Abstract
This article debates the possibilities and advantages of using territorial impact assessment (TIA) policy evaluation methodologies to assess the implementation of spatial planning instruments. It builds on existing literature to define key analytical goals, dimensions, and respective components to monitor and evaluate the implementation of spatial plans, at all territorial levels, to be used as a TIA evaluation matrix. It concludes that, despite the inherent complexity associated with the process of evaluating spatial planning processes, there are manifest advantages to using TIA tools to evaluate them, mostly at the ex post phase.

Keywords
spatial planning, policy evaluation, territorial impact assessment, territorial development, Europeanization/EUization

Spatial planning (an Euro English term; see Luukkonen 2014) or territorial planning—in a more continental European lexicon form—has always been at the core of my scientific research interests. Likewise, the research on sound policy evaluation and monitoring processes and methods has taken a substantial slice of my professional time in the past decades. More recently, the participation in an European Observation Network for Territorial Development and Cohesion (ESPON) project, with the main goal of comparing European Union (EU) national spatial plans, enhanced the appetite for relating both scientific themes: spatial planning and policy evaluation methodologies.

Generically understood as the practices of regulating and transforming space (Madanipour, Hull, and Healey 2001), the management of competing demands for land (González et al. 2015) or, in particular, the methods used largely by the public sector to influence the future distribution of activities in space (European Commission [EC] 1997, 24), spatial planning deals primarily with the regulation of land use. In a complementary way, spatial planning has also been emphasized as a fundamental process to establish and implement a longer term and strategic planning horizon, with an integrated approach to policy making, with a focus on delivering, rather than on regulation (Albrechts 2006; Davoudi and Strange 2007; Kidd and Shaw 2013; Morphet 2011). In this regard, and according to Nadin (2007, 54), “spatial planning” differs from “land use planning” when it comes to its main purpose, as the former intends to shape “spatial development through the coordination of the spatial impacts of sector policy and decisions,” while the latter seeks to regulate “land use and development through designation of areas of development and protection, and application of performance criteria.”

As one would expect, the monitoring and evaluation of spatial plans has been in the making for decades. However, the monitoring and evaluation of planning systems tend to be more about processes than about outcomes and effectiveness, while they are commonly measured in terms of administrative efficiency, numerical returns, and cost implications (Crawford, Macdonald, and Upton 2008, 24). Understandably, being a “new kid on the block” of policy evaluation methodologies (Medeiros 2016b), territorial impact assessment (TIA) methodologies have not yet been used to assess spatial plans, as they have been mostly designed to evaluate ex ante impacts of EU directives (ESPON TIAs; see Medeiros 2014b), and also ex post impacts of policies/programs, both at the national and regional levels (see Medeiros 2013, 2014c, 2017a, 2017b).

Being a multidimensional, holistic, and “territorial focus” policy evaluation tool, TIA tools can be regarded as an appropriate methodology to assess the main impacts of the implementation of spatial plans at all territorial levels. This is especially valid if a sound, flexible, and multivector TIA tool, which takes into consideration counterfactual evaluation elements (see Medeiros 2017c), is selected. For the sake of clarity, the main challenge here would be to select the appropriate analytical dimensions, respective components, and indicators, adapted to each evaluated spatial plan in order to build the most appropriate TIA evaluation matrix.
In this context, this article proposes to discuss the potential benefits of adjusting a TIA tool to assess spatial plans, while suggesting fundamental analytical dimensions for assessing their main territorial impacts, based on available literature. It also builds on the author’s previous experience in assessing policy/programs main territorial impacts and in analyzing spatial planning processes in both national and international projects. The challenge, both conceptually and methodologically, is then to propose how to improve and reformulate traditional spatial planning evaluation methodologies into a more comprehensive, robust, and integrated framework that allows the understanding of the effective impacts of the implementation of spatial plans in order to improve the efficiency of policymaking processes.

As a way to facilitate the understanding of our scientific analysis, this article is divided into four distinct sections. The following section discusses the importance of spatial planning to promoting territorial development, thus making an appropriate subject to be assessed by a holistic and territorial policy evaluation tool. The next section reflects on the importance of the Europeanization, or better still, the EUization of spatial planning processes, as a way to facilitate the use of a TIA methodology to assess its main impacts, by taking the Portuguese case-study as an example. A subsequent section is then dedicated to propose a novel methodological approach to monitoring and assessing spatial planning instruments, by suggesting the use of a TIA evaluation matrix, before concluding remarks are provided in the final section.

**Spatial Planning: A Fundamental Dimension of Territorial Development**

In simplified terms, “positive” territorial development can be considered as a process which “represents change that is intended to lead to the betterment of people and places around the globe” (Potter et al. 2008, 6). Curiously, or not, existing literature tends to associate the notion of development with the notions of economic and sustainable growth, social progress, political freedoms (Sen 2000), and territorial governance (Walsh 2014). Accordingly, the United Nations (UN) bases the construction of its “Human Development Index” on three main dimensions: (i) a long and healthy life, (ii) knowledge, and (iii) a decent standard of living (United Nations Development Programme 2016). Famously, Sachs (2015, 11), in his remarkable work on the importance of sustainable development, defines this process as a way to understand the world as a complex interaction of economic, social, environmental, and political systems.

In sum, although territorial development is commonly understood as a multidimensional concept, ultimately, there is not yet an established academic culture that includes “spatial planning” as one of its fundamental dimensions. Crucially, the importance of spatial planning, understood both as a regulative land process and as a strategic and integrated vision for a more efficient territorial arrangement, is largely absent in the mainstream literature focusing on the conceptual analyses of territorial development and territorial cohesion. In an eloquent example, the recent identification of the main seventeen sustainable development goals by the UN (2015) mostly encompasses socioeconomic-, environmental-, and governance-related themes (Figure 1). Conversely, we propose a conceptual approach in which territorial development is understood as a process to create, retain, and distribute wealth and where spatial planning is a fundamental dimension necessary to attain this goal (Figure 2).

*Figure 1. United Nations sustainable development goals. Source: United Nations (2015)—own elaboration.*

Again, as regards to the elusive notion of territorial cohesion, the mainstream models that break down this concept (TEQUILA and STAR; see Bradley and Zaucha 2017) also take into consideration mostly the social, economic, environmental, and governance policy aspects as main dimensions of this concept. Even so, the STAR model (Medeiros 2016a) identifies the “polycentrism” as one of its core dimensions, thus placing one crucial aspect of strategic spatial planning at the center of territorial cohesion processes. The adoption of this
European Spatial Development Perspective (ESDP) core principle, which became a central concept in European spatial planning in the 1990s (Du¨hr, Stead, and Zonneveld 2007), aims to promote territorial development spillover effects from congested urban regions and to (re)concentrate it in the less developed regions (Hall 2002; Shaw and Sykes 2004), thus proactively contribute to achieving a more cohesive and balanced territory.

Likewise, Kunzmann (1998, 101) presents a convincing case in associating spatial planning with processes of spatial equity, for assigning uses to land and also for distributing public funds or subsidies over a territory. By all accounts, the notion of spatial equity has a strong connotation with the notion of territorial cohesion, which is mostly an EU concept (Faludi 2007; Medeiros 2016a). Also noteworthy, Du¨hr, Stead, and Zonneveld (2007, 301) alert that, in many planning contexts, development means changes in the form and quality of the physical built and natural environment.

In sum, despite not being commonly coined with the concepts of territorial development and territorial cohesion, spatial planning is strongly linked to both, and there is much to be gained in using monitoring and evaluation methodologies with a holistic, multidimensional, and territorial perspective, such as TIAs, to assess the implementation of spatial plans, as ultimately spatial planning covers a multitude of territorial development goals, mostly included in already mentioned seventeen UN Sustainable Development Goals.

The Europeanization/EUization of Spatial Planning

Spatial planning has a long tradition in several central European countries, such as Germany, the Netherlands, and France. Hence, “European spatial planning” could be regarded “as a hybrid model of spatial planning, borrowing extensively from particular aspects of German Raumplanung, French le aménagement du territoire and Dutch ruimtelijke ordening” (Walsh 2012, 45). Curiously, European spatial planning processes, despite never being an EU formal competence (Du¨hr, Colomb, and Vincent 2010; Faludi 2006), have a relatively long history, since the European regional/spatial planning charter was adopted in 1983 (see Medeiros 2014a). But the coming of age of this process was established with the publication of ESDP in 1999 (EC 1999a). Subsequently, several reforms to statutory planning systems and subnational governance arrangements have occurred across nearly all European countries (Pugalis and Townsend 2013).

In this context of increasing, and sometimes decreasing, EUization of spatial planning processes within EU Member States, the introduction of the territorial cohesion concept into the Constitutional Treaty was the latest step in this debate about European spatial development (Nadin 2007, 52). Clearly, the EU’s influence on the EU Members States territorial development and policy-making is considerable, while the involvement of planners and policy makers is operated in a multilevel multisector and multiscale context (Du¨hr and Mül- ler 2012), which allows for increasing mutual learning and EUization absorption.

As Faludi alerts, the EU influence on national spatial planning may seem to have stalled in past years. However, this EUization process continues through the support for “European Territorial Cooperation” processes under EU cohesion policy (Faludi 2004, 164). Indeed, as Waterhout (2007) stresses, as regards the Europeanization of planning, it is possible to identify a set of resources, rules, and ideas, which are associated
with the regional policy and the INTERREG programmes, in particular, and the need to implementing EU regulations. At the same time, this EU influence on national spatial planning processes can be seen in the EU support given to several sectoral policies in the fields of environment, transport, and rural development, with considerable spatial impact, and which often require institutional adjustments within EU member states (Dühr, Stead, and Zonneveld 2007).

In a practical manner, the ESDP became a blueprint to some national spatial plans, as was the case with the ones approved in Portugal (Ferrão and Mourato 2011), as Portugal actively participated in its elaboration, as well as in the EU territorial cooperation and urban development processes since the 1990s (Ferrão and Campos 2015). Behind this decision was the lack of tradition of spatial planning in Portugal and also the absorption of the EU produced knowledge by influential senior government officials. Indeed, this national absorption of shared EU norms, rules, and approaches by Member States authorities (Zaucha 2007), and the impact of EU policies on politics, polities, and policies (Magone 2006), has gradually taken place in Portugal since its EU accession in 1986. Crucially, when it comes to spatial planning processes, the influence of the EU and its policies on domestic policies and practices (Waterhout 2007) has been clearly influenced by the visions expressed in EU key spatial planning documents.

The theory holds that spatial planning practices are embedded in different cultures that influence their objectives. The following use of the Portuguese case in implementing spatial planning processes follows our deep knowledge on its historical development and can be taken as an example of an EU Member State where these processes are relatively new and highly influenced by EU spatial planning practices. Indeed, as seen, the EUization degree of spatial planning procedures in Portugal can be considered very high, if one looks retrospectively to the influences of the ESDP in the production of the National Spatial Planning Programme (NSPP), which was conceived as an umbrella plan aimed to emphasize the territorial dimension in various national sectoral plans (Organization for Economic Co-operation and Development 2008). In synthesis, the NSPP was the first spatial planning instrument with long-term strategic vision guidelines in Portugal (Gaspar and Simões 2005). It is, indeed, striking to see the significant influence that the adhesion of Portugal to the EU provoked in the implementation of national spatial plans at all territorial levels. On the whole, numerous factors contributed to these profound changes. In a broad generalization, amid the publication of the ESDP and the EU Regional Policy (read INTERREG programmes), the spatial planning processes in Portugal were modernized and EU-naïzed. Moreover, Portugal was “forced” to reinforce the role of the “territory” as a coordination factor for the various sectorial policies, to stimulate new forms of transnational and cross-border cooperation, and propelled to participate in new decision and governance processes related to the implementation of spatial planning processes (Ferrão 2010a, 77).

It was the beginning of a new learning culture, where the collaboration between territorial networks, both intranational (cities, municipalities, and regions) and transnational (Euroregions, transnational regions, cross-border working communities), was established with a view to sharing experiences and good practices between all involved agents (Ferrão 2010a). However, and despite being established since 1976 in the Portuguese Republic Constitution (Gaspar and Simões 2005) as a public function (article 9°), in the context of public policies, spatial planning has remained a “weak policy.” Firstly, it is weak because there is a large disproportion between the intended goals and the effective conditions to achieve them. Secondly, because spatial planning processes in Portugal are highly vulnerable to unwanted effects associated with the implementation of other policies. This context greatly affects the Portuguese spatial planning efficiency and resilience (Ferrão 2011, 25).

Recently, the national legislation on spatial planning was updated into a new decree-law (80/2015), which defines spatial planning as a process aiming to attain the goal of territorial cohesion and the correct use of land classification, in order to invert perennial trends of excessive and arbitrary urbanization processes in Portugal. Remarkably, this legislation invokes the territorial cohesion notion four times. This idea carries undeniable connotations with EU mainstream policy goals. However, for the most part, the EU influence on the national/subnational/local Portuguese spatial planning instruments is moderate rather than strong, although it is increasing. In more detail, EU cohesion policy and EU urban policy are the most influential factors for the EUization of spatial planning processes across all territorial scales in Portugal. On its part, the European Territorial Cooperation processes influence mostly the regional level, while the local level is frequently influenced by the EU rural policy (ESPON 2018a).

It is also important to mention that the elaboration and approval of municipal development plans became a mandatory legal procedure for the municipalities getting access to EU funding, since the first programming phase of EU cohesion policy (1989–1993). This political decision provoked a decisive and positive turn in the way local authorities looked upon spatial planning instruments. As a consequence, by 1995, 169 municipal director plans were approved, while 48 were being ratified. By 1999, 249 were finally ratified (Papudo 2007). More recently, the financial support given to the Integrated Sustainable Urban Development Strategies led to further absorption of EU planning practices at the local level, which has been in the making in Portugal since the implementation of the first EU URBAN Community Initiative, followed by the implementation of the POLIS programme (see Partidário and Correia 2004). The same goes for the EU LEADER Community Initiative when it comes to the assimilation of governance practices in managing rural areas (Moreno 2002).

Likewise, the European Territorial Cooperation process brought about novel territorial cooperation (cross-border, transnational, and interregional) practices boosted by the financial support coming from the three strands of the EU INTERREG
programmes. To some extent, from a spatial planning perspective, this process has allowed for the formation of several European regions, EuroCities, and European Groupings of Territorial Cooperation (EGTCs) in Portugal, some of which have produced interesting transnational/cross-border planning documents, although without formal competences to implement territorial development strategies (see Medeiros 2011, 2013). Most instructive in this regard, however, is the legal barrier posed by the fact that Portugal is a centralized administrative state, in contrast with Spain, which is a highly regionalized state. This leads to noneffective cross-border and transnational cooperation processes when it comes to implementing cross-border spatial planning processes. Even so, the regional political will has led to an exponential set up of cross-border entities across the Portuguese–Spanish border since the implementation of the first INTERREG-A programme (1990–1993; Medeiros 2010).

At the urban level, the NSPP expresses a clear goal of reinforcing a sustainable and polycentric structure of the Portuguese urban system. More concretely, in its action plan, this program defines a clear EU goal of reinforcing the integration of the continental territory by means of a more visible and concrete polycentric urban system. This goal is further explored at each Regional Spatial Policy Programme, together with the EU goal of attaining a more competitive and cohesive territory. Finally, the EU influence is also observed in the adoption of environmental sustainability policy measures in both the national and regional spatial planning instruments.

Despite the substantial influence of several EU policies in the design of the Portuguese spatial planning instruments, the European Observation Network for Territorial Development and Cohesion (ESPON) programme has been much less influential. For this, one needs to understand that the national, regional, and local administrations have not actively participated in most of the approved ESPON projects, and the fact that the Portuguese academia has seen its role reduced in these projects since the first ESPON programme took place. Instead, and mainly at the local level, the URBACT programme has seen an increasing number of involved Portuguese municipalities in both transmitting and receiving experiences (ESPON 2018a).

Contrary to the relative infancy of the Portuguese spatial planning process, when the Territorial Planning and Urbanism Act Lei de Bases Gerais da Política Pública de Solos (LBPOTU) was approved (1998; see F. P. Oliveira 2017), an obligation to evaluate and monitor spatial planning policies was immediately established, which was a bit of a pioneer accomplishment within the European context. More particularly, its article 28 states that the evaluation of spatial planning policy has to be based on “Spatial Planning Status Reports,” describing how planning policy instruments under their respective jurisdictions have been applied (Ferrão and Mourato 2011, 145). Alongside, a National Territorial Information System was established as a concrete spatial planning monitoring mechanism.

More widely, the LBPOTU established a coherent system of land management made up of national, regional, and municipal instruments (in essence plans). This legislation pioneered, within the European context, the obligation to evaluate and monitor spatial planning instruments. In concrete terms, the action plan of the NSPP, approved in 2007, was extensively evaluated in 2014, which made use of a dedicated methodology focused on analyzing each of the main NSPP strategic objectives, mainly based on qualitative elements, due to the lack of appropriate quantitative data (see Cavaco 2014). However, as attested by the current director for the Portuguese Direcção-Geral (DG) Territory, there is a need for a common evaluation procedure for the ongoing spatial planning instruments at all territorial scales. Here, the use of a TIA tool could contribute to solving this problem.

Moreover, there is a key assumption underlying the need to associate EU regional and cohesion policy main goals to EU Member States territorial development and spatial planning main goals, which is exactly what has happened in Portugal during the past decades. In the same manner, Member States should continue to absorb EU policy evaluation practices, which have been in the making since the early 1990s (see EC 1999b). Moreover, the use of TIA tools to assess spatial planning instruments could facilitate the renewed interest in comparative planning within Europe (Nadin and Stead 2013). But more importantly, in our view, they should start to realize the benefits of relating the novel TIA tools to assess the potential negative/positive impacts of the implementation of spatial planning instruments, in all its main goals and dimensions, which will be debated in the next section.

TIA and Spatial Planning

TIA Tools, the Ultimate EU Policy Evaluation Procedure

As the name suggests, TIA is an evaluation tool aiming at identifying the ex ante or ex post potential impacts of a project/program/policy, normally in an impact degree scale, which goes from substantial negative impacts to substantial positive impacts. To be considered a TIA, the evaluation analysis should reflect the main dimensions of territorial development or territorial cohesion. In other words, TIA tools should take into consideration not only socioeconomic and environmental impacts but also territorial governance and, if possible, elements related to the territorial articulation of regions (polycentricity, connectivity, urban hierarchy, etc.). Additionally, to be sound in their results, TIA tools should make use of counterfactual elements of evaluation, be flexible enough to accommodate several types of policies, and be simple to operate yet relevant in the produced results (see Medeiros 2017c).

Being an EU policy evaluation methodology, the first TIA methodology, known as the TEQUILA, was presented in an ESPON report (ESPON 3.2, 2006), with a clear goal of assessing the main ex ante potential impacts of EU directives. In a positive note, this tool associated its methodological rationale with the concept of territorial cohesion, thus coining it with a
holistic policy evaluation character. Alongside, it proposed the attribution of evaluation scores (−5 to +5) to each analyzed component in a simple negative–positive evaluation scale. Finally, it included, for the first time, two important policy evaluation elements—(i) the “regional sensibility” and the (ii) “policy intensity”—to better take into account the idiosyncrasies of a given territory. Being applied to concrete cases, soon the EC realized its fragilities, as it was excessively simplistic in its operation and did not take into account fundamental territorial development elements associated, for instance, with territorial governance elements. Moreover, it did not make use of counterfactual policy evaluation elements as well.

Since then, several other TIA tools were developed under the auspices of the ESPON programme, such as the STeMA, the EATIA, the ARTS model, and the QUICK CHECK TIA (see the details on each one in Medeiros 2016a). Paradoxically, the EC, instead of learning from the previous mistakes in trying to support the design of an oversimplified TIA methodology, continued to require the ESPON programme to produce an easy functioning and fast to operate (dirty—as it is known in the ESPON meanders) TIA tool. The result was the QUICK CHECK TIA tool, which is operated via an online platform and associates a regional database with the potential ex ante impacts of the evaluated EU directive. As expected, however, the excessive simplicity of such a TIA methodology has led their operators to rely mostly on the information collected via a series of stakeholders workshops, in which the causality of the evaluated EU directive, in the selected territorial development dimensions, is based on the stakeholders own knowledge.

Under this scenario, other TIA tools have been forged, especially with the goal of assessing policies in a sounder and relevant way, not only in the ex ante but also in the ex post policy phases. This is the case of the STeMA and the TARGET_TIA. The latter has been gaining wide attention in the academic and policy groups, as a way to measure sound territorial impacts (ESPER 2018b). Furthermore, unlike ESPON TIA, it has been applied to analyze post policy territorial impacts of EU cohesion policy at the national and regional levels. But more importantly, it not only makes use of “regional sensibility” and “policy intensity” analysis elements, following from the TEQUILA model, it also includes several counterfactual evaluation vectors which provide the production of more robust impact scores, besides the negative–positive evaluation vector: (i) substitution versus multiplier, (ii) short term versus sustainable, and (iii) exogenous versus endogenous. Moreover, this TIA tool is flexible enough to assess ex ante or ex post policy phases, and in the process of selecting the adequate policy evaluation matrix of dimensions and respective components, making it ideal for being used for spatial planning evaluation processes.

As expressed in the EU (1997) compendium of spatial planning systems and policies, “spatial planning embraces measures to co-ordinate the spatial impacts of other sectoral policies, to achieve a more even distribution of economic development between regions than would otherwise be created by market forces, and to regulate the conversion of land and property uses” (p. 24). This is a clear mention of the importance of assessing territorial impacts of strategic spatial planning implemented visions. But is it possible to use a TIA tool to assess spatial planning instruments, as they do not only aim to improve territorial development and cohesion trends but are also dependent on territorial governance systems and other soft territorial development factors?

The truth is that, over the recent decades, much attention has been given to the need for providing evidence on the application of spatial planning to inform policy-making in several European countries. At the same time, there are numerous initiatives seeking to improve the availability of spatial data for policy-making and to make existing spatial data sets more compatible (Dühr and Müller 2012, 423). Here, the ESPON programme has had a decisive role in providing territorial analytic reports, tools, and data sets to better understand European territorial development trends since 2002. Add to that, more recently, the EC launched the Land Use-based Integrated Sustainability Assessment (LUISA) tool, as a key element of the Knowledge Center for Territorial Policies (https://ec.europa.eu/jrc/en/luisa).

Key Spatial Planning Analytical Dimensions

To appreciate this idea of a need for monitoring and evaluating spatial planning, Ferrão and Mourato (2011, 149) claim that “the need for permanent and multi-scale evaluation of territorial trends and dynamics arises not only from the need to meet legal requirements, but also from the gathering complexity, diversity and unpredictability of modern societies.” As González et al. (2015, 1595) note, monitoring land-use change enables examination of unwanted settlement trends, such as urban sprawl. When it comes to evaluating spatial planning instruments, these authors propose four main analysis dimensions where appropriate monitoring indicators should be included: (i) economic competitiveness and resilience, (ii) integrated spatial development, (iii) social cohesion and the quality of life, and (iv) environmental resource management.

One useful entry point to design a sound spatial planning monitoring and evaluation systems is the association of spatial planning processes with the notions of territorial cohesion and policy integration. Regarding the former notion, it undercuts the common assumption in which spatial planning processes intend to favor a more balanced and harmonious territory, by encouraging higher levels of development in less development regions and cities. Again, in almost every way, the improvement of policy integration processes is being increasingly recast as crucial mechanisms for augmenting the coordination of several public sectoral activities across different departments (Stead and Meijers 2009). For Vigar (2009, 1572—based on Healey 2006), the policy integration of spatial planning instruments implies coordinating strategy-making to avoid conflicting policies and to generate win-win situations and depends on four main components: (i) the (co)aligning of strategies and policy, (ii) policy (re)frameing, (iii) connecting policy, and (iv) action and cooperation among actors.
Instead, for Luukkonen (2014, 178–79), spatial planning is essentially about governing space, as it requires a close-knit relation between policy-making and academic research, and a strategic visioning of space and spatial relations at all government levels. In same vein, Walsh (2012, 47–48) invokes the need to assess the governance capacity of spatial plans, by proposing three dimensions associated with strategic spatial planning: (i) the capacity to facilitate the emergence of an agreed or shared spatial development strategy based on consensus among stakeholders, (ii) the capacity to guide the spatial distribution of development over the period of the plan, and (iii) the capacity to provide a framework for policy coordination in relation to the spatial impacts of other sectoral policies.

Following from his vast work and experience in implementing spatial planning processes in Portugal, both as an academic and as secretary of state of spatial planning, Ferrão (2011, 25) has a similar vision in which governance processes should be taken into account when analyzing spatial planning instruments. This can be seen when he identifies six main problems associated with the implementation of this process in Portugal:

- the presence of a young spatial planning system, prematurely discredited;
- a disciplinarily fragmented technical–professional community;
- the predominance of a political and administrative culture that is not conducive to intersectoral territorial coordination;
- the absence of a civic culture of robust spatial planning;
- the lack of formal EU competences in implementing spatial planning; and
- spatial planning processes are not systematically autonomous from a constitutional point of view.

To overcome these bottlenecks, the same author proposes a set of alternative paths with a view to increasing the efficiency of the implementation of spatial planning processes in Portugal in the nearby future. These include measures intended to increase the dynamics of engagement, dialogue, and learning processes between stakeholders, which requires access to better information, knowledge, innovative technologies, organizational methods, and a new “culture of territory and spatial planning,” understood as “beliefs and values with translation into everyday attitudes, skills and practices by the general public and members of the scientific, technical and political communities with direct intervention in spatial planning” (Ferrão 2011, 115—own translation).

This claim for a new “culture of spatial planning” is not new. In Portugal, however, it only became common place after the approval of the NSPP (2007), which is a clear sign of a marked lack of territorial culture within the Portuguese society (Ferrão 2011, 117). In practice, policy makers should (i) include spatial planning among their political priorities, (ii) promote the advanced training of spatial planning technicians, (iii) increase the cooperation between institutions and actors, and (iv) stimulate new forms of participation and evaluation of public policies and programs with a view to promoting institutional learning and social innovation (Ferrão 2011, 133–34).

Broadly speaking, as Ferrão and Mourato (2011, 141) proclaim, there is a need to transform spatial planning evaluation into a source of policy learning, institutional innovation, and citizenship. It is also necessary to take into consideration that formal spatial planning systems are composed of a complex division of roles, powers, and tasks between various tiers of government (Roodbol-Mekkes and van den Brink 2015). This reality adds to the complexity of the evaluation process of spatial planning instruments. This goal, nevertheless, requires the existence of adequate indicators. On a positive note, it is now routinely contended that monitoring and evaluation tools conceived for supporting the development of efficient policies, and to influencing spatial planning practices, are gaining from an increasing availability of territorial indicators (Decoville 2017).

However, when sector-based and top-down organizational culture prevails, it makes it difficult to share the necessary information and to work together on common solutions (Ferrão and Mourato 2011). Another commonly held view claims that spatial planning is mostly seen as a process which operates at the nation level (national, regional, and local planning systems; Ernste 2012). This signifies that spatial planning monitoring methodologies should take into consideration each national spatial plans main characteristic, goals, and planning culture—a place-based approach.

In brief, from the above paragraphs, it is possible to conclude that the monitoring and evaluation of spatial planning instruments is multidimensional and complex, as it is not sufficient to focus only on the aspects associated with the design and implementation processes of the various spatial planning instruments but also to take into consideration “governance”-related aspects of this implementation (policy learning, social innovation, territorial culture), involving several entities and actors (Ferrão and Mourato 2011). Regarding the latter (territorial governance as an essential counterpart of governing models), several other elements need to be considered as well: decentralization, accountability, participation, coordination, cooperation, partnerships, contracting, and so on (Ferrão 2010b, 134).

Certainly, planning and evaluation should be two inseparable concepts (V. Oliveira and Pinho 2010). The evaluation of spatial planning is, however, a complex, yet a necessary, process (Alexander 2006). One useful entry point to design an evaluation methodology for spatial planning is to align a few evaluation questions, which can provide relevant information for policy makers on how spatial planning instruments are impacting territorial development processes (Rossi et al. 1999). In order to better organize the information provided by all these questions, a spatial planning monitoring/evaluation model should entail a set of main analytical dimensions, components, and respective indicators. In this regard, Alexander and Faludi (1989) propose the “policy-plan/programme-implementation-process (PPIP) model” as a framework to assess the implementation of plans and policies, by combining five
criteria for a comprehensive evaluation: (i) conformity, (ii) rational process, (iii) optimality ex ante, (iv) optimality ex post, and (v) utilization.

One fundamental idea in the process of spatial planning evaluation is that there are different ways to gauge its outcomes and ultimate impacts. These ways depend on the specific “national” context, including complex meshing of multilevel governance systems, variations in sectoral priorities, and complex web of actors and activities. It should capture, however, not only “visible” and “quantitative” effects but also the “invisible” and “qualitative” ones (Crawford, Macdonald, and Upton 2008). No less fundamental is the need to take into consideration the appropriate spatial scale and time line in the measurement of territorial impacts and the fact that planning outcomes are best monitored at multiple spatial scales (Crawford, Macdonald, and Upton 2008, 16). Supported on these and other ideas, these authors propose a conceptual approach to assess the impacts of planning procedures based on five main analytical dimensions and respective components. These include the relevance to promote efficient and sustainable environmental and economic development processes and the use of resources, while protecting and enhancing the natural and historical environment and promoting inclusive and livable communities (see Table 1).

Table 1. Key Planning Dimensions and Components.

| Dimension | Component |
|-----------|-----------|
| 1. Making sustainable land available and its efficient use for development | Climate change |
| | Land use |
| | Resource management |
| | Housing 1 |
| | Employment |
| | Economic growth |
| 2. Sustainable economic development | Environmental quality |
| 3. Protecting and enhancing the natural and historic environment | Protected land |
| 4. High quality development and efficient use of resources | Local services |
| | Air pollution |
| | Transport |
| 5. Inclusive and livable communities | Community |
| | Deprivation |
| | Housing 2 |

Source: Crawford, Macdonald, and Upton (2008, 21, adapted from figure 4.2—own elaboration).

As Weiss (1998, 30) eloquently remembers, the best way to encourage the use of evaluation is through involving potential users in defining the study and helping to interpret results and also through reporting results to them regularly while the studies are in progress. This is especially important as policy makers rarely base new policies directly on evaluation results when designing new policies (Weiss 1999). Indeed, as Davoudi (2006, 22) stresses, the sophisticated technical evaluation analyses advocated by the systems view of planning hardly reach the world of practice, since the current enthusiasm for evidence-based policy derives hardly from an instrumental view of policy–evidence interface. Furthermore, the selection of policy evaluation indicators is, to a large extent, affected by the policy agendas and institutional managerial cultures of a given moment, whereas the quality indicators are strongly conditioned by the rigor of specific technical and methodological questions involved in the evaluation process (Wong 2006).

Knowing that territorial development is also influenced by sectoral policies, Walsh (2012, 45) also proposes the possibility to monitor spatial planning per se, by coordinating the evaluation of spatial impacts of sectoral policies and institutional capacity building across stakeholders and policy sectors. The challenge here is to know how to distinguish the actions and policy measures that are produced directly by the spatial planning policies from the ones that are produced by the other policies or that are the results of market forces. This is where the use of counterfactual policy evaluation elements of a sound TIA (like the TARGET_TIA) can provide the intended answer.

A Proposed Analytical Matrix to Assess Spatial Planning Instruments

Drawing upon the ideas expressed in the previous topics, we now propose a set of main analytic goals, dimensions, and respective components which serve as a generic evaluation matrix which can be chiefly applied to a TIA methodology and also to any other policy monitoring/evaluation system/
we propose that several soft and hard spatial planning elements goals are advanced in this matrix. In the first (legal capacity),
technique (see Table 2). As seen, three main spatial planning goals are advanced in this matrix. In the first (legal capacity), we propose that several soft and hard spatial planning elements should be assessed, as fundamental indicators of a well-functioning, relevant, and updated spatial planning governance and legal system. Here, for instance, the evaluation of existing accountability and decentralized measures can offer a range of answers on the effectiveness of a given spatial planning process as well as the existence of monitoring and evaluations structures and the existence of members of the government with the direct competence to manage spatial planning policies.

In the following, we highlight the importance of assessing elements associated with the territorial planning culture, which are basically included in three main arenas: (i) the professional community, which include the assessment of the spatial planning officials training and academic background, and existing and functioning professional networks which act as knowledge transfer platforms; (ii) the citizens, as crucial players to influence the design and implementation of spatial planning processes, which ultimately depend on their civil engagement and basic education in spatial planning theory; and (iii) the decision makers, as the ultimate spatial planning designers and implementers. Here, their capacity and impacts in providing appropriate spatial planning instruments depends on appropriate policy coordination, policy learning, and institutional innovation.

Finally, the evaluation of spatial planning should be focused in assessing its main impacts in several territorial development dimensions and respective components, which include the following: (i) economic-related elements of territorial competitiveness, (ii) social cohesion–related indicators, (iii) environmental sustainability components, (iv) territorial governance associated aspects, and (v) territorial articulation associated elements as well. In the end, a proper spatial planning TIA requires this holistic evaluation perspective, which includes more than mainstream socioeconomic development analysis, with bits and pieces of environmental elements in the mix.

As expected, this generic spatial planning evaluation matrix should be adapted to each case-study idiosyncrasies (place-based approach), making it open to necessary adaptations (removal or/and inclusion of components). Furthermore, it should be realistically adjusted to data availability. Here, both qualitative (interviews, literature reading, etc.) and quantitative (statistics) should be used, following the mainstream methodological approach of the selected TIA tool.

In the end, the proposed spatial planning evaluation matrix is divided into three distinct sections. The first encompasses the main goals of spatial planning instruments which, as discussed above, go beyond the pure characterization of their potential impacts on territorial development trends. For one, the implementation of spatial planning instruments depends very much on the existence and capacity to enforce spatial planning legislation. Equally important is the need for augmenting the inter-disciplinary training for spatial planning professionals, as well as the presence of a strong and unique institutional voice, in order to avoid dialogue struggles between different professionals and institutions working on spatial planning (Ferraõ and Campos 2015). Also crucial is the need to consider an
evaluation of several components associated with the goal to promoting a sound “territorial spatial planning culture,” which should include measures aiming, not only at improving the educational training of public officials working on spatial planning instruments but also measures to mobilize civic movements and decision makers, namely to build and increase a more demanding territorial and spatial planning conscience (see Ferrão 2011, 134).

**Discussion and Conclusions**

In this article, we discussed the importance of spatial planning procedures and instruments for promoting sound and positive territorial development trends. By being associated with the territorial development concept as one of its fundamental dimensions, unlike mainstream traditional approaches, we advocate the advantages of applying a TIA tool to assess the operationalization of spatial planning instruments. For this, and based on available literature, we propose a general set of goals, dimensions, and components which serve as a base matrix to perform a TIA procedure or any other policy evaluation methodology which makes use of qualitative and quantitative data.

In sum, we concluded that the process of evaluating spatial planning instruments is a complex, holistic, and place-based one. In accepting all this, we also propose that the evaluation of spatial planning instruments embraces the need to take into account its (i) legal capacity, to make them a tangible force for territorial positive development trends, in both soft and hard aspects, like the presence of spatial planning monitoring and evaluation structures; (ii) impacts on the territorial and spatial planning culture, as a means to engage and empower policy makers, citizens, and the spatial planning professional community; and (iii) impacts on the main dimensions of territorial development.

Far from signaling the end of the scientific debate on the need to monitor and assess spatial planning instruments, this article advances the possibility to make use of a comprehensive evaluation matrix, which can be used by a sound and relevant TIA procedure, in order to assess all types (from urban to European) spatial planning instruments. Most notable in this regard is the potential benefits from making use of those TIA tools, as they can easily produce potential impact values for all the analyzed dimensions, while mapping them at the selected territorial scale.

We are well aware though that the use of these TIA tools has been slow to catch on within Europe. Moreover, we are fully aware that, in many instances, the unavailability of the necessary data which is required to assess the evolution and the respective causality, in the analyzed period of time, tends to undermine any kind of evaluation procedure. Even so, we intend to provide an academic contribution which can add to existing policy evaluations methods molded by an economic logic, into more territorial and holistic methodologies, such as the TIA tools. The next step would be to apply such a methodology to assess a concrete spatial planning instrument, and to complete the proposed analytic matrix with appropriate indicators, again based on the selected case study. Finally, we should remind that only robust and sound TIA tools can provide reliable potential impact values and that the obtained evaluation should be valid and useful enough to improve the design and implementation process of future spatial planning instruments.

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