A theoretic model for defining complementarity links among regional development interventions in Romania

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ABSTRACT

The year 2013 marks a key milestone for the regional development of Romania, being at the same time the final year of the first programming period of the nonreimbursable assistance received by Romania as a fully-fledged member of the European Union and also a decisive year for the preparations for the future 2014 – 2020 programming period. This is the moment when both accomplishments and obstacles encountered in the last seven years should be analyzed in order to identify the lessons learned and to improve the future regional development process of Romania. In this context, this paper focuses on the concept of complementarity in the field of regional development. The purpose of the paper is to propose a theoretical model for identifying the complementarity links among regional development interventions, introducing a definition and a typology of this concept, along with some implementation means.

Keywords: complementarity, regional development, e-cohesion, structural instruments, double financing

INTRODUCTION

At a first glance, the concept of complementarity seems easy to understand, but finding a comprehensive definition for it, in the context of regional development is a challenging task, taking us back to the year 1975 and forward to the year 2020. In this paper, we will follow this path in time, starting from the relevant literature in the field, in order to build a theoretical model for defining the complementarity links among regional development interventions in Romania. Due to the fact that the concept of complementarity is a requirement of the European Union regulations in the field of regional development, the first step will be to analyze how this concept is approached and used in these regulations. The evolution of the different meanings that were associated to it and the other related concepts will be scrutinized. The second step will be to identify the views on this subject of other European Union member states and national institutions, by analyzing several documents and studies covering this topic.

Finally, on the basis of the findings from the previous steps, the paper will introduce a definition of the complementarity concept in the field of regional development and a classification of the main types of the complementarity links identified, with examples of Romanian projects.

COMPLEMENTARITY – REQUIREMENT OF THE EUROPEAN UNION REGULATIONS IN THE FIELD OF REGIONAL DEVELOPMENT

The concept of complementarity has been mentioned since the very first European regulations establishing the funds that the European Community was setting up for promoting a balanced development of the European regions. As such, Council Regulation no. 724/75 of 18th March 1975, setting up the European Regional Development Funds (ERDF), mentions in the preamble that "the Fund's assistance should not lead Member States to reduce their own regional development efforts but should complement these efforts" (The Council of the European Communities 1975, page 2). This type of complementarity is explained in the first annual report for ERDF by the fact that the amounts provided by the European Community were meant to be added to the ones the member states would have allocated in the absence of the Community assistance. As such, the report equals complementarity with additionality, the section dedicated to the complementary character of the ERDF and of the national measures focusing exclusively on additionality and topping-up.

Council Regulation no. 2052/1988 includes for the first time the term complementarity in the title of a separate article, article 4 – *Complementarity, partnership, technical assistance*. This article mentions that "Community operations shall be such as to complement or contribute to corresponding national contributions" (The Council of the European Communities 1988, page 12). In this context and related to the aspects of complementarity, the regulation introduces the partnership principle, according to which the Community interventions must be made following consultations between the European Commission, the member state and other national, regional and local authorities, acting as partners in this process. Mentioning complementarity and partnership together in the same article is not accidental, given that the partnership plays an important role in ensuring that the different interventions financed by national or European funding sources complement each other, because it implies large consultations, involving many actors relevant for the setting-up and the implementation of the programmes financed by the European funds.

Council Regulation no. 1260/2006 separates for the first time the concepts of complementarity and additionality, dedicating a separate article for each concept. Article 8 - Complementarity and partnership mentions that "Community actions shall complement or contribute to corresponding national operations", while article 11 - Additionality introduces the requirement that "the appropriations of the Funds may not replace public or other equivalent structural expenditure by the Member State" (The Council of the European Union 1999, pages 12, 14).

As far as the current programming period 2007 – 2013 is concerned, Council Regulation no. 1083/2006 continues to approach complementarity and additionality in a distinctive manner. As opposed to the previous regulation, the complementarity concept is included this time together with notions such as consistency, coordination and compliance, the partnership principle being presented in a separate article. As such, article 9, named *Complementarity, consistency, coordination and compliance* mentions the fact that "the Funds shall provide assistance which complements national actions, including actions at the regional and local levels, integrating into them the priorities of the Community" (The Council of the European Union 2006, page 38). Also

article 9 includes the obligation of the European Commission and of the member states to ensure the coordination of the financial assistance provided by the EU funds, namely the European Regional Development Funds (ERDF), the European Social Fund (ESF), the Cohesion Fund (CF), the European Agricultural Fund for Rural Development (EAFRD) and the European Fisheries Fund (EFF) and other existing financial instruments. Commission Regulation no. 1828/2006 mentions complementarity with other financial instruments as a dedicated chapter within the annual implementation report, requiring the member states to briefly present the procedural and institutional measures taken in order to ensure the "demarcation and coordination between the assistance from the ERDF, the ESF, the Cohesion Fund, the EAFRD, the EFF, and the interventions of the EIB and other existing financial instruments" (European Commission 2006, page 90). This is the first time the notion of demarcation is mentioned in the context of complementarity, in the sense of avoiding the overlap between the investments made by these funds.

The complementarity concept is mentioned also by the draft regulations covering the future programming period 2014-2020. The general principles mentioned in article 4 still include the requirement that ,,the Funds shall provide support, through multi-annual programmes, which complements national, regional and local intervention" and that both the European Commission and the member states must ensure that the support from the Funds , is consistent with the policies and priorities of the Union and complementary to other instruments of the Union." (European Commission 2012, page 32). In Annex 1 of this regulation, the concept of complementarity is widely approached, being mentioned for the first time together with the notion of synergy. As such, in the section dedicated to the coordination mechanisms of the funds, the regulation stipulates that the member states and the managing authorities have to identify "areas of intervention where the CSF Funds can be combined in a complementary manner to achieve the thematic objectives". Also, as far as the coordination of the EU funds with other Community policies and instruments is concerned, member states have to "identify and exploit complementarities among different Union instruments at national and regional level, both in the planning phase and during implementation" (European Commission 2012, pages 124-125). Some conclusions can be drawn from the analysis of the way the EU regulations approach the concept of complementarity (see the synthetic presentation in Table 1). First of all, it is important to notice that these regulations do not provide a clear definition of complementarity, although it

concept of complementarity (see the synthetic presentation in Table 1). First of all, it is important to notice that these regulations do not provide a clear definition of complementarity, although it is mentioned as a requirement for both the European Commission and the member states. Secondly, there are other concepts related to the concept of complementarity (see Fig. 1), such as additionality, seen initially as an equivalent for complementarity, coordination with other financial instruments, partnership, potential means of ensuring the complementarity of the funding sources, demarcation, to avoid the double financing, and synergy in order to multiply the effects of the financial instruments.

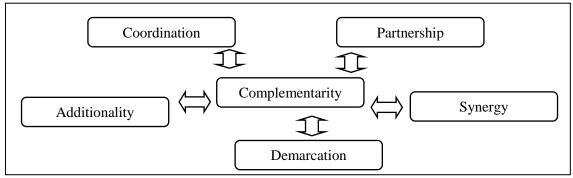
Table 1. Synthetic presentation of the way the EU regulations approach the concept of complementarity

Timeframe	Reference to complementarity	Regulation
1975 - 1987	Ensuring complementarity of Community and national resources. Complementarity = Additionality	Council Regulation no. 724/75 of 18 March 1975
1988 - 2006	The concept of complementarity appears in a separate	Council Regulation no. 2052/1988

Timeframe	Reference to complementarity	Regulation
	article (article 4 – Complementarity, partnership,	Council Regulation no. 2081/1993
	technical assistance).	
	The partnership principle is introduced next to	
	complementarity.	
2007 - 2013	Distinction is made between complementarity and	Council Regulation no. 1260/2006
	additionality, each one being the subject of a different	
	article.	
	In the context of complementarity, appears the notion	
	of demarcation.	
2014 - 2020	Special attention is granted to the concept of	Proposal of regulation of the
	complementarity. The notion of synergy is	European Parliament and the
	introduced.	Council COM(2012) 496 final
	Combining funds in a complementary manner.	
	Complementarity among activities.	

Source: authors' adaptation

Fig. 1 Notions related to the concept of complementarity



Source: authors' adaptation

THE CONCEPT OF COMPLEMENTARITY IN OTHER DOCUMENTS AND STUDIES PREPARED ON THIS TOPIC AT NATIONAL AND INTERNATIONAL LEVEL

The concept of complementarity has been approached by several studies and documents at the national and internal level. As such, according to a study elaborated by the Polish Ministry of Regional Development regarding the complementarity and synergy among the projects financed by the structural and cohesion funds and the ones financed by the European Agricultural Fund for Rural Development, the concept of complementarity can be approached on 3 different levels: that of policies, of programmes and of projects. Focusing on the last two, the study defines complementarity as "mutual complementing or completing of types of projects or projects" (EGO 2010, page 20). At the programme level, the study analyzes the possible complementarities among the different types of projects. At project level, taking into consideration their specificities, the study suggests 3 features of projects that could generate complementarities: project location (spatial complementarity), thematic scope of the projects (thematic complementarity) and the process of preparation and implementation (process or institutional complementarity) (EGO 2010, page 20). Trying to define complementarity, the study uses a basic economic concept – the complementary goods. As such, 3 types of complementarity links can be identified between projects (EGO 2010, page 20):

- ➤ type A two projects thematically or spatially complementary that can achieve their results independently from one another;
- > type B two projects thematically or spatially complementary out of which only one can achieve its results independently from the other;
- > type two projects thematically or spatially complementary out of which none can achieve its results independently from the other.

Another study approaching the complementarity concept, this time from a sectoral perspective, focused on the transport infrastructure projects from Poland. The study aimed at verifying the level of the **internal complementarity** (i.e. among road infrastructure projects financed from the Integrated Regional Operational Programme) and of the **external complementarity** (i.e. among the road infrastructure projects financed from the Integrated Regional Operational Programme and the projects finalized or in implementation financed from other financial sources, such as the pre-accession assistance – PHARE, ISPA and SAPARD, the post-accession assistance – Transport Operational Programme, Interreg or the ones financed exclusively from the national budget).

The definition of complementarity used by this study is specific to the road infrastructure field: "Complementarity is a feature that is revealed by the coexistence of roads in the same area. Particular attention should be paid to whether the road projects are linked or otherwise form a coherent road network" (KANTOR Management Consultants 2008, page 20). The study identifies 3 components of complementarity: **functional complementarity** – given by the positioning of the roads in relation to the passenger and freight flows from a given region; **geographical complementarity** – given by the proximity of the roads; **operational complementarity** – given by the category that the roads belong to.

Another study approaching the concept of complementarity, also from a sectoral perspective, focuses on the social infrastructure projects from Poland. The study defines complementarity as a link between projects or activities, which generates, in most cases, synergy effects, approaching the concept both at the level of individual projects by means of case studies and at the level of 840 projects by means of a quantitative analysis. The study identifies 3 types of complementarity links that can occur between two social infrastructure projects (Policy & Action Group Uniconsult 2009, pages 100-102): **operational complementarity**, regarding the implementation process of projects; **functional complementarity**, regarding the results of the projects and **network complementarity**, between projects that are operationally and functionally independent but cover uncovered areas in a network of services, completing the available services.

Also, within the 2007 – 2013 National Strategic Reference Framework of Romania, there is a dedicated chapter to implementation and complementarity which highlights the importance and necessity of setting up clear criteria for demarcation and complementarity in order to ensure the successful implementation of the programmes financed by the European Union both by the structural instruments (ERDF, ESF and CF) and by the funds dedicated to the fisheries and rural development. Within this document, the concept of complementarity is approached in 3 ways: among the programmes financed by the structural instruments, among the programmes financed by the structural instruments and the funds provided by the European Investments Bank or other financial institutions. Several demarcation/complementary principles are mentioned, such as the relevance for the national or regional development (for instance national or regional roads), the purpose of the intervention (infrastructure, services, etc.), the

economic sector concerned (support for companies in a specific economic field completed by the training of the workforce) (Government of Romania 2007, pages 163-164). Just to mention a few examples: the national roads and the motorways are financed by the Sectoral Operational Programme Transport, while the county roads are financed by the Regional Operational Programme. The business infrastructure (other than the scientific and technological parks) of national and international level is financed by the Sectoral Operational Programme Increase of Economic Competitiveness whereas the infrastructure of regional or local interest is financed by the Regional Operational Programme.

A THEORETICAL MODEL FOR DEFINING COMPLEMENTARITY LINKS AMONG THE REGIONAL DEVELOPMENT INTERVENTIONS FROM ROMANIA

On the basis of all the aspects mentioned above, we propose the following definition of complementarity among the regional development interventions: complementarity represents a characteristic of the interventions having an impact on regional development, implemented in a given location or geographical area, which, regardless of their funding source and without overlapping, either cannot achieve their expected results if they are not both implemented or the result of implementing them both is higher than when only one is implemented. This definition implies that the more the complementarity links between projects are identified and promoted, from as many financial sources as possible (national, regional, local, European etc.), the more impact they will have on the development of the regions of Romania.

The complementarity links can be identified at different levels, between funds, programmes, types of interventions, projects and activities. These links can be classified according to several criteria. A first such criterion is the funding source, depending on which we can distinguish between internal complementarity, among projects financed by the same programme or financial instrument, and external complementarity, among projects financed by different programmes or financial instruments (see examples in Fig. 2). The internal complementarity is easier to identify as in most cases a programme or a funding opportunity is managed by a single authority. Identifying the links of external complementarity is more challenging as it implies an efficient collaboration and communication among several institutions and authorities, responsible for those programmes or financial instruments.

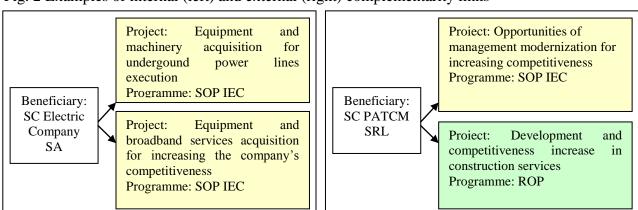


Fig. 2 Examples of internal (left) and external (right) complementarity links

Source: www.fonduri-ue.ro (section List of contracted projects 31 July 2013) accessed on 24.08.2013

Another criterion is the intensity of the complementarity links, depending on which we can distinguish between general complementarity (between types of projects) and specific complementarity (between individual projects). As such, general complementarity links can be identified among strategies, programmes etc., as for instance among the training projects for the small and medium size enterprises financed by the Sectoral Operational Programme Human Resources Development and the productive investments made for these enterprises by the Sectoral Operational Programme Increase of Economic Competitiveness in the same activity fields. The specific complementarity can be identified at the level of a specific project.

Another classification criterion is the impact of the complementarity relation on the expected results of the interventions, depending on which we can identify 3 types of links: bilateral conditional complementarity, when none of the projects can achieve its results independently (for instance when financing via separate projects a complex investment objective), unilateral conditional complementarity, when one of the projects in question cannot achieve its results if the other project is not implemented (for example the extension of an investment) and unconditional complementarity, when both projects can achieve their expected results independently but the overall result is higher than the results obtained if only one project was implemented. Examples of bilateral and unilateral conditional complementarity are presented in Fig. 3.

Fig. 3 Examples of links of bilateral (left) and unilateral (right) conditional complementarity

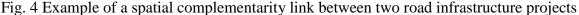
Project: Rehabilitation of the railroad Brasov - Simeria, component of IV Pan -European Corridor, for trains with maximum speed of 160 km/h, sector Coşlariu - Simeria Beneficiary: National Railroad Company CFR SA Programme: SOP Transport Project: Rehabilitation of the railroad Brasov - Simeria, component of IV Pan -European Corridor, for trains with maximum speed of 160 km/h, sector Sighișoara - Coșlariu Beneficiary: National Railroad Company CFR SA Programme: SOP Transport

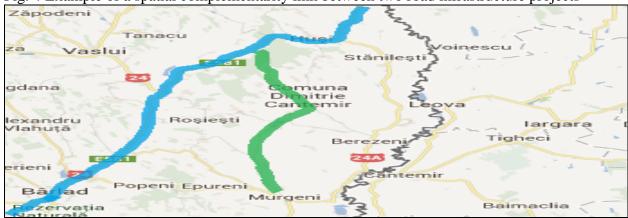
Project: Center for advanced research of bionanoconjugates and biopolimers Beneficiary: Institute of Macromolecular Chemistry "Petru Poni" Iași Programme: SOP IEC

Project: Systems of Biological Inspiration for Entities Structural and Functional Designed Beneficiary: Institute of Macromolecular Chemistry "Petru Poni" Iași Programme: IDEI_Complex Projects of Exploratory Research

Source: $\underline{www.fonduri-ue.ro}$ (section List of contracted projects 31 July 2013) and $\underline{www.intelcentru.ro}$, accessed on 24.08.2013

Another classification criterion is the content of the interventions, depending on which we can establish spatial complementarity, based on the geographical location of projects (for example between transport infrastructure projects from the national, regional and local levels – see example in Fig. 4), thematic complementarity based on the content of the projects – objectives, activities, expected results (for instance between equipment acquisition projects and training projects) and process complementarity, generated by the fact that the projects are implemented by the same beneficiary.





Source: authors' adaptation of information available at www.proiecte.inforegionordest.ro/ and <a href="www

The complementarity links between projects can be also classified by the effect of the complementarity relation on projects. As such, we can distinguish direct complementarity, when projects are directly affected by and indirect complementarity, when projects are indirectly influenced. For instance, the transport infrastructure projects implemented in an area have an indirect positive effect on the other projects implemented in that area. The different types of complementarity links among the interventions that have an impact on regional development are synthetically presented in Table 2.

Table 2. Typology of complementarity links

Classification criterion	Type of complementarity link	Explanation
	internal complementarity	among projects financed by the same programme
1. the funding source		or fund
1. the funding source	external complementarity	among projects financed by different programmes
		or funds
2. intensity	general complementarity	among types of projects
Z. Intensity	specific complementarity	among specific projects
	bilateral conditional	none of the projects can achieve its results
	complementarity	independently
3. impact on expected	unilateral conditional	one of the projects cannot achieve its results if the
3. impact on expected results	complementarity	other project is not implemented
lesuits	unconditional complementarity	both projects can achieve their expected results
		independently but the overall result is higher if
		both implemented

Classification criterion	Type of complementarity link	Explanation
	spatial complementarity	based on the geographical location of the projects
4. content	thematic complementarity	based on the content of the projects: objectives,
		activities, expected results etc.
	process complementarity	generated by the fact that the projects are
		implemented by the same beneficiary
5. effect	direct complementarity	with a direct effect on projects
J. effect	indirect complementarity	with an indirect effect on projects

Source: authors adaptation

CONCLUSIONS

The theoretical model for defining complementarity links among regional development interventions presented above can be used for a double purpose. First, it allows a better identification of possible cases of double financing (requesting and financing an item of expenditure from more than one funding source – EU budget, national, regional or local funds), especially at the level of the appraisal of financing proposals, by highlighting the potential overlap of interventions. This kind of verification could be added to the ones performed on the expenditures declared by beneficiaries. Going further than just avoiding double financing, by identifying the links among the projects, synergy effects could be obtained, which would increase the impact of interventions on the development of the regions. The implementation of projects that do not complement each other, although justifiable by existing needs or by the necessity of ensuring a minimum level of investments in all regions and areas of a country, could be progressively replaced by the implementation of projects that are linked to one another, creating a more consistent impact.

Nevertheless, the applicability of the model depends on the availability of accurate and complete information about regional development interventions, financed by the different existing financial sources (structural instruments, national budget, local budget, etc.). An important step in gathering this kind of information in a format that allows processing will be most certainly made in the future 2014 - 2020 programming period, for which the proposed regulations include the so-called "e-cohesion" requirement, according to which the member states have to provide to the beneficiaries the possibility of exchanging all information with the authorities responsible for managing the structural instruments solely by electronic means.

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