence; (iii) loose coupling; (iv) power. Some of the features of Grabher’s notion of networking are close to those in the ID (trust, reciprocity, loose coupling,...). But of course when we start analysing the interplay between the different features from the perspective of power within or imposed to, and of the ‘finalité’ of the network, we may end up with quite skew configurations, which are more reminiscent of the relations of exploitation in the

medieval putting out system (Massey 1984) or the Japanese automobile production system (Child-Hill 1989). If we confront Grabher's abstract view of the network-concept with the blend of ideas present in the innovation literature (for partial surveys, see Hansen 1992; Carlsson and Jacobsson 1997), we notice that networks are in the first instance introduced as intermediate organisational forms between markets and firms, when the latter fail in efficiency and efficacy. Especially trust (reliability on technical features, timing), demand or supply specificity, possibilities for co-operation, are at the basis of a choice for supplier-producer and buyer-subcontractor network relationships; extended family networks, co-operative networks, etc. have formed the organisational structure of local small production systems where the market was unavailable for this type of function (Hansen 1992 p. 100-101). In the same way, SMEs in peripheral regions would have no access to advanced producer services if specialised networks - involving the public sector - were not purposely established (Cavola and Martinelli 1999, for the case of the Italian Mezzogiorno).

As was the case for the notion of socio-organisational innovation trajectories, the territorial innovation theory is not blind for social network theory. This will offer an appropriate opening for widening the discussion on the role of social innovation in territorial dynamics. An interesting starting point in the literature is offered by Hansen (1992).

e)Governance

The discussion about 'networks' leads to the even more contemporary discussion about 'governance'. Fashionable in most social sciences, the term is (re)used to widen the debate about the administration of social entities (firms, organisations, groups, neighborhoods, localities, cities,...) and the role of agents (workers, members, citizens, ...) in the decision-making and 'governing' processes. The spectrum of interpretations is again wide. From the choice between market and hierarchy (and intermediate forms) initiated by Coase and others in economics, to the improvement of the 'urban growth coalition' and 'urban machine literature' and the local governance debate at the regional and urban level (Le Galès 1998; Storper 1997; Moulaert et al. 1996) lays a wide array of notions of governance. These notions can easily be related to various

views of planning (Fainstein and Fainstein 1996) or political theories; to the theorising of the relationships between structure, institutions and agency (social theories). This pluralism of governance types is again present in the territorial innovation literature, almost in the same way as the notion of network is concerned. This is quite natural for those concepts of governance in which networking - in its different interpretations - stands central. Networking could be considered as the challenging concept for administration, the key notion in theories of government and public administration. However, it would be misleading to identify administration with a top-down approach; and networking with a democratic or horizontal approach to governance. In fact networking can be more alienating than top-down but justice-based administration.

Figure 2 lists the various TIM, their theoretical elements and a number of challenging models belonging to the domain of social economy.

INSERT FIGURE 2 HERE **Figure 2 Territorial Innovation Models: theoretical roots and challenges**

4. An alternative view to territorial innovation: towards the social region?

From the presentation of the TIMs in section 2 and their theoretical building blocks in section 3, we know that the innovative milieu literature cannot be judged as if it were a homogeneous theory of territorial innovation. It is a conglomerate of various models and messages, some of which are more, others less in tune with the view that decentralized institutional dynamics enhance social innovation. Some messages are quite practice and policy oriented, almost to the level of policy prescription and advice. Others belong to the realm of ideological discourse displaying the image of the class-free local economy, whose innovation will be fruitful for the entire local community.

An evaluation of the TIM shows an absence of interest in social innovation and institutional dynamics which do not directly support technological innovation trajectory. These limits of the TIM are a consequence of an economist(ic) view of the world, theoretical ambiguity and a technocratic view of innovation (Moulaert, Sekia and Boyabé 1999). To overcome these limits, a more socially inspired view of territorial innovation is needed.

Such a new view should include two closely intertwined elements: (i) first, it should integrate economic ‘finalité’ into a wider family of human and social needs, corresponding to a multidimensional existential logic; (ii) second, a view of social structure and social organisation at various spatial scales, and which takes into account the tension between social progress on the one hand, and structural determination (power relations, institutional rigidity, ...) on the other hand.

Contemporary contributions in institutional regional economics and institutionalist planning can play an important role in calibrating this view. But, since we seek to avoid conforming with the market logic or to surrender to a naive view of grassroots planning, and to avoid the Babel of territorial innovation concepts for which we warned before, these contributions can only be validly used when embedded in this new view of territorial innovation, which recognises at the same time the need for social innovation and the reality of power relations at various spatial scales. The first should take the second into account: to use power to achieve social change, and to make power relations also the object of social change.

Within this broader view of territorial development, a number of notions used before in TIM should be redefined, or new notions introduced. In the following we shall briefly deal with social innovation, culture, knowledge and networks,

Social innovation: basic needs and institutional innovation

Following insights from the social economy literature, the grassroots movements, the community development, etc. innovation at the local level should be in the first place be social innovation oriented towards the satisfaction of basic needs (Ekins 1992) and the empowerment of local populations (Friedmann 1992). According to Moulaert (1995) social innovation has at least two meanings: (i) creating the capacity to meet basic needs (the ‘social economy’ perspective) (ii) innovating in social relations to improve the governance dynamics of the locality (social innovation in the Weberian sense). Both meanings are of course related to each other: innovation in social relations is necessary to reveal basic needs from a broader existential perspective and to establish institutions that are capable of meeting them. Innovations in social relations are the

vehicles of empowerment of local communities, seeking to satisfy their basic needs (Friedmann 1992; Moulaert et al., 1998). Revealing basic needs, corresponding to the rediscovered local social and cultural embeddedness, is itself a social process generating innovations in social relations and institutions.

There is tendency in the literature to mention both social innovative dynamics as dimensions of social capital. However, as pointed out by Healey and others, social capital is a very ambiguous notion, and would need a critical analysis by itself. We prefer to go back to the roots of 'old' institutional economics, following an argument by O'Hara (1997) who extrapolates analysis of collective wealth. We could broaden the discussion on social innovation by referring to different types of capital and the relations between them. O'Hara:

Capital or wealth, generally speaking, is the dynamic stock of durable structures, whatever those structures may be ” (p. 3)

He distinguishes between 4 types of capital: ecological, social, human and private business capital. Although this classification is susceptible to criticism with regard to its structuring criteria (collective or individual ownership relationships combined with organisational and ecological considerations), this distinction represents well the tensions between the four domains of development essential to the future of humanity. It also lays the grounds for a discussion on the concept of innovation broader than the one embodied in 'private business capital'. Figure 3 provides definitions of each of these categories of capital.

This subdivision suggests a number of interesting discussions about the synergies, destruction and substitution which are possible between the various types of capital. It is well-known that innovation in business capital has destroyed a large part of environmental capital. Numerous are the local communities whose physical destruction was the price to pay for the development of business capital. Many local communities accepted this destruction because business capital brought or promised jobs and income. But often this local wealth effect was of medium duration

and after a few decades, environmental destruction was followed by the failure of business capital. The latter also often worsened environmental problems, leaving degraded infrastructure and polluted sites as contaminated battle fields at the heart of local communities (Moulaert et al. 1994).

Less well known and analysed are the positive trade-offs between various types of capital at the local level: regions with a qualitatively outstanding social capital, or/and a good ecological system that have a higher level of wellbeing than other regions with a much vaster business capital stock and higher level of income (examples cited by O'hara).

The need of capital for local development is necessarily multidimensional. An innovation strategy for a local or regional community is only partially a business (capital) innovation strategy. Other forms of capital need regeneration and innovation. And the ultimate synergy would be that business capital becomes instrumental to the development of public wealth in the Veblen sense. The analysis of the interaction between the various types of capital also shows the artificiality of the borderlines between the various types of capital. In fact O'hara's classification is really a typology, with fuzzy borderlines between the types. Especially 'social capital' receives a very broad content and is susceptible to alternative interpretation (Bourdieu 1977; cited by Healey; Putnam 1993). Healey (1998) herself avoids to use the term because of its 'confused and broad

[...] in some usage [it] is just a *portmanteau* term to bring social relations, culture and civil society back into focus in ways understandable in the 'culture' of economic analysis,... (p. 7)

and to replace it by the term 'institutional capital' to include knowledge resources, relational resources and mobilisation capacity - concepts combined by Innes (1997). We will come back to these notions further on.

To be in tune with the view of regional development and innovation, set out from the beginning of this section, the history of the locality, the power relations and the spatial scales must be included in the analysis of the interaction between types of capital: capital has a history, spatial scales, and

is embedded in power relations. The ‘dynamic stock of durable structures’ is a historical, spatial and socio-political concept, and must be theorised as such. Path dependency involves much more than the neo-institutional economic path of institutional change (North 1990), but includes the development trajectory of the local system in all its dimensions and spatial scales (Moulaert et al. 1994; Moulaert and Leontidou 1995; Moulaert 1996). This ontological stance has significant consequences for the methodology of regional analysis (Moulaert 1995).

Figure 3 has been composed as if each type of capital had (partly) an autonomous logic, which it can (partly) valorise in synergy with other types of capital. This is a positive logic: human capital can illuminate the knowledge about the environment and therefore contribute to an improved ecological capital; institutional capital can foster learning processes for human capital, etc. Of course, these ‘improvements’ can only receive a definite orientation if a view of territorial development is really filled in. Norms and objectives for ecology, social relations, solidarity, production and distribution of economic assets, etc. must be defined. In the social view of territorial development, the dynamics of the various forms of capital must be orientated and the trade-offs between the orientations evaluated. For example, a local community can choose to invest less in large-scale urban regeneration projects, to the benefit of neighbourhood actions including decent primary schools, social services and individual housing.

Figure 3 Interaction between various types of capital

<p align="center">Influence</p> <p align="center">From → to</p>	<p align="center">ECOLOGICAL CAPITAL</p>	<p align="center">SOCIAL (OR INSTITUTIONAL CAPITAL)</p>	<p align="center">HUMAN CAPITAL</p>	<p align="center">BUSINESS CAPITAL</p>
<p>ECOLOGICAL CAPITAL "the stock of all environmental and ecological resources. It is a dynamic stock involving the biosphere, the gene pool, plant and animal species, the weather, the cycles of nature and the physical environment" (p.3)</p>	<p>Reproduction of ecological Capital - Ecosystem</p>	<p>Environmental impact on human interaction patterns and norm systems</p>	<p>Improvement of quality of physical and natural environment – Health fostering creative human capital</p>	<p>‘Green’ capitalism - Ecological production and consumption systems</p>
<p>SOCIAL (OR INSTITUTIONAL) CAPITAL "comprises those norms, mores, relationships and organisational arrangements which help to bond people together. Some minimal degree of trust, respect, dignity and communication between people are necessary with this form of capital" (p.5)</p>	<p>Administration and norm development vis-à-vis ecosystem</p>	<p>Social dynamics Building of norm systems</p>	<p>Learning and co-operation processes</p>	<p>Valorisation of social dynamics in economic activities</p>
<p>HUMAN CAPITAL is usually related to those skills and knowledge that are capable of general application, although 'firm specific' human capital and 'learning by doing' are of considerable</p>	<p>Improved knowledge and skills to reproduce environment</p>	<p>Knowledge impact on instutional capability - Improved Institutional dynamics</p>	<p>Skills and knowledge growth</p>	<p>Valorisation of human capital business system</p>
<p>BUSINESS CAPITAL this category includes the</p>	<p>Investment in eco-economics</p>	<p>Codifying of institutional capital to economic logic</p>	<p>Training of manpower for economic activities</p>	<p>Private investment</p>

creation of durable structures within
importance⁴.corporations, such as machinery,

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⁴ The author refers to Tomer (1998) who suggests that human capital, at least the part 'organisational learning' could be consider as belonging to organizational capital.

factories, tools, warehouses, buildings, and inventories" (p.10)

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A good transition to the discussion of culture may go by the notion of 'knowledge', considered by Innes and others as a strategic component of institutional capital. What is knowledge? In the TIM, knowledge is mainly considered as codified or tacit knowledge feeding the technological innovation process. Obviously, knowledge as a component of institutional capital, has a richer content. It is culturally rooted, it is only marginally functional to the future of the capitalist firm, but consists of the whole body of insights useful for human self reflection and strategies. Science, technology and their learning processes cannot be considered as the sole sources of knowledge. Other existential and creative processes, modes of thought lead to knowledge; science and technology do not have a monopoly in knowledge production; neither is the 'rational' character of scientific knowledge above suspicion (Feyerabend 1975). The new view on territorial development should utilise a broad notion of knowledge formation, respecting the rights of all citizens and their groups to contribute to local knowledge, by means of a variety of knowledge generation processes. Otherwise no innovative cultural dynamics are possible, we will see.

Culture

The *terminology* which is used to define the new institutional or the post-modern concept of culture corresponds quite well with the definition of organisational and cultural potential in the innovative milieu literature. But do both definitions cover the same content? Patsy Healey, expressing the new institutionalist view in planning, writes in this respect:

"One consequence [of the critique of modernity] has been that an awareness of the cultural embedding of social life, economic organisation and forms of governance has returned to western consciousness. 'Culture' in this context is understood not merely as ideology or political philosophy, nor as a particular dimension of social life, and still less as particular 'attributes' of a social group. Its meaning is more anthropological, implying the systems of meaning and frames of reference through which people in social situations shape their institutional practices" (p.37)

In the institutionalist planning approach, the uniform culture of modern progress is replaced by a creative interaction between the various local cultural communities and assets in a locality.

But also adepts of the TIM tradition portray cultural diversity and synergies as the basis for the creation of a new local dynamic business culture capable of bypassing the uniform rationale of capitalist development. Especially those analyses of local and regional innovation which stress the role of cultural factors, deeply embedded in the social fabric of a region, in determining the path-dependency of territorial economic development – along with investment in the production system and in the physical and human infrastructure (see Malmberg and Maskell, 1997) - come close to an interpretation of culture where local diversity is considered as a force of progress and development.

In both the new institutional view and part of the territorial innovation literature, culture is part of the change dynamics, not an external factor of change. Still, what is the change potential, the innovative power of seeking synergies between both views of local cultural dynamics? It is obvious that the innovation systems literature refers to business culture and to cultural changes that are instrumental to the efficacy of business capital. In the innovation literature, cultural dynamics and differences are even analysed in their similarity with comparative advantages in international and interregional trade theory (Lundvall, 1994). The market logic is omnipresent, and may conflict with the anthropological preoccupation of institutionalist planning.

But should market logic be necessarily be capitalist? A rediscovery of local community culture may feed a process of competence building that bypasses the mere logic of competitive behaviour. The post-modern critique is quite right when it argues that the rediscovery of cultural diversity can help to unmask the paralysing impact of abstract modernist interpretations of economic progress. A business community, a Chamber of Commerce, a Professional or Management School that engages in an unprejudiced exploration of innovation potential, can come to terms with elements of the innovation agenda of neighbourhood networks, emancipation movements, cultural associations or social economy projects (Moulaert et al. 1999). Post-modern analysis and historical-institutional analysis of capitalism show that capitalist economy itself is a constellation of

production systems and markets, formal or informal, profitable or less profitable, ecological or bio-destructive socially, enriching or alienating. This economic diversity hints at a cultural diversity, that materialises the possibilities to come to grips with a local development project enhancing a multi-dimensional view of innovation and culture. But how to deal with this cultural diversity? How to integrate it into the new view of territorial development?

Nicos Mouzelis (1997) argues that there are basically four ways to deal with cultural diversity and integration. The theoretical foundations for his analysis of multiculturalism [and inter-cultural education] can be discovered by use of

“the concepts of social differentiation and integration, as they were developed not only by classical evolutionists, but also by such neo-evolutionist theorists as Parsons, Luhmann, or Habermas,...”.

“For evolutionist thinkers, modern societies are characterised by a high degree of differentiation, not only on the level of social structure, but also on that of culture. [...] The modern emphasis on the division of cultural labour, on the differentiation between spheres, is not limited to the arts, sciences, and ethics. It can also be applied when culture is viewed in the broader, anthropological sense of the term: i.e. when it is seen as an all-encompassing way of life that differentiates groups within a nation-state or globally. At present the processes of rapid globalisation we are witnessing in the economic and also the socio-political and cultural spheres bring different cultures together on the national as well as the international level. “ pp. 1-2

Mouzelis focuses on four basic strategies [integrative mechanisms] ‘by which a complex multi-cultural whole can accommodate its differentiated parts: (i) compartmentalised; (ii) monologic; (iii) syncretic; (iv) multilogic or communicative. The compartmentalised mode is based on the coexistence of cultural compartments ‘in a highly self-contained fashion, with a bare minimum of cultural communication and exchange’. In a society with highly uneven power assets, it rapidly leads to cultural exclusion and ghettoisation. In this way, it can alienate into the monologic type of integration

‘in which a dominant culture (or a culture aspiring to become dominant) tries to obliterate the internal dynamic of all cultural traditions’ (p. 5).

“..., monologic cultural integration in the modern world – whether it takes on forms of totalitarian secular ideologies, religious fundamentalism, xenophobic nationalism, or milder kinds of enforced cultural assimilation – results in a type of cohesion that (other things being equal) is rather fragile.
(p.6)

Among the threatening fundamentalist logic systems, Mouzelis reckons ‘economic fundamentalism’ based on neo-liberal ideology emphasising ‘the values of productivity and economic competitiveness [such] that the market logic tends to dominate over the logic of non-formalistic democracy in the political sphere, over the logic of solidarity in the social, and the logic of what Parsons called cognitive rationality in the higher educational sphere’ (p. 7). The syncretic type of integration is an eclectic mixture of elements stemming from different cultural traditions, without examining the origins of or the potential links between them. It refers to a world as ‘a de-differentiated social and cultural universe from which one can pick and choose at will.’ (p. 8). Finally, the multilogic or communicative integration strategy - term which Mouzelis took from Habermas –

‘tries to avoid compartmentalisation without resorting to either the monologic/authoritarian and or the syncretic/postmodern strategies. It respects the autonomy and internal logic of the various cultural traditions, while insisting on constructing a lingua franca with the help of which one cultural language can be translated into another.’ (p. 9)

This includes combating ‘distorted communication’, respect for *alterity*, and the acceptance of certain limitations to cultural autonomy to the benefit of the functioning of democracy and the respect of basic human rights.

The new view on territorial development, based on social innovation, necessarily adopts the communicative integration strategy. This does not only mean that different ethnicities and cultures should develop a language and a system of communication, but also that a new balance between the logics of existence must be sought. Cultural integration is only possible if the fundamentalism of market logic is limited, and if other views of economic development responding to the needs of

various cultural groups, enter the picture of community communication and development design. Communication and decision-making systems must involve community-rooted views of economic, social and cultural development. They should include constraints on the influence of dominant views and practices.

Networks

Networks and network analysis are all-over: probably longest standing in the theory of graphs, logistics and transportation, the term 'network' has also been used for quite some time in urban and economic sociology. Today, it belongs to the privileged vocabulary of business and technological innovation specialists, organisational sociologists, social workers, political scientists, NGO organisers, regional and urban planners and policy makers, etc.

But obviously, let a hundred networks flourish also means: let a large number of concepts of network come to the fore. Again, it does a priori not make sense to polarise the analysis by for example confronting a transaction cost approach to strategic innovation networks with an urban sociology analysis of informal networks among small ethnic minorities in a deprived urban neighbourhood. But it may be useful to let the innovative milieu literature talk to the social economy literature on local development. For as argued above, there is potential common ground in their reading of innovation and culture; and therefore also of networks as the vehicles of organisational innovation and communication. In the new view of territorial development, network design principles should include: (i) targets responding to basic needs satisfaction; (ii) communication and decision-making based on inter-cultural communication – cf. the above discussion; (iii) innovative institutionalisation principles (shared responsibilities, direct democratic control on key functions, rotation in main functions); (iv) integration of scale and power links. The latter refers to the danger in the both the territorial innovation literature and the institutionalist planning approach to minimise the role of power structures in both in change dynamics and in the preservation of dominant cultures and hierarchies. The biblical adagio 'Give to the emperor what belongs to the emperor, and to God what belongs to God' does not work here: social change is only possible if capitalist fundamentalism is turned upside down. Market logic should partly

abandon criteria of productivity and wasteful competition in favour of those of basic need satisfaction and redistribution (e.g. by applying a cost calculus respecting fair trade criteria; Perna 1998).

Spatial scales and power relations

The evidence on a possible rapprochement between the territorial innovation and the institutionalist view on local and regional planning should not put us to intellectual and political euphoria, supported by arguments as the "end of capitalism", the rediscovery of common culture, etc. Such euphoria may have been the result of the constructivist post-modern dialogue aggregating cultures in local communities. But it does not even go as far as for example the flower power of the hippies movement of the 1970s, which took on its change role without the imprimatur of the [horizontal, therefore democratic?] network paradigm, but in the full understanding that without either the destruction of capitalist production relationships and bourgeois ethics, or by stepping out of the system – as the hippies did – no social change was possible.

Territorial innovation today is not possible without taking into account various spatial scales and power relations, we argued before. Many institution building initiatives, innovative production activities, cultural projects, etc. involve several territorial scales: central place or spatial division of labour concerns, inter-regional trade and investment for specific economic activities, cultural exchange between neighbouring or distant communities, inter-communal co-ordination of actions, etc. But power relations in an influence sphere, in production relations, in a political ambit may be a factor of change. To organise cultural change, eco-production, social protection of the most fragile groups of citizens, etc. it will not suffice to count on the goodwill and social energy of the concerned groups of people; it will be necessary to build supportive networks, involving partners in other communities, regulatory agents at higher spatial scales or political levels, countervailing organisations such as Unions, national and global lobbies, national and global governance

institutions, etc. When building support networks to make innovative projects work, scale and power factors should be integrated. Otherwise sandcastles will be the result.

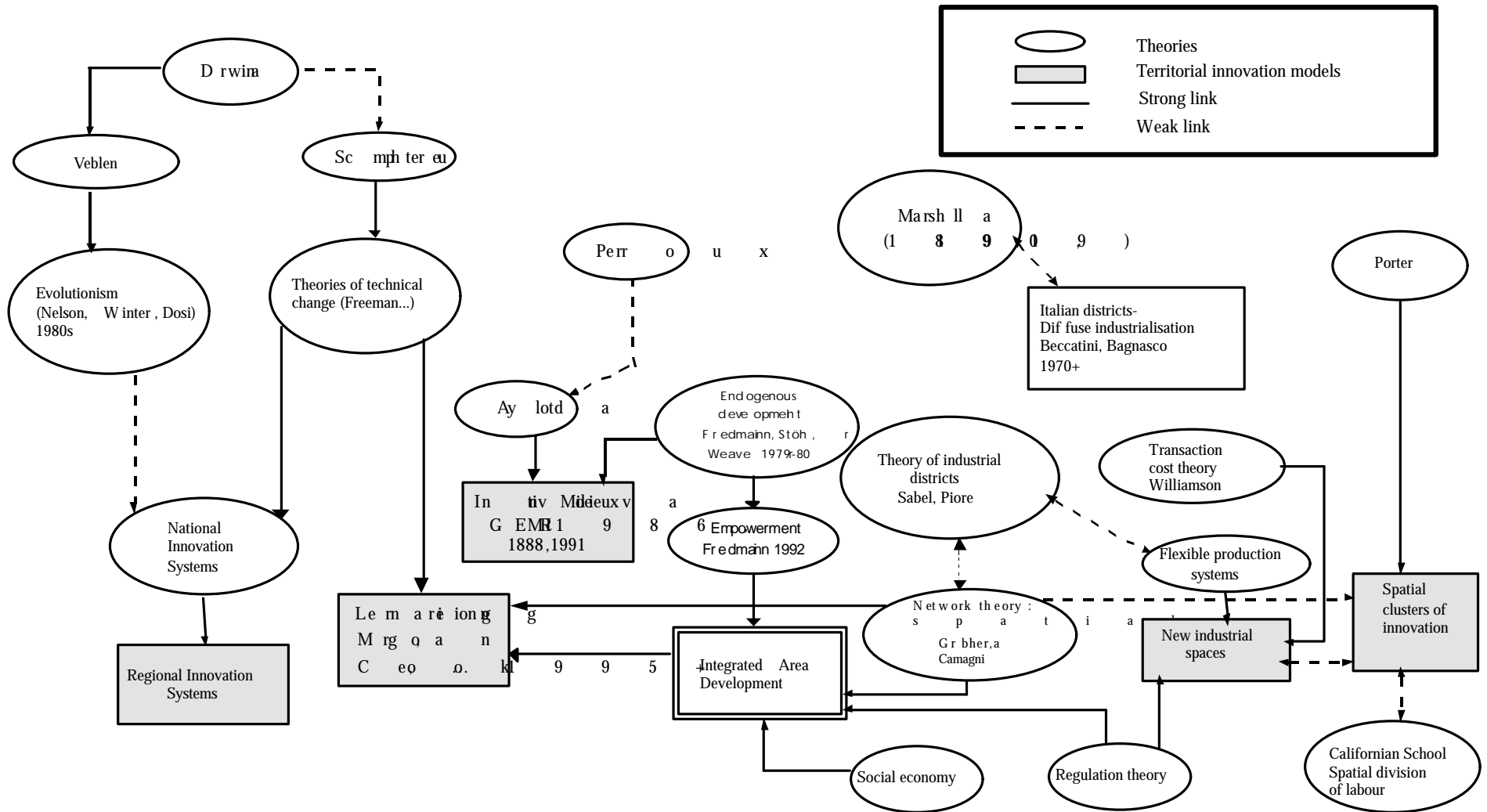
5. Social economy and grassroots mobilisation

The above arguments are an introduction to the rewriting of the local development and institutionalist planning agenda and arguments from a different perspective. Planning and territorial development can only offer an alternative to capitalist large-scale development if they start from a new process of culture building. Changing the spatial perspective from national to local, from rigid and large scale to flexible and small scale, from top-down to horizontal communication and decision-making systems, is not a social innovation, but a strategy of devolution of an aching fordist national production model to the local flexible production system. A more fragmented capitalism is still capitalism.

Territorial development will become socially innovative only if it offers opportunities to overcome community fragmentation, alienation of basic needs, deterioration of the eco-system, cultural ghettoization, extreme economic inequality, etc. Therefore, the local will become a factor of innovation if its specific models of organisation, decision-making, production and distribution offer solutions to these basic problems threatening the future of human-kind. Experiences with initiatives in the so-called social economy, and of grassroots movements are a prime source for the definition of a new territorial development model. If we want to make progress with the definition of a socially innovative territorial development model, these are the worlds to start looking at. Possible counter arguments saying that these experiences are only relevant to the neighbourhood or the city level, and not to the regional level, are presumptuous. Regional innovation can only be based on innovation at the very local level, including innovation in the modes of co-ordination between the various initiatives.

Many of these initiatives and movements have already discovered the necessity of organising at a higher spatial level. Therefore, we find here also the basic issues for a political discussion on

innovation in national and global governance. A summary of many of these issues can be found in Moulaert et al. 1999 chapter 6.



7. References

Abdelmalki L., T. Kirat and D. Requier-Desjardin (1992) Essai de caractérisation d'un système d'innovation territorialisé: technologie, institutions et politiques technologiques. Paper presented at the international conference 'Industrie et Territoire, Les Systèmes Productifs Localisés' (Grenoble October 1992).

Altvater E. (1993) *The Future of the Market*. Verso, London.

Amin A. (1995a) Tackling regional polarisation in Europe through social cohesion. University of Durham, Department of Geography, unpublished.

Amin A. (1995b) Beyond associative democracy. Paper presented at the EAEPE conference, Krakow.

Amin A. and K. Robbins (1992) Le retour des économies régionales? La géographie mythique de l'accumulation flexible, dans: Benko et Lipietz, eds. 1992.

Amin A. and N. Thrift (1995) Globalisation, 'institutional thickness' and the local economy, in: Healey et al. ed. *Managing Cities*, John Wiley, London pp. 91-108.

Aydalot, Ph. Ed. (1984) *Crise et Espace*. Paris, Economica.

Aydalot, Ph. (1986) *Milieus innovateurs en Europe*, Paris: GREMI.

Bagnasco A. (1977) *Tre Italia. La problematica territoriale dello sviluppo economico italiano*. Bologna, Il Mulino.

Barro R.J. and X. Sala-i-Martin (1992) "Convergence" *Journal of Political Economy*, Vol. 100, pp. 223-51.

Becattini G. (1981) 'Le district industriel: milieu créatif', *Espaces et Sociétés*, N° 66-67, pp. 147-164.

Belussi F. (1996) Local systems, industrial districts and institutional networks: towards a new evolutionary paradigm of industrial economics? *European Planning Studies* Vol 4 (3° pp. 5-26.

Benko G. and A. Lipietz eds. (1992) *Les régions qui gagnent. Districts et réseaux: les nouveaux paradigmes de la géographie économique*. Paris, PUF.

Benko G. and M. Dunford eds. 1991 *Industrial Change and Regional Development*. London and New York, Belhaven.

Braczyk, H.-J., Ph. Cooke and M. Heidenreich eds. (1998) *Regional Innovation Systems*. London, UCL Press.

Boyer R. (1986) *La théorie de la régulation. Une analyse critique*. Paris, La Découverte.

Boyer R. and J. Mistral (1983) *La crise actuelle: d'une analyse historique à une vue prospective*. Paris, CEPREMAP, dossier 8304.

Brown A.J. and E.M. Burrows (1977) *Regional Economic Problems*. London, Allen and Unwin.

Brusco S. (1982) The Emilian model: productive decentralisation and social integration. *Cambridge Journal of Economics*, N° 6, pp. 167-84.

Brusco S. (1986) Small firms and industrial districts: the experience of Italy, in: Keeble and Weaver eds.

Camagni, R. (ed) (1991) *Innovation networks: spatial perspectives*. GREMI, Belhaven Press, London and New York.

Camagni R. and C. Salone (1993) Network urban infrastructures in Northern Italy: elements for a theoretical framework, *Urban Studies*, 30, pp. 261-278.

Carlsson B. and St. Jacobsson (1997) Diversity Creation and technological Systems: A Technology Policy Perspective, in: Edquist ed. 1997.

Cavola L. and F. Martinelli (1999) Producer services and regional innovation in Italy, in: P. Wood ed. *Services and regional innovation*. UCL Press, London, forthcoming.

Child-Hill R. (1989) Comparing transnational production systems: the automobile industry in the USA and Japan. *International Journal of Urban and Regional Research*, Vol. pp. 462-479.

Coffey W. and M. Polèse (1984) The concept of local development: a stages model of endogenous regional growth, *Papers of the Regional Science Association*, Vol. 55

Cooke Ph. (1996) Reinventing the region: firms, clusters and networks in economic development, in: Daniels and Lever, eds.

Cooke Ph. (1998), introduction to the book *Regional Innovation Systems*, Braczyk, Cooke and Heidenreich ed.

Cooke Ph. and K. Morgan (1998) *The Associative Region*. Oxford University Press.

Courlet C. and B. Pecqueur (1990) *Systèmes locaux d'entreprises et externalités: un essai de typologie*. Mimeographed.

- Daniels P. and W. Lever eds. (1996) *The global economy in transition*. Harlow, Longman.
- Djellal F. (1993) *Les firmes de conseil en technologie de l'information comme agents d'un paradigme socio-technique*. Paris, L'Harmattan.
- Dosi G. (1988) *The nature of the innovative process*, in: Dosi et al. 1988.
- Dosi G. et al (1988) *Technical change and economic theory*. London and New York, Pinters Publishers.
- Dosi G. and L. Marengo (1994) *Some elements of an evolutionary theory of organizational competences*, in: England ed.
- Eggertsson Th. (1990) *Economic behavior and institutions*. Cambridge University Press, Cambridge Surveys of Economic Literature.
- England R. ed. (1994) *Evolutionary concepts in contemporary economics*. Ann Arbor, The University of Michigan Press.
- Edquist Ch. ed. (1997) *Systems of Innovation. Technologies, Institutions and Organizations*, London: Printer.
- Ehrnberg E. and S. Jacobsson (1997) *Technological Discontinuities and Incumbents' Performance: An Analytical Framework*, in Edquist Ch. ed.
- Ekins P. (1992) *A new World Order. Grassroots Movements for Global Change*. London – New York, Routledge.
- Enright M.J. (1994) *Regional clusters and firm strategy*. Paper presented at the Prince Bertil Symposium, The Dynamic Firm, Stockholm.
- Fainstein S. and N. Fainstein (1996) *City Planning and Political Values: an updated view*, in: S. Campbell and S. Fainstein eds. *Readings in Planning Theory*. Cambridge/Oxford, Blackwell.
- P. Feyerabend (1975) *Against Method*. New Left Books.
- Friedmann J. (1992) *Empowerment. The politics of alternative development*. Cambridge/Oxford, Blackwell.
- Friedmann J. and C. Weaver (1979) *Territory and function: the evolution of regional planning*, E. Arnold Publication, London.
- Garofoli G. (1984) *Diffuse industrialisation and small firms: the Italian pattern in the 70s'* in R. Hudson (ed.) *Small firms and regional development*, Institute for transport, tourism and regional

economy, Copenhagen School of Economics and Business Administration, publication n°. 39, Copenhagen.

Garofoli G. ed. (1992) *Endogenous development and Southern Europe*. Aldershot, Avebury.

Genosko J. (1997) *Networks, Innovative Milieux and Globalisation: Some Comments on a Regional Economic Discussion*, *European Planning Studies*, Vol. 5, pp. 283-297

Grabher, G. (1993) *Rediscovering the Social in the Economies of Interfirm Relations*, in Grabher ed., *The Embedded Firm*, London: Routledge.

Hansen N. (1992) *Competition, Trust and Reciprocity in the Development of Innovative Regional Milieux* *Papers in Regional Science*, vol. 71, pp. 95-105.

Healey P. (1997) *Collaborative Planning. Shaping places in fragmented societies*. Macmillan, London.

Jessop R. (1990) "Regulation theories in retrospect and prospect" *Economy and Society* **19** 153-216.

Kafkalas G. et al. (1998) *The making of the intelligent region. The role of structural funds and regional firms in central Macedonia*. Report to European Commission, DG XXII, Leonardo da Vinci Programme.

Keeble, D. and E. Weaver eds. (1986) *New firms and regional development in Europe*. London, Croom Helm.

Klein J.L. (1997) *L'espace local à l'heure de la globalisation: la part de la mobilisation sociale*. *Cahiers de Géographie du Québec*, **41**, 114, pp. 367-377.

Klein J.L., J.M. Fontan and D.G. Tremblay (1988) *Economic reconversion, partnership and community-based mobilization in Montreal: towards the activation of socio-territorial capital*, paper presented to the Annual Conference of the Association for Canadian Studies in German-Speaking Countries. Grainau, Bavaria, Germany.

Legendijk A. (1998) *Will New Regionalism survive? Tracing dominant concepts in economic geography*. CURDS, University of Newcastle upon Tyne, discussion paper.

Lambooy J. and F. Moulaert (1996) *The economic organisation of cities. An institutionalist perspective*, *International Journal of Urban and Regional Research*, Vol. 20, 2, 1996.

Leborgne, D. and A. Lipietz (1988) *New Technologies, new modes of regulation: some spatial implications*. *Environment and Planning D: Society and Space*, Vol. 6, pp. 263-280.

- Legalès P. (1998) Regulations and governance in European Cities. *International Journal of Urban and Regional Research*, Vol. 22, 3: pp. 482-506.
- Lipietz A. (1986) New tendencies in the international division of labor: regimes of accumulation and modes of social regulation. In: Scott and Storper eds. 1986.
- Lundvall B.A. ed. (1992) National systems of innovation. Towards a Theory of Innovation and Interactive Learning. London and New York, Pinter.
- Lundvall B. (1994) The learning economy: challenges to economic theory and policy, mimeo.
- Malmberg, A. and P. Maskell (1997) Towards an Explanation of Regional Specialization and Industry Agglomeration. *European Planning Studies*, Vol. 3, 1, pp. 24-41.
- Marshall A. (1919) Industry and Trade. MacMillan, London.
- Marshall A. (1920) Principles of Economics. 8th edn. London, Macmillan.
- Martin R. and M.S. Steinen (1995) Regional Policy and Competition Policy in the European Union. Are they consistent? Mimeographed.
- Massey D. (1984) Spatial Division of Labour. MacMillan, London.
- Martinelli F. (1998) The Governance of Post-War Development and Policy in Southern Italy Notes for a critical reappraisal. Paper presented at the Second European Urban and Regional Studies Conference, Durham, 17-20 September.
- Martinelli, F. and E. Schoenberger (1992) Les oligopoles se portent bien, merci! Eléments de réflexion sur l'accumulation flexible, in: Benko and Lipietz eds. (1992); English version in Benko and Dunford eds. (1991).
- de Montricher, N. (1995) L'aménagement du territoire. Paris, La Découverte.
- Morgan K. (1997) The learning region: institutions, innovation and regional renewal, *Regional Studies*, vol. 30, n° 5.
- Morgan K. (1998) A regional perspective on innovation: from theory to strategy, in: Morgan and Nauwelaers eds.
- Morgan K. and C. Nauwelaers eds. (1998) Regional innovation strategies: the challenge for less favoured regions. London, Jessica Kingsley.
- Moulaert F. (1995) Measuring socioeconomic disintegration at the local level in Europe: an analytical framework, in: Room G. ed. Beyond the threshold. The measurement and analysis of social exclusion. The Policy Press, Bristol.

Moulaert, F. (1996) Rediscovering spatial inequality in Europe: building blocks for an appropriate 'regulationist' analytical framework. *Environment and Planning D: Society and Space*, Vol. 14, pp. 155-179.

Moulaert F. et al. (1999) Integrated Area Development and Economic Globalization. Forthcoming.

Moulaert F., P. Delladetsima, Jean-Cédric Delvainquière, Christophe Demazière, Arantxa Rodriguez, Serena Vicari and Marian Martínez Yeste (1999) Globalisation and Integrated Area Development in European Cities. Forthcoming.

Moulaert F, P. Delladetsima L. Leontidou et al. (1994) Local Economic Development: a pro-Active Strategy against Poverty in the European Community. Lille, Final Report for the European Commission, DG V.

Moulaert F. and J.C. Delvainquière (1994) Regional and Sub-Regional Development in Europe: the Role of Socio-Cultural Trajectories, in: L. Bekemans (ed.) *Culture: Building stone for Europe* 2002. Brussels, European University Press.

Moulaert, F. and F. Djellal (1995) Information Technology Consultancy Firms: Economies of Agglomeration from a Wide-area Perspective. *Urban Studies*, Vol. 32, 1, pp. 105-122.

Moulaert F. and L. Leontidou (1995) Localités désintégrées et stratégies de lutte contre la pauvreté. *Espaces et Sociétés*, vol. 78, p. 35-53.

Moulaert F. and E. Swyngedouw (1989) "Survey 15. A regulation approach to the geography of flexible production systems" *Environment and Planning D: Society and Space* Vol. 7, pp. 327-345.

North D. (1990) *Institutions, Institutional Change and Economic Performance*. Cambridge University Press.

O'Hara Ph. (1997) *Capital, the Wealth of Nations, and Inequality in the Contemporary World*. Department of Economics, Curtin University of Technology, discussion paper.

Pecqueur, B. (1989) *Le développement local*. Paris: Syros.

Perna T. (1998) *Fair Trade*. Torino, Bollati Boringhieri.

Perrin J.C. (1983) "Economie spatiale et méso-analyse", in: J.H.P. Paelinck, A. Salles eds. *Espace et localisation*. Paris, Economica.

Perroux, F. (1955) Note sur la notion de 'pôle de croissance'. *Economie Appliquée* 8. Republished and translated in DL. McKee, R.D. Dean and W.H. Leahy (eds.) (1970) *Regional Economics*. New York, Free Press, pp. 93-103.

- Piore M. and C. Sabel (1984) *The second industrial divide*. New York, Basic Books.
- Porter M. (1990) *The competitive advantages of nations*. Macmillan, London.
- Porter M. (1996) Competitive advantage, agglomeration economies and regional policy. *International Regional Science Review* 19, 1-2, pp. 85-94.
- Ratti, R. (1989) "PME, synergies locales et cycles spatiaux d'innovation", Fribourg, Working Paper 135, 1989: GREMI-Barcelona.
- Ratti, R. (1992) *Innovation Technologique et Développement Régional*. Lausanne, Méta-Editions S.A.
- Sachs I. (1980) *Stratégies de l'éco-développement*. Paris, Les éditions ouvrières.
- Sachs I. (1983) "Le potentiel de développement endogène" *Economies et Sociétés*, série F, n° 29, pp. 405-26.
- Sachs I. (1985) "Un autre développement: le développement intégré" *Cultures et Développement*, Vol. 17, pp. 317-27.
- Rosanvallon P (1981) *La crise de l'Etat-Providence*. Seuil, Paris.
- Saxenian A. (1994) *Regional Advantage. Culture and Competition in Silicon Valley and Route 128*. Cambridge, Ma., Harvard University Press.
- Schumpeter J. A. (1912) *Theorie der Wirtschaftlichen Entwicklung*. Translated as 'Theory of economic development' Vol. 17, pp. 317-27.
- Schumpeter J.A. (1939) *Business cycles*. New York McGraw-Hill.
- Scott A.J. and M. Storper (1986) *Production, work, territory: the geographical anatomy of industrial capitalism*. Boston, Allen and Unwin.
- Shotter J. (1993) *Growth Management: the planning challenge of the 1990s*. Sage, Newbury Park, Sage.
- Stöhr W.B. and Tödtling F. (1977) Spatial Equity: Some Anti-thesis to current Regional Development Doctrine, *Papers of the Regional Science Association*, Vol. 38, pp. 33-53
- Stöhr W.B. (1984) La crise économique demande-t-elle de nouvelles stratégies de développement régional ? in : Ayadlot ed. (1984)

Storper M. (1997) *The Regional Economy. Territorial Development in a Global Economy*. New York and London, The Guilford Press.

Storper M. and A. Scott (1988) *The Geographical Foundations and Social Regulation of Flexible Production Complexes*, in: J. Wolch and M. Dear eds. *The Power of Geography*. London: Allen and Unwin.

Storper M. and R. Walker (1983) *The theory of labour and the theory of location*. *International Journal of Urban and Regional Research* 7(1) 1-43.

Storper, M. and R. Walker (1989) *The Capitalist Imperative*. Oxford: Basil Blackwell.

Swyngedouw E. (1997) *The Spectre of the Phoenix. Reflections on the contemporary urban condition*, in: Bosma K., H. Hellinga (eds.) *Mastering the City*. Netherlands Architecture Institute.