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Circular economy in territorial planning strategy: Incorporation in cluster activities and economic zones

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ABSTRACT

Planning is a form of interaction between social, economic, environmental, political, organizational, and institutional elements that undergo different processes. Planning is influenced by sets and subsets of factors that come together and are measured on a spatial scale. Despite well-planned strategies, sustainability has always been questioned, especially in developing countries. In this regard, the Circular Economy concept has been considered an inclusive solution to contemporaneous phenomena and a model for ensuring the sustainability of any initiative. Albania undertook territorial reform for decentralization in 2014, and all the national and regional strategies were drafted considering closed-cycle concepts. As such, sustainability was the central point of focus for all plans. Considering the difficulty and significance of the process, this work analyzes circular economy incorporation in the territorial spatial planning reform of 2014 in Albania. It makes a comparison between the level of integration in the planning and implementation phases to assess the level of integration in the cluster activities in economic zones that came as a result of the planning strategy. A participatory approach and data reduction techniques through the Delphi method are used, taking into consideration different stakeholders in the case of the Durana economic zone. This study takes the position that the main components of the national and local planning strategies are elements of the circular economy, but fails to fully adopt critical components of the Circular Economy concept. Ownership separation and the existence of large informal areas are the main underlying factors that obstruct planning and implementation of territorial reform. This study deduces that complete incorporation of stakeholders calls for coordination of actions and practices of all actors in spatial planning; the role of clusters in the shift toward the CE concept is moderate, and the level of incorporation of CE in cluster activities depends on how much it is in line with their specific activity. We recommend a more effective syneztization between stakeholders, resource allocation effectiveness, and preliminary capacity development in the preparation phase of the territorial planning for a successful shift toward circular concept models; a shift toward CE relies on the effectiveness of cluster activities and the success of economic zones.

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1. Introduction

1.1. Comprehensive introduction

A regional economy is a comprehensive unit within an economy with differentiated characteristics and a separate division of labor for territorial production. The first reflection of the separation of functions between urban settlements and the periphery goes back to the agricultural revolution. There were production divisions between groups: some focused on agricultural work, while others focused on crafts and rudimentary industry. Twelve thousand years later, this division still holds true, but nowadays this separation is segmented based on geographical boundaries, resulting in a regional economy. The formation of a regional economy promotes the productivity development of the region itself and the overall economic development of the country. In this context, regions are often acknowledged as growth engines and are recognized as productive places for experimenting with alternative modes of service provision and public governance (Heshmati and Rashidghalam, 2021). The development of different regions is unequal and unbalanced due to differences in access to infrastructure, access to knowledge, application, possession of a proper labor force, environmental and natural characteristics, and other technical capacities. As a result, there are always differences between regional and overall development due to such differences in contextual and stakeholder composition. Moreover, if the practices and strategies of the regional policies are not well-framed, they may result in underdevelopment and, in the worst case, failed attempts (Fratini et al., 2019).

The pressure caused by scarcity of resources and environmental issues has promoted a shift toward sustainable production and consumption. Contemporary phenomena like global warming, climate change, resource scarcity, biodiversity threats, and any other social and environmental crises raise the alarm to reflect and undertake serious steps against their further deterioration (Fernández-González et al., 2022). Uncertainty and instability are the main issues policymakers face nowadays, and in order to mitigate them, good planning and dedicated simulations are needed. Unsuccessful strategic planning causes fragmentation of regional development, and as a consequence, fundamental reforms and innovation in strategic planning and policy systems are needed (Jin et al., 2020). Considering the various options, a coordinated national strategy could be the solution, but due to its difficulty and the fact that this requires a longer period to implement, the solution may come through the incorporation of sustainable development strategies and policies at regional and local levels (Álvarez-Díaz et al., 2017).

Circular economy (CE), a term prevalent in today's discussions, has been considered a promising concept to close the loop between consumption and production processes. The central idea of CE is based on the principles of reusing, recycling, and reducing, with the aim of being regenerative as its main function. In this way, it reshapes the use of resources in the production and consumption processes (Ishaq et al., 2022). Due to their large commercial "appetite", urban areas are considered the main contributors to pollution and other environmental issues, and it follows that the urban sector or region is at the forefront of the creation and development of CE (Bolger and Doyon, 2019). Offered as the main solution to the contemporaneous phenomena, compliance with circular economy principles in the consumption and production processes is crucial despite the level of development and planning. The concept has gained increasing acceptance by different states, but those remain very few, and even fewer are the cases where the adoption of the concept has been at the regional level. Since 2011, the European Commission (EC) has introduced a roadmap for an efficient Europe, and in 2015 it adopted the action plan for CE implementation (European Commission, 2011–2015) to better utilize resources, improve waste management, reduce pollution, reduce emissions, etc. In 2020, a new version was adopted, and during this time, special care was taken to integrate all the stakeholders in the action plan in alignment with the Green Deal Agenda (European Commission, 2019–2020). Since those action plans were launched, many countries have adopted them in their national action plans, and concrete measures have been taken to start their implementation. Vanhamäki et al. (2020) emphasize the fact that the transition toward a circular economy is supported through regional strategy implementation and can be presented as good practice to others. At its foundation, CE is a systemic change that requires not only the incorporation of all stakeholders but also close and effective cooperation between them. Furthermore, Geissdoerfer et al. (2017) state that the involvement of governmental bodies and other national, regional, and local authorities plays a vital role in the transition, and Guerra-Rodríguez et al. (2020) observe that such involvement not only accelerates the transition but also ensures its future success.

Other literature on the topic incorporates CE into spatial and territorial planning by channeling it in two main ways: to integrate CE with a direct focus on the conceptual content, that is, consideration of any dimension of CE in regards to spatial planning to include, for example, water, land, natural resources, or waste strategies (Amenta and Van Timmeren, 2018; Mattila, 2016; McDowall et al., 2017), while other literature considers the mediator role in spatial planning by accelerating CE implementation with the understanding that it facilitates stakeholders' interplay.

CE is merging as the main solution to all of the above, but its planning and implementation are neither easy nor impossible. CE practices in cities are increasingly accepted due to the fact that they address different sustainability challenges foreseen by SGDs (Schroeder et al., 2019). Another added value for incorporation into any spatial and territorial planning strategy and practice is its inclusive dimension, which characterizes the CE model for sustainable development (Hodson and Marvin, 2010; Vergragt et al., 2016). As indicated above, the European Commission's (2022) conclusion says that the initiative to support CE implementation at the regional level will foster restorative and regenerative development. This call is in the same vein as the broad scope of CE to foster the integration of the three dimensions of

development. The three dimensions fulfillment (social, economic, and environmental) requires the integration of different components, which include different sectors, multilevel governance, and different economic actors in the economy, which are the routes of national and local initiatives. In this regard, even though there is significant research on the link between CE and action plans, there is little study in consideration of the needs evident in developing countries and little assessment of any cluster case study developed in those economies. Analyzing the contribution of cluster activities to the development remains of great importance, and based on this, we consider vital the incorporation of CE in the initial phase of implementation rather than in a second phase when problems with the contextual characteristics become more obvious and intervention becomes harder. The main result of regional development strategies is the creation of economic zones and clustering activities, which are considered the main contributing factors to regional development and overall development. Additionally, they are good cases for piloting innovative and inclusive models like CE.

In all of this, it is important to not lose focus on the fact that the main aim of strategic spatial planning is to draft place-based policies and mechanisms that consider the specific characteristics of the regions in a harmonized manner, and in the same manner, the CE model appears as a solution by the system to the existing system. Additionally, when it comes to the shift to a new paradigm, both the academia and practitioners of the fields emphasize the handicaps existing between the planning and implementation phases. Specifically referring to the national and local plans, researchers and practitioners alike highlight that among the factors that create this gap is the mismatch between the general spatial planning strategies and the local planning strategies.

Based on the above-mentioned conformities and, at the same time, incompliances, this paper takes into analysis a real Albanian case: the so-called “Durana” economic zone, which was created as a result of the General National Plan undertaken after the 2014 territorial reform in Albania. The municipalities included in the Tirana-Durres economic zone are: Tirana, Durres, Kamza, Vora, Shijak, and Kruja. Durana aims to transform a space in support of the competition created by economic clusters. It is based on the principle of a closed cycle, where the wastes of one process are used as resources for another consecutive process. This study assesses the action plan and the possibility or likelihood of incorporating circular economy (CE) into its application. The Tirana-Durres district is identified as the most important economic zone in Albania and the Balkan region. Due to the complexity of the urbanization and transformation of the territory and considering the wide range of issues to be addressed, the strategic plan has been integrated and cross-sectoral to guarantee the sustainability of the area and its urbanization. With its integrated cross-sectorial planning (ICSP), Tirana-Durres district is notable as a result of its almost twenty-five-year transition. Also notable is its impact on boosting the regional economy, which serves as an example of cluster development.

To date, there is no study that makes a comparison between the planning and implementation phases of the incorporation of CE elements in strategic spatial planning, considering the case of cluster activities in Albania. Due to this fact, the main objective of the work is to make an assessment of the possible incorporation of the CE concept in the Durana economic zone as the main cluster activity foreseen in the strategic action plan of Tirana, and the specific objectives are to:

- Analyze the level of incorporation of CE on the general plan and on the local plan;
- Assess the sustainability of general strategic spatial planning through the comparison of the planning and implementation phases;
- Identify the role of regional clustering activities in the shift toward CE.
- Assess the readiness of the clusters for the transition.

The study has come up with some very interesting findings: after the long lasting transition in Albania which is also currently taking place, the 2014 territorial reform is among the promising initiatives for the sustainable development of the country; the DURANA economic zone is the main long term potential of the country and due to that it is foreseen to operate with the closed cycle with a high level of harmonization between the general and local plan; despite this harmonization and coordination between the two spatial plans when it comes into practice there is a weak collaboration and integration among the municipalities that compose the DURANA zone; the main problem for hindering the plan implementation is the presence of large unregistered areas and the absence of land ownership. While the development of this economic zone is considered an asset to the country, the impact on regional development in the relatively short period of time since the implementation of the Durana economic zone has yet to be accurately measured and considered.

1.2. Overview of European spatial planning and its usefulness for economic development

Since the 1990s, European planners and decision-makers have considered strategic spatial planning as the key instrument that addresses sustainability issues and foresees economic, societal, and environmental present and future development (Albrechts et al., 2016; Albrechts and Balducci, 2013; Haughton et al., 2009). There are diversified approaches to strategic spatial planning, all of which, in the final result, share common goals; they (approaches) unify various projects into common medium- and long-term development objectives for all areas of a given country, in alignment with international strategies and policies (Albrechts, 2006; Albrechts et al., 2016). Authors like Flyvbjerg (2004), Healey (2006), and Olesen (2013) refer to strategic spatial planning as a very complex process that requires great effort from different stakeholders to be achieved. So far in Europe, there have been fragmented initiatives on different aspects, but what is crucial is that there is no concrete conceptualization of it as a whole. Due to the incompleteness of the process and its

multi-dimensional character, there is always room for improvement in this field; of note, there is always the ever-present gap to be filled between the theoretical and practical aspects of the concept (Cremer-Schulte, 2014; Newman, 2008). The concept demands clarification as to what is included in the planning and implementation phases. Consequently, a clear “strategy” must be implemented that considers different aspects regarding both the broad long-term vision and intensive short-term actions (Albrechts and Balducci, 2013).

In many cases of spatial and territorial development planning, urban planners continue to use old tools to solve contemporary problems, and development planning becomes outdated within a few years. What is most noticeable in developed countries is the absence of participatory approaches to planning, while at the same time there is good evidence in regard to digital transformation in countries like Holland and Denmark. Data disclosure and its availability differ from country to country (Martínez-Fernández et al., 2019). Additional concerns, such as crowd-sourcing, present alternative ways of spatial planning (Szwajlik, 2018). But even with those attempts to increase data availability, there is a vague context when it comes to the content, standard of data, and methods of collection. Considering the vogue data context and all the other developmental initiatives and different countries, what is common to all is the fact that territorial spatial planning is still in the tactical phase and not a strategy in itself. But, despite the difference between the potential and actual output those spatial planning strategies have had so far, none contests their usefulness for the economic development of territories. Stockholm is the pioneer city in which the decentralization strategy has successfully contributed to the rise of the socio-economic level, explained by the fact that it was pursued by additional creative fragmentation strategies to their existent spatial planning (Rutherford, 2008). The case of Murcia (Spain) also illustrates the importance of special planning when we see the economic valuation of the regions (Albaladejo-García et al., 2021). The Calado et al. (2022) study shows that the integration of the insights collected from the participatory approach in the case of the autonomous region of the Azores resulted in effective spatial planning, which further contributed to good governance and management. García et al. (2019) show spatial planning strategies in maritime have resulted in positive management and implementation of activities through the integration of a common framework for the European Union. Hossu et al. (2022) have brought examples across Europe of how regional designs and spatial planning have contributed to bridging stakeholders and putting democratic values into spatial governance and planning systems. According to Albert et al. (2020), spatial planning is the backbone of any policy mix, and it has considerably enhanced ecosystem services in Europe and addressed sustainability issues. On the other side, Economou et al. (2020), through the cases of Greece and Bulgaria, present how the lack of proper spatial planning has resulted in considerable problems for managing coastal and marine areas. In Austria, integrated spatial planning and other sustainability planning have been implanted during the last 15 years and are now considered a role model for climate protection policies and energy transition (Stoeglehner and Abart-Herisz, 2022). Rogatka et al. (2023) provide a good example of a small town from the Polish planning system perspective, which recognizes the importance of spatial planning in socio-economic development, which is translated into quality of life and standards.

1.3. General Albanian context of spatial planning

In the time period after the fall of the communist regime and especially between 2009 and 2013, there were some local segmented planning incentives, but an intensified and harmonized action took place after 2013 as a result of governmental priority, which was finalized with the preparation of the Law “On Territorial Planning and Development”, which was finally amended in 2014 by the Albanian Government (Law No. 107/2014, 2014). This law was a moderated version of the previous one with some more implied and clarified aspects and a concrete national planning instrument briefed as the General National Territorial Plan (GNTP), which was later supported by the General Local Territorial Plan (GLTP).

The main governmental body directly responsible for planning is the Ministry of Infrastructure and Energy, and in 2009 the National Territorial Planning Agency was established. For every local and national plan, the entity responsible for approval is The National Territorial Council (NTC), a collegial entity composed of ministers of ministries and led by the Prime Minister. Pursuant to Law No. 107/2014, Article 9, “On territorial planning and development”, as amended, and DCM No. 427, dated June 8, 2016, “On the organization and functioning of the National Territorial Planning Agency”, Chapter III, the National Territorial Planning Agency (DCM No 427, 2016; NTPA, 2019) is the authority responsible for:

1. Coordinating, in general, the process for the development of territorial planning documents undertaken by the local and central planning authorities;
2. Ensuring that the development of the territorial planning documents, whether at the central or local level, is in compliance with the legal provisions on territorial planning and development by providing technical assistance to the authorities responsible for territorial planning;
3. Coordinating the conformity assessment of the planning documents under consideration with the General National Territorial Plan and other national plans based on the principle of planning document hierarchy and checking them against basic electronic data and the planning technical norms

After the restructuring and territorial reorganization, the current number of Albanian municipalities is 61. The main result of the territorial reform in this decentralization is that local authorities have not only larger and more complex territories composed of an increased number of populations but also a widened range of responsibilities. It followed then that there was an emergent need for parallel integrated local plans beside the main nation plan for the proper management and

administration of the territories. In this regard, each municipality had to prepare its own plan, and to this date, only 37 of the 61 municipalities have their GLTPs approved, 44 are developed, 16 are under development, and 7 are under approval (NTPA, 2021). Based on such development the study raises the first research question:

RQ1: Are CE and sustainability issues integrally incorporated in both general and local plans?

After the communist regime, there has been a continuous struggle toward decentralization, and some concrete steps have been taken with the aim of giving power and delegation of responsibility to the local level. In Albania, territorial planning is a shared competence between the national and local governments, emphasizing the fact that, after the territorial reform, it has shown a specified level of autonomy. A very important development in planning in Albania was the 2009 legal changes, which aimed to have a hierarchical system regarding the main instruments that would be used by each authority. It is worth mentioning the fact that both authorities have common planning strategies and use common instruments when the issues are areas of special importance, cultural heritage, etc. What is a considerable handicap in Albania is that, despite the fact that there is separate planning when it comes to implementation, there still exists a real gap between the planning and implementation. A report done by Allkja (2019) shows that local authorities in Albania do not exercise their authority to its fullest due to a lack of effective leadership and a low number of professionals and technicians to implement the strategies. To a great degree, this is understandable given that most municipalities have serious financial problems, which makes it difficult to hire fully trained planners and personnel, much less to have the funds to carry out effective planning.

From the implementation point of view, it is worth noting that NTPA played a crucial role in the preparation of the territorial planning strategies and as the main coordinator in the process of preparing GLTPs. With the aim of enforcing NTPA's full authority, the Ministry of Urban Development was created in 2013, and after the year 2017, all the competencies passed to the Ministry of Infrastructure and Energy. From the implementation point of view, it was very important that the revision and changes made in the legislation in 2009 were developed and coordinated in an integrated way.

The drafting of the GNTP started in 2013, and only after 2016 did this priority pass to local planning. The main logic was to have harmonized coordination between both central and local authorities, not only from a sectorial perspective but also regarding administrative issues. There are three main plans that were drafted in 2013 and approved in 2016: the General National Territorial Plan; the Integrated Cross Sectorial Plan for the Coast; and the Integrated Cross Sectorial Plan for the Economic Zone Tiran-Durrs (the so-called DURANA). What is clear from the different progress reports is that the integration of different policy sectors in the implementation phase is very challenging. Due to the fact that municipalities have their own contextual aspects, they find it difficult to incorporate GNTP to its fullest. The reasons may be numerous, starting with the financial limitations on the central and local operating cultures that are still present. The lack of coordination is evident in almost every sector, such as protected areas, coastal areas, public infrastructure, agriculture, and the environment. Most evidently, the main problem has been a lack of vision, with the result that the majority of policies focus on short-term benefits, which in turn neglect the long-term socio-economic impact of current decisions.

1.4. Spatial planning concept development

Most historical surveys regarding development use the term "land-use" and Helming et al. (2008) shift from "land-use planning" to, more broadly speaking "spatial planning". This work coined the terms spatial planning around three sustainability aspects: social and economic development, and environmental change, and connects them through the means of natural resource exploitation. Planning is a form of interaction between social, economic, environmental, political, organizational, and institutional elements that undergo different processes that are influenced by sets and subsets of factors that come together outside of the decision-maker's control (Partidário and Arts, 2005; Roberts, 2007). Among the main characteristics of planning, Norton (2008) lists the fact that it is often ambiguous and subject to uncertainty, while Nilsson et al. (2009) exclude it from the narrow character of the past and explain it as a process that comprises visions, goals, and strategic guidelines. In this regard, strategy in spatial planning practice is considered one of the main developments in terms of planning. Often it is simply referred to as the transition from simple tactical to more harmonized and integrated planning, and strategic planning is very crucial for the sake of this work, which is why we need to make some clarifications on this concern. Initially, strategy was effective for spatial issues as it better mitigated uncertainty and passed from so-called short-term methods to long-term approaches. Additionally, it facilitated public participation and better connected the present and future of territory and community. Albrechts (2006) defines strategy as a combination of objectives and the resources available, while the latter in consecutive works states that while strategy in spatial planning is not a new ideology, it serves as a new approach for creating better futures based on shared values. Simply put, strategy in the context of spatial planning is the set of tools, concepts, and procedures harmonized together to achieve territorial objectives. For the sake of this work, the more appropriate definition is that of Albrechts (2006), who argues that "strategic spatial planning is a transformative and integrative public-sector-led socio-spatial process through which a vision, coherent actions, and means of implementation are produced that shape and frame what a place is and what it might become". Strategy emerges as an initial synthetization and ends with its validation throughout the whole process.

The application is somehow different in that spatial planning is a multidimensional action with numerous aims, while spatial planning processes, subsequently, involve a planning phase, which generally has two main stages: the preparation phase, either strategic or not, and the implementation process (Healey, 2006).

Due to these two phases, especially in regards to the implementation phase, spatial planning practice is a multi-stakeholder process. That is, within the context of the separation of duties and responsibilities, for the sake of the plan, power and authority are critical issues. Hillier (2002) refers to this process as the configuration of power and the construct of the relation between public and private actors. There are different approaches to the process: Oliveira and Hersperger (2017) relate it to a process based on projects, while Valtonen et al. (2017) relate the planning to the development itself; Mäntysalo et al. (2011) consider it a process that entails deep transparency and an in-depth understanding. Another group of authors highlights some other very crucial aspects of strategic spatial planning, such as the coordination of different authorities, public-private cooperation, participatory decision-making, and stakeholder involvement (Albrechts et al., 2016; Legacy and van den Nouwelant, 2015).

A great perspective on strategic planning practice is the one added by Albrechts (2006), which considers it a social product that is later developed through the participatory approach. Nuissl and Heinrichs (2011) and Healey (2006) argue that the strategic planning process must be understood as a collective action, and it is obviously a collective decision-making process. Finally, it is worth mentioning the fact that the current literature strongly suggests that the availability of funding mechanisms highly influences strategic spatial planning; it is the decisive instrument in both the planning phase and the implementation phase of strategic spatial planning (Buček, 2016; Legacy and van den Nouwelant, 2015; Olesen and Metzger, 2017). Synthetization of opinions, contributions, and approach to the planning and implementation of strategic plans derive the discussion toward the extend of differences in between the two and that why the next research question is:

RQ2: Is the level of incorporation of CE and Sustainability issues the same in both planning and implementation phase of the spatial plans?

1.5. Circular economy and spatial planning

As noted above, spatial planning and development are tightly connected to the exploitation of resources and increase this connection as consumption and production patterns are developed. Of concern, however, is that the economic systems currently used are based on those traditional patterns, which have given rise to the attendant phenomena of global warming and climate change. CE presents the best interventional option in this regard, and Bassi et al. (2021) are among the main authors who incorporate the concept at the territorial level through the systemic approach. A key dimension here is the fact that contra-version does not interfere with strategic planning; instead, it underlines the action-directed approach and evolves as a perfect strategy to more effectively reach the predefined goals and objectives in the national, regional, or local plans. Cohen and Gil (2021) proclaim that CE can serve as a holistic approach in the context of spatial planning if the knowledge management system supports it. Vanhamäki et al. (2020) also state that the transition toward CE requires systemic change and that it plays a crucial role in the region's affirmation and development. Moreover, the work presents the key features of CE in regional developmental programs and strategies.

Additionally, cities are the main contributors to the Paris Agreement and the Sustainable Development Goals achievement (OECD, 2020). Developing countries and regions must transform their development so that they can achieve SGDs, and if their growth happens in an unplanned manner, they seriously threaten sustainability (Wang et al., 2021). Worldwide, large urban centers are the main source of environmental problems; at the same time, due to their high consumption and production levels, these centers need higher resource efficiency. In this regard, while large urban centers present significant problems, they also have a higher potential for solutions. Different cities have incorporated CE in different dimensions, some at the strategy level, some at the case level, some others in the procurement process, and most of them in some dimension of waste management (Bernhardt et al., 2018). While Christiansen et al. (2019) emphasize the fact that cities and local governance act as the main actors in bringing stakeholders together, Christensen (2021) presents three forms where cities and CE overlap with each other: first, by their very nature, cities perform some functions that are incorporated in the CE concept, such as waste management, recycling, and material flow; second, both policies overlap with each other in areas like water policy, transportation policy, and air pollution; and finally, both the cities and the CE concept connect points between citizens, businesses, academicians, practitioners, civil society, and institutions.

1.6. Economic zones, cluster activities and circular economy as output of spatial planning

Once more, we have to emphasize that strategic spatial planning is a governance practice that produces plans of different scales: national, regional, sectoral, inter-sectoral, and inter-regional. Additionally, in spatial planning literature, the adaptive approach of the strategy is a common reference, especially in regards to practical terms. The elements of general strategic plans are a sequence of place-based programs that are updated and adopted as integral parts of the whole. For efficiency and efficacy of the strategic policies, there has been identified the need for territorial organizations that are not strictly fixed to boundaries but are applicable and manageable from the perspective of geographic proximity, policy integration, and cultural identity resulting in regions. Region is "an area or division, especially part of a country or the

world, having definable characteristics but not always fixed boundaries” (Oxford Dictionary), or “... boundaries are arbitrary, established for convenience” (Encyclopaedia Britannica 2020). As it is obvious in both cases, boundaries are not defined and are flexible to the request of purpose, but for the convenience of this work, we used the definition done by [Gordon \(2011\)](#), which uses the term territorial competition (parallel to place competition and competitiveness) in the sense that the area’s competitiveness is extracted from the collaborative actions of the economic actors of the territory. Additionally, through the incorporation of the CE, we want to add the “competitiveness of the model and/or the policy”. This model and/or policy competitiveness, which come as a framework of geographical, juridical, and administrative connections, is the equivalent of the regional division in the European Commission’s NUTS (Nomenclature d’Unités Territoriales Statistiques) taxonomy. Durana economic zone falls under the NUTS2 division within the 800,000–3,000,000 threshold, settling 37% of the population and contributing 49% to the country’s DGP.

A derivative of the region is the creation or adaptation of economic zones, which are attached to regional and general spatial planning since there are, among other considerations, reasonable connections and coordinated incentives. [Balz and Zonneveld \(2018\)](#) carefully clarify the position of regional spatial planning as a key element of strategic spatial planning, both of which are necessarily based on practical spatial circumstances such as economic zones. Economic zones represent place-based programs, the result of which are emerging economies due to governmental policies that can provide additional employment opportunities and economic output ([Xi et al., 2021](#)). Studies like [Zheng et al. \(2017\)](#) and [Wang \(2013\)](#) confirm the positive effect of economic zones on economic development, as evidenced by their contribution to a country’s GDP and the region’s competitiveness.

Place-based policies are an area where state and other subnational policies are focused on using different approaches to engagement with other parts of the economy so that clustering and economies of scale are facilitated ([Kennedy, 2013](#)). The term cluster activity was initially coined by [Porter \(1998\)](#) and defined as “geographic concentrations of interlinked companies and institutions in related branches of industry that complement each other by joint relations of exchange and activities along one (or several) value creation chains, linked by commonalities and complementarities”, From here, we understand that it basically identifies the connection (in terms of geography and interaction) of economic actors in between them and was originally used to explain “economic competitiveness” Europe Innova (2007) uses the definition of “the co-location of partners, service providers, educational, and research institutions related through linkages of different types”, and for the sake of this study, cluster activity of all types (industrial or form of network) is used for the interaction between actors considering territorial contexts and their capacity to evolve in circular and sustainable models. This comes as a result of globalization and the shift to the principle of economic cooperation based on market mechanisms rather than administrative ones where the systems and processes are effective, efficient, profitable, and sustainable. The concept of a cluster is very similar to that of a region, as they both appear as an aggregation of common elements and features that can be perceived as one common physical form with different contents ([Vilcina and Boronenko, 2009](#)). Due to the territorial aspects embraced by it, clusters are formed during the development of regional economies as economic subjects with geographical proximity, interconnection, and legal independence. In the case of Durana, it is a regional cluster, as explained by Michael Porter, focused on developing competitiveness and getting hard and soft infrastructure in alignment with key industry sectors.

The concept of clustering originates from the term “industrial districts”, which explains the advantages of locating firms in the same geographic area. These districts or locations are associated with mutual beneficiaries like a proper labor force, dedicated inputs and services, and special policies from the government. Clustering fosters increased levels of networking and interconnection, which in turn stimulates the sharing of know-how and physical infrastructures that stimulate productivity and innovation ([Maskell, 2001](#)). Clustering is a great opportunity for small firms as well, whereby they work more efficiently because they are assisted and supported ([De Marchi and Grandinetti, 2014](#)). In general, researchers are polarized: some consider cluster activities a spontaneous development process ([Delgado et al., 2014](#); [Ketels, 2013](#); [Schmitz and Musyck, 1994](#)), while other researchers view cluster activities as organized and planned processes that include laws and regulations, incentives for entrepreneurship development, and other supportive policies like competitive law ([Bianchi, 2000](#); [Cowling and Sugden, 1999](#); [Parrilli, 2009](#)). Considering the second group of researchers, there is a great potential to incorporate laws and regulations, plans, and strategies, despite the fact that these incorporations do not fully adapt all the elements of the CE concept. [Ghisellini and Ulgiati \(2020\)](#) recommend additional research work in which to analyze the transition to CE. [Govindan and Hasanagic \(2018\)](#) and [Ranta et al. \(2018\)](#) assert that policies and regulations are among the main barriers to this systemic shift, and regulatory framework, institutional, and governmental barriers present the main hindrance to the transition to and planning of cluster activities. To comprehend the discussions and the work done so far this work comes with the following research questions:

RQ3: Are the cluster activities and economic zones of the regional economy the best setting where the transition toward CE can be initiated?

RQ4: What is the level of readiness of the clusters for the transition in developing economies

2. Methodology

This paper uses an explorative case study approach with a qualitative content analysis method to analyze a case study in Albania: the Durana economic zone. The progress of the research is based on the following research procedure: Initially,

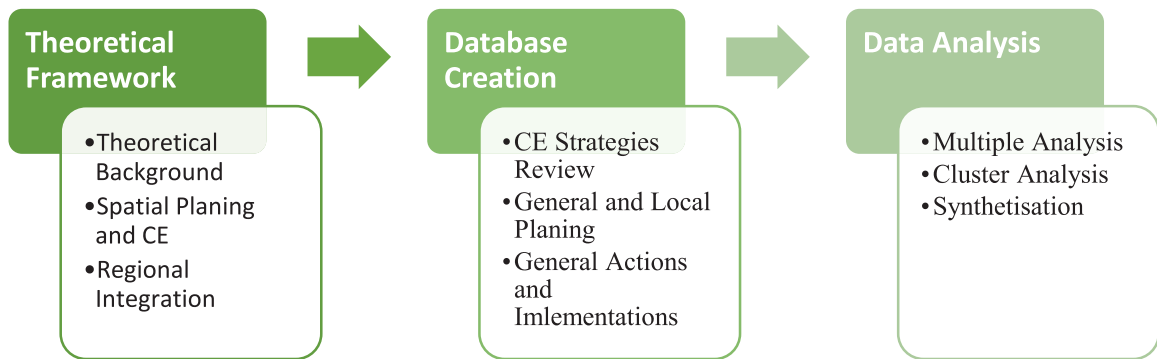


Fig. 1. Diagram delineation the methodological process followed in this work.

Table 1

Sample of policy documents selected and analyzed.

Source: Author’s construction.

Name	Type	Target sector	Enforcement entity
National Strategic Plan	Strategic plan	Economic zone	National Territorial Council
Local Strategic Plan	Strategic plan	Economic zone	National Territorial Council
Environmental Management Act		Environmental	National Territorial Council
Solid Waste Management Regulations	Regulation	Economic zone	Municipality
Environmental Impact Assessment and Regulations	Regulation	Economic zone	EIA-Ministry of Environment
Special Economic Zones Regulations	Regulation	Economic zone	TEDAs

we collected all the documents regarding the strategies, plans, and action plans done for the case, and then we reviewed the existent literature framework and acknowledged research on European and Albanian spatial and territorial planning in order to see how sustainability issues were incorporated into them. Then, we took into consideration all the data and documents for the further review of the planning and implementation process. Finally, we conducted some short, open-ended interviews with some representatives from different stakeholders in the economic zone and cluster activities. The conceptual model followed for delineation process is presented in Fig. 1.

The collected information is processed based on Delphi techniques in order to investigate, analyze, and compare the incorporation of CE in the planning, implementation, and development of the Durana economic zone and its clustering activities in Albania. The steps followed for the completion of the Delphi method were: establishing the proper purpose of the study, during which we identified the main materials like national and local plans and other reports for the implementation strategies; and then deciding the case to be considered for the analysis, for which we analyzed the procedures, the scope, and the geographical location. Due to the fact that it is a qualitative study, based on the literature review and theoretical framework, the work raises the following questions:

RQ1: Are CE and sustainability issues integrally incorporated in both general and local plans?

RQ2: Is the level of incorporation of CE and Sustainability issues the same in both the planning and implementation phases of the spatial plans?

RQ3: Are the cluster activities and economic zones of the regional economy the best setting where the transition toward CE can be initiated?

RQ4: What is the level of readiness of the clusters for the transition in developing economies?

The main analysis is based on secondary resources, with the aim of capitalizing on existing knowledge. During the first phase, we conducted a deep literature review and different document reviews so that we could have a thematic analysis of them. For this part, we followed the technique used by Rweyendela and Kombe (2021) with the following procedure: (1) formulation of the research question; (2) thematic development of the concepts; (3) constructive criticism of the studies; (4) incorporation of the interviews from the perspective of the stakeholders (5) Update the body of literature with the main identifications and interpretations. The literature database comes from Web of Science and Google Scholar and was reached using those keywords mainly: circular economy, spatial planning, general and local strategic plans, planning and implementation phases, cluster activities, economic zones, etc (see Table 1).

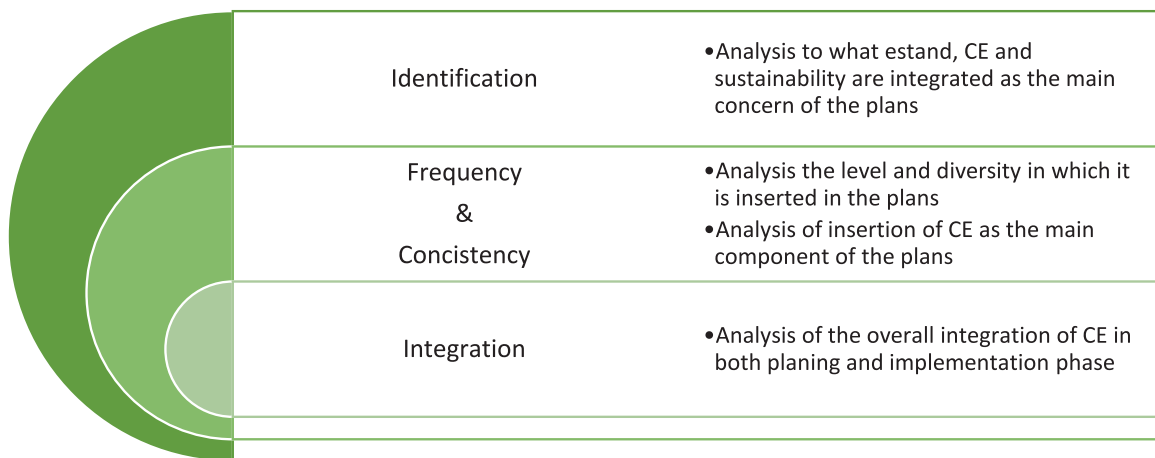
In the second phase, after having all the needed theoretical and documentation, we screen the webpages of the municipalities to have a comparison of the drafted documents and what has been done so far. After that, we constructed

Table 2

Overview of data collection.

Source: Author's construction.

Phase	Method	Description
Phase I Literature Review & Documents Review	Literature Review Retrieval of the documents	Desk research, provide the baseline data for the interview. Identification of the stakeholders for the formation of the quadratic model: Government, academia, business, civil society
Phase II Interview with Stakeholders	5 Focus groups from each stakeholder	Presentation of the main findings so far, and in-depth interview on the main themes (incorporation of CE in planning; the level of incorporation at the planning and implementation phase; the role of cluster activities in the shift to CE) <ul style="list-style-type: none"> • Central Government (2) • Local government (2) • Business (4) • Academia (3) • Civil Society (2)
Phase III Field Visit	Field visit in the economic zone and cluster activities	There were conducted different visits to each LOT of the economic zone, and to each cluster activity planned to be developed in the region.

**Fig. 2.** Steps used for the content analysis.

semi-structured interviews, which were developed in June 2022. We identified the main stakeholders, prepared the materials to be distributed to participants, chose the proper participants, and created the main content of the interview for each of them based on the work done by Vanhuysse et al. (2022). We interviewed 13 experts in total, carefully selected to fully form the quadruple helix model (2 from the central government, 2 from the municipality, 3 from academia, 2 from civil society, and 4 from business), and then the information was merged for proper feedback and careful results. We tried to include in the interviews representatives from the stakeholders who possess the proper knowledge regarding sustainability issues and the CE concept in particular. At the final stage, one of us had some field visits to the territory where the economic zone is developing (see Table 2).

All the information collected from different phases was content that needed to be harmonized to connect the dots. At the final stage, the content analysis was performed through the steps explained in Fig. 2. Those steps start with the identification of whether CE and sustainability are integrated as the main concern of the plans; then, frequency analysis determines the level and diversity in which it is inserted in the plans; consistency analysis determines the insertion of CE as the main component of the plans; and lastly, integration analysis determines the overall integration of CE in both the planning and implementation phases. As it is seen, it is expected that the level tends to diminish from the identification to the real incorporation of CE in the strategic spatial plans.

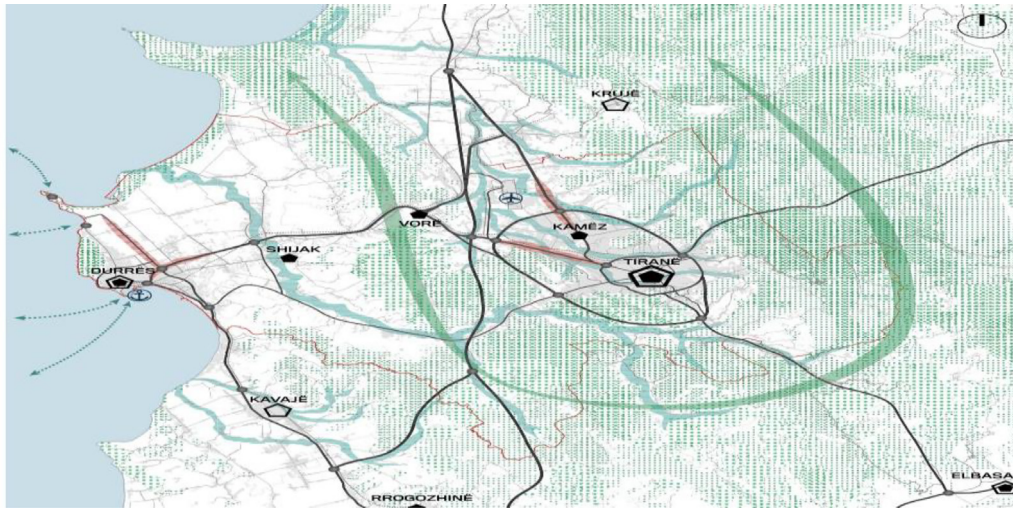


Fig. 3. Map of the economic zone for cluster activity extracted from GNP documents.

3. Results and discussions of case study – DURANA economic zone

3.1. Results

3.1.1. Comparison and analysis of the planning and implementation phase of the general strategic spatial planning in Albania in case of DURANA economic zone

The main comprehensive and inclusive territorial approach for Albania is the General National Plan (GNP) “Albania 2030”, which is the main integrated territorial instrument developed so far. Screening the document, it was found that the Albanian GNP comes as an interplay between laws, strategies, and visions for the improvement of the national welfare and economic growth and for strengthening the strategic position of the country toward the Balkan region and Europe. After deep analysis, Tirana–Durres is identified as the most important economic zone in Albania and the Balkan region. Due to the complexity of the urbanization and transformation of the territory and considering the wide range of issues to be addressed, the strategic plan has been integrated and cross-sectoral to guarantee the sustainability of the area and its urbanization. Integrated cross-sectoral planning (ICSP) in Tirana–Durres comes into play as a result of a long-lasting transition of almost 30 years and contributes not only to the economy’s boosting but also as an example of the cluster development of the zone, which is useful for regional competitiveness.

The municipalities included in the Tirana–Durres economic zone are: Tirana, Durres, Kamza, Vora, Shijak, and Kruja. It is known by the so-called “DURANA” economic zone, which aims to be transformed into a space that supports competitiveness in the creation of economic clusters. In this context, Durana appears as a cross-sectoral plan and includes the following main aspects: A region for economic development and regional competitiveness; Infrastructure Improvement; Improvement of transportation and mobility infrastructure; Improvement of urban and rural quality; Introduction of smart technology and innovation in agro-industries; Preservation and protection of the quality of the natural environment; and Improvement of tourism. The geographical surface, the municipalities included, and the axis created are presented in Fig. 3.

As an overall strategy, the Tirana–Durres economic region, the so-called Durana economic zone, aims to be transformed into a space that supports competitiveness in the creation of economic clusters and is based on the principle of a closed cycle, where the wastes of one process are to be used as resources in another consecutive process. The creation of this region will support creative industries and businesses to be competitive in the Western Balkan.

The development strategy of the metropolitan region is seen mainly with a focus on regional competitiveness, conceived on two main bases: **the first is the competitiveness of the region compared with the Central and Eastern European metropolises, and the second is the sustainable development of the region itself**. In the strategic policy, it is considered how the cities are going to interact with each other, how the businesses are going to contribute, and how the development of the region is going to be supported by the governmental and research institutions. So far, it was based on a free work force, but in the long term, it is not enough. That is why the aim is to achieve a more diversified and quick product; to highlight the strengths of the region on the territorial aspect; and to strengthen the private sector and urban agglomerations. The aim is to have an efficient regional product and specialization to attract Foreign Direct Investment. Among the main preconditions are to have innovation, which is seen as the only way to realize the inter-institutional connection, to certify the products, and other additional aspects that are to be followed by the respective ministries. To realize this, there have been identified four clustering typologies:

- The first pole is the one on the highway, which oversees the development from Kashar to Vore with the main focus on services, showrooms, and light industry.
- The second pole is Vore-Maminas, which is focused on logistics, construction materials, agroindustry, and the processing sector.
- Kinostudio Pole, which is called Creativity, will try to develop industries like media, graphic design studios, the fashion industry, etc.
- The fourth pole is Kombinat-Kasar-Vaqarr, which has as its focus the development of logistics, services, processing, and logistic spaces.
- Another pole is Sukth-Shijak-Durres, which is considered an opportunity to develop low-cost buildings but also to support agricultural services, food industries, and recreation.

3.1.2. Clustering opportunities

The main clustering axes are Rinas Aeroport-Vore, which is the elite zone of business development; the faso-textile clustering, which is the pole Kombinat-Vaqarr; the creative industries cluster, which refers to Kinostudio pole; and the logistic cluster, which refers to Durres-Shkozet zone. Part of the plan strategy except for the clusters is the distribution of innovation; this one may be realized by new entrepreneurs who can use the business incubators. Some of this has been proposed, which may be Public-Private Partnerships, completely private, supported by businesses and universities. The approach of this plan strategy is that of Regional Competitiveness, based on some case studies in Boston, Italy, Croatia, and Ireland, which mainly refer to Michael Porter's analysis. All the processes are supported by field experts from the European Commission. Generally, clustering development strategies give their results in the territory in a period of 10–15 years, but in countries with a development stage like Albania, this period may be longer. To date, educational institutions have developed theoretical policies without evidence from territorial development. From now on, the aim is to orient those institutions toward research results based on regional business requirements. It is to be emphasized that both the creation of this economic zone was planned in the General Spatial Planning Strategy and, furthermore, it was supported by the Local Spatial Plans from the respective municipalities, at least from the municipalities of Tirana, Kruja, and Vora, which have been approved; the one of Durres is still in the preparation phase.

What is worth studying for the sake of study is the analysis of concrete actions undertaken to implement this planning strategy, considering initially the municipality of Tirana. Till the year 2017, nothing concrete has been identified since most of the municipalities, including Tirana, have been engaged in the preparation phase. After this period, the main concrete action undertaken by the municipality of Tirana was the approved document "Strategy of Sustainable Development 2018–2022", where, among others, the creation of economic zones and clustering activities are planned. Once again, it needs to be emphasized that the creation of economic zones is among the priorities of the Albanian government during this period. The strategic position of Albania offers the potential to develop trading activities with the EU and wider, and it serves as a connection through the corridors and facilitates the free movement of goods and services through the Adriatic Sea. In this regard, Technological Zones for Economic Development are seen by the government as new ways through which Albania plans to develop its full economic potential. [Law No. 9789 \(2007\)](#), "On the Creation and Functioning of Technology and Economic Development Zones", was significantly improved during 2015 and was supplemented by other bylaws, clearly defining the criteria and procedures required for the creation of Technological Development Zones, accompanied by a highly competitive fiscal package. The purpose was to create maximum conditions of predictability, productivity, and profitability for developers and users of these areas. These instruments constitute a very good opportunity for the creation and development of areas, making them quite competitive with other areas in the Balkans and Europe.

Currently, the Albanian Government has approved two economic zones, which have the status of "Zones of Technological and Economic Development (ZTED)": Koplik ZTED (Shkodra region, approximately 61 ha), as well as Spitalle ZTED (Durres region, approximately 213 ha). Both of these areas are aimed at improving the economic and social conditions of the inhabitants of the surrounding area and anticipating the opening of new job opportunities. On the other hand, Tirana municipality aims to create a ZTED with very high standards, industrial priorities, and a technological character such as automobile industry, ICT, and electronics, which is named **TEDA Kashar Economic Zone**. Despite the impact of the global crisis on the automotive market, this sector continues to be competitive and promising. Strengths of the region, such as competition, geographical proximity to European markets, and the strength of free labor, add to the historical experience of the Balkan countries in the period before the 1990s in the manufacture of automotive components.

Furthermore, to support its plan and strategy Tirana municipality has set those priorities for the period 2018–2022. TEDA Kashar (2018–2022); Support with financial schemes (grants, funds, financial aid) for opening new businesses and existing ones in the field of the creative economy (2019–2021); Establishment of an artisan center in the city of Tirana, which aims to promote small businesses handicrafts in the city of Tirana through the ideation, production, marketing, exhibition, and trade of their products in a joint craft center. This center serves as one environment entirely dedicated to the artisans of the capital. Within Tirana Polycentric (Kombinat Pole), 1. Creation of a Creative Hub or platform dedicated to crafts 2. BID Kombinat, a public-private partnership for a physical environment of improved and more business opportunities (the New Bazaar model); Creating a One-Stop Shop for Businesses, in which services and advice will be provided in quality and real-time, in order to make the business more successful versus a lower cost, which will provide services such as registration, licensing at the central level and local level, business information and consulting, online applications and information, etc. Within Green City: 1. Investment promotion mechanisms for efficient technologies for

energy (solar panels, etc.) 2. Capacity building measures for businesses (package training for businesses that have an impact on the environment) (2019–2021); Creation of the economic portal (Tirana HUB) The concept of “Tiranahub.al” lies in the creation of an economic, informational, and computer portal in the form of a web page where comprehensive information support is provided for any potential entrepreneur or operator on the general national and local economic situation, the tax system, the system of licensing and support for financing project ideas, tutorials, formats for the preparation of documents in a professional manner, tips for implementing strategies, etc. Also, the creation of this virtual space aims to create a meeting place between Business angels and investors and potential or operating Entrepreneurs, aiming to further increase the capacity of enterprises. The portal will also link the academic part to the job market by serving as a bridge between the workforce and university spin-offs.

The creation of economic zones and clustering activities aim to help economic development in the country, especially the private one, to stimulate investment, create new jobs, attract advanced technologies, increase local business competition. They are intended to stimulate trade as they provide exemptions from customs duties and tax reductions. Despite the incentives in this regard and concrete initiatives, there have been many problems during the implementation phase.

Some of the negative factors that have influenced the blocking of these investments have been the problems with land ownership, slowing down and bureaucratic hurdles in obtaining licenses, deadlines for construction of infrastructure, violation of obligations arising from permits and contracts, tolerance of illegal construction within these areas, non-execution of deadlines for conducting feasibility studies, and unreasonable conditions and requirements by the companies that have undertaken the development of these zones. Currently, the Durrs-Tirana region is the main hub for the interaction of human resources, goods, and livable space in the north and south of Albania, as well as the entrance gate of “Corridor VIII”. The logistics ports located in the region, the Port of Durres and Mother Teresa Airport, have a direct impact on the region’s economy. The Durrs-Tirana region is the main contributor to economic development at the national level, both in the number of businesses being the same and in their diversity, thanks to the high presence of institutions, the high density of inhabitants in the region, and favorable geographical positioning. As a result, this region will continue to be the economic engine of the country and become the most competitive region in the Western Balkans. The region will support the creation of economic clusters and will be a great support to creative businesses and industries, which will bring technological development in the future.

3.2. Main findings

3.2.1. Main findings from the literature

Since the release of the Green Deal Agenda and the other drafts of the European Commission’s Circular Economy Action Plans, there have been different initiatives to comply with them in different regions and countries. In this regard, there are different studies that analyze different cases from different perspectives to see how the process takes place and to what extent it is developed. [Table 3](#) presents the most relevant result of the research done in the field, which is directly linked with the present study in any aspect of it, either in approach or in the integration of the concepts with each other.

3.2.2. The findings from the study

Durana is a key developmental area in the central part of Albania, but it is not a separate administrative unit. It contains more than 1/3 of the population, most of the domestic enterprises, and most of the foreign direct investment in the country. Despite the planning strategies, its development is still in its infancy phase, and it is still chaotic from different aspects: infrastructure, urbanization, land use, housing, greening strategies, etc.

The policy implementation so far has occurred mostly by coincidence rather than as planned and targeted technical assistance to the region, which evidences the mismatch between the planning and implementation phases. The main positive effect is that, compared to previous years, there is a higher level of awareness at different levels of administration and among the general population. The academic contingent tries to make it the focus point, and many training programs have taken place under the agenda of different projects and programs. At the regional level, no concrete project was found on how this strategy will be put into practice, what will be the level of compliance with the planning phase, what is going to be the supporting technology, and how the sustainability of the strategy is going to be effective and efficient. The implementation phase of the plan strategy has been separated into three main LOTs, which have been integrated between them, and we have taken care to integrate all five systems in accordance with the location and specific characteristics each LOT has. But separation in different clusters may cause serious coordination problems, and as [de Jesus et al. \(2021\)](#) show, there is an existent trade-off in it: grouping in more clusters results in higher overall costs while at the same time grouping in higher clusters makes the clusters themselves more uniform. In the analysis of the documents, there is an alignment and a balance between socio-economic and environmental impact, but none of them is explicitly assessed, and the literature suggests that among the three dimensions, the environmental one is going to need a longer period to show its impact. The main social impact identified is the new job opportunities created, while regarding the environmental issues, there is no clear idea how they are going to be mitigated.

Representatives from SMEs provide evidence that cluster activities are a must for regional development, especially for countries in long-lasting transition like Albania, but there is a real lack of coordination to make those clusters function, and in general, there is no awareness of their effect among SME entrepreneurs. SME face a lack of know-how and limited financial resources to properly develop, which causes the frequent closure of many startups in Albania. Regarding the

Table 3

The main results revealed from the studies conducted during the last 3 years.

Source: Author's construction.

Author	Region	Integration approach	Main results
Bassi et al. (2021)	6 cases in Europe	Using systems thinking, it explores how CE strategies are related to territorial dynamics and how the outcomes of such strategies can support sustainable development.	Through the adaption of the circular economy concept to the local context it highlights the importance of including territorial drivers of change, or localized feedback loops in the assessment of the CE strategies. As existing methods and models intend to focus on one or another area of the CE they propose indicating role of system thinking and closed loop paradigm play in integrating knowledge and providing a harmonized approach that allows to connect various thematic areas for policy analysis.
Xie et al. (2023)	Systematic Review on different countries	Assessment of the level of synergy between low-carbon strategic action and CE practices integration for sustainable development	The research suggests that CE practices should be tailored to local conditions, such as energy and resource availability, industrial structure, and economic development stage. For the synergy path way between low carbon economy and circular practices mutual and integrated promotion is the main result of the review. To enhance synergy mechanisms such as urban-industrial symbiosis and critical raw material cycles, challenges related to cost/risk reduction, urban/industrial planning and inter-system barriers should be addressed. Potential trade-offs arise mainly from carbon-intensive electricity, circular economy rebound and raw material scarcity, requiring a comprehensive consideration of the territorial structure and circular economy chains.
Fidélis et al. (2021)	EU	This article assesses how water and land concerns are embedded in the EU CE action plans issued in 2015 and 2020 and a set of nine member states' subsequent national plans.	Circular economy approaches demand comprehensive policy frameworks crossing different resources and spatial contexts, among which figure water and land. The content analysis of the plans showed that neither water nor land emerged as significant concerns in CE plans compared to materials or waste. Also, they are not consistently associated with the typical components of the plans, namely problem-showcase, objectives, strategies and measures, stakeholders, and CE performance indicators. Nevertheless, the embeddedness of water is more evident in the plans of southern countries, while the concerns on land are much more erratic. These differences are likely to emerge from contextual issues related, either to the particular environmental features of each country, the environmental and spatial planning frameworks in place, and the influence of particular fields of knowledge while designing the action plans. The transition to CE and the scaling-up of circularity requires robust policy approaches capable of ensuring a high level of protection of the environment and human health and well-being. However, the capacity of CE policy and practices to support sustainable development is highly dependent on their conceptual consistency, and compatibility with improved social equity and economic growth. In addition, it requires a clear understanding of governance scales and multi-actors' engagement. The role of local and regional actors underlines the need to consider the appropriateness of CE policy models to the specificities of each decision-making, implementation and governance context.
Foraste (2023)	Andalusia, Spain	Analyses the status quo of the circular economy with the special focus on public and non-governmental initiatives in the field.	The initiatives of authorities often lack harmonization with both the EU and Spanish strategies in the field. The main documents that govern the development of circular economy in the region frequently set imprecise qualitative goals, rather than binding quantitative targets to be achieved. As a corollary, there is a poor coordination among the public administration, business sector and the society and insufficient provision of public funding for circular projects. Therefore, it recommends to build up the framework of regulatory, fiscal and economic tools that can incentivize the circular economy and to increase transparency, monitoring, reporting, and recognition of progress.

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Table 3 (continued).

Author	Region	Integration approach	Main results
Suárez-Eiroa et al. (2021)	Metadata of CE strategies in different countries	Integration of the circular economy paradigm under the just and safe operating space narrative.	Most circular economy strategies present shortcomings to generate real changes and are disconnected from environmental goals. Only the Slovenian CE strategy establishes the basis for integrating the CE goals into the supra and sub-national territorial goals, although it is important to highlight that these targets are not absolute environmental targets; they just cover climate change, plastics and micro-plastics, and waste generation concerns. The Dutch CE strategy is the only one that presents, among its objectives, a reduction of environmental impacts according to the planetary boundary's framework.
Bellezoni et al. (2022)	Nagpur, India	A framework for technical and institutional possibilities for strengthening the relationship between CE and CC in the cities of developing countries by connecting systems within and beyond urban centers	The main result is that the expansion of Circular Economy in cities can occur by integrating urban sectors and policy coordination at different levels of governance. Partnerships between local governments, utilities, and civil society for co-managing energy, water, and waste in cities can reduce the financial burden on national governments, including meeting national emission and sustainability targets.
Arsova et al. (2022)	Different regions across	Implementing circular economy in a regional context	Regions are the most important administrative units of the EU's development policies and so far, have been extensively used for framing and implementing strategic priorities. NUTS 2 level regions are proposed as a regional unit for CE implementation.
Bressanelli et al. (2022)	Industrial district in Prato, Italy	Analysis the potential role of Circular Economy in revitalizing an industrial district in a decline phase and how supply chain structure and relationships should evolve in an industrial district transitioning to Circular Economy.	It provide insight to managers on how to successfully couple Circular Economy and technological or business model innovations with supply chain management practices. It provides indications to policymakers on how local and regional actors can support a Circular Economy driven reorganization of industrial districts and outlines the causes triggering industrial districts decline and discusses the factors that can induce a Circular Economy based re-organization of industrial districts
Alonso et al. (2022)		A framework intended to homogenize and simplify the existing world of sustainability and CE indicators in cities and, at the same time, reflections of the complexity of the multi-conceptual, multi-level, multi-scope and multi-scale nature of the subject under study.	The framework is developed in three phases to study and select the reference sources to create a map with a holistic and simplified approach. The multi-scope implementation is carried out for Europe and Spain as a case study for testing purposes, resulting in a sustainability and CE map for Spanish cities. The methodological framework has relevance for a diversity of geographical areas due to its replicability and its adaptation to each local case. This last quality allows the indicators to be contextualized and, thus, their implementation in cities, towns, or any human settlement in general. Additionally, it creates a map which reflects the complexity of the subject of study through a holistic approach, combining and integrating different frameworks and catalogs of sustainability and CE, since it reflects the multi-conceptuality of the reality (sustainability and CE), responding to a multilevel (urbanism, architecture and construction) collected at the macro level of the urban, within a multi-scope (from Europe to the local of each case), developing in a multi-scale of the reference sources.
Henrysson et al. (2022)	UmeåMunicipality, Sweden	Demonstrates how an indicator-based framework, initially developed for monitoring progress toward a CE at a national or regional level, can be applied at the urban level.	It recommends adopting a systems perspective when monitoring CE progress at the urban level, applying an urban metabolism (UM) approach. It considers multiple dimensions in monitoring systems for CE, which could support more comprehensive and holistic assessments of CE progress in urban areas. Such monitoring systems would require numerous indicators and significant data inputs and existing urban sustainability and smart city assessment frameworks could function as pools for both indicators and data. It concludes that, uptake and novel application of data-driven smart solutions in urban management and planning are expected to change how cities implement sustainable solutions

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Table 3 (continued).

Author	Region	Integration approach	Main results
Dagiliene et al. (2021)	Lithuania	Looks at local governments' perspective on implementing the circular economy in the frame of mapping future solutions.	The study creates a practical framework for circular solutions by mapping national and foreign practices through five perspectives, namely learning, sharing vision, reflexive governance, regulation, and negotiation in networks. As a result, local governments should be more proactive and strengthen networking with local business across the value chain.
Christis et al. (2019)	Brussels Capital Region (BCR), Belgium	A quantitative assessment of the potential impact of different strategies on urban areas	The methodology and insights could support authorities and policy-makers to effectively develop coherent and consistent action plans on consumption domains to improve resource efficiency and reduce the gas emission.
Cramer (2020)	Amsterdam Metropolitan Area	An action-research performed within a large-scale, regional circular economy programs	The main assumption achieved is that when the urgency of moving to circular economy proliferates, the volume of circular activities enlarges and societal support increases, the pressure on local and national government will augment to remove specific fundamental barriers which will further drive scale. It concludes that transition to a circular economy can be seen as a continuous renewal and an accumulation of a variety of circular initiatives at different speeds, being accelerated through the taking away of fundamental barriers.
Silvestri et al. (2020)	EU	It builds two composite indicators - the Circular Economy Static Index (CESI) and the Circular Economy Dynamic Index (CEDI) - that permitted both a static and a dynamic evaluation of the CE performance of European regions (NUTS 2)	The study revealed different results from different regions and categorized them into 4 groups. The "Never give up" group (1) is characterized by above-median performance for both the composite indicators; this group includes some of the most developed and innovative regions in Europe (including France: Île de France, Belgium: Brabant Wallon, Antwerpen and Région de Bruxelles, Germany : Berlin and Hamburg, and Spain: Catalunya). The group "Satiated and sleepy regions" (2), namely those regions where CESI is performing well, but the CEDI shows low values, incorporates many of the richest regions in Europe, for example, Freiburg, Germany and the Comunidad de Madrid, Spain and includes some of the more developed regions in Italy. The "The best is yet to come" group (3), is characterized by low values for CESI and high performance in CEDI, most of those falling into these groups are regions from Eastern Europe. The "We don't mind" group (4), is composed of the regions with modest values on both indexes, and is characterized by the presence of very low performing regions, including the majority of Italian regions.
Smol (2022)	Different regions of the world	Revision of the green deal definitions, strategies and importance in post-COVID recovery plans in various regions of the world	The analyzed GDSs have the common objectives and determinants of their implementation. The common points included in these strategies are: to create a set of policy programs on sectoral , national and international levels, to integrate social and environmental aspects in the economic activities, to counteract progressive global climate change, to build a low-carbon economy, to create the new work places , including green jobs, to involve the entire society and inhabitants in a green transition. And to move away from consumerism to sustainable consumption and production patterns. It clearly underlies the strategic role of the state and designing appropriate policy mixes in the development and implementation of green deal concepts.

incorporation of the CE concept into their business model, it is associated mostly with sustainability, and the main reason for the shift is because they are innovative and promising businesses rather than environmental issues. This goes in line with [García-Sánchez et al. \(2021\)](#), who conclude that the incorporation of the CE concept is initially related to the specific activity of the business rather than any other issue, and mainly technology-intensive companies tend to shift quicker. Regarding CE incorporation, generally, they are willing if it is in line with this specific activity, and even though they operate in a cluster, the differences between business owner perspectives and visions are considerable, which makes their cooperation difficult.

Representatives from the Ministries and governmental bodies highlight the fact that cluster activities require harmonized coordination between different governmental bodies and between central and local authorities, and a bottom-up participatory approach is a must. In Albania, different units have different priorities, which makes it hard to have proper coordination for the cluster activities. There is a frequent change in administration, which causes an interruption of the process, and due to this, there is a huge difference between the planning and implementation phases of the cluster activities. [Christensen \(2021\)](#) concludes that municipalities can play a vital role in organizing capacities among

local stakeholders and that municipalities can function as an important change agent to support and facilitate the transformation toward a circular economy. The development of cluster activities basically requires a new mindset, among which the most important aspects are: formalization of the informal, defining the rights and proprietorships of the lands, sustainable development as a prerequisite of the development, creation of value and integration on the chain, and approaching the inter-sectoral plans as an alignment between national and local plans. Vanhamäki et al. (2020) also show that CE implementation requires very effective coordination between different stakeholders, especially regional policy levels and practice-based business development. Despite the fact that the strategy incorporates sustainability from its conception and that its main functioning mode is a closed cycle, counting those large problems makes the incorporation of CE difficult, if not impossible, at this stage.

Albania has signed many international agreements, but the level of real benefit from those is very low, which shows that there is an under-exploitation of those opportunities. There is a real lack of R&D policies, and most of the indicators are project-based and cease to exist after it. According to this analysis so far, the main drawback of the Durana economic zone is the fact that there is a serious attempt to properly create it and to integrate all the dimensions and stakeholders in the planning phase of it, but there is an evident lack of proper specification of the role of each party in the implementation phase of the plan. The action plan sometimes does not fit into the regulations and procedures, into the context of the zone, or into the mindset of the stakeholders.

3.3. Discussions

3.3.1. Discussion on cluster activity and achieving regional competitiveness

Before the reform, Albania, like no other country in the region, was very fragmented, and the population placed on each fragment was very low. More than half of the communes generate not more than 2% of their budget, putting almost all the activity on the governmental budget. Under those conditions, 70% of the budget is spent on their wages, and nothing is transferred as service to the community. Most of the units do not collect any tax and do not make any investments, and only 15% (which is very low) of the units apply their functionality according to their competencies.

After the reform, it is seen that the majority of functional zones comply with the existing municipalities and are smaller than the regions, which means that they converge within the territory. This new division has started to show its first results in terms of increasing the efficiency of public service and creating new spaces for development. According to the representatives from the municipality “due to the fact that urban waste management service is organized in a territory that matches the territory of the district, the cost of the service is reduced by 40% as a result of economies of scale”. According to them, the same logic applies to the good administration of natural and human resources, assets, and capital of local government, and the economic effect of it is estimated at about 80 million dollars.

Experts stated that parallel to the territorial reform are developing two controversial processes: “the competencies are shifted to the base (local), while the population has followed the opposite direction, causing a massive and aggressive urbanization towards the centers”. Those processes have resulted in some unpredicted problems parallel to the radical exploitation of natural resources and environmental issues. The positive element is that those systemic and systematic changes are also done for the sake of the country’s EU membership, which requires regional governance of the territory. The main logic is that they see territory governance beyond the geographical boundaries, and the process must be seen as an economic efficiency rather than an administrative and political process.

The policies and strategies to be implemented must be supported by the generally accepted axiomatic rule of “productivity” As it has been stated by productivity partisans till now, it comes as a result of achieving regional competitiveness, but when the CE are incorporated, productivity itself is sustainable in all means—economic, social, and environmental. What is important in this case is that Kitson and Straus (2010) extract the effects of soft factors such as actors cooperation, institutional trust, knowledge sharing, and social connectivity for the sake of the sustainable competitiveness of the region. A very important point of view for CE incorporation in the economic cluster for regional competitiveness is in line with that of Porter (1998), which relates regional competitiveness with the supporting industries on it, factors (all types of factors), availability, and potential demand on it. Another important definition of competitiveness in the context of region is the one done by Cellini and Soci (2002), which, despite being a little bit general, is meaningful when it comes to scale measures differentiating the micro level (firms), macro level (national), and meso-level (the regional).

There are several regulations, strategies, and policies supporting the regional cluster activity in Albania, and from a legal perspective, it is part of the innovation ecosystem, which itself is in line with the vision of the Albanian National Strategy for Development and Integration (NSDI) 2015–2020, the Business and Investment Development Strategy (BIDS) 2014–2020, the Economic Reform Programme (ERP) 2017–2019 priorities, and other sectorial strategic objectives. The broader vision of this drastic change is to create an environment that is led by research and scientific results. Toward innovation and creativity What is missing here is that apart from these strategic documents, there is no specific law for the creation of the cluster in Albania; it is created on a voluntary basis and is considered a non-profit organization under the law nr. 8788, date 7.5.2001 “For nonprofit organizations”. Non-profit organizations, subject to this law (Article 13), acquire legal personality after being established and registered in court in accordance with the terms and conditions and procedures provided by law.

Durana economic zone is an administrative unit functioning under TEDA Kashar, which is an administrative unit of Tirana with 43353 inhabitants and 1591 operating businesses and is located between the capital and Durres (the second

Table 4

Facilities provided by TEDA for DURANA.

Source: Republic of Albania, Directorate for Technical and Economic Development Areas.

TEDA	Laws on incentives
Technology and Economic Development Area	<ul style="list-style-type: none"> ● From the moment goods enter Albania, they are exempted from custom duties and VAT ● Albanian goods that enter TEDA are exempted from VAT taxation ● Goods can be transported from one TEDA to another without paying custom duties or VAT ● Capital expenses are 120 percent deductible during a period of 2 years if developers and users invest in TEDA within three years of its operation ● Developers and users are also exempted from 50 percent of the profit tax rate (currently at a rate of 15 percent) for a period of 5 years ● Training costs are doubly deductible for a period of 10 years Research and Development costs are doubly deductible for a period of 10 years ● A developer's project is exempted from infrastructure taxes ● Buildings in TEDA are exempted from real estate taxes for a period of 5 years ● Buildings transferred to the TEDA are not subject to the transfer tax on real estate ● Wages and social costs are 150 percent deductible for the first year, and new expenses for wages and social costs compared to the previous year are 150 percent deductible for the sub sequent years

largest city in the country). - The economic zone is located only 12 km from the national airport "Nene Teresa". TEDA Kashar gains access to the Durres Port (only 32 km away), the largest and most important port of Albania. It is a greenfield and custom-built infrastructure; not only is the chosen surface of the TEDA a Greenfield (50 acres), but the unconstructed area exceeds 150 ha. The developer of the zone, in this case the Municipality of Tirana, is responsible for establishing the necessary infrastructure within the borders of the zone, and additionally, as a highly public beneficiary project, the national government has to supply it up to the border of the zone. It is to be managed by a special administrative authority, a one-stop shop model working under the supervision of the Ministry of Economy, Tourism, Trade, and Entrepreneurship, with the Executive Board reporting directly to the PM Office. The main facilities provided for the success of the zone are listed in Table 4.

The presence of large informal areas in Albanian territorial reform has been at the same time among its main causes and consequences. The reform itself aims to fulfill three major needs in Albania: (1) sustainable development of the territory and the final closure of the informality in the territory; clarification of the decentralization process; (c) mutual influence in the process of the European integration of Albania. In this regard, multiple steps were undertaken to properly shelter the reform. Initially, some policies and programs were drafted and approved in support of it, like the improvement of the legal system for territorial planning and development in the Albanian context and in convergence with the process of EU integration, the development of the technical and institutional capacities of the planning authorities, and the settlement of communication and collaboration between planning authorities of different levels. Other integral programs initiated to overpass the hindrances of large informal areas and lack of land ownership are the legalization and integration of all informal settlements, the creation of an information base for the fund of buildings without legalization, programs for the protection of the seaside, restructuring and revision of the legislation on the control of the territory, the implementation of ecological housing model projects until their certification, and the development of the plan for drafting energy efficiency. The IPA report (2020) states that "The Government of Albania is progressing in the implementation of a significant "Integrated Land Management System" reform to improve property rights and land management and to reduce the current constraints in order to create a strong land market".

3.3.2. Discussion of impeding and enabling factors for circular economy

Strat et al. (2018) argue that the basis for worldwide CE is the regional circular economy. CE at the regional level needs a mix of top-down and bottom-up approaches since there is a mix of stakeholder integration in its implementation. The policymakers express their willingness to have a paradigm shift, but so far in Albania, there are only some qualitative quotations of the situation and a complete lack of metrics and indicators. Due to these, the main enabling factor in this study is the conceptualization of a log frame, accompanied by a monitoring framework to track progress and intervene when needed. Those frameworks are going to enable each stakeholder to identify the way to contribute and clearly separate each role on the system (Vanhamäki et al., 2020). In most of the documents screened, it is clarified who is responsible for the planning and implementation of the Durana economic zone and how those hierarchies are going to communicate and apply their competencies, but this is not equivalent to data transparency, availability, and management. An additional considerable issue here is the inconsistency of data between different sources, which complicates the situation even more. Data availability is thus a serious impeding factor. The convenience of planning different territorial strategies and CE strategies can be effectively integrated, but when it comes to implementation, there are some complicated issues taking place. This region belongs to the NUTS 2 nomenclature, and in some divisions, the concept of "region" needs to be properly aligned to build up the frameworks. Here, it is worth adding the McDowall et al. (2017) argument that scale and space need to be clearly defined.

There is harmonization in general and local plans, which is a good indicator, and at the same time, there is a range of flexibility in those policies, which may be an enabling factor for better incorporation of CE policies. This flexibility may

be translated into a shift to the new paradigm if properly incorporated and sheltered. Authors like [Bezama et al. \(2019\)](#) and [Sutcliffe and Ortega Alvarado \(2021\)](#) point out that regional clusters and networks are enablers for such transitions, and the fact that such incorporation is done may naturally create a platform of collaboration facilitating and enhancing the CE in the Durana economic zone. Inevitably, the role of institutions is crucial in the transformative process, and as [Henrysson and Nuur \(2021\)](#) state, they may serve as both impeding and enabling factors at the same time. There must be the will, and there must be the quality of institutions that create the adequate environment for a paradigm shift, because, as the theories of development state “development is related to the quality of the institutions and the early rule of law”. This work analyzes CE incorporation as a whole, and as such, at no point did it not reach a balanced result between the social, economic, and environmental dimensions. Due to this, an equal representation of the three dimensions would be the real enabling factor of the CE strategy.

4. Conclusions and recommendations

4.1. Conclusions and main contributions

This study is a comprehensive analysis of the level of incorporation of sustainability issues in general and specifically of the circular economy in the spatial territorial planning process undertaken by the Albanian government after the 2014 territorial reform, which came into place as an emergent need and as a directive that is a must for EU integration. It takes into analysis a real case from Albania listed among the main components of the territorial reform, the case of the Durana economic zone, which aims to be transformed into a space that supports competitiveness in the creation of economic clusters. It is based on the principle of a closed cycle, where the wastes of one process are used as resources for another consecutive process.

The study has come up with some very interesting findings: after the long lasting transition in Albania which is also currently taking place, the 2014 territorial reform is among the very crucial developments of the country; when we analyze the case of DURANA for sure we can say that there is high level of harmonization between the general and local plan regarding the planning phase but when it comes to implementation phases there are some slight change on it; despite this harmonization and coordination between the two spatial plans when it comes into practice there is a weak collaboration and integration among the municipalities that compose the DURANA zone; the main problem which is faced in the implementation of the plan is the presence of large informal areas and the absence of land ownership; creation of this economic zone is considered an asset to Albanian development, it has started to give its first outcomes but it is a relatively short period to have the right impact on the regional development and the overall development. Transformation toward CE is a long-term perspective and requires deep systemic change, and especially for proper implementation, it is very important to have a very good harmonization of the local and central action policies. Stakeholder integration in the process is a prerequisite for its successful implementation, and for developing countries, the role of academia is crucial for the initiation of the process.

This work may contribute to the CE field in several ways since it is linked to many important concepts such as territorial spatial planning, regional economy, cluster activity, and economic zones. Additionally, the integration of CE into those concepts is considered a whole concept, not any particular dimension of it in isolation, which makes it harder but more sustainable itself. Many sustainability initiatives are very well planned, but the results during the implementation phase have not been as projected, and in this regard, this work brings an assessment of both phases of such a paradigm shift.

4.2. Main implications

The results reveal several dimensions explored for CE incorporation, but as continuously emphasized during this and other studies, most of the specifications are context-dependable, which makes them hard to generalize. There are many documents that need to be screened, some of them overlapping and others diverging in other directions, which implicates the synthesis.

4.3. Recommendations

4.3.1. Recommendations to the policy makers

Generally, strategies and laws should be harmonized with other national and EU ones. What is evident is that public bodies generally set some qualitative metrics without detailed specification of the respective quantitative data on progress and the extent to which the objectives are achieved. There must be the framework built up and the monitoring mechanism for it, accompanied by the proper data availability mechanism, transparency instrument, and management policy. The work has listed institutions as both enabling and impeding factors for the CE shift, and in this regard, institutions must play a crucial role in the proper integration of the stakeholders, with a clearly defined role for each of them, and make needed interventions on a research basis. Emphasis should be given to “good governance”.

4.3.2. Recommendation to practitioners

CE shift is considered a mix of approaches between the bottom-up and top-down approaches. As such, practitioners should also be the pioneers of some good examples and present them for any policy revision. Generally, it is identified as a low exploitation of international opportunities (trainings, funding sources, project implementations, etc.), which means there are vast opportunities for all, which are translated into economic, social, and environmental development for all the stakeholders.

4.4. Research limitation and future agenda

This is a content analysis, and some subjective judgments may be inevitable, but this one cannot undermine the quality of the data assessed as it presents the veracity of data from different sources and collected from different instruments. The economic zone selected is of special priority, and the results are expected to be more quickly achieved and identified, which may not be the case for other areas of NUTS 2 regions but may serve to establish benchmarks. The study is limited to one case, and indicators are easy to interpret. For any further, deeper analysis, specific dimensions of CE must be targeted, and quantitative indicators must be revealed. The results of the study provide a deep insight into the perspective of development and a proper intervention on the process of territorial development, and in this context, there is always room for improvement. For any further work, there are a wide range of issues to be developed, starting from considering a specific dataset for any of the clusters, adding additional stakeholders to the study, or identifying which sector accelerates the process.

CRediT authorship contribution statement

Kriselda Sulcaj Gura: Conceptualization, Literature review, Methodology, Data curation, Analysis, Writing – original draft, Review & editing. **Elvira Nica:** Writing – review & editing, Literature review, Data curation, Formal analysis, Data analysis, Writing – original draft, Draft – writing. **Tomas Kliestik:** Writing – review & editing, Literature review, Methodology, Data curation, Formal analysis, Data analysis. **Félix Puime-Guillén:** Writing – review & editing, Literature review, Data curation, Validation, Formal analysis, Data analysis, Reviewing.

Declaration of competing interest

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Data availability

Data will be made available on request.

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