



**International Link and Services for
Local Economic Development Agencies**

for a fair, human, sustainable and inclusive development

The role of Local Economic Development Agencies for Innovation

*The emblematic cases of Vlore Region (Albania) and
Sumadija and Pomoravlje Region (Serbia)*

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Abstract

This paper aims at investigating the role of Local Economic Development Agencies (LEDAs) in promoting the consolidation of regional systems of innovation and in sustaining the enhancement of dynamic capabilities.

Arguments are based on a investigation in two Balkan regions – Vlore region (Albania) and Sumadija/Pomoravlje region (Serbia) – where two LEDAS operate, respectively AULEDA and REDASP; nonetheless, the findings could be applied to many other regions and LEDAS challenging for sustainable territorial competitiveness in the medium-long term.

These findings suggest that a systemic approach to innovation is starting to take place in these regions and that the respective LEDAs are acting as animators of innovation strengthening interactive and dynamic capabilities of local actors. Nevertheless, the analysis indicates the need of further efforts regarding the institutionalization of local interactions and the strengthening of universities' capacities, financing channels, and knowledge building and diffusion mechanisms.

The conclusions show what are the challenges for the LEDAs and how to face them.

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1. INTRODUCTION

The view of modern societies as characterised by a 'learning economy' (Lundvall and Johnson, 1994) has crucially contributed to question the traditional view of innovation as a linear and a-spatial process, focused on R&D and human capital investments. A dynamic and systemic perspective has indeed been advanced (Freeman, 1987; Lundvall, 1992; Nelson, 1993), leading the debate to discuss the evolutionary, non-linear and interactive nature of innovation and learning processes, shaped by the socio-institutional environment in which economic agents are embedded (Camagni, 1995; Storper, 1997; Edquist, 1997; Iammarino, 2005).

Embracing the systemic and interactive approach to innovation and its application and adaptation at sub-national level (Cooke et al., 1997; Iammarino, 2005), this paper investigates the role played by Local Economic Development Agencies (LEDAs) in facilitating innovation, in fostering the emergence of Territorial Systems of Innovation and in sustaining the mechanisms local actors rely on to enhance their individual and collective dynamic capabilities, analysing two regions of the Balkan area: Vlore region (Albania) and Sumadija/Pomoravlje region (Serbia).

This paper therefore aims at providing more solid theoretical and analytical bases for the operations of LEDAs as innovative organisational and institutional tools to shape innovation processes as engine for territorial economic development (Canzanelli and Loffredo, 2008), as well as relevant feedbacks to the literature in order to widen the knowledge on the potential for these agencies, under certain conditions, to lead the process of local development (Canzanelli, 2001; 2010). Findings derive from a multi-method qualitative research, which has allowed exploring in depth context-sensitive and interactive processes, including the perspective of the main interconnected actors within the regional economic systems and adapting to the specificities of each context without hampering the possibility to identify regularities between the two cases.

2. LITERATURE REVIEW

2.1 Local Economic Development Agencies

In the global policy scenario, the popularity of "local development agencies" as relevant organisational and institutional tools for territorial economic development has widely increased¹, together with their potential to give operational application to various policy implications raised by the literature regarding local development and, interestingly for this paper, local systems of innovation (Blakely and Leigh, 2009; Clark et al., 2010). Despite this, some controversial experiences (e.g. RDAs in the UK) and mixed evidence across the world have undoubtedly provided a complicated picture of the relevance, effectiveness and sustainability of similar organisations.

A clear definition of Local Economic Development Agencies (LEDAs) – embraced by the OECD – refers to 'legal, no profit structures, generally owned by the public and private entities of the territory', through which 'local actors plan and activate, in a shared way, initiatives for territorial economic development; identify the most convenient instruments for their realisation; and enhance a coherent system for their technical and financial support' (ILS LEDA², 2009:1).

Moreover, it can be added that, especially in emerging and transitional countries or territories, LEDAs rely on a wide and comprehensive notion of development, which embrace together social, economic and environmental dimensions, with a more specific focus on human

¹ Approximately 15,000 local development agencies exist in the world (Clark et al., 2010).

² International Links and Services for Local Economic Development Agencies.

³ Interactive and dynamic capabilities shape the actors' ability to integrate, build and reconfigure internal and external competences to address rapidly changing environments' (Teece et al., 1997:516) and they are influenced by the socio-institutional setting and network relationships

development and on the reduction of multi-dimensional poverty, marginality and cultural fragility (Canzanelli, 2001; 2010).

Overall, most fundamental is their capacity to tailor appropriate roles and organisational arrangements to the local context, together with their flexibility and dynamic capabilities to learn, re-invent tasks and tools and evolve along with the territory (Canzanelli, 2010), integrating governance, strategic, human development, territorial promotion and services components (idem).

The comparative analysis of 16 different local development agencies elaborated by Clark et al. (2010) offers interesting empirical insights, highlighting the appropriateness of the agency model and the corporate structure to overcome weaknesses in the local institutional framework and sustain political co-investment between different actors. These aspects are shared as well by ILS LEDA (2009) in its account of LEDAs' contribution to several dimensions of human development, which led to the identification of 10 good principles for the success of a LEDA, related to its governance, management, mission, self-sustainability, and multi-scalar network relations (Canzanelli, 2010). However, some major critiques to these regional institutions have been raised by Lovering (1999; 2011), stressing their inclination towards symbolic and highly visible activities, inoffensive to any major vested interest, and implicitly directed at consolidating a professional political class instead of fostering social inclusiveness and political regeneration.

2.2 Regional Innovation Systems

As briefly introduced, in a globalised economy dominated by high uncertainty and continuously changing environments, learning and innovation are increasingly regarded as quintessential in sustaining pro-active strategies and adaptation (Malerba, 1992; Morgan, 1997), thus driving the evolution of the economy and the society (Boschma and Martin, 2007).

In recent years, a broad and holistic conceptualisation of innovation has started taking place, embracing technical, marketing and organisational aspects – as already in Schumpeter (1975) – and including radical as well as incremental improvements and changes in products, processes, behaviours and organisational arrangements in the firm (Kleinknecht, 1987; Tödtling and Trippl, 2005), as well as social and institutional innovation at more aggregate level (Morgan, 1997; Moulaert and Nussbaumer, 2005).

Even more importantly, different contributions (Freeman, 1987; Nelson, 1993) have stressed that formal science and R&D are only one part of the overall process of innovation, which is rather stimulated by a complex system of overlapping socio-economic relations, interdependent choices, feedback mechanisms and knowledge flows within and between firms, between producers and users, between economic agents and institutional and research organisations (Lundvall, 1992; Edquist, 1997). Moreover, the influence of institutionalist and sociological perspectives (Hodgson, 1988; Granovetter, 1985 among others) have emphasised how systemic interactions and creative synergies among learning agents are embedded in their socio-cultural and business settings of action (Camagni, 1995), characterised by specific institutional contingencies, organisational routines and socio-behavioural conventions which regulate economic life as 'untraded interdependencies' (Storper, 1997:5). These factors appear thus fundamental in shaping cognitive, dialogic and interpretative processes, which can sustain or hamper trust and coordination, uncertainty reduction and creative behaviours (Storper, 1997; Amin, 1999).

In a nutshell, innovation and technological change are seen as the conditional and unpredictable results of a systemic context of relationships, opportunities and constraints, and thus fully endogenous to the working of dynamic socio-economic systems (Antonelli, 2003).

The focus on the social embeddedness and the contextual character of innovation processes, together with the recognition of regions as the locus of localised and territorial-specific untraded interdependencies (Storper, 1997), has then paved the way to the notion of Regional Systems

of Innovation (RSI), defined as ‘the localised network of actors and institutions in the public and private sectors whose activities and interactions generate, import, modify and diffuse new technologies within and outside the region’ (Howells, 1999; Evangelista et al., 2002). Being the region regarded as a space of interactions and relations with its specific heritage of knowledge and accumulated know-how (Canzanelli and Loffredo, 2008), this sub-national perspective seems appropriate to depict those systemic interactions and contextual elements that shape innovative capacity and performance, exploring the complexity, heterogeneity and path dependency of regional economies (Iammarino, 2005).

However, neither regional systems are regarded as self-contained nor local connections as sufficient to sustain innovativeness, because fundamental has proved to be the mutual reinforcing coexistence of embedded social interactions and extra-local interdependencies and complementary knowledge flows within multi-scalar networks (Coe and Bunnell, 2003; Bathelt et al., 2004), essential to sustain local creative and learning capacity and avoid cognitive lock-in and social over-embeddedness (Camagni, 1991; Belussi and Sammarra, 2010).

Therefore, a plea for tailor-made innovation policy approaches has been made (Tödtling and Trippl, 2005), embracing the view that local-specific structural bottlenecks hampering learning and innovation-prone cultural and institutional changes (Rodríguez-Pose, 1999) need to be addressed by systemic policy strategies within a multi-level governance framework (Lambooy and Boschma, 2001; von Tunzelmann, 2004; Radosevic, 2007).

Within this policy perspective, it appears clear that neither local capabilities³ can be acquired from external providers or through market mechanisms or easily transferred, nor it is enough simply investing in competences (Iammarino et al., 2012); rather, capabilities must be built over time (Teece et al., 1997; Lawson and Lorenz, 1999) and tailored policies – based on realistic assessments of actors’ and regional potential capabilities – should foster their cultivation and enhancement through the following three interrelated processes.

First, a strategy of ‘blending new sources of strengths with existing strengths’ has been proposed by von Tunzelmann (2009a:17):

- a) blending technology in high-tech and low-tech industries, where also exist wide opportunities for innovation and upgrading, despite a policy obsession for high-tech industries (Maskell and Malmberg, 1999; von Tunzelmann and Acha, 2005);
- b) blending traditional and advanced production processes, combining in a progressive way context-specific accumulated know-how with dynamic requirements in competitive markets;
- c) blending mission-oriented programmes focused on innovation resources with diffusion-oriented initiatives emphasising dissemination;
- d) finally, blending in a creative way competition and collaboration between firms.

Second, within a given heterogeneous regional capability network, alignment appears crucial in ‘orienting heterogeneous functions, resources and spaces in order to achieve mutually compatible outcomes’ (von Tunzelmann, 2009a:23), as well as aligning the objectives of the various local actors and the policies within multi-level governance (idem).

Third, the metaphor of “gardening” applied by Belussi et al. (2006) refers to a form of indirect investment in capabilities within the local system, i.e. ‘nurturing the internal dynamics by

³ Interactive and dynamic capabilities shape the actors’ ability to integrate, build and reconfigure internal and external competences to address rapidly changing environments’ (Teece et al., 1997:516) and they are influenced by the idiosyncratic regional economic structure, institutional setting and network relationships (Evangelista et al., 2002). In addition, learning processes involve joint contribution to the understanding of complex problems and coordinated search procedures with routines of interactions (Teece et al., 1997), and then, in their collective dimension, can be highly localised (Iammarino et al., 2012). This leads also to the idea of “regional capabilities” (von Tunzelmann, 2009a), which compound individual capabilities with systemic elements deriving from complex multiple-way interactions among local actors.

promoting specific initiatives' (Belussi et al., 2006:18), particularly regarding knowledge flows, absorptive capacities, cooperation and trust enhancement and firms modernisation.

In general terms, LEDAs have a great potential in supporting economic innovation in an integrated way, combining these three roles:

- I) providing a wide array of services and instruments to enhance entrepreneurship and innovation culture, absorptive capacities and proactive strategies of local firms;
- II) nurturing trust and cooperative attitudes and encouraging the continuous processes of collective learning within multi-scalar networks (Cooke, 2002; Vale, 2010),
- III) thus taking the lead in developing (through the promotion of specialised structures) and coordinating the local system of innovation (Canzanelli and Loffredo, 2008).

To conclude, *blending*, *aligning* and *gardening* are thus three functions that LEDAs have the potential to carry out, eventually representing themselves an institutional innovation (Clark et al., 2010), able to strengthen governments' policy capabilities (von Tunzelmann, 2009a) and to broader social innovation in the dynamics of social relations (Moulaert and Mehmood, 2010), thus substantially modifying the evolutionary patterns of local societies.

3. SOCIO-ECONOMIC CONTEXTS AND LEDAs

Both located in Western Balkan countries undertaking an internal long-term transition process from a closed and planned economy to an open market economy, together with the application for a possible membership in the EU⁴, the two regions selected as case-studies present different socio-economic, cultural and institutional characteristics. Some similarities can however be identified in the preponderant role of SMEs in their economies (>95% of firms), the tendency for urban agglomeration and rural depopulation and substantial market interactions with other Balkan and European countries (UNDP, 2011; REDASP, 2011).

Vlore Region was established as a governmental unit in 2000, it has an estimated population of about 340.000 according to the last statistics and it is characterised by peculiar geographic characteristics and ecosystems – the Adriatic and Ionic coastline, the internal meadows and valleys – which provide the basis for the main prospects for local development (UNDP, 2011).



Within a local economy with around 3730 active enterprises (INSTAT, 2004), the agricultural sector and tourism/trade activities provide indeed most of local employment – respectively 34% and 25% (INSTAT, 2007) – and both agro-food value chains and tourism are characterised by resources of excellence with wide unfulfilled potentialities; seaport activities and the industrial sector (only 8% of employment) are instead still underdeveloped, suffering from bad transport and energy infrastructures and having being so far based on natural resources exploitation (UNDP, 2011). While, on one side, the region shows good socio-economic indicators in terms of education completion and poverty – with the lowest Head Count Ratio in the country, 18.26% (INSTAT, 2004), on the other side university graduates represent only 5% of the local population (INSTAT, 2004) and the unemployment rate is often above the national average (UNDP, 2011). Moreover, the region presents the greatest disparity in the country according to the distribution of expenditure – 33.52% of Gini Index (INSTAT, 2004), especially due to high urban/rural inequality.

⁴ Serbia was officially confirmed a “candidate country” in March 2012, after substantial progresses regarding the stability of the institutions and the functioning of a market economy (EC, 2011), while Albania is still regarded as a “potential candidate”, due to further needed reforms to strengthen governance, rule of law, labour markets and recognition of property rights (EC, 2010).

The **region of Sumadija/Pomoravlje** is composed by two districts, which share similar socio-economic characteristics, with a total population of 526.213 inhabitants (SORS, 2002). Being around 5247 enterprises active in the local economy (SBRA, 2009), the manufacturing industry represents the dominant sector by percentage of employees – 34% (NES, 2008), as a result of several decades long tradition in metal processing and non-metals industries, which characterised the region as Serbia's industrial core (REDASP, 2011).



Moreover, this industrial development has been favoured by its geographical position and highly developed communication infrastructure networks, which has also contributed to the attraction of FDI, especially in the automotive industry⁵. Though less important in terms of employment, the agricultural and touristic sectors also exhibit opportunities for growth, mainly related to the characteristics of the regional natural environment (idem). While poverty measures show a better situation compare to the previous case – 10.2% in 2002 (Bjeloglav et al., 2007), the percentage of university graduates is similarly low (REDASP, 2011) and the problem of unemployment in these two districts is very serious, with rates over 31% in 2007 (NES, 2008), due to the high vulnerability of the local economy to business cycles in the main industrial sectors and to the weak local embeddedness of foreign companies (REDASP, 2011).

Within these different contexts, the two LEDAS have both operated since 2002-2003, adapting their operative structure and tasks to the specific characteristics of territories.

Having the mission to realise initiatives according to human development principles, the Local Economic Development Agency for Vlore Region (AULEDA) includes stakeholders representing the whole local society – e.g. public governments, private associations and Chamber of Commerce, local university and research institutes, government's directorates – and it focuses its activities on the priority territorial value chains – agriculture and tourism – and the policy areas of environment and social inclusion. In connection with programs and networks at national, European and international level (particularly the UNDP/ART GOLD 2 Albania Program and the IPA Adriatic Cross-border Cooperation Program), AULEDA realises activities for business support, territorial animation, ICT development and capacity-building for entrepreneurs, administrations and civil society, also facilitating credit access to SMEs through a Guarantee Fund mechanism. Moreover, AULEDA has guided the elaboration of the Strategic Plan of Vlore Region 2020 providing clear directions for sustainable local development.

Presenting similarities in the multi-stakeholders composition, the holistic perspective on local development and the focus on SMEs as main actors to foster economic dynamism, the Regional Economic Development Agency for Sumadija and Pomoravlje (REDASP) has a portfolio of over 40 projects and provides a broad range of services for SMEs and human resources development, infrastructure and environment protection, rural development and tourism, and strategic planning. Moreover, REDASP is fostering associative attitudes among entrepreneurs through different cluster initiatives and it has facilitated the creation of specialised structures (e.g. the Business Innovation Centre and the Business Start-up Centre in Kragujevac), building partnerships with many relevant local actors and with many national, European and international institutions. In addition, REDASP has promoted the creation of a network of Local Economic Development Offices in 11 Municipalities and it has been in charge of designing the Sustainable Development Strategy of Sumadija/Pomoravlje 2011-2021.

⁵ Since 2008 the Italian automotive group FIAT has started off-shoring part of its production activities in the city of Kragujevac, with a declared total initial investment of around €1050 billions.

4. LEDAs AS ANIMATORS OF INNOVATION

4.1. LEDAs and the enhancement of local capabilities

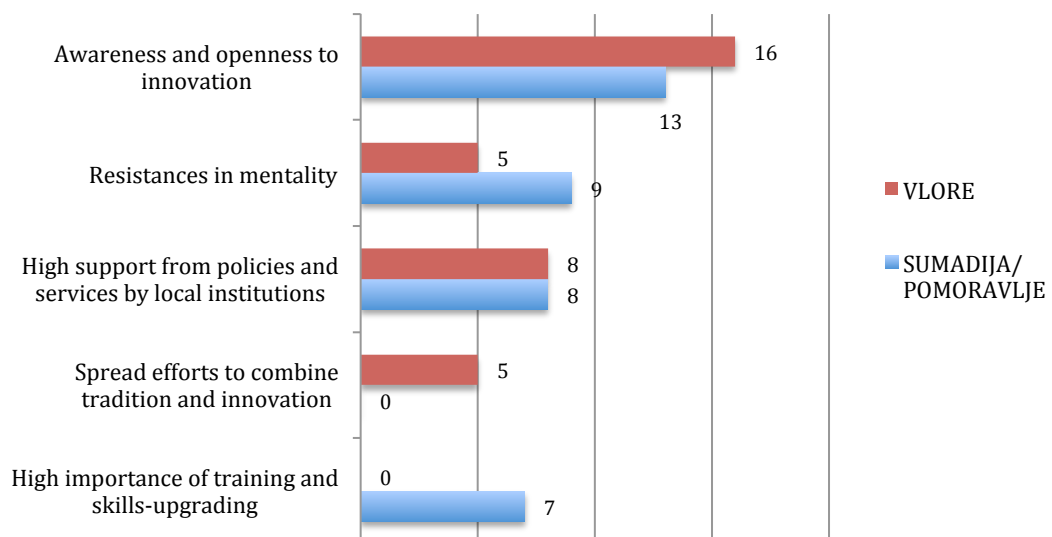
Keeping in mind the relevant differences between the two regions, this section discusses firstly the local culture of innovation and the main barriers constraining innovation opportunities and then it focuses on the main mechanisms on which local agents rely on for the enhancement of dynamic capabilities, highlighting the role played by the LEDAs in supporting these processes.

In the following figures the number of interviewees (out of 21) supporting each argument is reported⁶; missing values are due to different arguments raised in the two cases.

4.1.1 Local culture of innovation and main barriers

Briefly discussing the openness and propensity of local actors to learn, upgrade and innovate in their businesses and organisations, and then the main barriers constraining innovation processes, Figure 1 reports a diffused awareness of the importance of innovation in both regions, although some elements of resistance have been identified, especially regarding the difficulty of thinking over the medium term in times of crisis and industrial decline. Interesting is the emergence of different arguments, such as the importance of efforts to blend traditional and innovative techniques or of training and skills-upgrading, respectively more relevant in the agricultural Vlore region and in the industrial context of Sumadija/Pomoravlje.

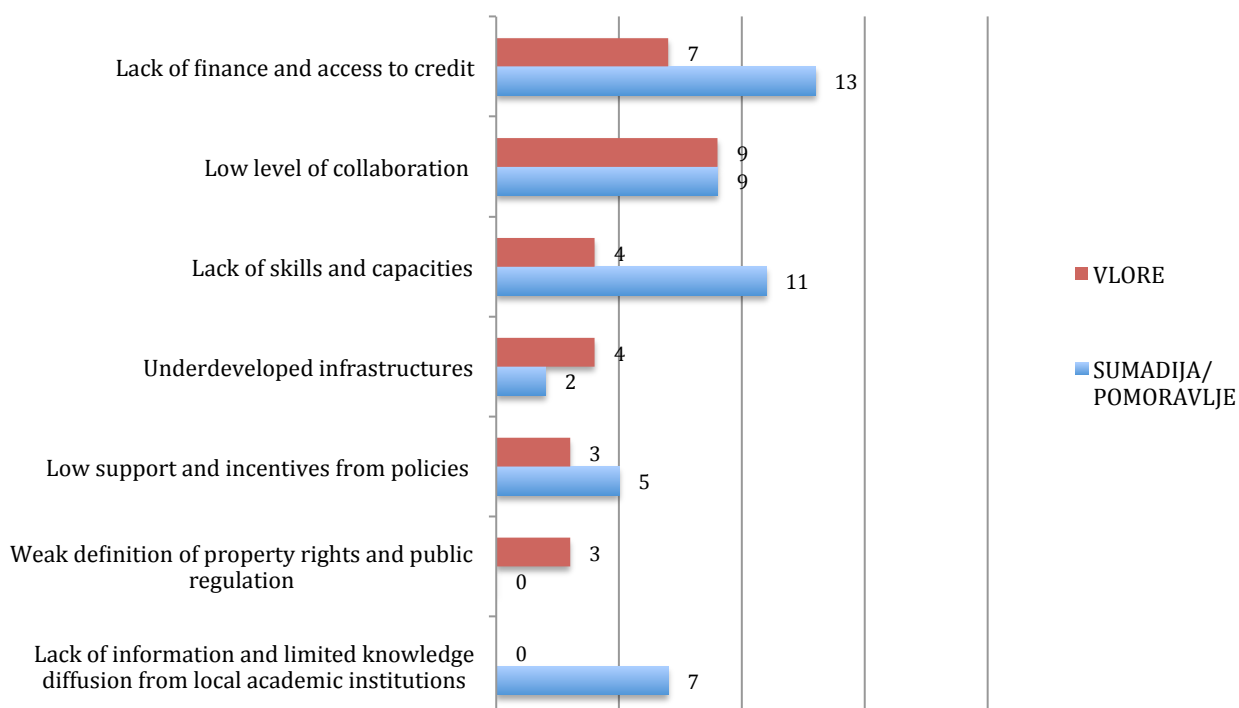
Figure 1. Local culture of innovation



The regional contextual characteristics are reflected also in the results in Figure 2, showing that while in Vlore underdeveloped infrastructures and weak property rights represent primary obstacles, in Sumadija/Pomoravlje limited access to credit and lack of capacities appear the most binding constraints, together with a low diffusion of information and knowledge. However, similar is the problem regarding low collaborative attitudes, originating in both cases from a reaction to the over-emphasised collective organisation of the economy during previous state-directed regimes.

⁶ In detail, the research methodology adopted a multi-method qualitative approach, collecting information through two tools: 1) semi-structured interviews, with a discussion adapted to the specific experience and competences of each interviewee; 2) focus group discussions, in order to debate and obtain a collective perspective on the mapping of the territorial systems of innovation in each context.

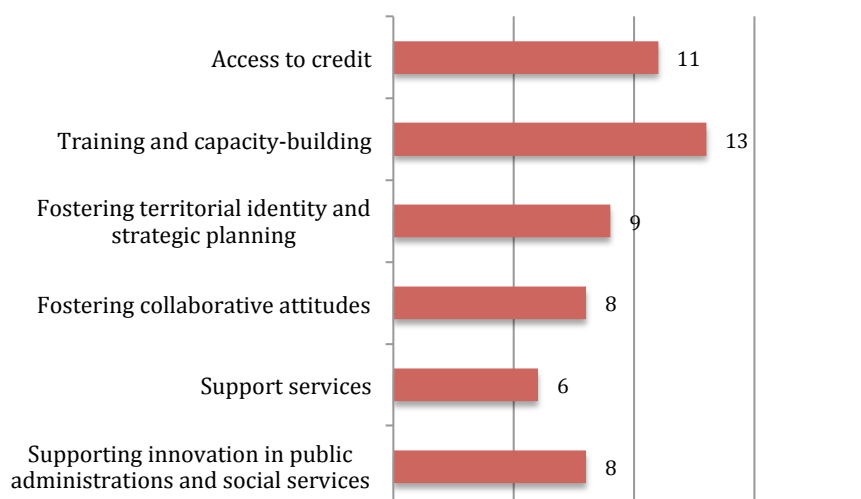
Figure 2. Main barriers to innovation



4.1.2 Main roles of LEDAs as *animators* of innovation

Discussing in general terms the main initiatives and services promoted by the agencies to facilitate local innovation processes, the findings for AULEDA in Figure 3 show an interesting combination of diversified roles in financing, capacity-building (with activities in all the main territorial value chains and also for public officials and administrators), territorial planning and networking, respectively sustained by the Guarantee Fund – the unique mechanisms at local level promoting credit access by SMEs, the activities implemented in various EU and UN projects and the elaboration of the Regional Strategic Plan.

Figure 3. AULEDA's roles facilitating innovation

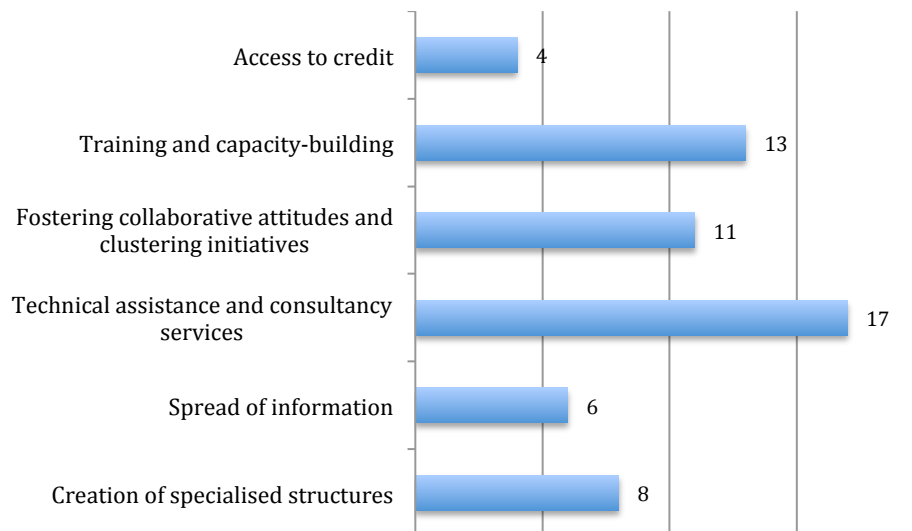


Interesting is also the importance attached to initiatives fostering social innovation – especially regarding local governance and social inclusion of excluded groups, as for women and patients of mental health. Nonetheless, the lower relevance of consultancy services indicates an area where further strengthening of Aledo's activities is needed to provide more support to

businesses and public administrations to foster competitiveness, efficiency and innovative policies.

Figure 4 reports quite a different picture regarding REDASP, despite a similar relevance of capacity-building activities within the public and private sectors. Here it appears crucial the technical assistance and consultancy services (e.g. feasibility studies, business plan, project writing) for SMEs and local public institutions, while structured credit mechanisms are still in the process to be activated. Moreover, activities to foster collaboration have also been highly appreciated, often referring to clustering initiatives in some specific sectors (automotive and flower as most interesting), together with the creation of the Business Innovation Centre and the Business Start-up Centre in Kragujevac and the network of Offices for Local Economic Development (OLED) in each municipality of the region.

Figure 4. REDASP's roles facilitating innovation



4.1.3 Interactions and collaboration

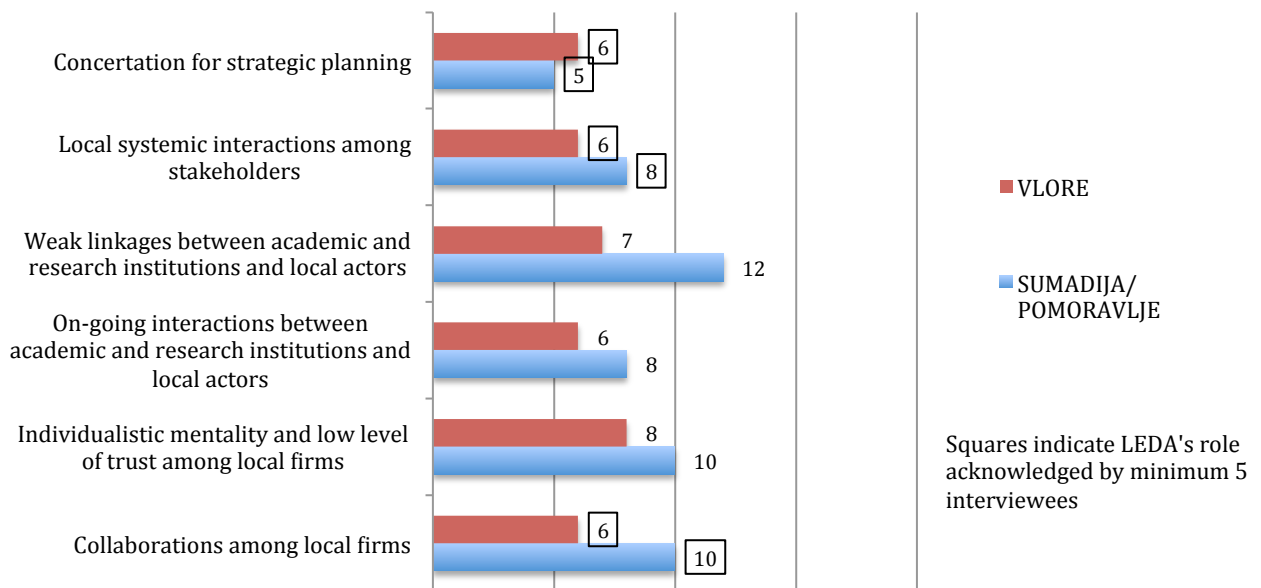
It is of great importance to assess the density of interactions, trust and cooperation – i.e. the relational capital – within the local systems (Capello and Faggian, 2005).

Figure 5 shows that systemic interactions among local stakeholders and concentration mechanisms for the elaboration of development strategies are taking place within both local contexts, thus representing, quoting one interviewee

“a successful consortium for local development and seeds of a regional system supporting innovation”.

Not surprisingly, the role of both LEDAs regarding systemic interactions has been crucial, with an almost complete correspondence between the argument and the recognition of the role of the agency. Nonetheless, when going deeper in assessing specific relationships, quite controversial results appear to characterise two fundamental linkages: focusing on universities and research institutes, both analyses report an insufficient propensity of universities to provide services and knowledge to the local system, indicating high opportunities to strengthen their developmental role (Brundenius et al., 2009); similarly, within the private sector, results confirm that trust and cooperation among local firms are far from being diffused, where strong efforts are required to sustain collaborative attitudes and the recognition of the advantages of gathering together. Here again, it is interesting to notice that when reporting good interactions among firms, most of interviewees have also emphasised the action of the respective LEDA in creating and sustaining the conditions for collaboration.

Figure 5. Local interactions and collaboration



Low collaboration among entrepreneurs, however, seems in both cases to affect mostly horizontal relations among competitors, while backward and forward cooperation along the value chain seems more intense and diffused. In addition, specific to the Serbian region has been the recognition of the strong supportive interactions of local municipalities with the other stakeholders, mainly due to the actions of the OLED.

Finally, extra-local interactions have been mostly related to joint initiatives and collaborations as part of national and international projects (especially with Balkan and Italian actors), while the emerging of an international profile for local businesses appear to be influenced by the slow transition process to a complete open economy. Interesting is in Vlore the importance attached by some entrepreneurs to their experience as migrants to create and maintain business connections abroad.

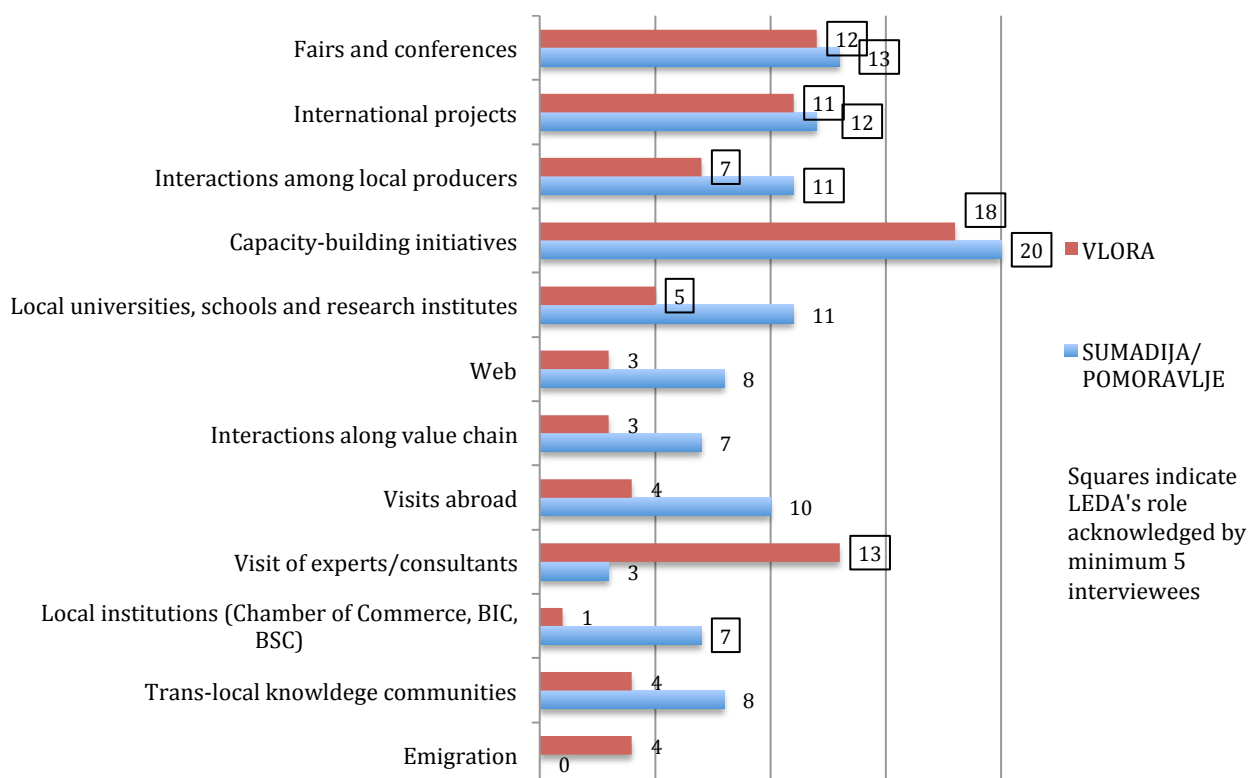
4.1.4 Access and absorption of external knowledge

Considering the high difficulties in developing internal R&D in Serbia and Albania (Radosevic, 2007), investigating the channels by which local actors access and absorb external knowledge is of crucial importance when discussing capabilities' enhancement (von Tunzelmann, 2009b).

The results in Figure 6 show a wide range of channels and sources. First of all, capacity-building initiatives represent the most important channel (recognised almost unanimously) local actors rely on to discover and absorb new knowledge, and ideas; following appear in both regions the high relevance of local, national and international fairs and the involvement in international projects, as occasions to exchange know-how, see new technological developments, discover different organisational arrangements and learn about innovative initiatives and governance tools within the policy scenario. In all these three cases, LEDAs' activities appear to have fundamentally facilitated these channels.

Interestingly, trans-local networks in the form of knowledge communities have been indicated as an important source by many entrepreneurs in Sumadija/Pomoravlje, while in the context of Vlore this has to be combined with emigration as the important channel by which entrepreneurs had access to external knowledge. Moreover, other significant differences between the two cases can be identified in the opposite reliance on visits abroad and on receiving visits from experts and consultants, with a remarkable role played by AULEDA in bringing local and extra-local experts closer to entrepreneurs, public administrations and NGOs.

Figure 6. Sources and absorption of external knowledge



Finally, the findings on the relevance of local academic and research institutions and on the Web as sources of new knowledge indicate unexploited opportunities for local actors, especially in Vlore, though underlining also that LEDAs’ efforts are raising in both regions the awareness of the need of more structured relationships between universities and local actors.

Specific to the Serbian region are instead the findings regarding Macs, which have been regarded more as close than open to share their knowledge, together with the recognition of some indirect knowledge flows for local subcontractors.

4.1.5 Key common findings and implications

In brief, while the two agencies show a differentiated model of action, adapting to the most important local needs and opportunities for intervention (Canzanelli and Lofted, 2008), both appear to generally implement a broad range of key activities, and particularly competence building, enhancing entrepreneurship and networking, creating and changing formal institutions and attitudes and providing support services to innovating actors.

Nonetheless, while each one seems to need further internal and external strengthening in specific areas – respectively AULEDA in the provision of support services and in the creation of specialised structures for innovation, and REDASP in the promotion of access to credit through a Guarantee Fund mechanism, it appears similarly crucial for both to be recognised by local, national and international institutions as reference for public policies implementation, in order to contribute to their own sustainability, and realise their full potential as developmental actors.

4.2 LEDAs’ position within the Regional Systems of Innovation

This section will present and discuss the mapping of the respective RSI, the relationships sustaining the emergence of an interactive and systemic approach to innovation and the position of the LEDA within the local network of multiple-way interactions, identifying also the weak or missing linkages among stakeholders.

Moreover, AULEDA and the local academic and research institutions have been regarded as the most relevant nodes so far in the system for the enhancement of local innovation processes, together with the continuing influence from consolidated multi-level interactions, being national and especially international actors and institutions (e.g. EU/IPA Cross-border Program, Decentralized Cooperation, UNDP ART GOLD 2) actively involved in the development of the local innovation system.

Finally, the Regional Chamber of Commerce and the local civil society have also been identified as important actor within the system of innovation, promoting their own regional development initiatives and – in the case of the Chamber – offering important supporting services, knowledge access and technological transfer to entrepreneurs. Similarly, it has been emphasised the increasing role of Local Action Groups (as in the case of Orikum) sustaining bottom-up and participatory local development processes.

Weaknesses and policy implications

Nonetheless, some crucial missing or weak linkages have been identified, particularly regarding the detachment of credit institutions – with only the Guarantee Fund mechanism of AULEDA sustaining the accessibility of credit and financial resources, though requiring itself crucial improvements to sustain the agency's own sustainability – and the availability of applied research and expertise from universities and research institutes to serve the needs of local agents, both entrepreneurs to upgrade knowledge and technologies and public actors to innovate policies, services provision and administrative organisation. In addition, the role of local media as agent of development and in supporting innovation processes still appears weak and marginal, without structured connections with local producers and the whole community and only with an occasional collaboration with AULEDA, due to an excessive commercial approach.

These links are indeed the ones needing more urgent reinforcement by the actors involved, together with the importance of strengthening the associative attitudes of entrepreneurs (crucial for SMEs) and their representation in the Chamber of Commerce or otherwise, and of further reinforcing and institutionalising the interactions and collaboration of AULEDA with its main partners. For instance, opportunities for improving the interactions with the civil society and local media have been emphasised, in order to sustain a more professional approach and advocacy role for collective interests and to foster innovative solutions to local collective problems. Similarly, structured relationships with national government's institutions and directorates and with national research centre should be increased in number and strengthened, as well as crucial appears the commitment of the agency to widen its area of influence and action, reaching some municipalities still marginally involved in its initiatives.

4.2.2 Sumadija/Pomoravlje

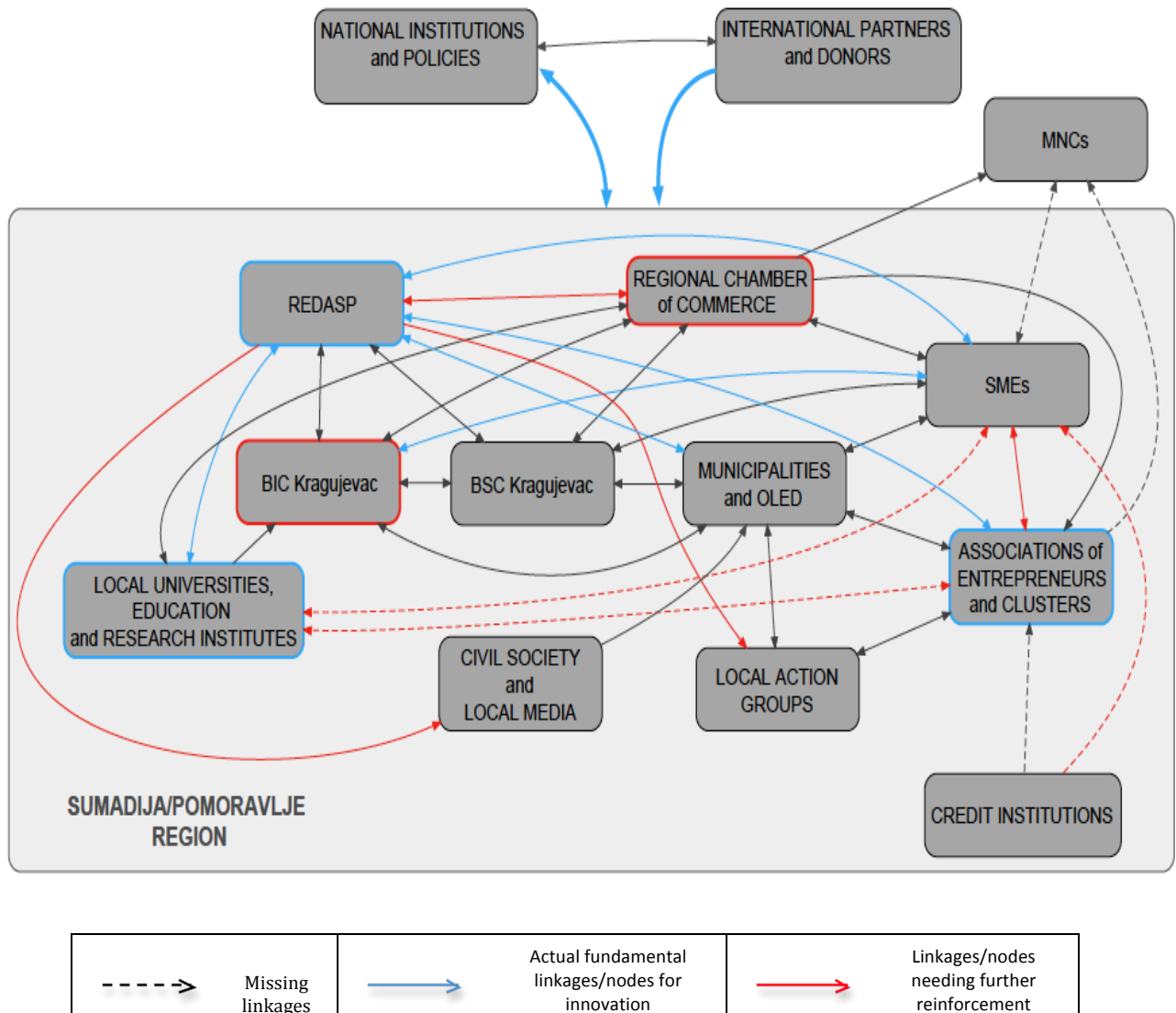
Representation and discussion

Figure 9 represents a complex web of relationships and interconnections fostering local innovation processes, slightly more developed than the previous case, partially because of the presence of some specific innovation-oriented institutions, such as the Business Innovation Centre and the Business Start-up Centre, and the highly supportive actions of local municipalities through their Offices for Local Economic Development.

The system thus presents a combination of consolidated horizontal interactions among territorial stakeholders – where REDASP, the Regional Chamber of Commerce and the municipalities are regarded as focal nodes in connecting and coordinating each actor – and of multi-level vertical connections in terms of initiatives, incentives and flow of resources. With this regard, it has been emphasised the crucial influence and financial support from, among others, the EU Delegation in Serbia (through, for instance, the Innovation Program for Enterprises and the LEADER Initiative for rural development), many international cooperation programs (such as the Norwegian Business Innovation Program, as well as the UNOPS City-to-City Program) and,

within the Serbian context, the National Agency for Regional Development, the National Innovation Fund and the Standard Conference for Towns and Municipalities, together with the initiatives of different ministries.

Figure 9. Sumadija/Pomoravlje Innovation System



REDASP appears to be connected with almost every local stakeholder through the promotion of joint initiatives, the channel of information and opportunities and the provision of services, and also to act as facilitator and coordinator of multiple-way interactions within the network, thus promoting a systemic approach to innovation.

Indeed, the intensity and high relevance of its linkages with municipalities, universities and SMEs have been emphasised, together with the role that the two local associations of entrepreneurs, the cluster initiatives in the automotive and flower sectors and some education and academic institutions (e.g. engineering faculty, polytechnic schools) have so far played in promoting a culture of innovation and in sustaining local capabilities' enhancement.

Weaknesses and policy implications

Concerns exist regarding the uni-directionality of some linkages – due to not symmetric openness, communication, feedbacks and sharing of knowledge among partners – and some weaknesses and missing linkages mainly related to the complete detachment of credit institutions and the low collaborative attitudes of local entrepreneurs.

Moreover, opportunities and need of further improvement have been highlighted regarding the capacity of the BIC in Kragujevac, the availability of university laboratories and local researchers to offer services and assistance to local SMEs and organisations, and the proactive and innovation-focused strategies of the Regional Chamber of Commerce to sustain firms' dynamic capabilities. In addition, interactions of the agency with Local Action Groups and NGOs have been referred as another areas deserving further strengthening to foster social innovation and sustainable territorial development.

Finally, the discussion has confirmed the weakness of the linkages between MNCs operating in the region and local entrepreneurs, thus pointing out the closure to share knowledge and the fragile embeddedness that have so far characterised the inflow of FDI in Sumadija/Pomoravlje (apart from internal R&D investments and business links with subcontractors), and the low capitalisation on the opportunities for the enhancement of local capabilities (Iammarino et al., 2008).

4.2.3 Key common findings and implications

Although in these two countries R&D systems are still very weak (Radosevic, 2007), it seems a systemic approach to innovation at regional level is starting to take place and develop, consolidated through the emergence of a 'collective social order' (Cooke et al., 1997:481) with a network of multi-play interactions and collaborations sustaining systemic learning and innovation capacity.

Both discussions thus confirm LEDAs' central position within the respective networks and their role of *animators* of innovation (Morgan, 1997), strengthening the associational forms of governance (Cooke and Morgan, 1998) and the meso-level technological capabilities (Iammarino et al., 2008) as basis of the consolidation of the local innovation system (Canzanelli and Loffredo, 2008).

Nonetheless, the two regions exhibit similar clear weaknesses regarding three aspects of crucial importance in the configuration of the RIS – the financial dimension (Cooke et al., 1997), the collaborative attitudes among entrepreneurs (Capello and Faggian, 2005) and the knowledge diffusion from local universities (Goddard and Vallance, 2010) –, pointing out the need of stronger efforts for their improvement by all the interconnected components of each system. Moreover, in both cases it appears crucial to sustain the institutionalisation of the interactions among local actors, in order to avoid the fragility and the risks of rent-seeking deriving from personal relations together with efforts to break exclusive power relationships supporting major vested interests.

Finally, another common implication deriving from this study concerns the reinforcement of the involvement of national governmental and academic institutions in the two territories (particularly in Vlore), promoting regulatory frameworks, research connections and stronger incentives for innovation to sustain local efforts to develop the regional systems.

5. PERSPECTIVES and STRATEGIES FOR ACTION

In two regions where some serious obstacles still constrain innovation opportunities – particularly regarding the access to financial resources to undertake investments, the collaborative attitudes among entrepreneurs to engage in joint initiatives and exchange know-how, and the knowledge diffusion from local universities, fundamental to support local governance, businesses and community development –, LEDAs appears as crucial animators of innovation (Morgan, 1997), consolidating a systemic approach to innovation within a network of multiple-way interactions.

Indeed, tailoring their activities – mainly capacity-building initiatives, strengthening collaborative attitudes, access to credit and provision of support services – to the specific constraints and opportunities of each context, both agencies have proven to foster the diffusion and

strengthening of a culture of innovation, and the increasing reliance by local actors on collaborations and joint initiatives, on differentiated channels to access external knowledge, and on multiple forms of learning.

In other words, holding a central position within the respective innovation system and acting as facilitator of interactions and coordinator of associational forms of governance (Cooke and Morgan, 1998), LEDAs have been recognised to sustain regional capabilities' enhancement, together with fostering institutional changes and policy capabilities as potential basis for proactive local development strategies (von Tunzelmann, 2009a). Moreover, though some weaknesses and limitations still require to be addressed, LEDAs have proven to be an innovation themselves, due to their multi-stakeholders composition, their dynamic adaptation to changing environments and their ability to blend different roles and take the lead in local development strategies, integrating initiatives for "smart, sustainable and inclusive growth" (Canzanelli, 2011).

However, the wide opportunities for further improvement of LEDAs' role and actions cannot be disregarded. Practical implications of these findings for the LEDAs (Canzanelli and Loffredo, 2008) and for local and national policy makers and institutions imply actions finalised to:

1. The construction and strengthening of internal innovative capital, such as:
 - Tailored educational and university programmes focused on the use of innovation as a tool for development;
 - Specialised training and skills upgrading on innovation-related tools and opportunities;
 - Scholarships rewarding innovative applications;
 - Pilot initiatives organised by local associations of entrepreneurs or by groups of local firms in order to establish shared aims, strategies, knowledge networks, dissemination of ideas, etc;
 - National and international fairs and events;
 - Newsletters and other media instruments to disseminate knowledge and innovation in priority territorial value chains.
2. The promotion of a culture open to innovation by:
 - Promoting entrepreneurship, creativity, acceptance of risk-taking strategies and interaction between the business community and the producers of knowledge;
 - Improving the administrative and legal context, setting up appropriate mechanisms to invest in human capital development and high-profile expertise;
 - Sustaining the institutionalisation of the interactions among local actors, in order to avoid the fragility and the risks of rent-seeking deriving from personal relations together with efforts to break exclusive power relationships supporting major vested interests.
3. The definition of territorial plans for innovation, including:
 - The enhancement of the development potential of the area by focusing on key territorial sectors and value chains;
 - The elaboration of the map of territorial innovative resources, considering those local practices, technologies and R&D results which represent an innovation at the national and/or international level, and also those local institutions, which may embody tools or stimuli for innovation;
 - The analysis of the innovation requirements and obstacle regarding firms, services and public administrations, in order to realise shared development objectives;
 - The elaboration of a development plan for innovations in
 - a. Territorial value chains with potential of sustainable competitiveness,
 - b. ICT and educational/training technologies, being transversal to different sectors,
 - c. Public administration;
 - The establishment of monitoring and impact evaluation mechanisms.
4. The implementation of innovative actions, through promoting and coordinating tailored specialized structures such as:

- Applied research laboratories in universities and research institutes to serve the needs of local agents, both SMEs to upgrade knowledge and technologies and public actors to innovate policies, services provision and administrative organisation;
 - Business innovation centres, which may be linked to universities;
 - One-stop shops for innovation;
 - Centres for technology transfer and for the provision of support services;
 - Science and technology park.
5. The construction and reinforcement of external relations with national governmental, research and innovation institutions, promoting regulatory frameworks, research connections/partnerships and stronger incentives to sustain local efforts to develop the regional systems.

Finally, the role of finance should not be underestimated, representing a primary lever in the introduction of new techniques, technologies and organisational tools in innovative companies, university spin-offs and public administrations. Therefore, it appears crucial for LEDAs to be supported by local, national and international institutions in structuring and upgrading a tailored Guarantee Fund mechanism, not only to promote wider access to credit, but also to ensure their own sustainability, in order to realise their full potential as developmental actor.

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