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Territorial Cohesion Concept and Measuring: Territorial Impact Assessment of Regional Policies. The Case of the Campania Region

Concetto e misurazione della Coesione Territoriale: *Territorial Impact Assessment* delle politiche regionali. Il caso della Regione Campania

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Abstract. The territorial cohesion is today the main European policy through which to reduce the economic-social, environmental and cultural imbalances between European regions, as well as a “tool” to measure, on the basis of geographic diversity, the level of cohesion achieved in terms of territorial impact assessment of the policies. The present paper, result of the second year of research of the PRIN 2015- *Territorial Impact Assessment of the territorial cohesion of the Italian regions*, aims to spread the results of the measure of territorial cohesion in the Campania Region in terms of *Smart, Sustainable and Inclusive Growth* (Europe 2020 Strategy), through the application of the innovative STeMA-TIA methodology to the regional system. The reading that the analysis returns, starting from the strategic objectives defined in the regional programming 2014-2020, shows a widespread weakness in the level of territorial cohesion reached (NUTS 2 and NUTS 3), but also suggests the most appropriate policy choices for the future, both in terms of strengthening the “virtuosity”, and in mitigating and recovering inefficiencies.

Keywords: territorial cohesion, TIA, regional policies, Campania Region.

Riassunto. La coesione territoriale è ad oggi la principale politica comunitaria attraverso cui ridurre gli squilibri economico-sociali, ambientali e culturali fra le regioni europee, nonché uno “strumento” per misurare, sulla base della diversità geografica, il livello di coesione raggiunto in termini di valutazione dell’impatto territoriale delle policy. Il presente contributo, risultato del secondo anno di ricerca del Progetto PRIN 2015 - *Territorial Impact Assessment della coesione territoriale delle regioni italiane*, si pone l’obiettivo di diffondere i risultati della misura della coesione territoriale nella Regione Campania in termini di *Smart, Sustainable and Inclusive Growth* (Strategia Europea 2020), attraverso l’applicazione dell’innovativa metodologia dello STeMA-TIA al sistema regionale. La lettura che l’analisi restituisce, a partire dagli obiettivi strategici definiti nella programmazione regionale 2014-2020, mostra una diffusa debolezza nel livello di coesione territoriale raggiunto (NUTS 2 e NUTS 3,) ma suggerisce anche le scelte di policy più appropriate per il futuro, sia in termini di potenziamento delle “virtuosità”, che di mitigazione e recupero delle inefficienze.

Parole chiave: coesione territoriale, TIA, politiche regionali, Regione Campania.

1. Introduction

Cohesion has become the only way to increase social, economic-financial, infrastructural and administrative capacities, that is the territorial capital (current and potential) of the European regions. Today, all national and regional institutions down to the local territorial institutions, in an ascending and descending process, intense and constant in the production of general and implementation provisions, are called upon to collaborate in order to reinforce and create territorial development in consistency with the territorial cohesion objectives of the Europe 2020 policy (and of the Funds) and the post 2020 European guidelines (*Europe Strategy 2020*, *Territorial Agenda 2020*, *Cohesion Reports VI and VII*; see EC 2010b, 2011, 2014b, 2017c), considering cohesion (territorial cohesion) the “means and the tool with which to face the current period of stagnation and crisis and to generate diverse and original geographic-economic models for competitive, polycentric and sustainable development” (Prezioso 2018, 83).

Cohesion, in fact, has been structured over time to become *territorial cohesion* which completes the economic and social cohesion policies and, from the initial European integration process and the objective of the spatial development policy of the Union, it has become a genuine development policy, both spatial and territorial, reinforcing attention on the territory (according to a *place-based* approach), understood as a “specific place in a logic of the upgrading of the *territorial capital* of, precisely, the *geographic diversity*” (Prezioso 2018, 141).

Today, however, cohesion is also a “measure” to assess the effects of the choices that have been made; a value, to guide future development in a logic of the determination of the regional disparities on which to act through the *Europe 2020 Strategy* for *smart, sustainable and inclusive growth*, exerting leverage on the unexpressed potential contained in the single territories (functional, flexible geographic areas) (*Cohesion Reports V and VII*; EC 2010a, 2017c).

To recall, albeit briefly, the birth and the evolution of this concept within the *European policy* is useful to contextualise within our time the question of cohesion, asking ourselves, first and foremost: how can economic cohesion become geographic cohesion? How can an economic value be transformed into a territorial attribute? How the policies have directed a cohesive model

on European, national and local scales and, above all, what tools to adopt to reach a stand shared measure of the impact of such policy actions on the territories? This measure is a necessary not only to reach the current objectives of the cohesion policy and funds, but to face the large challenges in progress at European level (*White paper* 2017; EC 2017a) and at global level (climate change and energy, demography change and migration, globalisation, etc.).

These are the main terms of the debate and some of the urgent questions that this paper seeks to answer in both theoretic and applicative terms. For this purpose, we will present the main results reached as a local research group at the end of the first two years of the PRIN 2015 - *Territorial Impact Assessment of the territorial cohesion of the Italian regions* which, according to an inclusive and multidisciplinary approach, has involved the participation of, and continuous exchanges between, researchers of the scientific world and institutional observers on the topic.

The aim of the work, although it must be correctly framed within the common theoretic-conceptual and methodological system that features research on a national basis, nevertheless remains ambitious in its specific declination, at both theoretical-conceptual level and at applicative-territorial level. It consists, in fact, of the development of a model for the Campania Region (analysis level NUTS 2, NUTS 3) on a *place evidence* basis which allows the policy makers not only to gain better understanding of the value of cohesion as a positive “driver” of territorial diversity in the regional and local development processes, but also to make more appropriate policy choices on the basis of the relative potential territorial capitals, by the use of innovative tools like the TIA (*Territorial Impact Assessment*) which can measure the level of cohesion reached by a territory (*ex ante* analysis) on the basis of the policy choices made and can guide future choices, in terms of both reinforcing present capacities and of mitigating and remedying the inefficiencies.

In terms of the development of the theme in question, to deal with the subject completely and systematically, the first part of the article re-proposes the more significant passages of the first year of the PRIN research activity - the overall results of which have already been published (Prezioso 2018) - in which the work group was requested to give a specific contribution, from the geographical viewpoint, to the territorial cohesion theme, starting from the common lexical/conceptual definition and the research methodology to be adopted to measure territorial cohesion in the Italian regions; the second part presents the results of the “measuring” of the ini-

tial territorial cohesion (at analysis time T_0) in terms of *Smart, Sustainable STeMA Inclusive Growth* in the Campania Region by the application of STeMA-TIA to the regional system. The proposed analysis, in its territorial policy assessments and implications, takes into account the strategic and programmatic objectives, as defined in the 2014-2020 regional programming documents, appropriately recalled in the article.

2. Territorial cohesion and TIA: definition and measuring problems

In the evolutionary discourse on cohesion in the European context, there is ample convergence on the notion of cohesion as a long-term political-social, economic, environmental and cultural objective. Since the Treaty of the European Communities of 1957 (Art. 158), economic and social cohesion has been considered a fundamental objective for the European Union to pursue by policies that aim at a harmonious development of the Community of the States of which it is formed by means of reducing, within the same, the economic and social differences between States and Regions, with specific funds to sustain this policy.

The Lisbon Treaty (2000) added the adjective “territorial”, after a first reference to the spatial dimension of the idea of equity and social justice in the Amsterdam Treaty (1997). Another push towards territorial “experimentation” came from the EU and from the application of the Treaties of Nizza (2000), Göteborg (2001) and Laeken (2003), also in view of the expansion: territorial cohesion is a clear objective of the spatial development policy of the Union.

Since 2005-2006, the cohesion policy has been redefined in its contents and in the implementation methods in view of the new 2007-2013 programming cycle, acquiring the positive and active significance of a “force of attraction capable of resisting the impacts, the break-up and the separation of an economy or a society” (Prezioso 2018, 89).

The Green Paper on Territorial Cohesion (EC 2008) includes in the notion of territorial cohesion a “more balanced and sustainable development”: while economic and social cohesion concentrates on the regional disparities in terms of competitiveness and the quality of life, territorial cohesion reinforces the importance of access to services, sustainable development, functional geographies and territorial analysis (*Cohesion Report V*, EC 2010a).

The same lines are confirmed and expanded in the Barca Report (2009) which, shunning the *spatially blind* models (Sapir Report, 2004), claims that the territorial

dimension should have a fundamental role in development policies, indicating the concentration of priorities and a change in governance according to a *place-based* approach focusing on: a local, multi-level negotiation process; regional policy which must reduce the under-use of the territorial potential and social exclusion; functional regions as a sphere of intervention; integration, cross-compliance and the definition of priorities and preferences at local level (Prezioso 2018, 78-79). According to this approach, for the territories to reach certain cohesion objectives depends on the behaviour of the territorial socio-economic systems, and therefore cohesion is linked to other basic concepts of European spatial policy such as “territorial diversity” and “territorial capital”, where territorial diversity is understood as a combination of geographic specificities and territorial capital, and the territorial capital is understood in a geographic key as a series of elements (tangible and intangible) available to the territory for its development (Prezioso 2018, 140-142).

With this in mind, territorial cohesion was relaunched considering it the means and the tool for competitive, inclusive and sustainable development (*Europe 2020 Strategy*) but, above all, the basis for the construction of increasingly linked to territories. In the logic of improving the *multi-level governance* of cohesion, it therefore becomes fundamental to measure the impact produced by the policies and by the use of the funds for cohesion in the territories, according to the new pillars of the *Europe 2020 Strategy* of *Smart, Sustainable and Inclusive Growth*.

At the centre of European debate for some time now, *Territorial Impact Assessment* (TIA) has definitively been included among the tools in use within Europe to assess the impacts on States and regions of policies, directives and guidelines and sustained by many European institutions (CoR, DG Regio, European Economic and Social Committee, etc.): “[...] it can provide a means of considering the spatial dimension of EU policy impacts” (Fisher et al. 2013, 3). The TIA is the subject of much European scientific literature and explicit reference is made to the TIA in the *Territorial Agenda 2020* (EC 2011), in the ESPON research and in the *Better Regulation Package* (EC, 2017b)¹.

Of the diverse methods discussed and in use in the European sphere for carrying out the TIA, in this work, the STeMA-TIA² Model, developed by Prezioso in the

¹ For deepening of *Impact Assessment* (IA), of its evolution into TIA, of the application of the TIA to the cohesion policy and the ample scientific literature, see: Prezioso 2018, 29-72.

² For deepening on the origin and evolution of the STeMA (*Sustainable Territorial Environmental/Economic Management Approach*) model, see: Bencardino, Prezioso 2006, 2007; Prezioso 2006a, 2006b, 2007, 2011.

ESPON 3.3 PROJECT, has been adopted: *Territorial Dimension of Lisbon/Gothenburg Strategy* (2004-2006). The STeMA-TIA Model was reviewed and applied to the Cohesion Policy in 2006 (European sphere) and in 2008 (Italian sphere) and again in 2015 in the sphere of the PRIN 2015 research, reorganising and integrating the list of the policies to render it consistent with the TIA of the Territorial Cohesion on the basis of the pillars of the *Europe 2020 Strategy*.

In detail, the STeMA-TIA method, as resulting from a qualitative-quantitative methodological process organised in several logical operating steps, combines in a system of matrices (three-way matrices) 73 chosen indicators (approved and admitted by the scientific community) to measure territorial cohesion, transforming them progressively into Indices and Determinants: on the basis of diverse indexation levels of the selected indicators (*indicator* → *category* → *sector* → *typology* → *determinant*) the territorialisation process gives the qualitative value of the corresponding summary/composite Index (Ix), constructed progressively starting from the quantitative-qualitative value of the indicators (I1-dominant; I2-secondary).

The application of the STeMA-TIA method to the three Determinants (one for each Europe 2020 pillar) – *Smart Growth, Sustainable Growth, Inclusive Growth* – and to the economic-financial resources (*Resources and Funds*), allows operating at diverse analysis levels for the *ex ante* – *ex post* – *ex post territorialised* assessment of the territorial cohesion of the regional system (NUTS 2) and of the provincial system (NUTS 3)³. The analysis at time T_0 (*ex ante*) measures the initial internal and external degree of cohesion of a territorial system at the *status quo*: therefore, on the basis of the STeMA-TIA model, it is the first useful step to identify and assess the resources, the weak points and the unexpressed potentials, and to relate the interdependent links to each other. The *ex ante* analysis is followed by the choice of the policies (on the list identified) and the analysis of the *ex post* values which measure the impact of the policies implemented before and after the territorialisation. The enormous potential in geographic terms of the STeMA-TIA compared to other methods for the TIA of cohesion lies in the fact that the impact of a policy depends on the territorial diversity (territorialisation process). Thus, through the TIA of territorial cohesion in Campania it will be possible to measure both the “impact” produced by regional planning (the gap between the *ex-ante* and

ex-post situations, i.e. after the implementation of policies), and the “territorialised impact” deriving from the different “effect” that the same policy produces according to the territorial context in which it is applied.

3. The measure of territorial cohesion in the regional policy of Campania

The Regional Operational Programme (ROP) of Campania ERDF 2014-2020⁴, as the programming document of the Region, represents the reference framework for the use of the Community resources of the ERDF (European Regional Development Fund) to support the process of the convergence of Campania towards the Europe of cohesive development. In continuity with the preceding programmatic seasons⁵ and with the new Community orientations, the thematic aims and investment priorities have been identified on the basis of Community Regulations (No. 1301/2013 and No. 1303/2013) and the 2014-2020 Partnership Agreement for Italy (EC 2014a).

The regional growth strategy has been based on the identification of 3 strategic fields and 3 programmatic fields. The strategic fields are:

- *Innovative Campania*: focus on innovation with reinforcement actions of the public/private research system and support for competitiveness by overcoming critical factors of entrepreneurial development;
- *Green Campania*: focus on changes in the energy, agricultural, transports and maritime activities systems, as well as a diverse landscaping approach in terms of upgrading and of care;
- *Campania Solidarity*: to improve the welfare system (inclusion and participation) raising the level of the quality of life by the rearrangement and reorganisation of the health system, the development and promotion of services for the individual, and actions to promote employment, social inclusion and the educational level.

These strategic lines are followed according to specific programmatic needs:

- To implement the *Smart Specialization Strategy* (RIS 3 Campania), the regional research and innovation strategy based on the concept of intelligent specialisation, according to the Europe 2020 objectives;

³ For the analysis, refer to Cresta, Greco, *The state of territorial cohesion in the Campania Region: place-based evidence analysis and assessment for post 2020 planning* (in press).

⁴ The ROP of the Campania ERDF 2014-2020, adopted with a decision of the European Commission of 1 December 2015, has a total funding of Euro 4,113,545,843, of which Euro 3,085,159,382.00 is provided by the Union and Euro 1,028,386,461 is national and regional co-funding. The Campania Region ROP of the Campania ERDF 2014-2020 ROP is available on line at the website porfesr.regione.campania.it.

⁵ For further information, see Bencardino et al. 2007, 2011.

- To assure the completion of the *Large Projects* which involve interventions linked to industrial development, urban development, environmental rehabilitation and the reinforcement of regional transports;
- To improve the *quality of life* and the well-being of the population by upgrading the specialisations of the urban areas and contrasting the phenomena of the depopulation of the internal areas.

The ROP of the Campania ERDF 2014-2020 is structured on 11 priority intervention axes in relation to each of the 11 Thematic Objectives (TO) identified by the Region on the basis of the analysis of the social-economic context and the interaction with the partnership. To each investment Priority, one or more Specific Objectives (SO) are associated, divided into Actions to which specific resources are destined⁶.

Although the overall structure of the programme is broad and articulated, with an important commitment in terms of specific objectives and actions/resources strongly aimed at improving the capacity of research and innovation also to support greater competitiveness of the industrial system (*Axis 1/Axis 3*) and to protect and upgrade the natural and cultural heritage (*Axis 6*) and energy sustainability (*Axis 4*), it must be emphasised that great attention is paid to the reinforcement, from the territorial viewpoint, of the plural identity of the Campania territory, by means of a series of strategies and actions aimed at functional re-equilibrium between the larger centres (metropolitan and medium sized cities) and the smaller centres (intermediate areas and internal areas) in order to improve the quality of life of the population⁷. More thematic objectives and investment priorities are, in fact, addressed to *Axis 10 - Sustainable Urban Development*, recognising the greater importance of the urban dimension of the cohesion policy in the 2014-2020 programming, together with increasingly greater recognition of the added value of the integrated territorial approach.

⁶ With regard to the total funding provided, it must be remembered that the Campania Region falls within the category of the “less developed” regions, and it is therefore subject to concentration restrictions according to which: at least 50% of the total of the ERDF resources at national level must be destined to two or more of the following objectives: 1. research and development; 2. ICT; 3. competitiveness of the SMEs; 4. transition towards a low carbon emission economy; at least 12% to thematic objective 4 and at least 5% to integrated actions for sustainable urban development delegated to the cities to be managed by means of the ITI.

⁷ The need for specific interventions to close “territorial fractures” within the regional context of Campania emerge as priorities also in the preceding research on the theme of cohesion (see Bencardino et al. 2007, 2011) and in several studies on the regional policies of Campania (Bencardino et al. 2005; Greco 2007; Bencardino et al. 2010; Cresta, Greco 2011; Bencardino, Greco 2017).

In support of urban development as a whole, also two *Transversal Territorial Strategies*. The first, the *Urban development strategy*, is included in the framework of the National Urban and Sustainable Urban Development Agenda according to the Partnership Agreement, guaranteeing complementarity with the actions of the NOP “Metropolitan Cities 2014-2020”. The aim is to promote the sustainable urban development of urban centres that have major demographic pressure and which act as a link with the rest of the territory, also for their proximity to certain more peripheral areas. To this regard, Axis 10 of the ROP (pursuant to Art. 7 of the Reg. ERDF 1301/13) identifies 19 medium size cities which, in the last programming cycle, used ERDF funds to carry out Integrated Urban Programmes (Europe IUP), the minor towns, i.e. with populations of less than 50,000 inhabitants, and the Municipality of Naples as potential target areas for Integrated Territorial Investments (ITI). This choice is determined by the need to concentrate the interventions and the transversal nature of the thematic actions, by means of a single, shared governance model. There are four drivers through which to reach the priority objective of improving the quality of life of the population:

- a. to contrast poverty and hardship (TO9 - To promote social inclusion, to fight poverty and every form of discrimination, TO3 - reinforcement of economic and productive activities);
- b. to enhance the cultural and tourist identity of the cities (TO6 - To protect the environment and to promote the efficient use of the resources);
- c. to improve urban safety (TO9 - To promote social inclusion, to fight poverty and every form of discrimination; TO4 - To sustain the transition towards a low carbon emission economy in all sectors);
- d. accessibility of the services for citizens.

The second, the *Strategy for the internal areas*, in line with the National Internal Areas Strategy (SNAI) intends to invert the demographic trend in progress, focusing on 4 internal areas (Cilento Interno, Vallo di Diano, Terno-Tammara and Alta Irpinia - pilot area of DGR [Regional Govt. Resolution] 600/2014) and 5 sectors relative to the cultural and natural heritage and the local production chains: 1. Protection of the territory and local communities; 2. Upgrading of the natural resources, cultural and sustainable tourism; 3. Agri-food systems; 4. Local renewable energy provisioning chains and energy saving; 5. Know-how and craftsmanship.

Consistently with the ROP, the Region has signed the *Agreement for the Development of the Campania Region* (into the *Agreements for the South*), with the specific objective of implementing priority interventions

regarding infrastructures, the environment, culture and tourism. In addition to these resources, the 2014-2020 programming also includes Euro 1.84 billion from the Rural Development Programme (RDP) of the EAFRD, 1.73 billion from the complementary programmes (POC), 85 million from the Metro NOP for the Metropolitan City of Naples and the resources allocated to the Region from the other NOP projects of the EU structural funds, including the EMFF, and with the national Development and Cohesion Fund⁸.

With regard to this programmatic framework for 2014-2020, the application of the common research methodology STeMa-TIA to measure the territorial cohesion (TC) of the Campania Region shows that at present (initial TC) there has been considerable delay in reaching the cohesion objectives⁹. What the analysis brings to light is a generalised weak regional territorial framework in respect of all the dimensions/analysis determinants considered (*Smart Growth, Sustainable Growth, Inclusive Growth, Resources and Funds*)¹⁰.

3.1 Smart Growth Determinant

With reference to the *Smart Growth determinant* (Value C) of the *ex ante* analysis data, the regional territory shows, on the whole, a certain vulnerability relative to the levels reached both in the spread of digital technologies (*status quo*) and in the capacity to create innovation and develop competitiveness. The Typologies considered in the analysis (*Digital Society, Education and Innovation*) have, in fact, a medium-low value on the regional scale (respectively C, C, B). More specifically, the *Digital Society* value, on the basis of the indexation process which starts from measuring the single indicators (Indicator→ Category→ Sector→ Typology→ Determinant), is strongly conditioned by the weakness of the public sector, i.e. the scarce availability of e-government services in the PA of all the provinces, in addition to which, as a further element of weakness, the scarce use of digital technologies also in the industrial sector in the “weak” provincial systems of Ben-

evento and Avellino. In terms of *Education* the vulnerability is essentially due to the *Human Capital Structures* with a very low *Innovative Dependency Index* value (D) and a low percentage of the population in *lifelong learning* (C), whereas the *Innovation Status quo* Typology (B) suffers from the insufficient diffusion of broad band in the Local Administrations. These, therefore, are the main elements of weakness on which to intervene with specific policies especially in the weak contexts of the provinces of Avellino and Benevento (Tab. 1; Fig.1).

3.2 Sustainable Growth Determinant

Also with regard to the *Sustainable Growth* determinant, the regional system of Campania shows, in the *ex ante* analysis data, a substantial situation of weakness. With regard to the three Typologies considered - *Sustainable Competitiveness, Climate Change Adaptation* and *Infrastructure Sustainability* - only the last has a positive value (B) while the others have a medium-low value (C). In particular, with regard to the theme of *Sustainable Competitiveness*, the entire production system shows important deficits both in structural terms (e.g. number of manufacturing companies, number of employed persons) and in competitiveness with a scarce presence of protected local productions, green workers and gross domestic product per person based on standard purchasing power (GDPppPPS), which is an evident sign of a potential territorial capital represented by a good presence of Local Units, Green Companies and V.A. green not adequately used and exploited. Economic interaction (D) is also difficult, as well as territorial attractiveness (C) with a final figure for the trade balance that hardly influences the regional economy and a scarce capacity to attract DFI. The value of costs linked to production, instead, reach medium-high values (B) for the theme of, for example, tax pressure and hourly labour costs, and there is also an insufficient aptitude for credit which leads to a very negative measure for economic-financial interaction (D).

The objectives reached are also insufficient for the theme of *Climate Change Adaptation*: although environmental vulnerability in terms of the state of the air and environmental risks at regional level are not high (D, C), and the measure of impact in terms of General Environmental Agreements is good (B), the overall value of this typology remains low (C) above all because of the production of urban waste (A) and hazardous waste (B) and a high uptake of potable water.

Lastly, the level of the *Infrastructure sustainability* typology is good, particularly thanks to the adoption of

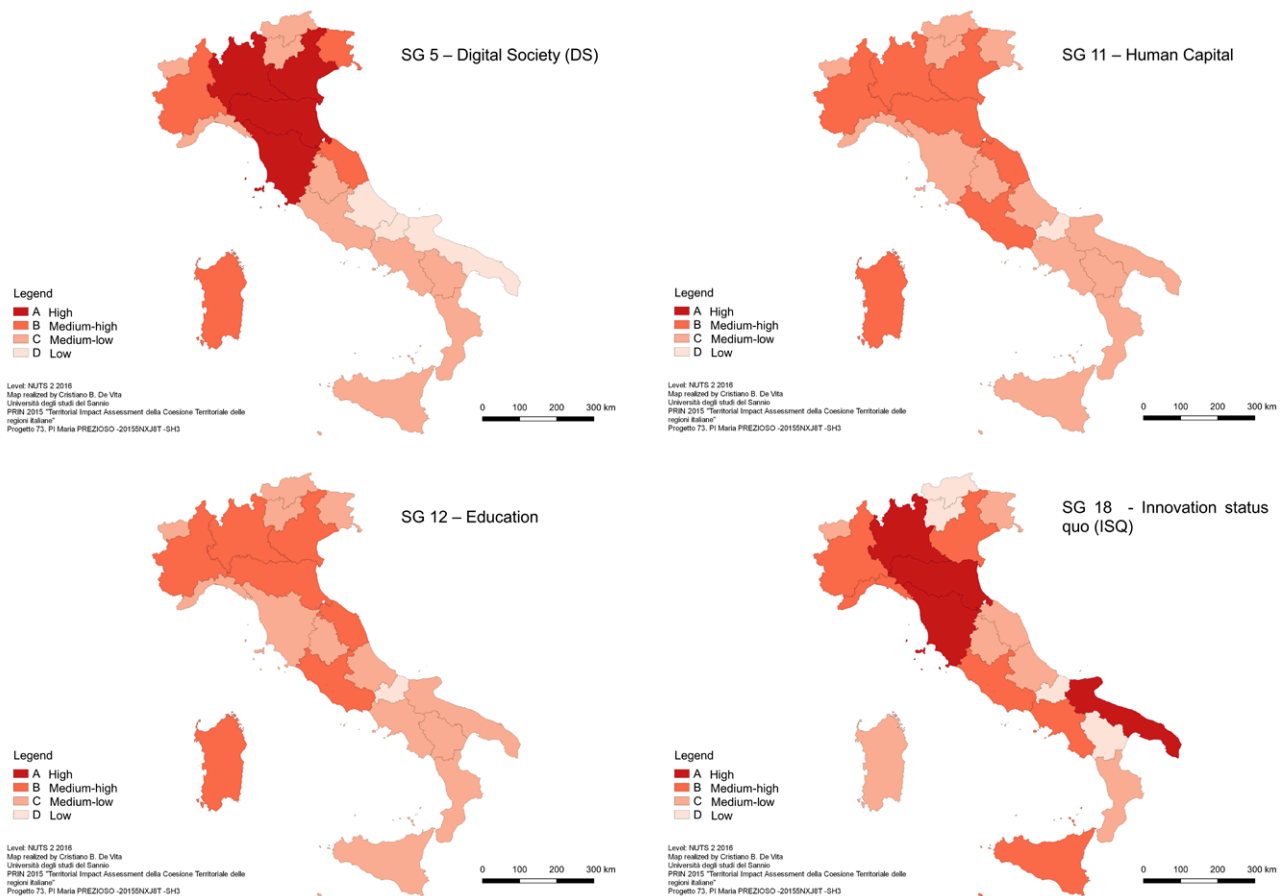
⁸ For the overall framework of the resources, of the approved operational programmes and of the calls for tenders published by the Management Authority, see www.opencoesione.gov.it/programmazione_2014_2020.

⁹ It must be specified that this analysis takes into account only the results of the application of the STeMA-TIA to the Campania Region at a time T_0 at which the assessment starts, i.e. in the absence of policies, since it is an intermediate publication relative to the PRIN 2015 research which is still in progress.

¹⁰ Comparative Indicators have their respective value classes labeled with A, B, C, D, with $A > B > C > D$. For more in-depth information on the choice of the indicators for measuring the TC and on their indexation process (typology, sector, category, indicator), see Prezioso 2018, 39-45.

Table 1. Campania Region. *Smart Growth Determinant*: summary of the results of the *ex ante* analysis (NUTS 2). Source: authors' elaboration.

SMART GROWTH (C)		
Typology	Sector (S)/Category (C)/Indicator (I) (Vulnerability factors)	Sector (S)/Category (C)/Indicator (I) (Adaptation factors)
Digital Society (C)	S: Virtual Stakeholders (C) I: Available e-Government Institution (C)	S: Virtual Shareholder (A)
Education (C)	S: Human Capital (C) I: Innovative Dependency Index (D) I: Population in lifelong learning (C)	S: Structure for the creation of Knowledge (A) I: Population with tertiary education (A)
Innovation Status Quo (B)	I/C: Level of telecommunication development (C)	I/C: R&D Infrastructures (B)

**Figure 1.** *Smart Growth Determinant*: *ex ante* analysis (NUTS 2). Source: authors' elaboration.

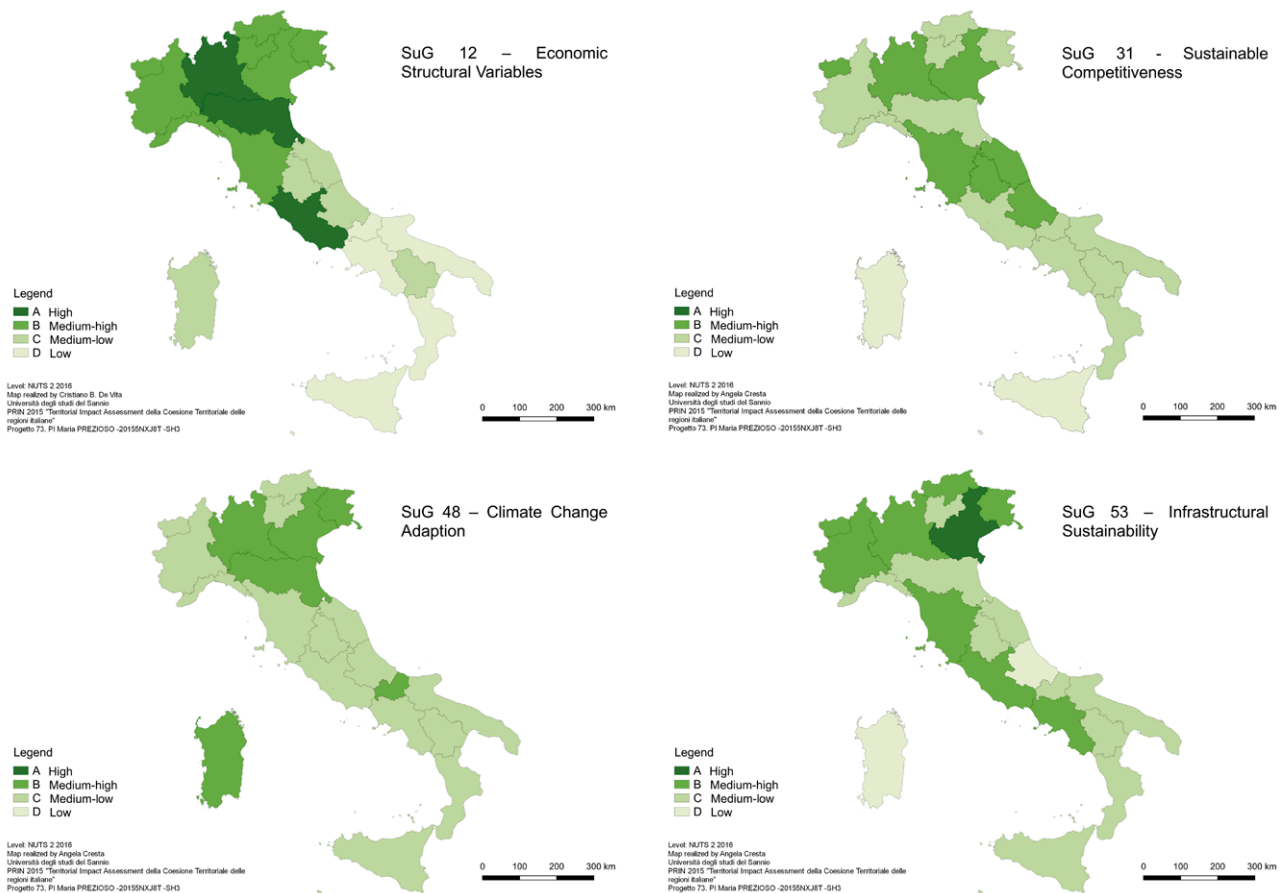
specific environmental provisions (e.g. SEA, EIA) which act as tools for the mitigation of environmental problems, and the good percentage of energy produced from renewable sources / total production (energy self-sufficiency index) (Tab. 2, Fig. 2).

3.3 Inclusive Growth Determinant

A widespread weakness at regional level also regards the *Inclusive Growth* dimension, the *ex-ante* measure of which is medium-low (C). The analysis reveals, above all,

Table 2. Campania Region. *Sustainable Growth Determinant*: summary of the results of the *ex ante* analysis (NUTS 2). Source: authors' elaboration.

SUSTAINABLE GROWTH (C)		
Typology	Sector (S)/Category (C)/Indicator (I) (Vulnerability factors)	Sector (S)/Category (C)/Indicator (I) (Adaptation factors)
Sustainable Competitiveness (C)	S: Identity of production system (C)	
	I: Green employees (D); Marks (D)	
	S: Structural economic variables (D)	
	I: PILppSPA (D)	I: Local Unit (A)
	S: Economic Interaction (D)	I: Green Firms (B)
Climate change Adaptation (C)	C: Internalization (D)	I: VA Green (B)
	I: Employees (D)	I: Insurance and financial institutions (B)
	S: Financial interaction (D)	
	I: Bank (D)	
	I: Withdrawal of drinking water (A)	C: State of air (D)
Infrastructure sustainability (B)	I: Waste (A)	S: Environmental cooperation (B)
	I: Waste recycling (C)	I: Risk (C)
		I: Energy self-sufficiency index (B)
		I: Environmental regulation (A)
		I: Multimodal accessibility (B)

**Figure 2.** Sustainable Growth Determinant: *ex ante* analysis (NUTS 2). Source: authors' elaboration.

structural criticalities regarding social inclusion (*Structural Variables of inclusion C*) both in respect of the economic variables (e.g. imbalance in the distribution of income), and in terms of expectations and the quality of life, including activities linked to free time (C). At provincial level, the data for Naples show specific emergencies such as disparity in the distribution of income, a low life expectation and structural shortcomings in the hospital system, whereas for the systems of Avellino and Benevento the social cohesion level is also scarce in terms of spending, demographic well-being and free time. To this regard, in spite of the high cultural opportunities that are widespread throughout the regional territory, the tourist rate is medium-low except in the province of Salerno (B).

The performance is better for the *inclusive training capacity*, with medium-high values for the inclusion variables (e.g. pop. of graduates, incoming students) and low for exclusion variables (e.g. early school leavers), the only exception being the so-called NEET (A), i.e. the younger population *Not Engaged in Education, Employment or Training* the value of which is high (A) in all provinces.

The balance of the *capacity for social inclusion* of the employment system is much less positive: the level of total, young and female employment is critical (D) with high risk of absolute poverty and exclusion of minors (A) also because of deficiencies in the welfare system (D); at the same time the presence of a good number of foreign workers and entrepreneurs concentrated in the provinces of Caserta, Naples and Salerno does not seem to be an opportunity for the territory with a foreign inclusion capacity which is still low (C). Lastly, there is also scarce *inclusive capacity of institutions* to create social cohesion and trust, as confirmed by the low participation of citizens in political life (regional, national and European elections C-D) and in cross-border and cross-regional cooperation programmes (D) (Tab. 3, Fig. 3).

3.4 Resources and Funds Determinant

Most of the results of the analysis of the thematic cohesion of the regional and provincial system in Campania for *Smart, Sustainable and Inclusive Growth (Europe 2020)* are also confirmed by the values of the indicators chosen to measure the *Resources and Funds* determinant: on a regional scale the level of spending on key factors of smart growth (innovation and research, human capital) and of sustainable growth (quality of life) is, in fact, still insufficient (C).

More specifically, in respect of the type *Level of intervention in innovation and knowledge*, most of the resources are used in the form of aid to enterprises (B), neglecting spending on R&S, employment and professional training (C) and therefore to the detriment of the competitive growth of the research system and of the training of the workforce. A similar choice has also been made for *Sustainability*, the resources being mainly directed towards the sustainable competitiveness of the economic and infrastructural system (mobility and transports), and solely in a residual manner towards policies for the young, for sports and for free time (D) and to sustain social and family rights and policies (D). Within the regional system, Benevento is the province with the lowest spending capacity in general.

Lastly, with regard to the use of the Funds, the regional use of the cohesion funds for territorial development projects is high (A), although the capacity in the theme of European cooperation is not equally high, as evidenced by a scarce use of the Funds for European projects.

The analysis on a provincial scale (NUTS 3) of the single indicators substantially confirms the regional analysis with the sole exception of Naples which reaches high expenditure levels for all the variables (A), also for the European cooperation component (B), which is a clear sign of the economic-financial strength of Naples and of its metropolitan area as a spending and programming centre (Tab. 4, Fig. 4).

4. Conclusions

The investigation into regional policies and the assessment of the territorial cohesion level (ex-ante) in the Campania Region gives food for thought regarding the regional development model adopted and the development direction to be followed in the near future. Firstly, with reference to the economic and competitive system, in the regional territory fractal elements remain between the coastal areas and the internal areas: compared to the urban-productive nature of the metropolitan area of Naples and Salerno, there is a contrasting area, that of the provinces of Avellino, Salerno and Benevento, featuring a strong natural and agricultural nature, a territorial system of urban influence without functional specialisation and with evident weaknesses in terms of accessibility, internationalisation of the productive system and the spread of innovation, both in training and education and in the industrial sector.

Most of the strategies and interventions put in place, above all in the last two programming periods (2007-2013 and 2014-2020), have regarded the implementation

Table 3. Campania Region. *Inclusive Growth Determinant*: summary of the results of the *ex ante* analysis (NUTS 2). Source: authors' elaboration.

INCLUSIVE GROWTH (C)		
Typology	Sector (S)/Category (C)/Indicator (I) (Vulnerability factors)	Sector (S)/Category (C)/Indicator (I) (Adaptation factors)
Structural Variables of inclusion (C)	S: Economic Variables (C) S: Quality of life (C) C: Demographic well-being (C) I: Rate of tourism (D)	I: Consumption per capita (A) I: Cultural opportunities (B)
Inclusive training capacity (B)	I: NEET (A)	C: Inclusion of the education system (B) C: Exclusion of the education system (C)
Capacity for social inclusion (C)	I: Level of employment (D), Youth employment rate (D), Female employment (D), Risk of poverty (A), Risk of children exclusion (A).	I: Foreigners employment (B) I: Rate of foreign entrepreneurship (A)
Inclusive capacity of institutions (C)	I: Public participation in National Election (C) I: Rate of cross-border and transregional cooperation (D)	

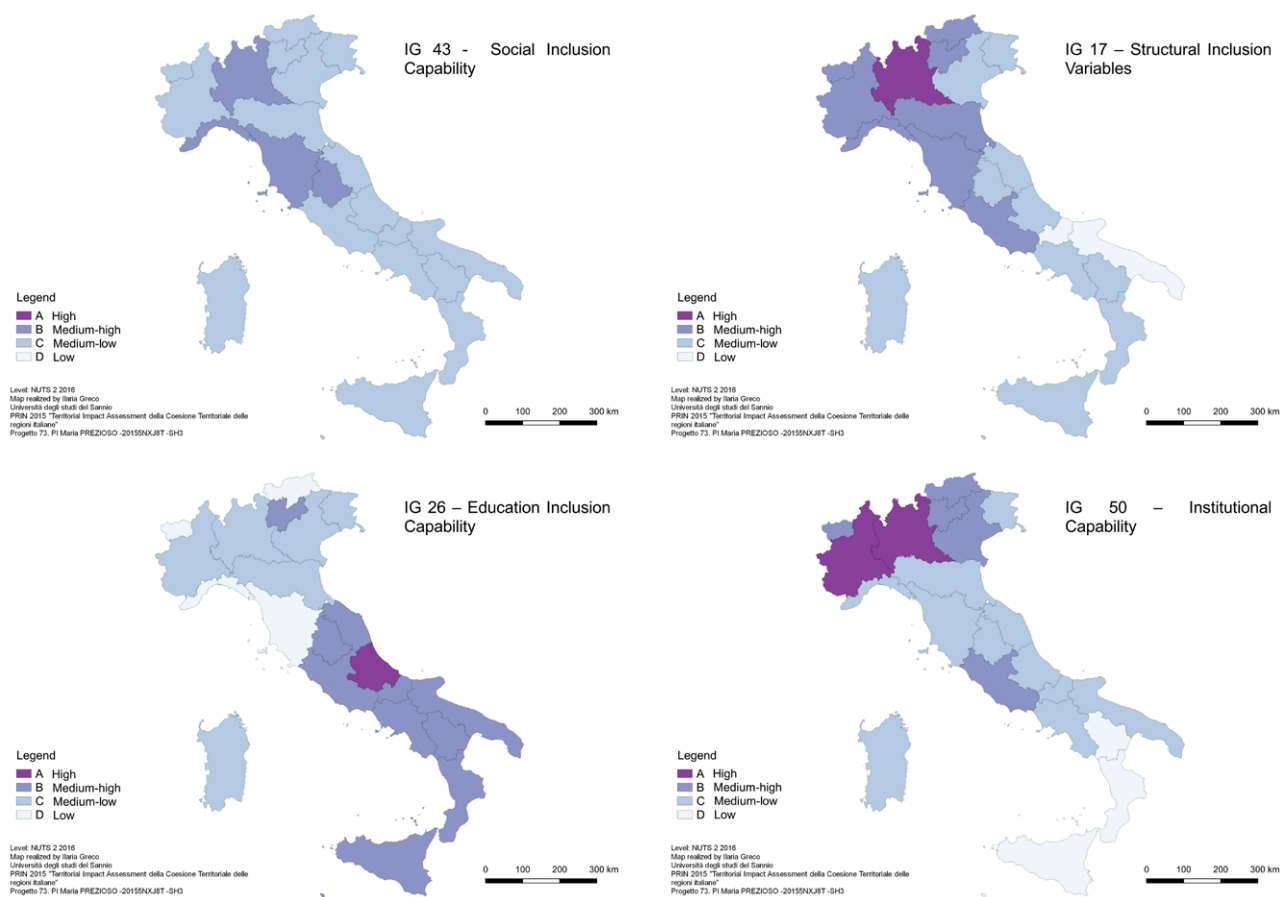
**Figure 3.** *Inclusive Growth Determinant*: *ex ante* analysis (NUTS 2). Source: authors' elaboration.

Table 4. Campania Region. *Resources and Funds Determinant*: summary of the results of the *ex ante* analysis (NUTS 2). Source: authors' elaboration.

RESOURCES AND FUNDS (C)		
Typology	Sector (S)/Category (C)/Indicator (I) (Vulnerability factors)	Sector (S)/Category (C)/Indicator (I) (Adaptation factors)
Level of intervention in innovation and knowledge (C)	I: R&D expenditure (C); Expenditure on Employment (C); Expenditure for professional education	I: Expenditure for economic and competitive development (B)
Level of intervention in sustainability (C)	S: Quality of life (D) C: Expenditure on youth policies, sport and leisure (D) C: Expenditure on Welfare (D)	S: Sustainable competitiveness (B) C: Development sustainability (B) C: Right to mobility (B)
Use of the Funds (B)	I: EU Funds expenditure (D)	I: Cohesion Funds (A)

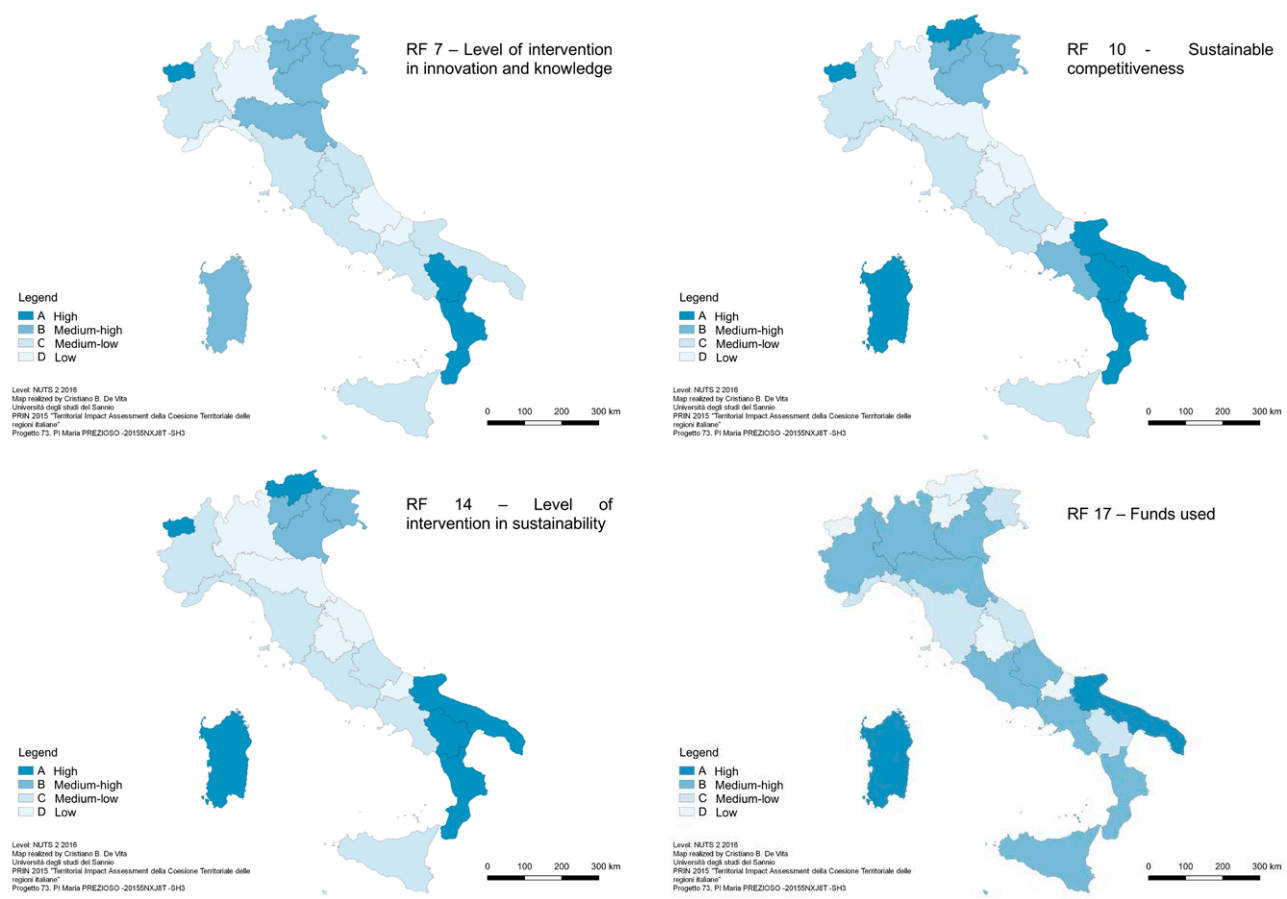


Figure 4. *Resources and Funds Determinant*: *ex ante* analysis (NUTS 2). Source: authors' elaboration.

of initiatives to sustain the development of the economic-productive system, especially as regards the theme of the environmental sustainability of the processes, of the infrastructures and of transports, and the theme of social inclusion through support for foreign employment

and ethnic entrepreneurial activities.

Notwithstanding the provisions that have sustained and fostered the training of the population (structures for the creation of knowledge, population, the mobility of incoming students, reduction of school leaving

rates), there have not been sufficient actions to sustain the development of employment, aimed at closing the gap between the world of basic education and the world of work (a problem of NEET) and to increase professional training and qualification. At the same time, the policies and investments in the theme of welfare and of social policies are still inadequate: the incapacity to sustain social inclusion processes is represented by the lack of services that conciliate life and work times with the result that the Region, as a whole, has one of the lowest female employment rates of the country.

The measure of the initial state in terms of policies, actions put in place and results achieved in Campania on the basis of the programmatic objectives is the concrete premise of how much and what still has to be done and of what trajectories to follow to reach the new objectives dictated by Europe 2020 and post 2020. To this regard, according to an integrated place-based approach, regional programming and planning should:

- *Concentrate on the internal areas and work on the emergencies.* The priorities are to invest in smart development through policies for innovation and the spread of e-government services among the PA as well as broad band, being essential to allow for a more widespread exploitation of basic digital services, also in the geographically more isolated territories that are more exposed to the digital divide; to follow environmental sustainability paths through integrated policies for the management of urban waste and hazardous waste in terms of transport, disposal, recovery and incentives for differentiated collection, and mitigation policies for a more responsible use of the water resources; and to reinforce the capacity of social inclusion and of training through policies aimed at increasing the well-being and the quality of life of the resident population, the demand for work, access to essential services (health, education...), and social integration;
- *Reinforce the production chain of excellence and the factors of territorial competitive advantage.* Both in the more typical production sectors of the Region (fashion and agri-food sectors) and in the more innovative sectors (aerospace, transports and advanced logistics) it *ex ante* is necessary to sustain *Smart Growth*, by fostering the introduction and reinforcement of digital technologies in the industrial sector. Another priority seems to be the introduction of policies for the sustainable competitiveness of the Campania production systems in terms of territorial capital that is not exploited especially in the weak systems (e.g. marks for protection, green sector workers, ecological investments ...), the attraction

of investments, but also the reinforcement of the regional production chains of excellence with a tendency towards internationalisation; and to increase the *inclusive training capacity* through professional guidance policies, employment policies directed at the adaptation (and requalification) of the skills of both younger and older workers, towards processes of organisational, production and technological innovation of the enterprises;

- *Encourage and sustain cooperation projects.* With regard to the *Resources and Funds* determinant, it is necessary to take action for an improved use of the European Funds in order to increase endogenous competitiveness, directing the available resources towards research and the promotion of lasting cooperation relationships between territories, not only by fostering the exchange of experiences and of good practices but, above all, by reinforcing the capacity and effectiveness of public policies and of development partnerships in a determined territory.
- It is evident, from the analysis, that the relaunch of the competitiveness of the Campania territorial systems is not limited by problems of the quantitative under-sizing of the economic-financial resources, nor by the lack or inadequacy of intervention tools, but rather by the absence of a governance model capable of releasing synergies and complementarity between different environments, as well as exalting and reinforcing the identity of the territory as a “plural territory”. The analysis of the systemic territorial functional types (STFT) suggests the re-orientation of the initial objectives of the ROP in order to aim at more effective balancing in the distribution of the functions between the major centres (metropolitan and medium sized cities) and the intermediate and smaller centres (internal areas) and to improve the quality of life of the population. Naples (STFT 1 with high spending performance in absolute terms and an increase in territorial cohesion at urban level) and Salerno (STFT 2 with growing levels of territorial cohesion for the indirect benefit of the metropolitan advantages “by contact”) are still too distant, in terms of territorial cohesion, from the internal areas of Avellino, Benevento and Caserta (STFT 3), without specialised functions, with limited cross-border functions and a low level of participation in cooperation projects.

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