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Inner Areas Regeneration and the Circular Economy Model

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The multidimensional impact of Special Economic Zones in Campania Region. The TIA tool for land economic evaluation

L'impatto multidimensionale delle Zone Economiche Speciali nella Regione Campania. Lo strumento TIA per la valutazione economica del territorio

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ABSTRACT AND KEYWORDS

The multidimensional impact of Special Economic Zones in Campania Region
Special Economic Zones (SEZs) in Campania, introduced in 2018, are a beneficial opportunity for territorial economic development. Externalities are still being defined, as SEZs are still being launched and defined. The first surveys on SEZs start from the research promoted by 'Regione Campania' in 2019 on the role of SEZs, assessing their territorial, economic, judicial and transportation externalities. This study takes up in part the results that emerged from that research to offer an analysis on the impacts that policies and interventions can have on Campania as a consequence of the intervention of additional measures offered by 2019 supported by PNRR funds. For this purpose, the paper aims to analyze the Territorial Impact Assessment (TIA) tool, proposed by ESPON, qualitatively on the areas that may be most affected by policy impacts.

Keywords: Special Economic Zones, Campania, Territorial Impact Assessment, land economy

L'impatto multidimensionale delle Zone Economiche Speciali nella Regione Campania
Le Zone Economiche Speciali (ZES) in Campania, introdotte nel 2018, sono un'opportunità vantaggiosa per lo sviluppo economico del territorio. Le esternalità si stanno ancora definendo, poiché le ZES sono ancora in fase di avvio e definizione. Le prime indagini sulle ZES partono dalla ricerca promossa dalla Regione Campania nel 2019 sul ruolo delle ZES, valutandone le esternalità territoriali, economiche, giudiziarie e trasportistiche. Questo studio riprende in parte i risultati emersi da quella ricerca per offrire un'analisi sugli impatti che le politiche e gli interventi possono avere sulla Campania in conseguenza dell'intervento delle misure aggiuntive offerte dal 2019 sostenute dai fondi del PNRR. A tal fine, il presente articolo si propone di analizzare qualitativamente lo strumento di Valutazione dell'Impatto Territoriale (Territorial Impact Assessment - TIA), proposto da ESPON, sulle aree che possono essere maggiormente interessate dagli impatti delle politiche.

Parole chiave: Zone Economiche Speciali, Campania, Valutazione di Impatto Territoriale, economia del territorio

1. Introduction

The southern areas of Italy, and in particular Campania, like many other regions of the Mezzogiorno has been affected by considerable attention on the adoption of investment and socio-economic recovery policies. In the wake of other developing country governments, it is interested in adopting some aspects of the successful approach adopted by China for port and port-adjacent areas, which in the case of China since 1978, and in no other area of development, such investment has been more evident than in the creation of special economic zones (SEZs) for the purpose of experiencing rapid industrialization (PwC, 2019; Ambrosetti, 2021; Arbolino et al., 2022). There are about 3500 SEZs in the world. However, the phenomenon of SEZs in Campania remains under-explored and insufficiently understood. There is little knowledge of the specific processes involved in the spatial planning and development model, linked to the economic and production system, the results of such replication for structural transformation and development, making it difficult for administrations and researchers to effectively grasp the lessons to be learned by launching SEZs in Campania. Many studies address social welfare, investment and economic development improved/promoted through the establishment of SEZs, but much empirical research are ex-post in origin evaluating how and when investments have changed areas, evaluating the increase in jobs, exports, evaluating the cost-benefit ratio. In this brief review article, we take a first step to fill this gap by asking the following question: how can SEZs be an engine for promoting values in Campania, what does the available literature tell us about the convergence of spatial planning and economic development actions to generate effective and positive results for Campania?

Recent investments in the development of the Mezzogiorno have encouraged the establishment of Special Economic Zones. In line with these developments, research and the governance system are also interested in adopting some aspects of the successful, innovative, and still experimental approach, and nowhere has this been more evident than in the creation of Special Economic Zones (SEZs) for the purpose of piloting rapid industrialization in the Mezzogiorno. Italy's and the Mezzogiorno's interest in creating a southern economic model is motivated by the ambition to recreate some of the successes of SEZs as abroad (such as those in China, or Poland). Among foreign countries certainly China is probably one of the best-known examples of countries using space-focused programs by establishing the first special economic zones (SEZs) in the 1980s.

China's SEZs that began in the 1980s today are a sign of strong economic growth, both inland and in ports. The evolution of the Chinese economy has involved numerous technical sectors and the induction of railway development. The Italian SEZs and in particular those of Campania, which are still in early stages, are showing a non-integrated system of evolution in which each region moves autonomously. At present, the Campania SEZs have not yet adopted a production location as the foreign SEZs have planned. However, there is a big difference between the two countries in terms of production and GDP. While China has benefited from SEZs, Italy, which has focused on the Mezzogiorno almost six years after the introduction of the first SEZ, still does not provide a firm picture of the growth and employment position created by SEZs.

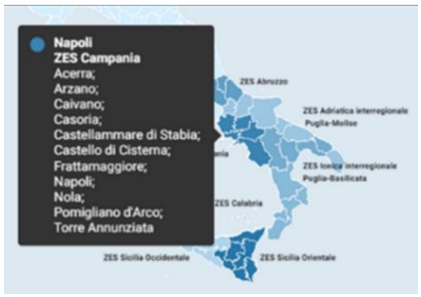
Campania's SEZs are focusing strongly on companies, production and infrastructure redevelopment, while they have not made any major effort related to the social and environmental value of the area in which they are located. The Adriatic SEZs, for example, are also launching investments in urban regeneration, as are the Sicilian SEZs, which seek to reconcile economic production and the regeneration of urban

spaces.

Later, free zones linked to port areas existed in Italy, but it was in 2017[1] that SEZs were launched in the Mezzogiorno. The Campania Region has identified about 30 (Figures 1- 4) areas during the definition process: more than 70 percent of the SEZs are located at industrial agglomerations managed by ASI Consortia and industrial agglomerations located in inland areas, while the rest involve port and inter-port areas. The thirty areas constituting the Campania SEZs are listed in the Table below (Table 1).

While the interlands are characterized by a long tradition of business establishment and adequate infrastructure endowment, as well as a natural vocation to attract both greenfield - based on the creation of ex novo facilities - and brownfield - when the activities consequent to the investment take place in existing facilities, the industrial agglomerations located in the inland areas suffer from a lack of connections to the port system, and this difference is more or less visible in some areas rather than in others. Representing the territories most affected by the industrial crisis, their inclusion in the SEZ area can represent an opportunity both in terms of strengthening infrastructure connections with the Campania logistics system and revitalizing the industrial sector. The analysis of the Campania and Italian context allows considerations to be made about the possibilities for strategic choices planned over time. In the short term, measures are still being implemented and need to be studied with a sufficiently long-time horizon. In the long run, scholars who have analyzed SEZs worldwide predict two possible outcomes of SEZs. The first is economic growth that requires supply and transportation chains and, most importantly, capabilities and lessons learned from surrounding innovators.

Figure 1. SEZs Naples areas



Source: Author's elaboration from Agenzia per la coesione, 2018.

Figure 2. SEZs Caserta areas

Source: Author's elaboration from Agenzia per la coesione, 2018.

Figure 3. SEZs Avellino

Source: Author's elaboration from Agenzia per la coesione, 2018.

Figure 4. SEZs Salerno areas

Source: Author's elaboration from Agenzia per la coesione, 2018.

Table 1. 30 main SEZs areas in Campania

Type of areas	Town	Land ext. (ha)	City Province
Ports	Naples	158	Naples
	Salerno	38	Salerno
	Castellammare di Stabia	25	Naples
Interports	Sud Europa Marcianise/Maddaloni	348	Caserta
	Campano	155	Caserta
Airports	Naples Capodichino	53	Naples
	Salerno-Costa d'Amalfi	20	Salerno
Industrial agglomerations	Acerra	298	Naples
	Arzano-Casoria-Frattamaggiore	162	Naples
	Caivano	291	Naples
	Foce Sarno	206	Naples
	Marigliano – Nola	297	Naples
	Pomigliano	308	Naples
	Calaggio	36	Avellino
	Pianodardine	294	Avellino
	Valle Ufita	237	Avellino
	Ponte Valentino	113	Benevento
	Aversa Nord	294	Caserta
	Marcianise – San Marco	550	Caserta
	Battipaglia	340	Salerno
	Fisciano – Mercato S. Severino	168	Salerno
	Salerno	356	Salerno

Industrial and logistics areas	Bagnoli Coroglio	32	Naples
	Napoli est	168	Naples
	Piattaforma contrada Olivola	41	Benevento
	Area PIP Nocera Inferiore	55	Salerno
	Area PIP di Sarno	95	Salerno
	Area PIP Nautico di Salerno	8	Salerno
	Castel San Giorgio	2	Salerno

Source: Author's elaboration (2023) on Regione Campania (2018).

Analyses on SEZs allow many elements to be interwoven and measures of entrepreneurial innovation and widespread eco-innovation tools to be assessed.
The secondary purpose of SEZs is to push the Mezzogiorno to become one of the great logistics hubs of the Mediterranean, with the specific goal of opening Italy to trade with the emerging economies of the Middle East and North Africa. This ambitious strategy only reinforces a century-old vocation that has always seen southern Italy as the heart of the Mediterranean. Already, the South has nearly 14 billion euros of trade with Mena Area countries, accounting for about 20 percent of total Italian exports to this region. Consequently, Special Economic Zones represent a great opportunity for our challenges.

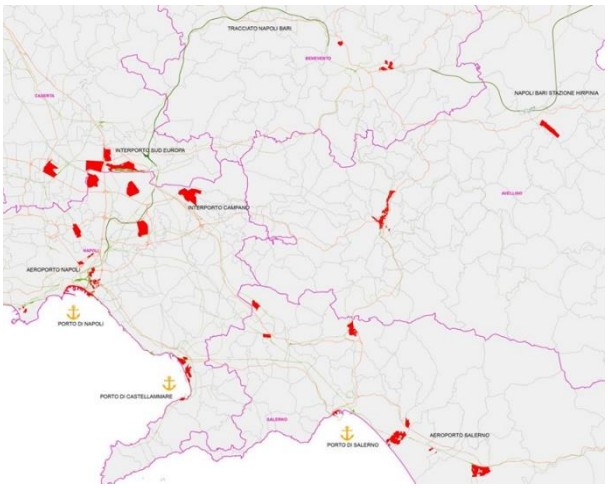
1.1 The territorial economic development of Campania Region

The development of SEZs has been a key element of the reform and opening of Campania in 2018, allowing the economy destabilized by few investments and unconnected clusters as in Northern Italy to gradually interact with the national and global economy and think about the establishment of foreign investment.
Almost by default, the literature on SEZs, for the Italian sector, is limited to administrative, legal, and business development discussions. Similarly, much of the literature on foreign SEZs focuses on SEZs and reform and economic development. Researchers and communities have maintained an active interest in promoting the South in many respects, but it is noticeable that there is a lack of linkage in some disciplines, especially when the interest of economic development and the interest of strategy analysis need to be brought together to define plans and programs for community, citizen involvement. The launching of SEZs is an active and developing tool, but in defining programs, the focus is mainly on business revitalization and revitalization of spatial and infrastructural connections. While foreign SEZs, such as those developed in Poland (Jensen, 2018), and those in China have often been developed as entire cities (Zhao and Zhang, 2007), Southern Italy's SEZs were born on the concept of connected industrial parks encompassing a vast territory that encompasses cross-cutting and contrasting functions and values (Campania Region, 2018). The weak results of previous policies have gradually contributed to lowering the focus on the Mezzogiorno. In fact, it is not a question of incentives: it is necessary to have a broad vision of the role and future of the Mezzogiorno.
The creation in [2]2017 (Decree Law No. 91 of June 20, 2017) of Special Economic Zones or SEZs near the main port areas in southern Italy was a remarkable step. It is not, in fact, a "port-franchise," or simply "tax-free " areas, but a tool that has the priority objective of giving a real boost to the development of the Mezzogiorno and, by extension, the entire country. The DPCM clarifies that the SEZ is usually composed of territories such as ports, retro-port areas, including productive and airport areas, logistics platforms and Inter-ports. Decree Law No. 91 of June 20,

2017, converted with amendments by Law No. 123 of August 3, 2017 (GURI Serie Generale No. 188 of August 12, 2017) and subsequent amendments, as part of urgent interventions for economic growth in the Mezzogiorno, provided for and regulated the possibility of establishing Special Economic Zones (SEZs) within which already operating, or newly established businesses can benefit from tax breaks and administrative simplifications. With the Prime Minister's Decree of January 25, 2018, the Regulation for the establishment of Special Economic Zones (SEZs) was adopted (GURI General Series No. 47 of February 26, 2018). By the Decree of the Director General of the Agency for Territorial Cohesion No. 69/2022, the complex project "Supporting SEZs" was activated, which also provides for the suppression of the Support Secretariat referred to in the Decree of the Director General No. 11/2021.

The strategy is to equip our industrial system with essential advantages to then be able to face international markets, overcoming that "competitiveness gap." The Strategic Development Plan[3] identifies 6 business sectors to be promoted and strengthened: transportation means; food; metals, equipment, and electronics; chemicals; clothing; and wood and furniture. These sectors cover only a minority of Campania's manufacturing firms (31 percent) and their employees (33 percent), but they cover almost all (92.5 percent) of the region's maritime exports (Figure 5).

Figure 5. SEZs area in Campania Region



Source: Regione Campania, 2018.

The territorial analysis started from the areas referred to in DGR 720/2016, which already contained the identification of the main industrial and logistics areas in the region, connected with the two ports of Naples and Salerno, involving local administrations and stakeholders in an informed and shared process that largely confirmed the territorial choices made in the initial proposal. The choice was made according to a logic that considered the importance of the links between the ports and the back-port areas, as an economic-functional link with the main logistics and industrial hubs of the entire region, within the dimensions set by the DPCM for the Campania SEZs. The Campania SEZs is realised in an integrated logic involving EU and national resources, involving the three port cities of Campania. Today SEZs are supported by the PNRR Recovery Plan financed with 630 million € for infrastructure investments to be part of the Trans-European TEN-T network, with the addition of

an allocated 1.2 billion euro for the ports of the Southern Italy known as "Mezzogiorno".

1.2 Port areas between means for economic development and territorial impacts

SEZs highlight the connection between economic development, port areas and the search for a system of actions to implement integrated spatial planning. Closely connected with SEZs is port competitiveness, in relation to the analysis of infrastructure supply, companies and maritime traffic. Studies still in the literature on Naples's port areas offer a perspective between the morphological relationship of the coastline and infrastructure, while the search for values in the continuous system represented by SEZs should be emphasized. It is precisely the SEZs, in their complex and totalitarian role, that represent a potential capacity to analyze spatial planning processes, focusing on actions (Mazzeo, 2009) to revive the territory. Before the emergence of SEZs, port areas, as in China, increased the economic and welfare disparity of coastal cities, fostering a social and landscape disconnect.

In recent years, the planning directions proposed by the Port Authorities of Central and Southern Italy have been remarkable and represent potential for the competitive development of Southern Italy and Campania. Within the framework of development policies regional development policies for the Mezzogiorno, the maritime economy represents a still highly underutilized potential for competitiveness (Galletta et al., 2019; Pigliucci, 2018a).

Southern Italian regions have been the subject of numerous studies to assess the macroeconomic effects of policies. Part of the analyses conducted concern regeneration policies, for which there is a need driven by European directives (De Toro, 2021); and port areas (Mezzogiorno study), which generate on the territorial economy the competitive position and assess the market positioning of the South in the Mediterranean. The issue of management complexity between port, urban and inland areas in assessing economic and environmental development has been addressed among others by Svimez (SVIMEZ, 2021), which highlighted how the main element of fragility capable of undermining the potential competitiveness of the port system south has so far been the strong competition among Italian port authorities, which - lacking a strategic and systemic vision - have tried to act individually. This internal competition has also led to an important waste of resources allocated to infrastructure works aimed at a competitive advantage over neighboring ports, often without taking into account the potential related to the physical conformation and geographical position of the terminals and without the justification of an actual market demand. The emergence of SEZs, therefore, is a long-range and wide-ranging opportunity to unite key corporate social adhesion policies and synergistically combine the decisions of major stakeholders. The new policies put in place with the adoption of SEZs demonstrates the need to work primarily on the administrative machine, as suggested by foreign evidence and identified in the literature.

As in the case of territorial development policies, the main problem in the development of the Mezzogiorno and so, of the area related to Campania turns out to be the inadequate quality of the administrative machine and the weakness of institutional capacity (Pigliucci, 2018a, 2018b).

1.3 Purpose of this paper

Based on the research completed in 2019 (D'Auria et al., 2019), the contribution aims to address the SEZs of the Campania Region, the potential value for sustainable territorial development, and present a picture of the territorial context through the

definition of indicators to identify potential and vulnerability in relation to the territory and the cognitive framework of the territorial context through the qualitative definition of aggregate indicators.

In summary, our study adds the following novel perspective to the field of literature: (1) Provides a comprehensive overview of SEZs in Campania, and discusses the effects of SEZs, building on previous studies and extending the evaluation assessment methodology to strengthen decision-making and apply it to spatial economic contexts for high-impact instruments such as SEZs. (2) Provides empirical evidence to support the idea that spatially targeted policies can have different outcomes in different regions.

The essay is structured as follows. The following section presents key findings from related literature. SEZ policy is covered second session, while TIA and empirical methodology are discussed in the third. The fourth part presents the conclusions.

2. Literature review

There is a large body of literature discussing the potential social and economic benefits of SEZs. On the one hand, SEZs have been found to promote structural transformation, inclusive growth, and economic development and connecting economies to global value chains. They have the potential to generate significant employment, particularly in labor-intensive manufacturing, and to facilitate industrial upgrading through technology and know-how transfers.

Evidence in the literature also indicates that the overall effectiveness of SEZs in achieving these benefits is disputed and did not gain uniform consensus. Some critics argue that SEZs generate unequal benefits, such as expanding business, employment, and development opportunities for some stakeholders who benefit from SEZs' favourable legal regimes, while associated land expropriations and other income and livelihood losses affect the poor and most vulnerable groups in society.

Although it is believed that the establishment of development zones promotes regional economic growth (Sun et al., 2020), whether it improves land use efficiency and relations on the environmental sector has not been thoroughly studied. Most of the existing literature has focused on the economic effects of development zones, while little attention has been paid to their environmental effects. Yu and Wan (2020) take a different approach, linking environmental value to strategic and innovative goals. As a combination of innovation and environmental benefits, urban green innovation is likely to become an effective tool for local governments to compete in a system of fiscal decentralization. On the one hand, local governments hope to attract more investment and talent through redevelopment while pursuing regional economic growth goals and reducing political burdens. Meanwhile, as a combination of environmental protection and economic development, green innovation activities are considered an important strategy for achieving sustainable development. Accordingly, in achieving the goals set for selecting areas for SEZs, local governments will promote urban green innovation through various policies to increase the likelihood that areas will be redeveloped. Another important context is the role of sustainable planning within the economic-productive development framework and environmental value (Huang et al., 2020)

Environmental regulations and their enforcement may be more relaxed within areas designed to attract investment, resulting in increased pollution and environmental degradation. These and other problems, often caused or exacerbated by poor planning and governance in the process of establishing and implementing SEZs have led to controversy and protests in many SEZs.

Therefore, it is in the aim of this paper to offer an environmental perspective for the implementation of SEZs that is not purely economic but considers the planning and stakeholder engagement processes by activating inclusive governance. Programs and strategies by promoting the economy and spatial development, aim for spatial growth in public policy. Such programs, as has been the case in many countries, have the main purpose of influencing the locations of economic activities, thereby inducing changes in the spatial sector, tightening connections among stakeholders, and pushing the focus of decisions on environmental issues as well. SEZs in Campania (and the Mezzogiorno) are part of this context of innovative programs that southern Italy has received and is continuing to experiment with. The emergence of these development programs, however, are focused on the financial and productive economic sector, concentrating on tax-type incentives for small and medium-sized enterprises, and facilities to produce in the areas delimited by SEZs rather than in other areas. The benefits expected and intended by these spatial programming to which the policies are directed is very much aimed at the economic side, but little remains in terms of cost-effectiveness on spatial impact. In this context many papers in word-wide literature have studied the effects on regional and local economies, but there is few knowledge for Italy.

Scholarly interest in place-based policies has grown. The available studies differ in terms of outcome measurement, spatial unit, modelling approach, and policy success conclusions. Only a few authors have focused on the relationship between economic zone effectiveness and beneficiary territory features (Cypher & Dietz, 2009; Schrank, 2008). In this perspective, the contribution of SEZs is part of strengthening the literature by connecting economy and territory, linking the value of infrastructure, and analysing such programs under the lens of decision-making.

SEZs also aim to reduce existing regional inequalities, which in other countries such as China have been studied by others with different methodological approaches. This was done to better understand the issue through a quantitative rather than qualitative approach (Crane et al., 2018). When regions with and without development zones were compared, it was discovered that development zones were more advantageous as a place-based industrial policy in terms of economic development and attracting foreign investment. Some of these studies have argued that the establishment of development zones will produce selection and agglomeration effects, which will not only significantly expand the production scale of enterprises within the zone, but also increase the total factor productivity of surrounding enterprises; however, this spillover effect decreases with increasing zone distance and increases with increasing zone density. A further aspect of the research found that the institution of development zones achieved agglomeration economies and helped to increase the size of cities, FDI, and exports, and thus this policy effect expanded over time.

As is evident, although most studies assert the positive impact of development zone policies, they do not reach a consistent conclusion, and this paper argues that this disagreement is due to existing studies ignoring the role of policy selection (Yu & Wan, 2022).

2.1 SEZs and impact on land use

Three types of policies have been implemented to motivate firms to invest in China's development zones (Wang, 2013). The first type relates to the protection of private property rights. Local governments have officially declared that firms' assets, accrued profits and other property rights in development zones are protected. This is a critical commitment from local governments because, prior to a constitutional amendment in 2004, China gave no constitutional protection to private property

rights outside development zones (Wang, 2013). The most important policy may be that associated with the protection of land use rights. Because industrial land in development zones has been largely expropriated and is now owned by the state, it is safer for foreign and private firms to invest in development zones. The second type of policy pertains to tax incentives. Foreign investors in development zones are generally promised a reduced corporate income tax rate of 15–24%, while firms outside development zones face a corporate income tax rate of 33% (Wang, 2013). In most cases, the former enjoys duty-free allowances and pay zero customs duties for exports. Local governments usually grant income tax exemptions to firms located in development zones. There are additional tax credits for firms in development zones, which in turn raise firms' profits and enhance their investment incentives. The third type of policy focuses on land use. In development zones, firms can not only gain land use rights quite easily but also transfer, lease or mortgage these land use rights under certain conditions. Foreign firms in development zones that obtain land use rights for a period of more than 15 years pay no land use fees for the first five years and only half of standard land use fees for the following five years (Wang, 2013). Several studies encourage policymakers to concentrate on six aspects of special economic zone planning: the type of zone to be designed, the policy framework, the incentive structure, the regulatory framework, the institutional framework and physical development, and zone administration (Böhmer and Farid, 2009).

Zheng (2016)'s work highlighted the prospect of receiving multiple benefits from SEZs, categorizing them into two categories: social benefits and economic benefits. Furthermore, potential externalities may result in direct benefits:

1. employment creation and growth;
2. a rise in exports;
3. greater presence of company innovations and start-ups linked to SEZs revenues.

According to Zhen (2016), a portion of indirect benefits include:

4. improvement in technological knowledge skills updating innovation and technology diffusion;
5. productivity and economic diversification local business development;
6. enhanced competitiveness in the interregional and Mediterranean markets.

Further, potential benefits can be identified if SEZs adopt innovative tools for environmental integration such as:

7. green logistics processes;
8. reverse logistics;
9. circular economy of productive sectors;
10. reduction of pollution of GHG emissions;
11. protection of coastal areas;
12. socio-cultural integration between the production and housing sectors

3. SEZs Policies and strategies in Campania Region

In accordance with the most recent national and European guidelines, the interventions planned for the employment and productive growth of Campania's SEZs focus on the productive factors of development, in a logic of enhancing best productive practices and strategic supply chains, driving forces for the reference territory. The industrial plans of the area are based on national strategies and integrate with the government's economic policy choices, hence boosting chances for Campania Region. The goals of these industrial policies are to maintain the region's high growth rate, a tendency to close the gap that expanded during the crisis

years, a significant increase in employment levels, and the competitiveness of the entire Campania economic system.

The actions promoted by Campania Region within SEZs to be implemented will aim to:

a) attract and support large-scale investments;
b) support initiatives of an integrated nature, both logistical and production, in order to create the system connections required for the internationalization of the Campania economy;
c) support the development of business systems and subsystems that, in a supply chain logic, allow the enhancing and/or redevelopment of local productive pre-existences, in addition to the development of economies of industrial specialization capable of leading to productive agglomeration and the realization of innovative and complete products;
d) support pilot projects that trigger structural changes in the areas' production systems in relation to one or more technological domains.

Table 2. Manufacturing sector for SEZs development

Manufacture sector	n° of firms	Local employees	Average local employees	Firms (% of regional tot)	Local employ (% on region tot)	Export maritime (€ 2016)	Export maritime (% on reg tot)
Mmanufacturing sector for SEZs development	16,163	9,9120	6.13	31.2	33.36	3,558,098,726	92.52
Transport modes	273	10,905	39.66	0.53	3.67	65,0239,526	16.91
Food chain	5445	31,298	5.75	10.55	10,53	148,6126,050	38.64
Metals machinery electronics	4,874	27,442	5.63	9.44	9,24	952,607,673	24.77
Chemist	821	8,879	10.81	1.59	2,99	234,721,116	6.1
Clothes production	2,419	13,621	5.63	4.69	4,58	202,747,662	5.27
Wood and furniture	2,329	6,975	2.99	4.51	2,35	31,647,699	0.82
Other sectors	35,444	99,120	5.59	68.68	66,64	28,7840,971	7.48
TOT	51,607	287,123	5.76	100	100	3,845,930,697	100

Source: Authors elaboration on Strategic development plan SEZs Campania, 2023 on ISTAT Data (2016) sort by ATECO 2007 classification.

In collaboration with other spatial planning areas, it provides for:

1. attracting new productive investments, both industrial and logistical, with the goal of regaining a fully competitive structure and realizing an advanced industry ecosystem;
2. establishing supply chains, aggregations, and formal networks of Micro and SMEs in the territory capable of fostering coordination among pre-existing players;
3. the encouragement of creative productive investments for the redevelopment and

industrial reconversion of local production pre-existing, or the development or attraction of new entrepreneurial entities able to fostering the diversification of the areas' production systems;
4. The functional recovery and energy efficiency of existing production units or dismissed;
5. the redevelopment or creation of the infrastructure for the development of the production in the areas concerned, including through the use of innovative instrument;
6. the use of traditional and innovative such as those of alternative finance for development, to support the dimensional growth and competitiveness of enterprises.

The main sectors of interest for the SEZs that can take advantage of the policies are expressed in Table 2.

3.1 *Incentives for SEZs development*

To enhance the investment capacity of companies operating in SEZs, regional governance has evaluated and is still in the process of defining main and alternative financial instruments. Among these measures, some are of a fiscal nature, others of a customs nature, to speed up procedures concerning duties and VAT. With regard to the industrial sector that can have an impact on the territory and on the landscape and environmental components, there is the shipbuilding sector that thanks to the SEZs, in the port areas the companies of the sector find a suitable location, on the other hand, the governance is working on discounts and rewards.

- *Tax credit measure*. The purchase of land for activities will be facilitated, as well as the purchase of a buildings for manufacturing processes, and the expansion of an instrumental property that falls within a SEZs area. The property can also be acquired through a financial leasing contract.
- *Hyper-depreciation measure*. Another incentive for early investments is the accelerated depreciation, which has been prolonged and remodulated by the 2019 Budget Law. (Law 30 December 2018, n. 145). Some SEZs regions may overlap with Urban Free Zones (ZFU), a strategy designed to encourage the growth and revitalization of urban degradation areas.
- *Further incentives*. Further incentives, of different nature and granted in various forms, can be approved and introduced by the individual Regions through the Regional Operational Programs (POR) and through specific regional measures; for example, with the regional law of 31 March 2017, the Campania Region established the granting of a contribution, equal to up to 100% of the IRAP paid, to companies that build a new production site in the region. The Guarantee Fund for SMEs, an instrument established by Law no. 662/96 and operational since 2000, the purpose of which is to facilitate access to finance by small and medium-sized enterprises, through the granting of a public guarantee which accompanies and/or it replaces the real guarantees presented by the companies.
- *Regulation on free zones*. Free zones are closed and clearly defined places with entrance and exit controls that are not considered part of the European Union's customs territory. Non-European items entered a free zone are so exempt from VAT and customs taxes because they are not deemed imported. VAT and taxes will eventually have to be paid if these commodities are imported into the customs territory of Italy or another EU country.

In the context of the PNRR, the direct procedure for a Special Economic Zone (SEZs) has been launched through the dedicated Single Digital Desk.

4. Methods and tools

To identify the dynamics of the policies in the SEZs, this article proposes an analysis of the current territorial development plans in Campania, to identify the development policies and the application of the TIA.

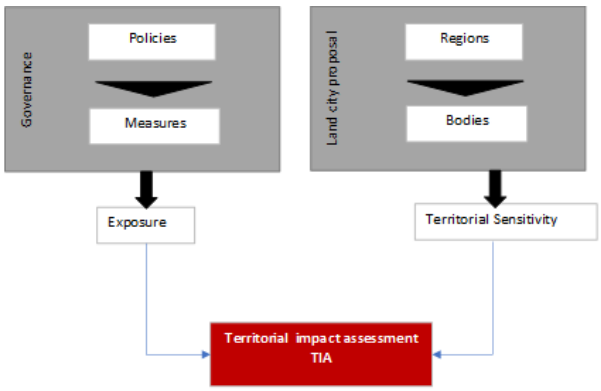
4.1 Territorial Impact Assessment

Several TIA methodologies have emerged, especially in the last two decades. The ESPON program has had an important impact in this regard, promoting the creation of TIA methodologies at the European level through several projects.
Legislation, policies, and directives influence territories different ways depending on their heritage, culture, socioeconomic, demographic, spatial, and environmental factors. Territorial impact assessments (TIA) aim to enhance the comprehension of these differences and to support evidence-based policy and decision making. The TIA is analyzed by many authors (Medeiros, 2020, Espon 3.2, 2006) in recent decades, but it remains little explored in the literature.
This tool as an ex-ante territorial impact assessment method is designed to illustrate potential effects of legislation or policy, based on the vulnerability concept, which combines qualitative judgments about the effects of a policy ("exposure") with quantitative data about each region's susceptibility to those effects ("sensitivity") to calculate territorial impact patterns in the fields of economy, environment, society, and governance. This method can be developed for a variable dataset to achieve validity of assessment methods, as well as consider the spatial heterogeneity of the study areas and in line with the EU, with targeted policies with decision costs/timing. The TARGET_TIA method can be used in both ex-ante and ex-post circumstances, with one important difference. Ex-ante assessments only employ qualitative data, but ex-post assessments use both quantitative and qualitative data.

4.2 TIA for SEZs evalutations

To assess the intensity of the potential effects of the SEZs for evaluating the potential 'regional impact' by applying TIA approach as follows (Figure 6).
The ESPON TIA TOOL was developed in stages. Typically, this tool is accompanied by a workshop phase, which we estimated ran from 2019 to 2020 as a result of the initial portion of the research. The policies and measures were then determined, together with the corresponding areas of interest and components.

Figure 6. TIA Assessment framework



Source: Authors'elaboration, 2023 on ESPON framework.

The 2019 research (D'Auria et al., 2019) demonstrated the potential territorial consequences by identifying prospective environmental indicators for governance. The stakeholders (universities and related sectors) recognized potential linkages and weaknesses of the tax instruments because of this research (D'Auria et al., 2019). Steps 1-4 in Chapter 4 describe how to collect the right and left side of Figure 6. The exposure portion is qualitative, and the territorial vulnerability analysis is quantitative for this preliminary evaluation, owing to the usage of the Espon Tool. Based on the Espon model, their combination allows for the identification of The analysis of territorial impact assessment is generally related to the analysis of the impacts of policies on territorial development or trends in territorial cohesion.

Appropriate indicators must be chosen to investigate the potential consequences mentioned in the conceptual model, as they relate to the requirements specified in the fields of:

- Governance.
- Economy.
- Infrastructure.
- Society.
- Environment.

In the decision-making process for developing SEZs, several crucial elements such as location, connectivity, labor force, industry appropriateness, incentives and facilitation, and market orientation are important. Furthermore, environmental conditions and resource availability must be considered in the planning and policy making procedures to ensure symmetry in the natural environment and ecology of the areas under consideration for SEZs.

The preliminary territorial implications for TIA application, is based on the following fields of impacts:

I. Based on economic factors, potential geographical impacts for economic and society sectors:
   a) Economic growth (GDP/capita).
   b) Occupation in industry and construction.
   c) Employment in high-tech and knowledge-intensive industries.

II. Territorial implications based on sociological indicators:
   d) Educational entertainment for those aged 30-34, as well as tertiary education (levels 5-8).
   e) The rate of unemployment.

III. Governance indicators are listed as follows:
   f) Possibility of enhancing government service quality and accountability.

IV. Geographical consequences based on economic indicators:
   g) Potential road accessibility.
   h) Potential rail accessibility.
   i) Potential for improving multimodal accessibility.

V. Territorial consequences based on socioeconomic indicators:
   j) Out-migration and regional "shrinking".

VI. Environmental indicators Natura 2000, protected areas, and environmental sectors:
   k) Potential for dealing with landslides.
   l) Flood sensitivity evaluate the potential impacts.
   m) Air quality.
   n) Visual landscape.
   o) Green areas and sea protection.
   p) CO_2 emissions per capita (tonnes).

5. Results

5.1 Assess territorial impacts of projects, programmes and policies

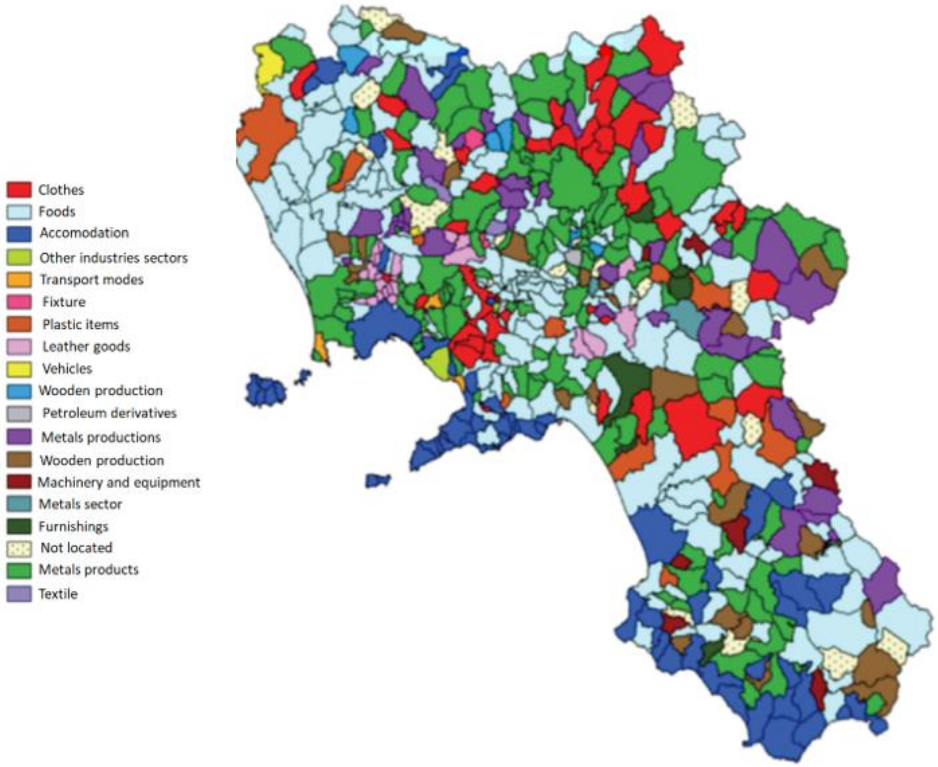
The first stage is to identify potential spatial effects considering the economy, social, environmental and governance aspects – drafting a conceptual model.

During the early stages of analysis to implement the TIA, and based on the workshop-research (D'Auria et al., 2019), the fields (as exposed in chapter 3.2) highlighted are the following:

- *Governance.* Various governance and administrative practices as revealed by the latest incentive updates are an added value for SEZs. The process of harmonization of these different measures must be addressed through the implementation of operational programmes.
- *Economy*. Economic impacts must be measured at different territorial and temporal scales (with a spillover effect), and they should be measured against employment and economic metrics growth. The economic effects could be affected by chain consequences of the regional or total Italian economic level. A positive indirect effect on improving governance could strengthen the work market in the region, thereby enabling the creation of jobs, which, in turn, provides positive economic results.
- *Infrastructure*. Programs involving SEZs could be financed for transport infrastructures; this would turn out for the better transport links that allow economic strengthening connections between border areas and internal areas.
- *Society*. Better regional connections could help SMEs expand their market areas. SMEs can be helped to work outside of the territories covered by the investment and tax relief programs. However, the benefits of governance collaboration and regional active policies are difficult to quantify. Economic development can bring renewed attention to the place of human capital and contribute to the development of language skills, cultural intelligence, and professional training of human resources in the context of eco-innovation and its diffusion. Developing these skills would increase the quality of the workforce in the SEZs zones, allowing for greater flexibility in business and production competitiveness. Investment in human capital can help generate a component of innovation for skill exchange.
- *Environment.* A potential impact on the environment that has been identified is in favouring some areas already predominantly rich to the detriment of areas with risk of degradation and abandonment. Such a danger results for the inland areas as well as the coast areas. The absence of an environmental plan or guidelines during the preparation of the SEZs but of providing tools and production facilities, makes this aspect very vulnerable compared to the others discussed. Certainly, governance cooperation requires strong environmental protections to be applied at the borders with other regions, SEZs areas (Calabria, Basilicata, Puglia, Sicilia and Adriatic areas) and with maritime areas. Furthermore, environmental resilience is linked to natural hazards and anthropological dangers that are unavailable during the decision-making process's construction phase. Short-term and long-term events, such as the effects of climate change, are examples of these implications.

The stage 2 is the identification of areas for assessment. In maintaining with the emphasis on the territorial effect on assessing the impact of potential implications the selection of area/s of study is necessary. The area selected correlates with the identification of the corporate production zones present before the installation of SEZs across the whole Campania region (Figure 7).

Figure 7. Distribution of the productive fabric



Source: Authors' elaboration, 2023 from D'Auria et al. (2019) of ATECO firms by typology.

5.2 Assess both ex ante evaluation phases

The stage 3 is the assessment of indicators to analyse the preliminary territorial impacts and the analyse all territories through the TARGET_TIA that may analyse territorial impacts at all geographical scales for Campania Region.
Likewise, the ESPON guide and Medeiros (2016) recommend that policies be analysed based on their intensity and magnitude.
The geographical components are examined in reference to the indicators specified in ESPON, as is done for the manufacturing sector with policies. Following the logic in which EU cohesion policy aims to ultimately realize territorial cohesion processes, the first step in implementing TARGET_TIA would be to identify the main dimensions and their respective components of the concept of territorial cohesion (Medeiros 2016c) to produce appropriate impact scores for each component.

Table 3. Preliminary benefits evaluation

Sign	Description
++	significant beneficial influence on territorial welfare (significant rise)
+	weak beneficial effect on territorial wellbeing (increase)
●	no effect/unknown effect/effect cannot be specified
-	minimal adverse impact on territorial welfare (decrease)
--	a significant negative impact on territorial welfare (strong decrease)

Source: author's elaboration, 2023 on ESPON 2020.

Following the design of the conceptual model, appropriate indicators were chosen in relation to the factors addressed by the experts in the disciplines of economy, environment, society, and government.
to estimate the potential effects on territorial welfare based on the following scores (Table 3).
The result of the first analysis is shown in Figure 8, which incorporates the following indicators and their relationship with the manufacturing sectors and with territorial locations to bring out contrasts between the environment and the processes.

Figure 8. Judgments of intensity of the potential effects of policies on manufacturing sector

		I. economic factors, potential geographical impacts for economic and society sectors			*II. Territorial implications based on sociological indicators*		*II. Governance indicators*	*III. Geographical consequences based on economic indicators*			*IV. Territorial consequences based on socioeconomic indicators*	*V.Environmental indicators* NATURA 2000, protected areas, and environmental sectors						
	Firms sectors	a) Economic growth (GDP/capita);	b) Occupation in industry and construction;	c) Employment in high-tech and knowledge-intensive industries.	d) Educational entertainment for those aged 30-34, as well as tertiary education (levels 5-8);	e) The rate of unemployment;	f) Possibility of enhancing government service quality and accountability	g) Potential road accessibility;	h) Potential rail accessibility;	i) Potential for improving multimodal accessibility;	j) Out-migration and regional "shrinking".	k) Potential for dealing with landslides	l) Flood sensitivity evaluate the potential impacts	m Air quality;	n) Visual landscape;	o) Green areas and sea protection.	p) CO2 emissions per capita (tonnes).	Legend
1	Clothes	●	-	++	++	++	-	++	++	++	++	++	++	++	++	++	++	Clothes
2	Foods	+	-	++	-	+	-	++	++	++	+	+	+	+	+	+	+	Foods
3	Accomodation	+	++	++	●	++	-	++	++	++	++	++	++	++	++	++	++	Accomodation
4	Other industries sectors	+	●	++	●	++	++	++	++	++	++	-	-	-	-	-	-	Other industries sectors
5	Transport modes	++	+	++	++	++	++	++	++	++	++	-	-	-	-	-	-	Transport modes
6	Fixture	●	●	++	-	●	-	++	++	++	+	-	-	-	-	-	-	Fixture
7	Plastic items	-	●	++	-	●	-	++	++	++	++	-	-	-	-	-	-	Plastic items
8	Leather goods	++	●	++	-	●	-	++	++	++	++	--	--	--	--	--	--	Leather goods
9	Vehicles	++	●	++	++	++	++	++	++	++	++	-	-	-	-	-	-	Vehicles
10	Wooden production	-	+	++	-	++	-	++	++	++	++	-	-	-	-	-	-	Wooden production
11	Petroleum derivatives	++	++	++	++	+	++	++	++	++	+	-	-	-	-	-	-	Petroleum derivatives
12	Metals production	++	++	++	-	+	-	++	++	++	++	+	+	+	+	+	+	Metals productions
13	Machinery and equipment	-	+	++	++	++	-	++	++	++	++	+	+	+	+	+	+	Wooden production
14	Metals sector	++	++	++	-	+	-	++	++	++	++	-	-	-	-	-	-	Machinery and equipment
15	Furnishings	++	+	++	-	+	-	++	++	++	++	-	-	-	-	-	-	Metals sector
16	Not located	●	●	--	●	●	●	++	++	++	+	-	-	-	-	-	-	Furnishings
17	Metals products	++	+	+	++	+	-	++	++	++	+	+	+	+	+	+	+	Not located
18	Textile	+	+	+	-	+	-	++	++	++	+	+	+	+	+	+	+	Metals products
																		Textile

Source: Authors' elaboration, 2023.

Figure 9. Matrix impact score for policies and indicators

	TARGET_TIA matrix – territorial impact scores	*I. economic factors, potential geographical impacts for economic and society sectors*			*II. Territorial implications based on sociological indicators*		*II. Governance indicators*	*III. Geographical consequences based on economic indicators*			*IV. Territorial consequences based on socioeconomic indicators*	*V.Environmental indicators* NATURA 2000, protected areas, and environmental sectors					
Indicators	Policies	a) Economic growth (GDP/capita)	b) Occupation in industry and construction	c) Employment in high-tech and knowledge-intensive industries	d) Educational entertainment for those aged 30-34, as well as tertiary education (levels 5-8)	e) The rate of unemployment	f) Possibility of enhancing government service quality and accountability	g) Potential road accessibility	h) Potential rail accessibility	i) Potential for improving multimodal accessibility	j) Out-migration and regional "shrinking"	k) Potential for dealing with landslides	l) Flood sensitivity evaluate the potential impacts	m) Air quality	n) Visual landscape	o) Green areas and sea protection	p) CO2 emissions per capita (tonnes)
Labor Force	Employement rate	4	2	4	4	4	1	0	0	0	2	-4	-4	-2	0	0	0
	Government revente	4	2	2	0	2	4	1	0	1	2	-4	-4	-1	0	0	0
	Export growth	4	2	1	1	1	2	-1	2	2	2	-4	-4	-1	0	0	0
Tax reductions	Technology improvement (industry 4,0)	2	2	4	2	1	2	1	2	2	2	-4	-4	1	0	0	0
	Export / Import	4	4	2	0	1	2	-1	2	2	4	-4	-4	2	0	0	0
	taxes for firms	2	2	1	1	1	1	0	0	1	2	-2	-2	1	0	0	0
	Strategic plans	2	4	2	2	2	2	1	1	2	1	-4	-4	2	0	0	1
Incentives	ICT platform	1	1	4	0	1	1	0	0	2	1	-4	-4	1	0	0	0
	ITech skills	1	1	2	0	1	2	0	0	2	1	-4	-4	1	0	0	0
	Port authority measures	2	1	1	1	2	2	1	1	1	1	-4	-4	0	0	0	1
	Recovery plan funds	4	2	2	1	2	4	1	1	0	1	-1	-1	1	0	0	1
	FDI foreign exchange earnings	2	1	1	0	1	1	0	0	1	1	-4	-4	0	0	0	0
	FDI	2	1	1	0	1	1	0	0	0	1	-4	-4	0	0	0	0
Environmental sustainability status	GHG emissions reductions	0	0	0	0	1	0	-2	1	2	0	-2	-2	2	1	1	4
	LCA	1	0	1	0	1	0	2	2	1	0	-4	-4	2	1	1	2
	Modal transport shift	2	1	1	0	0	0	-2	2	4	0	-4	-4	2	0	0	4

Source: authors' elaboration, 2023.

The Figure 8 relates to the manufacturing sector and to the sectors for the relative indicators of the environment, society, transport, economy, and governance components. Figure 9 replicates the framework of Figure 8 by integrating the numerical features of the magnitudes, but instead applies them to the components and indicators of the policies examined in the previous chapters rather than the

manufacturing sector choosing an impact score. The effects of EU Cohesion Policy on each component can be good, neutral, or negative. The most acceptable scale would be 4 (very significant negative consequences) to +4 (extremely significant positive impacts), with 0 representing no impact:

- +4 Very significant positive impacts
- +3 significant positive impacts
- +2 moderate positive impacts
- +1 low positive impacts
- 0 null impacts
- –1 low negative impacts
- –2 moderate negative impacts
- –3 significant negative impacts
- –4 Very significant negative impacts.

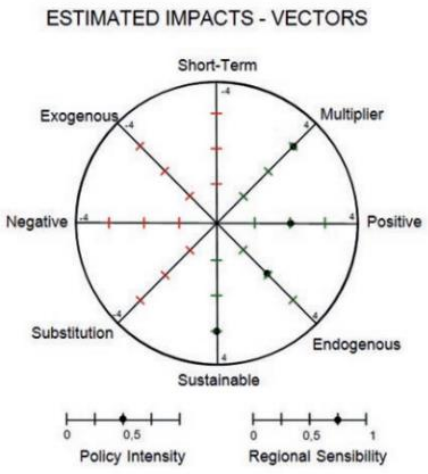
To evaluate the exposures of indirect and direct benefits, the table (Table 4) shows the evaluation of the tax relief measures and their impacts on the territory.
The stage 4 is the combination of exposure and territorial sensitivity.

Table 4. Preliminary benefits evaluation

Type of incentives	Direct benefits	Indirect Benefits
FDI foreign exchange earnings	+	-
FDI	++	-
Employement rate	++	-
Government revente	+	+
Export growth	+	-
ICT platform	+	+
ITech skills	-	++
Technology improvement (industry 4,0)	+	++
Export / Import	+	++
taxes for firms	+	++
Strategic plans	-	++
Port authority measures	+	++
Recovery plan funds	+	++

Source: Authors' elaboration, 2023.

Figure 10. Scale for score



Source: Medeiros, 2016.

Table 5. Territorial impact scores per main dimension

Economy	Society	Governance	Infrastructure	Environment
1,431	0,752	1,053	0,851	0,604

Source: Author's elaboration.

Figure 11. TIA matrix

Dimension	Fields	Type of impacts (-4 to 4)				Policies Exposure 0 to 1		
		Positive/Negative	Endogenous/Exogenous	Sustainable/Short Term	Multiplier/Substitution	Average	Pol/Int	Sen/Reg
Economy	I. economic factors, potential geographical impacts for economic and society sectors							
	a) Economic growth (GDP/capita);	**3**	**2**	**2**	**1**	**2**	0,75	1
	b) Occupation in industry and construction;	**2**	**2**	**2**	**2**	**2**	0,5	0,75
	c) Employment in high-tech and knowledge-intensive industries.	**1**	**2**	**1**	**3**	**1,75**	1	0,75
	Average	**2**	**2**	**1,67**	**2,00**	**1,92**	0,75	0,83
Society	II. Territorial implications based on sociological indicators:							
	d) Educational entertainment for those aged 30-34, as well as tertiary education (levels 5-8);	**1**	**2**	**2**	**3**	**2,00**	0,5	0,25
	e) The rate of unemployment;	**1**	**0**	**1**	**2**	**1,00**	0,5	0,25
	Average	**1**	**1**	**1,50**	**2,50**	**1,50**	0,50	0,25
Governance	III. Governance indicators							
	g) Possibility of enhancing government service quality and accountability	2	2	1	1	1,50	0,25	0,25
	Average	**2**	**2**	**1**	**1**	**1,50**	0,25	0,25
	V. Territorial consequences based on socioeconomic indicators;							
	k) Out-migration and regional "shrinking".	1	1	2	1	1,25	0,25	0,25
	Average	**1**	**1**	**2**	**1**	**1,25**	0,25	0,25
Infrastructure	IV. Geographical consequences based on economic indicators							
	h) Potential road accessibility;	1	3	1	2	1,75	0,75	1
	i) Potential rail accessibility;	1	2	1	2	1,5	0,75	1
	j) Potential for improving multimodal accessibility;	1	1	2	3	1,75	1	1
	Average	**1,00**	**2,00**	**1,33**	**2,33**	**1,67**	0,83	1,00
Environment	VI. Environmental indicators NATURA 2000, protected areas, and environmental sectors							
	l) Potential for dealing with landslides;	-2	1	2	1	0,5	0,75	1
	m) Flood sensitivity evaluate the potential impacts;	-1	2	4	1	1,5	0,5	0,75
	n) Air quality;	1	2	2	0	1,25	0,75	1
	o) Visual landscape;	0	1	1	1	0,75	0,5	1
	p) Green areas and sea protection.	1	2	2	2	1,75	1	0,75
	f) CO2 emissions per capita (tonnes).	1	2	2	1	1,5	1	1
	Average	**0,33**	**0,83**	**0,83**	**0,67**	**1,21**	0,75	0,92

Source: Authors' elaboration, 2023.

The final stage is the integration of risk assessment (exposure) with indicators indicating regional sensitivity, resulting in maps illustrating a territorially distinct impact. The Intergovernmental Panel on Climate Change's vulnerability concept serves as the foundation for this plan (IPCC). In this scenario, the effects of a given policy measure (exposure) are paired with regional features (territorial sensitivity) to provide prospective territorial impacts with regional sensitivity indicators, resulting in maps illustrating a territorially varied impact. The regional sensibility evaluation element: To customize the final effect score for each assessed component, the 'regional sensibility' element also employs a scale ranging from 0 (no sensibility)

to 1 (highest sensibility) (Figure 10).

The results emerging from Figure 8 and Figure 9 are agreed in Figure 11. Using the equation for ex-ante analysis proposed by Medeiros (2016) to calculate the impacts generated by the policies on the related components, we obtained the following results:

Ex-ante Territorial impact of policies 'p':

$$[(EIMq*I)*EIp)]*Sp \qquad (1)$$

EIM is the estimated qualitative impacts
EIMql is the estimated qualitative impacts for each dimension 'd'
El is the estimated intensity
'I' is the policy intensity of each 'p' related to each dimension 'd'
S is the regional sensibility of 'p' for each 'd'.

6. Conclusions

The evaluation process is sufficient for assessing the main ex ante consequences of SEZs on the Campania Region, while the use of additional quantitative elements aimed at revealing geographical patterns in the investigated components would be ineffective. The first column of this 'quantitative territorial trend analysis' indicates the effect evaluation process's baseline scenario. In other words, the score values to be entered in this column represent the 'territorial development status' of the examined region (as a whole) in the examined component in a broader context. The lower the score, the less positive the geographical setting in the component under consideration. The analysis performed is a preliminary analysis that produces quantitative and qualitative markers. The analysis will next use a TIA Tequila/STeMa to evaluate the weights of the various policies using updated data on human health, living conditions, and amenity. It is critical in the environmental sector to collect data on soil, water, air, climate, creatures, and biological variety up to the present state. Upgraded dataset is based on the value of community structure, buildings, landscape, townscape, and cultural heritage are all important to the corporate sector, and on natural resource usage, and linkages between the components indicated in the categories for the environmental sector.

As the Campania government seeks to expedite the construction of special economic development zones, a number of environmental consequences, including impacts on conserved forests, water and air quality, and waste management, have been identified. Air Quality Increased emissions are also projected when cities and industries expand because of SEZs. This includes increasing emissions of greenhouse gases, particulate matter (PM10), and volatile organic compounds (VOCs). This has been observed to have the following effects on local people's health. The increased demand for land for infrastructure development because of SEZs policies has put further strain on forests and agricultural areas. Forested land designated for infrastructure development because of SEZs regulations was selected from both forest reserves and degraded forests. There have been instances where this area was regarded as public land prior to these designations. The policies are contentious because they allow government and private sector entities to plan land use changes without considering existing forest/parks/ green areas ecosystems or local uses. Land use management is important in managing the quality of water supplies. SEZs industrialisation frequently leads to industrialization and urbanization of natural regions. As a result, competing applications put strain on water resources, which must be regulated. As a result, SEZs can have an impact on

the availability of water for agricultural, home water supply, and the environment. It is anticipated that several SEZs would contribute to future water scarcity. The potential territorial consequences of SEZs vary by region. In this context, it is suggested that a similar TIA evaluation be performed for each district (e.g. logistic sector and/or manufacturing clusters), allowing for more detailed and comparable mapping of the resulting impact score. The TIA tools are relatively new and, in most cases, are not integrated into national policy evaluation frameworks. TARGET_TIA tool, used in this paper, has previously been used primarily to examine the ex-post territorial consequences of EU-funded programs and policies having a clear territorial dimension. As suggested by Medeiros (2016) it was first used to examine the primary implications of EU Cohesion Policy in three EU countries: Portugal, Spain, and Sweden, estimating the impact scores in all the Policy's examined dimensions: (i) social and economic coherence; (ii) environmental sustainability; (iii) territorial governance/cooperation; and (iv) morphologic polycentrism. For our case study, we considered the dimensions based on the policies put in place by the research started in 2019 (D'Auria et al., 2019) and on the policies started in 2018 by the Campania Region for the SEZs. It should be noted that TARGET_TIA was used to study territorial impacts at three different territorial scales: national, regional, and cross-border is either a limitation or an advantage. Indeed, TARGET_TIA had been assessed in the EU INTERREG-A programs (cross-border partnership) following the EU Cohesion Policy TIA experience, which was especially challenging due to the Policy's tentacles reaching into all areas of territorial development (Medeiros, 2016). As a result, our early qualitative assessment using the TARGET_TIA demands an additional review employing an only quantitative model integrating ex.-ante and ex-post assessment.

The adopted tool of the TIA is a methodological proposal to strengthen the vision of SEZs for the territorial economic process and, above all, to understand the dynamics of Campania's SEZs from those of the Mezzogiorno. The strength of the Campania SEZs is the high concentration of ports and infrastructure, with freight villages and airports, which can create a network of values and economic potential to support industries and port areas. This potential must be highlighted and promoted by public authorities and stakeholders in order to be positively competitive with Italian SEZs. The Adriatic SEZs can exploit the maritime transits to Trieste, and the Calabrian-Sicilian ones from the Suez Canal, so the Campania SEZs can benefit from a favourable position to become a strong pole of attraction in the Mediterranean.

Notes

1. https://www.agenziacoesione.gov.it/wp-content/uploads/2019/09/DPCM-11_05_18-Istituzione-ZES-Campania.pdf
2. . https://www.agenziacoesione.gov.it/wp-content/uploads/2019/09/DPCM-11_05_18-Istituzione-ZES-Campania.pdf
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5. https://www.espon.eu

Author Contributions

Conceptualization: IDR, ADA); Methodology: IDR, ADA; Software: IDR; Validation: IDR; Formal Analysis: IDR; Investigation: IDR; Resources: IDR; Data Curation: IDR; Writing - Original draft preparation: IDR; Writing - Review & Editing: IDR; Visualization: IDR; Supervision: IDR.

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The authors declare no conflict of interest.

Originality
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