

Which kind of spatial knowledge supporting smart governance? Two experiences in Castilla y León (E) and Regione Veneto (I)

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Nowadays, recent evolution of EU urban regions imposes a focus on forms of governance and on the role of public actors in proposing adequate and relevant projects for post-metropolis. The aim of this article is discussing the potential of spatial knowledge – an alternative form of territorial representations based on performative approaches and interpretative readings –, within processes of decision making, especially when consolidated concepts, techniques and tools are not effective, as when they are involved in reading the inter-municipal scale.

Two experiences in Regione Veneto (I) and Castilla y León (E), show the role of this pioneering methodology as driver of alternative visions, cohesive strategies and place-based approaches for local governments and the opportunities provided by the integration of consolidated and alternative practices within spatial planning discipline

Keywords: spatial knowledge; inter-municipal scale; smart governance

Titolo in italiano

Recenti evoluzioni delle regioni urbane europee impongono una riflessione sulle forme di governo ed il ruolo degli attori pubblici nel proporre progetti adeguati e rilevanti per la post-metropoli. L'obiettivo di questo articolo è quello di discutere il potenziale di un insieme di approfondimenti basati su descrizioni interpretative e rappresentazioni orientate del territorio come supporto ai processi decisionali. Queste letture, che danno luogo ad uno specifico spatial knowledge, si mostrano più efficaci delle metodologie tradizionali nella comprensione dei fenomeni che coinvolgono la scala vasta, che trascende i confini amministrativi. La presentazione di due casi di studio in Regione Veneto (I) e Castilla y León (E) servono a mostrare le potenzialità di questo approccio e le opportunità dell'integrazione fra pratiche consolidate e protocolli innovativi di studio e conoscenza del territorio

Parole chiave: spatial knowledge; scala inter-municipale; smart governance

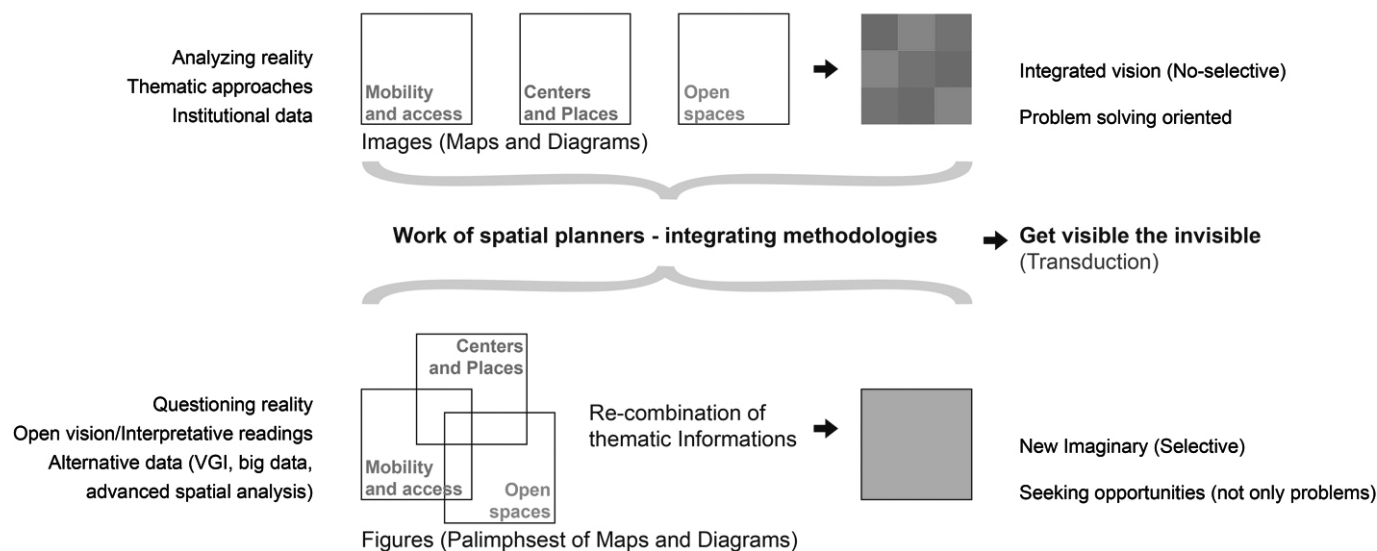
Spatial turn in post-metropolis imposes a reflection on governance and planning tools

During the last three decades, and following the dynamic pointed out by Font (2007) in its study about the 'explosion of the city', South European territories have changed. This change relies on a progressive colonization of larger areas (Burger *et al.*, 2014; Soja, 2011a) by different urban elements, as inhabitants, 'central' functions (culture, retail, leisure, services, health care, education etc.) and specialized labor market and advanced productions. The result are new, rescaled formations of urbanized territorial organizations (Brenner, Schmid, 2014: 743), in which the banal image of the *città diffusa* (Indovina, 1990) evolved in a set of interacting environments. According to many different scholars (i.e. Andersen *et al.*, 2011; Glaeser, 2011; Scott, 2011), those habitats assume a fragmented condition, following the physical, social and economic characters of the space. In recent times, academics have been involved in the study of this original environment, where global pressures and trends take place in specific contexts. I argue that if the descriptive tasks have been able to point out its values, its problems and its potentials, the issue of the governance of these post-metropolitan territories needs to be overhauled and especially, the power of decision-makers to produce adequate and relevant projects (Balducci, 2012) for these spaces. Within this framework, the aim of this article is reflecting on the process of production of a specific 'spatial knowledge' and its role for the governance of post-metropolitan territories, presenting two case-studies. The empirical and original representation of space has been a useful and effective support for local and regional actors in order to setting up focused policies and incisive strategies adapted to local contexts.

Producing spatial knowledge provides a solid base for policies and strategies at intermediate scale

In 2005, Amin and Thrift (2005: 25) pointed out the need of a different comprehension for the current territory due to its complexity, because they consider it «unreadable» if looked only through the consolidated tools of planning and geography. Other authors, as Farinelli (2009), pointed out that spatial descriptions have a prominent role in supporting specific approaches to physical reality and its spatial projection and, consequently, justifying power relationships and/or social orders which shaped them. Therefore, once we reflect on – and we innovate – the way in which we represent the space, we influence the institutional

Spatial Knowledge as support for smart governance



Spatial Knowledge as support for smart governance
 Source: De las Rivas, Paris, 2014

image of this territory but, in parallel, we impact on the power and the territorial role of the institution who produced previous descriptions.

During the last years, and following all those needs, planners experimented some integrations among traditional and innovative instruments, and their attempts tried to describe spatial patterns and their development pathways. Unfortunately, involved researchers often dispersed their efforts building up eclectic atlases (Boeri, 2011), in which descriptive taxonomies (Cattedra, Governa, 2011) created just ephemeral correspondences among things and words, without setting up an interpretative methodology for contemporary spatial transformations. Consequently, despite the large amount of recent studies about the existing metropolis, its processes of growth and self-organization, its characters, etc. just few contributions suggest insights about the opportunities and – therefore – are useful for its governance.

The ‘spatial knowledge’ (Paris, De las Rivas, 2017; Limonta, Paris, 2016) is an expression promoted by the author to describe the output of a methodology based on geographic contributions, processual approaches (Kitchin *et al.*, 2012; Kitchin *et al.*, 2009), digital techniques and performative readings (Perkins, 2009) developed during several recent research collaborations. Within these experiences, territorial representations contain those logics logic that «cannot be reduced to words and numbers and ... describe interconnections between the ways the city is perceived, conceived and lived» (Dovey, Ristic, 2017). This practice relies in the construction of a stock of alternative maps, diagrams and schemes, in which the space is represented re-combining sectoral-thematic information, statistical models and geographic data (De las Rivas *et al.*, 2014). This different approach follows the aspiration to a ‘cognitive cartography’ as suggested by Jameson (1992) and depends on a double process of mapping and interpreting spatial information, in which – through a «transductive process» (Lefebvre, 1973: 11) – images show together «realities

and transformations, different times (past, present and scenarios), what exist and what is possible».

In these terms, the production of alternative cartography can be an innovative practice, when it represents a different way to focus on territories, which introduces «coherence within the imagination and knowledge within the utopia» (Lefebvre, 1968: 128) especially when it is applied to explore the contemporary post-metropolitan spaces and all their meanings, configurations and dimensions. The stock of these interpretative figures (Pavia, 2001; Ricci, 1996; Secchi, 1994) – something more than simple images or maps – provides a solid and original support for strategies and actions. Taking advantage of different points of view, planners unveil territorial values and its complexity, once underlining differences, sometime pointing out shared potentials or problems. At the same time, sometime these looks suggest the ‘right scale’ – often the inter-municipal one – that can be used to look at the complexity of the territorial dynamics and adapting policies to post-metropolitan phenomena. This scale is different from the consolidate pattern of spatial representations, based on administrative boundaries (regional, provincial, municipal, etc.), used by public institutions to collect, normalize and share information, that often are far from the real dimensions of contemporary urban processes. It has acquired a relevant role to investigate the intermediate dimension of the needs and effects of the transformations of the metropolitan archipelagos (Indovina, 2009). Moreover, according to a recent publication (Censis, 2013) this dimension expresses the most dynamic trends affecting the labor market, mobility, education, production and tourism. For this reason, this infra-regional scale allows public actors assessing strategies and improving actions that can have an effective impact on the quality of life of the inhabitants. That is, the intermediate scale seems to be the most adequate level to interpret the post-metropolitan space by detecting tendencies and weaknesses between its transformation processes. Therefore, the

production of spatial knowledge is one of the most effective way to support a territorial governance for this unusual but more and more relevant scale, because it allows planners to shift paradigm, introducing new terms, scales, narratives and imaginaries on the reflection on contemporary territories.

Two innovative experience of governance supported by spatial knowledge

According to Panara and Varney (2013), during the last 12-15 years one of the most important issues in the field of EU policies have been the multilevel governance, and this interest is witnessed by the multiplication of academic studies, institutional documents and demo-pilots around Europe. In several different occasions, starting from the Commission White Paper on European Governance (2001) and the Committee of the Regions' White Paper on Multilevel Governance (2009), the EU expresses for the establishment of a more inclusive dialogue between different levels of governments because this is a way to take account of regional and local conditions (EU Commission, 2001: 4). This approach is relevant if we take in consideration the heterogeneous complexity of European territories, where urban systems (metropolitan areas, small and medium cities) and low-density spaces merge together, producing a rich demographic, economic and social diversity. Therefore, as pointed out by Parkinson (2016), long-term dynamics (globalization, economic and technologic restructuring, suburban settlement strategies and metropolization), recent processes of transformation (increasing competition among places, *recentrages* and interest in urban regeneration, shrinking of service economies) and current political issues (austerity, rise of neo-nationalisms and lack of confidence in EU, uncertainty and need of competitiveness and inclusion) impose a reflection about governance of these spaces and about the role of local authorities. Within this issue, one of the crucial debates is about the relevance of intermunicipal co-operation and lack of tools useful to understand and work with this dimension. In this case, where consolidated instruments (representations of census and institutional data fragmented following administrative boundaries) and traditional references (i.e. binary oppositions as urban/rural areas or centre/periphery, as well as continuous sprawl vs. compact cities, etc.) showed several critical issues and inefficiencies. At the same time, some recent attempts driven by European Union (i.e. EU, 2016), to producing transversal descriptions of the condition of European urban cities are interesting but still too rigid to describe the complexity of the system. For these reasons, the production of a specific spatial knowledge could support decision-makers and public authorities providing a different pattern of information, more precise and oriented. For this reason, the following sections present two cases in which representation of spatial information at non-institutional scales has been the key factor within policy-making processes. Within both experiences, public actors asked for a recognition of discrete areas in which set up a policy and, for this reason, several alternative representations provide the opportunity to reflect on the territory in innovative ways.

Castilla y León (E)

Castilla y León (2,4 mln inhab., 2016) is a vast region (2.248 municipalities, 6.648 settlements) located in in the centre of the

meseta plateau; it is the largest Comunidad Autónoma of Spain (94.224 kmq) and occupies more of the 18% of the national territory. It is a complex Region, marked by one of the lowest EU population density (26,74 hab./kmq) where only the 3% of the territory is urbanized. Therefore, rural environment plays an important social and economic role. The settlement pattern shows a precise correspondence between the geomorphology (mountain, riverbanks and central plains), and the localization of major urban centres. Valladolid and the other three largest cities of this system – León, Burgos and Salamanca –, shape a virtual tetrahedron which contains the most important nodes of the region and organize its central space (De las Rivas, 2010). Around them, a large and consolidated rural environment presents two different realities: dry spaces, based on cultivation of cereals loses population and economic vibrancy. At the same time, the Duero basin and other riversides maintain their traditional vocation as rich agricultural spaces – especially for wine spinneret – characterized by a strong productivity and the quality of their products.

This heterogeneity, also related with the current economic evolution, claims a different management of public services and welfare, more flexible, effective and sustainable, based on a scale closer to specific local features but also marked by a strong overview. For this reason, the Regional Council decided to design a structural reform – also following austerity-based principles imposed by EU and central state – to re-set up the provision of basic services and to substitute the existing one, based on municipal subdivisions. In this new asset, spatial planning had to promote a different governance for the Region and its territory, according to the contingent socio-economic conditions of Castilla y León and Spain and relied on a large political and social agreement (Herrera, 2011) in which a transversal reduction based on linear cuts will be substitute by an alternative management.

During 2012-2013, the *Junta* involved a multidisciplinary team of experts, led by Prof. J.L. de las Rivas and composed by other members of Instituto Universitario de Urbanística, in order to support the decision-making process, producing three principal results: 1) An oriented analysis of the Region, which involves demographic, socio-economic and settlement data.

The aim of this task was understanding the diversity and the richness of the Region where the decreasing of the whole population (-6% during the period 2010-2015) and the process of polarization driven by specific kinds of municipalities' establish the peculiar character of Castilla y León and this geographic condition influences the socio-economic profile of the smaller municipalities, in which the aging process, the rate of masculinity and the loss of population go hand in hand with the steady decline of rural economies (Del Barrio, 2010).

2) A draft map of the 176 *Unidades Básicas de Ordenación y Servicios del Territorio* (or 'UBOST').

The analysis, pointed out that in Castilla y León, physical space (topography), resources (water and humid soils) and climatology are very demanding and impose specific 'living practices' for the inhabitants of the Region. In parallel with those environmental conditions, a set of socio-economic changes (ownership structure, technological innovations, new infrastructures, tourism, etc.) and pressures (austerity, dynamics of public employment and farming) influenced the labor market and the whole economic system in the last twenty years. For this reason, the Regional Government prioritized a different strategy for the provision of

public services, based on inter-municipal cooperation, in order to sharing resources and scale economies. In this sense, the group provided a new map of intermunicipal districts, based on the process of merging together territorial identities, historical relationships and existing associations related with sectoral targets (health care, educations, water and waste management, etc.). Those units will be a solution to improve the effectiveness of local management and to avoid the creation of new institutions which could interpose with the municipal ones. The proposed map, developed through a continuous dialog among experts, politics and technicians, has been a draft, and became a useful base to involve during the negotiations with local actors, municipalities and the population, that are still ongoing but where the concept of UBOST is generally accepted.

3) A set of guidelines, translated in the maps of the 'Areas Funcionales' of the Region for the strategies driven by the Junta to face off four different targets (Interventions for depopulated areas, historical corridors, dynamic spaces and in-between rural areas) to improve the cohesion and the economic growth of Castilla y León. The overlay of these outputs produces a new strategic vision for Castilla y León, more sensitive with the needs and the opportunities of every single element of its territorial system. It represents a new agenda for Regional and Local governments, solid and adequate because it relies on the current situation of the space and adapted to its morphologic, demographic, economic and social conditions.

Regione Veneto

In Regione Veneto, the central strip of the province of Verona is a wider area composed by 52 municipalities along the A4 Milan-Venice Motorway, framed by the Garda Lake on East, mountains (*Colli Lessini* on North and *Colli Eugani* on West) and the Mincio River on South. The chief town and several urban poles configurated a scattered pattern where a strong fragmentation co-exists with small-medium town, sprawled settlements and productive agricultural fields (Reg. Veneto, 1992: 22). This area occupies 1.650 kmq, more than the 50% of the whole Province and contains almost the 80% of its populations (720.000 inhabitants). It is a polycentric urban/rural system marked by high degrees of complexity (Reg. Veneto, 2007: 13) where, historically, the presence of water and infrastructures, farming and industrial activities (due to both, large companies and a solid network of SMEs) and tourism (lake, urban heritage, gastronomy and SPAs) provided recognizable landscape values, vibrant economic environment and a diffused quality of life for inhabitants. Within this context, single municipalities, taking advantage of local values and potentials, never showed a strong interest for cooperating together and, for this reason despite several common features, it is not easy to perceive this space as a system. According to the PTCP of Verona², the area developed through a random evolution, based on the accumulation of isolated and detached chapters, without the support of an organic vision. This lack of coordination influences, for example, the crisis on the transportation system which works for international and national flows, but fails on local and neighbor scale.

In 2014-2017, a new approach adopted by several majors and/or public servants due to the rise of several challenges (related with strategic infrastructures, tourism, the regeneration of public and

private heritage) for the governance of these territories and the contemporaneous downgrading of Provincia as a key player for the management of the vast area, has suggested the building a different path based on sharing visions, strategies and policies. For this reason, 14 municipalities³ settled up a volunteer think-tank composed by majors, technicians and associations, in which share strategies and imaginaries for the territory for their area, with the aim of setting up an *Intesa Programmatica d'Area* (or IPA), a political body introduced from Regional Council in 2006⁴. Therefore, the technical board of the IPA (called *segreteria tecnica*) have been integrated by the Istituto Commercio Servizi, which supported the workgroup producing a set of documents and studies, in order to:

1) Framing the area of the IPA Veronese and helping stakeholders to get involved

The area of IPA Veronese occupies a surface of 632,2 kmq located within the central strip of the *Provincia di Verona* (3,5% of the whole Region), where live 419.675 inhab. (8,5% of the whole population), with a density of 664,8 inhab./kmq. This data, compared with the national, regional and provincial ratio (respectively 202, 268 and 293 inhab./kmq), represents a peculiar character of this specific area, and it emerges also considering the situation of the central strip (432 inhab./kmq, Data Istat, 2016) and the ongoing dynamics where the IPA Veronese gained inhabitants (+ 0,42% during the period 2009-2014), respect the Provincia (-1,26%) and the whole Region (-1,59%). The density of population together with other data, as the business density (82,66 companies/kmq), the tourism flows, ongoing sectoral policies, etc. describe the strong vocation of the IPA⁵ and this territory as a fragmented space marked by a strong density of activities, intensity of relationships as other spaces where the process of metropolisation (Indovina, 2007) are mature.

Therefore, outputs of this analysis have been an original common ground for local politicians and public servants in order to frame the field of work and select the set of actors and stakeholders to involve in the IPA (process of self-recognition and engagement). At the same time, they allowed the Region to identify the IPA Veronese as a space with a specific identity and promote its institutional recognition (expected in late 2017).

2) Building up a shared long-term vision based on characters, potentials and limits of IPA and its components

A set of collateral activities have been proposed to politicians and technicians of those municipalities of IPA and, among them, a strong process of assessment of their existing policies, ongoing actions and specific expectations. They pointed out a strong control of everyday dimension but a transversal lack of power, resources and references in facing off several challenges and pressures that currently influence this area, as the presence of the crossroad of two European corridors (V-Lisbon-Kiev and XI-Naples-Helsinki) with high-speed trains and motorways (A4/E70 Milan-Venice and A22/E45 Autostrada del Brennero), the transformation of agricultural sector or the increasing role (and impacts) of tourism. More than resources, local government ask for a space of confrontation and mediation, in which partners could share visions, coordinate ideas and policies, and where they develop actions through variable partnerships. In this case the proposed analysis has been useful to point out those fields in which municipalities can cooperate, and, at the same time, to elaborate a flexible agenda based on projects in which single

municipalities can be engaged according to their needs, targets and resources.

The original territorial representations implemented during this process have been effective to recognize the specific and shared character of the IPA Veronese as a complex system and not a fractal sum of single municipalities. At the same time, the focus on local morphologies, agricultural spaces and greyfields provide an updated atlas of potential areas of interventions or, in same case, a catalog of existing networks that, through the municipal or regional scale, have been interrupted or hidden, for longtime.

Conclusion: What knowledge and for what governance?

Nowadays, according to Secchi (2000: 141), disciplines come back to the experience as privileged source of knowledge and, for this reason, urban and regional planners focused on existing cities and concrete territories, re-defining consolidated points of view and techniques. But this article points out that traditional toolkits, based only on institutional data and administrative scales, are inadequate to face off the complexity of multifaced, contemporary post-metropolitan territories (Balducci *et al.*, 2017; Brenner, 2014; Soja, 2011b) and its different gradients of densities (of objects, of uses, of practices) and intensities (of relationships, of flows and dependencies). Current metropolitan regions need new understandings, based on innovative descriptions of urban habitats and living practices, able to identify differences, potentials and limits of contemporary territories. This overhaul is a key factor in the definition of a spatial governance which should be more effective and more inclusive, representing a testing ground in the production of a spatial narrative open to the needs of local communities and economies. For this reason, these new representations should take in account a set of agents and media, not only consolidated information and datasets related with exclusive – sometime, unidirectional – sources and spatial visions produced by specific predominant agents – and powers –. Therefore, the contribution underlines the persuasive role (Mangani, 2006) of the integration with this information and a new kind of cartography, based on alternative data (VGI, big data, advanced spatial analysis) and interpretative readings, defined ‘spatial knowledge’.

Following this approach, the two recent experiences presented through this paper showed that original but precise representations of the space can be not only a useful and flexible analytic tool, but also an effective and solid support for governance. But, which kind of it?

According to the definition provided by the dictionary Merriam-Webster, and quoted by H.J. Scholl and S. AlAwadhi (2016: 22), ‘smart governance’ is «the capacity of employing intelligent and adaptive acts and activities of looking after and making decisions about something».

Through this set of descriptive interpretations related with spatial knowledge, public administrations should detect the peculiar richness of local territories, identifying places marked by a variety of vocations and identities, where differences converge and combine, foreshadowing original forms of cooperation and synergies, prefiguring innovative answers to the challenges of contemporary society (Vegara, De las Rivas, 2016). In this sense, I think that the adjective ‘smart’ associated with spatial governance points out a progressive, adaptive and innovative approach of the administration to the spatial challenges more

than an alternative governance based on the role of ICTs.

Within the proposal for a new basic service provision for Castilla y León, this approach allowed to focus on the low-density, rural space as a something different from a ‘void’ and exceed the traditional opposition of the figure – urban realm – and the background – the rural space –. Thanks to the proposed readings it became an environment, where local factors (historical corridors, variety of productions, changeable demographic patterns) generate different conditions. Focusing this rich variability, Regional government could adapt their strategies to the space, proposing specific policies for the different ‘*areas funcionales*’ identified. Within a bottom-up building process of a intermunicipal think-tank for the city of Verona and its urban area, an interpretative cartography supported by statistic data based on population, economy and tourism pointed out several key features shared by different municipalities. This spatial reflection has been also the opportunity to set up a framework for their future agenda, where a focus on their ongoing projects, everyone with its own degree of development and financing, have been collected together. However, these two experiences show that technical approaches and implementations in planning and geography are not enough to support the discovering of spatial relations and/or opportunities to provide more integrated services, develop better policies, steer other actors in the city more effectively (Garau *et al.*, 2017; Meijer, 2015), to set up new cooperative initiative (among different levels of government, among public bodies and private companies, among citizens, etc.) without a strong role played by politicians and public servants: they are useful tools, not a palliative for a lacking leadership.

Consolidated and innovative geographic information, as well as other technical contributions, must be instruments to «make visible the invisible» (Brown, Laurier, 2005) but, as showed by the presented examples, they do not replace the role of politics and their wills within the processes of governance and we cannot overload it with expectations and claims. Actually, spatial knowledge can be a support for a smart governance and it provides new points of view on territory and its conditions, but it needs willing and conscious governors able to seize the hints produced through these processes.

Notes

1. Amongst the 2.248 municipalities of the Region, the 23 largest cities (> than 10.000 inhab.), where already is settled more the 58% of the whole population attract inhabitants, like Valladolid or Burgos or – when their performance is negative (as in Salamanca and León) – they loss less population than the rural areas (-3,46% of population in 2010-2015). At the same time, the 105 medium-little cities (2.000 – 10.000 inhab.) have a dynamic profile, due to their role of references for peripheral areas or their position, in the surrounding of the cities (+ 6,52% during the same period). The smallest municipalities (less than 500 inhabitants), those that form the largest part of the regional territory, show the deepest losses (-21,65%).
2. Provincia di Verona, *Piano Territoriale al Coordinamento Provinciale – Documento Preliminare*, 2007, p. 25-26.
3. The initial board of the IPA Veronese is composed by the municipalities of Verona, Bussolengo, Buttapietra, Castel d’Azzano, Castelnuovo del Garda, Lazise, Pastrengo, Pescantina, S. Martino Buon Albergo, Sona, S. Pietro in Cariano, Sommacampagna, Veggio sul Mincio, Zevio and other institutional actors (Camera di Commercio IAA di Verona, Apin-

dustria, Casartigiani, Dipartimento di Informatica dell'Università degli Studi di Verona).

4. This body, established by the D.G.R. n. 2796, adopted in Sept. 12th 2006, *Programmazione decentrata - Intese Programmatiche d'Area* (IPA). (Art. 25 l.R. 35/2001), published on BUR n. 86, Oct. 10th 2006, should be a light structure, regulated by voluntary agreements between partners and internal bylaws, which create 'confrontation tables' led by a leader municipality. According to the regional law, these institutions work with the 'co-decisional' approach, and for this reason they propose strategic assets that should influence both, the regional agenda and the decisions of local bodies involved.

5. Also in this case the comparison with national, regional and provincial data (respectively 23,96; 32,28 and 37,08 business./kmq, data ISTAT 2011)

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