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SPATIAL PLANNING, TERRITORIAL DEVELOPMENT AND TERRITORIAL IMPACT ASSESSMENT

EDUARDO MEDEIROS

Instituto Universitário de Lisboa (ISCTE-IUL), DINÂMIA'CET - IUL, Lisboa, Portugal - Avenida
das Forças Armadas, Edifício Sedas Nunes, Sala 2W4-d, 1649 – 026 Lisboa, Portugal -
Eduardo.Medeiros@iscte-iul.pt

Abstract:

This paper debates the possibilities and advantages of using Territorial Impact Assessment (TIA) policy evaluation methodologies to assessing 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 of using TIA tools to evaluate them, mostly at the ex-post phase.

Keywords: Spatial Planning, Policy Evaluation, Territorial Impact Assessment, Territorial Development, Territorial Impact Assessment, Europeanisation/EUisation.

1. Introduction

Spatial planning (an Euroenglish' 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 ESPON project, with the main goal of comparing EU national spatial plans, widened our appetite for relating both scientific themes: spatial planning and policy evaluation methodologies.

Generically understood as the practices of regulating and transforming space (Madanipour et al., 2001), the management of territoriesⁱ, the managing 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” (EC, 1997: 24), spatial planning deals primarily with the regulation of land use. In a complementary way, spatial planning has also been emphasised 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 & 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”, whilst 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 so far tend to be more about processes than about outcomes and effectiveness, and are commonly measured in terms of administrative efficiency, numerical returns and cost implications” (Crawford et al., 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 European Union (EU) directives (ESPON TIAs - see Medeiros, 2014b), and also ex-post impacts of policies/programmes, 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 multi-vector TIA tool, which takes into consideration counter-factual evaluation elements (see Medeiros, 2017c) is selected. For the sake of clarity, the main challenge here would be select the appropriate analytical dimensions, respective components and indicators, adapted 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, whilst suggesting fundamental analytical dimensions for assessing their main territorial impacts, based on available literature. It also builds on the author previous experience in assessing policy/programmes main territorial impacts and in analysing spatial planning processes, both in 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 allow the

understanding of the effective impacts of the implementation of spatial plans, in order to improving the efficiency of policy-making processes.

As a way to facilitate the understanding of our scientific analysis, this paper is divided into four distinct sections. The following section synthetically discusses the importance of spatial planning to promoting territorial development, thus making an appropriate subject to assessed by a holistic and territorial policy evaluation tool. The next section reflects on the importance of the Europeanisation, or better still, the EUisation 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.

2. 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 (UN, 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. Yet, it is also a normative or ethical view of the world, a way

to define the objectives of a well-functioning society, one that delivers wellbeing for its citizens today and for future generations”.

In sum, although territorial development is commonly understood as a multi-dimensional concept, ultimately there is yet not an established academic culture to including ‘spatial planning’ as one of its fundamental dimensions. Crucially, the importance of spatial planning, understood as both 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 17 sustainable development goals, by the United Nations (UN, 2015) mostly encompass socioeconomic, environmental, and governance related themes (Fig.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 to attain this goal (Fig. 2).



Figure 1. United Nations sustainable development goals. Source: (UN, 2015) - own elaboration

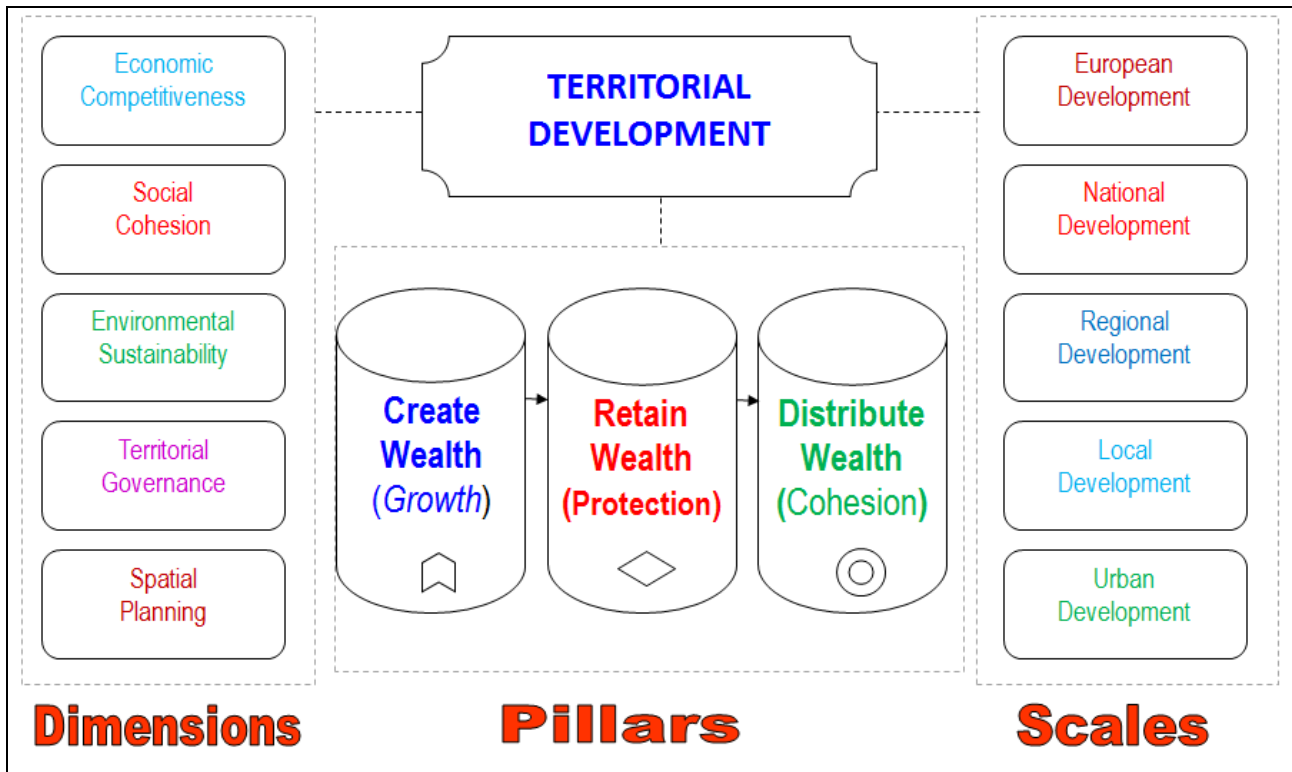


Figure 2 - Main dimensions, pillars and scaled of territorial development. Source: Based on (Medeiros, 2016c) - Own elaboration

Again, as regards to the elusive notion of territorial cohesion, the mainstream models which breakdown this concept (TEQUILA and STAR - see Bradley & 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 centre 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 (Dühr et al., 2007), aims to disperse territorial development from congested urban regions, and to (re)concentrate it in the less developed regions (Hall, 2002; Shaw & Sykes, 2004), thus proactively contributing 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 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, Dühr et al. (2007: 301) alert that “in many planning contexts, development means changes in the form and quality of the physical built and natural environment, and to a greater or lesser extent, the activities that make use of that environment. Thus, spatial development refers to the geographical distribution of features in the built and natural environment and patterns and flows of human activity”.

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, multi-dimensional 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 17 United Nations Sustainable Development Goals.

3. The Europeanisation/EUisation 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 (Dühr et al.,

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 sub-national governance arrangements have occurred across nearly all European countries (Pugalis & Townsend, 2013).

In this context of increasing, and sometimes decreasing, EUisation of spatial planning processes within EU Member States, “the introduction of the notion of territorial cohesion into the Constitutional Treaty is 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 policymaking is considerable, whilst the involvement of planners and policy-makers is operated in a multilevel multi-sector and multi-scale context ((Dühr & Müller, 2012), which allows for increasing mutual learning and EUisation absorption.

Alongside, as Faludi alerts, the EU influence on national spatial planning may look to have stalled in past years. However, this EUisation process continues through the “support for ‘European Territorial Cooperation’ under cohesion policy” (Faludi, 2014: 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, rural development, with considerable spatial impact, and which often require institutional adjustments within EU member states (Dühr et al., 2007).

In a practical manner, the ESDP became a blueprint to some national spatial plans, as was the case of the ones approved in Portugal (Ferrão & 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 & 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 by demands from political actors. 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 by 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 coined by the visions expressed in EU key spatial planning documents.

As seen, the EUisation 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 (OECD, 2008). In synthesis, the NSPP was the first spatial planning instrument with long-term strategic vision guidelines in Portugal (Gaspar & Simões, 2005). It is, indeed, striking the significant influences that the adherence of Portugal to the EU provoked in the implementation of national spatial plans, in all territorial levels. On the whole, numerous factors contributed for these profound changes. In a broad generalization, amid the launching of the ESDP and the EU Regional Policy (read INTERREG programmes), the spatial planning processes in Portugal was modernised and EUaised. 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 intra-national (cities, municipalities and regions), and transnational (Euroregions, transnational regions, cross-border working communities), were established with a view to share 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 9º), 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 - the mission factor. Secondly, because spatial planning processes in Portugal are highly vulnerable in relation 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 shortly defines spatial planning as 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 EUisation of spatial planning processes across all territorial scales, in Portugal. On its part, the European

Territorial Cooperation processes influence mostly the regional level, whilst the local level is frequently influenced by the EU Rural Policy (ESPON, 2018).

It 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, whilst 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 (SUDS), 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 (indulging a 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 Euroregions, 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 non-effective 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 widespread 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 programme 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 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, both in transmitting and receiving experiences (ESPON, 2018).

Contrary to the relatively infancy of the Portuguese spatial planning process, when the Territorial Planning and Urbanism Act (LBPOTU) was approved (1998) (see Oliveira, 2017), an obligation to evaluate and monitor spatial planning policy was immediately established, which was a bit of a pioneering accomplishment within the European context. More whimsically, its article 28 states that

the “evaluation of spatial planning policy has to be based on ‘Spatial Planning Status Reports’ (Relatórios sobre o Estado do Ordenamento do Território - REOT), to be submitted every two years by the government to the National Parliament, by Regional Boards to the Regional Assemblies, and by Local Authorities to the Municipal Assembly, describing how planning policy instruments under their respective jurisdictions have been applied” (Ferrão & Mourato, 2011: 145). Alongside, a National Territorial Information System (SNIT - Sistema Nacional de Informação Territorial) was established as a concrete spatial planning monitoring mechanism.

More widely, the LBOTU 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 in analysing each 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 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 & Stead, 2013) a reality. But more importantly, in our view, they should start to realise 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.

4. Territorial Impact Assessment and Spatial Planning

4.1 - TIA tools, the ultimate EU policy evaluation procedure

In a nutshell, and as the name suggests, TIA is an evaluation tool aiming at identifying the ex-ante or ex-post potential impacts of a project/programme/policy, normally in an impact degree scale, which goes from the substantial negative impacts into substantial positive impacts. To be considered a TIA, the evaluation analysis should entail 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 with 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).

As expressed in the EU 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” (EC, 1997: 24). This is a clear mention to the importance to 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 via, for instance, spatial observatories. At the same time, “there are numerous EU initiatives seeking to improve the availability of spatial data for policy-making and to make existing spatial datasets more compatible (Dühr & Müller, 2012: 423). Here, the ESPON programme has had a decisive role in providing territorial analytic reports, tools and datasets, to better understand European territorial development trends, since 2002. Add to that, more recently, the European Commission (EC) launched the LUISA tool, as a key element of the Knowledge Centre for Territorial Policiesⁱⁱ.

4.2 - Key spatial planning analytical dimensions

To appreciate this idea of a need for monitoring and evaluation 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) allude, “monitoring land-use change enables examination of unwanted settlement trends, such as urban sprawl, as well as identification of loss of significant habitats”. 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 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 favour 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 to augmenting the coordination of several public sectoral activities across different departments (Stead & Meijers, 2009). For Vigar (2009: 1572 - based on Healey, 2006), the policy integration of spatial planning instruments implies “co-ordinating 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)framing; (iii) connecting policy; and (iv) action and co-operation among actors.

Instead, for Luukkonen (2014: 178-9) spatial planning is essentially about governing space, as it requires a close-knit relation between policymaking and academic research, and a strategic visioning of space and spatial relations at all government levels. In same vein, Walsh (2012: 47-8), 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 analysing spatial planning instruments. This can be testified when he identifies six main problems associated with the implementation of this process in Portugal:

- The presence of a young spatial planning system, yet prematurely discredited;
- A disciplinarily fragmented technical-professional community;
- The predominance of a political and administrative culture that is not conducive to inter-sectoral territorial coordination;
- The absence of a civic culture of robust spatial planning;
- The lack of formal EU competences on spatial planning;
- The fact that the fundamental right to a proper spatial planning process is 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 increasing the dynamics of engagement, dialogue and learning processes between stakeholders, which requires the access to better information, knowledge, innovative technologies, organization 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 a common place after the approval of the NSPP (2007), which is a clear sign of a marked lack of culture of the territory within the Portuguese society (Ferrão, 2011: 117). Hence, there is a role for the citizens to invert this perennial context, namely in assuming territorial sustainability-like behaviours. Furthermore, the same author proposes that the spatial planning professional community is further engaged in the discussion of actions which allow for the inclusion of forgotten dimensions related with the implementation of spatial planning policies. 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 which intervene in the same territory; and (iv) stimulate new forms of participation and evaluation of public policies and programmes with a view to promoting institutional learning and social innovation (Ferrão, 2011: 133-134).

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”. On a different prism, it is necessary to take into considerations that “formal spatial planning systems are composed of a complex division of roles, powers, and tasks between various tiers of government” (Roodbol-Mekkes & 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, the persistence of a top-down and sector-based organizational culture in many parts of the civil service makes it difficult to share the necessary information and to work together on

common solutions. It is not surprise that the evaluation of territorial dynamics is faced with institutional, cultural and even technical obstacles that are impossible to ignore” (Ferrão & Mourato, 2011). Another commonly held view claims that spatial planning is mostly seen as a process which operates within 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 multi-dimensional and complex, as it is not sufficient to focus only in 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, etc. (Ferrão, 2010b: 134).

Certainly, planning and evaluation should be two inseparable concepts (Oliveira & 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, in a positive way, territorial development processes, at the desired territorial level (Rossi et al., 1999). In order to better organise 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 & Faludi (1989) propose the 'PIIP 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) utilisation.

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 multi-level 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 et al., 2008). No less fundamental, is the need to take into consideration the appropriated spatial scale and timeline in the measurement of territorial impacts, and that "planning outcomes are best monitored at multiple spatial scales" (Crawford et al., 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 (Table 1)

When designing an evaluation methodology for spatial planning it is, again, crucial to consider the complexity of this process, as "spatial planning is not time or space bound and is therefore more difficult to assess" (Rae & Wong, 2012: 880). Taking this into consideration, these authors propose to combine different types of indicators, across different themes, when measuring spatial planning impacts. This indicator bundle approach is supposed to provide a more robust analysis. However, it comes with associated bottlenecks as it does "not take into account the interdependent structure of different types of indicators and their different roles in the policy cycle. Second, these bundling methods do not directly address the spatial scale and interconnections between different policy

issues. Third, stakeholders were not able to make use of their substantial knowledge to develop a more analytical approach to policy monitoring” (Rae & Wong, 2012: 885).

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
2 - Sustainable economic development	- Employment - Economic growth
3 - Protecting and enhancing the natural and historic environment	- Environmental quality - Protected land
4 - High quality development and efficient use of resources	- Local services - Air pollution - Transport
5 - Inclusive and liveable communities	- Community - Deprivation - Housing 2

Source (Crawford et al., 2008: 21) - Adapted from figure 4.2 - Own elaboration

As seen, the evaluation of spatial planning is both complex and multidimensional, and also multi-perspective. Unequivocally, as Mourato and Ferrão (2011: 142) recall, from a Ferrão statement made in 1996, the evaluation of spatial planning “should not be confined to a more or less sophisticated set of technical and bureaucratic conformity procedures; rather, it should be a process whereby the various types of factors involved are collectively motivated and given the ability to learn”. Following this line of thought, Alexander (2011) also claims that the evaluation of spatial planning has to take into consideration not only the evaluation of the planning activity in itself, but

also the evaluation of relevant agents of or in planning processes, as it involves the analysis of both the planning systems and/or the institutions involved in these processes.

4.3 - 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/technique (see Table 2). 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.

Table 2 - Analytic matrix to evaluate spatial planning territorial impacts

Goals	Dimensions	Components
Legal Capacity	Soft	<ul style="list-style-type: none"> - Legal instruments coverage - Updated and mature SP legal instruments - Conformity with development strategies - Accountability measures - Decentralised measures - Utilisation in operational decisions
	Hard	<ul style="list-style-type: none"> - Evaluation structures - Ministerial or secretary of state
Territorial Planning Culture	Professional Community	<ul style="list-style-type: none"> - Advanced training of officials

		- University courses on SP
		- Engagement and cooperation among actors
		- Associations/Partnerships
Citizens		- Basic and secondary SP curricula
		- Civic culture and movements
		- Civic SP practices and values
Decision makers		- Provide a framework for policy coordination
		- Capacity to facilitate SP implementation
		- Policy-learning
		- Institutional Innovation
<hr/>		
Territorial Development	Territorial Competitiveness	- Productivity
		- Innovation
		- Income
		- Employment
	Social Cohesion	- Inclusion
		- Education
		- Health
		- Culture
	Environmental Sustainability	- Circular economy
		- Energy
		- Biodiversity
		- Climate change
	Territorial Governance	- Participation / Involvement
		- Administrative capacity
		- Territorial cooperation
		- Information
	Territorial Articulation	- Territorial connectivity
		- Integrated spatial development
		- Polycentric development
		- Correcting urban sprawl

Note: SP - Spatial Planning - Own elaboration

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 interdisciplinary 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 (Ferrão & 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 mobilise 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:

Along this article, we discussed the importance of spatial planning procedures and instruments to 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 operationalisation 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, both in 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; (iii) impacts on the main dimensions of territorial development.

Far from signalling the end of the scientific debate around 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 analysed dimensions, whilst 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 analysed period of time, tends to undermine any kind of evaluation procedure. Even so, we intend to provide a scientific contribution which can invert mainstream trends of policy evaluations methods moulded 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.

References:

Alexander, E. (2006) Problems and prospects: Dilemmas in evaluation and directions for the future.

In *Evaluation in planning: Evolution and prospects*, ed. Ernest R. Alexander, 267-76. Aldershot, UK: Ashgate

Alexander, E. R.; Faludi, A. (1989) Planning and plan implementation: Notes on evaluation criteria.

Environment and Planning B: Planning & Design 16 (1): 127-40.

Albrechts, L. (2006) Bridge the gap: From spatial planning to strategic projects. *European Planning Studies*, 14(10), 1487– 1500.

Bradley, J. & Zaucha, J. (2017) *Territorial Cohesion: A missing link between economic growth and welfare Lessons from the Baltic Tiger*, Uniwersytet Gdański Katedra Makroekonomii, Gdansk.

Cavaco, C. (coord.) (2014) *Programa Nacional da Política de Ordenamento do Território Avaliação do Programa de Ação 2007-2013*, Direcção-Geral do Território, Lisbon.

Crawford, J. Macdonald. K.; Upton, R. (2008) *Measuring the Outcomes of Spatial Planning in England*, final report, *Communities and Local Development*, RTPI, Centre for Urban Policy Studies, University of Manchester, Department of Town and Regional Planning, University of Sheffield

Davoudi, S. & Strange, I. (Eds.). (2007). *Conceptions of space and place in strategic spatial planning*. London: Routledge.

Decoville, A (2017) *Use and Misuse of Indicators in Spatial Planning: The Example of Land Take*, *Planning Practice & Research*, DOI: 10.1080/02697459.2017.1378981

Dühr, S.; Stead, D.; Zonneveld, W. (2007) *The Europeanization of spatial planning through territorial cooperation*, *Planning, Practice & Research*, 22:3, 291-307, DOI:10.1080/02697450701688245

Dühr, S.; Colomb, C.; Vincent, N. (2010) *European Spatial Planning and Territorial Cooperation*, Routledge, London.

Dühr, S.; Müller, A. (2012) *The Role of Spatial Data and Spatial Information in Strategic Spatial Planning*, *Regional Studies*, 46:4, 423-428, DOI: 10.1080/00343404.2012.669535

EC (1997) *The EU compendium of spatial planning systems and policies*, European Commission, Brussels.

EC (1999a) *ESDP. European Spatial Development Perspective. Towards Balanced and Sustainable Development of the Territory of the European Union*, European Communities, Luxembourg.

EC (1999b) *MEANS – Evaluation socio-economic programmes – Evaluating Design and Management*, Volume 1 — European Commission, Luxembourg.

Ernste, H. (2012) Framing Cultures of Spatial Planning, *Planning Practice and Research*, 27:1, 87-101, DOI: 10.1080/02697459.2012.661194

ESPON (2018) COMPASS - Comparative Analysis of Territorial Governance and Spatial Planning Systems in Europe, ESPON, Luxembourg.

Faludi, A. (2004). Spatial planning traditions in Europe: their role in the ESDP process. *International Planning Studies*, 9 (2–3): 155–172.

Faludi, A. (2006) From European Spatial Development to Territorial Cohesion Policy, *Regional Studies*, 40(6): 667-678.

Faludi, A., 2007. Making sense of the territorial agenda of the European Union [online]. *European Journal of Spatial Development; Refereed Articles*, 25. Available from: <http://www.nordregio.se/EJSD/refereed25.pdf> [Accessed 28 September 2011].

Faludi, A. (2014) Europeanisation or Europeanisation of spatial planning?, *Planning Theory & Practice*, 15:2, 155-169, DOI: 10.1080/14649357.2014.902095

Ferrão, J. (2010a) Ordenamento do território: 25 anos de aprendizagem? in *Europa Novas Fronteiras, Portugal – 25 anos de Integração Europeia, Princípios*, 26/27: 77-84

Ferrão, J. (2010b) Governança e ordenamento do território, *Prospectiva e Planeamento* 17 (2010), 129-139

Ferrão, J. (Ed.) (2011) O Ordenamento do Território como Política Pública, Fundação Calouste Gulbenkian, Serviço de Educação de Bolsas, Lisboa.

Ferrão, J.; Mourato, J. (2011) Evaluation and Spatial Planning in Portugal: From legal requirement to source of policy-learning and institutional innovation, in From Strategic Environmental Assessment to Territorial Impact Assessment: Reflections about evaluation practice, Ed. Farinas Dasi, J., Publicacions de la Universitat de Valencia, Valencia, PP. 141-166.

Ferrão, J. Campos, V, (Ed.) (2015) O Ordenamento em Portugal. Uma perspectiva genealógica, ICS working papers, Lisboa.

Gaspar, J.; Simões, J. M. (2005) Ordenamento à escala nacional, in Geografia de Portugal, vol. 4, Planeamento e Ordenamento do Território, Circulo de leitores, Lisboa: 268-278.

González, A.; Daly, G.; Pinch, P.; Adams, N.; Valtenbergs, V.; Burns, M. C.; Johannesson, H. (2015) Indicators for Spatial Planning and Territorial Cohesion: Stakeholder-Driven Selection Approach for Improving Usability at Regional and Local Levels, Regional Studies, 49:9, 1588-1602, DOI: 10.1080/00343404.2015.1018883

Hall, P. (2002) Christaller for a Global Age. Redrawing the Urban Hierarchy. Research Bulletin 59, Stadt und Region: Dynamik von Lebenswelten, tagungsbericht und wissenschaftliche Abhandlungen, 53 Deutscher Geographentag Leipzig; 29. Edit by A Mayr, M Meurer and J Vogt, Leipzig, Deutsche Gesellschaft für Geographie; 10-128.

- Kidd, S.; Shaw, D. (2013) Reconceptualising territoriality and spatial planning: insights from the sea, *Planning Theory & Practice*, 14:2, 180-197, DOI: 10.1080/14649357.2013.784348
- Kunzmann, K. R. (1998) Planning for spatial equity in Europe, *International Planning Studies*, 3:1, 101-120, DOI: 10.1080/13563479808721701
- Luukkonen, J. (2014) Planning in Europe for 'EU' rope: Spatial planning as a political technology of territory, *Planning Theory* 2015, 14 (2): 174–194.
- Magone, J. (2006) The Europeanization of Portugal (1986-2006). A Critical View, *Nação e Defesa*, Outono-Inverno 2006, 115(3): 9-28.
- Madanipour, A.; Hull, A.; Healey, P. (eds) (2001) *The Governance of Place: Space and Planning Processes*. Aldershot: Ashgate Publishing Limited.
- Medeiros, E. (2010) Old vs Recent Cross-Border Cooperation: Portugal-Spain and Sweden-Norway, *AREA*, 42 (4): 434-443.
- Medeiros, E. (2011) (Re)defining the concept of Euroregion, *European Planning Studies*, 19 (1): 141-158.
- Medeiros, E. (2013) Assessing territorial impacts of the EU Cohesion Policy: the Portuguese case, *European Planning Studies*, 22 (9): 1960-1988.

- Medeiros, E. (2014a) The Europeanization of Spatial Planning processes in Portugal within the EU Cohesion policy Strategies (1989-2013), *Geography and Spatial Planning Journal*, 6: 201-222, <http://dx.doi.org/10.17127/got/2014.6.012>
- Medeiros, E. (2014b) Territorial Impact Assessment (TIA). The process, Methods and Techniques (ed.) Centro de Estudos Geográficos, ZOE, Lisbon University, 126p. (ISBN - 978-972-636-246-3) - https://www.dropbox.com/s/m2rapwsqfg7nqr4/Book_Territorial_Impact_Assessment.pdf?dl=0
- Medeiros, E. (2014c) Assessing Territorial Impacts of the EU Cohesion Policy at the Regional Level: the Case of Algarve, *Impact Assessment and Project Appraisal*, 32(3), 198–212, [□http://dx.doi.org/10.1080/14615517.2014.915134](http://dx.doi.org/10.1080/14615517.2014.915134)
- Medeiros, E. (2016a) Territorial Cohesion: An EU Concept, *European Journal of Spatial Development*, 60. Available from: <http://www.nordregio.se/Global/EJSD/Refereed%20articles/refereed60.pdf>
- Medeiros, E. (2016b) Territorial Impact Assessment and Public Policies: the case of Portugal and the EU, *Public Policy Portuguese Journal*, 1(1): 51-61, <http://www.umpp.uevora.pt/publicacoes/Public-Policy-Portuguese-Journal>
- Medeiros, E. (2016c) Is there a rise of the territorial dimension in EU Cohesion policy?, *Finisterra*, 103: 89-113, <http://dx.doi.org/10.18055/Finis7940>

- Medeiros, E. (2017a) Cross-border cooperation in Inner Scandinavia: A Territorial Impact Assessment, *Environmental Impact Assessment Review*, 62(2017):147–157, <http://dx.doi.org/10.1016/j.eiar.2016.09.003>
- Medeiros, E. (2017b) European Union Cohesion Policy and Spain: a territorial impact assessment, *Regional Studies*, 51(8): 1259-1269, <http://dx.doi.org/10.1080/00343404.2016.1187719>
- Medeiros, E. (2017c) From simple to relevant TIA tools for European Policies, in Medeiros, E. (ed.) *Uncovering the Territorial Dimension of European Union Cohesion Policy*, pp 147-160, Routledge, London - <https://www.routledge.com/Uncovering-the-Territorial-Dimension-of-European-Union-Cohesion-Policy/Medeiros/p/book/9781138049178>
- Moreno, L. (2002) *Desenvolvimento Local em Meio Rural. Caminhos e Caminhantes*. Dissertação de Doutoramento, Universidade de Lisboa, Faculdade de Letras, Lisboa.
- Morphet, J. (2011). *Effective practice in spatial planning*. London: Routledge.
- Nadin (2007) The emergence of the spatial planning approach in England, *Planning, Practice & Research*, 22:1, 43-62, DOI: 10.1080/02697450701455934
- Nadin, V.; Stead, D. (2013) Opening up the Compendium: An Evaluation of International Comparative Planning Research Methodologies, *European Planning Studies*, 21(10): 1542-1561, DOI: 10.1080/09654313.2012.722958

OECD (2008) Territorial Reviews - Portugal, Organisation for Economic Co-operation and Development, Paris.

Oliveira, F.P. (2017) Os princípios da nova lei do ordenamento do território: da hierarquia à coordenação, CEDOIA, 1 (2000): 21-36. - URI:<http://hdl.handle.net/10316.2/5716> - Accessed at 9-Feb-2017

Oliveira, V.; Pinho, P. (2010) Evaluation in urban planning: Advances and Prospects, Journal of Planning Literature, 24(4) 343 –361

Papudo, R. M. (2007) Indicadores de ordenamento do território: uma proposta metodológica, Tese de Doutoramento, Universidade de Lisboa (<http://hdl.handle.net/10451/454>).

Partidário, M. R. (2003) Guia para avaliação estratégica de impactes em ordenamento do território. Lisbon: MCOTA/ DGOTDU.

Partidário, M. R.; Correia, F. N. (2004) Polis—the Portuguese programme on urban environment. A contribution to the discussion on European Urban Policy, European Planning Studies, 12(3): 409-423,

Potter R.; Binns, T.; Elliott, J.; Smith, D (2008) Geographies of Development. An Introduction to Development Studies, Third Edition, Pearson Education Limited, Essex.

Pugalis, I.; Townsend, A. (2013) Rescaling of Planning and Its Interface with Economic Development, *Planning Practice & Research*, 28:1, 104-121, DOI: 10.1080/02697459.2012.699236

Roodbol-Mekkes, H.; van den Brink, A. (2015) Rescaling spatial planning: spatial planning reforms in Denmark, England, and the Netherlands, *Environment and Planning C: Government and Policy* 2015, 33: 184–198

Sen, A. (2000) *Development as Freedom: Human Capability and Global Need*. New York: Anchor Books

Shaw, D.; Sykes, O. (2004) The concept of polycentricity in European spatial planning: reflections on its interpretation and application in the practice of spatial planning, *International Planning Studies*, 9:4, 283-306, DOI: 10.1080/13563470500050437

Stead, D.; Meijers, E. (2009) Spatial Planning and Policy Integration: Concepts, Facilitators and Inhibitors, *Planning Theory & Practice*, 10:3, 317-332, DOI: 10.1080/14649350903229752

UN (2015) *Transforming the world: The 2030 agenda for sustainable development*, A/RES/70/1, United Nations Development Programme, New York

UNDP (2016) *Human Development Report 2016: Human Development for Everyone*, United Nations Development Programme, New York

Vigar, G. (2009) Towards an Integrated Spatial Planning?, *European Planning Studies*, 17:11, 1571-1590, DOI: 10.1080/09654310903226499

Zaucha, J. (2007) Is spatial planning a driver for sustainable development in Poland?, *Planning, Practice & Research*, 22:3, 463-471, DOI: 10.1080/02697450701688468

Walsh, C. (2012) Spatial planning and territorial governance: managing urban development in a rapid growth context, *Urban Research & Practice*, 5:1, 44-61, DOI: 10.1080/17535069.2012.656451

Walsh, C. (2014) Rethinking the Spatiality of Spatial Planning: Methodological Territorialism and Metageographies, *European Planning Studies*, 22:2, 306-322, DOI: 10.1080/09654313.2012.741568

Waterhout, B. (2007) Episodes of Europeanization of Dutch national spatial planning, *Planning, Practice & Research*, 22:3, 309-327, DOI: 10.1080/02697450701666696

ⁱ <https://www.ucl.ac.uk/bartlett/planning/programmes/postgraduate/mscdip-spatial-planning>

ⁱⁱ <https://ec.europa.eu/jrc/en/luisa>