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## **Inner peripheries: dealing with peripherality and marginality issues within the European policy framework**

**Andrea De Toni**

PhD. Dpt. di Bioscienze e Territorio, Università degli Studi del Molise (Isernia, Italy),  
and Dpt. of Architecture and Urban Studies, Politecnico di Milano (Milan, Italy)

[andrea.detoni@polimi.it](mailto:andrea.detoni@polimi.it) – <https://orcid.org/0000-0002-3573-7585>

**Matteo Vizzarri**

PhD. European Commission, Joint Research Centre (Ispra, Italy)

[matteo.vizzarri@ec.europa.eu](mailto:matteo.vizzarri@ec.europa.eu) – <https://orcid.org/0000-0002-9505-783X>

**Bruno Lasserre**

Prof. Dpt. di Bioscienze e Territorio, Università degli Studi del Molise (Isernia, Italy)

[lasserre@unimol.it](mailto:lasserre@unimol.it) – <https://orcid.org/0000-0003-1150-8064>

**Giovanni Carrosio**

PhD. Dpt. of Political and Social Sciences, University of Trieste (Trieste, Italy)

[gcarrosio@units.it](mailto:gcarrosio@units.it) – <https://orcid.org/0000-0003-2402-2645>

**Lorenzo Sallustio**

PhD. Dpt. di Bioscienze e Territorio, and Research Centre for Inner Areas and Apennines, Università degli Studi del Molise ((Isernia & Campobasso, Italy)

[lorenzo.sallustio@unimol.it](mailto:lorenzo.sallustio@unimol.it) – <https://orcid.org/0000-0001-9204-5123>

**Paolo Di Martino**

Prof. Dpt. di Bioscienze e Territorio, Università degli Studi del Molise (Isernia, Italy)

[dimartin@unimol.it](mailto:dimartin@unimol.it) – <https://orcid.org/0000-0001-8853-7520>



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## SECCIÓN ARTÍCULOS

### **Inner peripheries: dealing with peripherality and marginality issues within the European policy framework**

*Abstract:* Inner Peripheries is a complex and often misinterpreted concept, as demonstrated by current scientific evidence. Such complexity derives from the intrinsic peripherality and marginality characteristics of the Inner Peripheries. Despite Inner Peripheries suffer from geographical and socio-economic disparities, their environmental, social and economic potentialities are not fully expressed, and thus can be further strengthened by both the EU Cohesion and Rural Development Policies. However, there is currently a lack of knowledge about the linkages between the Inner Peripheries and both Cohesion and Rural Development Policies, which could limit the effectiveness of planning strategies in these territories. Therefore, through a structured review, we explore the linkages between Inner Peripheries and peripherality and marginality concepts and related criticalities and opportunities. Moreover, we consider the relationships between Inner Peripheries and Cohesion Policy Thematic Objectives and Rural Development Policy Priorities. The main findings show that the Inner Peripheries concept needs to be further explored, especially concerning the environmental aspects. Accordingly, we suggest that great challenges and opportunities currently exist in these territories, and combined policies efforts need to be oriented to strengthen the future sustainable development in the Inner Peripheries..

*Key words:* Review, Rural Development Policy, Cohesion Policy, Inner Areas.

### **Inner peripheries: abordando los problemas de periferia y marginalidad en el marco de la política europea**

*Resumen:* Inner Peripheries es un concepto complejo y a menudo mal interpretado, como lo demuestran las pruebas científicas actuales. Tal complejidad deriva de sus intrínsecas características de periferia y marginalidad. A pesar de que las Inner Peripheries sufren de disparidades geográficas y socioeconómicas, sus potencialidades ambientales, sociales y económicas no se expresan completamente y, por lo tanto, pueden ser reforzadas por las Políticas de Cohesión y Desarrollo Rural de la UE. Sin embargo, actualmente existe una falta de conocimiento sobre los vínculos entre las Periferia Interior y las Políticas de Cohesión y Desarrollo Rural, lo que podría limitar la efectividad de las estrategias de planificación en estos territorios. A través de una revisión estructurada, exploramos los vínculos entre las Inner Peripheries y los conceptos de periferia y marginalidad y las críticas y oportunidades relacionadas. Además, consideramos las relaciones entre las Inner Peripheries y los objetivos temáticos de la Política de Cohesión y las Prioridades de la Política de Desarrollo Rural. Los principales hallazgos muestran que el concepto de Inner Peripheries necesita ser explorado más a fondo, especialmente en relación con los aspectos ambientales. Sugerimos que actualmente existen grandes desafíos y oportunidades en estos territorios, y que los esfuerzos de políticas combinadas deben orientarse para fortalecer el desarrollo sostenible futuro en las Inner Peripheries.

*Palabras clave:* Revisión; Política De Desarrollo Rural; Política De Cohesión; Áreas Internas.

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## IDEAS CLAVE / HIGHLIGHTS / IDEES CLAU

1. Inner Peripheries es un concepto complejo debido a sus características territoriales de periferia y marginalidad.
2. Las disparidades territoriales limitan los potenciales ecológicos y socioeconómicos de las Inner Peripheries.
3. En este trabajo exploramos las características de Inner Peripheries de acuerdo con políticas europeas de cohesión y desarrollo rural.
4. Hay espacio para fortalecer aún más los potenciales ambientales y territoriales de las Inner Peripheries.
5. Se proporcionan ideas y sugerencias sobre cómo fomentar el desarrollo sostenible en las Inner Peripheries.

1. Inner Peripheries is a complex concept due to its peripherality and marginality characteristics
2. Territorial disparities limit the ecological and social-economic potentials of Inner Peripheries.
3. The Inner Peripheries' features are explored in light of European cohesion and rural development policies.
4. There is room to further strengthen environmental potentials of Inner Peripheries.
5. Insights and suggestions on how to foster sustainable development in Inner Peripheries are provided.

1. Inner Peripheries és un concepte complex a causa de les seues característiques territorials de perifèria i marginalitat.
2. Les disparitats territorials limiten els potencials ecològics i socioeconòmics de les Inner Peripheries.
3. En aquest treball explorem les característiques de Inner Peripheries d'acord amb polítiques europees de cohesió i desenvolupament rural.
4. Hi ha espai per a enfortir encara més els potencials ambientals i territorials de les Inner Peripheries.
5. Es proporcionen idees i suggeriments sobre com fomentar el desenvolupament sostenible en les Inner Peripheries.

## 1. INTRODUCTION: INNER PERIPHERIES AS A RECENT CONCEPT

The Inner Peripheries concept has been recently interpreted as coupling peripherality and marginality concepts (Copus, Mantino, & Noguera, 2017; Noguera & Copus, 2016). The debate around such terms focuses on the polarization of space, as argued by several authors (e.g. Málíková & Klobučník 2017; Kebza 2018). Theoretically, there are centres (namely, core areas), that have a high degree of autonomy and potential for creating innovation and growth, and peripheries, that are dependent on centres (Friedmann, 1966). The terms peripherality and marginality are consistent with this theory, and still debated in literature, as well as their respective processes (Kühn, 2015; Pezzi & Urso, 2017). In particular, primarily the peripheralization and secondarily the marginalization processes generate the stigmatization process (ESPON, 2017), and subsequently, poverty and outmigration. Such dynamics ultimately generate both peripherality and marginality that are common conditions of the Inner Peripheries. In fact, “the peripherality of an area is connected with spatial (situational) characteristics such as distance and transport accessibility. Marginality, on the other hand, is shaped by a “multi-dimensional” spectrum of problems, from economic and cultural to social, political and historical” (Pileček & Jančák 2011, p.45).

More specifically, according to ESPON 2017, the peripherality is characterized by a lack of innovation and powerlessness (exclusion from network and lack of agency), in addition to the distance from core areas (Kühn, 2015) and poor accessibility. The marginality is described by different approaches that explain multifaceted problems, such as (Pileček & Jančák, 2011): (i) the geometric approach, underlining the remoteness of an area; (ii) the ecological approach, representing the environmental conditions (e.g. an area as biodiversity hotspot); (iii) the social approach, referring to a weak integration of social groups because of ethnicity, gender, religion, etc. (including cultural marginality); (iv) the economic approach, focusing on the regional economic disparities (economic activities, Gross Domestic Product, etc.); and (v) the political approach, considering the distance from the centres of power. According to these characteristics, the marginality and peripherality concepts are strictly interconnected (Nagy, Timár, Nagy, & Velkey, 2015).

In EU, the Inner Peripheries concept is a quite new theme, originally coined by ESPON (2013a), and referred to territories suffering from: (i) demographic decline (migration and low birth rates), population ageing, lack of Services of General Interest (SGIs) such as hospitals and schools, lack of accessibility (time), lack of economic diversity, loss of local identity; (ii) restricted development areas/zoning, closing down of main economic activities and of SGIs; and (iii) closeness (proximity) to natural barriers. For example, there was a first attempt in Italy to define territories characterised by distance from SGIs (i.e. Inner Areas) (Barca, Casavola & Lucatelli 2014), resulting in a sub-category of Inner Peripheries. Finally, the Inner Peripheries’ broad definition was further explored and improved by ESPON (2017). Indeed, according to the latter definition, Inner Peripheries are characterized by poor accessibility to core areas and to SGIs, as well as the exclusion from networks, which in turn lead to negative demographic trends, social exclusion and economic decline (Copus et al., 2017). Such different definitions of Inner Peripheries and Inner Areas have increasingly led to a terminological confusion, at least in the scientific community.

However, the will to provide an unambiguous definition of the Inner Peripheries most probably derives from a widespread condition of unbalanced territorial development as

perceived all around Europe. Indeed, the Inner Peripheries cover 45% of total area in Europe (ESPON 2017). It is therefore important to assess the main characteristics and issues of the Inner Peripheries to tackle challenges such as e.g. outmigration and economic decline. More than one third of the Inner Peripheries overlaps the Lagging Regions (ESPON, 2017) and about 80% of rural areas in Europe (ESPON, 2018). This in turn means that the Cohesion Policy, directly related to Lagging Regions, and the Rural Development Policy, mainly sustaining the agricultural areas, are by-nature in support of the Inner Peripheries. Beyond all the disadvantages previously listed, the Inner Peripheries have resources that may be sustainably used through the EU funds. For example, in Italy these territories are mainly covered by forest lands, agricultural areas and Protected Areas (Marchetti, De Toni, Sallustio, & Tognetti, 2017), and are characterized by the presence of the primary sector, and by a predisposition towards social innovation (Carrosio, 2016).

These characteristics and the related development potential, are consistent with the 11 Thematic Objectives (Cohesion Policy) or 6 Priorities (Rural Development Policy) scopes and targeted investments. The Thematic Objectives of the Cohesion Policy generally focus on the enhancement of the enterprises competitiveness and infrastructure network, the promotion of resource efficiency and environmental conservation, and the improvement of sustainable employment, institutional capacity and social inclusion. The Priorities of the Rural Development Policy are focused on the development of the agro-forestry sector, the improvement of farm viability and competitiveness and of the food chain, as well as the ecosystem restoration and climate change adaptation and mitigation. However, for example Barca (2012) indicates the Inner Peripheries as strategic territories to effectively orient and use the EU Cohesion Policy funds. Nevertheless, to date the potentiality of Inner Peripheries to boost local economic development (through Rural Development Policy funds) is rather unexpressed (Cesaro & Marongiu, 2017).

According to the above-mentioned issues, the present work mainly aims to understand the Inner Peripheries status quo in Europe, in terms of the main issues and challenges linked to peripherality and marginality characteristics, including their linkage with Cohesion and Rural Development policies, through an extensive review of currently available scientific literature. We deeply focus on how peripherality and marginality concepts are addressed in the context of the Inner Peripheries, and to what extent the Thematic Objectives of the Cohesion Policy as well as the Priorities of the Rural Development Policy are connected to the Inner Peripheries in Europe.

## **2. REVIEW EXERCISE**

In a preliminary step, similar terms and synonyms of the Inner Peripheries concept have been identified, according to the currently available terminologies (Appendix 1). Considering that a unique definition of the Inner Peripheries does not still exist (Copus et al., 2017), we use as reference concept the latest definition of Inner Peripheries provided by ESPON (2017) (see the Introduction section for further details), because we consider it as: (i) comprehensive (incorporating both peripherality and marginality concepts and Inner Areas as an Inner Peripheries typology); (ii) most up-to-date; and (iii) evidence-based (based on territorial evidences all around Europe supporting policy-making; Böhme 2016).

The identification of similar terms and synonyms of Inner Peripheries was needful to set the keywords that have been then used in the review exercise, and try to be as comprehensive and inclusive as possible. The similar terms are strictly connected with the Inner Peripheries because of their main characteristics, such as accessibility (i.e. Remote Rural Regions, Brezzi, Dijkstra, & Ruiz 2011) and/or disparities in welfare state (i.e. Fragile Rural Areas; Osti 2016). The synonyms are different translations of the Inner Peripheries concept, such as for instance Inner Areas adopted in Italy (Noguera & Copus, 2016), or even others such as Internal Areas and Inland Areas (Saccomani, 2014; Scrofani & Novembre, 2015).

**Table 1. The combination of keywords, rationale behind, and expected results. <sup>(1)</sup> The explanation of similar terms and synonyms of the Inner Peripheries concept is reported in Appendix 1**

Review step	Review stage	Rationale	Research database	Keywords combination <sup>(1)</sup> (search strings)	Expected Results
1	A	Inner Peripheries and peripherality	Scopus	“inner peripher*” OR “remote rural region*” OR “peripheral area*” OR “marginal area*” OR “internal peripher*” OR “inner area*” OR “internal area*” OR “inland area*” OR “fragile rural area*” AND “peripherality”	No. of publications per year
	B	Inner Peripheries and marginality	Scopus	“inner peripher*” OR “remote rural region*” OR “peripheral area*” OR “marginal area*” OR “internal peripher*” OR “inner area*” OR “internal area*” OR “inland area*” OR “fragile rural area*” AND “marginality”	No. of publications per year
2	C	Inner Peripheries and Rural Development Policy	Scopus	“inner peripher*” OR “remote rural region*” OR “peripheral area*” OR “marginal area*” OR “internal peripher*” OR “inner area*” OR “internal area*” OR “inland area*” OR “fragile rural area*” AND “rural development policy”	No. of publications per year
	D	Inner Peripheries and Cohesion Policy	Scopus	“inner peripher*” OR “remote rural region*” OR “peripheral area*” OR “marginal area*” OR “internal peripher*” OR “inner area*” OR “internal area*” OR “inland area*” OR “fragile rural area*” AND “cohesion policy”	No. of publications per year
	E	Inner Peripheries and Rural Development Policy and Cohesion Policy	Scopus	“inner peripher*” OR “remote rural region*” OR “peripheral area*” OR “marginal area*” OR “internal peripher*” OR “inner area*” OR “internal area*” OR “inland area*” OR “fragile rural area*” AND “rural development policy” AND “cohesion policy”	No. of publications per year

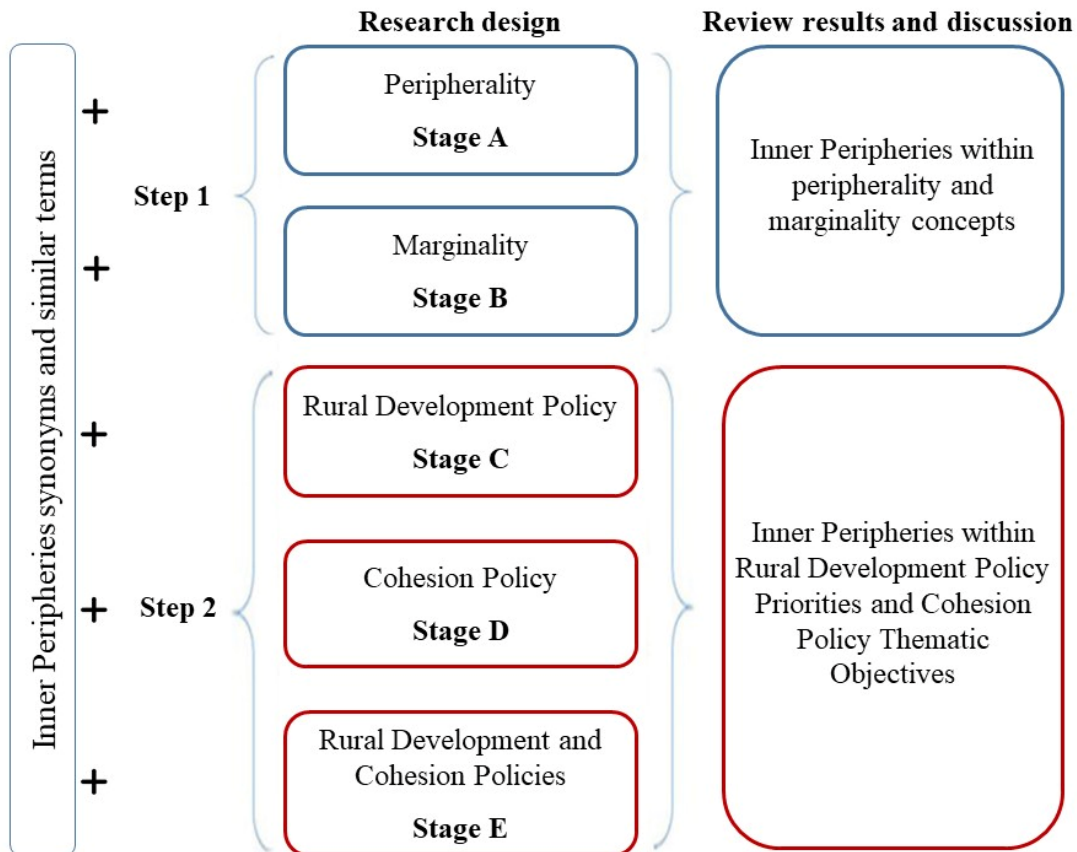
Source: authors' elaboration.

The review exercise followed two steps (1, 2) and five stages (A-E) (see Table 1), and was carried out through using search strings created from a combination of the keywords

listed in Appendix 1 plus additional keywords by using SCOPUS (www.scopus.com) as search tool. The review considered title, abstract and keywords as search fields for each publication without a reference time-threshold, taking into account that the Inner Peripheries concept is relatively recent. For the purpose of the present work, and considering the characteristics of SCOPUS as search engine, we considered only the indexed and peer-reviewed publications written in English.

The step 1 of the review exercise refers to the consistency between Inner Peripheries concept and peripherality and marginality ones. The step 2 of the review exercise refers to the connection between Inner Peripheries concept and EU Rural Development and Cohesion Policies pathways. Each review step was then divided into review stages according to the main topic to be analysed. Figure 1 provides an overview of the entire review exercise.

**Figure 1. Flowchart of the review exercise. From left to right, once similar terms and synonyms are identified, the review is divided into review stages (“Research design” column; stages A-E) which follow two different steps (blue and red boxes; “Research design” column) to structure the next analysis of results and related discussion (steps 1 and 2, blue and red boxes; “Review results and discussion” column)**



Source: authors' elaboration.

In review step 1, the following key elements for the peripherality and marginality concepts were considered: i) the relevance of peripherality for the Inner Peripheries concept - publications were classified according to their linkages with peripherality, in terms of geographical location and accessibility, lack of innovation and powerlessness (Kühn, 2015), as also described in the introduction section; and ii) the relevance of

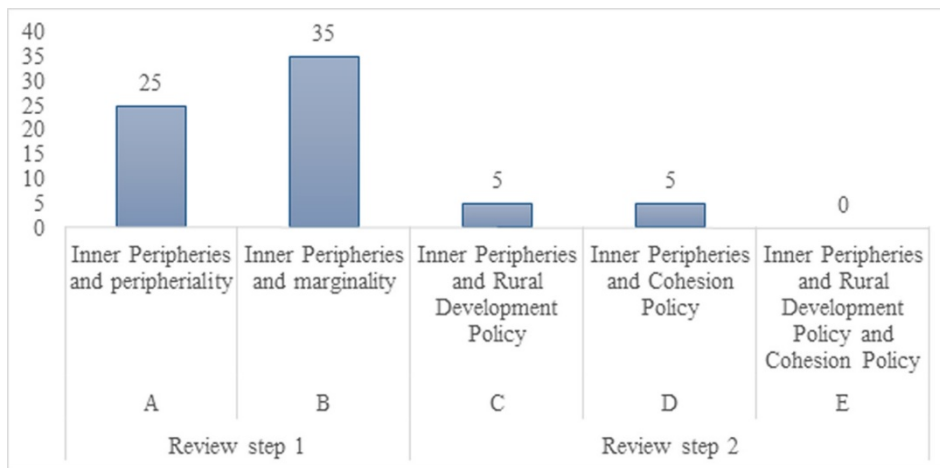
marginality for the Inner Peripheries concept - publications were classified according to their linkages with marginality, in terms of geometric, ecological, social, economic and political marginality (Pileček & Jančák, 2011), as also described in the introduction section.

In review step 2, each publication was then categorized, according to i) the connection of the publication's contents with the Rural Development Policy, and particularly with one or more of its six Priorities ; ii) the connection of the publication's contents with the Cohesion Policy, and particularly with one or more of its eleven Thematic Objectives ; and iii) the connection of the publication's content and both EU Policies. In some cases, more than one specific Priority or Thematic Objective was assigned to a given publication.

### 3. RESULTS

We found a total of 70 publications to date, for both review steps 1 and 2. These results are additive, i.e. a certain publication having relevance for more than one topic, is counted twice or more. Figure 2 summarizes the publications according to the rationale (see Table 1 for further details). Inner Peripheries and marginality issue is the most debated topic (Review stage A, 35 articles), followed by Inner Peripheries and peripherality issue discussion (Review stage A, 25 articles). No publication was found concerning both Rural Development and Cohesion Policy in the same search string (review stage E).

Figure 2. Number of publications by review step (1 and 2) and stage (A to E)

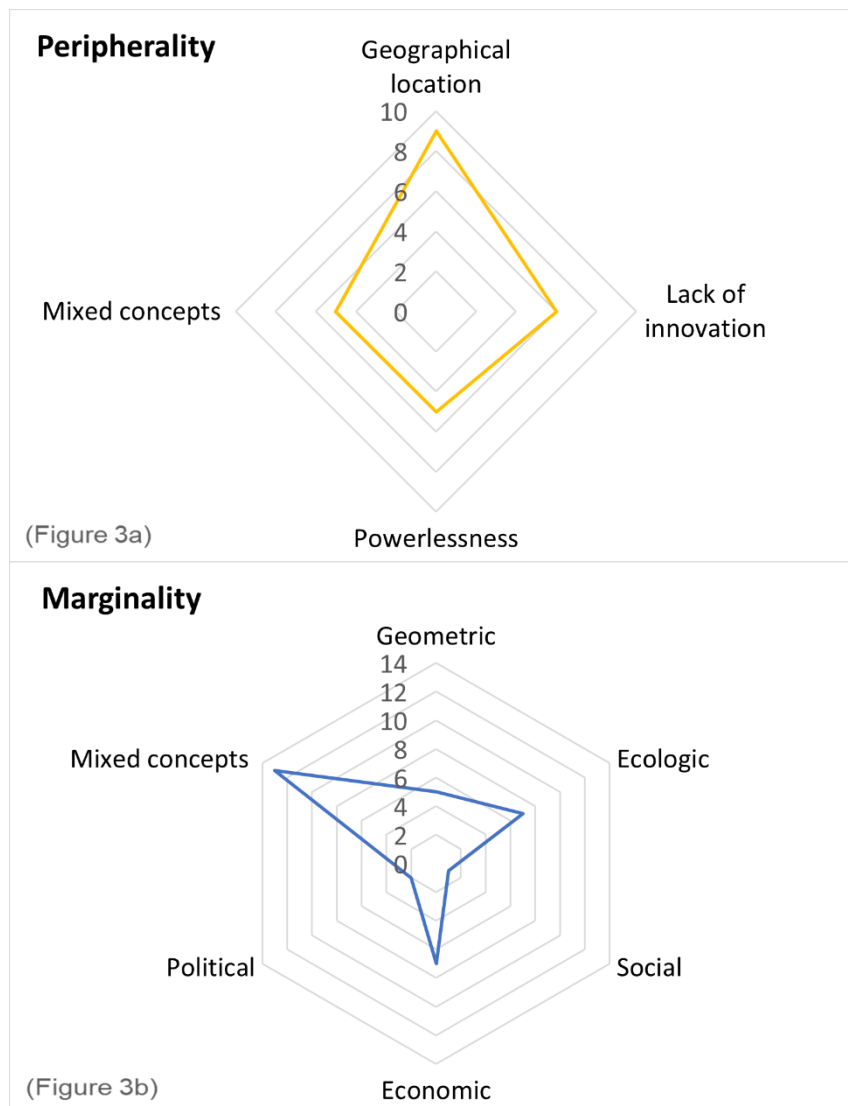


Source: authors' elaboration.

The results concerning the peripherality concept (review step 1, review stage A) show that the geographical location and accessibility (9 publications) and the lack of innovation (6 publications) are the most debated topics (see Figure 3a). According to the results related to the marginality concept (review step 1, review stage B), the mixed concepts of marginality is the most debated issue (13 publications), followed by the economic and ecologic marginality category (7 publications per each). On the other hand, the geometric (5 publications), social and political marginalities (1 publication and 2 publications, respectively) are not very much debated (see Figure 3b).



**Figure 3 (a, b). Spider charts reporting the number of cases for which a correlation between publication’s contents and peripherality and marginality characteristics (a and b, respectively) is found**



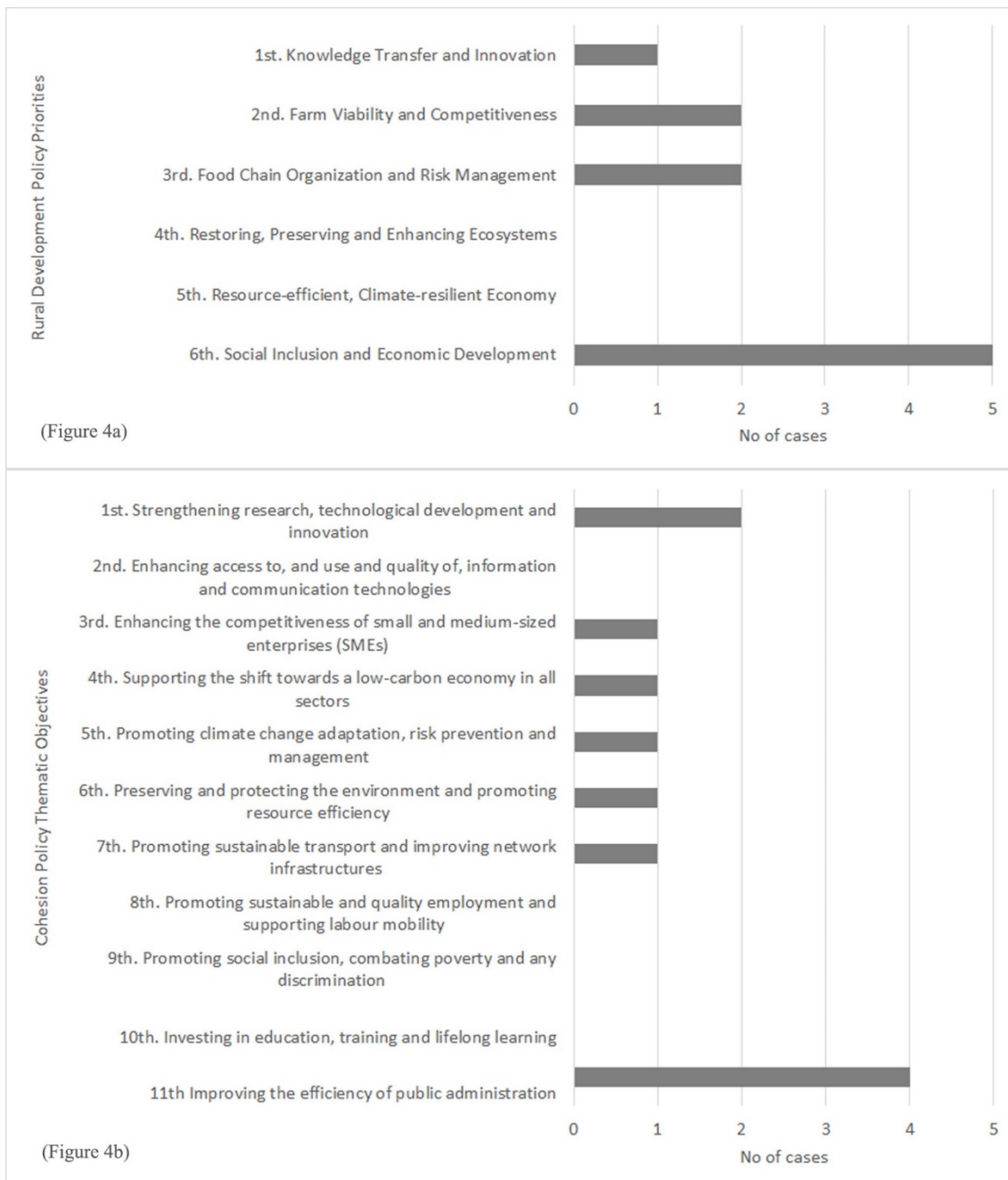
Source: authors’ elaboration.

The results concerning the Rural Development Policy (review step 2, review stage C) show that the 6th Policy Priority (i.e. “Social Inclusion and Economic Development”) is treated in all the publications found (see Figure 4a). The 1st, 2nd and 3rd Priorities (i.e. “Knowledge Transfer and Innovation”, “Farm Viability and Competitiveness” and “Food Chain Organization and Risk Management”) are less debated. No publication treating the 4th and 5th Priorities (i.e., “Restoring, Preserving and Enhancing Ecosystems” and “Resource-efficient, Climate-resilient Economy”).

The results concerning the Cohesion Policy (review step 2, review stage D) show that the 11th Thematic Objective named “Improving the efficiency of public administration” is the most treated, followed by the 1st Objective, i.e., “Strengthening research, technological development and innovation” (see Figure 4b). Additional four Objectives are treated with the same frequency, as follows: the 3rd Objective (“Enhancing the competitiveness of small and medium-sized enterprises (SMEs)”), the 4th Objective (i.e., “Supporting the shift towards a low-carbon economy in all sectors”), the 5th Objective (i.e., “Promoting climate change adaptation, risk prevention and management”), the 6th

Objective (“Preserving and protecting the environment and promoting resource efficiency”), and the 7th Objective (i.e., “Promoting sustainable transport and improving network infrastructures”). No publication was found as specifically regarding the 2nd Objective (“Enhancing access to, and use and quality of, information and communication technologies”), the 8th Objective (“Promoting sustainable and quality employment and supporting labour mobility”), the 9th Objective (“Promoting social inclusion, combating poverty and any discrimination”), and the 10th Objective (“Investing in education, training and lifelong learning”).

**Figure 4 (a, b).** Bar chart reporting the number of cases for which a correlation between publications’ contents and Rural Development Policy Priorities (a), and Cohesion Policy Thematic Objectives (b) is found (review step 2, review stage C and D)



Source: authors’ elaboration.

## 4. DISCUSSION AND CONCLUSIONS

The main findings highlight that more attention is given to the concept of marginality and peripherality (a total of 60 publications) than to the connection between Inner Peripheries and EU policies (a total of 10 publications). The results also highlight that there is no publication discussing both Policies in relation to the Inner Peripheries concept. Of course, these results depend on the set of keywords and their combination as adopted (see Table 1).

We hereinafter provide an overview of the major peripherality and marginality criticalities of the Inner Peripheries. Moreover, based on the main findings from the review exercise, we propose some territorial strategies and interventions that can be implemented in Inner Peripheries in order to address their major challenges through an integrated policy approach.

### 4.1. Current criticalities for inner peripheries related to peripherality and marginality

The review exercise aims to provide an overview of how Inner Peripheries are currently permeated by the marginality and peripherality issues, without focusing on the historical processes that generated peripherality and marginality conditions. In this respect, we found few publications discussing the Inner Peripheries combined with marginality or peripherality concepts (60 publications from 1966, see Figure 2). Concerning the peripherality concept, in most cases (9 publications) the Inner Peripheries are mainly identified by considering their geographical location, i.e. the remoteness and lack of accessibility to centres and SGIs. Instead, the marginality concept, as more complex, is debated in the largest part of publications by mixing geometric, socio-economic and political aspects. In general, the peripherality and marginality conditions are two different concepts in literature, as well as two intrinsically linked features in the reality, especially considering that “in most of Inner Peripheries the primary processes of peripheralization are associated with a range of secondary marginalisation processes” (ESPON, 2017). Thus, hereinafter we highlight how the peripherality conditions (e.g. remoteness) may lead to marginality features (e.g. low economic potential), based the literature results.

In detail, the Inner Peripheries are mainly characterized by peripheral location, outmigration (Anđelković-Stoilković, Devedžić, & Vojković, 2018; Vaishar & Pavlu, 2018), low accessibility and underdeveloped infrastructures (Lapka, Cudlínová, Rikoon, & Bohác, 2001), which in turn create low economic potential (Koloszko-Chomentowska & Sieczko, 2018) and socio-economic marginality. On the one hand, the distance from markets and limited accessibility to urban centres influence the related high costs for transportation (Mackenzie & McElDowney, 1990), which in turn trigger problems for self-sustaining enterprises due to a lack of suppliers of materials and components in these remote areas (Gripaios, Bishop, Gripaios & Herbert, 1989). On the other hand, the Inner Peripheries suffer from a lack of innovation compared to large core areas (Fitjar & Rodríguez-Pose, 2011). This may be due not only to the remoteness, but also to the absence of widespread broadband infrastructures. Indeed, the rural-urban digital divide phenomenon currently represents one of the most important constraints for the economic development in Inner Peripheries (Rosina & Hurbánek, 2013), because of their peripheral location. The geographical location is also correlated with environmental constraints, such as high altitude, steep conditions, short growing seasons and low soil fertility, which

cause a lower economic productivity, especially for the agricultural sector (Bertaglia, Joost, & Roosen, 2007). However, remote and economically marginal areas host vast networks of protected areas, especially in Southern Europe (i.e. ecologic marginality) (Cortes-Vazquez, 2017). At local scale, this may create an imbalance between economic exploitation and effective protection of natural resources.

The remoteness of these territories and the lack of SGIs influence the effectiveness of rural policies and public actions in general (i.e. political marginality): “communities with a good level of public services have a high level of awareness of the role of collective action and of the significance of public services as public goods” (Cecchi & Basile 2006, p. 145). Thus, the lack (and in certain cases, poor effectiveness) of networks is perceived as a problem within the social and economic systems. The majority of the issues described so far have led to the land abandonment in Inner Peripheries, at least in Italy (Forleo, Giaccio, Giannelli, Mastronardi, & Palmieri, 2017).

#### **4.2. Correlation between inner peripheries and cohesion and rural development policies**

Based on the review’s outcomes, we found a relatively weak connection between Inner Peripheries concept and the Cohesion and Rural Development Policies. Indeed, there is still limited literature treating the Inner Peripheries in relation to the Cohesion and Rural Development Policies, separately (a total of 10 publications; Figure 2), and no publication focusing on Inner Peripheries with regards to both Policies.

The results highlight that the Rural Development Priorities are mainly correlated to the enhancement of the economic and social sectors. On the contrary, the Priorities specifically concerning the environmental issues are neglected (see Figure 4a). Even concerning the Cohesion Thematic Objectives, the environmental issues are discussed only in one publication (see Figure 4b). These results were partly expected, especially taking into account that the two main sources of information about Inner Peripheries (i.e. ESPON 2017 and Italian National Strategy for Inner Areas) do not consider the environmental characteristics of these territories (e.g. presence of biodiversity hotspots, areas covered by agricultural and forestry land, hydrological risk issue). In detail, the 4th and 5th Priorities of the Rural Development Policy and the 6th Thematic Objective of the Cohesion Policy generally focus on the enhancement of biodiversity, the soil erosion prevention and water management improvement especially in agriculture, and the renewable sources of energy use. Since Inner Peripheries cover 80% of rural areas in Europe (ESPON, 2018) and their productive capacity is mainly based on agriculture and forestry sectors (Matthews, 2016), the exploration of the environmental aspects is currently lacking.

On the contrary, the 6th Rural Development Policy Priority, i.e. “Social Inclusion and Economic Development”, is treated in all publications related to Inner Peripheries and Rural Development Policy. Even in this case, the result was rather expected, since the major criticalities in the Inner Peripheries as described in literature, i.e. depopulation trend, population ageing and young outmigration, lack of SGIs and low economic potential, may be reduced by using the 6th Priority funds. Moreover, we did not find literature resources specifically addressing the linkages between the two main EU Policies, in particular with regards to the 6th Rural Development Priority “Social Inclusion and Economic Development” and the potentially related Thematic Objectives of the Cohesion Policy. In detail, the efforts to foster the rural development in Inner Peripheries may be supported by different Thematic Objectives such as “enhance access

to, and use and quality of, ICT” (2nd Thematic Objective), “promote sustainable and quality employment and supporting labour mobility” (8th Thematic Objective), “promote social inclusion, combating poverty and any discrimination” (9th Thematic Objective) and “invest in education, training and vocational training for skills and lifelong learning by developing education and training infrastructure” (10th Thematic Objective).

Instead, the 11th Thematic Objective “improve the efficiency of public administration” is treated in many publications, mainly referring to the participation in decision-making processes, as well as to the Italian National Strategy for Inner Areas (Francini, Palermo & Viapiana, 2017; Las Casas, Murgante & Scorza, 2016). This could be linked to the sensitive topic of the “place-based approach” (Barca 2009), on which the Italian National Strategy for Inner Areas is based.

### **4.3. Reducing inner peripheries criticalities**

It may be possible to reduce the Inner Peripheries’ criticalities through focusing on the potentialities of a peripheral location while inverting the marginalisation processes through the efficient use of the Rural Development and Cohesion Policies funds. Indeed, there is the need to implement an integrated policy approach, such as the “Rural Cohesion Policy” framework (Dax & Copus, 2018), to concurrently foster the rural development and the territorial cohesion dimensions in Inner Peripheries.

In detail, the opportunities to sustainably develop the Inner Peripheries should be mainly correlated with valuing both natural and human capital, while paying closer attention to the combination of the economic and social aspects. The environmental relevance of the Inner Peripheries should be valorised through re-establishing traditional uses (Burton & Riley 2018), enhancing the ecosystem services originated by natural capital (e.g. Marino & Pellegrino 2018), or even promoting the natural and cultural heritages in such contexts. These interventions could be financed by the 4th Rural Development Priority and the 6th Cohesion Policy Thematic Objective.

In addition, the tourism sector is one of the most feasible options to develop and regenerate these territories (Těšitel, Kušová, & Bartoš, 1999), through e.g. the stewardship of rural heritage and environmental conservation (or care) (Boniface, 2000). Tourism can be combined with the re-emergence and development of traditional vocations and enterprises, thus encouraging the endogenous growth (Garrod & Wilson, 2004) and fostering the community-based tourism (Salvatore, Chiodo, & Fantini, 2018).

Moreover, it is essential to prioritize the access to the broadband connection, in order to stimulate innovation in the local economy and improve social wellbeing in these remote areas (through e.g. the 1st and 2nd Cohesion Thematic Objectives and 6th Rural Development Priority funds). Indeed, nowadays the information and communication technology are essential to improve the smallholders’ competitiveness (Townsend, Wallace, & Fairhurst, 2015), and services such as the telemedicine (Whitacre, Wheeler, & Landgraf, 2017), and finally guarantee a prompt and continuous health care interventions (Balestrieri et al., 2019; Kvernflaten, 2019).

Moreover, to further encourage the sustainable socio-economic development in Inner Peripheries, feasible pathways may consider for example, the implementation of concepts such as multifunctional agriculture and forestry (Sutherland & Huttunen, 2018), circular and bio-based economies (Marchetti et al. 2014), and the promotion of climate change adaptation and mitigation strategies. These interventions may be coupled with innovative productions and markets (e.g. Sallustio et al. 2018), as well as with landscape labelling

approaches (Mann & Plieninger, 2017). Such interventions can promote local goods (e.g., local foods) and rural landscape amenities, and create jobs. This is for example the case of fostering the small and medium size enterprises and agricultural holdings (Che, 2007) which could guarantee sustainable employment in these areas, and discourage younger generations to move. These interventions may be supported by the 1st, 2nd, 3rd, 5th and 6th Rural Development Priorities and the 3rd, 4th, 5th, 8th and 10th Cohesion Policy Thematic Objectives. Moreover, the landscape amenities and the environmental aspects are the key factors to reactivate the social framework (i.e. the environment as driving force for the re-emergence of local identity) via the lens of the so-called “relational values” (Chan et al., 2016), and strengthen the sustainable economic development in these territories (i.e. active natural resources management).

Thus, it is important to stimulate the most representative economic sectors (i.e. agriculture and forestry) and community-based solutions, and simultaneously foster the social cohesion and inclusion, following the 9th Cohesion Policy Thematic Objective. The establishment and maintenance of effective enterprises’ networks, cooperatives, and groups of smallholders may increase the economic revenues from less productive areas and diversify the production chain (Tregear & Cooper, 2016). In this perspective, it is extremely important to combine the development of new products with the establishment of stronger connections between centres and Inner Peripheries (Pezzi & Urso, 2017) through e.g., the rail and train network development (through the 7th Cohesion Policy Thematic Objective fund use).

More comprehensively, policies and community-based solutions are expected to enhance latent resources and encourage innovation processes. The Inner Peripheries suffer from the “underestimation of local capital by stakeholders and lack of wider strategic thinking” (Hall, Birtwistle, & Gladstone, 2011), and the scarce representation of social and institutional actors. It is thus extremely important to foster the development of the local capital by considering the local needs (Dax & Fischer, 2018), and to re-establish the socio-political connectivity (Bock, 2016). A possible strategy would be strengthening the communication between different administration levels and local communities (De Filippi et al., 2016; Wójcik, Dmochowska-Dudek, Jeziorska-Biel, & Tobiasz-Lis, 2018), and enhancing the involvement of inhabitants and stakeholders in decision-making processes (Salvatore, Chiodo, & Fantini, 2018) in agreement with the 11th Cohesion Policy Thematic Objective. Accordingly, it is also essential to increase the financial and organizational capacity in these areas for accessing to European funds (Cañete, Navarro & Cejudo 2018), and ultimately fostering the local empowerment (Labianca & Navarro, 2019).

A further improvement of the research activities in deeper understanding the consistency between the Inner Peripheries, and the Cohesion and Rural Development Policies would provide more robust and accurate evidences to support local planning and policy-making processes. In this way, the promotion in EU of the Integrated Territorial Investments (ITI) tool (European Commission, 2015) would enable a more comprehensive approach in the use of EU funds and more coordinated investments in the Inner Peripheries’ territories.

Moreover, the implementation of the EU Cohesion and Rural Development Policies should be made more effective through commonly defining the main characteristics of Inner Peripheries, harmonizing currently available information systems, and implementing robust scientific multi-disciplinary methods and approaches based for example, on comprehensive indicators framework based on land use-land cover characteristics (e.g. LUISA Territorial Modelling Platform; Jacobs-Crisioni et al., 2016; Lotze-Campen et al., 2018). The EU policies should convey to a common target, and put

the concept of “territory” at the basis of EU regions-oriented policies, better addressing the context specificities (Leco & Pérez, 2019), and in order to limit the overlaps among funding sources and emphasize the possible synergies. Some authors tried to ex-post assess the economic and social impacts of projects supported by EU funds (2007-2013 programming period) at the municipal and national scales (Kouřilová & Pělucha, 2017). However, a contextualized ex-ante analysis incorporating specific territorial needs and priorities would be promising and useful (Las Casas et al., 2016), particularly to consider specific regional diversities (ESPON 2013b) with a place-based approach (Barca, 2009; Copus et al., 2017).

## 5. FINAL REMARKS

The present work is a first attempt to convey the currently available scientific knowledge on the Inner Peripheries. Through the review exercise, we described the main issues and challenges for Inner Peripheries as expressed in the scientific debate. We also explored the theoretical connections between Inner Peripheries and Cohesion and Rural Development Policies, as discussed in the research and science domains. Nevertheless, despite the robustness and replicability of our approach, the results are strictly related to the combination of keywords used and conceived to detect publications strictly related to “Cohesion Policy” and “Rural Development Policy”. Moreover, our review excludes additional information sources from social and economic contexts (such literature produced by local or national organisations) which could be potentially relevant to complement the current knowledge on Inner Peripheries. We deem that grey literature is certainly important to complement the understanding of local to national processes and dynamics. However, the review exercise focused on a broader scale than the national one. As a consequence, it is difficult to disclose any possible translation of the broad conceptualization of the Inner Peripheries into individual national contexts. Despite these limitations, the present work offers a comprehensive starting point for potential discussion on external social and economic forces acting at national and regional scale to effectively orient funding opportunities towards the sustainable development of these territories.

Based on main findings, the Inner Peripheries need to improve their competitiveness through fostering productive capacity, establishing a sustainable use of local resources, and making more efforts to bridge the innovation and technology gaps than centres. This can be achieved through e.g. adopting labelling and marketing tools for the supply and trade of local products, incentivizing the establishing of cooperatives or small-scale farming groups, and investing in sustainable agriculture and forestry use (shortened source-product chain). Also, it is necessary to strengthen the inclusive participation of the local communities in decision-making processes, and maintain places and traditions, by including the improvement of the related productive and cultural attractiveness. Of course, it is difficult to achieve all these interventions simultaneously, due to the implications of balancing immediate local needs, policy and planning rules, and funding opportunities. Based on our results, we can argue that priority should be given to further explore the possibility to combine rural development and territorial cohesion, through for example, incentivizing land management activities (agro-forestry sector) in abandoned areas, and thus re-coupling the human and natural systems. Focusing policies efforts on these aspects may be the chance for the renaissance of the Inner Peripheries.

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**Appendix 1. List of synonyms and similar terms, including their definition, as correlated with the Inner Peripheries concept. (1) Similar terms and synonyms are used as part of keywords in search strings (see Table 1)**

Similar terms synonyms <sup>(1)</sup>	Linkage with the Inner Peripheries' concept	Definition and connections with Cohesion Policy and Rural Development Policy n	Source
Remote Rural Regions	Similar term	The OECD Regional typology classification is based on the “percentage of regional population living in urban or rural communities”. The extension of this classification includes the accessibility criterion, the driving time (DT) needed to reach a highly populated centre (DT “of at least 50% of the regional population to the closest populated centre with more than 50.000 Inhabitants”). For the Predominantly Rural Remote, the DT is greater than 45 minutes (Italian Department for Cohesion Policies and Lucatelli, Carlucci and Guerrizio 2013, Inner Areas DT is greater than 40 minutes from SGIs – Peripheral and Ultra-Peripheral Areas; ESPON PROFECY a mean of 30 minutes from SGIs).	(Brezzi, Dijkstra, & Ruiz 2011, pp. 3, 6)
Peripheral Areas	Similar term	“Periphery, peripherality and peripheral area are, in general, more frequently used terms”, and concern marginality and peripherality concepts explanations.	(Pileček & Jančák 2011, p. 45)
Marginal Areas	Similar term	“Marginality is shaped more by a “multi-dimensional” spectrum of problems, from economic and cultural to social, political and historical ones”.	(Pileček & Jančák 2011, p. 45)
Internal Peripheries	Similar term	A background Report drawn up for the Territorial Agenda 2020 (TA2020), defined in 2011 for the first time the word Internal Peripheries as “unique types of rural peripheries in European terms”.	(Ministry of National Development and VÁTI Nonprofit Ltd 2011, p. 57)
Inner Areas	Similar term	Within the framework of the Italian National Strategy for Inner Areas: “The basic idea from which the methodology arises is that no economic or social development is possible without the provision of adequate education, health and transport services. The so-called Services centers offer: an exhaustive range of secondary schools; at least a 1st level DEA hospital; at least a “Silver – type” railway station” accordingly to the Italian Department for Cohesion Policies definition.	(Lucatelli, Carlucci, & Guerrizio 2013, p. 71; Carrosio, 2016)
Internal Areas	Synonym (to Inner Area)	According to the Italian Department of Development and Economic Cohesion definition, an area is “internal” if it is located far away from main facilities, while the “poles” are classified according to the facilities they can offer – a mistaken English translation from Inner Areas previous definition	(Saccomani 2014 p. 104)
Inland Areas	Synonym (to Inner Area)	Sharing of main characteristics with Inner Peripheries: depopulation, less productive agricultural activities, less services here than in metropolitan cities – a mistaken English translation from Inner Areas previous definition	(Scrofani & Novembre, 2015)
Fragile Rural Areas	Similar term	By a territorial approach, fragile rural areas have three following main characteristics: lack of coordination of actors, low level of valorisation of resources and objective disabilities (e.g. slope, poor soil, relief). Furthermore, these areas have to deal with disparities in welfare state (services – principle of equity) and welfare community (services calibrated to specific advantages and disadvantages)	(Duquenne & Hadjou 2010, p. 14; Osti 2016)

Source: authors' elaboration.

## AUTHOR'S CONTRIBUTION

	ITEM	Andrea De Toni	Matteo Vizzarri	Bruno Lasserre	Giovanni Carrosio	Lorenzo Sallustio	Paolo Di Martino
1	Conceptualization	70 %	30 %	0 %	0 %	0 %	0 %
2	Data curation	60 %	40 %	0 %	0 %	0 %	0 %
3	Formal analysis	100 %	0 %	0 %	0 %	0 %	0 %
4	Funding acquisition	0 %	0 %	0 %	0 %	0 %	0 %
5	Investigation	100 %	0 %	0 %	0 %	0 %	0 %
6	Methodology	60 %	40 %	0 %	0 %	0 %	0 %
7	Project administration	0 %	0 %	0 %	0 %	0 %	0 %
8	Resources	0 %	0 %	0 %	0 %	0 %	0 %
9	Software	0 %	0 %	0 %	0 %	0 %	0 %
10	Supervision	0 %	10 %	15 %	10 %	15 %	50 %
11	Validation	50 %	50 %	0 %	0 %	0 %	0 %
12	Visualization	50 %	10 %	10 %	10 %	10 %	10 %
13	Writing – original draft	50 %	25 %	5 %	5 %	10 %	5 %
14	Writing – review & editing	35 %	25 %	10 %	10 %	10 %	10 %

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