UNIVERSIDADE DE LISBOA

INSTITUTO SUPERIOR TÉCNICO

THE ROLE OF GOVERNANCE IN ENHANCING STRATEGIC ENVIRONMENTAL ASSESSMENT

Margarida Barata Monteiro

Supervisor: Doctor Maria do Rosário Sintra de Almeida Partidário

Thesis approved in public session to obtain the PhD Degree in Environmental Engineering

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Doctor Jorge Manuel Lopes Baptista e Silva, Instituto Superior Técnico, Universidade de Lisboa

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Resumo

A Avaliação Ambiental Estratégica (AAE) há muito que é reconhecida como um instrumento essencial de Avaliação de Impactes (AI) com capacidade para acrescentar valor a decisões estratégicas e facilitar a integração de preocupações ambientais e de sustentabilidade em processos de desenvolvimento. No entanto, persistem as diferenças de perspetiva sobre o propósito da AAE e o seu papel enquanto instrumento de suporte político, principalmente por se verificar que esta não está a influenciar suficientemente os processos de decisão. Ao longo dos anos tem-se verificado uma evolução na conceptualização da AAE, incorporando aspetos fortemente relacionados com governança. Este facto suscitou o interesse desta investigação na demonstração da relação entre governança e AAE (através de uma perspetiva de governança em AAE). O objetivo desta investigação é entender qual poderá ser o papel da governança em valorizar a AAE em direção à sustentabilidade. No contexto da AAE, governança pode ser entendida como uma dimensão estratégica de análise que contribui para que a AAE atinja os objetivos estabelecidos. Esta investigação defende que a AAE deverá apoiar-se na dimensão de governança se pretende reforçar a sua capacidade de trabalhar em contextos de desenvolvimento sustentáveis, caracterizados por um elevado grau de incerteza, complexidade, e pela presença de múltiplos agentes com opiniões e comportamentos divergentes. É adotada uma metodologia de construção de teoria, com recurso a diversos métodos de coleta de dados como revisão sistemática, questionários a peritos e análise documental para, principalmente através de categorização e interpretação dos resultados, demonstrar a relação entre AAE e governança. Foi ainda realizado um estudo de caso sobre a AAE do Plano Diretor Municipal de Sintra, recorrendo ao método de investigação ação, onde foi utilizada uma perspetiva inclusiva de governança. De um ponto de vista teórico, verificou-se que a AAE apresenta caminhos evolutivos semelhantes à investigação em governança, com foco na natureza pluralista dos processos de desenvolvimento. Também, os agentes destacam a necessidade de práticas democráticas em processos de AAE ancoradas em questões de participação, responsabilização e transparência. E mais, foi possível verificar que a institucionalização da AAE está perante constrangimentos de uma natureza mais normativa e cognitiva do que estrutural, sugerindo uma lacuna na capacidade da AAE de atuar e atingir o seu propósito. O estudo de caso com investigação ação permitiu considerar a governança como uma dimensão da AAE e foi possível observar o seu papel a estimular processos orientados para a sustentabilidade. Estes resultados permitem argumentar que adotar uma perspetiva de governança em AAE, fundamentada por uma visão orientada para a sustentabilidade, pode ajudar a melhorar a capacidade da AAE em direção à sustentabilidade, eventualmente posicionando a AAE como um instrumento de significação e legitimação. A complexidade das questões implicadas, combinada com mentalidades atuais estarem bloqueadas por antigas tradições de AI e por uma falta de motivação para o uso de formas inovadoras de AAE, pode vir a restringir a consideração da governança. É por isso essencial estimular espaços de envolvimento e capacitação ao longo do processo de AAE como forma de promover a mediação de conhecimento e aprendizagem transformativa.

Palavras-chave: Avaliação Ambiental Estratégica; Governança; Avaliação Ambiental e de Sustentabilidade; Perspetiva de Governança; Capacidade da AAE.

Abstract

Strategic Environmental Assessment (SEA) has long been recognized as an essential instrument of Impact Assessment (IA) with the capacity to add value to decisions and facilitate the integration of environmental and sustainability concerns in development processes. Despite this recognition, debates about the purpose of SEA and its role as a political support instrument continue, mostly because SEA intended capacity to influence decision-making is proven to be insufficient. Throughout the years there has been an evolution in the conceptualisation of SEA, with an incorporation of aspects strongly linked to governance. This fact motivated the interest of this PhD research in exploring the relationship between governance and SEA (through a governance in SEA perspective). The objective of the research has been to understand what can be the role of governance in enhancing SEA towards sustainability. In the context of SEA, governance can be understood as a strategic dimension of analysis that contributes to pursue SEA intended purposes. The research argues that SEA needs to adopt a governance lens if it intends to work in contexts of sustainable development processes characterised by a high sense of uncertainty, complexity and presence of multiple actors with different views and behaviours. A theory-building methodology is adopted, supported by multiple methods such as systematic review of current knowledge, questionnaires to get experts views and document analysis to, mainly through categorisation and interpretation of results, show the relationship between SEA and governance. Also, action research was used in the case study conducted on the SEA of Sintra's municipal master plan, where a governance-inclusive perspective was used. Theoretically, it was seen that SEA is following evolutionary paths that find similarities with governance research, currently focusing on the pluralistic nature of development processes. Also, practitioners emphasise the need for democratic practices in SEA processes anchored in issues of participation, accountability or transparency. Moreover, it was also possible to realise that current institutionalisations of SEA are facing constraints of a more normative and cognitive nature than a structural one, suggesting a capacity gap in the ability of SEA to perform and reach intended aims. The action research case study allowed to consider governance as a dimension in SEA and was observed the role of governance in helping improve SEA capacity to stimulate sustainability-driven processes. The results of the research support the argument that adopting a governance lens in SEA, grounded in a sustainability-oriented vision, can help to enhance SEA capacity towards sustainability, eventually positioning SEA as an instrument of signification and legitimation. The complexity of the issues involved, combined with current mentalities locked in old traditions of IA and lack of motivation for innovative forms of SEA, can potentially constraint the consideration of governance. It is thus essential to stimulate capacity-building and spaces of engagement throughout the SEA process to promote knowledge-brokerage and transformative learning.

Keywords: Strategic Environmental Assessment; Governance; Environmental and Sustainability Assessment; Governance Approach; SEA capacity

Resumo Alargado

A Avaliação Ambiental Estratégica (AAE) há muito que é reconhecida como um instrumento essencial de Avaliação de Impactes (AI) com capacidade para acrescentar valor a decisões estratégicas e facilitar a integração de preocupações ambientais e de sustentabilidade em processos de desenvolvimento (Partidário 1996; Kørnøv and Thissen 2000; Nilsson and Dalkmann 2001). No entanto, persistem as diferenças de perspetiva sobre o propósito da AAE e o seu papel enquanto instrumento de suporte político, principalmente por se verificar que esta não está a influenciar suficientemente os processos de decisão (Runhaar and Driessen 2007; Lobos and Partidário 2014; Sadler 2016). Apesar de a AAE ter sido desde cedo associada a determinados níveis políticos de decisão (Wood and Djeddour 1989) e de ter sido idealizada a sua capacidade de integração de considerações políticas em processos de decisão (Partidário 1996), na prática mantém-se ainda as suas características 'originais', fortemente associadas a práticas tradicionais de Avaliação de Impacte Ambiental (AIA) (Partidário 2015; Noble and Nwanekezie 2017). Ao longo dos anos tem-se verificado uma evolução na conceptualização da AAE, reconhecendo-se a necessidade de entender os contextos de decisão (Bina 2008), a importância do papel da comunicação entre agentes para uma avaliação de sucesso (Vicente e Partidário 2006), a relevância dos contextos e capacidade institucional para uma aplicação eficaz (Slootweg and Jones 2011), ou mesmo a idealização da AAE enquanto ferramenta de construção social (Cashmore and Axelsson 2013), ou seja, em tudo aspetos fortemente relacionados com governança. Este facto suscitou o interesse desta investigação na demonstração da relação entre a AAE e a governança.

O conceito de governança como promovido por Meuleman (2008: 11) é adotado nesta investigação: "governança é a totalidade das interações onde governos, entidades públicas, setor privado e sociedade civil participam, visando a resolução de problemas e criando oportunidades para a sociedade". No contexto da AAE, governança pode ser entendida como uma dimensão de análise estratégica que contribui para que a AAE atinja os objetivos estabelecidos. Considera-se que, na sua essência, a governança define os padrões formais e informais de funcionamento de processos de desenvolvimento, estando intimamente ligada à formulação de políticas públicas e aos respetivos aspetos regulatórios. Assim, assume-se que a governança pode desempenhar um papel decisivo na AAE, nomeadamente a definir objetivos de longo-prazo, a estabelecer prioridades, a reforçar capacidades e a tomar decisões.

O objetivo desta investigação é entender qual poderá ser o papel da governança em valorizar a AAE em direção à sustentabilidade. Esta investigação defende que a AAE deverá apoiar-se na dimensão de governança se pretende reforçar a sua capacidade de trabalhar em contextos de desenvolvimento sustentáveis, caracterizados por um elevado grau de incerteza, complexidade, e pela presença de múltiplos agentes com opiniões e comportamentos divergentes. A dimensão da governança, na sua forma explícita e implícita, é vista como 'influenciadora' da capacidade da AAE para apoiar a criação de contextos de decisão sustentáveis, permitindo legitimar o papel da AAE em criar oportunidades de mudança. Com esta investigação pretende-se: a) entender o que é a governança no contexto da AAE e a sua importância para o desenvolvimento do

instrumento de avaliação; b) qual poderá ser o papel da governança em estimular a função estratégica da AAE; e c) se a governança poderá impulsionar a AAE a promover a sustentabilidade. É adotada uma metodologia de construção de teoria, com recurso a diversos métodos de coleta de dados como revisão sistemática, questionários a peritos e análise documental para, principalmente através de categorização e interpretação dos resultados, demonstrar a relação entre AAE e governança. Foi ainda realizado um estudo de caso sobre a AAE do Plano Diretor Municipal de Sintra, recorrendo ao método de investigação ação, onde foi utilizada uma perspetiva inclusiva de governança. O processo e prática da AAE é o fenómeno em estudo que, com recurso a diversas fontes de informação e evidências empíricas, permite a construção de uma perspetiva teórica de governança.

A revisão de literatura sobre governança revelou, na sua generalidade, que um pensamento orientado para a governança é vital na forma como são estabelecidas prioridades e como são definidos objetivos de desenvolvimento. A evolução da governança centrada no papel do estado para uma perspetiva centrada no papel da sociedade levou ao reconhecimento da necessidade de abordagens inovadoras e de natureza pluralista, formuladas com base em princípios de complexidade, inclusão, deliberação, ambiguidade, ou incerteza. Tais princípios são desde cedo igualmente reconhecidos na área da AI orientada para a sustentabilidade. Considerando os princípios de governança genericamente associados às abordagens mais pluralistas, constatou-se através de uma revisão sistemática da literatura de AI que instrumentos como a AAE, avaliação de impactes ambientais e avaliação de sustentabilidade tratam frequentemente nove aspetos de governança: responsabilização, transparência, participação, incerteza, complexidade, poder, conhecimento, aprendizagem, e eficácia. Porém, estes aspetos são tratados de forma fragmentada e sem integração. E, curiosamente, são na sua generalidade semelhantes aos aspetos que os agentes consideram que caracteriza a relação entre a AAE e a governança, como foi possível constatar com a aplicação de um questionário. Tanto os resultados da exploração teórica como da análise das perceções dos agentes permitiu o desenvolvimento de um modelo conceptual teórico que procura representar de forma sumária o conhecimento e o entendimento sobre governança em AAE. Mais ainda, uma análise efetuada a modelos de AAE promovidos internacionalmente demonstrou ser possível observar este modelo teórico, ainda que com forma e profundidade variável, nos diversos mecanismos e arranjos estabelecidos, com foco nos agentes, seus papéis em processos de desenvolvimento, a rede de relações e contextos institucionais. O que é em princípio indicativo da relevância que a governança tem na AAE.

É amplamente aceite a premissa que o contexto da AAE influência o seu desempenho (Fischer and Gazzola 2006; Hilding-Rydverik and Bjarnadóttir 2007, Bina 2008, Azcárate 2015), nomeadamente em relação à institucionalização da AAE (Slunge and Tran 2014) e à capacidade da AAE de atingir os seus objetivos (Kolhof et al. 2018). Pela análise de vários contextos de governança e dos regulamentos de AAE neles existentes, constatou-se que as características do contexto de governança influenciam a institucionalização da AAE, bem como a capacidade da AAE em atingir os seus objetivos, especificamente em relação à flexibilidade das estruturas institucionais estabelecidas, às dinâmicas de relações que promovem ou condicionam a coordenação

entre agentes, à autonomia de ação dos agentes envolvidos em AAE, à transparência do processo de AAE, e à importância dada à questão da participação e envolvimento do público. Reconheceu-se que existe uma lacuna entre a capacidade da AAE tal como institucionalmente estipulada e a capacidade instalada para lidar com este instrumento. Através da análise da prática Portuguesa em AAE, verificou-se que a governança é considerada nas avaliações apesar de não ser explicitamente rotulada como 'governança' e sim entendida através dos seus mais diversos aspetos como participação, transparência, gestão territorial ou dinâmicas institucionais. Apesar de presente de forma implícita, a forma como a governança é entendida leva a que a sua inclusão na AAE não esteja a produzir efeitos visíveis nos processos de planeamento. Isto pelo facto de as condições de governança não estarem devidamente analisadas e adaptadas ao problema de decisão, pelo pela falta de uma análise das dinâmicas institucionais do contexto de desenvolvimento, ou pela ausência de cultura de participação contínua, concluindo-se que esta é utilizada sem se verificar uma real integração, inibindo deste modo o seu potencial valor. Este resultado contrasta com os resultados obtidos pelo estudo de caso com investigação ação da AAE de Sintra que que visou integrar governança na avaliação. Aqui observou-se que a integração da governança valorizou a AAE e permitiu a esta funcionar como uma arena de discussão, gerir diferentes valores e expectativas, servir de ferramenta de capacitação de comportamentos orientados para a sustentabilidade, bem como promover um sentido de pertença dos diversos agentes em relação ao plano, o que resultou num plano mais legítimo aos olhos da sociedade. Concluiu-se que a incorporação da governança na AAE ajudou a provocar atitudes de autorreflexão e autocrítica em relação à própria avaliação e em relação ao processo de planeamento.

Os resultados da investigação permitem argumentar que adotar uma perspetiva de governança em AAE, fundamentada por uma visão orientada para a sustentabilidade, pode ajudar a melhorar a capacidade da AAE em direção à sustentabilidade, eventualmente posicionando a AAE como um instrumento de significação e legitimação. Para tal, a AAE deve apoia-se em princípios de legitimidade, incerteza, reflexividade, pensamento estratégico, poder e aprendizagem, incorporados na avaliação de forma construtiva e integrada. É proposto que a AAE deva ser orientada para promover processos de desenvolvimento legítimos numa ótica de sustentabilidade, que deve reconhecer a relação entre o conteúdo (o quê) e o processo (como e quando) da avaliação, que deve alinhar os objetivos estratégicos com uma visão ou intenção coletiva de sustentabilidade, que deve reconhecer a capacidade transformativa das dinâmicas de poder, que deve ser orientada com um sentido de autocrítica e auto reflexão, e que deve compreender, ao longo de todo o seu processo, a aprendizagem enquanto componente transformativa, ativa, e contínua. Esta investigação possibilitou demonstrar, ainda que teoricamente, que uma perspetiva de governança em AAE permite obter benefícios reais em processos estratégicos de desenvolvimento. A complexidade das questões implicadas, combinada com mentalidades atuais estarem bloqueadas por antigas tradições de AI e por uma falta de motivação para o uso de formas inovadoras de AAE, pode vir a restringir a consideração da governança. Ainda assim, considera-se que reconhecer a governança em AAE é uma forma positiva e construtiva de estimular o valor da AAE. É essencial estimular espaços de envolvimento

e capacitação ao longo do processo de AAE como forma de promover a mediação de conhecimento e aprendizagem transformativa.

Palavras-chave: Avaliação Ambiental Estratégica; Governança; Avaliação Ambiental e de Sustentabilidade; Perspetiva de Governança; Capacidade da AAE.

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This Thesis marks the closing of a five year journey of discovery in my life. And this would not have been possible without the encouragement, support and enthusiasm of a number of people that I need to acknowledge and show my deepest appreciation for.

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To all I dedicate this words:

Alice: This is impossible.
The Mad Hatter: Only if you believe it is.
Lewis Carroll

Table of Contents

List of Tables

List of Figures

List of Abbreviations

APA	Agência Portuguesa do Ambiente
CDF	Critical Decision Factor
EIA	Environmental Impact Assessment
EU	European Union
IA	Impact Assessment
LMA	Lisbon Metropolitan Area
MSc	Master in Science
MtG	Matching through Governance
OECD-DAC	Organisation of Economic Development Cooperation – Development Assistance Committee
PPPs	Policies, Plans and Programmes
SA	Sustainability Assessment
SD	Sustainable Development
SDGs	Sustainable Development Goals
SEA	Strategic Environmental Assessment
ST	Strategic Thinking
UNEP	United Nations Environment Programme
WGI	Wold Governance Indicators

Chapter 1.

Introduction

This Chapter introduces the Thesis. It provides the background and context of the research, states the research problem and research questions and objectives, enumerates the expected contributions of the research to the existing body of knowledge, and presents the Thesis format and structure.

1.1 Rationale of the research: background and context

For many years scholars have been debating the purpose of Strategic Environmental Assessment (SEA) and criticising the fact that SEA is not being effective enough in influencing decision-making (Runhaar and Driessen 2007; Lobos and Partidário 2014; Sadler 2016). SEA had been recognized as an essential instrument of impact assessment (IA) with the capacity to influence decisions and facilitate the integration of environmental and sustainability concerns in decision-making processes (Partidário 1996; Kørnøv and Thissen 2000; Nilsson and Dalkmann 2001).

Starting mainly with Environmental Impact Assessment (EIA), Impact Assessment (IA) became recognized as a family of pro-active instruments that considers the environmental and social consequences of a development process prior to any practical action. Since its nurturing stages, this family of instruments was then understood as a process of learning and negotiation between multiple actors (Fischer 2003).The underlying assumptions that sustained the original concept of EIA included (Lobos and Partidário 2010): a) decisions are made by one individual through an explicit commitment that is organized and structured in a sequence of steps; b) the prediction of consequences can be made with a reasonable degree of certainty; c) problems associated with the decision process can be reduced with the necessary information to analyse possible consequences; and d) the valid and useful knowledge to inform decisions is the one created on the basis of scientific evidence. This provided the grounds for the emergence of SEA, responding to the need for an instrument that would also address the assessment of certain policies, plans and programmes.

The need to somehow shape the EIA instrument to the political and planning level, and develop an assessment process that would integrate sustainability and strategic decision paradigms (Partidário 2007b), led to the development of SEA, first time mentioned in 1989 by Wood and Djeddour when recognising that “the environmental assessment appropriate to policies, plans and programmes are of a more strategic nature than those applicable to individual projects and are likely to differ from them in several important aspects” (Wood and Djeddour 1989). The promotion of SEA as a way to overcome the limitations generally pointed to EIA was highlighted by many (e.g. Thérivel et al. 1992; Partidário 1999). Positioning policies in the realm of SEA, together with plans and programmes, was set to answer the need to assess development proposals of a more strategic nature to overcome the limitations of EIA. In 1996 Partidário referred that a SEA instrument must deal with the strategic nature of decisions,

recognizing a few years later that SEA has to ensure the “full integration of relevant biophysical, economic, social and political considerations” (Partidário 1999) in processes of strategic decision-making. With the reference to ‘political considerations’ this would be the first time that the political dimension of SEA was explicitly recognized, the rationale being that strategic initiatives are strongly linked to policy formulation and take place in the context of policy development.

The perspective of SEA as an instrument with the potential to promote more sustainable strategic decisions is being advocated by many authors since its nurturing phase (e.g. Glasson 1995; Thérivel and Partidário 1996; Sadler 1998), as well as the recognition of the capacity of SEA to influence decisions and facilitate the integration of environmental and sustainable concerns in the decision-making process (Partidário 1996; Kørnøv and Thissen 2000; Nilsson and Dalkmann 2001). Earlier perspectives on SEA also expressed the aim of assessing environmental impacts of policies, plans and programmes (PPP) and their alternatives (Thérivel 1993), and some practices still maintain that perspective, while expanding its scope: to assess the environmental consequences of development proposals on par with the economic and social considerations (Sadler and Verheem 1996). An evolving perspective led to ensure SEA as a proactive approach that anticipates future problems and needs to identify the “new desirable end” (Noble 2000: 218); also to “understand and explore environmental and sustainable options in strategic decision-making that help address the problem and meet intended objectives” (Partidário 2007b: 462); or to promote a strategic change towards sustainability by influencing “selected strategic decisions” (Cherp et al 2007: 624); and more recently as an instrument that acts like a knowledge brokerage platform to achieve environmental and sustainability oriented decision-making (Partidário and Sheate 2013).

Throughout the years it was possible to observe an evolution in SEA conceptualisations: from the need to understand the contexts in which decisions take place (Hilding-Ryedvik and Bjarnadóttir 2007; Bina 2008), the role of communication between actors for a successful assessment (Vicente and Partidário 2006), the importance of considering the institutional contexts of decisions and the political dimensions of SEA (Slootweg and Jones 2011; Partidário 2015a), the production of legitimate knowledge to support decisions (Partidário and Sheate 2013), to see SEA as a social construction tool with influence in the mediation of power in decision-making processes (Cashmore and Axelsson 2013). The evolution of SEA “has shifted in its views of the SEA process as a formal process… to a much more flexible and adaptable approach” (Retief 2007: 85), observable in the increase of more strategic focus instead of the traditional project-oriented. Even with this evolution, SEA still maintains its ‘original’ characteristics in practice, with its strategic dimension often misprized, leading to the creation of reactive and marginal approaches rather than constructive and collaborative ones that actually help drive future sustainable paths of development (Tetlow and Hanusch 2012; Lobos and Partidário 2014, Partidário 2015a; Noble and Nwanekezie 2017).

Also emerging approaches to SEA have been developed based on concepts of planning and policy making, reinforcing the strategic nature of SEA raised by Wood and Djeddour (1989) (Boothroyd 1995; Partidário 1999; Kørnøv and Thissen 2000; Nilsson and Dalkmann 2000; Bina 2003; Cherp et al. 2007). The new SEA concept is not about

(reactively) assessing the impacts of PPP as often presented in literature, but is about integration, evaluation of alternative visions and development options (Partidário 1999), a decision-centred approach that pays more attention to the institutional context (Nilsson and Dalkmann 2001), facilitating strategic transformation by influencing selected 'strategic decisions' (Cherp et al. 2007). These and other authors have been encouraging a policy, institutional, integrated, strategic-oriented approach to SEA and questioning the EIA-based model.

New paradigms and idealisations then entered the discourses of SEA, such as the one of governance. Governance issues such as participation, accountability or transparency have driven some research around SEA (Van Buuren and Nooteboom 2010; Tetlow and Hanusch 2012; Meuleman 2015). The importance of governance in SEA is increasing and its role is acknowledged in the institutionalisation of legitimacy and responsibilities in decisions (Richardson and Cashmore 2011) or with governance itself considered one of the outcomes of the assessment (Kidd and Fischer 2007; Hanusch et al. 2016). Meuleman (2008: 11) defines governance as 'the totality of interactions, in which government, other public bodies, private sector and civil society participate, aiming at solving societal problems or creating societal opportunities'. In relation to SEA, governance can be understood as a dimension of the assessment that helps achieve stated objectives since, in its essence, frames certain operating patterns that underlays the construction of regulatory aspects and informal practices (following Meuleman [2015]).

According to Meuleman (2015) IA problems (related to scoping, alternatives, uncertainty, public participation or follow-up) can be associated to bureaucratic issues, partitioning of the public administration, centralization of knowledge and power, political struggles or even the culture of participation. Wang et al. (2012: 415) also claim that "the core reasons of blocking the effective SEA implementation are, in most cases, the issues relating to political cultures and institutional background, such as lack of powerful environmental governance and accountability". The lack of evidence on how SEA is improving the governance of decision-making is reported in some studies (Walker et al. 2016). On the other hand, there is a gap in theoretical studies on how SEA can be conceptualised from a governance lens, and difficulties in explicitly recognising the possible political role of SEA in public policy-making from a governance perspective. First, decision-making processes are often seen as static developments with specific temporal and spatial frames and consequences, and not as processes of transitions characterized by unpredictability and uncertainty; second, several frameworks exist to assess if SEA is effective or successful, generally accepting that context is important to SEA development, however with the influence of governance contexts not being recognized nor its influence in the functioning, performance and outcomes of SEA. It can be said that the gaps are interconnected under a governance umbrella, and it is considered important to add to current debates such issues in order to try to boost knowledge and trigger discussions on how SEA can achieve its full potential.

This research is based on the notion that there is a lack of conceptual and applied research in advancing SEA as an instrument with importance in the political arena, ultimately misleading the recognition of the strategic role of SEA in sustainability development processes. With environmental and sustainability outcomes considered the

successful ‘measure indicator’ of SEA, it is consider important to point out the role of this instrument in creating opportunities to change. This enhancement comes out from the understanding that it is possible to increase or further improve the value and outcomes of SEA in promoting sustainable paths of development through principles of governance.

1.2 Problem statement, research questions and objectives

Governance and SEA can hardly be dissociated. According to Meuleman (2015) the construction of SEA systems is highly dependent on the procedural, incremental and substantive dimensions of the respective governance contexts; for Hobbs (2016) addressing governance issues in SEA can enhance the influence of SEA on policy-making; Noble and Nwanekezie (2017) recognise the role of SEA in influencing institutional and governance transitions to sustainable outcomes. The consideration of governance in SEA gains special meaning in the legitimisation of strategic decisions, based on the relationship between society and decision-makers. This is also because through governance multiple types of knowledge can be better incorporated to enable learning processes. Governance shapes functioning patterns of the development system, underlying the formulation of public policies and respective regulatory aspects. Thus, addressing governance in SEA can play a pivotal role in defining goals, setting priorities and making choices.

The evolution of SEA theory throughout the years shows an increasing concern with governance issues, looking into particular aspects: the need to understand the context of decisions (Hilding-Rydevik and Bjarnadóttir 2007; Ahmed and Sanchéz-Triana 2008; Bina 2008; World Bank 2011); the role of communication between actors for a successful assessment (Vicente and Partidário 2006); the importance of considering the political dimension of SEA (Slootweg and Jones 2011; Partidário 2015a); the production of legitimate knowledge to support decision-making (Partidário and Sheate 2013; Sánchez and Mitchell 2017); the influence of actors on dynamic processes and influence of SEA in decision-making (Runhaar 2009; Van Buuren and Nooteboom 2010; Hansen et al. 2013); the understanding of SEA as a social construction tool with influence in the mediation of power in decision-making processes (Cashmore and Axelsson 2013). However, it’s not been fully acknowledged the important role that SEA has in instituting legitimacy and openness in decision-making. Furthermore, the way SEA is institutionalized depends on how formal processes of institutional arrangements are established and how relationships are constructed, setting the outcomes of this instrument.

The enactment of the European Directive 2001/42 (SEA Directive) created additional pressure towards the understanding of SEA has a legal procedure and a technical instrument following EIA, and restricted SEA to the assessment of plans and programmes that set conditions for projects development. Such EIA-based SEA approaches, often called the ‘traditional form of SEA’, share common characteristics: they are related to the preparation of an approvable document; their main aim is to provide information on the environmental effects so that the necessary mitigation measures can be adopted; and their standard methodological approach follow the typical EIA process steps of screening, scoping, assessment, mitigation, decision and

monitoring. Most of these traditional SEA approaches, based on the technical, streamlined rational of EIA, are reactive to development intentions. Also, through its legal requirements, SEA is formally seen, both by planning and environmental authorities, and often consultants, as a control instrument that needs to be fulfilled. From this, SEA is mostly reactive to concrete planning and programmatic proposals, largely using a technocratic and rationalist approach (Lobos and Partidário 2014), looking for territorial materialized consequences, often limited to biophysical aspects, following what Partidário (2015a) called the compliance or marginal approaches as opposed to the constructive approaches. As a consequence, SEA ability to incorporate environmental and sustainability views into the policy process may be questionable. The still dominant traditional IA feature in the practice of SEA, with an undervalued strategic dimension well recognized in the literature (Tetlow and Hanusch 2012; Bidstrup and Hansen 2014; Lobos and Partidário 2014; Noble and Nwanekezie 2017), limits SEA ability to understand the governance context of development and the capacity to meet environmental and sustainability aims.

My professional path is also related to the why of this Thesis. Both my academic and professional background stand as a motivation to develop this research. In my MSc dissertation I investigated how practitioners and decision-makers understandings of SEA could influence the final results of the planning decision process in Portugal (Monteiro 2011). The investigation resulted in acknowledging that, in Portugal, the SEA practice is still dominated by the EIA-based approach, reflecting on the comfort of using prevailing knowledge created by a long culture of EIA compared to recent innovative SEA knowledge. This lead to confirm the fact that there is a theory-practice gap in SEA perspective, with SEA theoretically seen as having a facilitator's role in planning processes but in practice used as a legal requirement that is time and resources consuming to result only in providing baseline information to decision-makers. By that time it was concluded that there is the need to change current thinking so that SEA can be seen not as an attached document to the final plan but as a new platform to think through future development. My professional experience with SEA in practice confirmed previous concerns, particularly on analysing and assessing governance issues in the SEA cases I worked on. This experience made me feel that there was an opportunity in enhancing the practice of SEA, since dealing with governance issues would allow a broader understanding of the context of SEA and in identifying constraints to a proper plan implementation that otherwise could be neglected. This experience led me to question why governance was not a common issue incorporated in SEA practice.

The main objective of this Thesis is to understand the role of governance in enhancing SEA in development processes of sustainability as a way to address the lack of theoretical and empirical proofs of the role of SEA in the political arena. Governance is here used as a 'leverage dimension' worked as an opportunity to create changes that could lead to shifts in practices with SEA. For this, the use of governance in this Thesis passes through the need to understand governance in both the theory and practice of SEA, the influence of governance dynamics of particular contexts in the institutionalisation of SEA (as seen previously an important marker to somehow describe SEA practice), and the role governance can play in the assessment process. To address the objectives of this Thesis the following research question was established:

How can SEA be enhanced in development processes of sustainability by adopting a governance lens?

To approach this main question, three sub-questions were developed and 'tailored' to provide lessons on how governance can enhance SEA in development processes of sustainability:

RQ1.1 – What is governance in the context of SEA and Why is governance important in SEA?
RQ1.2 – What is the role of governance in prompting the SEA role at the policy level?
RQ1.3 – Can governance be a leverage in SEA for promoting sustainability?

Figure 1 illustrates the relationship between the research objectives of the Thesis and each of the research question listed above, with each of the sub-questions framed by the research objectives of the Thesis. The research objectives were also set in order to drive the research and each of the methodological steps (Chapter 3).

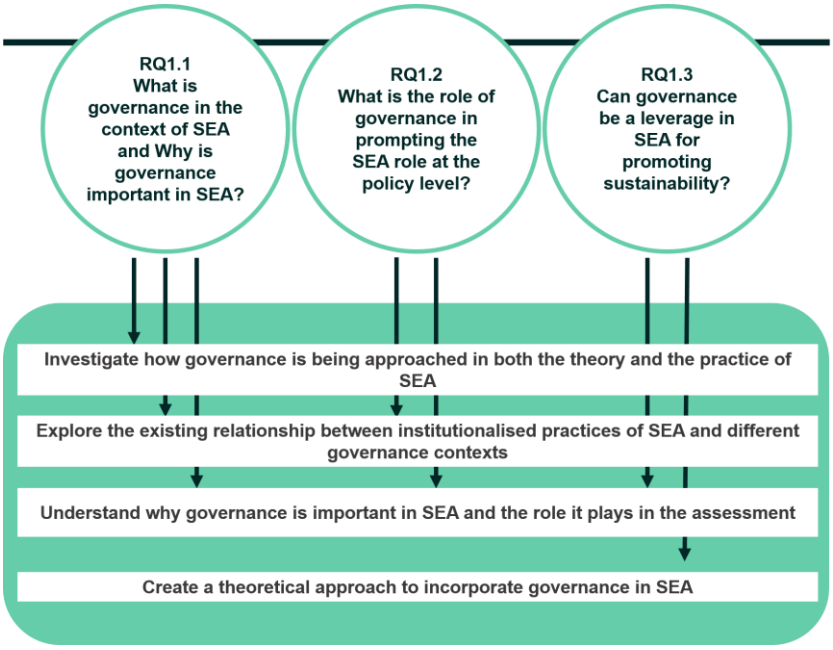

Figure 1. *Research Questions and Objectives*

1.3 Expected contribution to current knowledge

The results of this Thesis are expected to contribute to both theoretical and empirical debates about SEA, particularly on the relationship between SEA and governance, and on the role of SEA in the political arena. The use of governance as a 'leverage dimension' contributes to the development of SEA field by:

- Promoting the application of governance thinking in strategic and sustainability assessments;
- Increasing the body of knowledge on the importance of considering governance in SEA to promote environmental and sustainability outcomes;
- Helping to recognise (and demonstrate) the role that SEA can have in the political arena;
- Allowing to understand the influence of contextual governance conditions in SEA capacity[1];
- Providing a conceptual and orientation proposition customised to consider governance in SEA (through the incorporation of principles of governance as *attributes* in SEA theoretical and empirical progresses).

1.4 Thesis format, outline and other contributions

This Thesis follows a traditional-based manuscript style. **Figure 2** illustrates the layout of the Thesis.

After this introductory Chapter, Chapter 2 presents the research methodology that drives the quest to address the research problem and respective objectives. In Chapter 3 a literature review provides the state of the art on the theoretical backgrounds and perspectives used in the Thesis for both governance and SEA, as well as a systematic review of governance in SEA, from both theoretical and practitioners' perspectives. Chapters 4, 5, 6 and 7 explore the case of SEA through different sources of evidence (empirical findings), followed by the presentation of the Thesis argument grounded on a proposed governance approach to SEA in Chapter 8, with the respective discussions and analysis. In Chapter 9 the Thesis main conclusions are provided.

[1] In Chapter 6 SEA capacity will be further explored. In this Thesis SEA capacity is seen as the ability of SEA to create sustainability-oriented values in the context to where it is applied (following Partidário 2000 and Cashmore and Partidário 2016).

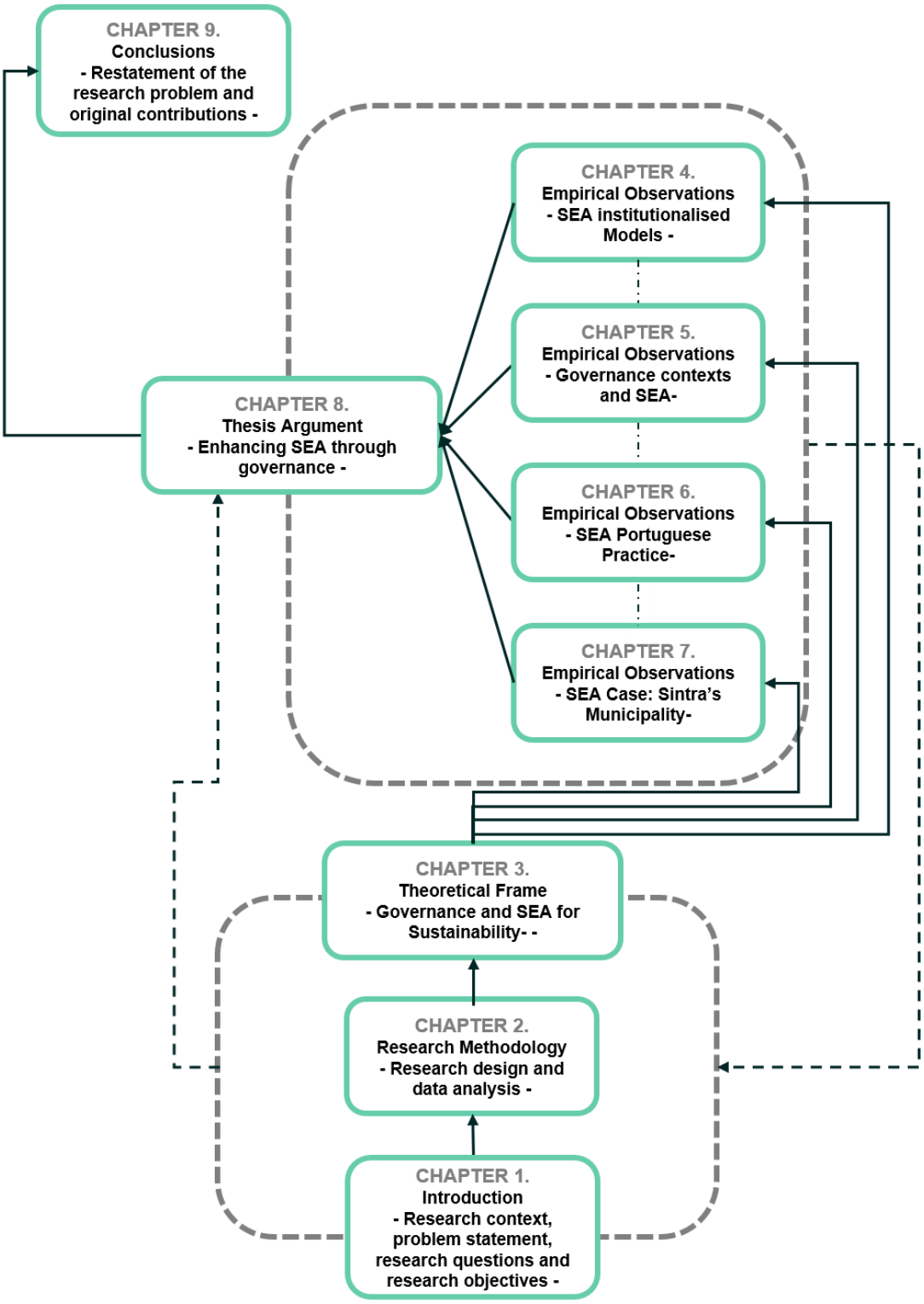

Figure 2. *Outline of chapters and schematic layout*

Other contributions:

Throughout the development of this Thesis two scientific articles were published in peer review journals, and currently two other articles are in development. The published

articles are reproduced in Appendix E and F, addressing the research results of Chapters 5, 6 and 7. The two articles under development encompass the research results of Chapter 3 (systematic review of governance in SEA) and 8 (the main Thesis argument).

The authorship contribution of the two scientific articles published is as follows:

Scientific article (Chapter 5): Published in a peer-review Journal Article

Monteiro MB. Partidário MR. Meuleman L. 2018. A comparative analysis on how different governance contexts may influence Strategic Environmental Assessment. Environmental Impact Assessment Review; 72: 79-87.

As the first author my contributions accounted for approximately 65% of the work, including literature review, data acquisition and analysis, and writing.

Scientific article (Chapters 6 and 7): Published in a peer-review Journal Article

Monteiro MB. Partidário MR. 2017. Governance in Strategic Environmental Assessment: Lessons from the Portuguese Practice. Environmental Impact Assessment Review; 65: 125-138.

The first author my contribution accounted for approximately 75% of the work, including literature review, data acquisition and analysis, and writing.

The two scientific articles under development are:

- Monteiro MB. Partidário MR. Governance as a field of research in Impact Assessment: A review of theoretical debates. *To be submitted to Impact Assessment and Project Appraisal.*
- Monteiro MB. Partidário MR. Enhancing Strategic Environmental Assessment: a governance-based proposition. *To be submitted to Environmental Science & Policy.*

Also, throughout the years several presentations have been made to international conferences that, even though not formally contributing to the structural main body of this Thesis, are relevant to be mentioned due to its importance as research evidence in understanding the current state of practice of SEA internationally and in Portugal. Presenting the evolution of the research to international audiences and peers served as testing arenas to obtain reaction to what I was proposing. The list of research (Oral and Poster Presentations as Conference Proceedings) is as follows:

- Monteiro M. Partidário MR. 2012. Perceptions on SEA: Not all that glitters is gold. Paper presented at the 32nd Annual Conference of the International Association for Impact Assessment: Energy Future the Role of Impact Assessment. Porto, Portugal.
- Partidário MR. Monteiro M. 2013. Five years of experience with SEA in Portugal. Paper presented at the 33rd Annual Conference of the International Association for Impact Assessment: Impact Assessment the Next Generation. Calgary, Canada.

- Monteiro M. Partidário MR. Meuleman L. 2014. Governance systems may influence the success of SEA. Paper presented at the 34th Annual Conference of the International Association for Impact Assessment: Impact Assessment for Socio and Economic Development. Viña del Mar, Chile.
- Monteiro M. Partidário MR. 2014. SEA for governance enhancement. Paper presented at the 34th Annual Conference of the International Association for Impact Assessment: Impact Assessment for Socio and Economic Development. Viña del Mar, Chile.
- Monteiro M. Partidário MR. 2015. Power distribution in the SEA European Union model. Paper presented at the 35th Annual Conference of the International Association for Impact Assessment: Impact Assessment in the Digital Era. Florence, Italy.
- Monteiro M. Partidário MR. 2015. How is governance addressed in SEA? Paper presented at the 35th Annual Conference of the International Association for Impact Assessment: Impact Assessment in the Digital Era. Florence, Italy.
- Monteiro M. Partidário MR. 2016. Governança em AAE: o que é, como se aborda. Paper presented at the 6ª Conferência Nacional de Avaliação de Impactes: Sociedade e Sustentabilidade. Évora, Portugal.
- Partidário MR. Monteiro M. Cegonho R. 2016. AAE com pensamento estratégico: lições com casos práticos. Paper presented at the 6ª Conferência Nacional de Avaliação de Impactes: Sociedade e Sustentabilidade. Évora, Portugal.
- Monteiro M. Partidário MR. 2016. 'Matching' through governance: strategic environmental assessment and governance. Paper presented at the 22nd International Sustainable Development Research Society Conference: Rethinking Sustainability Models and Practices. Lisbon, Portugal.
- Monteiro M. Partidário MR. 2018. Enhancing Strategic Environmental Assessment. Poster presented at the 38th Annual Conference of the International Association for Impact Assessment: Impact Assessment in the Digital Era. Durban, South Africa.
- Monteiro M. Partidário MR. 2018. A governance approach to Strategic Environmental Assessment. Paper presented at the 24th International Sustainable Development Research Society Conference. Messina, Italy.

Chapter 2.

Research Methodology

This Chapter elaborates on the research methodology used in the Thesis. It follows a mixed methodology of theory-building that is based on a combination of different research methods. With the research focusing on the enhancement of the SEA process, this Chapter presents the interpretative-constructive paradigm through which the research methodology is built, while engaging a multi-purpose (exploratory and explanatory) and multi-perspective (inductive and deductive) approaches.

2.1 Overall research design

In light with the nature of the research aim, a qualitative research strategy was selected as it allows to understand how and why things happen, elucidating on the meaning of governance to SEA and how governance can be used as a 'leverage dimension' in SEA processes. It also allows to analyse empirical data within its specific contexts and identify data from which patterns can arise (Strauss and Corbin 1990). The research follows an interpretative-constructive paradigm as it adopts a relativistic position recognising that the multiple realities at stake are socially constructed, valuing the role of the researcher in the construction of knowledge, being grounded in notions of comprehension, meaning and action (Guba 1990). The knowledge is seen as a mutual creation between the object of study and the researcher in a circular and iterative process of development (Coutinho 2015).

The research process takes into account the following issues: the research purpose (what objectives), the research perspective (how to approach the objectives), the research strategy (what should be adopted) and the specific type of research (what is the most appropriate approach to data) (Monteiro de Barros 2011).

The purpose of this Thesis is to understand what can be the role of governance in enhancing SEA in sustainable development processes. It is grounded on four specific research objectives:

1) Investigate how governance is being addressed in both the theory and the practice of SEA;
2) Explore the existing relationships between institutionalised practices of SEA and different governance contexts;
3) Understand why governance is important in SEA and the role it plays in the assessment; and
4) Create a theoretical approach to incorporate governance in SEA.

Based on the research objectives listed above, the Thesis research is characterised by being exploratory and explanatory in nature. As it is important to make sense of the data, an exploratory analysis is developed in order to clarify the concepts under study (both SEA and Governance – that can be seen as variables) and to find relationships and trends among them ultimately leading to a conceptualisation of governance in SEA

that will be used for the explanatory, empirical analysis. The explanatory analysis will attempt to provide explanation on some specific relationships and trends, and to specify on the nature of the causal relationship between both variables under study. Therefore, the research perspective follows both an inductive and deductive approach. Both reflect different ways of ranging between data and concepts (Yin 2010). Procedurally, it can be described as follows:

- The use of an exploratory phase to recognise and refine the research focus on the existing data, where a conceptualisation of governance in SEA is created;
- Followed by an explanatory phase to understand what is really needed in face of the research focus and the causal relationship between SEA and Governance;
- Resulting in another exploratory phase needed to make sense on the data collected and to theorise governance in a manner that fits the nature of the relationship SEA-sustainability;
- And finishing in an evaluation stage that focus on validation and possible research output via another explanatory phase.

The qualitative nature of this Thesis frames the research strategy that connects the theoretical paradigm to the methods used for collecting the empirical data (Denzin and Lincoln 2013). In order to achieve the purpose of this Thesis (to understand what can be the role of governance in enhancing SEA in development processes of sustainability) a mixed methodology is adopted to assist in a theory-building strategy.

In this research, the process and practice of SEA is the phenomenon under study. Several cases, different in nature and supported in different methods of data collection, will be used to enrich empirical descriptions (Yin 1994). A theory-building strategy is adopted that involves using the cases to illustrate findings and assist in theoretical constructs and propositions from empirical evidence (Eisenhardt 1989, Eisenhardt and Graebner 2007), what Yin (2009) refers to 'analytical generalisation'. It makes use of the thinking formula of the grounded theory as the way to analyse and interpret the data collected from the cases (Yin 1994; Glasser and Strauss 1967).

As I mentioned in the Introduction, my academic and professional backgrounds are strongly connected with SEA. From both I had already assimilated relevant knowledge about SEA theory and practice that I cannot ignore that influenced the beginning of this research and the construction and development of the research aim and questions. If my academic investigation gave me insights about the still predominant practice of SEA following traditional EIA-based approaches, my professional practice introduced me into the strategic approach to SEA and the consideration of governance as an issue of assessment in SEA. Before I started with the Ph.D. research I was involved in three SEA of municipal plans that considered governance as a critical decision factor (CDF) following the methodology developed by Partidário (2007); one of the cases can be said to be the pilot case in developing a governance framework following the 2012 SEA Portuguese Guidance (Partidário 2012). Due to the difficulties involved in the three cases (e.g. availability of data, perceptions of decision and policy-makers, resistance in acknowledging the potential role of governance as an element of assessment) this led

me to ask how governance can be an element that helps to address the role of SEA in promoting sustainable development processes. This question was the first approach to this Ph.D. research. With this in mind, and after the elaboration of the research aim and questions, it was important to understand the state-of-play of both governance and SEA literature and the links between both concepts, allowing to conceptualise governance in SEA (through the development of a conceptual model).

The aim of the conceptual model is then to provide questions, and analytical guidelines, to study the role of governance in SEA within the empirical phase. The empirical approach is constructed around four elements considered influential for SEA thinking: a) SEA methodological guidelines of organisational models (based mainly on grey literature); b) policy instruments (SEA regulations of different countries); c) SEA practice (the practice of SEA in a given context framed by a regulatory methodology and a best practice guide); and d) a SEA case (following a governance-inclusive approach). It should be pointed out that each of the cases under study in the activities of the empirical phase were selected in order to cover different approaches to SEA (from traditional to strategic), thus learning from different perspectives of SEA thinking.

How the methods enter in this research, their role and how they relate to each other is represented in the Research Model of **Figure 3**. The way each method is used for case selection, data collection and analysis is discussed in the following sub-sections.

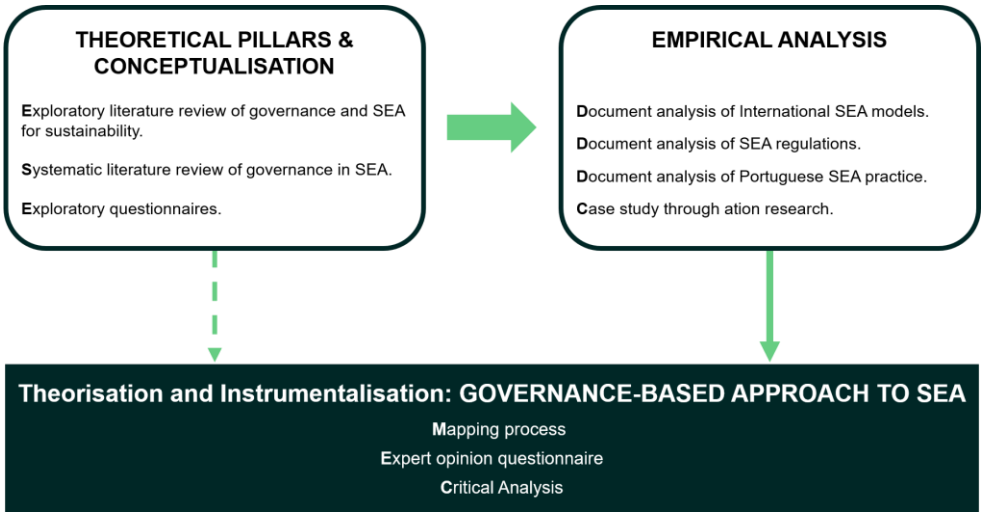

Figure 3. *Research Model*

Regarding the elements presented in **Figure 3**, a general view of the multiple research steps and its relation to the outline of the Thesis and research questions is illustrated in **Figure 4**.

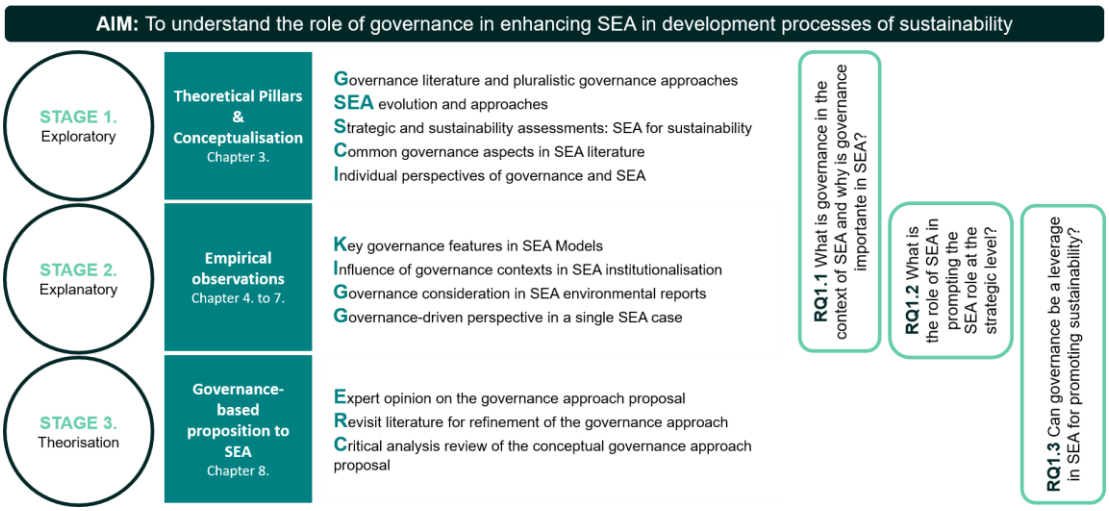

Figure 4. *Relationship between the research methodology, research questions and Thesis outline.*

2.2 Theoretical pillars and conceptualisation

At the time when this research started, studies relating governance to SEA were short in number, so it was necessary to draw upon an exploratory research to enable understanding how can SEA be enhanced by adopting a governance lens. The review of the literature (in a traditional and systematic way) is not intended to suggest methodological procedures to be used and followed in the empirical research, instead it was used to develop a conceptualisation of governance in SEA for subsequent *interpretation* in the empirical stage, specifically by 'operationalising' the conceptual model. The exploratory phase is grounded on the existing literature, and the method for the collection and treatment of data follows a thinking approach aligned with the grounded theory (Glaser and Strauss 1967; Strauss and Corbin 1998) – develop 'theory' based on a theoretical analysis of data collected systematically.

2.2.1 Literature review

The objective of performing a literature review is mainly to deepen the knowledge on the research problem with recent and present-day information, particularly around the two conceptual pillars of the research: governance and SEA. This review allows to situate the research context with a theoretical and conceptual synthesis. Specific objectives are: a) uncover the evolution of governance perspectives; b) generate a rich understanding of the arising of 'new forms of governance' strongly related to the sustainability field of research; and c) learn on the evolution of SEA thinking over the years. In the collection of data I allowed myself to identify possible paths of development for both concepts (from more rationalistic positions to more constructive ones) since, by option, I did not beforehand defined robust parameters of the search to not limit my mind-set to particular positions. It was a process of discovery. The process was as follows: 1) definition of 'soft' parameters (language, keywords, and databases); b) research the representative literature (inclusion / exclusion through reading of abstract and results); and c) data analysis.

I started my search of governance literature making use of the Scopus database to identify the articles with more citations for the field of governance and then selecting those of conceptual nature. After this, I made use of the snowball sampling techniques to identify other relevant research for this particular theme (searching in the articles / books reference lists). As I said, my professional background had much influence in the approach to this research. So, a pre-established perspective of SEA as an instrument with an integrative and pluralistic nature directed me to search more deliberative and network-oriented governance literature. This enabled me to identify, for different governance approaches, some key prescriptive elements that can be relevant for SEA.

For SEA, the process was simpler. I already had collected a robust compilation of SEA research, based on previous research on the stat-of-the-art of SEA. The process was more to update and complete my portfolio on SEA in order to obtain a 'big picture' regarding the theoretical evolution of SEA in relation to sustainability. Then, the process of collecting and analysing the representative literature was similar to the one adopted for governance: find the publications with more citations, identify the ones I did not have in my possession through snowball selection of the reference list, and update my portfolio.

2.2.2 Systematic review

A systematic review was adopted to identify and synthesise key findings for a large body for research (of SEA) regarding a specific subject (governance). One of the main objectives was to understand how the term 'governance' is being used in the body of literature of SEA. Systematic reviews can be defined as a comprehensive assessment of the existing knowledge following a set of rigorous, objective and transparent steps (Petticrew and Roberts, 2006).

The main steps of the systematic review were:

a) Definition of the research question: What is governance in the context of IA[2]?;
b) Search of relevant studies (through the application of a protocol-driven search for publications);
c) Analyse and assess the data (with resource to the software QSR NVIVO© v.11 following the principles of grounded theory approach of coding through iterative rounds of open coding and axial coding (Glaser and Strauss 1967; Corbin and Strauss 2008).

To understand what can be the role of governance in SEA, this particular research question allows to understand the current governance-related discourses that already exist in the IA body of literature. The protocol-driven search included parameters such as databases for the search, publication period, search terms and strings, inclusion / exclusion criteria, and NVIVO search specifications. This 'relevancy' was defined in terms of both descriptive and interpretative parameters. Besides the databases search,

[2] The decision to broad up the focus from SEA to IA instruments was due to the fact that many principles (as for example integrated, participative, adaptive or interdisciplinary) are common to all IA instruments. For this review I narrow IA instruments to EIA, SEA and SA.

additional publications based on my knowledge on the field were added by hand. Further details on the systematic review are provided in Chapter 3.3.

2.2.3 Questionnaire

The reviews of literature are historical in nature since they situate the research problem within a social context and provide the concerns and interests of researchers (Countinho 2015). But not only researchers are part of that social context, also practitioners. So I felt the need to, in a simple and expeditiously manner, incorporate practitioners perspectives and opinions on the subject. As Cashmore and Axelsson (2013) indicate SEA and other IA instruments are 'social constructs' and implies the views of all relevant actors.

The method chosen to capture individual perceptions and opinions on governance and SEA was an inquiry by questionnaire. The questionnaire was constructed with an open-ended structure with three main sections:

1) Practitioners background and experience with SEA: to understand the respondents professional background and practice with SEA;
2) General for SEA: to understand the respondents approach to SEA by making use of questions focusing on their geographical area of experience;
3) Governance and SEA: to understand how the respondents link both concepts and the respondents approach to governance.

To assure a maximum diversity of respondents and seek geographically dispersed responses, I decided to spread the questionnaire in community groups of IA in social media channels (LinkedIn, IAIA Connect). I am aware of the limitations (and disadvantages) of such decision (as for example representativeness of data since not everyone is on the internet, or random sampling in terms that I only reach those that make part of those specific groups). But, as I said previously, my intention was to collect practitioners' perceptions and opinions in a simple and expeditiously manner. Also, the sampling process can be said to be 'accidental' since the dissemination of the questionnaire in social media channels put its potential results in the hands of volunteers to participate.

2.3 The practice in approaching governance in SEA

The empirical approach is constructed around four elements considered influential for SEA thinking: a) methodological guidelines in organisational models (based mainly on grey literature used by some practitioners to support in the application of SEA); b) policy instruments (SEA systems in different countries); c) SEA practice (SEA reports in a specific context framed by a regulatory methodology and practice guide); and d) SEA case (that follows a governance-inclusive approach). I will present the main methods used in this phase of the research, and a critical evaluation of the case selections will be part of the research results.

2.3.1 Document analysis

For Bowen (2009), in document analysis the researcher interprets information within a document, giving 'voice' and 'meaning' around a specific topic. Three different cases were selected for document analysis with the following objectives:

a. SEA organisational Models: understand how different organisational models approach governance in their methodological orientations, using the conceptual model developed as the basis for the analysis;
b. SEA systems: understand if, and how, governance contexts influence the system and institutionalisation of SEA through the analysis of SEA regulatory instruments in specific countries;
c. SEA practice: understand, for the Portuguese reality, if governance is being considered in the practice of SEA as advocated by the Portuguese SEA Guidance and, if so, how is it being addressed through the analysis of SEA environmental reports;

In the three cases the documents for analysis are public records available online to the public. For a) and b) the first screening selection of the main cases considered the language of the documents (had to be written in English, Portuguese or Spanish). For c) the language issue was not a problem since all the main cases selected were written in Portuguese. To explore the 'writing' evidence, two techniques were used for the three cases:

1) Interview technique (based on O'Leary (2014)): For this, I treated the document like it was an 'interviewed / respondent' making specific questions and then highlighting the answer within the text. For this I will make use of analytical frameworks composed by specific criteria and analytical questions.
2) Thematic / content analysis (based on Bowen (2009) and O'Leary (2014)): For this, I quantified the occurrences of particular words/themes considered pertinent for the type of document and information I want to extract for pattern recognition.

The specific criteria for document selection and analysis are presented in Chapters 4 (SEA organisational models), 5 (governance contexts and SEA), and 6 (Portuguese SEA practice).

2.3.2 Action research case study

According to Greenwood and Lewin (1998: 122 – emphasis added) action research can be defined as a "systematic and oriented gathering and analysis of data and the generation of interpretations *directly testes in the field of action*". Yin (1984:23) defines case study "as an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used".

At first sight the structured case study methodology (as proposed by Yin (2003)) can appear contradictory with the flexible notion of action research. But in this case I adopted

a specific SEA case (the revision of Sintra's Municipal Plan) as a case-study and action research as an approach for data collection and interpretation as I was part of the case-study. So I had both an observational role when adopting the case study method (detached from the practical process of the case), while through action research I adopted the role of a reflective practitioner to understand the meaningful characteristics of the real-context I was working on, a case of action *for* action. Specifically, I conducted a *practical* action research were I had an active involvement in the SEA helping in identifying concerns, planning development strategies, detecting issues and supporting in the reflection of results of change.

As a research consultant I was involved in the SEA of Sintra's Municipal Master Plan through the beginning of the process (in 2014). Since in action research it is difficult for the researcher to remain neutral (McNiff and Whitehead 2006), a careful research protocol was develop to conduct this combination of action research case study in a rigorous and structured way. If the case study enabled me to gather data through 'descriptive observations' and document analysis about the key participants and roles, the particular sequence of events, and processes involved, the action research activities allowed me to study the emergence of core issues in relation to governance. The main objective of this exercise was to create knowledge on how it is possible to address governance in SEA in ways that makes strategic sense by uncovering the process of a specific case that uses a governance-inclusive perspective integrated in a strategic thinking (ST) SEA approach.

I speak on 'action research activities' because I have limited my involvement through action research to certain phases of the SEA case to allow critical distance and reflection. I was involved in preparing, organising and conducting meetings with the community, in proposing new ideas for the SEA development and engaging in normative debates on the possible inclusion of governance in the assessment process and on its potential benefits to the plan proposal. The intention of combining action research with case study was to become an objective participant that listens, observes and acts throughout the SEA process. It is my belief that the philosophy of action research can give to the case study a transformational capability towards desirable solutions. In Chapter 7 I will present and discuss the action research case study, the adopted protocol, and reflect upon my own role and involvement.

2.4 Governance-based proposition to SEA

The empirical insights are used in this research as supporters for the theorisation and instrumentalisation of governance in SEA. For a robust theorisation I used two different methods: mapping, expert opinion and critical analysis.

2.4.1 Mapping process

A first approach in the theorisation process was to use the mapping method to compile, structure ideas, and conduct analysis through deductive reasoning (the development of a first proposal of theorisation) and interpretation (the way I relate and integrate the different concepts used).

The compilation and structure of data is made through coding to highlight the relationships that exist in and between the empirical insights. It was very important for me to visually express the relationships and dynamics between concepts. My interpretation of the relationships and dynamics are interpreted though a mapping technique where each idea and empirical insight is treated with equal value (in a non-hierarchical way).

2.4.2 Expert Opinion Questionnaire

With the mapping technique a first theorisation of governance in SEA was produced. This first proposal did not include an 'operationalisation' through guidelines for empirical use, due to the fact that I wanted to obtain feedback of the theorisation to understand the relevancy of the proposal and the way I was communicating complex concepts for a proper proposal of guidelines. As such, I decided to conduct an expert opinion inquiry (through questionnaire) to 'test' the proposal and help identify its potential problems and constraints, also to support me in understanding its validity, relevance and potential.

The questionnaire was develop with an open-ended structure, focusing on issues of appropriateness of the proposal, explanations, potential for application, suitability for current SEA practices, and its strengths and weaknesses. I used an online survey software and contacted directly a selected number of experts in the field of environmental and sustainability assessments (EIA, SA and SEA). The expert's answers were then analysed, turning the expert's comments, suggestions and critiques into questions for further reflection to advance the quality of the proposal.

2.5 Data analysis

As previously said, data collection and analysis was made through the use of multiple methods and techniques. It is important to say that in some phases of my research both activities (collection and analysis) were done almost simultaneously. Data analysis is "the process of systematically searching and arranging the interview transcripts, field notes, and other materials that you accumulate to increase your understanding of them [the participants] and to enable you to present what you have discovered to others" (Bogdan and Biklen 1992: 153).

The process of theory-building adopted is of an analytical nature as it is discursive and interpretative to explain governance in SEA. The use of more than one source of evidence helps to discover new dimensions of the research problem to unfold the phenomenon of SEA through generalisations, conceptualisation and theorisation that express the relationship between governance and SEA. The research chain of combined methods contributes to the construction of a governance-proposition to SEA (the theoretical proposition). Textual analysis, through inference and interpretation, is the main mode of analysis adopted in this thesis. Generally, the data is reduced – 'codified' – in an emergent way from the patterns and words that justify the categorisation.

The same method of codification is used in the systematic review of the literature of SEA, but in this case I used a software (QSR NVIVO© v.11) to support me on the qualitative analysis. In the end, it enabled me to find out 'units of analysis' for the

empirical phase, in a comprehensive way, that reflect the conceptual illustration of governance in SEA.

Both processes of conceptualisation (Chapter 3) and Theorisation (Chapter 8) followed the principles of grounded theory of categorisation (descriptive labelling), coding (disaggregation of data, recognition of relationships, and integration), comparative analysis of both theoretical and empirical insights, and saturation.

The data arising from the empirical phase were analysed through analytic induction, with an explanation-building procedure of cases selected purposefully to allow the phenomena to be explored.

2.6 Research quality

The interpretative-constructive nature of this Thesis relies on a relativistic position with multiple realities at stake that are socially constructed. Due to the subjective interpretation of such type of paradigm, there is the question of how the researcher can prove that the research results can be trusted and applied (Coutinho 2015). According to Guba and Lincoln (1988) all the research process must have a truth value, applicability and dependability to have scientific value. It is so important to think on three issues: construct validity, verify internal and external validity, and assure reliability.

Construct validity:

- Multiple sources of data and data collection techniques (literature review, questionnaires, document reviews, case application) allow triangulation of data;
- The case study (the SEA process) is analysed with resource of a wide range of perspectives: from SEA literature, SEA models, SEA practitioners, SEA institutionalised regulations, SEA environmental reports, and a SEA single case process;
- There is a chain of evidence established where findings lead to another findings from new dimensions that are uncovered in each step of the research process;
- The use of literature is seen as support evidence that is used throughout the research.

Internal validity:

- An expert opinion review was developed to validate the findings based on critique and recommendations;
- Literature is revisited as a way to compare the findings with existing theory and to further improve the theoretical and conceptual proposal of the Thesis;
- Continuous discussions about the research path and research results were made with colleagues with established experience in SEA practice;
- Throughout the years the research was presented in international conferences to obtain reaction from peers;

- The research results were also published in scientific journals through peer review.

External validity:

- An expert opinion review was developed to validate the findings based on critique and recommendations;
- The case study (the SEA process) is analysed with resource to a wide range of perspectives: from SEA literature, SEA models, SEA practitioners, SEA institutionalised regulations, SEA environmental reports, and a SEA single case process;
- The theoretical and conceptual proposal explicitly demonstrates what is tangible (in a practical sense) and what is situated in the system of values (normative). It is constructed under a conceptualisation that may be suitable in any specific SEA context.

Reliability:

- The collection of data, and analysis, is presented and documented. Several codding processes were used throughout the research that represent decisions about the choice of focus from all the data collected and documented;
- Process of validity is well documented and shared;
- All sources of information are outlined;
- The process of constructing the theoretical and conceptual proposal (the Thesis outcome) is documented in a rigorous way.

2.7 Chapter conclusion

In this Chapter the research methodology in which the Thesis is grounded was described. The theory-building strategy adopted was explained, and the methodological model presented. The choice of the combination of methods used was presented and clarified. The research quality in terms of validity and reliability was also shown.

Chapter 3.

Theoretical frame: Governance and SEA for Sustainability

This Chapter provides the conceptual basis of this Thesis, including a literature review of the two conceptual anchors - Governance and SEA – and a systematic review of Governance in SEA. It begins with an overview of governance perspectives and their evolution, followed by a more deep review of governance approaches that are pluralistic in nature and are grounded in sociological thinking in relation to environment and sustainability. Next it is provided an evolution of SEA for sustainability by exploring some SEA approaches, and perspectives of strategic and sustainability assessments. Subsequently, a conceptualisation of governance in SEA is presented, constructed upon actor's perspectives on this subject (the *practitioners* perspective collected with resource to an exploratory questionnaire) and a systematic review to show current thinking modes of existing research that considers governance in SEA (the *theoretical* perspective).

3.1 Governance: Evolution of perspectives

Governance has roots in the ancient Greece and its popularity is increasing across different academic fields like institutional economics, international relations, political science and public administration (Stoker 1998). Study the governance phenomena in a considerable range of academic genres from public policy and administration, political science, business, anthropology or even geography leads to a considerable amount of theories on the subject, with different conceptions, understandings and discrepancies (Rhodes 1997; Kooiman 1999; Jessop 2002; Pierre and Peters 2005; Pollitt and Hupe 2011; Arnouts et al. 2012; Torfing et al. 2012; Lange et al. 2013). The multiple meanings of governance have not been an advantage and the term is, by consequence, characterized by conceptual ambiguities (Lange et al. 2013).

In **Table 1** are provided some examples of '*meanings*' of governance from the last couple of decades. Even with different considerations to the role that actors play, some elements comes out when analysing the conceptualisations: *rules* (with direct influence to societal norms and how these can react to contextual situations), *frameworks* (built upon the existing rules and norms that translate the organisation of society), or even *conditions* (pre-set of conditions that shape the dynamics and play with the complexity of interactions).

Table 1. *Examples of governance conceptualisations (emphasis added)*

Rosenau (1992)	**Systems of rules**, as the purposive activities of any collectivism that sustain mechanisms designed to insure its safety, prosperity, coherence, stability, and continuance
March and Olsen (1995)	Involves **affecting the frameworks** within which citizens and officials act and politics occurs, and which shape the identities and institutions of civil society

Kooiman (1999)	Solving problems and create opportunities, and the **structural and processual conditions** aimed at doing so
Pierre and Peters (2000)	Process in which the **State plays a leading role**, making priorities and defining objectives.
Jessop (2003)	Reflexive self-organisation of independent actors involved in **complex relations** of reciprocal interdependence
Rhodes (2003)	Governing with and through networks, or, to employ shorthand, it refers to **steering networks**'
Pierre and Peters (2005)	Way of defining the **role of government** in society
Voß and Kemp (2006)	**Patterns of processes** by which society handles its problems and shapes its own transformations
Meuleman (2008)	Totality of **interactions** in which government, other public bodies, private sector, and civil society participate, aiming at solving societal problems or creating societal opportunities
Torfing et al (2012)	The process of **steering society** and the economy through collective action and in accordance with some common objective

From the above definitions we can also perceive different theoretical domains feeding governance conceptualisations, but similar words like rules, steering, governing, interactions, or even networks are being used. Some contrast with respect to the role of government (Pierre and Peters 2000; Rhodes 2003) and the society (March and Olsen 1995; Pierre and Peters 2005); others share governance as framed in a problem-solving oriented way (Kooiman 1999, Voβ and Kemp 2006).

Pierre and Peters (2000), in their definition, illustrate a state-centric position where state owns the political power, and Meuleman (2008) considers that the relations between actors are influenced by 'formal' and 'informal' institutions. The shift from 'government to governance' raised issues of complexity, and therefore can be said to be the main responsible for the arising of new forms of governance from the traditional hierarchical view of governmental systems (Rhodes 1996; Hill 2013; Lange et al. 2013). Examples are of Kooiman (1993) that understands governing as a "purposeful effort to guide, steer, control, or manage sectors of facts of society", and of Lange et al. (2013) that discuss governance as "practices through which societies are governed".

Kooiman 'social-political governance' is based upon a collective attitude of shared responsibilities between state, market and civil society (Kooiman 2003). Interactions are complex and dynamic in contexts where negotiations take control to deal with uncertainty, growing market, increasing networks, or even flexibility of institutions (Pierre and Peters 2005; Sorensen and Torfing 2007). Like others (March and Olsen 1995; Jessop 2002; Pierre and Peters 2005; Torfing et al. 2012) Kooiman supports a society-centric position where state rely upon non-state actors, going beyond the traditional position of command and control (Rhodes 1996; Pierre and Peters 2005; Hill 2013; Lange et al. 2013). Several authors recognize that the social-political governance (or 'interactive' governance) brought to discussion issues of complexity, diversity and dynamics (Jessop 2002; Duit and Galaz 2008; Sorensen and Torfing 2009). Moreover, Kooiman (2003) straightened out the notion of governance from the act of governing to a mode of social coordination. A similar thinking can be found in Kemp et al. (2005)

advocacy of placing collective decision-making in the realm of governance, emphasising the importance of relations in (and for) governance.

In the ‘opposite side’ is the rational choice approach to governance that follows a sense of consequentiality to enhance the capacity of political effectiveness (North 1990). The actions are chosen with rational calculation to achieve maximization, and interests influence outcomes of choices in a way that the consequences of political alternatives are anticipated. This notion had a major influence in the development of ‘good governance’ where power exercise and market functionalism work side by side. Also, this perspective entails a rational choice approach where the logic of political action follows the logic of enhancing the capacity of political effectiveness.

One important critique to this logic of ‘human interactions’ is the one of March and Olsen (1994). They point that “proper behaviour sometimes is associated with bad consequences and improper behaviour with good consequences” (1994: 156). According to the authors, choices made in political actions need to address the high level complexity of the systems environment in a way that accountability is provided by the appropriateness of actions of a given situation and not by the maximization of rules. The idea is not to find the best alternative but instead the most appropriate one based on the existing norms and societal values. This normative belief stresses the link of action-situation where individuals learn the boundaries of what is the ‘acceptable’ behaviour to overcome a problem and to be accountable for a choice. Express governance, from the author’s perspective, is to understand how is possible to create capabilities on political actors, support identities, preferences and resources, built and maintain systems of meaning, and understand the culture and history of a place.

As introduced above, different theoretical domains feed the evolution of governance literature. Political science and public administration provided valuable inputs to the development of governance literature. As also other disciplines: ‘good governance’ representative of new institutional economics; ‘corporate governance’ strongly rooted in agency theory, ‘democratic governance’ strongly rooted in sociology; or ‘global governance’ from international relations. Each have its own explanation on the complexity of policies formulation, how multiple values and priorities are reflected in the dimensions of governance processes, structures, contents and results. **Figure 5** illustrates an overview of the evolution of some forms of governance from the three ‘ideal types’ of governance (Meuleman 2008): hierarchical, market and network.

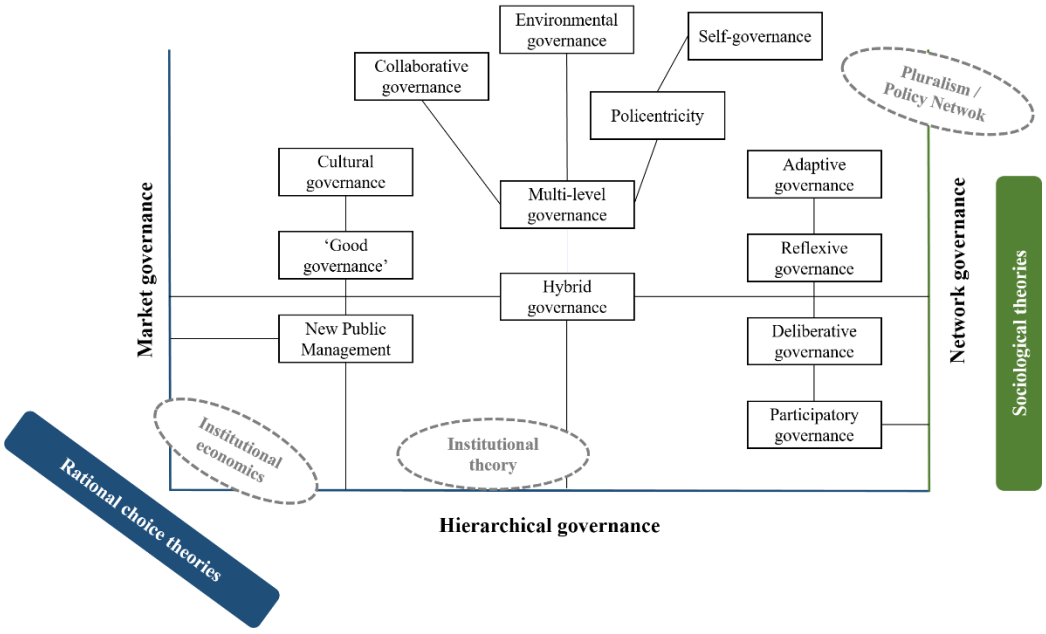

Figure 5. *Evolution representation of forms of governance (inspired in: Meuleman 2008; Bevir 2011; Levi-Faur 2012)*

There are two traditional modes of governance: hierarchical and market (Meuleman 2008): hierarchical governance is moulded in the Weberian bureaucracy theory and implies a monocentric power system with governmental actors playing the central role; market governance, inspired in neoliberal economic theories, involves both formal and informal institutions, with governments' seen as service providers and characterised by major interventions of markets; Next to hierarchies and markets, communities, associations and networks have been identified as a third social order in governing activities (Powell 1990). But, the shift from 'government to governance' is the main responsible for the rise of new forms of governance that offer an alternative to the traditional hierarchical view of governmental systems (Rhodes 1997; Lange et al. 2013), focusing not only in rules and resources but also in interactions between the different actions in the society (Kooiman 2003; Meuleman 2008).

The shift from the 'traditional' steering capacity of governance to a self-steering or self-governing view marked the evolutionary development of governance perspectives over the years. The premise behind the self-regulated system, unlike a controlled one, provided the crucial point that the state is not the only actor in the socio-political arena that controls the paths of development, but instead are the interactions between state-society and the acceptance of common responsibilities. Governance also encompasses strategic-relational approaches (Jessop 2004) from its ability to address the structure and strategy of processes complexity and dynamics. The state is no longer considered the only actor in the political system, but the actor that can institutionalize "complex social relations" in a complex system. It is possible to say this perspective of governance is pluralistic in nature by considering complexity as an important point in governance discussions. And, as pointed by Bond et al. (2012) and Cape et al. (2018) pluralism is central to good environmental and sustainability assessments, as for many of IA

instruments. Following this particular perspective, next I will focus on governance approaches with lessons rooted in deliberative and pluralistic notions.

3.2 Governance & pluralistic thinking

Like governance, sustainability literature is guided by divergent perspectives, mostly due to its flexible conceptualization (more environmental or economic or social orientation). Interpretations vary: from the static notion of pillars or dimensions (environmental, social and economic), short- to long- term perspectives, local to global scale, institutions or culture as the fourth pillar, to sectorial sustainability (e.g. sustainable energy, sustainable tourism) (Partidário et al. 2010). Sustainability is currently constructed as an institutionalised policy objective (with a normative orientation) that claims for action by governments (e.g. National Sustainable Development Strategies), by development organisations (e.g. United Nations Sustainable Development Goals), or by local communities (e.g. Local Agenda 21). There has been much debate on the meaning of sustainability and interpretations vary according specific beliefs, values and norms.

Following the Brundtland Report *Our Common Future* (WCED 1987), Sustainable Development (SD) is defined based on steering social developments in terms of current needs. The definition of SD provided in the Brundtland Report ("development that meets the needs of the present without compromising the ability of future generations to meet their own needs") was highly adopted playing an important role in introducing the paradigm of SD, and/or sustainability, into the political domain. It does not come without conflicting visions of what constitute SD and/or sustainability in political developments since both are normative in nature, being considered value-based (political) concepts[3] (Gibson 2001; Bond et al. 2011).

According to Gibson et al. (2005) sustainability cannot be defined with fixed characteristics and requirements and the specificities of context are crucial. The author presents nine essentials to help understand the concept of sustainability (**Table 2**). It also makes the link to governance – where is considered essential for sustainability the relationships that exist, the habits and behaviours established, and the decision-making processes of a context.

Table 2. *The essentials of the concept of sustainability (Gibson et al. 2005 – emphasis added)*

A ***challenge to conventional thinking and practice*** – Questions the current models of development.
About long- as well as short-term well-being – Addresses persistent threats and it values potentially durable solutions.
Comprehensive, ***covering all the core issues of decision making*** - Broad conceptual framework and set of general values for integrating the full suite of relevant considerations.

[3]. According to Holden et al. (2014) some scholars consider both concepts synonymous, others that both entails the same dimensions and political implications, that both are different with sustainability being the environmental dimension of SD, and finally sustainability being the process whereas SD refers to the end state. Here it is adopted the term sustainability – and for the purpose of the Thesis there is no need to discuss similarities or differences between both concepts.

A ***recognition of links and interdependencies***, especially between humans and the biophysical foundations for life – interdependencies are powerful and must be respected.
Embedded in a world of complexity and surprise, in which precautionary approaches are necessary - Prediction of future conditions is at best uncertain, and surprise is likely.
A recognition of both inviolable limits and endless opportunities for creative innovation - diversity in thinking and practice is as crucial to the pursuit of sustainability as precaution, appreciation of interdependency and concern for the long term
About an open-ended process, not a state - ***No single, lasting solution is possible; not even the goals are fixed***.
About ***intertwined means and ends***, culture and governance as well as ecology, society and economy - How we *build relations* with each other, what *habits of thought and behaviour* we establish and how we go about *making decisions* are central to sustainability
Both ***universal and context dependent*** - Sustainability offers no common blueprint, no single paradigm; is perhaps best conceived as a substantively important but minimal framework requiring specification in and for particular places

The amount of research and theories that link sustainability and governance is increasing (Voß et al. 2006; Loorbach 2007; Meadowcroft 2007; Rozema et al. 2008; Adger and Jordan 2009). Meadowcroft (2011) holds on the point that sustainability requires a transformative agenda where governance needs to play the role of handling issues that include society and societal development. So, considers that sustainability must be concerned with the *governance of change* because (Meadowcroft 2011: 536):

- Sustainability is all about governance since collective interventions requires change in societal development trajectories;
- Sustainability embodies an implicit perspective on societal steering oriented by long-term development in desirable directions and with positive influence;
- Sustainability implies a change agenda that can encourage the transformation of existing institutions in their current practices;
- Sustainability requires collaboration among all sorts of societal actors to continuously develop knowledge, refine the understanding of problems and encourage social innovation; and
- Sustainability calls for a democratic dimension since it involves choices about basic values.

As previously seen, there are different perspectives of governance responsible for the existence of different forms of governance that seems to exist in a continuum (Kooiman 2003; Treib et al. 2005; Rozema et al. 2008). There are more hierarchical forms that captures rational perspectives of governing and more deliberative and pluralistic forms which places societal actors as responsible for shaping goals and developments. And adding to this, due to the current features of environmental and sustainability issues there are a series of challenges in contemporary governance mechanisms influencing governance evolution (Meadowcroft 2011):

- The demand for more holistic and integrated approaches that can balance different kinds of societal goals;
- To work with multiple time frames and, for that, needs long-term planning and policy perspectives;

- The coordination across different bureaucracy settings and changes in administrative routines;
- The establishment of appropriate roles and responsibilities at different scales of action, as well as integration;
- High levels of uncertainty that can persist for decades;
- The integration of different types of knowledge in decision-making;
- The development of new participatory schemes and mechanisms for broad sustainability-oriented choices;
- Mediation between interests with complex institutional relationships; and
- To escape from societal lock-ins that force and reinforce path dependence.

Questions of innovation, integration, performance, debate, learning or reflexivity lead to some innovative governance approaches, more pluralistic and deliberative in nature. For reasons previously mentioned, I will now briefly introduce four governance approaches that somehow advance the questions raised – good governance, deliberative governance, reflexive governance and adaptive governance.

The '*good governance*' approach is fully embedded in institutional economics (Rothstein 2012). Is one of the most prescriptive and normative forms of governance since it associates the governance concept with the delivery of public service. It is highly adopted by development organizations (as the World Bank, OECD, UNDP, among others), generally acknowledging openness, participation, accountability, effectiveness and transparency as anchor elements of governing processes (Gupta 2015). It could also be said that 'good governance' is a market-oriented instrument (Kemp et al. 2007) supported by the use of indicators (e.g. voice and accountability, government effectiveness, regulatory quality, control of corruption). The idea of 'good governance' goes beyond the role of government and focus on market growth and social concerns through economic reforms. Its tendency to enhance the economic role of policies for development and growth reduces the consideration of the role of state in political affairs. It involves empowering other non-governmental actors, emphasizing participation, equality and an effective capacity to implement public policies (Norris 2011).

Deliberative governance has its roots in deliberative democracy and the importance of deliberation in democratic processes of decision-making (Hendriks 2009; Dryzek 2010). The debates on deliberative democracy are recent, and central to this movement is the notion of dialogue, distinct of the traditional processes of public involvement of democratic government. As pointed by Bäckstrand et al. (2010, 17) "deliberative democratic processes may be emancipatory, lead to more informed choices, and increase the legitimacy of policies". The focus of deliberation in societal processes is thus considered a crucial problem-solving mechanism. With inclusive and deliberative goals steering this approach, deliberative governance is quite sensitive to the effects of power (Hendriks 2009; Cashmore and Richardson 2013) as power influences what is considered true, consequently influencing processes of dialogue (Wilcocks 2004), even in deciding what is to be discussed. This question of power is a weak link in deliberative governance since it goes against the premise of equity and empowerment in participatory governance procedures.

Reflexive governance is often mentioned in the agenda of environmental governance (Voß et al. 2006; Jordan 2008; Driessen et al. 2012). Voß and Kemp (2006: 4) explain reflexive governance as "shaping societal development in the light of the reflexivity of steering strategies". The concept of reflexive governance relates to the notion of reflexive modernisation (Beck et al. 1994), seen as a condition of governance itself (self-confrontation) and a specific strategic orientation norm (processes and institutions emerging from the self-confrontation). It is built upon knowledge theory and constructivist approaches where governance is seen as problem handling that focus on a shared construction of problems instead of constructing collective solutions (Voß and Kemp 2006). Reflexive governance acknowledges the uncertainty and ambiguity of sustainability problems, stressing that sometimes such problems cannot be solved, only handled.

Ecological systems theory provide valuable lessons on concepts of learning, uncertainty, interaction and complexity that are central to *adaptive governance*. For Olsson et al. (2006) "adaptive governance relies on polycentric institutions (…) operating at multiple scales", but tends to focus on bioregional scales and applied to socio-ecological systems. Dietz et al. (2003) describe adaptive governance as managing diverse human-environmental interactions under extreme uncertainty, while Folke et al. (2005) expresses it as the social context required to achieve resilience in socio-ecological systems. Both definitions are widely recognised, and adaptive governance is seen as a system of environmental governance with the capacity to manage the complex and uncertain characteristic of social-ecological systems (Karpouzoglou et al. 2016). Uncertainty and complexity are two of the main elements of this approach to governance. It aims to intervene in complex social-ecological systems, emphasizing its flexibility, learning and resilience features (Folke et al., 2005).

In short, ***Table 3*** provides an overview of the governance approaches introduced above, summarising the main focus and key prescriptive elements that can be relevant for IA instruments, and particularly SEA.

Table 3. *Overview of some governance approaches and relationship to prescriptive elements relevant to IA and SEA.*

	Main focus	***Key prescriptive elements***	***References***
Good governance	Government efficiency and effectiveness. Open participation. Control of corruption.	Accountability. Transparency. Participation. Effectiveness.	World Bank 1994; Benda-Beckermann 1994.
Deliberative governance	Discursive processes (dialogue and narratives). Multi-actor processes. Network management.	Deliberation. Legitimacy. Equity. Power.	Hajer and Wagenaar 2003; Dryzek 2010.
Reflexive governance	Self- (steering, reflection, confrontation).	Reflexive modernisation. Ambiguity. Transdisciplinary. Strategic thinking.	Voß and Kemp 2005; Voß et al. 2006; Hendriks and Grin 2007.

	Knowledge production (through learning and monitoring). Holistic perspective.		
Adaptive governance	Dynamic systems. Local scale. Ecosystem management.	Adaptiveness. Uncertainty. Complexity. Resilience.	Pahl-Wostl 2009; Olsson et al. 2004; Dietz et al. 2003; Folke et al. 2005.

3.3 Strategic and Sustainability Assessment: SEA for Sustainability

In the previous sub-Chapter was presented an evolution in the debates of governance: from state-centric perspectives, strongly rooted in a rationalistic posture in positioning the state as the central actor in discussions around societal problems and in decision-making processes, to society-centric perspectives of a more deliberative and pluralistic nature that recognizes the multiplicity of actors that exist across any level of decision and the influence of their relationships in contexts of development. A parallelism can be made in the discourses that guided the debates of the evolution of sustainability in IA instruments, and particularly of SEA as a sustainability-oriented construct.

The connection between SEA and sustainability has been gradually reinforced over the years: from the perspective that SEA aims to assess the environmental consequences of development proposals to consider SEA as a sustainability assessment instrument that fully integrates “relevant biophysical, economic, social and political considerations” (Partidário 2000). Partidário (2000) argued that SEA would fall largely behind its potential by focusing solely on physical and ecological issues and instead “environmental assessment must understand and integrate sustainable development principles” (Partidário 2000: 651). However, there are claims that broadening the scope of SEA to integrate other sustainability dimensions, and addressing it holistically, will likely weaken SEA as an environmental assessment instrument, as it will reduce the weight given to the environment in detriment of economic and social issues (Morrison-Saunders and Fischer 2006; Sadler 2016). Sheate (2009) points out that sustainability is a basic purpose in all environmental assessment instruments. The issue is how and to what extent sustainability is perceived: embrace sustainability from an environmental perspective, address sustainability based on the ‘three-pillar model’, or approach sustainability in a broadly and integrated manner.

To address the issue of sustainability in IA, with a broad and integrated perspective, several authors use the ‘term’ Sustainability Assessment (SA) (Pope et al. 2004; Gibson et al. 2005; Gibson 2006; Bond and Morrison-Saunders 2011; Morrison-Saunders et al. 2015; Pope et al. 2017). SA is any process that aims to direct decision-making towards sustainability (Bond et al. 2011; Pope et al. 2017). For Sadler (1999) it is the third generation of IA, after EIA and SEA. SA is an approach that can be adopted in all levels of decision, from project-level to policy and strategic level. Gibson et al. (2005) argues that SA provides the theoretical framework of reference for the practice of IA instruments, argument also followed by others (Bond et al. 2012; Pope and Dalal-Clayton 2011). The difference between SA and what is proposed for EIA and SEA is that in SA sustainability

is the central core practice - if EIA or SEA positions sustainability at their heart of practice, both instruments are then considered sustainability assessments (Pope et al. 2015). However, Gibson (2012) argues that traditional approaches of IA still not meet some requirements that any SA process must attend to: *i)* reverse the prevailing trends towards deeper unsustainability by insisting that everyone makes a positive contribution to a desirable and durable future; *ii)* ensure integrated attention to all of the key intertwined factors that affect our prospects for a desirable and durable future; *iii)* seek mutually reinforced gains; *iv)* seek to minimise trade-offs; *v)* respect the context; *vi)* open and broadly engaging. The author proposes a set of basic sustainability requirements that he considers mandatory for sustainability-oriented assessments and sustainability-oriented decisions, presented in ***Table 4***.

Table 4. *Core generic criteria for sustainability assessments (Gibson et al. 2005)*

Criteria	*Requirements*
Socio-ecological integrity	Build human-ecological relations to establish and maintain the long-term integrity of socio-biophysical systems and protect the irreplaceable life support functions upon which human and ecological well-being depends.
Livelihood sufficiency and opportunity	Ensure that everyone and every community has enough for a decent life and that everyone has opportunities to seek improvements in ways that do not compromise future generations possibilities for sufficiency and opportunity.
Intragenerational equity	Ensure that sufficiency and effective choices for all are pursued in ways that reduce dangerous gaps in sufficiency and opportunity (and health, security, social recognition, political influence, and so on) between the rich and the poor.
Intergenerational equity	Favour present options and actions that are most likely to preserve or enhance the opportunities and capabilities of future generations to live sustainability.
Resource maintenance and efficiency	Provide a larger base for ensuring sustainable livelihoods for all, while reducing threats to the long-term integrity of socio-ecological systems by reducing extractive damage, avoiding waste and cutting overall material and energy use per unit of benefit.
Socio-ecological civility and democratic governance	Build the capacity, motivation and habitual inclination of individuals, communities and other collective decision-making bodies to apply sustainability requirements through more open and better informed deliberations, greater attention to fostering reciprocal awareness and collective responsibility, and more integrated use of administrative, market customary and personal decision-making practices.
Precaution and adaptation	Respect uncertainty, avoid even poorly understood risks of serious or irreversible damage to the foundations for sustainability, plan to learn, design for surprise, and manage for adaptation.
Immediate and long-term integration	Apply all principles of sustainability at once, seeking mutually supportive benefits and multiple gains.

The way SA is applied in practice depends upon the decision-making processes and general governance structures and features (Bond et al. 2012). But also on the integration of sustainability development themes in each decision-making process

(Gibson et al. 2005). Several governance issues are pointed as imperatives for integration, as the integration of the several political domains, integration of different institutional norms and values, integration of actors and different stakeholders, integration of knowledge, or even integration of self-reflection learning (Eggenberger and Partidário 2000; Scrase and Sheate 2002; Weaver and Rotmans 2006). Each of these issues are context-specific, with the way each is dealt in practice being dependent on the context for SA. The 'simple' interpretation of sustainability is context-specific, reason why pluralism and learning are been considered as essential criteria for a successful application IA instruments (Bond et al. 2013; Cape et al. 2018).

In 2004 Pope et al. proposed a framework comprising the conceptualisations of sustainability assessment: baseline-driven integrated assessment, objectives-led integrated assessment and assessment for sustainability. The first reflects the 'three-pillar' perspective of sustainability and aimed at minimise the negative impacts of development proposals; the second reflect a sustainability vision throughout the 'three-pillars' to maximise positive impacts of development proposals; the latest focused on a shared construction by society of what sustainability is to assess, in a contextualised way, if a development proposal is sustainable. The three models were proposed to reflect current discourses on assessment practices called sustainability-oriented and on what sustainability really means: the baseline-driven reflects the SEA Directive model and the objectives-led the English experiences with sustainability appraisal. The assessment for sustainability, defined through theoretical discourses, reflects the holistic and integrative call of sustainability principles. Considered 'problematic' for its need for a plurality of views of what is and what constitutes sustainability and questioning the added value of the whole framework due to the limitations of the assessment for sustainability model, Pope et al. (2015) reformulated the framework of 2004 by replacing the third model for 'contributions to sustainability' with two dimensions: the sustainability concept to support a contextual sustainability discourse and representation, and the decision-making context to focus on the subject of assessment, decision question and responsible party.

As previously pointed, SA is by many considered to provide a theoretical framework to IA instruments sustainability-oriented. Both Gibson (2006) and Morrison-Saunders and Pope (2013) propose some processual steps for SA, similar to any generic IA when compared with, for example, the generic steps of SEA (***Table 5***). The first two are both generic guidance for the application of any SA, even though the proposal of Gibson (2006) is broader and more normative-oriented.

Table 5. *Processual steps for SA and SEA*

Gibson (2006)	*Morrison-Saunders and Pope (2013)*	*Generic SEA steps*
Identify appropriate purposes and options for new or continuing undertakings. Assessing purposes, options, impacts, mitigation and enhancement possibilities, and so on.	Decision to conduct a sustainability assessment (screening). Identification of the desired outcome and hence the SA decision question to be addressed.	Screening. Scoping. Select SEA objectives / criteria. Consideration of alternatives. Collect baseline environmental data.

Choosing (or advising decision-makers on) what should or not be approved and done, and under what conditions. Monitoring, learning from the results and making suitable adjustments through implementation to decommissioning or renewal.	Establishment of sustainability goals and criteria for the decision (scoping). Identification of alternatives and options to achieve the desired outcome. Prediction and evaluation of the impact of each alternative. Selection and enhancement of the preferred alternative (mitigation). Approval decision and announcement. Implementation and monitoring (follow-up).	Undertake impact prediction and evaluation. Develop a mitigation and monitoring strategy. Consultation. Information on the decision. Implementation and monitoring.

SEA is, for some, an instrument for environmental assessment and for others is considered an instrument that is sustainability-oriented. White and Noble (2013) had develop an investigation on the arguments that exist in SEA literature in support for sustainability in PPP development and decision-making. From providing a decision support framework for sustainability, being adaptive to the decision making process, incorporating sustainability objectives and principles, considering relevant sustainability issues early on, adopting sustainability criteria, identifying and evaluating more sustainable alternatives, trickling-down sustainability, capturing large scale and cumulative effects, to enabling institutional change and transformational learning, the authors demonstrated that is acknowledged the added value that SEA has in promoting sustainability in development processes. However they also suggested that the theory and the practice is disconnected, and that exist barriers in conceptualising SEA for sustainability that include the several interpretations on the scope of sustainability in SEA, the limited adoption of broader sustainability principles and the challenges in institutional change to include sustainability issues. White and Noble (2013) came to propose four requirements to advance SEA for sustainability:

1. Deal with the nature and scope of sustainability and elucidate on the purpose of SEA in a range of decision-making contexts;
2. Describe how to select and operationalise the different approaches to sustainability in SEA frameworks;
3. Guide the adoption of sustainability objectives and the development of assessment criteria linked to sustainability goals; and
4. Place much more attention on how to facilitate institutional learning for sustainability through the application of SEA.

An approach to SEA for sustainability that, in my opinion, tackles down the four points presented is the ST SEA being proposed by Partidário (2007, 2012) that promotes the assessment of transition processes towards sustainability. Partidário (1996) argued that SEA should seek to add value to decision-making as a strategic move to integrate environmental and sustainability issues in development processes. Strategic thinking, as an orientation norm, can help give meaning to complex environments as the ones SEA applies to. It allows to use forward-looking thinking when addressing the consequences

of decisions, with the purpose of helping to ensure adaptation to new challenges arising from changes in an uncertain and complex environment. Strategic thinking as an approach in SEA (ST SEA) to advance sustainability focus on the need to assess how a development context is prepared to deal with change while keeping an integrated and sustainability-oriented perspective.

For Partidário (2015a – emphasis added) "*SEA can facilitate decision-making* by involving key actors, enabling dialogues towards mutual understanding, offering flexibility, ensuring a long-term and large scale perspectives when considering development options that help *to meet sustainability aims*". In particular, for the four points listed above, the ST SEA for sustainability:

- Deal with the nature and scope of sustainability – the ST SEA intends to help the construction of the proposal sustainability vision, its goals and objectives, as well as helps to identify and understand the decision problem and its root causes in a sustainability-oriented way;
- Approaches to sustainability in SEA frameworks – the ST SEA includes as structural element priority environmental and sustainability issues that are sync to the context characteristics and development priorities. It also establishes pathways for sustainability to enable to reach both sustainability goals and objectives of the proposal;
- Adoption of sustainability objectives linked to sustainability goals – the strategic thinking SEA approach promotes a methodology around Critical Decision Factors (CDF) seen as "environmental and sustainability success factors" (Partidário 2012) that ensure focus on the issues that really matter, issues that are sustainability-oriented, integrated and holistic. The CDF materialise both the goals and objectives of the development process as well as the key sustainability concerns. The use of CDF help to assure that both the SEA for sustainability objectives and the proposal sustainability goals are linked and that the assessment process is context-specific;
- Facilitate institutional learning for sustainability – the strategic thinking SEA has a strong governance dimension, since governance issues addresses the drivers of social and/or ecological/biophysical changes in development proposals. Governance can then be incorporated in SEA as a technical component (context analysis, macro-policies setting direction), as an institutional components (levels of influence, roles and responsibilities), and through engagement and communication (stakeholders' engagement and knowledge production and learning).

Other assessment frameworks and procedures for sustainability exist (Duarte 2013), as for example the one proposed by Therivel (2004) based on the SEA Directive with the objective to incorporate environmental and sustainability issues in strategic decision-making, or the one proposed by Pope (2007) following EIA practice in Australia that proposes methodological steps for SA processes. For the context of this Thesis and for the purpose of the research objectives I decided to focus on the approach proposed by Partidário (2007, 2012) since it explicitly includes governance throughout the SEA methodology and addresses it as an importance component of SEA for sustainability.

More emphasis will be given to the link SEA for Sustainability – Strategic Thinking – Governance latter on (Chapter 7).

3.4 Governance *in* SEA

For the objective of this Thesis it is important to understand both the theoretical contours of governance in SEA as well as the practical ones. By practical contour it is meant the practitioners perspectives of governance, SEA and of governance in SEA. The results of a systematic review in the IA literature about how it relates to the field of governance is now presented, as well as and main aspects of governance debated (what is governance in the context of SEA?) and the application of an exploratory questionnaire to practitioners on their perspectives and opinions on both these concepts.

3.4.1 What is relevant in current theoretical debates?

In order to understand what is relevant for SEA from the field of governance, a systematic review of IA literature was conducted in the beginning of 2016. Approaches and thinking perspectives of other instruments such as EIA and SA are still crucial for the development of SEA. Thus, I decided to open up the scope of the review to IA, specifically on environmental and sustainability assessments (EIA, SEA and SA). I chose the database Scopus to perform this review, and included publications in the form of articles, reviews, books and book chapters written in English, and focusing on the period of publication between 2000-2015[4]. An update of the research was made in the beginning of 2018 using the exact same protocol, to introduce and consider in the analysis the research published in the years of 2016 and 2017. A total of 22 new publications were included in the final sample, reaching 232 publications. The results of the systematic review here presented are considering the updated search.

The first step was to search on Scopus for publication with 'impact assessment'. After this first screening I realised that using this specific search expression was too broad for my objective since it resulted in a sample including publications about, for example, life cycle assessment, social impact assessment, health impact assessment or even territorial impact assessment. After this I updated the search protocol to search publications of IA focusing only EIA, SEA and SA. With this established, I defined the search protocol and parameters for the review process. The search protocol used is illustrated by **Figure 6.** As it is possible to see, I didn't limit the search by using only the word 'governance' as a search parameter, but I also incorporated the knowledge obtained in the previous research of Chapter 3.2 by considering notions/ideas related with the governance approaches that claim to be better appropriate to handle deliberative issues, and thus more relevant for current IA conceptualisations (for this I made use of the key prescriptive elements of **Table 3** – accountability, transparency, participation, effectiveness, deliberation, legitimacy, equity, power, reflexive, ambiguity, transdisciplinary, strategic thinking, adaptive, uncertainty, complexity, and resilience).

[4] The year of 2000 is chosen since it was in that year that a first explicit connection between SEA and political issues is made, together with the proposal of adoption of an holistic perspective and SD principles (see Partidário (2000)).

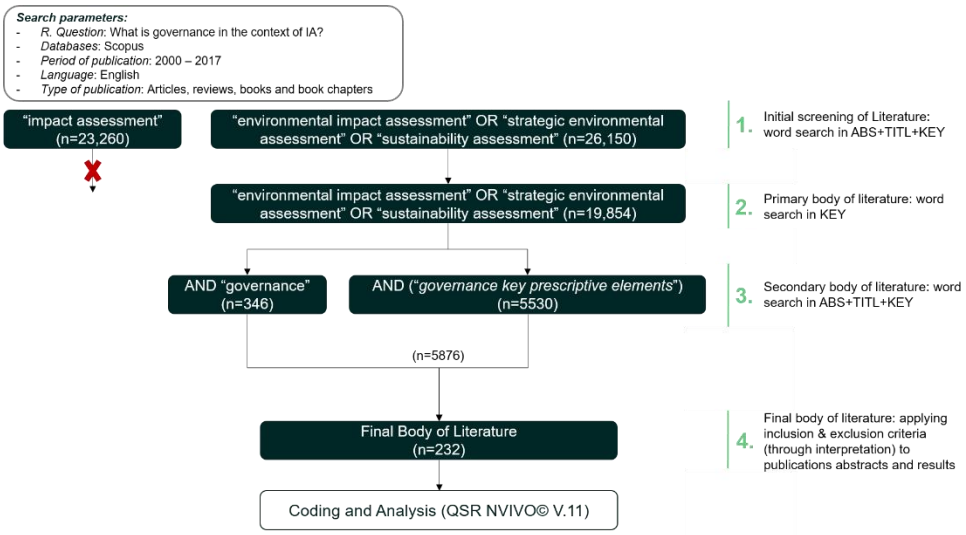

Figure 6. *Set-by-step systematic review process*

I considered relevant to statistically map the explicit use of the word 'governance' as a keyword (n=346) throughout the years (from the secondary body of literature). **Figure 7** shows that the number of studies that are mentioning/considering governance is increasing. And I also wanted to highlight some points that could possible justify this evolution: 1) the publication, in 2005, of a first version of the World Bank model 'institution-centred SEA', followed by the publication of the OECD-DAC model in 2006 and the UNEP model in 2009; 2) the publication, in 2011, of the World Bank model of policy-SEA, followed by the publication of the ST SEA model in 2012 (promoted by the EC in its institutional site of SEA); 3) the IAIA annual conference in 2015 where governance was one of the main issues and topics discussed; and also 4) the Workshop on the application and effectiveness of the SEA Directive, in 2016, promoted by the EC and where one of the key messages was SEA as being a key instrument for good governance.

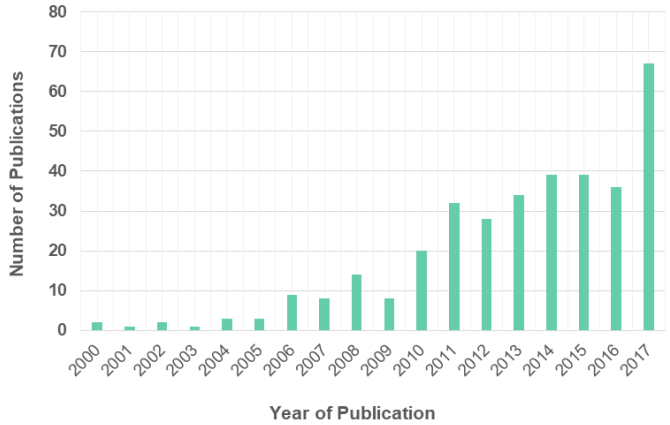

Figure 7. *Distribution of publications by year for the search period*

The final body of literature used in this systematic review is composed by 232 publications. To narrow down the sample between the third (n=5876) and forth step

(n=232) inclusion and exclusion criteria were adopted: a) publication orientation: conceptual, case study, comparative case study, other (direct inclusion: conceptual orientation; direct exclusion: comparative case study; further analysis of the publication: case study and others); b) thematic scope: considering the environmental factors of the SEA Directive (direct exclusion: concrete case studies with thematic scope); c) governance orientation: as pillar or only mentioned without an exploratory analysis (direct inclusion: governance as a pillar concept of the research; further analysis the publication: governance simply mentioned); d) key prescriptive elements: as governance elements of Table X as conceptual pillars or only mentioned without an exploratory analysis. The final body of literature was then exported to QSR NVIVO© v.11.

The software NVIVO was used to calculate descriptive statistics (word frequency occurrence) and to assist in the coding process. Two types of coding were used (based on grounded theory): open coding to highlight meaningful expression and describe them in a single word or expression, and axial coding to analyse the context in which a specific topic is used and with that identify relationships between different topics. I felt the need to use both this coding techniques since an explicit and inclusive perspective of governance in the publications was almost absent.

My objective with this review was not only to describe '*how governance is used in the IA body of literature*', but also to somehow understand '*what is governance in the context of IA*'. After an initial analysis of the publications, I decided to interpret the information against specific fields of sciences (e.g. social, political) for assistance in the interpretation of the perspectives and positions found in relation to governance. This interpretation is what is now presented.

Over the years an increased interest in IA writings, discussions and research is revealed in explaining the importance of governance in both theory and practice of IA. In an overview of SEA research of the past 20 years, Fischer and Onyango (2012) demonstrated that governance is on the top ten topics in research papers. Also, the review conducted by Caschili et al. (2014) notes that governance is a highly quoted keyword in scientific articles. The volume of IA research on governance is increasing (Sheate 2012), even though the body of literature that looks explicitly into governance is not extensive, mostly addressing single aspects of governance. In the context of IA, governance is of particular importance in institutionalizing decisions legitimacy and responsibilities (Richardson and Cashmore 2011). It is also recognized that the improvement of governance can be considered one of the outcomes of the assessment instruments (Kidd and Fischer 2007; Hanusch et al., 2016). As a matter of fact governance can be seen as an aspect of the assessment that helps achieve stated objectives since, in its essence, it frames certain operating patterns that underline the construction of regulatory aspects (following Meuleman 2015).

Issues of transparency, accountability, participation, or even effectiveness of IA instruments drive current research on governance in IA literature (Fischer and Onyango 2012; Tetlow and Hanusch 2012; Caschili et al. 2014), even though not explicitly presented with a governance perspective. These aspects are mostly approached from an effectiveness perspective or as pre-requisites for 'good governance'. Nevertheless,

many scholars recognise the relation of governance and IA, as the examples presented in **Table 6** for SEA and EIA demonstrate.

Table 6. *Governance, SEA and EIA - a two way relationship according to scholars (emphasis added)*

"SEA… is a systematic, objective-led, evidence based, proactive and participative decision-making support process for the formulation of sustainable policies, plans and programmes, leading to improved governance" (Jha Thakur et al. 2010: 13)
"SEA can indeed facilitate collaborative governance processes" (Van Buuren and Nooteboom 2010: 128)
"EIA can be considered a governance instrument, as it introduces rules and assigns particular roles and responsibilities to actors" (Arts et al. 2012: 2)
"SEA can make a significant contribution to improving governance" (Hobbs 2016: 159)
"SEA can enhance governance through raising attention to environmental and social issues and improving social accountability" (Hanusch et al. 2016: 218)

A few authors emphasize a governance perspective in IA, for example: Nooteboom and Teisman (2003), Nooteboom (2007) and Noble and Nwanekezie (2017) connect SEA to the field of transition management (as a reflexive governance approach) when strengthening attention to the complexity side of the instrument; Hartz-Karp et al. (2015) in SA, combined the fields of deliberative democracy and collaborative governance to claim that a deliberative collaborative governance approach is needed since deliberation is essential for sustainability development; Slootweg and Jones (2011) pointed out the importance of resilience thinking and adaptive management (as an adaptive governance approach) in the identification of key issues related to sustainability upon elements of diversity and adaptive capacity; Meuleman (2015: 13) alerted to the fact that "IA problems can be related to typical weaknesses of governance styles" and that "it makes sense to think seriously about governance when IA is carried out, as governance systems offer both constraints and opportunities for the governance of IA systems and procedures". According to Meuleman (2015) the IA problems (related to scoping, alternatives, uncertainty, public participation or follow-up) can be associated to bureaucratic issues, partitioning of the public administration, centralization of knowledge and power, political struggles or even the culture of participation. Also, the author identifies four action-oriented IA governance principles relevant for governance of the IA procedures: 1) organise reflexivity; 2) analyse the governance environment; 3) complement and switch between governance styles; and 4) organise appropriate public consultation and participation. Another example is the one of Wang et al. (2012: 415) that further claims that "the core reasons of blocking the effective SEA implementation are, in most cases, the issues relating to political cultures and institutional background, such as lack of powerful environmental governance and accountability".

The lack of evidence on how IA is improving the governance of decision-making is reported in some studies (e.g. Walker et al. 2016). One possible cause for this is the gap in theoretical studies on how IA instrument can be conceptualised from a governance lens. Even so, nine are the governance aspects that are most commonly found in IA claims: accountability, transparency, participation, uncertainty, complexity, power,

knowledge, learning and effectiveness. It is a fact that some of these aspects can be seen as subsets of others (for example for effectiveness, transparency and uncertainty are identified as principles of procedural effectiveness and knowledge and learning as principles of substantive effectiveness or a principles on their own). But even finding that these aspects are more frequently approached with an effectiveness perspective, on their own they provide valuable lessons to understand governance in the context of IA (with the same happening to the broad notion of effectiveness).

When IA is explicitly linked to governance the dominant line of discourse is 'IA helps to achieve 'good governance''. For example in SEA Scott (2008, 6) refers that "SEA can ensure transparency where it encourages the inclusion of the public in decision-making processes. Transparency can, in turn, enhance accountability if the lines of responsibility are clear", positioning accountability and transparency as objectives of SEA. In SEA the reference to these aspects is usually justified on the basis that it improves the implementation of environmental decisions and the quality of decision-making and assessment processes (Fischer and Gazzola 2006; Runhaar and Driessen 2007; Van Doren et al., 2013; Hanna and Noble 2015).

Accountability can be explained as "a social relationship in which an actor feels an obligation to explain and to justify his or her conduct to some significant other" (Bovens 2005, 84). The notion of public bodies or authorities to be account for in their decisions is the traditional perspective found in IA (Sheate 2012; Kørnøv et al. 2015). This dominant perspective follows a top-down approach to accountability (Kørnøv et al. 2015) buttressed by a democratic notion. Accountability is normally associated with the decision or assessment processes with a retrospective perspective of justification of actions (process-oriented), and less with prospective perspectives of evaluating and explaining the process in terms of its quality and performance (outcome-oriented) (Joss 2010). So, in IA, accountability is apparently more conceptualised as process-oriented because it is normally justified by explaining objectives and methodology of the assessment process (Van Doren et al. 2013; Thérivel et al. 2016), or by disclosure of the relevant information and documentation (Hanna and Noble 2015).

Cashmore et al. (2010) put forward the idea that accountability is encouraged by IA instruments and is even one of the 'sub-goals' of IA instruments. And goes further by saying that participation is a precondition for accountability (as also supported by Sheate [2012]). This line of though can be associated with more bottom-up approaches to accountability that emphasis the Principle 10 of Rio in matters of participation and engagement.

Recurrently linked to the aspect of accountability is the one of *transparency* (e.g. Kooiman 2003; Pierre and Peters 2005). Transparent political processes are normally seen as more accountable and democratic for it opens the process to public scrutiny, with the same being said also for assessment processes. It is often considered a synonymous of openness and disclosure, and is generally defined as the principle of the public to obtain information of a given entity (Heald 2006). The importance of transparency in IA is highly recognised (Cashmore and Partidário 2016). It is one of the most referenced effectiveness criteria (Fischer and Gazzola 2006; Runhaar and Driessen 2007; Van Doren et al. 2013) with stakeholders' engagement as a prerequisite

for transparency to clarify expectations, roles and responsibilities in the development process. Cashmore and Partidário (2016) question what is understood by transparency in SEA: the simple disclosure of information or open the process to all stakeholders. But also raise the question of "transparency for whom" (330) since different stakeholders have different values hence different understandings of what is a transparent process. It can be said that in IA processes transparency means the disclosure of information for the largest possible number of stakeholders. Regarding 'the whom', discourses follow mostly what Heald (2006: 27) refers to as "transparency downwards": "when the 'ruled' can observe the conduct, behaviour, and/or 'results' of their 'rulers' (…) often under the umbrella of accountability". In line with this is, for example, the argument of Thérivel et al. (2016: 316) when saying that "for at least one round of public comment, SEA already increases the transparency and democratisation of decision-making".

Participation in IA is of utmost importance relating to modern conceptualisations of governance that demand complex participatory processes engaging multiple purposes and values. Also, governance can be framed in a problem solving way (Voß and Kemp 2006). Problems are perceived, outlined and tackled in contexts of interactions that comprises a high range of players where the 'reality' of each players is the reflex of their 'perceptions'. As pointed out by Bevir (2003, 217), "governance opens up new possibilities for participation". Participation can be said to be one of the hottest subjects in IA research (Fischer and Onyango 2012; Caschili et al. 2014) even though there is difficult consensus on its objectives (see Glucker et al. 2013). Consensual seems to be the argument that participation is essential to the effectiveness of any assessment instrument (Rozema et al. 2012).

There are several arguments on the benefits for IA processes in opening up the process to the general public: for example, the increase of transparency and democratic control (Rega and Bonifazi 2014; Aschermann et al. 2016) or to foster social learning and the legitimacy of decision-making (Sinclair et al. 2008). Even with the increase of research of participation in IA, practice continuous to express some limitations mostly in terms of the degree of participation and why participation is carried out. For Aschermann et al. (2016: 256), "participation is often limited to a simple presentation", while for Partidário and Sheate (2013: 26) participation is "performed by a part of a legal obligation". Three possible causes for this to happen can be: 1) the acknowledged 'dispute' between what are the goals and benefits of participation for IA practitioners and decision-makers; 2) the influence of democratic ideals in placing participation as a right, following standardised requirements; 3) the notion of decision-makers on the side effects of participation, as being bargaining and generating conflicts. Even though, it is still theorised around traditional perspectives of governance (the 'old' notion of governments steering by top down approaches), with discourses apparently following a more normative claim, and with participation being "a goal in itself" (Glucker et al. 2013: 104). Although this is the dominant perspective, new perspectives place participation as an empowerment process that change the distribution of power in development processes (O'Faircheallaigh 2010), or as a capacity-building process that increases social learning (Partidário and Sheate 2013).

As argued by Nooteboom and Teisman (2003: 288) "the unknowable is an important characteristic of complex decision-making". Handling *uncertainty* issues is argued to be

important in governance because it plays a major role in dealing with the complexity of the system, anticipating possible knowledge gaps (Meadowcroft 2007). When dealing with development processes we are not merely thinking about the future but we are connecting it with past and present. Leung et al. (2015, 121) refers that "impact assessment is inherently about the future" since it identifies future consequences of decisions and informs decision-makers about it. But, following Mintzberg (1994), thinking about the future requires creativity and intuition, which implies incorporating uncertainty in the design of strategies without never disregard the history of a place. This is somehow analogous to the notion of 'context specific' if what is wanted is a 'fit-to-purpose' approach to deal with uncertainty.

According to Koppenjan and Klijn (2004), in a society characterized by interactions while dealing with complex problems, there are three types of uncertainty: 1) substantive uncertainty when we are talking about the availability of information and its interpretation; 2) strategic uncertainty when we are dealing with strategic choices that are dependent of actor's perceptions; and 3) institutional uncertainty when we are in face of different institutional backgrounds and interactions. Translating for IA, problems associated with substantive uncertainty are the most commonly reported, specifically concerning the lack of information and communication disclosure (Leung et al. 2015; Lees et al. 2016; Thérivel et al. 2016). Much of the arguments converge to the amount of information available and how the inherent uncertainty is communicated and reported. Fewer are the arguments about how the information is perceived and understood. The discussions on uncertainty are normally constructed around what data exist, if it is sufficient to assess impacts and alternatives, or if uncertainties are explicitly reported and addressed in the assessments.

Strategic uncertainties are associated with the strategic behaviours of actors, characterized by unpredictability, and with the nature of "the policy game itself" (Koppenjan and Klijn 2004: 51). IA are embedded in complex decision-making processes that do not follow straights paths of development, but instead are subject to change when the surrounding world is in constant transition. For institutional uncertainties, discussions are almost absent. Although recognized the fact that several institutional backgrounds are present in a decision process and that the institutional roles of the actor are important to be recognized, few explicitly acknowledge the fact that different norms and values, translated into different roles, can be important in handling uncertainty since there's an incognita on how processes will be handled and how institutional interactions will develop (Partidário 2012; Noble and Nwanekezie 2017). Despite it, one thing is agreed in the literature: uncertainty in IA in poorly considered in the assessment process and the disclosure of information on uncertainty is not the most appropriate one (Leung et al. 2015; Lees et al. 2016).

Complexity has long been present in IA. We may say that sustainability processes of development have a complex 'mood', since they address challenges that are multi-scaled, multi-cultural, multi-institutional and interconnected. With environmental and sustainability assessments working towards sustainability, dealing with the complexity of the problems in hand is indispensable (Partidário 2015). The main argument is normally the need to consider complexity in the assessment since the decision-making process is complex by itself. But even with the existing claims, it is very difficult to find specific

orientations in the literature on how to deal with, and embrace, complexity issues in the assessment process.

There are however three main approaches in the literature that help to work with complexity: the strategic thinking approach (Partidário 2012, 2015), the resilience thinking approach (Slotweeg and Jones 2011), and strategic-transition notion (Noble and Nwanekezie 2017). A strategic thinking approach promotes the integration of environmental and sustainability concerns in strategic decision-making, conceptualizing SEA as an influential instrument with capacity to understand the complexity of contexts in regard to its needs and priorities (Partidário 2015); the resilience thinking approach is constructed under concepts of panarchy, adaptive capacity, resilience and socio-ecological systems (instead of environment per se), under the preposition that the systems are complex, uncertain and unpredictable (Slotweeg and Jones 2011); Noble and Nwanekezie (2017) call for a strategic-transition approach that evolves from the strategic thinking approach and emphasis institutional innovations and governance changes by incorporating principles of transition management. While the focus of the strategic thinking approach are the strategic decisions, the resilience thinking focus on the adaptiveness of socioecological systems, and the strategic-transition on specific changes in a multi-level structure.

Positioning IA instruments such as SEA, EIA and SA processes in strategic decision-making is acknowledging the presence of several players with different institutional backgrounds, different priorities, and different personal norms and values. Is enters in a world characterised by *power* dynamics. As argued by Avelino and Rotmans (2011: 800), "power dynamics and relations (…) are necessary conditions for 'transitions' to occur in 'sustainability governance'", an idea supported by Partidário and Sheate (2013) for SEA when acknowledging the fact that power issues are critical for an effective and efficient assessment and decision-making process.

The aspect of power has always been present in IA discussions in an implicit manner. But discussions on power in IA became explicitly recognised as relevant and critical after the publication, in 2013, of a special issue on power in impact assessment by the Environmental Impact Assessment Review journal. Before that the subject had little attention in an explicit way (Cashmore and Axelsson 2013; Hansen et al., 2013). For years the issue of participation and the role that each player has in the assessment process has been discussed, with many acknowledging the importance of including the public in the assessment (in power 'terms', individual or community empowerment) (O'Faircheallaign 2010; Rega and Baldizzone 2015). More recently there are discussions on the role of the practitioner in the decision process (professional empowerment) (Cashmore et al., 2015; Kågström and Richardson 2015).

Haugaard (2003) identified some ways power can be created from two distinct approaches to power: conflictual theorists that position power as a form of domination, and consensual theorists (or non-coercive) that perceive power as an enabling capacity. Cashmore et al. (2010) applied Haugaard forms of power as a guiding framework to analyse power expressions in relation to IA instruments. For example, it is possible to say that in all environmental and sustainability assessment legislations/regulations power is created through system biases since it imposes structural constraints in specific

actions of the assessment that empowers or disempowers certain actors. There are other dichotomy ways of debating power apart from the conflictual vs. consensual above mentioned (e.g. power over vs. power to or centered vs. diffused - see Avelino [2011]), but for IA the main discussions can be resumed around institutionalised power dynamics since, as Cashmore et al. (2010) argue, complex power dynamics influence the understanding of the purpose and effectiveness of EA.

Less explored in the field of power is the political dimension of knowledge. Partidário and Sheate (2013) explore power sharing through knowledge, pointing that knowledge brokerage cannot succeed without power sharing, being "power – and power sharing – in IA critical for effective and efficient environmental decision-making in a transition to sustainability" (35). With IA responsible for the introduction of some types of knowledge in decision-making processes, IA instruments become powerful in directing development processes in normative directions (e.g. following notions of 'good governance'). Power and knowledge are inseparable aspects, and knowledge can be seen as an instrument of power (March 1994).

Knowledge has long been used by policy makers and decision makers to inform or legitimise policy formulation and implementation. Knowledge in IA follows a fundamental point – knowledge can transform a situation (Elling 2008). We agree with this since continuously 'feeding' development processes with new knowledge is a way of directing systems in new directions. Recent research argue that effective IA instruments are strongly linked with knowledge (e.g. Fischer 2009; Runhaar 2009; Bond et al. 2010; Sheate and Partidário 2010; Partidário and Sheate 2013; Sanchéz and Mitchell 2017). For Jha-Thakur et al. (2010: 12) knowledge "can improve the effectiveness of SEA" since the SEA process is a way of developing new knowledge; Bond et al. (2010, 10) refers that effectiveness of EIA can be seen as the "ability to improve sustainability through knowledge acquisition, validation and integration", emphasising the importance of informal knowledge to reach common sustainability goals; also Bond et al. (2013) incorporated knowledge (and learning) in a framework for evaluating SA to reflect how the SA process facilitates learning.

The importance of knowledge in IA is recognised (Richardson 2005; Sheate and Partidario 2010; Partidário and Sheate 2013; Sanchéz and Mitchell 2017). The simple fact of engaging citizens in IA and decision-making processes is a form of recognising the value of knowledge. There are several ways of referring to knowledge in the IA literature: Weaver et al. (2008) say that knowledge is information generation, gathering and analysis; Partidario and Sheate (2013) stressed out the importance of knowledge brokerage in strategic assessment and transition approaches as a way of enhancing learning processes and power sharing in IA; Richardson and Cashmore (2011) recognised the governance role of environmental assessment instruments in producing legitimate forms of knowledge; Jha-Thakur et al. (2010) identified the participants role, characteristics and learning influence, context and scale, and assessment methodologies as criteria to be analysed when exploring knowledge in SEA.

On knowledge we follow Voβ and Kemp (2006) – knowledge is a strategic element of governance, and to understand a problem in governance processes it is important to have an integrated perspective and to be informed. In IA, it is essential to integrate tacit

knowledge of societal actors (the 'know-how') with the expert knowledge of practitioners and decision-makers (the 'know-what') (Nonaka and Takeuchi 1995). The broader, and different, perspectives engaged in IA processes, the easier it can be to identify gaps of knowledge and pose new questions, ultimately leading to the generation and development of new knowledge – and so on. The existence of knowledge, and knowledge share, can stimulate learning processes (Sanchéz and Mitchell 2017).

Learning is considered necessary in IA: to improve the effectiveness of the assessment processes (Jha-Thakur et al. 2009); to foster individual and social action on sustainability (Walker et al. 2014); to address, and to some extent overcome, complexity and uncertainty issues (Fischer et al. 2009); to build capacity among stakeholders (Partidário and Sheate 2013); or to develop new behaviours and values among actors (Sinclair et al. 2008; Sinclair and Diduck 2017). IA instruments are constantly being conceptualised as learning processes (Sánchez and Morrison-Saunders 2011), even though this subject is neglected in IA legislations.

Through the years the issue of transformative learning is gaining importance in IA research. According to Mezirow (1997, 5) transformative learning "is the process of effecting change in a frame of reference (…) that define their life world. Frames of reference are the structures of assumptions though which we understand our experiences (…) they define our 'life of action'". It is thus about a change in the perceptions and constructions of meaning through critical reflection. For Walker, Sinclair and Spaling (2014) transformative learning has the potential to understand the relations in a decision-making process, leading to individual perspective transformations and thus supporting transitions towards sustainability. But, even with a recognition of such potential (Cashmore et al. 2008; Jha-Thakur et al. 2009; Diduck et al. 2012; Sanchéz and Mitchell 2017), transformative outcomes are lacking mostly due to the fact that there is a lack of deliberative arenas in environmental and sustainability assessment processes where alternative viewpoints are discussed and debated.

Instrumental and political learning, that focus on improving policy effectiveness and gain advantage and control are the most common in IA discourses and are typically informed by a rational perspective. Learning is often identified as an aspect of effectiveness, for improving the performance of the instruments (Bond et al. 2013). In such straightforward rational the use of 'success stories' to draw lessons for learning and improvement is often missing. Political learning does not necessarily lead to policy change since institutions involved in IA processes may lack the capacity to actually change. Less frequent is the explicit mention of how to build capacity to learn from innovative local community development and problem solving, and the focus on gaining legitimacy instead of performance (see DiMaggio and Powell 1991). On the first maybe it could be relevant to understand how community 'ideas' have an effect on policy making, and on the latest what seems to provide legitimacy (or validation through explanation and justification) of both assessment and policy processes.

As seen with the discussion so far, *effectiveness* is the governance aspect most mentioned in IA (as also shown by Fisher and Onyango (2012)). We can link effectiveness directly or indirectly to the other aspects identified. A vast number of frameworks have been produced introducing effectiveness with different connotation,

such as good SEA (Bidstrup and Hansen 2014), impact on decision-making (Runhaar and Driessen 2007), transformative potentialities (Cashmore et al. 2008), successful strategic thinking (Partidário 2012), or performance criteria (Fischer 2002). Even using different labels, it is consensual in IA discourses the need to understand what is an effective IA instrument. Also consensual is that effectiveness is a context influenced notion, with the context affecting the way effectiveness is perceived (Fischer and Gazzola 2006; Runhaar and Driessen 2007; Bina 2008; Elling 2009; Chanchitpricha and Bond 2013).

The governance environment in which any IA takes place influences assessment procedures and outcomes since different values, traditions and dynamics exist (Meuleman 2015). But apparently, when analysing the added value of the instrument few are the authors that acknowledge, and think explicitly about governance (Arts et al., 2012; Meuleman 201). For Arts et al. (2012), to assess the effectiveness of the EIA implies an analysis and understanding of the existing governance mechanism. Even though we agree with the argument, the issue is that almost all the governance mechanisms presented by this author are proponent-oriented, directed at steering the proponent. Another example comes from Cashmore, Bond and Cobb (2008) that suggests governance-related outcomes as transformative potentialities, meaning the outcomes constitute a "positive contribution to sustainable development and modern principles of environmental governance" (1239). Such outcomes are 1) learning outcomes regarding the knowledge produced and reflections upon it: 2) governance outcomes in terms of the promotion of stakeholders' participation and understanding the influence of powerful actors in the decision-making processes; and 3) attitudinal and value changes for institutional reform.

Van Buuren and Nooteboom (2010) proposes a governance-oriented approach as a procedural criteria for SEA effectiveness if it is meant that the assessment contributes to the overall quality of the decision-making process. Partidário (2012) proposes constructing and analysing a governance framework that includes institutional responsibilities and institutional cooperation as one condition to obtain a successful SEA. Largely the trend in the literature is to refer to whether there has been stakeholder participation as criteria for IA effectiveness, and less by looking to how the assessment process helped to change values and attitudes as a measure of effectiveness.

The aspect of effectiveness is closely linked to all the existing perspectives of governance. Particularly for environmental and sustainability assessment instruments, that aims to incorporate environmental and sustainability principles in decision-making, effectiveness is directly related to the governance realm of the context being assessed. But, in the majority of the existing IA effectiveness frameworks we may see that governance is treated in silos, instead of with a systems perspective. The focus on a specific issue can neglect other ones that may have significant importance. This line of though follows what Cashmore et al. (2010, 377) refers of "creating the potential for erroneous conclusions to be drawn from partial understandings of reality".

In **Table 7** a summary of what was exposed is provided.

Table 7. *Governance aspects in IA literature – summary of findings and its advocacy role in current debates*

Key aspects	*Summary of findings*
Accountability	The traditional perspective found in both literature and practice follows a democratic top-down perspective that public bodies and authorities need to be accountable for their decisions. Associated with a process-oriented perspective of justification of actions and decisions, through the explanation of objectives and methodologies. It is possible to observe the emergent of perspectives that follow a bottom-up perspective and that set accountability as a 'sub-goal' of IA associated with participation and engagement.
	"Seeing EA in accountability terms may be important, not so much for evaluating effectiveness in an alternative way, but for encouraging policy makers to view EA differently (…) could help in re-framing the question of EA's influence on decisions and provide a more proactive purpose to inform EA policy" (Sheate 2012: 100)
Transparency	Often considered a synonymous of openness and disclosure of information. An IA process is, according to literature, more transparent when it is open for participation and engagement through the disclosure of information. There is the concern of 'transparency form whom', even though the tendency is for the general public to be able to observe the performances of those who make decisions.
	"Transparent procedures can still follow to create legitimacy (..) transparency reduces the likelihood that decisions are based on wrong, unbalanced or unfair ideas, and it increases the number of innovative ideas that can be taken into consideration" (Nooteboom 2007: 662)
Participation	Participation is widely researched in the field of IA, but no consensus exist on the main objectives of participation in the assessment processes. The current practice continuous to show some limitations in terms of the degree of participation and to answer to the why is participation carried out. This reflects mainly in participation processes restricted to one single presentation or conducted to fulfil legal requirements. Participation is still theorised around traditional perspectives of governance, following normative claims, and with participation being a 'goal in itself' without real concerns on the effects it can have on the assessment.
	"Meaningful participation is seen as necessary for the social learning, adaptive capacity and political legitimacy needed for responding to sustainability assessment's inherent complexity (…), uncertainty (…) and conflict" (Sinclair et al. 2015: 350)
Uncertainty	If is generally acknowledge that uncertainty is poorly addressed in IA and that the share of knowledge and information about uncertainty issues are not the most appropriate one. The common practice is to approach uncertainty concerning the lack of information and baseline data, and also the lack of communication disclosure. Normally discussion around uncertainty focus on what data exist, if it is sufficient for the purposes of the assessment, and if lack of knowledge is explicitly reported.
	"Perceptions and attitudes toward the EA process are influenced by the actions of those who disclose information, thus understanding perceptions about uncertainty of those conducting and using EAs will help identify opportunities to better meet their expectations" (Leung et al. 2016: 99)
Complexity	Complexity has been present in IA discourses for a while, stressing out the importance of considering complexity issues in the assessments since the decision-making process itself is of a complex nature.

Key aspects	Summary of findings
	It is difficult to find in literature specific orientations, arguments and proposals on how to deal with complexity issues in assessment processes. There are three IA conceptualisations that promote the consideration of complexity in the assessment: the strategic thinking approach that focus on strategic decisions, the resilience thinking approach that focus on adaptiveness, and strategic-transition approach that focus on change though multi-level institutional and social structures.
	"By promoting a fundamental new attitude in strategic development processes, understanding and addressing the complexity of strategic processes, SEA will be able to demonstrate the competing advantage of taking into account big-picture environmental issues to enable sustainable decision-making" (Partidário 2015: 6)
Power	Power has been implicitly present in IA discourses through the notion of deliberation, engagement, and institutional consultation. Recently is being deepen the power that the practitioner has in the decision process. The question of power in IA can be resumed around the institutionalisation of power dynamics in regulatory arrangements, since there is increasing the recognition that power influences the effectiveness of the assessment instruments.
	"In interpreting power as facilitative and actors as resourceful agents, it may become possible to better theorise the circumstances in which the effectiveness of EA tools at influencing decision-making can be substantially enhanced" (Hansen et al. 2013: 45)
Knowledge	Knowledge in IA follows the fundamental standpoint that the use of knowledge can transform a situation. The consideration of knowledge as an issue that influences the effectiveness of IA is becoming widely acknowledge, with the argument that feeding the assessment process with new and divergent knowledge improves the overall results. Knowledge in IA goes from the generation of information, passing through the importance of knowledge brokerage for enhanced learning processes, to the role of knowledge for a legitimate IA.
	"Knowledge brokerage in IA should embrace an approach where stakeholders are seen as part of the solution and where long-term benefits may accrue through knowledge creation and co-production among communities of practice" (Partidário and Sheate 2013: 35)
Learning	Learning is a pivotal issue in IA, with IA itself being often conceptualised as learning processes. Through the years the issue of transformative knowledge is gaining importance in IA research, specifically in recognising its potential to understand the relationships in decision-making and thus support individual transformation towards sustainability. The most common discourses of knowledge are related with instrumental and political knowledge that focus on improving policy effectiveness and gaining advantage and control.
	"Learning should be treated as purposeful action and designed as an integral component of the IA process, with learning outcomes and targets clearly articulated with stakeholders" (Sánchez and Mitchell 2017: 202)
Effectiveness	Effectiveness is the most mentioned issue of IA, being the most covered topic in IA literature. There is the consensus that effectiveness is a context influenced notion, with context itself influencing the way effectiveness is perceived. In the majority of the effectiveness frameworks that somehow consider governance, governance is treated in a compartmentalised way. The trend is to consider stakeholder participation as criteria for IA effectiveness.

Key aspects	Summary of findings
	"Focusing on interpreting the meaning and implications of plural constructions of effectiveness represents a more productive strategy for advancing impact assessment and policy integration theory in the immediate future" (Cashmore et al. 2010: 378)

This review showed that many of the aspects of governance being introduced and debated in IA discourses are strongly related with good governance or have a more pluralistic and sociological perspective. Deliberative governance, strongly rooted in sociological theories, has been the dominant governance approach in the field of IA, that can be expressed by the following assumptions: the way a given context works influences the way a process is managed (related to the context-specific claims in IA); short-term goals are set based on long-term goals through the development of scenarios (related to strategic approaches in IA instruments); objectives should be flexible and adaptable to the way context functions and its predictable evolution (related to the contextualisation of assessment objectives); space is created for players to build alternative paths of development and actions (related to participatory actions for alternatives development); steering a system from the 'inside' is more effective than steering from the 'outside' (related to the importance of engaging traditional and local knowledge); and the importance of learning about new perspectives as the basis for development and change (related to benefits of a continuous stakeholder engagement in any IA processes). Also good governance, with a more normative orientation, have become important in IA discourses overlapping with elements of accountability, transparency and effectiveness.

The degree in which governance is present in IA literature, and research, is high but mostly addressing individual aspects of governance, as shown. The majority of the existing research does not inter-relate different governance aspects, instead it focuses on singles aspects of governance at a time. Only few examples can be found that look specifically to governance as an integrated dimension of analysis and influence in environmental and sustainability assessment (e.g. Van Buuren and Nooteboom 2010; Arts et al. 2012; Cashmore et al. 2015; Hartz-Karp et al. 2015; Meuleman 2015).

3.4.2 What is relevant for SEA practitioners?

Between January 31 and February 16 of 2014 was applied an online survey consistent in twelve questions (**Table 8**) that served as exploratory to capture individual perceptions on governance and SEA. The questionnaire was spread online through in specific groups of social media channels (as LinkedIn and IAIA Connect, groups with focus on environmental assessments, sustainability and environmental governance). The decision of using this particular way of application of the questionnaire is due to the intention to gather the maximum of different backgrounds and personal opinions possible. It was structured around two areas: general questions about the instrument of SEA, in terms of individual motivation to use SEA and critical aspects that are missing in SEA; and issues relating governance and SEA, manly the governance context of application and governance issues to consider in the practice of the instrument. A total

of 90 complete responses were received. The statistical findings of the online survey can be found in **Appendix A**.

Table 8. *Summary of online survey*

Topics to explore	*Questions*
Practitioners background and experience	**1.** What is your institutional affiliation? **2.** What is your field of expertise? **3.** What is your experience with Strategic Environmental Assessment? **4.** Please indicate the country where you have professional experience in SEA.
General for SEA	**5.** What is your motivation to use SEA? **6.** What instruments exist for SEA in your country? **7.** What may be crucial for the success of SEA that is lacking in your country SEA regulatory system?
Governance and SEA	**8.** What are the main changes that in your understanding needs to be observed in governance systems? **9.** At which level are governance concerns more relevant? **10.** Do you think that different institutional and political settings affect the success of SEA? Why? Please provide three main reasons. **11.** Regarding governance in SEA practice what are, in your view, the main issues to consider? Please thick all that apply.
Closing question	**12.** Any other comments?

Of the total of the respondents, the academic community is the one most represented (38%) as well as respondents with background on natural and environmental sciences (63%). Only 11% do not have any sort of practical experience with SEA, even though all of them provided information of their link to the field of IA (almost all are from the academic community, with two holding a governmental position). Also the majority of the respondents (more than 55%) are from European countries. In terms of their country of practice, about 59% indicated that the SEA system is represented by both legal procedures and good practices guides. The 16% that indicated that in their country a SEA systems is inexistent are from African and Asian countries.

The first question related with the respondent's personal views focused on their motivation to use SEA. Two choices were given: to use SEA, as possible, by voluntary initiative, or use SEA due to its legal requirements. 48% indicated to have a voluntary initiative motivation and 46% to use SEA since there are legal obligated to do so. Curiously, almost all the respondents from governmental system and private sector perceive SEA as legal obligation and don't consider its use in a voluntary basis. Also, the majority of the respondents from the academic field indicated that their motivation is voluntary. This shows that there are still differences on perceiving the benefits and added value of SEA between researchers and decision-makers.

Another point of analysis was the countries governance context. The focus on this particular subject comes from the generally acknowledged issue of the context to which SEA applies to matters for the development of SEA (see Chapter 3). Two questions were made: to what level governance issues matters and changes that, in the views of the

respondents, need to take place in their countries governance context. On the first the majority indicated that governance issues are important at all levels of decision-making (local, regional, national and global). On the second the main issues reported were regarding transparency, efficiency and public participation (93%). In this particular question the respondents had the possibility to, among a set of pre-defined answers, tick all the answers that they felt relation with. On this it is important to point out the following aspects:

- Issues related with elements of 'good governance' were the ones with most reaction by the respondents;
- The majority of respondents that pointed the need to comply with democratic practices also highlighted the need for changes in terms of transparency, efficiency and public participation
- The majority of respondents that reacted to institutional change and diversity also indicated the issue of power decentralisation as a change that need to be observed;
- A perfect combination between changes in the role of formal institutions and the enhancement of political and institutional relations was observed: the respondents that indicated the last also indicated the first;
- It is also observed a combination of choices between power decentralisation and the need to adopt society-centric perspectives in governance processes of development.

The aspects raised showed two different forms of perceiving governance issues: a more traditional form focusing on issues related with rational perspectives of governance (as comply with democratic practices and emphasis on transparency, efficiency and public participation) and a more deliberative view of governance when indicating changes in terms of society-centric rationale and power decentralisation. Also it is clear the importance and concern on the institutional capacity of governance contexts, as issues of institutional change and institutional relations were highlighted.

In terms of institutional settings, 90% of the respondents consider that those affect the quality and success of SEA. The main reasons indicated concerns issues of how power dynamics influence the process and results of SEA (manly in terms of lobbying, knowledge and political priorities), the level of openness's and transparency of the political and institutional processes as affecting the SEA quality in promoting innovation (as influencing the lack of creativity in political processes), and the qualification of decision-makers and the level of institutional capacity to carry with complex processes of development. Other reasons raised are related with issues of public participation, institutional collaboration, accountability and learning. The issue of integration was highly indicated as crucial to be considered in SEA regulatory systems. Also issues of coordination, openness, power dynamics, transparency, accountability and public participation are considered important in the search for effective and successful SEA and that need to be approached in SEA systems.

In relation to the practice of SEA was asked to the respondents to indicate what governance issues need to be considered, in their personal view, in the assessments. Three issues were indicated by more than 60% of the respondents: the search for trust

among stakeholders, the need for open strategic decision processes, and the importance of guarantee access and use of the available information and knowledge. It stands out also the significance of institutional learning. On this it is important to point out the following aspects: a) all the respondents that indicated the need to consider the complexity of formal procedures also indicated the need to consider the complexity of informal rules; and b) three issues were indicated together, raising attention to their possible interrelation: the cultural values of the context to which SEA applies to, democratic deliberation and expectations of stakeholders and relevant actors.

The results of the application of the online questionnaires allowed to develop a concept diagram that organises, and represents what are practitioners' perspectives in relation to governance and SEA. The use of such concepts diagram helped to synthetize the knowledge gain with the questionnaire. It was constructed under four aspects: changes in governance contexts, issues that matter regarding governance, settings that influence SEA, and crucial issues for SEA development. The concept diagram is presented in **Figure 8**. In general it is possible to determine that the following governance aspects concerns practitioners in relation to SEA processes: power, 'good governance principles' (accountability, transparency, openness and public participation), institutional settings and knowledge.

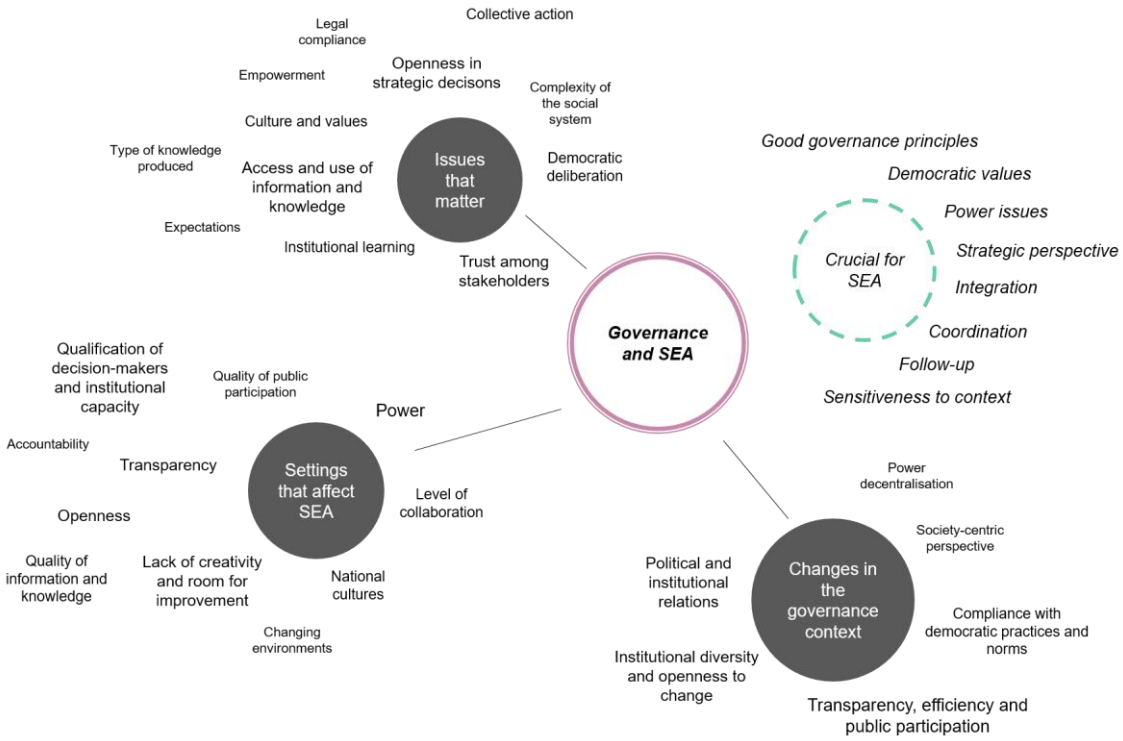

Figure 8. *Concepts mapping from the application of the questionnaires*

3.5 Conceptual model for empirical analysis

One of the first goals of the research is to create a conceptualisation of SEA through the lens of governance. This conceptualisation passes by the construction of a

conceptual model that summarises the existing body of knowledge on governance in SEA and organises and synthetises related governance aspects into a coherent representation. Therefore, 'model' is here seen as a form of representation to make sense of new information. The conceptual model was developed in parallel with both the analysis of the online questionnaire and the exploratory literature review of governance in IA. In a first phase the results of the questionnaires were used to develop an initial conceptualisation of governance in SEA, after refined and restructured with the literature review outputs. The conceptual model has constructed in order to be as comprehensive as possible.

SEA through the lens of governance can be conceptualised by nine aspects, which are: accountability, transparency, public participation, uncertainty, complexity, power, knowledge, learning and effectiveness (**Figure 9**). The nine governance aspects are the result of the combination of the questionnaire results and the literature review outputs (**Table 9**) – as it is possible to observe from both sources the key governance aspects are quite similar, consequence that influenced the construction of the conceptual model from the nine aspects resulted from the literature review. The main premise of the conceptual model is that approaching the nine governance aspects in an integrated manner might enhance theoretical understandings on the importance of governance for IA - **Figure 9**. Each aspect is now briefly explained, each incorporating some reflections and new propositions that arise from the literature, systematic review, and exploratory questionnaire above presented.

Table 9. *Comprehensive combination of the key governance aspects from questionnaires and literature review*

Key aspects from the questionnaires	*Key aspects from the literature review*
Accountability	Accountability
Openness	
Transparency	Transparency
Public participation	Public participation
Institutional settings	Uncertainty
	Complexity
Power	Power
Knowledge	Knowledge
	Learning
	Effectiveness

Accountability within this model represents a 'social relationship' present in open processes of decision-making. This view follows the logic that SEA can promote accountability as long as both SEA and decision-making processes be as open as possible with public bodies or authorities or decision-makers actively communicating the existing problems. It also follows the notion of outcome-oriented accountability that focus on evaluating and explaining the decision-making process in terms of its quality and

performance instead of adopting a retrospective perspective of actions justification. The principles underlying accountability in the conceptual model are open decision-making processes and who is to be accountable to make a decision and for the operationalisation of an action.

Transparency within this model represents the window through which information passes and is delivered to interest actors on what is going on in the decision-making process. Here is acknowledge the importance of who is the 'recipient' of transparency since it is important the recognition that at different levels of decision exist different values and understandings of what represents a transparent process. The principles underlying transparency in the conceptual model passes through SEA explicit recognising what roles are present in the decision-making process, SEA sharing the outcomes of each step of both assessment and decision-making process, and how these outcomes relates with the objectives of development process.

Public participation within this model represents processes of social learning that ultimately increases the legitimacy of decision-making processes. SEA pushing up public participation enables opening up to dialogue and discussion options of development, paying particular attention to the inclusion of a variety of points-of-view, even conflicting ones. Therefore increases the quality of both SEA and decision-making processes as it promotes learning opportunities among interest parties. The principles underlying public participation in the conceptual model passes through SEA promoting openness and inclusiveness through the assessment and decision-making processes, and providing opportunities to produce knowledge and promote learning.

Uncertainty within this model represents a characteristic of the complex systems of which SEA applies to that involves multiple interactions. It comprises, therefore, the value of pluralism. Particularly it considers that SEA needs to deal with three different types of uncertainty: substantive, strategic and institutional. The principle underlying uncertainty in the conceptual model puts SEA explicitly recognising uncertainty and considering it in the assessment at three levels – on the availability of information, on actor's perceptions, and on institutional settings as capacity and interactions.

Complexity within this model represents the idea that SEA operates within multi-scale, multi-value and multi-institutional settings in complex systems, all being interconnected. Complexity reflects the dynamic nature between the system components and their relationships, being important for SEA to recognise that is hard to predict how the system will behave or which outcomes will be produced. The principle underlying complexity in the conceptual model passes through the role of SEA in helping to understand the decision-making context and the decision-making process itself.

Power within this model represents a quality of a system, a resource that exist in any process of development. It is seen as the ability that an actor has to intervene and make a difference. Therefore is here used a transformative capacity that SEA needs to recognise. Positioning SEA at any decision-making levels leads to acknowledge the presence of several actors with different institutional backgrounds, different priorities, and different personal norms and values. The principles underlying power in the conceptual model passes through the recognition of all interest parties in both SEA and decision-making processes, the windows of opportunity to intervene along with providing

spaces for dialogue and discussion where any relevant actor can influence the path of development of the decision-making process.

Knowledge within this model represents a transformation, which provides the opportunity to direct decision-making processes off in new directions. When SEA goes for promoting inclusive engagement process represented by a wide range of intentions, priorities and values, it makes easier to identify gaps of knowledge and pose new questions, ultimately leading to the generation and development of new knowledge. The quality of the decision-making process is thus enhanced. The principle underlying knowledge in the conceptual model states SEA as a platform where knowledge is produced and shared.

Learning within this model represents a change in the mental frame of participants through constructions of meaning. Positioning learning as an outcome of SEA implies to pass in critical reflection processes at three levels: the content of what is being assessed, the process of both the assessment and the decision-making, and the premise of why specific options are at stake and why was a concrete decision made. It is also considered here that SEA wins by approaching and promoting learning as a transformative process. The principle underlying learning in the conceptual model passes through the benefits of promoting deliberative engagement arenas throughout the decision-making process.

Effectiveness within this model represents a measure of trust, meaning that SEA can work to produce positive expectations in the motives and intentions of those involved in the decision-making process. Also, it is acknowledged that effectiveness and the governance context are mutually dependent – the way effectiveness is perceived is influenced by the context where the decision-making process operates. The principles underlying effectiveness in the conceptual model goes by looking to the impact of SEA in the decision-making at two levels: the added value of SEA in relation to the stated objectives of the development process, and how SEA inspired change in expectations and aspirations to, ultimately, promote trust in the final decision.

This conceptual model will be explored in the empirical analysis phase of this research. I intend to use it in the analysis, interpretation, reflection, and explanation of the empirical findings (based on what Yin (2003) refers to as ‘pattern matching’). In Chapter 4 the conceptual model will be used as the basis for the construction of analytical guidelines of review of SEA models documents. In Chapter 5, 6 and 7 it will be used as an ‘operationalisation’ instrument, meaning that I will translate this model into particular contextualised questions of research for each case selected. This operationalisation serves mainly to process the empirical findings – what to look for and how to structure the findings for a theorisation.

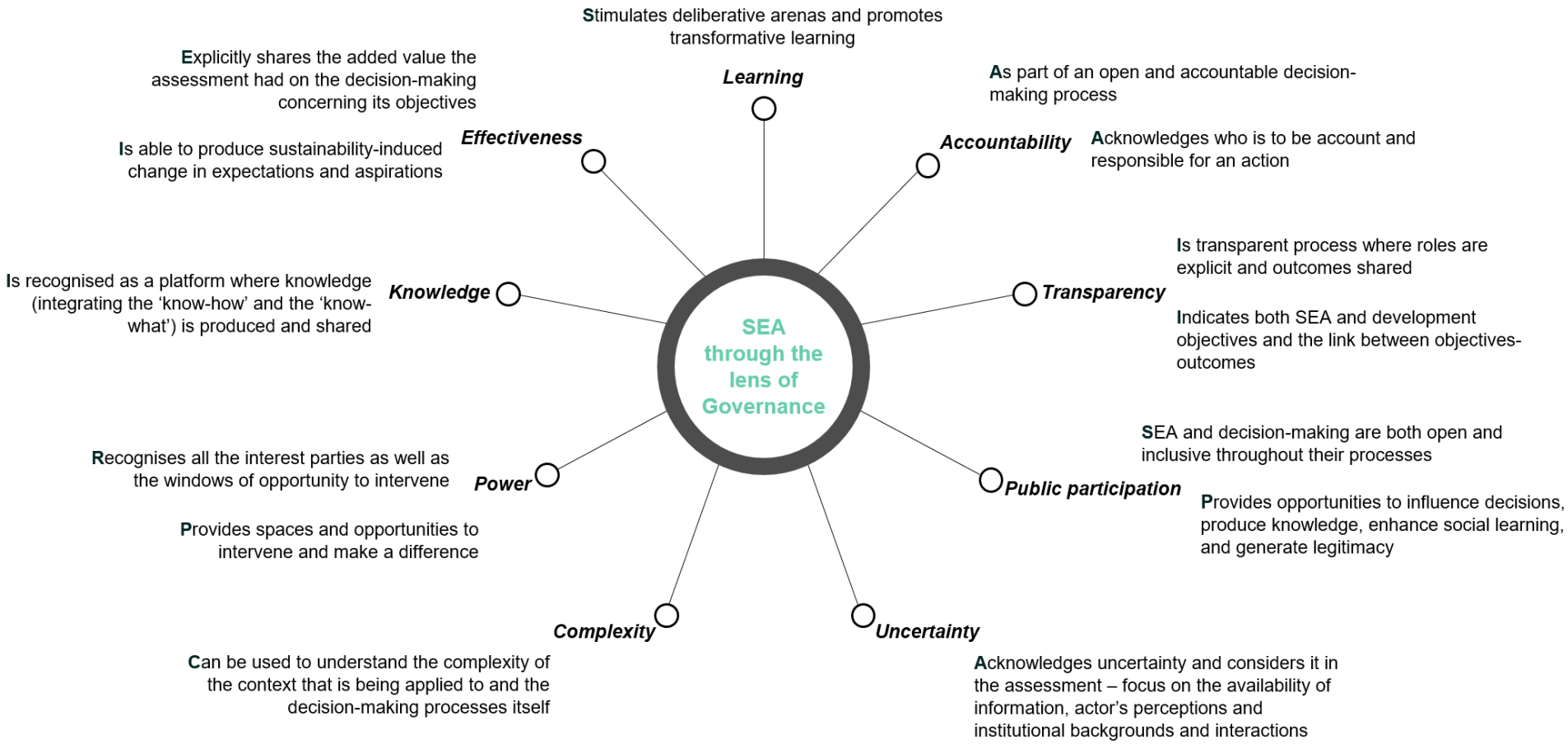

Figure 9. *Theoretical and Conceptual Model - SEA through the lens of governance*

3.6 Chapter conclusion

This Chapter presented theoretical insights of the two conceptual pillars of this Thesis: governance and SEA. The insights here obtained shall be used in the formulation of the arguments and discussions to be presented in the subsequent Chapter. Sustainability is briefly introduced both in relation to governance as to SEA. First the origin of governance and different theoretical conceptions was discussed and narrowed down the focus to more pluralistic approaches to governance. After an evolution of the SEA instrument was presented – milestones, definitions and approaches – and perspectives of strategic and sustainability instruments. A systematic review of governance in the literature of IA was developed and an exploratory questionnaire to SEA practitioners was applied. In the end is presented the construction of a conceptual model of SEA through the lens of governance based on what is governance in the context of SEA. The conceptual model is to be used as an orientation model that will work as a basis for the analysis of the empirical data in this Thesis. The key lessons obtain in this Chapter are as follows:

- Governance thinking is crucial in the way priorities are set and goals defined. It helps to understand how is it possible to create capabilities, to support (or transform) meanings, values, preferences and resources, to build or maintain systems of meaning, and to understand the culture and history of a place;
- Governance can be said to be relational when recognising that the relationships that exist in a context are shaped and influenced by political and social institutions. Also recognises that an actor can institutionalise 'complex social relations' serving as a steering instrument with a coordinative role;
- Through the years there has been an evolution in the focus and meaning of governance: from a state-centric perspective to a society-centric perspective, with the recognition of the role that societal actors have in defining priorities and goals;
- Questions of complexity, integration, performance, debate, learning and reflexivity surrounding the society-centric governance perspective lead to some innovative approaches that are pluralistic and deliberative in nature. Such approaches are framed by elements of legitimacy, inclusion, deliberation, reflexivity, ambiguity, strategic thinking, adaptiveness, uncertainty and complexity;
- The adoption of more pluralistic and deliberative approaches to governance in contexts of development for sustainability can enhance the existing relationships across levels of decision-making and also create a collective attitude for active participation in the design and implementation of policy agendas;
- Sustainability has a strong normative significance to orient how to do things. It is embedded in a very political view. For that, in any development, it is important to understand what is considered to be sustainability and what is (in its constituents) the decision-making context;
- From a theoretical standpoint, strategic and sustainability assessments have been following the same evolutionary path of governance research, now-a-

days focusing on the importance of processes of deliberation and open discussions;

- Meaningful strategic and sustainability assessments require taking into consideration the views of many actors and their multiple realities, through engagement and active deliberation for a shared understanding of goals and problems and broader acceptance of change;
- Practitioners distinguish governance in the context of SEA around seven aspects: accountability, openness, transparency, public participation, institutional settings, power and knowledge;
- The analysis of the questionnaires indicates that practitioners have two different ways of perceiving governance in SEA: some consider that governance in SEA is related to a more traditional form of governance that focus on issues normally linked with rational perspectives (as comply with democratic practices and emphasis on transparency, efficiency and accountability), while others discuss governance in SEA in terms of deliberative views of governance by focusing issues of society-centric rationales and power decentralisation;
- The literature of IA theorise governance as a concept that is represented by nine aspects of governance (accountability, transparency, participation, uncertainty, complexity, power, knowledge, learning and effectiveness) without showing integration between them, instead focusing on one or two at a time;
- Governance aspects in IA appear to be being considered in IA following a more rational posture, that can be short for IA current needs;
- A successful cross-integration of the nine aspects of governance represented in IA literature can add significant value to assessment processes in: 1) enhancing the role (and impact) of IA instruments in decision-making; 2) shifting from reactive to proactive thinking modes leading to an improvement of the capacity of IA to meet public policy sustainability aims: 3) securing IA as promising instruments of change for the prosecution of sustainable governance; and 4) allowing to think of IA as transformative instruments and platforms that can contribute to the improvement of the governance contexts in relation to environment and sustainability;
- A conceptual model is constructed as a way of summarising the existing body of knowledge on governance in SEA and synthetizing related governance aspects into a coherent representation. Its comprehensive style will allow for the conceptual model to be use as framing guide for some of the following steps of the Thesis research;
- Approaching the nine governance aspects in SEA can help to build bridges between the theoretical understandings of SEA and the existing practical and methodological approaches. Also the conceptual model is constructed under the premise of transformation within SEA – SEA can be a vessel for transformation processes when approaching governance in an integrated manner.

Chapter 4.

Analysis of Governance Features in SEA Organisational Models

This Chapter introduces five different models to SEA: the SEA Directive Model (2001), the Organisation for Economic Co-operation and Development's Development Assistance Committee SEA Model (OECD-DAC 2006), the United Nations Environment Programme Model (UNEP 2009), the World Bank SEA Model (2011), and the ST SEA Model (2012). Each SEA model document is analysed using the conceptual model of **Figure 9**. From the analysis a key features mapping is presented to illustrate positive lessons for SEA concerning governance and ideas of operationalisation.

4.1 SEA models: SEA Directive, OECD-DAC, World Bank, UNEP and Strategic Thinking SEA

As mentioned before the way SEA is perceived influences how SEA is approached, leading to a continuum of SEA models: from EIA-based models to SA (from focusing only on environmental aspects to adopting a sustainability perspective), impacts-based models to institutional-based ones (from maintaining the assessment centred on impacts to addressing institutional dynamics), or from effects-based models to strategic-based (from the logic of assessing effects to focusing the assessment on strategic transformations) (Partidário 2015a, 2015b). This spectrum of SEA models is reflected on existing SEA organisational methodological approaches that consequently influence the way practitioners adopt SEA (I am then considering the SEA organisational models as a reflect of the practical work of SEA practitioners).

Five SEA models will be analysed in relation to its unique features in incorporating and promoting governance aspects, as laid out in the respective methodological guidelines and in expected outcomes. The models chosen for this analysis are:

1) The SEA Directive, published in 2001, a major referential in the development of SEA systems and models worldwide (Gazzola 2008; Tetlow and Hanusch 2012; Sadler and Dusík 2016);
2) The Organisation for Economic Co-operation and Development's Development Assistance Committee SEA model (OECD-DAC 2006), published in 2006;
3) The United Nations Environment Programme Integrated Assessment model (UNEP 2009), published in 2009;
4) The World Bank SEA model (World Bank 2011), published in 2011;
5) The ST SEA model (Partidário 2012), published in 2012 in the Portuguese SEA Good Practices Guide.

The SEA models can go from a EIA-based to a sustainability-based according to the promoted level of integration, including environmental issues and other sustainability issues, from impact-centred model to institutional-centred model according to the aim of

SEA in terms of assessing environmental impacts and identifying mitigation measures or assessing the institutional context and capacity, or from effects-based to strategic-based models that vary depending on whether SEA focus on the effects of a course of actions or to integrate environmental and sustainability concerns in strategy development and identify opportunities and risks in terms of the strategy development conditions. In **Figure 10** each model is placed in the spectrum according to the approach it entails (demonstrated by showing for each model its procedural steps). Also, it is considered that the model of the SEA Directive was a benchmark on its procedural basis for all the other four models, role represented in **Figure 10**.

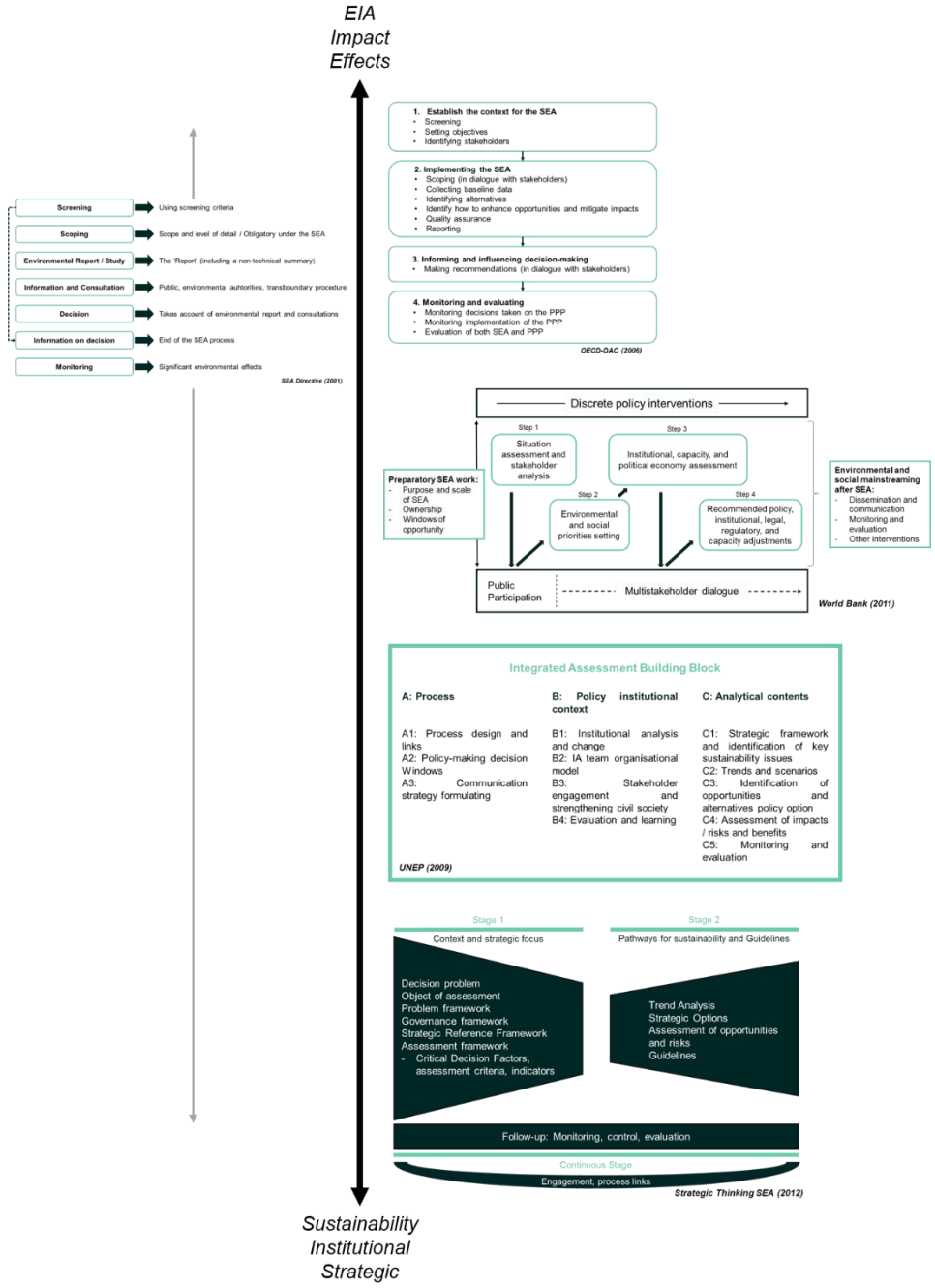

Figure 10. *Spectrum of SEA models (adapted from: Partidário 2015b)*

The analysis of each of the models is made on the basis of the conceptual model presented in the previous Chapter (**Figure 9**). To guide the analysis, a set of analytical guidelines are defined for each of the governance aspect of the conceptual model: accountability, transparency, public participation, uncertainty, complexity, power, knowledge, learning and effectiveness - this analytical framework is presented in **Table 10** and is to be applied to the models documents available on the internet. The documents analysis is made upon my own interpretation on how each model addresses each of the analytical guidelines. A similar structure of the analytical framework is used to report the results of each documents reviewed, and the interpretation of the data obtained is framed as 'governance features' for each governance aspect. In the end, it is possible to construct a 'governance features map' that integrates all the results and represents the system of governance features in the context of SEA models. Even though each model has its own views and norms of what it is and what is expected from a SEA, they are not mutually exclusive, with some models using or cross-relating to elements of others.

Table 10. *Analytical framework for the review of the SEA models*

Governance aspects	Analytical Guidelines
Accountability	Explicit use of 'accountability'. Explicit use of variations: liability, responsibility, answerability. Notions of openness.
Transparency	Explicit use of 'transparency'. Explicit use of variations: clarity, clearness. Relationship between objectives and outcomes.
Public participation	Explicit use of 'participation'. Explicit use of variations: engagement, consultation, contribution, involvement, cooperation. Notion of inclusiveness, influence and legitimacy.
Uncertainty	Explicit use of 'uncertainty'. Explicit use of variations: vagueness, ambiguity, confusion, unpredictability. Notions of clarity, certainty, perceptions information, availability.
Complexity	Explicit use of 'complexity'. Explicit use of variations: difficulty, complication. Notions of context, system/systemic
Power	Explicit use of 'power'. Explicit use of variations: control, influence authority, rule. Notions of ability, capability/capacity, priority.
Knowledge	Explicit use of 'knowledge'. Explicit use of variations: information, data, awareness, education, expertise. Notions of know-how, know-what, tacit, wisdom.
Learning	Explicit use of 'learning'. Explicit use of variations: culture, study, training, capacity-building Notions of meaning, reflection, deliberation.

Effectiveness	Explicit use of 'effectiveness'. Explicit use of variations: efficacy, success, efficiency, performance. Notions of trust, value, expectations, aspirations.

4.1.1 SEA Directive model

In 2001 the SEA Directive was adopted with the goals of providing a high level of protection of the environment by operating in 'upstream' levels of decision (plans and programmes) in relation to EIA (projects), and promoting SD by integrating environmental considerations in the preparation of plans and programmes. The policy level was excluded from the SEA Directive and, as mentioned by Dalal-Clayton and Sadler (2004), that exclusion can be a possible issue since many of the plans and programmes under the Directive are susceptible of not being politically neutral. The SEA Directive sets the minimum requirements for the SEA systems of European member-states (screening, scoping, assessment of alternatives, public and institutional participation).

The SEA Directive has as stated objectives to provide a high level of protection of the environment, and to contribute to the integration of environmental considerations into the preparation of plans and programmes with a view to promoting SD. It possible to say, according to its aims, objectives and procedural steps, that the SEA Directive promotes a SA based upon an EIA procedural methodology. Even though being developed as a way to overcome the constraints of EIA instruments in assessing high levels of decision-making, it stills follows an EIA-based model and promotes a baseline-driven approach that focus on the assessment of effects and mitigation. Also, the production of an environmental report is considered to be essential, as Art. 2 (b) defines EA as the "preparation of an environmental report".

The SEA Directive applies to plans and programmes prepared or adopted by an authority (national, regional or local) and states that the plans/programmes that fall under the scope of the Directive are subject to an EA during their preparation and before their adoption. It includes, as said before, drawing up an environmental report including the following key components: the significant environmental effects of the plan/programme; reasonable alternatives taking into account the objectives of the plan/programme; an outline of the plan/programme and relationship with other instruments; the environmental characteristics of the area; the environmental protection objectives; mitigation measures (to prevent, reduce or compensate) for the significant adverse effects; monitoring measures; and a non-technical report. One important aspect is that the SEA Directive do not mention nothing about the final characteristics of the plan/programme´s and do not address the possible role that SEA can have in the draft/design phase of the planning/programmatic process (e.g. supporting the definition of a vision or the construction of environmental and sustainability-oriented objectives).

In **Table 11** are summarised the SEA Directive model governance features.

Table 11. *Governance features of the SEA Directive model*

Governance aspects	Governance features
Accountability	Establishes that both public and public authorities must be involved in the process and be informed on the final decision. States both minimum procedural and substantive provisions for the quality of SEA reports and SEA application. Promotes institutional cooperation and relation.
Transparency	Considers alternatives and relation with development objectives, public consultation, and the non-technical summary.
Public participation	Establishes that the public must be consulted on the draft of the plan/programme opening a window to the Public be able to 'express their opinion'.
Uncertainty	Asks for a public and institutional consultation. Requires the analysis of the 'zero-alternative' or baseline information and how the assessment dealt with gaps in information and data.
Complexity	Requires information on the 'relevant aspects of the current state of the environment and likely evolution without implementation'.
Power	Promotes cooperation and relations between institutional bodies and public authorities during the time frames for institutional consultation. Defines one mandatory moment for public consultation.
Knowledge	Calls for the public to 'express their opinion' on the environmental report. Clearly states that the environmental report must take into account 'current knowledge' - 'lack of know-how' and how it translates into difficulties in compiling information.
Learning	States that EA leads to the inclusion of relevant environmental information in decision-making – opportunity to create institutional learning.
Effectiveness	Establishes that both environmental report and statement must summarise how environmental considerations were integrated in the proposal.

4.1.2 OECD-DAC SEA model

Following a 1990 claim for greater integration between sectorial policies and management regimes in development countries, and through the recognition of the potential role of SEA for greater decisions in development cooperation, the OECD-DAC helped to establish SEA through the publication of a SEA Guidance in 2006, referring to SEA as "analytical and participatory approaches that aim to integrate environmental considerations into policies, plans and programmes and evaluate the inter linkages with economic and social considerations" (OECD-DAC 2006: 24-25). In the Guidance is mentioned that SEA continually seeks to strengthen political, institutional and governance contexts that underlie decisions, rather than linear and technical approaches focused on impacts. It is considered also that SEA must be applied to the policy level, and to plans and programmes (PPPs). To all these decision levels a common understanding of SEA is promoted, but is also recognised that any SEA process need to maintain flexibility and adaptability to the decision level to which is applied.

From **Figure 10** it is seen that, in essence, there is little different on the procedural components of the OECD-DAC model and the one of the SEA Directive. Procedurally it

is constructed under four phases: establishing the context (matching the screening phase of the SEA Directive), implementing the SEA (that includes both scoping and the elaboration of a report), informing and influencing decision-making (comparable to both decision and information phases of the Directive), and monitoring as evaluation (like the SEA Directive). The OECD-DAC model can be said to follow an EIA-based SEA structured process, although much emphasis in put on the countries institutional and political settings since it is considered that "strategic-level interventions (…) are much more influenced by political factors than by technical criteria" (26) and that for an effective SEA the process must focus on "strengthening institutions, governance and decision-making processes" (OECD-DAC 2006: 53). The attention given to the institutional dimension is addressed in two ways: a) with the assessment of institutional capacities to manage effects and opportunities, and b) by strengthening institutional and governance capacity to manage those environmental effects.

As referred by OECD-DAC (2006: 21), "the key deliverable of an SEA is a process with development outcomes, not a product". Issues of the quality of the information, the level of stakeholder participation, the objectives of the SEA and environmental impacts, the influence of SEA on the PPPs processes, and the outcome of capacity-building activities are considered essential for a successful application of the instrument. Also, a process that establishes clear goals, that is integrated with existing PPPs structures, that is flexible, iterative and customised to context, that provides explicit justification for the selected or preferred options, that involve key stakeholders and encourages public involvement, that is transparent throughout the process, that encourages and monitors PPPs outcomes, and that is focused on building capacity for both undertaking and using SEA, is a process considered to be influential in helping PPP-making and decision-making to more environment-friendly solutions.

In **Table 12** are summarised the OECD-DAC model governance features.

Table 12. *Governance features of the OECD-DAC SEA model*

Governance aspects	Governance features
Accountability	Aims at increase social accountability - citizens to be able to hold authorities and decision-makers accountable for their choices and for the impacts of their actions. Promotes an evidence-based assessment and people access to information on environmental issues, and intends to develop sensitivity of development agencies on countries environmental, economic, social and political/institutional trends. Addresses the capacity and responsibilities of institutions and agencies to manage and regulate natural resources.
Transparency	Requires continuous communication on the environmental implications of the proposals in manners easily understandable by communities. Asks on how the SEA objectives intend to improve the PPP process. Asks for the rationale for suggesting any alternatives/options and for making the decision.
Public participation	Asks for a wide range of values, views, opinions and knowledge and guarantees higher acceptability of the decision and higher quality of the PPP implementation.

	Expects the public to have opportunities to influence the identification of environmental issues, the choice of indicators, the scope, and the selection and evaluation of alternatives and options.
Uncertainty	Puts emphasis on scenario analysis and request the identification of uncertainties and drivers or change, along with an analysis of possible combinations of critical uncertainties. Promotes to work with a wide range of stakeholders views and perceptions on the environmental issues. Sets the need to analyse and assess institutional capacity.
Complexity	Considers the need to understand the political and institutional context. Asks for a relational analysis on the choices being made amongst environmental, social and economic consequences.
Power	Recognises that differences in political power influences policy outcomes. Highlights the need to understand power relations how stakeholders interact with the surrounding environment. States the need to identify 'winners and losers' for each possible course of action and of the decision. Asks to identify the specific points in the PPP process where SEA can have an influence – windows of opportunity
Knowledge	Asks for all relevant knowledge to be included in both processes - explicit recognition on the relevancy of traditional knowledge to enhance decisions. Promotes public engagement to obtain new knowledge on or to serve as knowledge share and dissemination.
Learning	Promotes learning-oriented SEA processes. - acknowledges the need to undergo education and learning-oriented actions. Considers monitoring and evaluating as a continuous learning opportunity to integrate sustainability-oriented knowledge.
Effectiveness	Intends to assess and build capacity in institutions. Asks for the level SEA influenced and improved the decisions.

4.1.3 World Bank SEA model

In general the World Bank follows the OECD-DAC in describing SEA as "analytical and participatory approaches to strategic decision-making that aim to integrate environmental considerations into policies, plans and programmes, and evaluate the inter linkages with economic and social considerations" (OECD-DAC 2006). From previous experiences gathered with SEA applications, the World Bank proposed an approach known as 'institution-centred SEA' for incorporating environmental considerations in policy formulation (World Bank 2005; Ahmed and Sanchez-Triana 2008) stating that SEA must focus on the political, institutional and governance context that underlies any decision-making process.

The focus on institutions was already advocated in 2005 when the World Bank referred that the effectiveness of SEA was directly related with the institutional and governance dimensions – to reflect on policy history, goals, values and behaviours, coordination mechanisms, or accountability mechanisms is a concern in policy SEA (Ahmed and Sánchez-Triana 2008). For Ahmed and Sánchez-Triana (2008) SEA must focus on "assessing the capability of the institutional and policy framework to detect

environmental risks and its capacity to manage them in a timely and effective manner". This 'policy-based SEA' is a model in which any SEA process must aim at establishing a policy dialogue approach to mainstream environmental and social considerations in policy and sector reforms (World Bank 2011). It places institutions at the heart of SEA, as opposed to impacts, since it assumes that the institutional framework of a particular context affects environmental and social landscapes. So, can be said that the World Bank model intends to be iterative and adaptable to a country policy context as a way to change "incentives, attitudes and cultures inside organisations and social groups" (World Bank 2011: 83).

The main objective of a policy-SEA is to integrate "key environmental and social issues in sector and policy reform to improve the effectiveness of policy-making for sustainable development" (World Bank 2011: 53). The model is influenced by contextual factors (ownership, process development, windows of opportunity, power elites, political economy and informal institutions) and intends to raise attention to environmental priorities, to strength constituencies, to improve social accountability, to support social and policy learning. Practically, three are the core stages of this model: *1)* a preparatory SEA work to define the purpose and scale of SEA, the ownership and to identify and analyse the windows of opportunity; *2)* the implementation of the SEA itself; and *3)* mainstream environmental and social concerns in policy implementations. The application of SEA typically starts with a situation analysis of the environmental and social dimensions of the policy proposal; following an engagement process in which prioritization of the environmental and social dimensions is made; an institutional, capacity and political economy assessment focusing on the legal and regulatory framework, the gaps on which environmental and social priorities are grounded, the effects of the policy proposal on the gaps previously identified, and the political feasibility of the SEA recommendations. It ends with the formulation of policy, legal, institutional and regulatory adjustments.

In **Table 13** are summarised the World Bank model governance features.

Table 13. *Governance features of the World Bank SEA model*

Governance aspects	Governance features
Accountability	Addresses different interests and promotes dialogue and discussion on priority setting. Formulates specific policy, institutional, legal, regulatory and capacity-building recommendations to overcome weaknesses and gaps and to manage political constraints - to be openly validated in stakeholder engagement. Recognises the importance of providing continuous feedback to participants throughout the engagement process. Requires strong environmental constituencies' recommendations. Asks to identify stakeholders' interests and capacities, and responsibilities on the policy proposal.
Transparency	Recognises the importance of providing continuous feedback to participants throughout the engagement process. Expects that legal, regulatory and capacity gap assessments be validated openly through the stakeholder engagement.

	Expects when identifying key actors to establish the basis for their inclusion.
Public participation	Asks for a multi-stakeholder dialogue throughout the assessment – stakeholder analysis to identify all key stakeholders with interest in the assessment. Expects an engagement in: priority selection, assessment of gaps, validate SEA recommendations, and in follow-up, monitoring and evaluation.
Uncertainty	Strongly addresses the institutional background and the institutional capacity – focus on the institutions ability to deal with SEA priorities and policy objectives through a review of formal legal and regulatory frameworks, gaps in frameworks, effects of the proposal on the gaps and potential reaction of stakeholders. Calls for a reference scenario of the environmental and social situation to account for the environmental and social issues and the key actors with interest in and to the assessment.
Complexity	Requires the development of preparatory work to understand the context of the assessment (engage multiple stakeholders to define the purpose of SEA, awareness raising and training) – strategic focus. Encourages a political economy analysis where the political context is analysed (political history, role of social structures, patters), the existing formal and informal institutions (power distribution, role of civil society in politics, role of media), and identification of risks (winners and losers, triggers, degree of historical resistance to change). Asks for an institutional and capacity assessment to expose to stakeholders the complexity of the policy system.
Power	Identify windows of opportunity as possible and be aware of new opportunities during the policy proposal development. Develop a stakeholder analysis to identify the key actors: the powerful and vulnerable ones (winners and losers), their interests, their capacity to support or oppose to the proposal, power dynamics among groups or individuals. Calls for validation of SEA recommendations by the key stakeholders.
Knowledge	Asks for a multi-stakeholder dialogue to discuss the key environmental and social issues. Intends to raise relevant environmental and social concerns and enhance capacity to stakeholders be able to select SEA priorities.
Learning	Promotes capacity-building to raise attention to environmental and social priorities, to enhance policy learning and to increase capacities for an adaptive implementation of the policy proposal (as flexible and adjusted to changes in the context environment). Asks for a continuous feedback to stakeholders in the consultation processes. Exposes the stakeholders to the institutional and capacity assessment to enhance their capacity to constructively influence policy-making.
Effectiveness	Expects the multi-stakeholder dialogue to be culturally sensitive. Expects the dissemination and communication strategy to be context-dependent. Asks for dissemination and communication of SEA results showing how stakeholders' views were addressed and acknowledging the fact that the dissemination and communication strategy is context-dependent. Asks for monitoring and evaluation to assess the extent to which SEA outcomes have been achieved and how the underlying conditions of the policy process have changed over time.

4.1.4 UNEP Integrated Assessment model

The UNEP Integrated Assessment model) was constructed under existing experiences of both SEA and Integrated Assessment. For UNEP (2009: 8), an Integrated Assessment is “a particular process of combining, interpreting and communicating knowledge in such a way that a cause-effect chain associated with a proposed public policy, plan or programme can be assessed to inform decision-makers”. The model, centred on strengthening sustainability by using a comprehensive building blocks framework shaped to the policy cycle, is considered to be flexible and adaptable to the context to which is to be applied (tackling complexity and uncertainty issues) and to the institutional capacity of policy-makers and decision-makers. It also promotes the relationship between environmental, social and economic sustainability dimensions and respective driving forces, as these relationships will influence future values and trends.

The UNEP model is based on a sustainability, proactive and strategic approach with a view of integrating environmental, social and economic sustainability dimensions at strategic levels of policy-making and enhancing positive sustainability outcomes. It also includes the learning element of the institution-centred model proposed by the World Bank. It is constructed the aims of: *a)* addressing integrated policy design and ways to benefit from policy windows; *b)* engaging multiple stakeholders to feed a continuous dialogue; *c)* guiding institutional change oriented at improving sustainability governance; *d)* integrating environmental, social and economic sustainability dimensions in policy-making; *e)* making use of opportunities or win-win options in the design of alternative policy options; and *f)* formulating policy options to create sustainable development benefits.

The UNEP model puts his focus on: *A:* The Process that includes a focus on the process design to guarantee the integration of the assessment process to the policy-making process and on the communication linkages and identification of key decision windows; *B:* The Policy Institutional Context that includes an analysis of the institutional context and change, the involvement of key stakeholders, the identification of opportunities and weaknesses for strengthening and improving capacities, and an analysis of structures and procedures that can enhance the implementation of improved policy solutions and sustainable benefits; and *C:* Analytical Contents that includes the tools and techniques to analyse and assess sustainability issues, to define trends and to design relevant policy options.

In **Table 14** are summarised the UNEP model governance features.

Table 14. *Governance features of the UNEP SEA model*

Governance aspects	Governance features
Accountability	Proposes to look at: existing accountability mechanisms, improve existing accountability mechanisms. Focus on professional accountability of those developing the assessment process - requires the roles and responsibilities for conducting the assessments.

	Asks for improved coordination among stakeholders and enhanced capacity of policy-makers to deal with sustainability issues.
Transparency	Promotes both continuous dialogue and active engagement of different stakeholders. Asks for the roles and responsibilities for conducting the assessments. Requires the development of a communication strategy to inform policy-makers and public on policy issues, institutional capacities, sustainability issues and assessment results. Asks to share the lessons learnt.
Public participation	States the stakeholder engagement and strengthening of civil society as a stage of the assessment (a continuous stage) to provide clarity and accountability and to build capacities. Minimum standards are set for public consultation. Asks for a communication strategy for a continuous exchange of information throughout the assessment.
Uncertainty	Stresses the importance of the quality of the existing information on sustainability issues, the stakeholder's views and opinions, and the institutional backgrounds. Asks for: an analysis on the capacities of policies and institutions; the collection of different types ok knowledge; the driving forces that affect future development; a sensitivity analysis to deal with uncertainties; proper acknowledgement and documentation of uncertainties and limitations; continuous feedback on new information.
Complexity	Asks for: institutional analysis; consideration of several sources of knowledge; analysis of trends and definition of scenarios; tools and methods that allow to understand the complexity of system dynamics in the analysis of benefits and risks; and for a monitoring system. Proposes the development of an assessment organisational model to define roles and responsibilities.
Power	Recognises the influence that power dynamics have on policy-making. Asks for an analysis of the institutional context and institutional opportunities and weaknesses; and to a stakeholder analysis that covers those who are potentially affected by the proposal, those concerned, interest, or having power over the policy in development, as well as to potential conflicts between different stakeholder groups. Requests the understanding on how the policy-making process works, specifically what are the key decision moments (policy-making decision windows).
Knowledge	States that the alternative policy options most be proposed based on the best available knowledge. Asks for stakeholders' inputs to define, analyse and assess current trends and policy scenarios.
Learning	Establishes learning as a stage of the assessment process that must contribute to institutional change and capacity building. Institutional learning considered as part of the lessons of the assessment process. Asks as component of an institutional analysis the existence of structures of capacity building and learning processes (as for the existence of knowledge brokers). Requests to identify the lessons learnt to foster a culture of learning.
Effectiveness	Recognises the need for an assessment process design that fits to the policy-making process. Establishes a stage where evaluation determines the effectiveness of the assessment process – asks for criteria and indicators to evaluate and review the assessment I terms of its purposes, its participatory approach,

	the communication and cooperation between teams and between key stakeholders. Asks for the implementation of an adequate organisation assessment model to allow an effective link between policy objectives and policy options.

4.1.5 ST SEA model

When the SEA Directive was transposed to the Portuguese legislation in 2007, a guidance was published by the Portuguese Environmental Agency (APA) to support good practice in SEA (Partidário 2007). Partidário (2007) sets a strategic-based model to SEA, describing functions and expected outcomes, methodological principles and components, and structural elements. The model lays on the establishment of Critical Decision Factors (CDF) that represents the fundamental decision-making factors that should be under the SEA focus. It is argued that a 'strategic-based' SEA increases SEA efficiency and effectiveness, with SEA designed to fit the decision-making process. Based on the practices and related benefits and constraints, in 2012 the APA issued an updated guidance of SEA (Partidário 2012). It can be characterised as a strategic- and sustainability-oriented model.

The ST SEA model to advance sustainability has been developed over the last decade (see Partidário 2007a, 2012, 2015a) motivated by the need to assess how a development context is prepared to deal with change, while keeping an integrated sustainability perspective. As opposite to look to operational plans and programmes (aimed at setting actions that are site-drive), the ST SEA adopts a forward-looking thinking to stimulate strategic change aimed at setting directions that are long-term driven. The main objective of the ST SEA model is to facilitate the integration of environmental and sustainability issues in strategy development and decision-making through the assessment of opportunities and risks of strategic actions in a context of sustainability. It is grounded on the premises that SEA is a strategic facilitator of sustainability processes, and should ensure the focus on the issues that really matter, that must deal with conceptual processes instead of being result-oriented, and that it must be applied to decisions of a strategic nature.

It is based on systems thinking, policy processes, knowledge share, dialogues, and platforms for stakeholder engagement, cooperation and governance in general. Each of this aspects are integrated in four components considered pillars of the model: *a)* a technical component that considers the expert and tacit knowledge to reduce uncertainty and increase knowledge on the issues that matters; *b)* a process component focused on establishing continuous dialogue between assessment and decision processes, though flexibility and adaptability of the SEA; *c)* an institutional component to help to understand the institutional context of the decision-making; and *d)* a communication and engagement component to ensure knowledge brokerage, networking, deliberation and engagement. This three components are reflected in the three fundamental and cyclical stages: *1)* SEA context and strategic focus*, 2)* Pathways for sustainability and guidelines, and *3)* Continuous follow-up. The ST SEA model is develop though one critical vector – the CDFs - defined to enable focus on what is relevant and a priority for long-term sustainability development.

In **Table 15** are summarised the ST SEA model governance features.

Table 15. *Governance features of the ST SEA Model*

Governance aspects	Governance features
Accountability	Promotes continuous share of information and cooperation between teams, as for the general public. Defines the existence of a governance framework that can serve to validate the assessment by informing on institutional responsibilities, existing institutional mechanisms and stakeholder engagement. Asks for improved coordination among stakeholders to deal with environmental and sustainability issues. Asks for a shared construction (between decision-makers, stakeholders and general public) of the strategy, CDF for the assessment and strategic alternative options.
Transparency	Asks for open dialogues trough stakeholder and public engagement to look to trends, uncertainties, strategic options, opportunities and risks, and follow-up. Requires the delivery of a strategic options assessment report before the final report to increase transparency. Includes in the governance framework the formal and informal responsibilities of concerned stakeholders (including authorities and general public). Emphasises the need for dialogue platforms to validate the decision problem. Considers the assessment of strategic options in line with environmental and sustainability dimensions of the proposal.
Public participation	Considers essential to construct and promote dialogue platforms for the engagement of the public in the construction, assessment, and implementation and follow-up of the strategy.
Uncertainty	Looks to the evolving trends that are grounded in uncertainty issues and establishes the need to follow-up those uncertainties during implementation. Emphasises the follow-up stage as one of the most important phases to deal with uncertainty – verification of uncertainties assumptions to enable adequate actions. Promotes stakeholder engagement for the construction of the strategy, the definition of the CDF, the identification of trends, the construction of strategic options and in the follow-up stage. Includes in the governance framework the formal and informal responsibilities of concerned stakeholders (including authorities and general public) and how their institutional background are related with the strategic priorities of the proposal.
Complexity	Defines the need to build CDF to deal with complex issues in a focused and structured manner. Asks for an analysis of macro-policy orientations to be considered in the assessment framework and to be one of the basis of the assessment of strategic alternative options. Asks for an analysis of evolving trends: past, present and future and to identify the critical trends of environmental and sustainability issues. Acknowledges the importance of the follow-up stage to verify institutional changes, macro-policy orientation changes, and additional conditions that can influence a proper implementation.

Power	Requests the development of a governance framework to help to understand current power dynamics and what to expect in the exercise of power with the implementation of the strategy. Promotes the empowerment of the public as asks for them to be included throughout the assessment and strategy process with an active role. Emphasises the need to identify key decision windows that asks for SEA action.
Knowledge	Considers the importance of expert knowledge to reduce uncertainty and increase knowledge on strategic priorities and environmental and sustainability issues. Considers knowledge as one key internal driving forces of the strategic process. Asks to build and share knowledge through processes of stakeholder engagement and public participation – knowledge brokerage processes.
Learning	Promotes learning processes through stakeholder engagement and public consultation – highlights the importance of establishing discussion moments to build knowledge and increase learning. States that the learning processes must be contextualised – the design of such processes must dependent of the occasion, type of stakeholders, time and resources available, and level of knowledge. Promotes follow-up through learning processes. Encourages institutional learning through a collaborative construction of the strategy, the establishment of the governance framework and follow-up and evaluation.
Effectiveness	States that alternative strategic options need to be come up from the policy objectives. Promotes the use of CDF grounded on policy priorities. Asks to look to SEA outcomes in relation to critical trends, uncertainties, strategic options, governance framework and follow-up and evaluation. Expresses the importance of iteration between teams and the development of several reports for continuous sharing of information and outcomes. Encourages mapping decision windows to clarify on the expected interactions between teams, and processes and stakeholders.

4.2 Mapping of governance key features

Five SEA models were analysed making use of the conceptual model of **Figure 9** and its 'operationalisation' (the analytical guidelines presented in **Table 10**). In general it is possible to observe differences but also similarities on what it is advocated by each model. Also, while the SEA Directive sets minimum requirements for a SEA system with the intention for each European member state to adapt it to their national culture, the other four models establish approaches more 'robust' in nature, in terms of providing concrete orientations for the application of SEA.

From the analysis, it is recognised the potential of the SEA Directive model to promote better governance though a 'good governance' perspective. The OECD-DAC model is constructed under the premise that SEA supports 'good governance' in terms of stimulating stakeholder engagement, promoting accountability and transparency in decision-making, and clarifying institutional responsibilities. The World Bank model gives attention to each country capacities and singularities and focus on an early analysis of policies and institutions to influence both policy capabilities and policy learning. The

UNEP model supports the development of adaptive governance and creative policy-making. The ST SEA model approaches governance as a technical component (context analysis, macro-policies setting direction), as an institutional component (levels of influence, roles and responsibilities of actors), and through engagement and communication (stakeholders' engagement, public participation and learning) with no rigid sequence to promote adaptability and flexibility of the assessment instrument.

If the SEA Directive emphasises accountability and transparency with authorities being called for consultation throughout the SEA process and information disclosure playing a relevant role, the OECD-DAC highlights the importance of understanding power relations between stakeholders and how they interaction with each other and with the surrounding environment, recognising that differences in political power influences policy outcomes. The UNEP model strongly engages the issue of uncertainty in its procedural guidelines by not only focusing on the availability of information, but also in expressing the importance of understanding the perceptions of actors and the background and preferences of institutions. The World Bank highlights the aspects of power and effectiveness in terms of exploring power dynamics and by stating that multi-stakeholder processes, dissemination, communication, monitoring and evaluation strategies are culturally sensitive. And the ST SEA model urges the need to embrace complexity issues in defining CDF to focus the assessment on what is relevant and on what matters to the development proposal, and also on promoting the development of a governance framework and multi-stakeholder engagement processes.

Each model provides valuable and positive lessons on how governance can be promoted and incorporated in SEA application. For each model were presented guidelines labelled as ‘governance features’ for each of the governance aspect of the analytical framework. Through a combination and integration of all the governance features identified it was possible to develop a key features map that aims to represent the system of governance features in the context of SEA models. The construction process of this map was: 1) list all the governance features of all the SEA models for each governance aspect; 2) combine and integrate similar ideas into a single ‘governance-based orientation’ for SEA; 3) map each ‘governance-based orientation’ in the respective governance aspect; and 4) identify if there is any cross-cutting feature that is reflected in all the nine governance aspects. I realise that this analysis is focusing on the procedural characteristics of each model, leaving aside the substantive ones (major differences that can represent insufficiencies and difficulties, or even in terms of the context in which the models are developed). This decision was made with the objective to focus only on the positive features related to each governance aspect, in procedural terms.

The key governance features map is illustrated in **Figure 11** and presented as an SEA system of governance. There was one cross-cutting issue that is reflected in the nine governance aspects – multi stakeholder engagement. The environmental and sustainability rational of any strategic and sustainability assessment may ask for the adoption of multi-stakeholder engagement approaches grounded in governance values. Thus, I realised that it is highly recognised the importance that actors play in SEA, closely related with the governance view of collectivism through social coordination and relationships. But, for a more grounded sense of which roles actors can play, might be

relevant to understand, à priori, what roles actors are expected to play and how the SEA models foreseen them. From the analysis, and based on Wittmayer et al. (2017)[5], two major different perspectives can be identified: a) a functionalist, observed mostly in the SEA Directive and OECD-DAC models (individuals play the roles that are already institutionalised in the SEA procedures – practitioners develop the assessment, decision-makers decide on the policy-making process, and general society is called for consultation), and b) an interactionist, observed mostly in the UNEP and ST SEA models (individuals do not have formalised roles and can adopt other postures during the SEA process – practitioners and society functioning intrinsically as strategy-makers in helping to construct and design the strategy). In the World Bank model, both perspectives can be identified.

The SEA system of governance features is thus mainly a picture of 'ideal-types' of roles shared in the domain of IA. Also, is a representation of governance values in SEA international advocacy, with the level of expression of each feature being dependent on the degree (and nature) of multi-stakeholder engagement processes.

[5] Wittmayer et al. (2017) identified three different roles actors can play in any development process: a functionalistic one (where individuals play the roles that already exist), an interactionist one (where individuals have the room for a 'role making' process), and a constructivist one (where individuals 'use', 'create', or 'negotiate' roles that are appropriate in their broader societal context).

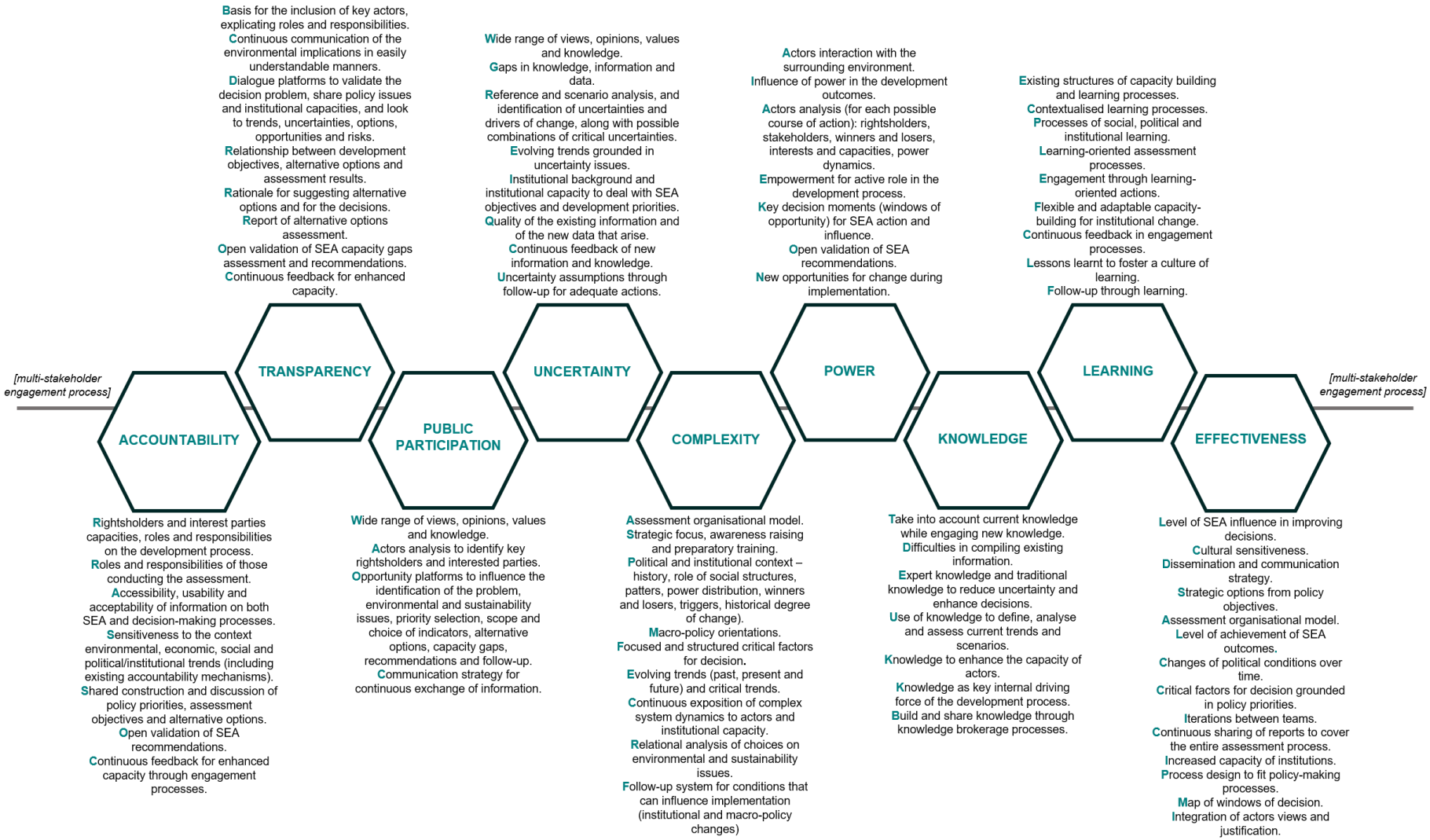

Figure 11. *SEA System of Governance Features based on SEA Models*

4.3 Chapter Conclusion

In this Chapter an analysis of five SEA models regarding how each approaches the governance aspects was developed and is presented in **Figure 9**. The models analysed were: the SEA Directive model, the OECD-DAC SEA model, the World Bank SEA model, the UNEP SEA model, and the ST SEA model. The analysis allowed to discover positive governance features that differentiate each model, and to develop a key governance features mapping that characterises the similarities between models in approaching governance. The SEA system of governance features is thus composed by the good practices of institutionalised models of SEA in approaching governance. The key lessons obtain with this analysis are as follows:

- The SEA Directive Model has the potential to promote better governance. It is considered a milestone in the evolution of SEA internationally. Even though it sets minimum requirements for a SEA system, it allows adaptiveness and flexibility in the transposition for a more successful application of the instrument;
- The SEA Models reflect on issues commonly associated with 'good governance' and with more deliberative approaches of governance, reinforcing the need to have assessment processes that are diverse in nature and that integrate the views, values and interests of stakeholders;
- The analysis of the SEA Models allowed the construction of a key governance features mapping that represents the SEA system of governance features, with the characteristic of having a cross-cutting issue that reflects the nine governance aspects – multi stakeholder engagement. The system is expressed by the dependency of the nine governance aspects in the degree (and nature of) through which are carried the multi-stakeholder engagement processes;
- The SEA system of governance feature is thus an image of 'ideal-types' of roles shared in the domain of IA. But, this system idealisation of roles (and of actors) promotes the need to know and understand what roles are in the SEA process and misses in asking and understand how the roles interact and what are possible benefits / constraints that might come from that relation (the 'role constellations').

Chapter 5.

Governance Contexts and SEA

This Chapter presents the results of empirical observations of the research on how different governance contexts may influence SEA. Six different governance contexts are analysed, as well as respective SEA regulatory provisions to understand the degree of influence that a specific governance context has over the institutionalised SEA system.

The analysis and results presented in this Chapter is based on the work contained in the published paper:

Monteiro MB. Partidário MR. Meuleman L. 2018. A comparative analysis on how different governance contexts may influence Strategic Environmental Assessment. Environmental Impact Assessment Review; 72: 79-87.

5.1 Introduction: Relationship between governance contexts and SEA capacity

Literature acknowledges that SEA has developed largely under the philosophy of EIA as designed for development projects (Partidário 2000; Bina 2007; Fischer 2007; Verheem and Dusik 2011; Tetlow and Hanush, 2012; Noble and Nwanekezie, 2017) through what has been commonly named 'EIA-based' model of SEA. The EU SEA Directive (Directive 2001/42/EC) is the outstanding landmark of the 'EIA-based' model of SEA (Dalal-Clayton and Sadler, 2005; Verheem and Dusik 2011; Tetlow and Hanush, 2012), determining the institutionalisation of SEA within the European Member States, but also influencing how the SEA legal framework has been adopted in many parts of the world.

Internationally SEA systems may target strategies, policies, legislations, plans, and programmes, according to the country of application (Ludovico and Fabietti 2018). Also the structural dynamics of the SEA systems has been suggested to be largely influenced by governance contexts (Ahmed and Sánchez-Triana 2008; Bina 2008; Slunge and Tran 2014). This Chapter is build on the work of Meuleman (2015: 4) who argued that "IA [Impact Assessment] (…) is influenced by (…) the governance environment in which IA takes place". It can be assume that governance and IA instruments cannot therefore be dissociated and, in similar lines, that SEA systems and SEA capacity are highly dependent on the governance contexts (illustrated by specific values, traditions, relationships and dynamics) in which the SEA systems operate. Also, when establishing SEA in a given jurisdiction it is particularly important to address how the governance environment can influence SEA. The argument for this analysis, as a consequence of the above, is that SEA will need to learn and adapt to governance patterns (given the existing practice of governing – hierarchical, market or networked according to Meuleman, 2015) that define such contexts if it is intended to more adequately address decision problems.

This analysis takes stock on a long-term discussion around the nature of SEA as a context-specific instrument (Hildén et al. 2004; Fischer and Gazzola 2006; Hilding-Rydevik and Bjarnadottir 2007; Runhaar and Driessen, 2007; Bina 2008; Noble 2009; Gibson et al. 2010; Wirutskulshai et al. 2011; Slunge and Tran 2014; Partidário 2015; Azcárate 2015). Such premise is axiomatic in the analysis, but it is here intended to go further by focusing on how a particular governance context may influence the institutionalisation of SEA and the capacity of SEA to act as a decision support instrument. It aims to explore the relationship between contextual governance specificities and the level of SEA capacity. For that a comparative analysis of six SEA country systems (Chile, China, Denmark, Netherlands, Portugal and Vietnam) is undertaken to analyse patterns of influence and the sensitiveness of the SEA systems to its governance context. Specifically, it aims to understand if, and how, the governance context may influence the system and institutionalisation of SEA, and the capacity of SEA to reach its objectives.

The six countries are chosen to represent distinct geographical and political-administrative contexts within which SEA systems were established, all largely influenced by the dominant EU SEA model. While three are EU member-states (Denmark, Netherlands, Portugal) and therefore legally mandated to adopt the EU model, they nevertheless show different governance characteristics and institutionalization of SEA. The other three countries, of which two are Asian (China and Vietnam) and one Latin American (Chile) have established their SEA systems influenced by the EU model through acknowledged working relationships with at least one of the first three countries (respectively). The selected countries intend to illustrate the replication across countries on models and methodologies for SEA, enabling the investigation on the relationship between the specificities of a given governance context and the level of aimed, and established, SEA capacity.

The first activity is to analyse the countries governance context. For each country in study - China, Chile, Denmark, Netherlands, Portugal and Vietnam – a brief description of the governance environment is provided using two different categories of indicators: The World Bank Governance Indicators (WGI) and the Hofstede Dimensions for National Culture. As indicated by Meuleman (2015: 7) “national cultures may show an underlying ‘default’ governance approach”. This enable to develop a description for each country governance context according to the most similar and suitable style of governance (hierarchical, networked or market-oriented) (see below in section 5.1.1). After this brief explanation about the countries governance profiles, the research methodology structured in two components –SEA systems and SEA literature (see **Table 16**), with both of the components analysed in an integrated manner in Chapter 5.3.

Table 16. *Methodological components of the SEA comparative analysis*

SEA Systems	***SEA Literature***
Review of the SEA systems (legislations, regulations) from an analytical framework composed by the following elements: 1. Architecture and structure;	Review of the SEA literature following the criteria:

2. Scope of application; 3. Dynamics and interactions: 4. Transparency and accountability; 5. Quality control and compliance; 6. Steering model.	1. Papers focusing the countries under study on the state of the SEA systems and current practices; 2. Papers published after 2007.

For the first component - to analyse the SEA systems - an analytical framework is developed around eight elements inspired in the work of Meuleman (2008, 2015). The framework is used to review the provisions and procedural aspects set by SEA legislation (overall requirements) and regulations (procedures) in each country (the analysed documents and publication year can be seen in "SEA system core legal documents" of **Table 19**). This analysis is of a qualitative nature and follows an interpretivist position, and it is important to recognize a priori that it relies upon the subjective evaluation of those who read the documents. Also, the data used in the analysis is contextualized since the documents were developed by the countries governmental actors that, theoretically, provide formative impact in the SEA system of values. All the documents reviewed were obtained from websites of the respective governmental authorities (English version in the case of Denmark, the Netherlands, Vietnam and China) or from FAOLEX database. **Table 17** presents the elements of analysis used in the review of existing SEA capacities and also how the governance contexts are reflected in the respective SEA system.

Table 17. *Elements of analysis and respective rationale to review the SEA systems*

Elements of analysis	*Purpose*	*Rationale*
Architecture & structure	Understand how the country SEA system is structurally organised (governance structure and operational model).	What elements constitute the SEA main procedural steps and what type of organisational structure characterises the SEA system?
Scope of application	Understand the SEA system conceptual boundaries (stated SEA aim).	What are SEA objectives?
Dynamics & interactions	Understand the system flows of relationships and what type of interactions (degree, between whom, etc.) are demanded.	What relational dynamics characterise the SEA provisions? Are stakeholders' roles and responsibilities in the SEA process clearly defined? How is the public participation process?
Transparency & accountability	Understand the level of transparency promoted by the SEA system and the accountability in terms of actions justification or process performance.	How is disclosure of information being promoted? For whom transparency is promoted? What type of accountability scheme is behind the SEA system?
Quality control & compliance	Understand the level of SEA process quality control and existing mechanisms of compliance.	Is there any review process formally established and how it works? What are the compliance mechanisms?
Implicit steering model	Understand the type of approach promoted.	What SEA approach is followed?

The second component consists in the review of the state of the art of SEA in published scientific articles in peer review journals and organisational reports. The purpose is to understand the state of play in practice-based experiences with the application of SEA. The SEA scientific articles were selected using two criteria: having been published for less than 10 years and to have the keywords 'strategic environmental assessment' and '*X*' (*X* being China, Chile, Denmark, Netherlands, Portugal or Vietnam). This search was made in both Scopus and Web of Science. The results of this literature review is used along with the analysis of the SEA systems to understand current SEA practice.

5.1.1 Countries governance profiles: Highlights from the six cases

The WGI is commonly used to identify and describe governance trends while the Hofstede Dimensions explores the tendency of the effects of society in specific cultural values. A total of nine indicators are selected from these two sources and applied as a form of 'describing' the governance contexts – from WGI (Kaufmann et al. 2010): voice and accountability (extent of citizens participation in governmental issues), control of corruption (extent to which public power and private interests are exercised), rule of law (extent of agents confidence and abide in rules of society), regulatory quality (ability of government to formulate and implement policies and regulations), and government effectiveness (quality of public services and policy formulation and implementation); from the Hofstede (Hofstede 2011): power distance (degree to which the less powerful members of a society accept and expect that power is distributed unequally), individualism (degree of preference for a loosely-knit social framework), uncertainty avoidance (degree to which the members of a society feel uncomfortable with uncertainty and ambiguity), and long term orientation (degree to which a society maintain links with its own past while dealing with the challenges of the present and the future).

Table 18 summarises the application of the nine indicators to the countries in study. The six countries have different approaches in their national governance context (e.g. Lijphart (1999), Meuleman (2008)), but are easily coupled in pairs of two given some general similarities: both China and Vietnam follow a hierarchical style of governance, with some mixtures of market-driven aspects (more control-driven approach); Denmark can be said to follow a network-driven style (flexible approach), with Netherlands, besides the network characteristics, also showing some mixture of individual and hierarchical orientation (functionalistic approach); and both Chile and Portugal follow a hierarchical-style even though both present some network-oriented issues in their society (albeit more rigid approach).

***Table 18**. Countries governance profile based on the WGI (WB 2017) and the Hofstede Dimensions (Hofstede Insights 2017)*

Countries	*Description*
China & Vietnam	Centralized authority, with autocratic processes of decision-making where final decisions rest on the top of the hierarchy.

	Lack of formal channels for citizen voice and accountability. Increase perceptions over the quality of public services and policy formulation and implementation. Collectivistic in nature and very group-oriented –emphasis in the obligations towards groups, and in maintaining relationships for the groups' benefits. Pragmatic cultural nature, more focused in long-term benefits and economic growth. Considerable sense of conformity by the society. Light increase in the control of corruption probably related to current economic decentralisation.
Denmark & Netherlands	Danish hierarchical structure of a flat nature, and Netherlands explicit role of actors' in terms of allocation of power, even though dialogue and communication existing at a good level. Individualistic societies that place self-interest over the collective one and have preference on horizontal relationships over vertical. Danes comfortable with uncertain situations, being able to accept change and easily incorporating it in their daily lives. Dutch with the need for rules and policies to overcome uncertain situations. Denmark tends to be more short-term oriented (more normative) and Netherlands more long-term oriented (more pragmatic) in thinking. High culture of public participation, high confidence in the rules of society and high perception of the quality of policy formulation and implementation.
Chile & Portugal	Centralized authority marked by established hierarchical levels with low delegation of power. Collective societies, group-oriented with well-defined social norms that shape the behaviour of individuals. Tendency to avoid uncertainty through rigid rules and codes of behaviour, clearly delineated administrative structures, and resistance to innovation. Normative thinking, with a focus on stability of traditions (tradition and cultural rules play an important role in the behaviour of society). Perception that citizens are given opportunities to actively participate and express their concerns in political matters. Positive perception of provision of public services and policy formulation and implementation.

5.2 Theoretical insights: context and institutionalisation

5.2.1 The importance of 'context' for SEA

When discussing the importance of contexts for SEA, Hilding-Rydevik and Bjarnadóttir (2007: 668) defined context as "the set of facts or circumstances that have an impact on the chosen approaches to SEA". For quite some time SEA researchers agreed that SEA, like other IA instruments, is context-specific, and that context would have an influence on the performance of SEA, seen not only as a procedure but also as an instrument influencing decision-making (e.g. Hilding-Rydverik and Bjarnadóttir 2007; Bina 2008). However, several researchers have shown that SEA often have little influence on the outcomes of decision-making processes (Runhaar and Driessen 2007; Lobos and Partidário 2014) and this may be because of a lack of adequacy of SEA to the case-specific governance in place.

Contextual influence in SEA capacity can be addressed in different ways, as pointed out by Polido et al. (2014): some authors emphasize the influence of the political and

planning systems (Fischer & Gazzola 2006; Bina et al. 2011), others the decision-making context (Partidário 2000; Runhaar and Driessen 2007; Runhaar 2009), and also the institutional capacity to deal with SEA (Hilding-Rydevik & Bjarnadóttir 2007; Slunge and Tran 2014). Bina (2008) and Meuleman (2015) also emphasised the cultural dimension as responsible for constraining the interpretation in assessment, public participation or even knowledge management. It is important for this research to highlight the relevance of the inherent system of values, from both cultural and institutional dimensions, on how SEA can be interpreted and carried out. For example Fischer (2005: 409) raised concerns on this aspect: "there are indications that if SEA results contradict values of decision makers, stakeholders and other actors, effective implementation will be very difficult, if not impossible, despite of, for example, high quality documentation and processes". Also, different views of planning and planning practices are subject to interpretation (Hildén et al. 2004) thus directly influencing how SEA is perceived, and what it is for, and consequently how it is to be conducted, and even by whom.

In IA the concept of capacity has been addressed by some authors. For example Kolhoff et al. (2009, 2018) discuss the capacity for EIA in developing countries, suggesting that the performance of an EIA system (consisting in EIA regulatory framework, actors and capacities, and processes of capacity development) is context-dependent. Capacity as a concept is referred by Kolhoff et al. (2018: 100) as the "ability of the EIA organisation to achieve their interests and objectives". Other authors refer to capacity with slight different angles, for example Kaplan (1999: 16) refers to capacity as "the ability of an organisation to function as a resilient, strategic and autonomous entity"; while Morgan (2006: 8) defines capacity as "the emergent combination of attributes that enables a human system to create developmental value", in other words, the ability of a system to create value.

While Kaplan (1999) and Kolhoff et al. (2018) situate the analysis of capacity at the organisational level, others use different lens to look into the concept of capacity at a more macro institutional level, more in the lines of Morgan (2006), as an imbued system of values. In these cases the analysis of capacity is placed on the functional rules and modes of operation of the SEA system and its contextual culture and governance styles (Runhaar and Driessen 2007; Runhaar 2009). In this analysis it is followed this latter perspective and SEA capacity is defined as the *ability of the SEA system to create value* (following Partidário, 2000), being shaped by the dominant system of values so as to perform and achieve its intended purpose of putting broad sustainability values at the centre of decision-making (Partidário 2005; Partidário and Wilson 2011; Cashmore and Partidário 2016). Partidário (2005: 662) highlights the "motivations that can enable the positive role of SEA", Partidário and Wilson (2011) relate the SEA performance with institutional capabilities, while Cashmore and Partidário (2016) identify the politicians' mind-sets and the cultural context of the decision as relevant factors in building SEA capacity.

The variety of concepts and purposes of SEA is further reflected in the chosen SEA approaches that countries select when establishing their SEA models, which should be presumably linked to the dominant decision-making cultures in place, and therefore context-specific, in line with Hilding-Rydevik & Bjarnadóttir (2007) and others (e.g. Kørnøv and Thissen 2000; Bina 2008; Sheate 2012). However, often adopted SEA

models basically replicate SEA systems conceived under other cultural decision contexts. We argue that a capacity gap might then occur between the formal stated aim of the imported SEA model, the expected SEA outcomes, the installed governance capacities for performing SEA and the actual SEA outcomes. This may be the case when, for example, non-European countries replicate the EU SEA model in their own decision context, with limited adaptation, as it will be further discuss in the following sections.

5.2.2 Institutionalisation of SEA systems

For Steinhauer and Nooteboom (2012) institutionalising SEA is embedding SEA structurally into a country's planning practice, while the system is institutionalised when there is sufficient expertise in SEA application, a sound legal and financial basis for SEA, and a clear institutional structure with agreed allocation of roles and responsibilities. Referring to the importance of implementation, Slunge and Tran (2014) added the effectiveness of the system as crucial for a complete institutionalisation, with institutionalisation being described as "a process of internalizing a new set of formal norms into an existing system of formal and informal norms so that the new norms become rules that are actually used in practice" (p. 54). The same authors further state that a SEA system that is institutionalised is effective in improving "integration of environmental concerns in strategic decision-making, ultimately contributing to improved environmental outcomes" (Slunge and Tran 2014: 54).

However the institutionalisation process is dependent on the institutionalists' perspective adopted, and consequently also dependent on the conceptualisation of what is an institution according to different approaches in the New Institutionalism (NI) theory. NI analyses policy outcomes from the perspective of institutions – how institutions channel, constrain and shape the behaviour of individuals (Peters 2012). The main assumption is that institutions matter (Bulmer 1994) in structuring political actions and outcomes. Hall and Taylor (1996) distinguished three approaches to NI: historical institutionalism, rational choice institutionalism, and sociological institutionalism. Besides these, Peters (2012) also identified normative institutionalism (very much related to the sociological) and discursive institutionalism.

These different perspectives in the NI provide a framework to understand the institutionalisation of SEA, and ultimately its effectiveness. Considering the institutionalisation process is crucial in creating capacities to make decisions, the institutionalisation of SEA systems will most probably depend on the institutionalist perspective followed. From the historical institutionalism we learn that embodying ideas in SEA structures will create institutions that only exist as long as the ideas are accepted, since those ideas are attached to capacities that maintain the institution functioning; from a rational point of view SEA is fully institutionalised when there is full compliance with established formal rules, irrespective of the decision culture and environmental context; while from a sociological and normative perspective, the process of SEA institutionalisation imply the infusion of norms and cultural values in the structures of institutions influencing motivations; finally, from the discursive perspective, the institutionalisation of SEA is created through interactions and discussions, meaning that

the institutional structure of SEA becomes more informal and is always open to new ideas and debates.

5.3 SEA systems versus practice-based experiences

The analytical framework of **Table 17** was applied to the six country cases. For a first insight **Table 19** summarizes unique features of each country SEA systems based on the documents reviewed for this analysis.

***Table 19**. SEA systems: style of governance, legislation and specific features in the country-cases reviewed.*

Country	*Style of governance*	*SEA system core legal documents*	*SEA unique features in each country-case*
China	Hierarchical-driven with marketization features.	Law of People Republic of China on Environmental Impact Assessment of 2002. Plan Environmental Impact Assessment Ordinance of 2009. Revised Environmental Protection Law of the People's Republic of China from the 24th of April 2014.	Different typologies of plans require different levels of assessment: comprehensive plans must have a chapter of environmental impacts, and special plans an impact assessment statement. Only special plans have explicit requirements for quality control of a group of state representatives and specialists. Half of the group must be composed by specialists.
Vietnam	Hierarchical-driven with marketization features.	Law on Environmental Protection no. 52/2005/QH11 2005, repeal by Law on Environmental Protection no. 55/2014/QH13. Decree no. 18/2015/ND-CP. Circular no. 27/2015/TT-BTNMT.	Establishes important roles for experts throughout the assessment (advisory and review). Agency members in charge of SEA must be Certificate in SEA consultancy by the Ministry of Natural Resources and Environment. Individuals composing the Assessment Council for review must have established experience in the area from two to seven years according to their qualification degree (from Bachelor to Doctor degree).
Chile	Hierarchical-driven with network features.	Law no. 19.300 on the General Bases of the Environment of 1994, amended by the Law no. 20.2017 of 2010. Decree no. 32 of 2015.	The responsibility to assess a request to develop a SEA falls under the Council of Ministries for Sustainability. The competent authority for the development of the plan is stimulated to adopt different forms of engagement to deepen public engagement.

Portugal	Hierarchical-driven with network features.	Decree-Law 232/2007, of 15 June, amended by Decree-Law 58/2011 of 4 May.	The Portuguese Environmental Agency must prepare and present on an annual basis a report on the state of SEA and quality of environmental reports.
Denmark	Network driven.	Executive Order no. 1533 of 10 December 2015 (Consolidated Act Environmental Assessment of Plans and Programmes). Law no. 425 of 18 May 2016 (General Act of Environmental Assessment of EIA and SEA), amended by Executive Order no. 448 of 10 May 2017.	The competent authority must conduct an institutional consultation before the screening decision.
Netherlands	Network driven with hierarchical features.	Environmental Management Act amended in 2006 (Act that includes EIA and SEA arrangements). Environmental Assessment Modernisation Bill of 1 July 2010.	It is mandatory for the competent authorities to ask the Netherlands Commission for Environmental Assessment (NCEA – independent body) advice on the environmental report (a review recommendation). Mandatory public consultation on both the scoping and environmental report phase.

All countries in the analysis reveal a similar architecture of SEA model, inspired in the EIA-based SEA model of the EU SEA Directive. The analysis however suggests considerable variations in observed cases, trusting on the achieved results. All the countries in the study have enacted SEA systems, the oldest one with more than 15 years (the Chinese arrangements were regulated via EIA Law in 2002). In all SEA was preluded with a long tradition of EIA instruments and SEA idealisations. For example the concept of EA was introduced in Chile in 1994 (Law 19.300 - General Environment Framework Law), and by that time the need to incorporate the principles of EIA in land planning instruments was recognised. But officially only in 2015 SEA was regulated. Similarly, a SEA idealisation was presented in Vietnam in 1994 in a governmental decree with plans included in the screening categorisation – but only in 2005 SEA requirements were introduced in the national EIA Law.

Regarding the European countries, in Denmark the tradition with EA instruments started in 1989 with the introduction of an EIA system, and shortly after (in 1993) a circular for the EA of Government Bills and Other proposals was published. The EU SEA Directive of 2001 was transposed to the Danish system by a single act, in 2004, but currently SEA and EIA regulations are in a Consolidated Act. In Netherlands EIA was introduced in the late 1980's via The Environmental Management Act, with the EU SEA Directive being formally transposed with the amendment of the Environmental Management Act in 2006. Finally, in Portugal the idea of an EA for plans was introduced in the Environmental Policy Act of 1987, with EIA being first regulated in 1989. But only in 2007 Portugal transposed, by a single act, the EU SEA Directive to its legal system.

Structurally the SEA regulations in all studied countries follow similar procedural elements of an EIA-based SEA: the determination of the need for SEA (screening), the emphasis on the assessment and mitigation of impacts on the environment, the development of an environmental report, a public consultation prior to the approval of the proposal, quality review processes and requirements for follow-up. Despite these structural patterns in the regulations, there are three relevant differences: 1) Vietnam has unspecific requirements regarding the scope of the assessment; 2) both China and Vietnam lack concrete requirements for the consideration of alternatives and give greater emphasis to the assessment of impacts and mitigation measures; and 3) both Chile and the Netherlands mandate a public consultation in the scoping phase.

The institutional model established by the EU SEA Directive is profoundly influenced by the technical-scientific philosophy of EIA (Tetlow and Hanusch 2012; Lobos and Partidário, 2014; Bidstrup and Hansen, 2014) and has been successfully implemented in several EU countries, particularly in the Netherlands that has served as a role model for many countries in the world. The EU SEA Directive model could be seen as relatively flexible, setting minimum requirements and opening to consideration the coordination arrangements for an effective function of SEA regarding the countries administrative culture. However what we observe is that while the common EU inspirational model sets the architecture and structure of responsibilities of the respective SEA systems, there is limited adaptation according to specific governance features. The analysis showed that while the SEA model is replicated, the implementation of SEA varies across the six countries, showing distinct levels of success. Results achieved suggest that, as discussed in the following paragraphs, the governance environmental context seems to determine the performance of SEA.

The SEA system in both China and Vietnam reveals reduced flexibility, with coordination largely controlled by direct supervision of the State (power centralised at State level), limiting SEA influence in decision making (Bina et al. 2011; Che et al. 2011; Zhu et al. 2010; Victor and Agamuthu 2014; Slunge and Tran 2014; Gao et al. 2017). This may result in a lack of systematic coordination and collaboration at administrative levels (Bina et al. 2011; Che et al. 2011; Clausen et al. 2011; Victor and Agamuthu 2014), influencing institutional relationships that may be crucial for a successful application of SEA. In China for example, the control of the State is usually linked to a game of interests that influences the scope, range and openness of the assessment, leading to low coordination and collaboration between governmental bodies (Bina et al. 2011; Che et al. 2011). Also, the SEA regulation lacks on a clear identification of roles and responsibilities of governmental bodies in the SEA process (Bina et al. 2011), with implications in the necessary dynamics that influence both assessment and decision capacities. This situation is quite similar with what happens in Vietnam (Victor and Agamuthu 2014).

In Chile there is an idealisation of a strategic SEA approach (based on Partidário (2012)) that can open the possibility for SEA processes to be adaptable to the strategic objectives of a development proposal. However the system is highly characterised by standardised routines, formalised procedures, and functional group tasks, sign of the rigid environment in which SEA operates. On the other hand, in Netherlands, Denmark and Portugal, probably influenced by the multilevel governance structure of the EU, the

coordination of the system is based on a standardisation of professional skills, where expertise is of professional nature through formal autonomy. This facilitates adjustments in the process depending on the development context to which SEA is applied (as happens in the Dutch case (Van Buuren and Nooteboom 2009)).

The purpose of SEA, as stated in the countries regulations, is to integrate environmental considerations in decision-making, assess potential environmental impacts and propose mitigation measures. A common pattern is observed in the six countries with environment being conceptualized more restrictively as biophysical in character, incorporating some social and economic aspects, but through environmental lens.

Concerning institutional and public consultation the six countries have requirements for screening (Denmark and Portugal, in the latter only institutional consultation), scoping (Chile, Denmark, Netherlands and Portugal) and environmental reporting (all the six). While in the Dutch case stakeholders are actively involved throughout the SEA process (Van Buuren and Nooteboom 2009; ACEE and NCEA 2014; EC 2016), in China the high sense of confidentiality and the governmental control of the SEA process are set as obstacles for effective public participation (Bina et al 2011; Wu et al. 2011; Victor and Agamuthu 2014; Ogihara et al 2016). This contributes to a lack of public participation and publicity of SEA, sometimes developed after the decision is made (Che et al. 2011; Wu 2011). The importance of public participation (and the lack of) is also highlighted in the Vietnamese practice of SEA (Slunge and Tran 2014; Victor and Agamuthu 2014), in Denmark (EC 2016; Elling and Nielsen 2017) and in Portugal (EC 2016; Polido and Ramos 2015), as well in Chile (Sanhueza and Fuentes 2016; Bustos et al. 2017).

Regarding accountability, both China and Vietnam frame their accountability process on the basis of political authority, with the State playing the role of decision-maker responsible for quality control. Chile, Denmark and Portugal give more importance to following the established procedures through the action of the administration, while Netherlands subjects the SEA process to professional expertise of external control bodies. In both Portugal and Chile the Ministry of the Environment is highly accountable for the quality of the SEA process, namely in terms of the required level of involvement in the review of the environmental report. On transparency, China and Vietnam do not present requirements for disclosure of information on the SEA process (Wu 2011; Slunge and Tran 2014). For example, the Chinese arrangements promote transparency for political purposes only, namely by exposing assessment results and SEA process development to departments under State authority (Che et al. 2011, Bina et al. 2011, Li et al. 2016, Wu et al. 2011). The three European countries, as in Chile, have similar transparency arrangements following the Directive requirements, stating the need to disclose information throughout the SEA process, that according to recent reports seem fully accomplished (EC 2016).

Comparing the SEA processes of review and compliance, we found the following outstanding features:

- Institutional consultation and public scrutiny as forms of quality control throughout the SEA process, with the competent authority having the

responsibility for the quality of SEA in a non-binding basis seem to take place in Chile, Denmark and Portugal;

- Administrative, public and regulatory levels of review and compliance, all together with the quality control of the SEA report laying down on an independent control body seems to characterise the Netherlands);
- Regulatory, administrative and professional control for review and compliance, with SEA report quality review relying on expertise, with explicit conditions established for the composition and functioning of the review group, as in China and Vietnam.

For example in the case of Vietnam, where explicit requirements for an experts-based Assessment Council exist (perhaps inspired in the Dutch model), the situation is then affected by a lack of expertise and knowledge on SEA (Clausen et al. 2011; Victor and Agamuthu 2014). SEA practitioners and governmental bodies have a quite good background on EIA development, with this possibly leading to a low quality of SEA appraisal (Slunge and Tran 2014).

In conclusion, the more control-driven the governance context is, the more closed and rigid is the SEA system, influencing SEA performance (for example in China) and limiting flexibility and capacity in the adjustment of imported requirements for SEA. Networking characteristics appear to promote more open and flexible features influencing SEA, such as for example the positive philosophy of institutional collaboration and cooperation in the Netherlands and Denmark. It is clear that all countries are formally positioning SEA as a post de facto instrument to analyse the environmental implications of development proposals. China and Vietnam appear to emphasise expertise in SEA to give credit to development proposals and the efficient use of the existing information; Chile intends to drive environmental sustainability thinking in transparent and open SEA processes; Portugal and Denmark focus on the nature of decision-making and accountable and transparent SEA processes; and in the Netherlands, besides accountability and transparency, the highlight is broad consultation. The difference between what is expected and how SEA is being practiced seems to be related to the established institutional specificities that determine functional and technical capabilities, as well the values and motivations to perform an SEA.

Three patterns of governance styles can be observed in the six countries: China and Vietnam (more hierarchical and market oriented, but control driven), Denmark and Netherlands (more networking and flexible, with the Netherlands revealing hierarchical functionalistic features), and Chile and Portugal (hierarchical but with network solutions, – although still rigid). Regardless these different styles, all the countries appear to follow the model set by the EU SEA Directive. In other words, countries may be adopting a model considered ‘adequate’, because it works well elsewhere, because it is recommended by international experts or because it is readily available as a model to be followed, regardless of the contextual circumstances and the consequences on the institutionalisation of SEA. Selznick (1957: 17) argued that institutionalisation involves “to infuse [something] with value” to be more than simply mechanical. Institutional structures (in formal an informal terms) such as SEA are socially constructed (Berger and Luckman 1967) and require individuals for the on-going reproduction of their

settings. After the analysis, it is argued that context matters in influencing SEA capacity in terms of participation, flexibility, coordination, autonomy, and transparency values. Empirical results suggest that the adoption of SEA in non-European countries appear to neglect the contextual governance characteristics that should influence SEA institutionalisation, specifically the substantive conditions for SEA.

5.4 Reflections on the empirical results

All the countries have some sort of arrangements for public and institutional consultation. But while some structurally promote consultation of a pluralistic nature (as Netherlands), others tend to close the SEA process to single consultation actions (as China or Vietnam). More hierarchical countries, such as China and Vietnam, have the tendency to conceptualise their institutional structures in a more rational and restrictive way, aligning their cognition with the idealisation that open spaces of discussion require more bargain and possibly more conflict management. Scaling down such moments would then lead to more reliable results of the assessment, and to a more effective implementation of the proposals. Similar parallelism can be made for Portugal and Chile. Both abide by strict rules, while expressing the need for clarity and structure and the importance of traditions and stability. While in Portugal arrangements for public consultation is regulated in one single stage, in Chile the process is more open and mandates a public consultation phase in the beginning of the SEA. But more requirements for public participation process does not necessarily mean better practice. Chile is a country with poor public participation and citizen engagement, associated to the society low confidence in public authorities (OECD 2017) and, together with Portugal, is at the bottom of the OECD countries for civic engagement (OECD 2017). This indicates a gap between regulatory rhetoric and reality in practice regarding participation, with possible influence in SEA capacity.

The transdisciplinary nature of SEA (Jha-Thakur et al. 2009; Runhaar and Arts 2015) implies the need for highly coordinated and collaborative agency, as coordination between government departments of sectorial nature. The results suggest that coordination issues, aligned with agency autonomy, are highly sensitive to the characteristics of the governance context. Countries that are characterised by power decentralisation, relatively high individualism, moderate to high long term orientation, a good rule of law and regulatory quality are expected to bond relations through influence and interests among organisations or departments. More consensual politics of both Denmark and Netherlands stress out horizontal relationships, as also reported in SEA literature (Van Buuren and Nooteboom 2009; Lyhne et al 2017).

Studies indicate that in Portugal, despite the innovative national guidance that promotes a strategic-thinking based SEA methodology (Partidário 2007, 2012), the use of an EIA-based SEA approach still prevails (APA 2010). Even though the new terminology for SEA set in the guidance is extensively used because of authorities demand, the spirit followed in practice and the assessment philosophy has not changed in practice. Similar situation occurs in Chile where SEA regulation was constructed with an idealisation of strategic thinking SEA, influenced by from the Portuguese SEA national guidance, but practice falls short of such strategic SEA idealization. This indicates a gap

in the capacity and commitment for conducting strategic SEA, and creates difficulties in practice. The low agency capacity for conducting SEA (possibly) due to lack of knowledge, incentives and willingness to act, may lead to an implementation trap with short coping ability. A centralisation of power and responsibilities can decrease departmental autonomy to act, which is linked to lower levels of competences to perform SEA, to resistance to change in institutional settings, and a lower capacity to respond to changes reflecting limits in institutional autonomy. Autonomy is an essential element of institutionalization, representing the capacity of institutions to make and implement their own decisions (Peters 2012). And these can well be reasons behind difficulties in adopting strategic thinking SEA both in Portugal and in Chile.

Partidário (1996: 40) referred in the early days of SEA that "countries with open and flexible political and cultural structures are more likely to have established conditions to develop sound environmental policies". Flexible structures are more capable of adapting to changes in the substantive environment, but the degree of flexibility is highly connected to the countries governance context. Countries with more centralised power of decision and political authority show a lower level of flexibility in SEA formal institutional structure and arrangements, such as the case of China. In contrast, more flexible governance styles (as in Denmark and Netherlands) enable the scale up of SEA in order to achieve better performance and broader results. Van Buuren and Nooteboom (2010) noticed that the collaborative nature of planning processes is translated to the practice of SEA in Netherlands, with the flexibility of the SEA process leaving room for manoeuvre. Additionally, it is also observable that more closed cultural contexts, as the case of China and Vietnam, tend to have high sense of secrecy and confidentiality of policies and strategies (Victor and Agamuthu 2014). There can be a lack of political will to conduct SEA through transparency principles and, in this particular case, there is a deficit of baseline information also due to the privatisation of data (WB 2011). The general lack of transparency might limit the capacity of SEA to influence decision-making (also acknowledge by Slunge and Loyaza [2012]).

It is consider that a 'capacity gap' exists in the way SEA is conceptualised and implemented in a given context. This gap seems to be influenced by issues of flexibility, coordination, autonomy, transparency and participation, highly dependent of the established motivations to conduct SEA. The European countries focus on democratic principles and flexible formal institutional structures that presumably create conditions for SEA to perform, of which the Netherlands is the most outstanding example in the countries reviewed. In fact the EU SEA Model seems to be more compatible with the functional rationality of the Dutch governance environment, and less compatible with the other two European countries. The rationalistic characteristic of the EU SEA Model is similar to the cultural governance environment of the Netherlands, where the EIA-based SEA approach seems to fit well. That fit is not obvious in Demark and in Portugal and constraints seem to exist in the institutional dynamics in these countries, with the philosophy of EIA-based SEA not in line with the planning philosophy and decision culture practices. Another situation appear to reveal a clear capacity gap in China and Vietnam where the focus on expertise, possibly inspired in the Dutch practice, finds an absence of governance conditions, resulting in inefficient and inadequate institutional capabilities, trusting on the literature. Chile idealises a strategic thinking SEA, but

regulates standardised and tough procedures and functions through highly bureaucratic routines, indicative of a mismatch between what is intended and what subsists.

With this, three reflections can be made: first, current SEA systems seem to continue locked into a traditional practice of environmental assessment established with EU Directive for EIA; second intangible agency and structural capacity elements, such as values, management styles, cultural traditions or governance settings appear to influence how SEA is perceived and carried out, no matter the formal arrangements in place; third the institutionalised context for SEA is different from the practical context of SEA due to a possible detachment between structural norms and agency of SEA.

5.5 Chapter conclusion

This Chapter presented the main results and conclusions of the empirical observation that analysed how different governance contexts may influence SEA. The key lessons are as follows:

- A direct link can be observed between the dynamics of a SEA system and the political and administrative specificities of its governance context; neglecting the adaptation to a country's governance specificities may result in a capacity gap between institutional requirements and the actual performance of SEA;
- A 'capacity gap' may exist in the way SEA is conceptualised and implemented in a given context, and seems to be influenced by issues of flexibility, coordination, autonomy, transparency and participation, highly dependent of the established motivations to conduct SEA;
- The value of SEA may not be equally recognised and internalised in SEA systems, possibly influencing SEA capacity to achieve its purposes. The fact is that when countries absorb imported models and 'best practice' lessons if they do not have installed capacities for practical implementation a capacity gap may occur;
- Connecting governance contexts and patterns in the SEA systems suggest that SEA is not 'context free', but instead 'context-influenced', while its capacity is dependent on its level of adaptation to the governance environment. In general, we are facing more constraints of a more normative and cognitive nature than a structural one, since cultural and institutional values impact how SEA is interpreted and carried out.

Chapter 6.

Portuguese SEA Practice

This Chapter presents the results of empirical observations of the Portuguese SEA practice, based on the lessons obtained from the review of 60 SEA environmental reports. The objective of this analysis was to understand the current practice of SEA in Portugal in approaching governance.

The analysis and results presented in this Chapter is based on the work contained in the published paper:

Monteiro MB. Partidário MR. 2017. Governance in Strategic Environmental Assessment: Lessons from the Portuguese Practice. Environmental Impact Assessment Review; 65: 125-138.

6.1 Introduction: methodological approach

Governance and SEA can hardly be dissociated. According to Meuleman (2015) the construction of SEA systems is highly dependent on the procedural, incremental and substantive dimensions of respective governance contexts. Meuleman (2008: 11) defines governance as "the totality of interactions, in which government, other public bodies, private sector and civil society participate, aiming at solving societal problems or creating societal opportunities". The consideration of governance in SEA gains special meaning in the legitimisation of strategic decisions, based on the relationship between society and the decision-makers. This is also because it is through governance that multiple types of knowledge can be better incorporated to enable learning processes. In the context of this paper, governance can be understood as a dimension of analysis that should be strategically positioned in SEA to enable the achievement of desired development objectives. In its essence, governance shapes functioning patterns of the development system, underlying the formulation of public policies and respective regulatory aspects. Thus, addressing governance in SEA can play a pivotal role in defining goals, setting priorities and making choices.

The objective of this analysis is to understand why governance in important in SEA. For that, a review of Portuguese SEA environmental reports was conducted to find out how governance has been addressed by existing practice, guided by two research questions:

a) Is governance being addressed in the Portuguese practice of SEA?
b) How is governance being addressed in the Portuguese practice of SEA?

First a general overview of theoretical considerations are provided. Then, the empirical observations are built upon the analysis of 60 environmental reports developed in Portugal on different sectors and geographical areas, and prepared by different teams. This will allow to determine if practice regarding governance in SEA follows what is advocated in the Portuguese Guidance on SEA, which was published and formally adopted in 2012 by the Portuguese Environmental Agency (Partidário 2012).

60 environmental reports published between 2012 and 2016 were reviewed (the list of the reports can be found in **Appendix B.**). These reports address the whole Portuguese territory and different sectors of activity. Not all cases had issued the respective Environmental Statement by the time of the review, but all had the institutional and public consultation phase closed with the respective results incorporated. The framework to review the environmental reports is presented in **Table 20** and is based on the ten checking points for a successful ST SEA of the Portuguese Guidance (Partidário 2012). One critical vector of such an approach is the use of 'critical decision factors' (CDF) to enable focus on what is relevant and a priority for long-term sustainable development. These ten checking points have already been used and adapted in other contexts (Lobos and Partidário 2014; Lamorglaese et al. 2015; Carvalho et al. 2017). Besides the fact that the research questions that guide this analysis were constructed having in mind the conceptual model of Chapter 3, alongside the analysis some examples are provided in order to practically demonstrated how the governance aspects of the conceptual model are (or can be) considered.

Table 20. *SEA framework for governance analysis in the environmental reports review*

Elements of analysis	Criteria	Review question
Expression	Explicit	Is the word governance explicitly present in the report and/or is considered in an implicit way?
	Implicit	
Entry point	Assessment framework	Where is governance considered in the reports?
	Governance framework	
	Assessment	
	Engagement and communication framework	
	Monitoring and follow-up	
Assessment framework	CDF	Is governance defined as critical decision factor? Is governance defined as an assessment criteria? Are governance-related indicators defined?
	Assessment criteria	
	Indicators	
Governance framework	Actors	Are the relevant actors and their responsibilities in the planning and SEA processes identified? Are institutional relationships, between actors and between policies, identified?
	Explicit responsibilities	
	Relationship between actors	
	Relationship between policies	
Assessment	Context analysis	Is a governance-related context analysis done?
	Contextualised options of development	

	Guidelines / recommendations	Are alternative options of development contextualized to the strategic objectives? Are guidelines and/or recommendations for the proponent proposed?
Monitoring and follow-up	Guidelines for follow-up	Are guidelines and/or recommendations for the follow-up stage defined? Are governance-related monitoring indicators defined? Are responsibilities for the implementation phase exposed? Is an engagement and communication strategy for the follow-up stage created?
	Indicators for follow-up	
	Responsibilities for follow-up	
	Engagement and communication strategy for follow-up	

6.2 Governance as a dimension of analysis in SEA

6.2.1 Overview of governance in SEA

Research on governance in SEA is expanding but still fragmented into single aspects of governance (e.g. public participation, knowledge, transparency or accountability). The broad 'match' between governance and SEA, in practical terms, is therefore not easy to assess or review. The evolution of SEA theory throughout the years shows an increasing concern with governance issues, however generally looking into particular aspects: the need to understand the context of decisions (Hilding-Ryedvik and Bjarnadóttir 2007; Ahmed and Sanchéz-Triana 2008; Bina 2008; World Bank 2011); the role of communication between actors for a successful assessment (Vicente and Partidário 2006); the importance of considering the political dimension of SEA (Slootweg and Jones 2011; Jilliberto 2012; Partidário 2015); the production of legitimate knowledge to support decision-making (Partidário and Sheate 2013; Sánchez and Mitchell 2017); the influence of actors on dynamic processes and influence of SEA in decision-making (Runhaar 2009; Van Buuren and Nooteboom 2010; Hansen et al. 2013); the understanding of SEA as a social construction tool with influence in the mediation of power in decision-making processes (Cashmore and Axelsson 2013). Governance in an integrated way, conciliating these various single aspects, tailor-made to particular circumstances, and addressed broadly to improve the role and function of SEA is yet rather unexplored in the body of SEA literature. This paper aims to contribute to fill in this gap.

It is here argued that the theoretical evolution in relation to governance in SEA discourse is perhaps nested in the increasing concern with the adoption of strategic perspectives in the SEA literature. However, the still dominant traditional IA feature in the practice of SEA, with an undervalued strategic dimension, well recognized in the literature (Tetlow and Hanush 2012; Bidstrup and Hansen 2014; Lobos & Partidário 2014; Noble and Nwanekezie 2017), limits SEA ability to understand the governance context of development. And that is because SEA is mostly reactive to concrete planning and programme development proposals, largely using a technocratic and rationalist approach (Lobos & Partidário 2014), looking for territorial materialized consequences, often limited to biophysical aspects, following what Partidário (2015) called the compliance or marginal approaches as opposed to the constructive approaches.

A critical shift in IA expertise, essential to broaden the understanding of SEA, is needed. An increasing body of knowledge on public administration, political and social sciences, psychology and behavioural economics and management is making way in the range of expertise involved in SEA, beyond the original physical, engineering, biological or geographical based knowledge, enriching the understanding and triggering the potential of SEA (Partidário 2000; Geneletti 2015; Partidário 2015; Runhaar and Arts 2015). But one point that is also expected to be observed with this analysis, in addition to the expansion of expertise in SEA governance, is that constructive approaches are also necessary, with positive and strategic thinking adopted in SEA to act as an instrument of change (Partidário 2015). For that, it is now presented a brief review of strategic thinking as an orientation norm and as a SEA approach, since it is here considered that strategic thinking can be of an extreme relevance for adopting a governance perspective in SEA.

6.2.2 Strategic thinking in SEA: governance as a component of SEA for sustainability

Strategic thinking in SEA implies addressing SEA differently from what has been traditional theory and practice. From early days Partidário (1996: 3) argued that "SEA must address the strategic component in any of the decision instruments incorporated in its scope", and that SEA should seek to add value to decision-making as a strategic move to integrate environmental and sustainability issues in development processes. Strategic thinking, as an orientation norm, can help give meaning to complex environments as the ones SEA apply to. It allows to use forward-looking thinking when addressing the consequences of decisions, with the purpose of helping to ensure adaptation to new challenges arising from changes in an uncertain and complex environment. We argue that strategic thinking in SEA can enable a better understanding of governance contexts to drive 'transitions in governance and decision making processes' (Noble & Nwanekezie 2017: 171).

Three reasons may help to understand the relevance of strategic thinking when discussing governance in SEA: 1) it allows the consideration of a wide range of perspectives and understandings in complex systems, positioning governance at the heart of the strategy itself; 2) it enables focusing on what is critical and what are root causes when addressing the policy and societal challenges; and 3) it provides the capacity to choose and learn when dealing with intended strategies (goal-rational oriented), with deliberative strategies (contextual-oriented) and with emergent strategies (learning oriented) in contexts of high interaction. Also, it is conserved as a premise in this analysis that governance is an essential dimension in SEA to enable sustainability.

Partidário (2000) argued that SEA would fall largely behind its potential by focusing solely on physical and ecological issues and instead 'environmental assessment must understand and integrate sustainable development principles' (Partiáario 2000: 651). However, there are claims that broadening the scope of SEA to integrate other sustainability dimensions, and addressing it holistically, will likely weaken SEA as an environmental assessment instrument, as it will reduce the weight given to the environment in detriment of economic and social issues (e.g. Morrison-Saunders and

Fischer 2006; Jiliberto 2009; Sadler 2016). This analysis follows Sheate (2009) when he points out that sustainability is a basic purpose in all environmental assessment instruments. The issue is how and to what extent sustainability is perceived: embrace sustainability from an environmental perspective, address sustainability based on the 'three-pillar model', or to approach sustainability in a broadly and integrated manner.

Following this line of thought, a Strategic Thinking (ST) approach in SEA to advance sustainability has been developed over the last decade (see, for example, Partidário 2007a, 2007b, 2009, 2015) motivated by the need to assess how a development context is prepared to deal with change, while keeping an integrated sustainability perspective. This inevitably includes addressing governance. In developing this approach, Partidário pointed out the importance of searching for the drivers of social and/or ecological/biophysical changes in strategic assessments (Partidário 2007a, 2007b). Governance addresses many of these drivers, expressed through roles and responsibilities, policy priorities or power tensions. There are examples around the world already explicitly recognise governance in national guidance for SEA. Chile, for example, published the Orientation Guidance for the Application of SEA in 2015, giving emphasis to the institutional context, inclusive engagement of stakeholders, and the overall governance conditions of the development context.

Partidário (1996: 9) pointed out that the 'implementation of SEA depends on effective political will…' needing 'administrative and institutional mechanisms (….) and the most appropriate ways to ensure a certain degree of accountability', a concern subsequently also argued by other authors (Kørnøv and Thissen 2000; Wallington 2002; Bina 2003). This means that governance can be incorporated in SEA as a technical component (context analysis, macro-policies setting direction), as an institutional component (levels of influence, roles and responsibilities), and through engagement and communication (stakeholders' engagement, public participation and learning) with no rigid sequence, recognizing the need to be adjusted to the decision process cycle (Nitz and Brown 2001; UNEP 2009).

6.3 The Portuguese profile in approaching governance

Portugal cultural tradition reveals a hierarchical administrative culture in its functioning and developments approval (Niestroy 2005), focusing on short-term results accompanied by a fragile public participation and low level of civic involvement. The Portuguese culture lacks on 'evidence-based instruments to accompany policymaking, with virtually no application of regulatory impact assessments', as well as a weak 'strategic component of decision-making', 'and 'monitoring of institutional governing arrangements' with 'little systematic effort to improve strategic capacity by making changes to these institutional arrangements' (SGI Report 2016). Also relevant is the high preference for avoiding uncertainty and focus on achieving quick results, and the Portuguese normative culture in thinking tradition (Hofstede et al. 2010).

With this brief cultural profile of the Portuguese context (and also considering the information of the Portuguese SEA system of Chapter 5), it is now presented the results of the empirical analysis made through the review of 60 Portuguese SEA environmental

reports. The main observations on how governance is considered in the 60 environmental reports and few examples are presented in **Table 21**. The results presented in **Table 21** are detailed in the following sub-sections, structured according the how each element of the framework for analysis can be used to understand: a) the SEA process and assessment framework; b) how governance is used in the assessment of options of development; and c) the role of governance in monitoring and follow-up.

Table 21. *Statistical results and examples of how governance is used in the Portuguese SEA practice*

Elements of analysis	Criteria	Statistics	Examples
Expression	Explicit	75%	
	Implicit	25%	
Entry point	Assessment framework	48,3%	
	Governance framework	0%	
	Assessment	66,7%	
	Engagement and communication framework	6,7%	
	Monitoring and follow-up	40%	
Assessment framework	CDF	31,7%	Organization and municipal management. Governance model. Development agents. Territorial management. Knowledge, innovation and governance.
	Assessment criteria	33,3%	Citizen's culture and participation. Financial management and promotion of economic vitality. Adaptive management and public-private collaboration. Knowledge and capacity-building. Efficiency of decision-making structures.
	Indicators	45%	Financial sustainability. Citizen's voter participation. Public discussion sessions promoted by the municipality. Number of 'single contact points' (costumer services). Co-responsibility schemes. Number of entities involved in consultation processes.
Assessment	Context analysis	30%	
	Contextualised options of development	6,7%	

	Guidelines / recommendations	61,7%	
Monitoring and follow-up	Guidelines for follow-up	38,3%	Promote programming transparency and public-private intervention schemes. Bet on concessions to activate co-responsibility schemes. Reinforce the effectiveness of inspections and improve the application of existing legislation. Assure the execution of Civil Participation programmes. Invest in the creation of participatory budgets. Ensure the establishment of information, awareness and clarification activities considering the different subjects to attend.
	Indicators for follow-up	41,7%	Financial sustainability. Citizen's voter participation. Public discussion sessions promoted by the municipality. Plan's degree of achievement. Execution projects of sharing and knowledge dissemination at an interdepartmental level. Level of information available in a transparent way. Degree if stakeholders' influence in decision-making processes.
	Responsibilities for follow-up	58,3%	
	Engagement and communication strategy for follow-up	3,3%	

6.3.1 SEA process

Concerning the use (expression) of the word governance, the Portuguese practice is quite encouraging since 75% of the cases make explicit use of the expression at least in one of the elements of the analytical framework. In the same cases governance is also implicitly considered, for example when exploring the functional model of the planning/programmatic system or in relation to the public participation and stakeholders' engagement. In 25% of the cases the word governance is absent, and this occurs mainly when the focus of the assessment is limited to biophysical aspects. It can however be assumed that, even if absent as a term, the governance dimension is always incorporated through the institutional and public consultation of the environmental reports.

On the entry point approximately 67% considers governance in the assessment phase, more than 48% of cases in the assessment framework and in 40% of the cases governance makes it entry only in the monitoring and follow-up phase. Very few cases establish an engagement and communication strategy for both the planning and the environmental assessment processes, and when participation is introduced it is most often to comply with the legal requirements (e.g. PDM-VA, PDM-BR). None of the cases reviewed includes a governance framework.

Getting and understanding a strategic focus is critical in ST SEA and aims to adapt 'to the natural, cultural, political and economic context of the object of assessment' (Partidário 2012: 33). It includes, but is not limited, to the traditionally labelled "scoping". In 48,3% of the cases governance (or a related expression) is included in the assessment framework. Of these 65,5% (31,7% of total) adopt governance as a critical decision factor and 93% (45% of total) as an indicator. Within cases that consider governance as a CDF, 84% also define criteria and indicators for governance. Most indicators address the financial sustainability of the plan or programme (mostly in terms of investments and private partnerships to assure economic stability as for example in PDM-C) and budgeting issues for the proponent (e.g. municipal budget in PDM-RB).

In ST SEA it is vital to ensure that the strategic issues and the objectives of the object of assessment are considered in building the assessment framework. It is about the so called 'tailor-made' or 'fit-to-purpose' SEA. Practice reveals some disconnection between what is defined as the object of assessment and what then is the actual focus of SEA. 50% of the cases reviewed reveal that governance aspects are included in the plan or programme stated objectives (for example the achievement of more collaborative functioning models, transparent decision-making, administrative modernization, or capacity-building of human capital, to name few), but only 23,3% build an assessment framework that responds to the plan's governance-related strategy (e.g. PGRH-A, PDM-VA). This reveals that SEA does not really engage with planning, and maintain a distant and separated definition of issues of concern, independent from the planning issues. Two main aspects with this lack of coherence between the assessment framework and what is being assessed regarding governance can be noted, suggesting that there is little awareness on the role that governance can have in SEA:

- When the object of assessment (plan or programme in Portugal) includes governance issues, but the SEA does not consider those issues in the assessment framework (about 50% of the cases), that means governance will not be considered in the assessment in SEA;
- When the object of assessment (plan or programme in Portugal) does not include governance issues, normally the SEA assessment framework contains an assessment factor that is construct upon issues of openness's, transparency, participation, accountability, efficiency and effectiveness, and coherence.

As previously mentioned, in no case a governance framework is presented, referring to the actors with interest in the development proposal and their responsibilities, or the relationship between policies and macro-orientations important for the design and implementation of the proposal.

6.3.2 Using governance in the assessment

According to Partidário (2012: 31), assessment in a strategic context 'corresponds to the assessment of possible choices on strategic pathways (…) considering evolving trends, specificity of context, views and expectation of stakeholders and uncertainties'. In the cases analysed we noted the absence of any kind of engagement and incorporation of stakeholders' views and expectations in the identification of different strategic pathways for development (alternative options).

In 30% of the cases a context analysis is developed in terms of the governance system and related aspects (for example, PUSC provides a context analysis for the municipal governance systems, specifically for the territorial management strategy, existing public-private partnerships, and models of public participation), in line with the plan's strategic objectives. Curiously there are also cases that made an analysis of the governance context without having a governance or governance-related critical decision factor, criteria or indicator (e.g. PGRIA).

The recognition and assessment of alternative options is one important step for the success of SEA. This is only seen in 6,7% of the cases (with only half constructing and assessing alternative options for the plan's or programme governance objectives, as for example PDM-E and PUSC). This is in line with current claims that the definition of 'fit-to-purpose' alternatives is one major problem in SEA practice (e.g. Lynhe 2013; González et al. 2015). In the majority of cases the assessment is of the materialisation of specific actions and measures (as concrete development projects) or even, the no-action alternative. So alternatives or strategic options are not really being much used in SEA, let alone to address governance objectives.

Lastly, 61,7% of the cases presents recommendations to assist the planning authority in successfully implementing the strategy, minimize the risks or potentiate the opportunities, and to deal with uncertainty in the follow-up stage. The recommendations given are governance-related mostly concerned with cooperation and collaboration between the planning authority and the different agents with special interest and formal (or informal) responsibilities in a specific area of activity (e.g. PETI). The inclusion of

governance in recommendations is a good practice element that has been well accepted and followed by practitioners and decision-makers in Portugal.

6.3.3 Follow-up strategy with a governance perspective

The role of governance in monitoring and follow-up is quite relevant for the success of SEA. As Lobos and Partidário (2014: 41) states 'follow-up in SEA is based not only on monitoring environmental and sustainability indicators, but also on analyzing the governance and processes of action'. To analyse the inclusion of governance-related issues in the monitoring and follow-up, three aspects are considered: 1) the need to have monitoring recommendations and indicators defined in the environmental report, 2) the need to identify formal and informal responsibilities for a successful strategy implementation, and 3) the need to develop an engagement and communication strategy for follow-up. On the engagement and communication strategy for follow-up, only two cases present an engagement strategy and a concrete methodology to an effective application and engagement of stakeholders and the general public (PDM-I and PANCD). Both justify this strategy with the intention of creating a more inclusive planning process, and also to allocate more responsibilities to the general public on the evaluation of the plan implementation.

About 42% of the cases defines governance-related monitoring indicators, basically using the same already identified in the assessment framework. Even with a relatively good number of cases that proposed governance as a theme to be followed, it is normally seen a monitoring and follow-up strategy that does not translate the results of the assessment phase. A smaller number of cases have guidelines for follow-up to understand the development and what was identified as critical for governance in the assessment (e.g. PDM-B). Also, more than half define specific responsibilities for the relevant stakeholders, called as 'Governance Guidelines'. In approximately 30% of all cases it is possible to observe:

- The definition of monitoring guidelines and explicit responsibilities even when no governance direct of related assessment factor or criteria is identified (e.g. PETI, PDM-FV); or
- The definition of a governance or similar assessment factor, but no inclusion in the monitoring and follow-up programme, namely in terms of institutional responsibilities (e.g. PGRH-A, PDR-M).

One possible justification why less than half of the cases consider governance issues in this monitoring and follow-up phase is uncertainty. And the reason why the other half consider may be related to the recognition that implementation of SEA depends strongly on responsible organizations and other stakeholders. But as mentioned, most of the indicators used in follow-up tend to be quantitative and easy to collect and measure (with already existing data) - rare are the cases that use monitoring as a way to overcome uncertainty, and to deal with the complexity of the context.

6.4 Reflection: making strategic sense of using governance in SEA

Governance is a relatively new subject in the field of environmental assessment and the work development in the World Bank and with several authors demonstrates its relevance in SEA, but results of the review undertaken illustrate the still predominant biophysical and territorial understandings in the SEA practice. The overview of the Portuguese practice suggests that although governance is significantly considered in the assessments (and in different stages of the SEA process), it is not yet acknowledged as a relevant factor. It is mostly used because the Portuguese Guidance indicates governance should be addressed, and then in the review process authorities require to see governance as in the guidelines. But the way governance issues are included show that there is no real acknowledgment of its added value for SEA, as already recognized in the literature, since:

- There is a lack of understanding of the benefits in approaching governance as factor promoting the planning process. The governance conditions are not properly analysed and adapted to the decision problem being assessed. Even in cases when governance is a strategic pillar in the plan or programme, most of the times it is not considered in the assessment framework because it is not physical, or materialized on a territorial base with visible impacts or effects. This shows also the little capacity of most SEA to recognize the plan, and to be integrated with what the plan is concerned about. Also sometimes after the SEA process, a lack of knowledge remains about the decision making context and if that context was prepared to deal with the changes proposed;
- A culture of participation and engagement of relevant stakeholders still lacks, with the current practice following a 'blueprint thinking' whereby engagement and communication components are done by regulatory imposition. With such 'blueprint thinking' the opportunity for collaborative assessment is lost, and with it the opportunity to create a shared vision for development and the potential to reduce the level of uncertainty by engaging and committing interested parties.

Results achieved with the review of the 60 reports show that generally governance issues can, and appear to be considered, in different stages of the SEA. Although 75% of the cases explicitly refers to 'governance', only 31,7% address governance explicitly in the focus of the SEA, identifying a governance-related critical decision factor. The expression is more pronounced in the SEA defined guidelines and recommendations in the follow-up phase. Even though mentioned in the reports, the consideration of governance in SEA is still reduced. The fact that governance is mentioned in the official guidance for SEA is probably the reason why some reports use the word "governance". However then governance is not really adopted since it is not a typical issue of analysis. Possible reasons for this to happen is that governance is not legally required and there is insufficient knowledge, experience and practice, together with lack of available data and a high level of uncertainty (for example on the functioning of the governance environment, relationship between stakeholders, coordination and cooperation).

Conversely, the importance of this subject for the follow-up stage is higher when referring to the responsibilities of those with interest in the implementation of the plan, since this becomes more tangible. And in fact incorporating governance in follow-up can be a good way to start addressing it in SEA.

6.5 Chapter conclusion

This Chapter presented the main results and conclusions of the empirical observations of the revision of 60 Portuguese SEA environmental reports. It was discussed the relevancy of governance for SEA in terms of how it is currently addressed in practice. The key lessons are as follows:

- There is a lack of understanding of the benefits in approaching governance as factor promoting the development process;
- Approaching governance in SEA cannot be limited to explicitly identifying governance as a CDF (or assessment factor). It should also mean constructing and developing an assessment process that provokes self-reflection and self-critic oriented to sustainable outcomes;
- The governance conditions are not being properly analysed and adapted to the decision problem being assessed. Even in cases when governance is a strategic pillar in the proposal, most of the times it is not considered in the assessment framework because it is not physical, or materialized on a territorial base with visible impacts or effects;
- There is a little capacity of most SEA to recognize the plan, and to be integrated with what the plan is concerned about.

Chapter 7.

SEA of Sintra's Municipal Master Plan

This Chapter presents the results of empirical observations in an action research case study conducted in a single SEA case from Portugal (SEA of Sintra's Municipal Master Plan) to draw positive lessons on what is governance in the context of the practice of SEA and how it is possible to positively adopt an oriented governance approach in a SEA process.

The analysis and results presented in this Chapter is based on the work contained in the published paper:

Monteiro MB. Partidário MR. 2017. Governance in Strategic Environmental Assessment: Lessons from the Portuguese Practice. Environmental Impact Assessment Review; 65: 125-138.

7.1 Introduction: A governance-inclusive perspective in SEA

A more theoretical analysis and discussion on how can governance be considered in SEA has been done in previous chapters. It was discussed how SEA models are promoting governance, the relationship between a governance context and the SEA institutionalisation, and how the Portuguese practice of SEA is incorporating governance in the assessment. In this Chapter, to complement the previous empirical evidences, an action research case study of a SEA is presented to show how governance may be approached using strategic thinking approach in SEA, and what has been the added value for the plan formulation. À priori it is possible to say that governance played an important role in steering the strategic development process towards sustainability, enhancing the success of the implementation of the Plan. This particular case adopted a governance-inclusive perspective in SEA, consistent with what was discussed in the Workshop on the Application and Effectiveness of the SEA Directive held in May 18th 2016 in Brussels that positioned SEA as a key instrument for good governance (EC, 2016).

To properly conduct this research a research question was developed: how can we address governance in SEA in a way that makes strategic sense? A protocol was developed to allow to collect and analyse data with resource to two different methods. How the methodology adopted was applied and a brief background and context of the case is now presented.

7.1.1 Background and context of Sintra's municipality and SEA of Sintra's Municipal Master Plan

Sintra is a coastal municipality (**Figure 12**) included in the Lisbon Metropolitan Area (LMA), with 377.835 inhabitants, representing about 13% of the LMA population and the second most populous county of Portugal (just behind Lisbon). The Village of Sintra is an UNESCO World Heritage Site, and one of the most relevant touristic sites in Portugal.

With resource to the Diagnostic Reports of the municipality, it was possible to develop a brief problem framework to have a first understanding of the context of Sintra – see **Table 22**.

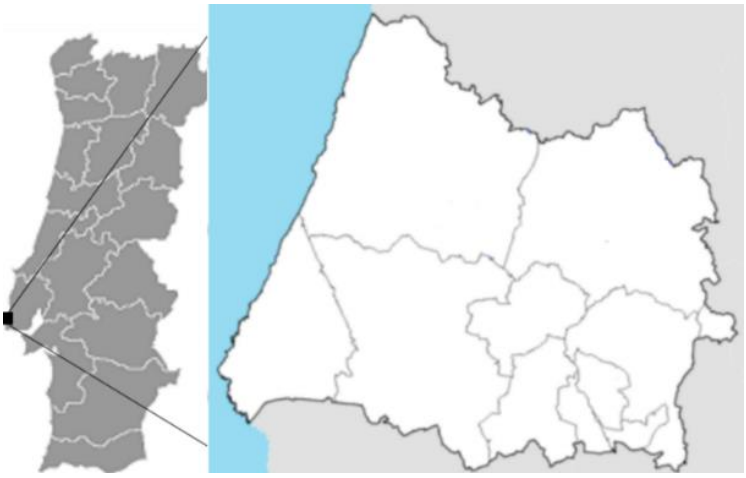

Figure 12. *Sintra's geographical context*

Table 22. *The context of Sintra (CMS 2014)*

Brief characterisation of Sintra's municipality	
Potentialities: Natural heritage internationally acknowledge (UNESCO natural site). Historical centre and built heritage. Multiculturalist municipality and ethnic wealth. Improvement of the municipal services and decentralisation. Potential and tradition of agriculture and agroforest. Stone industry. Coastal area. New social models and equipment's. Increase in the education level. Richness of local products.	Problematics: Deterioration of geological resources. Landscape degradation due to urban pressure. Excess of vague buildings. Urban sprawl. Prevalence of individual transportation. Deficit in the coverage of the drainage system. Vulnerabilities in the water supply. Ageing population. Unemployment and lack of qualifications. Social exclusion in the urban corridor. Obsolete industrial areas. Lack of competitiveness and innovation in the installed business.

The first municipal master plan dates from 1999 and after 13 years, in July 2012, the executive deliberated its revision. The first reference framework of the revision of the municipal master plan[6] indicated a prospective vision for Sintra's territory for 2025, in which Sintra is viewed as "supported in the promotion of economic, social and environmental development, fundamental to provide to our citizens a future with more and better quality of life in the municipal territory". This vision was by that time supported in five strategic axes: 1) Sintra of the sustainable economic development; 2) Sintra of the

6 http://www.cm-sintra.pt/phocadownload/PDF/consulta_publica/revisao_pdm/documentos-suporte-inicio/Proposta-do-Quadro-de-Referencia_PDM.pdf

qualified urban development; 3) Sintra of the qualified rural development; 4) Sintra of the landscape, environmental and cultural development; and 5) Sintra of the territorial and social cohesion development.

In 2014 a ST SEA methodology for the Plan's revision was approved, following the Portuguese Guidance approach. The case is currently in the process of formal public consultation. In the revision of the Sintra's municipal master plan, the SEA was initiated with the beginning of the spatial planning process and the full alignment between processes was ensured (**Figure 13**).

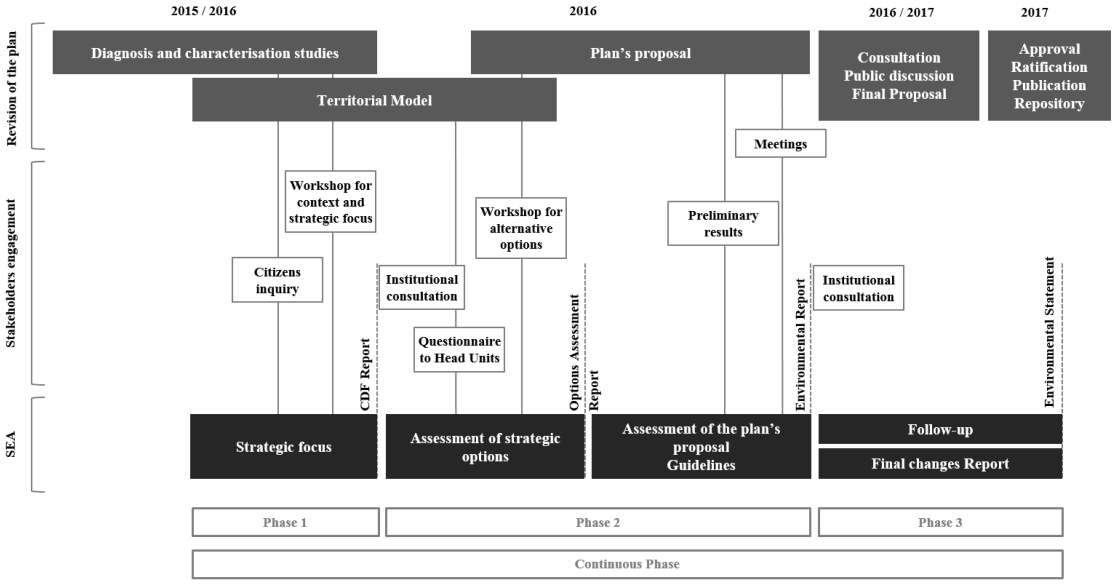

Figure 13. *Procedural alignment of Sintra's case.*

7.1.2 My involvement in the case of Sintra

As said, a combination of action research and case study method was applied in order to obtain insights on an empirical SEA case conducted in Portugal to illustrate what can be an example of good practice in considering governance in SEA. In the SEA of Sintra's Municipal Master Plan I was actively involved throughout its development, and conducted a serious of research activities for data collection, with the process here reported being developed between the last quarter of 2014 and the first quarter of 2017, during a period of almost three years (see **Figure 14**). This particular case was selected first due to insights on the willingness of the planning team to be innovative and creative with both the planning and SEA processes. Also, due to my active participation in the SEA, which allowed me to continually follow and report any developments in both processes, to closely follow the planning team and their ideas and opinions of development, and intimately follow the SEA team in understanding evolution, strengths, benefits and constraints in adopting a governance-inclusive approach in the SEA.

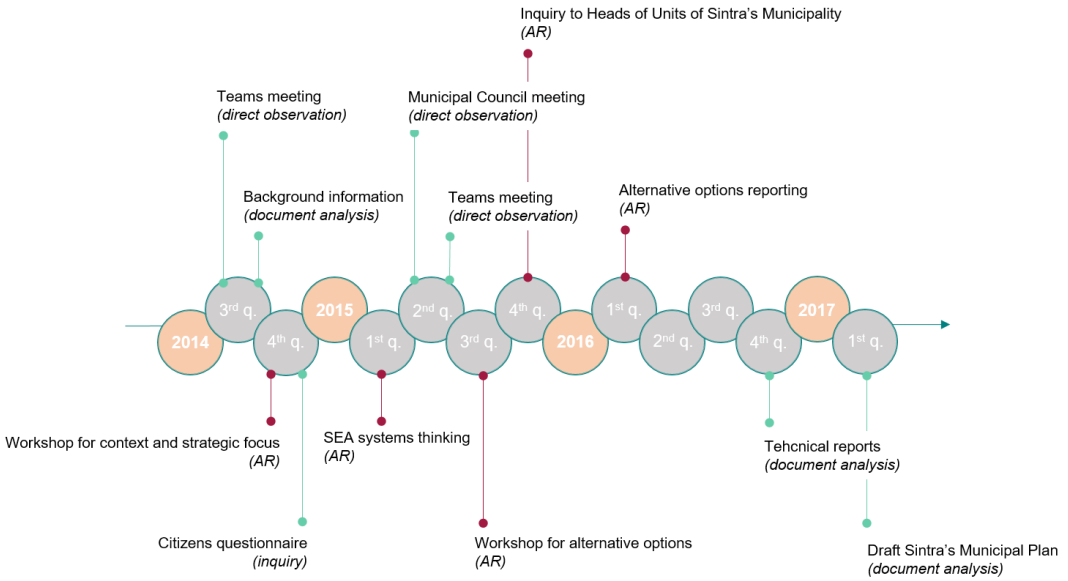

Figure 14. *Action research case study activities*

At first it was considered very difficult (a challenge) to understand on how could I separate and distance myself from the roles ahead: the active researcher and the discrete non-participant. For that a structured and rigid protocol was constructed, limiting my involvement in the active research case study procedure to a certain activities. This research protocol is presented in **Table 23**.

Table 23. *Action research case study protocol*

Research question: How can we address governance in SEA in a way that makes strategic sense? **The case:** SEA of Sintra's Municipal Master Plan **Timeline of the research:** 2014-2017	
Action research case study	***Description***
Direct observation: Teams meeting	Direct observation of the first meeting between planning team and SEA team, in September 2014. This meeting allowed to learn the priorities of executive and of the planning team.
Document analysis: Background information	Through document analysis of documents provided by the planning team, this activity allowed to obtain a first insight of the context of Sintra's municipality in its social, environmental, economic and institutional dimensions.
Action research: Workshop for context and strategic focus	Active involvement in the development of the methodology to be used in the Workshop for context and strategic focus, as well as in its development, results analysis and reporting.
Inquiry: Citizens questionnaire	Development and application of an inquiry by questionnaire to the citizens of Sintra's municipality to understand what were, in their own perceptions and opinions, the main potentialities and problematics of the municipality, as well as to understand the citizens' expectations for the future of Sintra.
Action research: SEA systems thinking	Active involvement in the construction and development of the SEA assessment framework, considering the research insights gained from the previous action research case study activities.

Direct observation: Municipal Council meeting	Direct observation of the Municipal Council meeting where the Territorial Model proposed by the Sintra's Municipal Plan was discussed and put to voting by municipal members of parliament. This allowed me to also observe political tensions that could possibly exist and that could have a direct impact in the development of the Sintra's Municipal Plan.
Teams meeting: Direct observation	Direct observation of a meeting between planning and SEA teams where a proposal of strategic options for development was presented by the SEA team, and following discussion. This allowed me to gain insights on the opinions and expectations of the planning team for the materialisation of the Sintra's Municipal Plan as well as to understand the influence that SEA had so far in the development of the Plan.
Action research: Workshop for alternative options	Active involvement in the development of the methodology to be used in the Workshop for alternative options, as well as in its development, results analysis and reporting.
Action research: Inquiry to Heads of Units of Sintra's municipality	Active involvement in the development and application of an inquiry by questionnaire to the heads of units of Sintra's municipality, in order to understand and analyse the internal functioning of Sintra's Municipal Council as well as how the different units (or departments) communicate and coordinate between themselves. This allowed me to understand the capacity of Sintra's municipality in promoting and implementing the Municipal Plan.
Action research: Alternative options reporting	Active involvement in the development, assessment and reporting of the SEA strategic options of development. This allowed me to incorporate in the SEA the empirical insights gained so fair.
Document analysis: Technical reports	Document analysis of several documents provided by the planning team to understand how the work of SEA (specifically in terms of the assessment of the strategic options of development) were considered and incorporated in a first proposal.
Document analysis: Draft of Sintra's Municipal Plan	Document analysis of the draft of Sintra's municipal plan provided by the planning team to understand how the work of the SEA (specifically considering the information and results included in the environmental report) is reflected in the proposal. This allowed me to understand the level of influence of the SEA in the construction of the final plan.

The results of the active research case study will be presented in an integrative manner following the same structure of the previous Chapter, allowing this way to mentally structure and compare both empirical evidences: a) the SEA process and assessment framework; b) the incorporation of governance in the assessment of options of development; and c) the role of governance in monitoring and follow-up. In the end a reflection of the results is also made following the four action-oriented IA governance principles suggested by Meuleman (2015): a) reflexivity (how the development process adapted to the SEA process); b) governance environment (how the governance environment of the development process works and relates with the ST SEA); c) governance styles (how the governance styles oriented both development process and SEA process); and d) how participation activities were developed and provided appropriate inputs for both the development process and the SEA process. The intention is to explicitly demonstrate what can be expected from considering and addressing

governance in SEA processes, and what can be the added-value for both development and SEA processes.

7.2 Governance as a strategic dimension of SEA

7.2.1 Allowing space for governance to be considered in the assessment

In September 2014 occurred the first meeting between the planning team and the SEA team. Several information was provided by the planning team, as for example the current state of local plans and projects and the President's priorities for the territorial development of Sintra:

- Enhance the quality of the urban space, by increasing leisure spaces in the Villa of Sintra and developing functional natural structures by inventing for example in green infrastructures;
- Explicitly recognise areas where it will not be allow to occur any type of construction;
- To review the transportation network, increasing the intra- and inter-accessibilities of the municipality, always having in mind rehabilitation and not new constructions.

These three were the main priorities transmitted by the President. Other priorities were identified by the planning team as being discussed with the executive and Municipal Council, as to preserve the coastal areas and enhance the accessibilities to be beaches, invest in qualified touristic activities, increase economic dynamic, modernize the agricultural sector, increase social inclusion, and invest in the stone industry as a municipal anchor. The timeline for the revision of the municipal master plan was delineated, as also the alignment with the SEA process (see **Figure 13**). With this information, was then proposed and agreed a strategic approach of the SEA, anchored in three phases and several activities (**Figure 15**). Right at the outset it was agreed to have a collaborative process and an active engagement of stakeholders, including the population, throughout the whole planning and assessment processes altogether.

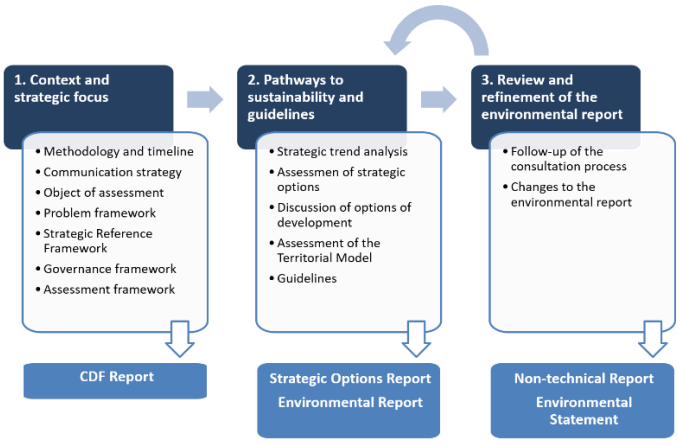

Figure 15. *SEA activities and deliverables*

Two assure that the SEA, and respective assessment framework, considers and integrates different perspectives on the potentialities and problematics of the municipality, as well as to help the planning team to properly establish the territorial models, two engagement activities were develop to invest in an active engagement and discussion with the relevant actors of the municipality: a Workshop for context and strategic focus, with invited stakeholders reflecting on the main problems and potentialities that express priorities of development in a sustainability context, and a questionnaire applied to the population to find out what are, in the citizens opinion, the most important aspects to consider, and those that are not of so much importance, to a sustainable development processes in the municipality.. It is true that the strategic objectives were politically set but the executive and planning team agreed in opening them to be revisited and refined by incorporating the citizen's views and opinions, as a way to increase a sense of ownership and commitment towards the Plan.

The workshop for context and strategic focus took place in November 2014. 102 agents were invited and 57 attended including municipal council officers, local associations, private sector, security forces, regional administration and local agents. The purpose was to agree on priorities for municipal development and to get a strategic focus through a participative planning process. First the problems and potentialities of Sintra municipality were identified with the stakeholders and categorized to define success factors to a sustainable development in Sintra. Secondly an interactive discussion took place to define the strategic focus, based on the success factors, and define the CDF to the development of Sintra (a visual illustration of the Workshop environment is show by **Figure 16** and the outcome of this discussion is presented in **Figure 17**).

Figure 16. *First Workshop Sintra*

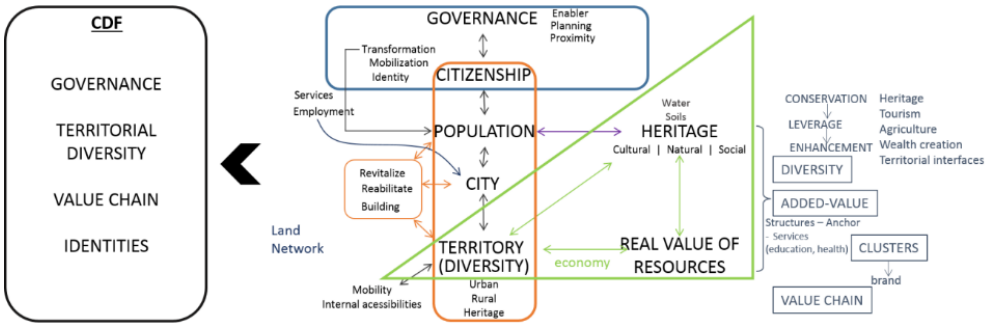

Figure 17. *Results of the First Workshop: Systems thinking for context and strategic focus*

Regarding governance, not only governance was elected as a CDF, but this engagement arena indicated two important aspects to understand the municipal decision institutional context:

- The power struggle between different political factions, with different discourses and strong positions, with the opposition against policies defined by the current Executive Board;
- Hierarchical relations between those with leading positions and trainees, with the trainees feeling constrained in giving their own opinion if someone with a higher hierarchical position was in the group.

It was a challenge to manage both situations, and the SEA served as a discussion arena to manage different perceptions and opinions. If in the first case the SEA worked as a mediator providing the same level of importance to any contribution, in the second case it worked as an empowerment instrument, levelling every participant and allowing similar roles in the discussion.

The other engagement activity was an inquiry by questionnaire to the general population, applied between 1 and 31 of December 2014, asking two main questions: the five most positive aspects of Sintra and the five aspects that need to be improved in Sintra (the layout of the questionnaire can be found in **Appendix C.**). The questionnaire was spread by paper format together with the water bill, with the SEA team having the support of the municipal water company for this activity. Also, an online format was made available through the municipal web site. Approximately 1,3% of the Sintra resident population responded, 2.282 answers were received. The inquiry allowed the incorporation of a different type of knowledge with considerations and understandings from those who live the municipality and live through its dynamics. Again the SEA worked as an empowerment instrument and enabled the consideration and integration of a very diverse range of opinions in the planning process.

For the five most positive aspects of Sintra, those with higher representativeness were the Mountain and Natural Park, the built historical heritage, coastal areas and beaches, tourism and culture traditions and local products. Regarding the five aspects that in the population opinion needs further improvement are the health services, security, job opportunities, accessibilities and parking, and leisure equipment's and green spaces. As it is possible to see, these five aspects for improvement are in line with the President's priorities previously presented. There is also a convergence between these aspects and how the respondents see Sintra in twenty years from now: a safe territory, with high quality of life, plenty of leisure spaces as green areas, and a sustainable tourism.

Based on these two participative moments, the planning team felt the need to redefine the strategic objectives of the Plan in order to incorporate specific issues that were initially overlooked. This reflexive attitude of critic and reflection from what was initially defined by the municipality, and the new results from the engagement activities, allowed important issues to be incorporated in the planning decisions, enriching the strategy of the proposal. Two of the most important issues were the inclusion of the ecosystem services and their valuation, and the promotion of activities associated with the coastal area. Also important was the increasing importance given to cultural aspects, as Sintra

unique identity is highly recognised. This change in strategic objectives illustrates the capacity of SEA to influence the plan development, which was only possible because the plan was still being conceived.

Both the participative moments fostered the inclusion in the Plan's strategy of important inputs to the municipal sustainability and, at the same time, legitimate the planning process in the eyes of the public and other relevant stakeholders. In addition, the fact that the assessment framework was largely identified in the workshop with contributes from different stakeholders, means the public also influenced the SEA. This can be considered one of the key conditions for the success of the SEA.

Specifically for governance, the workshop results demonstrated the relevancy of this dimension and supported the SEA team intention to incorporate governance as a CDF. **Table 24.** Governance dimension in the assessment framework shows how governance was included in the SEA. Governance was defined as a CDF to bring attention to the existing social networks, strategies and policies, power relations, as well as the governance model. This enables the analysis of the relationship between different units of the municipality (internal effectiveness), between the municipal council and the community, and between economic agents, public entities, private sector and the contiguous municipalities. Citizenship was a concern widely mentioned, so it was adopted as a criterion to ensure looking into questions of diversity, associations and society initiatives for promotion of local values.

Table 24. *Governance dimension in the assessment framework*

CDF	*Criteria*	*Indicators*
Governance: To assess efficient and effective planning and management and active engagement.	Municipal Governance Model	Adequacy of the institutional structure to the development strategy. Communication and cooperation between Organic Units. Schemes of public-private partnership. Level of territorialisation and mainstreaming of public policies.
	Community Proximity	Level of municipal transparency. Coverage and effectiveness of municipal local services. Citizen's engagement initiatives.
Identity: Strengthening of the municipal identity and sense of ownership of the population.	Social Network and Citizenship	Promotion of social entrepreneurship, Associations and Volunteer Programmes.

Crucial in the SEA was the governance framework. As mentioned, this is a generally ignored aspect in the Portuguese practice, maybe because it is not a legal requirement. In this case, the governance framework covered two aspects: actors and relationships between them. The most relevant actors with responsibilities in the territory of Sintra were identified and their formal (and informal) responsibilities in relation to the strategic

objectives of the Plan and decision problem outlined. This allowed the identification of gaps and overlaps in the existing responsibilities (like the concentration of responsibilities in planning activities between the Municipal Council and regional administration) which are important information for the planning authority to consider in the plan management, and also for the SEA to assess the existing institutional capacity to a successful implementation. It was also possible to verify the role of each agent in the planning process and consequent implementation, as for example the current passive role of the citizens in planning activities or the active role of economic agents in the promotion of local assets. In general terms, the governance framework was constructed around three aspects:

- Identification of relevant actors: Local authorities (13 actors identifies); Public administration (national and regional) (7 actors identified); Neighbouring municipalities (6 actors identified); Public and private services (4 actors identified); Economic agents (generalised); Associations (generalised); Media (generalised); Local citizens and tourists;
- Identification of explicit responsibilities: Formal responsibilities for each stakeholder group were explicitly outlined according established institutional settlements;
- Identification of the relationships between actors: Relationship between each stakeholder group formal responsibilities and the strategic areas of development.

The governance framework was one important pillar throughout the SEA process. It supported the analysis of the installed institutional capacities that may influence an effective and successful implementation of the strategic guidelines of the municipal plan, as well as the public policies supported by the plan.

7.2.2 Using governance in the assessment phase

Essential in the assessment was to identify what is being assessed. In the case of Sintra a second workshop was held to identify strategic options and assess risks and opportunities (**Figure 18**). This assessment workshop engaged 41 stakeholders including local and regional administration, local NGOs, private sector, and municipal services. The strategic objectives of the plan and the subsequent identification and analysis of critical trends identified in the context analysis provided the support to contextualize the alternative options identified by stakeholders.

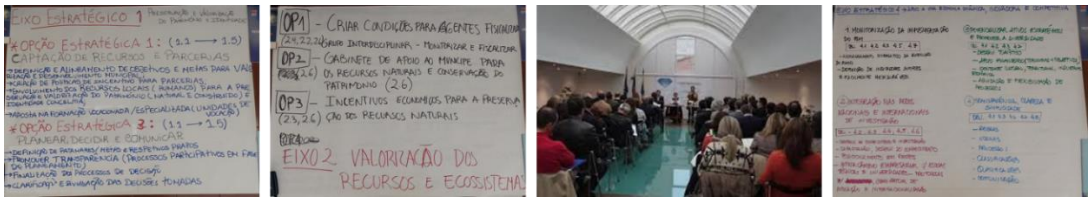

Figure 18. *Second Workshop Sintra*

The participation and engagement of the relevant stakeholders in this phase of both the SEA and planning processes was essential for:

a. Add value to the decision process by considering different concerns, interests, expectations and capabilities of the relevant actors;
b. Explore with the stakeholders possible pathways of development that incorporate the strategic priorities for territorial development;
c. Consolidate and validate with stakeholders viable strategic pathways;
d. To perform a rapid appraisal on possible strategic pathways;
e. Create sense of ownership and commitment towards the strategic pathways for territorial development.

From reanalysing the problem framework of the SEA context and focus phase, identifying development priorities, brainstorming possible options of development, to identifying those options with more relevancy for the territorial strategy, a set of strategic options emerged from the Workshop activity through democratic deliberation and discussion. In **Table 25** is presented a list of examples of strategic options defined in this Workshop. This list was then used to the creation of the final strategic options of development.

Table 25. *Workshop for alternative options - list of strategic options identified by the participants*

Strategic option	Description
Communication and transparency of the intentions of future plans and projects.	More alignment between the interventions of the public and private sector. More clarity in the definition of deadlines, rules and constraints of future plans for informed citizens.
Valuation of the historical and rural centres considering their specificities and identities.	Job promotion. Enhance tourist interest. Valorisation of the rural territory.
Enhance the communications and accessibilities networks between different parts of the territory.	Increase the quality and frequency of public transportation. Decrease of the prices of public transportation. Proper parking spaces (mainly in the Villa of Sintra).
Establishment of cooperation and investment attraction.	Increase the competitiveness and economic dynamics in the municipality, as well as valuing the existing social capital.
Streamlining administrative procedures.	Efficiency and efficacy of the administrative action to capture new investments and new business.

The assessment phase requires also yielding critical trends so that it is possible to understand the dynamics of what is going on regarding the existing social networks, strategies and policies, power relations and governance model, and assess to what extent the proposed strategies will enhance what is good (opportunity) or, otherwise increase the difficulties (risk). In the case of Sintra it was not easy to access an analysis of the existing municipal governance model and the plans governance environment, both

in relation to connections and communication between different municipality units, or even in relation to the territorialisation and mainstreaming of local public policies.

To cover this gap of information and knowledge, a questionnaire was directed to the heads of units of the municipality of Sintra to find out about the communication and cooperation between the units (the layout of the questionnaire can be found in **Appendix D.**). Two objectives steered the construction of the questionnaire: 1) to analyse and understand the internal function of the units of the municipality; and 2) to analyse and understand how the different units communicate and collaborate between them. Of 52 expected answers 29 were obtain (56%). The most relevant results relate to the existence of interdepartmental decisions to allow an understanding of the organisational structure (institutional functions and rational hierarchical roles vs. strategic areas of development), and to the governance model of functioning. The results achieved allowed the identification of several critical trends of the municipality in terms of Sintra's governance context, which are:

- The organisational structure has been based on traditional bureaucratic relationships and defined in terms of rational hierarchical roles; organizing in strategic areas of development would enhance strategic practices, however that does not seem to be the trend as far as structural organization goes at municipal level;
- Low level of interdepartmental communication, despite the efficient and effective internal functioning of the municipality units;
- Increase of the municipal transparency index, in terms of information sharing on the internal functioning of the municipality;
- Improvement of the municipality human capital through professional training;
- Upgrade in the provision of public services, despite the geographical centralisation.

At this point one interesting fact was acknowledged: that even following a hierarchical culture in its functioning system, Sintra's municipality has a great capacity to adapt and complement its culture with broad participatory activities, with a view to ensure a more successful Plan.

In a first initial draft, the strategic objectives of the Plan did not include an explicit governance objective, but several alternative options were constructed under a governance theme, supported by the results obtained in the second workshop when relevant stakeholders identified possible alternative options of the Plan, as well as by the results of the questionnaire applied to the heads of units of the municipality. Even though governance was not explicitly considered, results from the trend analysis, as well as from the questionnaire applied to the heads of units of the municipality and personal perceptions of workshop participants determined the identification of issues of transparency in public policy processes, decentralisation, streamlining and process simplification, or new schemes to promote public participation as crucial to be the basis of some options. The results of the workshop prompted the planning team to incorporate governance issues in the alternative options, as for example, the development of new participatory platforms and promotion of transparent decision-making processes and access to information. The process of constructing the alternative options was therefore

a result of a reflexive interaction between the workshop participants, the SEA team and the planning team, paying special attention to incorporating sustainability-contextualised concerns in their construction. For example:

- Alternative option 1: The decision on the uses of areas with significant ecosystem services assets should be based on a demonstrative evaluation of their tangible and intangible value;
- Alternative Option 2: The decision on the uses of areas with significant ecosystem services assets should be based on an adaptive management and incentive generation schemes for their protection and recovery (Transfer Development Rights);
- Alternative Option 3: Develop and boost participatory platforms;
- Alternative Option 4: Promote the transparency of decisions and access to information.

From the point of view of the CDF governance, the assessment of alternative options resulted in the identification of several opportunities and risks, specifically regarding promotion of a sense of ownership in relation to the plan, improvement of public-private relationships, increase the engagement of local community in the decision-making process, strategies and policies harmonisation, investment in a proximity policy creating equal conditions of time, costs and quality services, and loss of dialogue between key stakeholders, pressure in the financial sustainability of the municipality, management difficulties due to increasing need of inspection and bureaucratic constraints.

Based on the resulting opportunities and risks, governance guidelines were then recommended:

- Make clear the investment priorities of actions and measures in the implementation phase;
- Ensure a more active role of all stakeholders in planning and management activities, including the general population, by recognising its fundamental and structural role to the pursuit of the Plan's strategy;
- Emphasise the need to establish strategic alliances with relevant agents of the society to create projects that can add value to Sintra and can contribute to a sustainable implementation of the strategy;
- Assure that the different municipal public policies are aligned regarding its strategic orientations and intentions;
- Promote transparency and share information about all developments in the implementation process;
- Reduce the administrative red tape cost by betting in the administrative modernisation and simplification of planning processes;
- Promote the creation of networks, and knowledge share, and in its integration in the municipal governance model, moving towards an adaptive management model.

7.2.3 Follow-up strategy with a governance perspective

As mentioned, the plan preparation is still ongoing and is now getting to its negotiation phase, running the formal institutional and public consultation process, in an integrated way. Several public meeting are being held in different parts of the municipal territory to present the Plan to citizens, and the outcomes of the SEA, and gather opinions and views. An open link is also available to all interested public to provide ideas and comments on the Plan and on the SEA. After these activities, the planning and SEA teams will again refine the strategy and the assessment.

To overcome the high uncertainty and complexity concerning governance, a monitoring and evaluation process need to be established as a continuous process (**Table 26**). Governance-related indicators will contribute to monitor the extent to which the strategic objectives of the Plan are met and also to help incrementally integrate in the Plan's implementation unexpected issues that will occur throughout. With governance as a CDF, monitoring guidelines and indicators were therefore defined to "measure" the functioning and maintenance of the proposed territorial system, the implementation capacity of territorial management strategies, and public participation and engagement.

Table 26. *Examples of governance aspects in monitoring and follow-up*

Guidelines	**Examples of indicators**
Monitor the public participation in the decision-making processes and the effectiveness of the engagement schemes.	Number of participatory budgets. Outcomes of local agent's partnerships to territorial development initiatives.
Monitor the implementation capacity of territorial management strategies.	Actions of knowledge dissemination at an interdepartmental level. Degree of achievement of municipal sustainability strategies.
Monitor the functioning and maintenance of the proposed territorial system.	Overseeing the compliance of legal and regulatory provisions, with systematisation and justification of cases of shortcoming and mismatch. Coverage of public services.
Responsibilities	**Orientations**
Central Administration	Contribute to the institutional cooperation and articulation, promoting the creation of collaborative platforms and monitoring and provision of information of their areas of activities.
Municipal Council	Develop capacity-building activities at an internal level to assure an adequate implementation of the proposed management model.
Associations and population	Assure individual and community proactive initiatives that value the municipal sustainability.

7.3 Reflection: Approaching governance *in* SEA

The use of governance in the case of Sintra allowed to understand the decision-making context, the collection, consideration and incorporation of different perspectives and values in the assessment as well as how the context (governance, social, environmental) may react to future changes. Issues such as participation, uncertainty, complexity, transparency were addressed in the assessment in different ways and produced palpate benefits for both the assessment and the planning processes. It was not easy to strategically consider governance issues in SEA - it engages complex systems, and therefore effort and commitment, and it also forces mind-shift towards issues that are not physically or territorially materialized in a direct way. The case of Sintra's municipal master plan was used to show a possible way on how to address governance in SEA in a strategic way.

The ST SEA, with its inclusive, creative and adaptive nature, enabled engaging governance in different SEA activities to: *1)* understand the development context, *2)* integrate different perspectives, *3)* achieve a high level of consideration of environmental and sustainable issues in the planning process, and *4)* overcome the lack of knowledge regarding specific governance issues as the internal functioning of the municipal council. Each of the activities focused governance in a specific way to enhance a more collaborative, empowered and governance-oriented approach. This 'governance-inclusive approach' allowed:

- The SEA to function as a discussion arena, managing different expectations, and as an empowerment tool;
- Different stakeholders to share their views and to influence the development of the strategy in a constructive way;
- The promotion of dialogues and the creation of a sense of ownership, ultimately providing legitimacy to the final Plan;
- To overcome uncertainty to some degree on how the development context is prepared to deal with change, by identifying links between governance and planning actions.

The plan revisited and changed their strategic lines of orientation as a result of the inputs brought into the SEA, namely in relation to the consideration of ecosystem services, the use of the coastal area as well as the ways governance issues needed to be incorporated. From a governance perspective, the final Plan promotes: articulation and agreement between public and private entities to establish and potentiate relations; the adoption of an adaptive management model in the internal governance model, looking specifically into interdepartmental relations; coherence between proposed actions and the development strategy, prompting the planning capacity of the administration; the creation of an informative and management platform to increase the success of the implementation of the plan and more proactive actions and knowledge brokerage; and public participation and engagement in development projects and in the continuous monitoring of the Plan, in order to incorporated non-technical knowledge in the decision-making processes and increase the municipal transparency and access to information.

The process was very iterative throughout the SEA and in particular during the assessment, with consecutive assessments made in interaction with the development of plan proposals: a total of four versions of the plan were assessed, with the planning team incorporating several SEA recommendations each time, resulting in a more sustainable and environmental oriented Plan. Worth noting is how the plan revisited and changed their strategic lines of orientation as a result of the inputs brought into the SEA, namely in relation to the consideration of ecosystem services, the use of the coastal area as well as the ways governance issues needed to be incorporated.

From a governance perspective, the final Plan promotes: articulation and agreement between public and private entities to establish and potentiate relations; the adoption of an adaptive management model in the internal governance model, looking specifically into interdepartmental relations; coherence between proposed actions and the development strategy, prompting the planning capacity of the administration; the creation of an informative and management platform to increase the success of the implementation of the strategy and more proactive actions and knowledge brokerage; and public participation and engagement in development projects and in the continuous monitoring of the Plan, in order to incorporated non-technical knowledge in the decision-making processes and increase the municipal transparency and access to information.

Concerning the four principles proposed by Meuleman (2015), some considerations were made for the case of Sintra. We conclude that Sintra is a case that positively approaches each of the principles in a way that promoted a sustainability-oriented strategy of the Plan, as well as the governance environment that nested the SEA, ultimately enhancing the success of SEA:

1) Reflexivity: the trust established between the two teams and the collaborative attitude that drove the process allowed a close contact and interactivity between teams. Also the political willingness created by the Mayor of Sintra to accommodate this on-going, collaborative process allowed moments of critic and reflection that changed the strategy to a more sustainable design;
2) Governance environment: understanding, through a context analysis, how the Sintra governance environment works allowed both planning and SEA teams to adapt and adjust the proposed strategy to reality, since the existing institutional settings, roles and responsibilities of agents, as well as what are the citizens perceptions and development perspectives became quite clear;
3) Governance styles: the political willingness of the Mayor of Sintra allowed to complement and shift between governance styles. The municipality is hierarchically organised and is proposing market-oriented strategies to be incorporated in the Plan's strategy (e.g. Transfer Development Rights Strategy to valuate ecosystem services) and promoting broad participatory activities, stimulating the success of both Plan's and SEA processes.
4) Participation: during the entire process the participatory activities enriched both planning and SEA processes with new knowledge, new ideas, new perspectives and perceptions, and promoted the socialisation of the development strategy.

This analysis allowed also to conclude that governance is important in SEA first because any SEA is nested in a specific decision cultural context, where the particular way decisions are made influence the capacity of SEA to achieve its objectives and add value to the decision, determining its effectiveness and success. Second, the characteristics of the decision context are directly related with how SEA is approached and its scope. The actors, institutional settings or political strategies define how a process such as SEA is understood by policy-makers and decision-makers. Third, SEA is in itself a public policy instrument that cannot be dissociated from the political arena and broad governance context since it influences and is influenced by the elements that compose that context. And fourth, the advocated need for a "tailor made" or "fit to purpose" SEA requires (and demands) an analysis of the governance context. Only with resource to this type of analysis a SEA can be contextualised to where it is applied.

It is also argued that all SEA should address and incorporate governance issues that are directly related to the strategy being assessed. Since SEA is an instrument oriented to sustainability, it is important to analyse the governance environment in order to understand how the strategy is to be implemented in a sustainable way, and what may be the needed governance conditions for strategic implementation. Approaching governance in SEA cannot be limited to explicitly identifying governance as a CDF (or assessment factor). It should also mean constructing and developing an assessment process that provokes self-reflection and self-critic oriented to sustainable outcomes.

7.4 Chapter conclusion

This Chapter presented the main results and conclusions of empirical observations in terms of how governance can be addressed in SEA in a way that makes strategic sense. Was presented an active research case study conducted between 2014 and 2017, and reflections upon the role of governance in SEA and its relevancy in creating development contexts that can deal with change. The key lessons are as follows:

- The use of a ST SEA approach in an experience of active research case study, with its inclusive, creative and adaptive nature, enabled engaging governance in different SEA activities to understand the development context, to integrate different perspectives, to achieve a high level of consideration of environmental and sustainable issues in the planning process, and to overcome the lack of knowledge regarding specific governance issues as the internal functioning of the municipal council;
- The use of a 'governance-inclusive approach' allowed: a) SEA to function as a discussion arena, managing different expectations, and as an empowerment tool; b) different stakeholders to share their views and to influence the development of the strategy in a constructive way; c) the promotion of dialogues and creation of a sense of ownership, ultimately providing legitimacy to the final Plan; and d) to overcome uncertainty to some degree, on how the development context is prepared to deal with change, by identifying links between governance and planning actions;
- Governance is important in SEA first because any SEA is nested in a specific decision cultural context, where the particular way decisions are made

influence the capacity of SEA to achieve its objectives and add value to the decision, determining its effectiveness and success; second, the characteristics of the decision context is directly related with how SEA is approached and its scope. The actors, institutional settings, political strategies define how a process such as SEA is understood by policy-makers and decision-makers; third, SEA is in itself a public policy instrument that cannot be dissociated from the political arena and broad governance context since it influences and is influenced by the elements that compose that context; and fourth, the advocated need for a “tailor made” or “fit to purpose” SEA requires (and demands) an analysis of the governance context. Only with this analysis a SEA can be contextualised to where it is applied;

- The consideration of governance in SEA gains special meaning in the legitimisation of strategic decisions, based on the relationship between society and the decision-makers.

Chapter 8.

Enhancing SEA: a governance-based proposition

This Chapter is dedicated to theorising governance in SEA, specifically in the role that governance can have for enhancing SEA in development processes of sustainability. First, a synthesis of the main findings will be presented. It is also presented a governance-based proposition to SEA and the road taken to the development of this conceptual approach. The governance-based proposition will be subject to a discussion on what are the main benefits (and expect outcomes) and the main constraints (and challenges) of such an approach.

8.1 Summary of main findings

The investigation was driven by four research objectives: 1) to investigate how governance is being approached in both theory and practice of SEA; 2) to explore the existing relationship between practices of SEA and different governance contexts; 3) to understand why governance is important for SEA and the role it plays in the assessment; and 4) to create a conceptual approach to theorise and incorporate governance in SEA. This Thesis was design to approach the first three research objectives in order to have the necessary findings to work on the forth objective, which is the object of this Chapter. The findings are here illustrated based on four realisations made throughout the investigation that together help to approach the research objectives in an integrated way. Also, the main concepts are highlighted which, considering the empirical insights, are relevant for a proper development of the governance-based proposition. The way these concepts are conceptualised is presented in Chapter 8.3.

Pluralistic notions of Governance and Strategic and Sustainability Assessments

Governance can be framed as a mode for collective social coordination, emphasising the importance of relationships and pluralistic values. This pluralistic values that exist in a society are the main responsible for framing *sustainability* as a notion constructed under normative actions. Also, it is possible to say that this value-centred issue is ultimately a question of normativity.

Governance thinking is crucial in the way priorities are set and goals defined. It helps to understand how is possible to create capabilities, to support identities, preferences and resources, to build or maintain systems of meaning, and to understand the culture and history of a place. More pluralistic and deliberative governance approaches in contexts of development for sustainability can enhance the existing relationships across levels of decision-making (vertically and horizontally) and also create a collective attitude for active participation. Thus, governance is intrinsically related with the roles actors play in defining priorities and goals.

From a theoretical perspective, strategic and sustainability assessments are following similar evolutionary paths as the governance research, currently focusing on the

importance of processes of deliberation and open discussion, incorporating knowledge from different disciplines, domains and scales. Considering the pluralism associated with governance, meaningful strategic and sustainability assessments requires taking into consideration the views of many actors and their multiple realities in the search of shared understandings of expected values, problems and goals, as well as for a broad acceptance of the need for change.

Conceptual Model of Governance in SEA

Deliberative and 'good' governance perspectives have been the dominant approaches found in IA theoretical claims, considering the arguments of context-specificity of the assessment, the need for long-term orientations, the importance of engaging a broad range of knowledge, or the significance of transparent processes for accountable decisions. This claims are usually followed by rational postures in their explanations. Also, based on theoretical observations, it is possible to say that governance in SEA can be conceptualised through nine aspects: accountability, transparency, participation, uncertainty, complexity, power, knowledge, learning and effectiveness. But, it is also observable that the consideration of this aspects follows a silo effect without cross-integration, instead focusing on one or two at a time.

Considering the practitioners perspective on governance in SEA, governance is mainly perceived in two ways: with a more traditional and rational orientation, emphasising the need for democratic practices anchored in aspects of transparency, efficiency and accountability, or with a deliberative perspective focusing on issues that are society-oriented. The main governance aspects mentioned by practitioners are quite the same of those found in IA literature.

With this compatibility of both agents' perceptions and theoretical claims, a conceptual model of governance in SEA was developed around the nine governance aspects above mentioned (**Figure 9**). One of the most important premise of this conceptual model is cross-integration between aspects, by assuming that approaching the aspects in an integrated manner can have positive effects in: 1) add significant value in enhancing the role (and impact) of SEA in decision-making processes, 2) in promoting proactive attitudes that can lead to an improvement of *SEA capacity*, 3) in securing the change role of SEA in the path for sustainable *governance contexts*, and 4) in allowing to think SEA as a transformative instrument. This is considered to be the first attempt in approaching the fourth research objective, considered only an idealisation of what can be governance in the context of SEA.

SEA system of governance features: mechanisms and arrangements

The way SEA is perceived influences how SEA is approached, leading to a continuum of existing SEA Models: from EIA-based models to SA, impacts-based models to institutional-based ones, or from effects-based models to strategic-based. It is possible to say that the EU SEA Directive Model is considered to be a milestone in the evolution of SEA Models internationally, due to the flexible characteristic of the minimum requirements promoted, allowing to adapt the model in the continuum above mentioned. A relevant point is that, as seen in SEA theory, the 'good' governance perspective,

combined with elements of the deliberative one, is commonly found in the models analysed.

Through an analysis of the five SEA Models using the perspective of the conceptual model of **Figure 9**, it was possible to develop a SEA system of governance features that includes a range of mechanisms and arrangements associated to each governance aspect (**Figure 11**). This system can be said to be expressed by the dependency of the nine governance aspects to the degree and nature through which *multi-stakeholder* processes are carried out. There is a cross-cutting theme that pops out: multi-stakeholder engagement. This particular feature illustrates the relevancy of actors in a SEA process. Particularly, the role they play in such process and the role they play in a development process. In general, the SEA system of governance features is an image of 'ideal-types' of actors roles, shared in the domain of SEA (it follows a functionalistic perspective allied with the analysis of single roles). The system idealisation of actor's roles requires the understanding of what roles are related with the development of an SEA, lacking in asking to understand how those roles interact and possible benefits and/or constraints that might exist / come from that relation (meaning, to understand the 'role constellation').

Context and SEA capacity

As mentioned above, the EU SEA Directive Model is considered to be a milestone in the evolution of SEA internationally. Also in the development of SEA regulations around the world. But, the tendency to adopt a model considered 'adequate' regardless the contextual circumstances might be producing patterns of sensitivity in the attempt to institutionalise SEA, thus influencing the capacity of SEA to perform and achieve its intended purposes. This assumption lead the analysis of six different governance contexts and respective SEA regulations and formal arrangements that, to a certain degree, had been influenced by the EU SEA Directive Model. Understand governance contexts is strategic to improve the capacity of SEA.

It was possible to realise that current *institutionalisations* of SEA are facing constraints of a more normative and cognitive nature than of a structural one. The value of SEA is not equally internalised in SEA systems, possibly influencing SEA capacity to act. The main characteristics of a governance context (as power distribution, functional rationality, governmental stability, etc.) influences what are the installed capacities to perform SEA (tangible and intangible ones), affecting the level of SEA institutionalisation on dimensions such as flexibility, coordination, autonomy, participation and transparency. There is a direct link between the informal dynamics of a SEA system and the cultural, political and administrative specificities of a governance context, even though the formal procedural arrangements may not be contextualised to those specificities, resulting in an operationalisation gap. SEA is not 'context-free' but instead 'context-influenced' – the context in which SEA systems operates matters. Ultimately, SEA capacity is dependent of the level of adaptation of the SEA system to a specific governance environment.

The observed capacity gap between the conceptualisation and implementation of SEA, and influenced by the governance context of SEA implementation, can be associated with the following aspects: a) an implementation trap where the ability of SEA to perform is short; b) current SEA systems being locked into old traditions of IA; c)

intangible agency capacity elements influencing how SEA is perceived and carried out, no matter the formal SEA arrangements in place; or d) the institutionalised context for SEA being different from the practical context of SEA, possibly due to the detachment between agency and structural norms. The sensitivity patterns found (flexibility, coordination, autonomy, participation and transparency) are thus associated with a knowledge-to-action gap. The meaning of actors is again perceived to be highly influencing the way SEA is developed.

Role of governance in the application of SEA

Due to the way governance aspects are included as part of the structural arrangements of the ST SEA Model, I considered important to analyse the SEA practice that is in a context that promotes a strategic approach to SEA. In Portugal this Model is promoted in the SEA national guidance since 2007 (Partidário 2007, 2012). With Portugal transposing the EU SEA Directive and promoting a ST SEA, it felt the optimal environment to try to analyse the role of governance in the application of SEA (to learn from good experiences). For that, 60 Portuguese SEA reports were analysed. Also, throughout the Ph.D. research an action research case study was developed where I was actively engaged in the development of the SEA through the application of a ST SEA.

From the analysis of the Portuguese SEA reports it was possible to note that although governance is significantly considered in the assessments, it is not yet acknowledge as a relevant factor. There is a lack of understanding on the benefits in approaching governance as a factor that enables development processes, indicative of the possible little capacity of most SEA to strategically recognise the development proposal and what that proposal is about (a disconnection between the SEA objectives and the proposal objectives was observed in many cases). Also, it was perceived that the current practice of public participation follows a 'blueprint thinking', mostly caused by cultural perspectives and regulatory impositions.

Through the action research case study conducted with the SEA of Sintra's municipal plan it was possible to deduct that an understanding of governance contexts is strategic to improve the capacity of SEA to stimulate and legitimate decisions that integrate environmental issues and are sustainability driven, since governance shapes functioning patterns in development contexts. The adopted governance-inclusive approach, following a ST SEA, used governance as a factor of analysis in different SEA activities, enabling to overcome the lack of knowledge about the internal function of the context of SEA application, to integrate different perspectives, and to achieve a high level of consideration of sustainability issues. It was possible to determine that, to positively approach governance in SEA, it is essential the construction of trust between teams and the openness's and political willingness of the decision-makers to complement and shift between governance styles for a better proposal development. It also allows to engage in moments of critic and reflection that helped to adapt and adjust the strategy to reality, promoting the socialisation of the proposal. Even though only the case of Sintra's was explored, the findings lead to recognise that governance is important in SEA because: a) SEA is nested in specific cultural decision contexts that its functioning may influence SEA capacity and how SEA is approach; 2) how SEA is understood by the different

actors influences how SEA is carried out; 3) SEA is influenced and influences the elements that compose the governance contexts; and 4) 'tailor-made' and 'fit-to-purpose' SEA requires a broad understanding of the environment so thus requires an analysis of the context for proper contextualisation.

From both the results of the analysis of the Portuguese SEA reports as well from the case of Sintra's, governance can thus be seen as a dimension of analysis that should be strategically positioned in SEA to enable positive results. The theoretical evolution of governance in SEA discourses is probably nested in the increasing concerns with the adoption of strategic perspectives in SEA literature. It was acknowledge that, when discussing governance in SEA, adopting a strategic thinking attitude allows: a) the consideration of a wide range of perspectives and understandings in complex systems, positioning governance at the heart of the strategy itself; b) focusing on what is critical and what are root causes when addressing the policy and societal challenges; and 3) to have the capacity to choose and learn when dealing with intended strategies (goal-rational oriented), with deliberative strategies (contextual-oriented) and with emergent strategies (learning oriented) in contexts of high interaction. A governance-inclusive approach allowed for the SEA to function as a discussion arena and pursue active engagement moments and critical reflection boost opportunities for positive outcomes in the application of SEA. Also, SEA has been able to manage different expectations by acting as an empowerment tool and creating a sense of ownership towards the development proposal. Ultimately, the governance-inclusive approach can be said to help achieve legitimacy of the development proposal.

8.2 A proposal of governance conceptualisation in SEA

The set of findings obtained throughout this research enabled the development of a proposal of conceptualisation of governance in SEA. The first key assumption made here is that technical / rational perspectives in SEA may disregard the possibility of enhance-induced change that can occur in development processes of sustainability, thus limiting the SEA capacity: from limiting the scope to environmental issues, conducting SEA as an evaluation tool, not paying the necessary attention to contextual conditions of normative and value nature, to for example maintaining the assessment based on decisions solutions without considering strategic paths of development.

Particular substantive and procedural characteristics served as inspiration in the idealisation of the proposal. The SEA system of governance features of **Figure 11**, is a source of inspiration since it explicitly presents, in operational terms, how governance can be considered in SEA based on existing SEA models.

8.2.1 Limitations of information

Although the use of accepted qualitative methods in this research was noted, I recognise that the empirical information and findings may be affected by certain limitations. Some of the limitations of data collection were addressed by using different methods (questionnaires, case study, action research, document analysis), allowing

triangulation of sources information (from different places and people) and to some point increase the credibility and trustworthiness of the research.

First, the construction of the conceptual model of governance in SEA is done mainly with resource to the current theoretical debates in SEA, and of other environmental and sustainability instruments. The lack of empirical studies on SEA considering, and explicitly discussing, governance issues was a first constraint felt. This could have made me less sensitive to alternative conceptualizations of the phenomena under investigation (Maxwell, 2005). The subjective interpretation of data can then be seen as an important limitation of information.

Second, in the use of the exploratory questionnaires of Chapter 3 the respondents were largely from countries that were not selected for any empirical activity (mainly due to language issues) in the following research. The findings of the exploratory questionnaires, in the end, may or may not be consistent with other socio-cultural-political contexts (as advocated in previous chapters of this Thesis as being an imperative for any SEA and proper understandings of SEA application). Also, the sample size may not be large enough to detect string causal relationship or statistical deductions. The results of the exploratory questionnaire were analysed through interpretation and again, my interpretation of the respondent's answers may not represent a sufficiently accurate account of their socio-cultural-political contexts. This prompt me, to the best of my abilities considering the availability of information, to provide contextual information on cultural and governance conditions in the empirical analysis.

Third, the use of only one case (the SEA of Sintra's municipal plan) can pose issues of representativeness of the findings, and consequently of generalisation. But, as I mentioned in previous sections, any other case to be used would be different in their own socio-cultural-political context. The use of the case of Sintra allowed to understand the importance of the decision-making context, of the collection, consideration and incorporation of different perspectives and values in the assessment as well as a representation of how a context (in its political, social, environmental, cultural dimensions) may react to future changes. Also, it allowed to understand what can be the role that governance plays in an assessment. Since SEA is an instrument oriented to sustainability, it is important to analyse the governance context in order to understand how the strategy is to be implemented in a sustainable way, and what may be the needed governance conditions for strategic implementation.

8.2.2 Conceptual guiding notions

Throughout the research I make use of different concepts. Before starting to discuss and deepen on how governance can enhance SEA in development processes of sustainability, I present the concepts considered influential for the theorisation ahead (***Table 27***). It is important to indicate that I did not tried to capture the essence of each concept in an one all-encompassing working definition, but instead to build a guiding notion suitable to be used in the context of SEA, and strategic and sustainability assessments.

Table 27. *Guiding notions used in the theorisation exercise*

Concepts	Guiding notions
Governance	Governance is worked as a relational concepts that provides legitimacy to the exercise of power (with power seen as a transformative capacity, a resource all actors have). This notion is influenced by both Meuleman (2008) (where the author defines governance as "the totality of interactions … aimed at solving public challenges or creating public opportunities") and of Voß and Kemp (2006) (that see governance as "patterns or processes by which society handless its problems and shapes its own transformations"). In the context of SEA governance is worked as a dimension of analysis that should be strategically positioned in SEA to enable the achievement of desired development objectives.
SEA	SEA is worked as a political support instrument that adds value to strategic decisions by constructively consider sustainability, and follows Partidário (2007) view of SEA as an instrument that "establishes a strategic context for assessment that will enable understanding the problems and… to help shape a sustainable future". It can function as an instrument of change and transition when it sets to help construct a collective sustainability vision and driving strategies through strategic directions.
Sustainability	Sustainability in this context is treated as an adaptive and reflexive objective, and follows Loorbach (2007) definition as a "guiding notion that allows us to search for long term collective goals and ambitions" and of Voß and Kemp (2006) when position sustainability as a "way of structuring and handling problems". Setting sustainability goals constitute an ambition, since these goals can be ambiguous in nature and moving 'targets' that regularly need to be revised to consider changing values and opinions.
Governance contexts	By context it is adopted the definition of Hilding-Rydevik and Bjarnadóttir (2007) of "the set of facts or circumstances that have an impact on…" (SEA or any process of development). Governance contexts can be illustrated through specific values, traditions, relationships and dynamics, and in SEA to understand the governance context is strategic to improve the role and capacity of SEA to stimulate, and legitimate decisions that integrate environmental issues and are sustainability driven. Also, governance contexts can be said to be in continuous transformation when considering that they also foster spaces of deliberation and discussion, learning and experimentation.
SEA capacity	The concept of capacity in this research is placed on the functional rules and modes of operation of the SEA system and its contextual culture and governance styles (following Runhaar and Driessen (2007) and Runhaar (2009)). Specifically, SEA capacity is worked as the ability of an SEA system to create value (Partidário, 2000), being shaped by the dominant system of values so as to perform and achieve its intended purpose of putting broad sustainability values at the centre of decision-making
Institutionalisation	For institutionalisation, in the context of SEA, I follow the definition of Slunge and Tran (2014) as "a process of internalizing a new set of formal norms into an existing system of formal and informal norms so that the new norms become rules that are actually used in practice". Also, institutionalisation is considered to be dependent on the institutionalists' perspective adopted, and consequently also dependent on the conceptualisation of what is an institution. I decided not to provide a concise definition of institution (or follow a specific institutional approach)

	but only to frame institutions as the rules, procedures, norms, structures, practices and values (in both informal and formal perspectives).

The main argument that frames the development of a governance approach is that adopting a governance perspective in SEA can help to enhance SEA capacity in contributing to sustainability-oriented development processes. Based on the research findings, the support statements for this argument are:

a. SEA is an instrument that has a steering capacity;
b. Governance is currently perceived in SEA through a 'silo' effect of a number of governance aspects;
c. The role that actors play and their relational dynamics are crucial for a successful SEA;
d. The internalisation of the value of SEA is dependent of the established capacities (institutionalised ones) that exist in a governance context, capacities that are influenced by the governance context itself;
e. Governance contexts are themselves part of the dynamics that are being steered by SEA;
f. SEA is rooted in the dynamics of the governance context in which is applied since it works with multi-actor processes and multi-institutional realms;
g. There is a relationship of a bidirectional nature between governance and SEA;
h. A governance-inclusive approach can be said to help increase the legitimacy of a development proposal.

Considering that I am trying to identify how to enhance SEA using a governance perspective, I label the governance proposition "Matching though Governance" ('MtG') that means to align SEA application with the aimed SEA capacity and values (as seeking sustainability-oriented outcomes). A specific strategy was set to allow the construction of the 'MtG' proposition: first is presented the proposed conceptual approach, through the expression of the internal guiding notions into terms used (and obtained) throughout the empirical analysis and fundamental premises based on the research findings; a second conceptualisation step is performed through two different moments: the 'MtG' proposition is subject to an expert review to obtain the expert's opinions, recommendations ,and critics on the proposal and understand the its added value, followed by a revisit of the literature in light with the results of the expert opinion to a refinement. This process will allow to discuss the expect outcomes of the 'MtG' proposition, focusing on the possible benefits and constraints of such an approach for SEA.

8.2.3 Draft proposal on how SEA can be enhanced through governance

From both theoretical exploration as well as empirical explanation, I propose that to improve SEA capacity towards sustainability (to enhance SEA instrument) an SEA can be built upon governance attributes of legitimacy, reflexivity and contextually, uncertainty and complexity, strategic-thinking, power, and learning. It is considered that this set of

governance attributes is comprehensive and provides a broad vision in the attempt to foster ways by which governance can be conceptualised in SEA, regardless the contextual circumstances and landscapes.

The ensemble of key findings from the previous research steps were incorporated in the structure of the 'MtG'. In Chapter 3 a conceptual model of governance in SEA was presented, based in the theory of IA and in actors' perceptions of what constitutes governance in the field of IA. This conceptual model (**Figure 9**) was a first recognition of current discourses of SEA through the lens of governance and was presented around nine governance aspects. As seen, the theory of IA normally follows deliberative and 'good' governance perspectives, even though through a rational posture. With the analysis of SEA regulations and the attempt to understand the sensitiveness to governance context conditions, of several SEA reports, and of a SEA case application, other aspects were seen as influencers of SEA capacity as values, traditions, interests, autonomy, flexibility, etc. Some may say that those elements and notions are intrinsically related with the nine governance aspects of **Figure 9**. And I agree. The issue is that, as said, the 'good' governance perspective is highly considered in SEA (and many of the identified issues are related with this perspective) but is one of the most prescriptive and normative forms of governance with a strong market-orientation. Even though acknowledging the importance of this concept as used by multi-international organisations in developing countries (as the case of the World Bank and OECD), I personally highlight some issues of it: it lacks parsimony in terms of the existing definitions and of the criteria used, and it lacks coherence in aspects as promoting social inequalities and enhanced public services, at the same time as it asks for effective market regulation for economic growth.

In order to keep focus, promote integration and alignment between issues, to pull away from rational idealisations of governance in SEA, and maximise the possible value of the 'MtG', are therefore proposed six governance attributes. The process to reach six attributes was based fundamentally in a mapping process where I selected the main ideas, terms, notions obtained through the empirical analysis, proceeded in determining causality relationships between them, and finally unfold a single term (the 'attribute') to characterise that relationship.

A visual representation of the result of this cognitive process is presented in **Figure 19**.

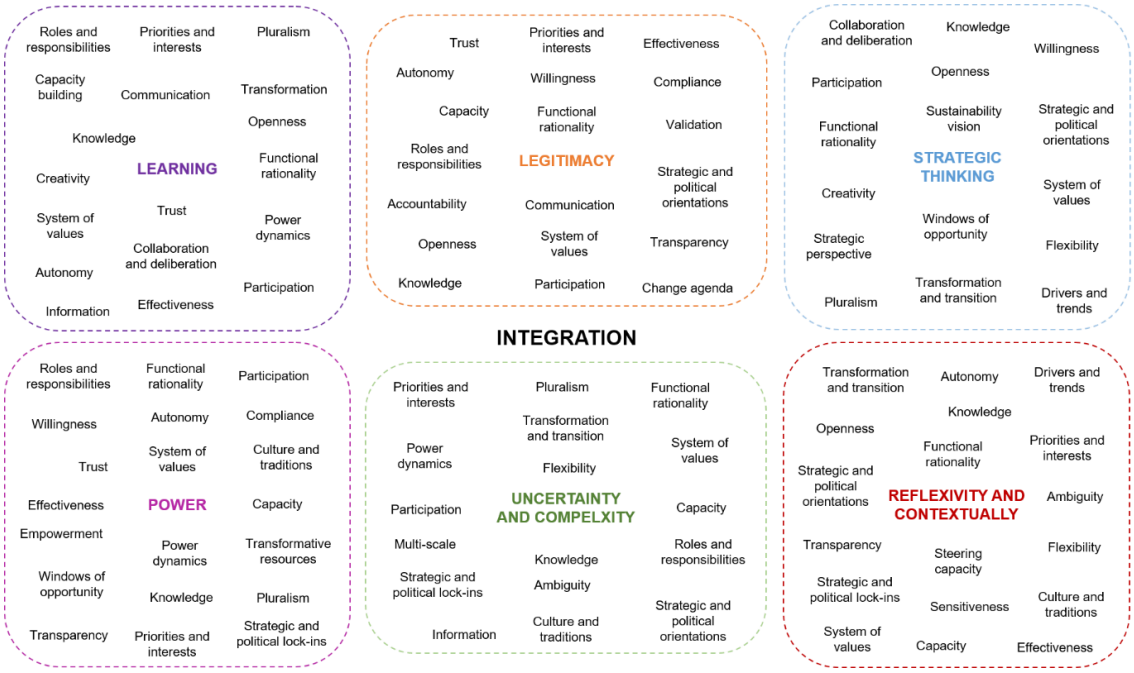

Figure 19. *Cognitive visualisation of the creation process of the 'MtG' approach*

Going back to the literature of SEA to see how each of these attributes are seen and idealised, it was possible to collect some claims and support arguments - **Table 28**.

Table 28. *Governance Attributes - Support arguments found in literature*

Attributes	*Support arguments*
Legitimacy	*SEA contributes to the inclusiveness of the collaborative dialogue, and thus to the realization of support and legitimacy by achieving consensus and frame-reflection (participatory approach)* (Van Buuren & Nooteboom 2010) *EA as playing an important governance role, by producing legitimate forms of knowledge that are intended to support the making of decisions* (Richardson and Cashmore 2011) *Greater legitimacy may be achieved in the long term by building shared knowledge through the enhanced use of IA processes and techniques to support positive planning and ultimately more sustainable outcomes* (Partidário and Sheate 2013: 35) *A legitimate EA process as one which all stakeholders agree is fair and which delivers an acceptable outcome for all parties* (Bond et al. 2016: 188)
Strategic thinking	*In strategic thinking SEA is conceptualized with respect to its capacity to influence decisional contexts and the formulation of strategic initiatives, adjusting to the flow and dynamics of strategic decision-making* (Partidário 2015a) *Strategic interpretations of SEA that proactively assist the shaping and the design of strategies, including the governance conditions that set policy contexts are needed* (Partidário 2015a) *SEA should focus on identifying and addressing the underlying strategic intentions of the contexts to which it is applied* (Azcárate 2015) *Realizing the full potential of SEA requires a much more strategic approach than what is currently evident in practice—an approach focused on assessing*

	the complex institutional arena and governance conditions of decision processes that either enable or constrain successful PPPs, while identifying and even creating windows of opportunity to influence PPP directions (Noble and Nwanekezie 2017: 171)
Reflexivity and Contextually	*Practitioners should build critique into their work. Critical understanding (…) can maintain a perspective which is more aware of the clash (or subtle shaping) of ideas and practices than an approach which expects procedural models and norms to absolve the individual practitioner from responsibility* (Richardson 2005: 362) *SEA framework can serve as a tool of reflexive environmental governance, capable of contributing to an agenda derived from the precepts of environmental justice* (Jackson and Illsley 2007: 618) *Environmental assessment as a reflexive arrangement allows for an extraordinary mediation from the lifeworld to the system, of socially mediated reflexivity to institutional reflexivity* (Elling 2008) *The purpose (why) and approach (how) to SEA are linked to interrelated contextual dimensions: politics, culture, society, values, institutions and organizations* (Bina et al. 2011: 574) *Understanding the governance environment and using principles from governance theory such as reflexivity and contextually (…) can help improving the governance of IA* (Meuleman 2015)
Uncertainty and Complexity	*The number of actors involved, each having different interests and often a tradition of conflict, creates a complex policy arena* (Nooteboom and Teisman 2003: 296) *Complexity theory not only assists in drawing out the implications of a systemic view of the environment, but provides a lens through which the inherently uncertain nature of our knowledge of such systems can be undoubtedly recognized and acknowledged* (Audouin and Wet 2012: 268) *Communicating uncertainty is tricky (…) since the future is inherently uncertain, all exercises about the future are facing, and should cope, with great uncertainty* (Larsen et al. 2013) *EAs need to better reflect the complexity of environmental processes, the incompleteness of knowledge and the uncertainty of making predictions about the future* (Less et al. 2016: 17) *By (…) understanding and addressing the complexity of strategic processes, SEA will be able to demonstrate the competing advantage of taking into account big-picture environmental issues to enable sustainable decision-making* (Partidário 2015a: 6) *In the decision context in which SEA tends to take place, certainty is a concept that rarely correlates with real world decision contexts* (Cashmore and Partidário 2016)
Power	*Much depends on the extent to which decision-makers are open to other values and willing to share decision-making power* (Runhaar and Driessen 2007: 6) *Power dynamics may significantly influence how EA is understood and its effectiveness interpreted* (Cashmore et al. 2010) *In interpreting power as facilitative and actors as resourceful agents, it may be possible to better theorise the circumstances in which the effectiveness of EA tools at influencing decision-making can be substantially enhanced* (Hansen et al. 2013: 45) *Power -and power sharing -in IA is critical for effective and efficient environmental decision making in a transition to sustainability* (Partidário and Sheate 2013)

Learning	*Informal, experimental learning from … EA is a powerful force that can shape a person's values, understanding, attitudes and behaviours* (Sinclair et al. 2008) *By adopting a blend of various techniques depending on the predominant learning inclinations of a group, the SEA process may more successfully engage interest and foster learning for a wider group of people* (Jha-Thakur et al. 2009: 142) *Undertaking EA and SEA processes has the potential to facilitate participant learning that fosters individual and social action on sustainability* (Walker et al. 2014: 7) *IA could foster transformative, sustainability-oriented learning* (Sánchez and Mitchell 2017)

The 'MtG' is proposed to help SEA orient development proposals to sustainable outcomes. In its nature it recognises different values and perceptions, follows an integrated mind-set and is strongly characterised by a conscience of ambiguity towards what constitutes a successful SEA in different contexts of application. Thus, it is assumed that is suitable to be used in different contexts, with each attribute being sensitive to the context specificities. The intention to focus on an enhanced-induced SEA process is given by the premise that SEA can be enriched by provoking self-reflection towards sustainable outcomes. This is possible also by giving the framework a reflexive temper (SEA prompting the governance context itself to be part of the dynamics that are being steered). Furthermore, the proposition is constructed to be applied proactively in order to be able to transform values and ideas to meet sustainability principles at a given place and time.

For each of the attributes a brief explanation is presented and conceptual premises are suggested. The extent each premise can be positively approached indicates the extent of SEA in advancing sustainability (a measure of enhancement). It is important to refer that it is not here advocate that all the governance attributes must be equally considered within the scope of SEA. Each context and each SEA case is unique, so the way each attribute is addressed is directly related with the development proposal. Also, since an integrative perspective is put into the 'MtG', it is considered that addressing one attribute is implicitly addressing another. The basis is not to use the 'MtG' as a check list but instead as an orientation guide to help to go through a governance-oriented SEA. The conceptual orientation is summarised in Table 29. A complete presentation of this first attempt to conceptualise governance in SEA is given in **Appendix B.** It includes also theoretical reflections and a first identification of possible outcomes and challenges with the application of the 'MtG'.

Table 29. *'MtG' Proposal - Conceptual Orientations and Guidelines*

Attributes	*Conceptual orientation*	*Guiding notions*
Legitimacy	*SEA is an instrument of legitimation since promotes it legitimates development processes of sustainability by validating strategic solutions throughout the process. Legitimacy presupposes knowledge-share, transparency and accountability.*	Understand the objective of the strategy (*what* is being assessed and *why*). Ensure the representation and inclusiveness of the players. Involves understanding *who* are the players and focus on the quality of the engagement (*how*). Understand and analyse the space between the performance-oriented legitimacy (output) and the inclusive-oriented legitimacy (input). Follow an 'appropriate' orientation instead of a consequentialist logic of performance.
Strategic thinking	*The SEA requires a collective sustainability vision or intention to follow and to align the sustainability goals in a holistic and integrated manner. Thinking strategically implies to recognise the range of perspectives and attitudes towards sustainability processes of developments.*	Collective construction of a sustainability vision through a systems perspective. Support creativity in the construction and development of potential courses of action. Recognize that development processes are organized around different values and perceptions that may influence the outcomes of each course of action. Express uncertainties and gaps in knowledge with a positive posture, using both as forward-looking issues that requires intuition and innovation. Continuous shape and re-shape of the strategy being assessed through constant analysis of situational patterns.
Reflexivity and Contextually	*SEA can work as an instrument that orients sustainability processes of development with a sense of self-critic and self-reflection, in a context-oriented way. This orientation feature can only succeed if it is acknowledge that the governance environment itself is being confronted with new inputs that call into question current practices.*	Understand the governance environment (dominant trends) in order to understand why decisions are made as they are (dominant drivers). Deliberative arenas as a mean for continuous dialogue of re-evaluation of both assessment and development processes. Recognise and deal with lock-ins in a positive manner. Adopt attitudes of creativity and forecast in engagement activities, encouraging players to shift from thinking 'the past' to thinking 'the future'. Conceptualise monitoring as a contextual learning activity and a space of experimentation.
Uncertainty and Complexity	*SEA must acknowledge the inseparable relation between content (what) and process (how). A 'logic of appropriateness' mentality is a requirement to understand the how, as it is to understand the complexity and uncertainty to approach the what. The interconnection between both allows to integrate sustainability visions in strategic development processes in an interactive and incremental manner.*	Recognise development processes with intended and unintended consequences that need to be dealt at the same time. See complexity as a leverage for steering instead of an obstacle. Acknowledge substantive (about information), strategic (about payers personal views), and institutional (about players institutional backgrounds) uncertainties. Approach learning as a necessary precondition to change. Guide and direct development to a desirable future with the necessary flexibility to cope with change and create capacity.

Power	*To be successful, SEA needs to consider power as a transformative capacity (instead a controlling one) and to acknowledge power as present is 'assessment for sustainability' processes. An empowerment posture can help to make players believe that they can (and want) to active participate in constructing the desirable future.*	Conceptualise power as a quality of the system present in all relations. See power dynamics as influential of adaptation and transition. Recognise that power can limit strategic thinking. Adopt a posture of power sharing and empowerment to reduce possible conflicts and potentiate constructive learning processes. Promote dynamic cooperation between holders of passive and holders of active power.
Learning	*Sustainability processes of transition requires SEA to perceive learning as an active, collaborative and continuous process. Deliberative learning needs to be approached as transversal to all SEA elements.*	Approach learning in a proactive and reflexive manner. Acknowledge that learning is an intrinsic attribute of all the others governance attributes. Create compelling spaces of engagement. Foster open-minded players. Promote willingness to participate and to recognise the need to change values in face of sustainability dilemmas. Encourage the following thinking mode: "think inside the box", "think outside the box", and "think about the box".

Generally, it is assumed that the use of such a conceptualisation will prompt a (re)consideration on the very notion of SEA and the 'role' that a dimension such as governance can have in the assessment. Also, it is considered that the use of a governance perspective in SEA may help to annul anchoring attitudes of 'just do something' by promoting strategic postures towards SEA. Ultimately, it is considered that it can serve to position SEA as a legitimation instrument by enhancing SEA capacity to add value to strategic decisions.

But, I also acknowledge that the 'MtG' is supported by complex issues, and that its conceptual/abstract level may decrease its degree of acceptance, understanding and use. As seen the attributes are connected and think of one implies thinking on another even though in an implicit way. Power can be an obstacle to adopt a strategic thinking attitude; transformative learning processes can be seen as a contradiction in situations that uncertainty rules; or even reflexivity can contradict perspectives of a rational legitimation of sustainable solutions. This interdependency between attributes may be difficult to operationalise, even by assuming that the degree that each attribute is approached is dependent on the context of SEA application. Finally, the attitude of 'react to' or 'just do something' is contradicting with the nature of the 'MtG' and may lead to an unsuccessful use of the approach as well as unsuccessful achievements of enhancing SEA.

8.2.4 Review of the draft proposal

Expert Opinion

This section presents and discusses the results of the expert opinion conducted to analyse the conceptual test of the 'MtG'. The expert review had as objective to understand the validity, relevance and potential of the proposed approach based on experts' views and critics. The conceptualisation of the 'MtG' as sent for review is presented in **Appendix E.** and respective questionnaire is in **Appendix F.**

The questionnaire was applied with resource of two tools: an online survey software (*qualtrics*) through an access link and a *Word* template of the questionnaire, to allow the experts to choose the tool they felt more comfortable with – directly respond via online software or reply to my contact via e-mail.

The experts were selected through the following criteria:

1. Recognised expertise in the area of strategic and sustainability assessments (as SEA and SA) demonstrated by scientific publication;
2. Recognised expertise in approaching specific governance principles in strategic and sustainability assessments scientific publications;
3. Experts with which I had previous contacts in International Conferences and discussed the main assumptions of my Thesis objective.

A total of 25 experts were selected and then contacted via e-mail on November 22nd 2016 with an invitation to participate in this review explicitly mentioning that their revision would only be used for scholarly purposes, in this way promoting confidentiality. The questionnaire was designed to be open until December 15th 2016. Seven complete

responses were received, plus two reflections with comments and suggestions via e-mail without filling up the questionnaire *Word* template. This two opinions are also considered due to the relevancy of the issues raised and because the general questions on the appropriateness, relevancy and suitability of the 'MtG' included in the questionnaire were approached by the experts. A summary of the expert opinion results is presented in **Appendix G.**

The relevancy of the 'MtG' is considered to be demonstrated, but tangible reservations were raised and recommendations for improvement given. One meaningful issue was pointed as both a weaknesses and a suggestion for development: the fact that 'MtG' is very theoretical and lacks on proposing action-oriented guidelines for application. This particular point is considered critical since the majority of the experts provided this same feedback, having here a high degree of commonality. One of the experts said that "the language and terminology" is far too difficult to understand to due to the complexity of the issues at hand. For Murphy (1988) a complex concept normally comprehends more than one dimension or even more than one concept. Governance is a complex concept and it is here conceptualised through a number of dimensions (the attributes) that are also complex in nature. This complexity may be related with internal representations of such concepts and to "diverse descriptability: users will describe the concept in different ways" (Gao et al. 2017: 642). So, I may say that the issues being worked have implicit normative values. This advances the need to revise the 'MtG' and adjust in ways that it could be workable and of practical use in order to increase the level of understanding, value, and substantive use. The concepts are thus revised based on the experts' comments and the revised conceptualisation is presented in Chapter 8.3.

As Bond et al. (2012: 55) invokes "what constitutes sustainability in the context of an individual sustainability assessment needs to be determined on a case-by-case basis as the context differs and, for example, the definition of sustainability is contested and subject to value judgements". The comments made by one expert are directly related with this quote: (1) "what characteristics should be present if a vision is to qualify as 'sustainability-based'" and (2) "sustainability objectives must be suited to (and largely arise from) the context". The 'MtG' conceptualisation is absent on guidance or proposals on this, solely implying the importance to undergo with a collective construction of a sustainability vision. This could pass by the incorporation of the Sustainable Development Goals (SDGs) in the strategy of the proposal, by considering what Gibson (2018: 12) proposes of "avoid any attempt to define sustainability (…) A key difficulty has been that sustainability is not an end point (…) We are consequently better advice to (…) treat sustainability mostly as a process, and focus on requirements for moving in the necessary direction". Also relevant can be the explicit recognition and incorporation of pluralism in SEA and the importance of values and expectations (Cape et al. 2018) in processes towards sustainability.

Regarding the adequacy of the attributes, they were all accepted but at least three need further consideration: Reflexivity and Contextually, Uncertainty and Complexity, and Power. Also it was pointed out by one expert that the language used to introduce each attribute is "very, very theoretical" asking for the demonstration of each attribute practicality. Besides the six governance attributes, two topics were proposed for consideration: communication and sense-making. Both were proposed by one expert

that referred that “You cannot of course include everything in the MtG framework, and you might have selected the most appropriate. It might, however, be relevant to include the issue of how people communicate and make sense of the issues considered in SEA”.

The evaluation of the initial ‘MtG’ proposal determined the need for further analysis and review of the proposal, as it is presented ahead in Chapter 8.3. First each governance attribute need clarification and justification; second the results directly related with the attributes that require rethink are the ones with more diffuse acceptability. The review of the expected results must be linked with the operationalisation of each attribute and with an analysis of synergies between practical variables.

In order to improve (and enhance) the suitability of the ‘MtG’ to current practices of SEA, a number of comments and suggestions were provided by the experts. I turned them into questions that need to be reflected to advance in the ‘reformulation’ and ‘refinement’ of the ‘MtG’. They are:

- Who will use the ‘MtG’ – practitioners, decision-makers – and for what purpose?
- Who is expected to be engaged?
- How is expected for the ‘MtG’ to work in practice?
- What characteristics should be present if a vision is to qualify as ‘sustainability-based’ and ‘context-specific’?
- How to put people willing to participate?
- What is the relevancy of communication?
- How to secure the necessary competences and capacities?
- How to assure the quality of the process?
- Can SEA be used as an incentive for participation?
- What contextual characteristics are relevant to be known?

In conclusion, three actions were undertaken:

1. Revit theory to review and amend the ‘MtG’ in order to handle some shortcomings of explanation that were highlighted and also to simplify the language;
2. Express the ‘MtG’ in a practical and substantive way;
3. Demonstrate how the ‘MtG’ could be used to identify its real potential and limitations.

Revisit Theory

The analysis of the literature of governance, of the literature of IA, of existing SEA Models, of how SEA systems react to a specific context, and of cases of SEA, all expressed (and I think demonstrated) the importance of the role of actors. Again this relevancy was revealed with the expert opinion. Interesting work is being made on the role of actors in the field of sustainability transitions that could be relevant for the matter of the ‘MtG’ (Weaver and Jordan 2008; Grin et al. 2011; Farla et al. 2012; Avelino and Wittmayer 2016; Wittmayer et al. 2017). In general, an ‘actor’ can be seen as a “social entity, that is, a person or organisation, or a collective of persons and organistion, which is able to act” (Avelino and Wittmayer 2016: 634). Each actor (or group of actors) can

assume a role (or roles) in a development process – frontrunners, change agents, prime movers, policy entrepreneur, institutional entrepreneur, decision-makers, practitioners, citizens, etc. (e.g. Farla et al. 2012; Wittmayer et al. 2017). Wittmayer et al. (2017), drawing from sociological theories, discussed the role of different actors from the perspectives of roles as recognisable activities, roles as resources, and roles as boundary objects. The first provides valuable observations regarding the usefulness of analysing roles at two levels: single and constellation: "While the analysis of the single role provides insights into its substance, a focus on the role constellation highlights the relations between different roles" (Wittmayer et al. 2017: 50). From the perspective of roles as resources, roles can be considered as cultural objects used for achieve desirable ends, and "rather than playing roles or making roles, individuals are considered to use roles to construct the self and as a resource for gaining access to cultural, social and material resources" (Wittmayer et al. 2017: 50). Considering roles as boundary objects, they are used as powerful means of interaction for meaning mediation and negotiation, with emphasis that roles are "temporary stabilisations for the sake of analysis or for guiding our action at a specific place and point in time" (Wittmayer et al. 2017: 50).

Closely linked with the agency level above introduced, are the actors values and expectations. Should SEA pay more attention to values and expectations and how these can influence development processes? Cape et al. (2018) approached this subject from the perspective of stakeholders' expectations on the goals and value of SEA, and identified eight stakeholders' value expectations in relation to SEA:

1. To address specific limitations of project level EIA;
2. To acknowledge the fractured nature of decision-making;
3. To introduce sustainability in decision-making;
4. To provide a platform for wider, including public, debate, consultation and participation at strategic levels of decision-making;
5. To introduce a transparent, quality controlled decision support process led and managed by qualified experts, thus supporting accountability;
6. To influence the contents of PPPs through proactive procedural approach;
7. To facilitate learning by individuals, institutions and wider society that lead to changes in PPPs and in established routines and thinking;
8. To provide sufficient, reliable, and usable information in a cost and time efficient manner.

It is considered that all the above values are, to some conceptual degree, approached in the 'MtG'. And what about actor's values, interests and expectations on the development process itself? This latest issue is of a high complex nature and it is considered that the 'MtG' is very sensitive to it. But, I consider that a full analysis and understanding on this requires further investigation (see Chapter 9.4), even though actor's values and expectations are foreseeable in the practical rationale of the 'MtG'. Expectation, according with the Oxford Dictionary, is "a belief that something will happen because it is likely", being a state of looking forward. Borup et al. (2006: 286) describes expectations as "real time representations of future (…) situations and capabilities" being the basis for cooperation and coordination towards shared goals; are closely linked with

visions of the future (Bakker et al. 2012) and thus also with scenarios of uncertainty and strategy making (Hogeland 2015). So, expectations can be used to guide actor's decisions (serving as future orientation), served to provide legitimacy to decisions, define roles, mobilise resources, etc. (Borup et al. 2006), and in a process of development that is influenced by the dynamics of what each actor sees and believes for the future, a change in actor's expectations may lead to challenges in strategy making. IA instruments can be sad to work normally from a rationalistic perspective of expectations: actor's expectations and actor's fundamental values are distinct, so when something is not working as it is projected is because fundamental values are side-lined and actors are working only based on their personal expectations. This logic was introduced in Chapter 5 when discussing the institutionalisation of SEA and that rational attitudes towards it assumed each individual with fixed preferences leading to a small space of justification of why change occurs. A more normative and constructive perspective of expectations recognises interactions and dynamics among actor's, that might influence their values and consequent images of the desired future, emphasising the explicit relationship between actor's expectations and actor's fundamental values.

For long it is recognised the relevancy of uncertainty in IA (Hellström and Jacob 1996). Handling uncertainty issues is argued to be important in governance because it plays a major role in dealing with the complexity of the system, anticipating possible knowledge gaps (Meadowcroft 2007). According to Koppenjan and Klijn (2004), in a society characterized by interactions while dealing with complex problems, there are three types of uncertainty: 1) substantive uncertainty when we are talking about the availability of information and its interpretation; 2) strategic uncertainty when we are dealing with strategic choices that are dependent of actor's perceptions; and 3) institutional uncertainty when we are in face of different institutional backgrounds and interactions. Strategic uncertainties are associated with the strategic behaviours of actors, characterized by unpredictability, and with the nature of "the policy game itself" (Koppenjan and Klijn 2004, 51). IA are embedded in complex decision-making processes that do not follow straights paths of development, but instead are subject to change when the surrounding world is in constant transition. For institutional uncertainties, discussions are almost absent. Although recognized the fact that several institutional backgrounds are present in decision process and that the actors' institutional roles are important to be recognized, few explicitly acknowledge the fact that different norms and values, translated into different roles, can be important in handling uncertainty since there's an incognita on how processes will be handled and how institutional interactions will progress (Partidário 2012; Noble and Nwanekezie 2017). Despite it, one thing is agreed in the literature: uncertainty in IA in poorly considered in the assessment process and the disclosure of information on uncertainty is not the most appropriate one (Leung et al., 2015; Lees et al. 2016). For example, Pavlyuk et al. (2017) calls for the development of basic principles for uncertainty disclosure and for those be integrated in EA regulatory arrangements.

Duncan (2013) argues that solely rely in the disclosure of information in IA as a way to deal with uncertainty increases the risk of adopting a reductionism perspective in the assessments and does not allow to focus and explore social-interactive aspects of uncertainty. For the author, to deal with uncertainty presumes collaborative knowledge-

making and a continuous negotiation of assumptions and parameters for development. This implies to open up IA institutional spaces (through reframe or creation) to deliberation and negotiation for knowledge-share and learning (Duncan 2013; Partidário and Sheate 2013), positioning this way the perspective of 'grapple' with uncertainty as an element for the legitimacy and credibility of the assessment outcomes.

This revisit of theory helped to review the governance proposition in terms of the roles actors can play in SEA, how to consider actors expectations and values, and how to make use of uncertainty issues in a practical way in relation to knowledge-making, learning potential and legitimacy of both SEA and development processes.

8.3 A governance-based proposition to SEA – 'Matching through Governance'

A first attempt to conceptualise governance in SEA was made in Chapter 3, integrating theoretical assumptions and actors perceptions (**Figure 9**). Incorporating empirical observations made it is possible to further explore the relationship of both concepts, leading to a theoretical construct of the 'MtG' (Chapter 8.2.3), then subject to expert opinion to explore its strengths and its weaknesses (Chapter 8.2.4). Based on the comments and suggestions made by the experts, another round of theoretical exploration was developed to provide robustness and further reconsideration of the practicality of the 'MtG' (Chapter 8.2.4). The discussion of the 'MtG' is now synthetized with the formulation of conceptual orientations on how to adopt a governance perspective in SEA, which is visually expressed by **Figure 20.** The conceptual orientation will be subsequently presented through guidelines and recommended guiding questions to support the application of an 'MtG' approach.

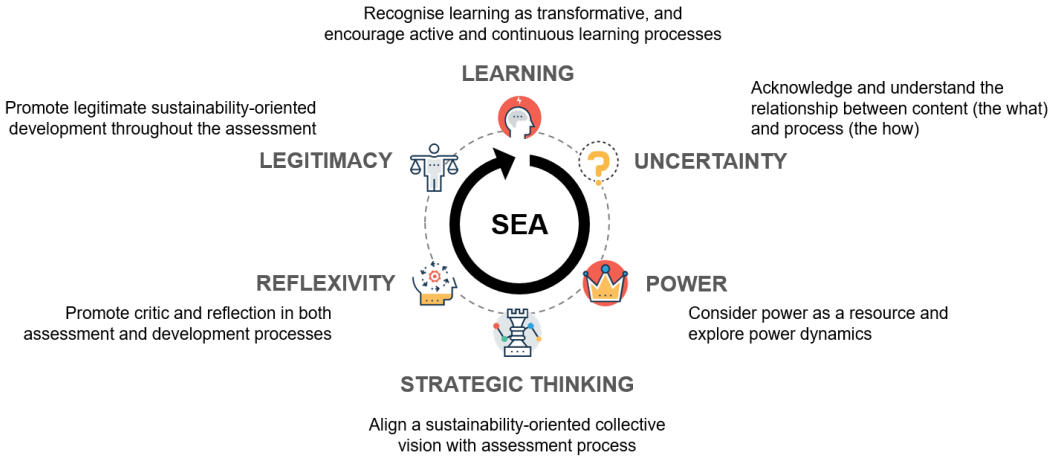

Figure 20. *A conceptualisation of governance in SEA –'MtG' orientations*

The importance of adopting a governance perspective in SEA is considered to be demonstrated by the preceding Chapters and empirical explanations. It is assumed that ***adopting a governance lens in SEA, grounded in a collective sustainability-***

oriented vision, can help to enhance the application of SEA towards sustainability, eventually positioning SEA as an instrument of signification (interpret and give meaning to actions) and legitimation (give value to actions to validate decisions). A main premise of the 'MtG' is that each of the governance attribute can be best operationalised in a context-oriented way.

The 'MtG' was built under explanations of SEA, but it is considered to be suitable for all environmental and sustainability assessments. Possible differences in the use of the 'MtG' relies upon governance conditions in specific contexts that are influential for 'MtG' integration, as the integration of the several political domains, integration of different institutional norms and values, integration of actors and different stakeholders, integration of knowledge, or even integration of self-reflection learning (Eggenberger and Partidário 2000; Scrase and Sheate 2002; Weaver and Rotmans 2006).

Key arguments:

The 'MtG' comprehends six governance-related attributes: *uncertainty*, *strategic thinking*, *reflexivity*, *power*, l*egitimacy* and *learning*. It is focused in achieving sustainability-oriented strategies, success-induced transitions to sustainability, trigger transformative learning and ultimately legitimise the development process at the eyes of society.

Sustainability-oriented processes of development are complex as they address multi-disciplinary, multi-scale and multi-value challenges where is important to recognise that it is not possible to fully understand everything it is observed. Such processes are characterised by a high sense of *uncertainty*. Handle uncertainty issues can be a way of anticipating possible knowledge gaps, and future opportunities, benefits, vulnerabilities, and risks. Focusing on short-term issues without addressing consequences in long-term may lead to 'asymmetrical' uncertainty that is locked in immediate solutions. Uncertainty issues can be related with the amount (and quality) of the available information (and also as it is interpreted), with actors backgrounds and values, motivations and expectations, as well as with institutional backgrounds. This can be translated in substantive uncertainty (about information and knowledge), strategic uncertainty (about actor's personal background) and institutional uncertainty (about actor's institutional background). Also, to guide and direct strategic processes of development with the necessary degree of flexibility to cope with uncertainty, requires innovative thinking and change (positive and appropriate regarding the contextual circumstances).

When working in strategic levels of development, adopt a *strategic thinking* attitude can help to deal with complexity issues and adopt an integrated (and systemic) perspective. According to Mintzberg (1994), any strategic change requires creativity and a collective construction of a vision (where do we want to go as a society?). Open the minds of relevant actors to the reality that any strategic development can have intended and unintended/emergent paths (instead of anchoring attitudes and acting modes in predictable and reliable solutions) can help to construct (or at least support) desirable futures. This requires knowledge that must be seen as a strategic resource. Strategic thinking in SEA implies addressing SEA differently from what has been traditional theory and practice. From early days Partidario (1996: 3) argued that 'SEA must address the strategic component in any of the decision instruments incorporated in its scope', and

that SEA should seek to add value to decision-making as a strategic move to integrate environmental and sustainability issues in development processes. Strategic thinking, as an orientation norm, can help give meaning to complex environments as the ones SEA apply to. It allows to use forward-looking thinking when addressing the consequences of decisions, with the purpose of helping to ensure adaptation to new challenges arising from changes in an uncertain and complex environment. We argue that strategic thinking in SEA can enable a better understanding of governance contexts to drive 'transitions in governance and decision making processes' (Noble & Nwanekezie. 2017: 171). Three reasons may help to understand the relevance of strategic thinking when discussing governance in SEA: 1) it allows the consideration of a wide range of perspectives and understandings in complex systems, positioning governance at the heart of the strategy itself; 2) it enables focusing on what is critical and what are root causes when addressing the policy and societal challenges; and 3) it provides the capacity to choose and learn when dealing with intended strategies (goal-rational oriented), with deliberative strategies (contextual-oriented) and with emergent strategies (learning oriented) in contexts of high interaction. One possible way of approaching strategic thinking is: understanding 'inside the box', while focusing on 'thinking outside the box', knowing which box to think of ('think about the box').

Any SEA (as any process of development) takes place in contextually defined governance environments. Both processes are influenced by power dynamics, by the quantity and quality of the available information and knowledge, by established institutional mechanisms and arrangements, by ambivalent policy goals (etc.) all framed by high levels of uncertainty and ambiguity (as expectations and capacities). To adopt a *reflexive* attitude that helps to guide shared constructions of problems and to focus on strategic opportunities can open up the possibility for reflections and critics about how the development process adapted to the SEA process and vice-versa, on the main problems and potentialities that express priorities of development in a sustainability context, or on how the governance environment itself can undergo changes in face of new knowledge and dynamics. Working with reflexivity should also mean constructing and developing an assessment process that provokes self-reflection and self-critic oriented to sustainable outcomes. It is essential to assume that contexts are in constant evolution, so a constant adaptation to new circumstances implies to 'learn about how to learn', by providing to the actor's a chance to recognise failures, blocks, benefits and successes.

Also important is to recognise that development processes are processes of interests and influences. The multi-actor feature of such processes calls for the attention of *power* dynamics, as how power is distributed, how power is exercised or even the role power has in the construction and development of sustainability-oriented visions. Moreover, positioning an SEA process at strategic levels of decision is thus acknowledging the presence of multiple actors with different institutional background, different expectations, motivations, priorities, norms and values. Due to the importance of actor's in both of this processes, how they act and react against a SEA (and the strategy-making) gains special meaning since it asks to recognise and analyse the existing and needed capacities. The presence of power in strategic processes of development imposes structural and institutional constraints in specific actions as it explicitly appoint winners and losers

(empowers and disempowers actor's with institutional arrangements and cultural positions). Power is usually perceived as a threat, limiting the success of any environmental and sustainability process. In contexts of development that are sustainability-oriented power can be perceived as a transformative capacity (following Giddens 1984) that can enhance strategic outcomes in sustainability terms. Moreover, implies that each individual or collective actors are able to participate and transform themselves in a conscious way and with a sense of direction.

It is important to understand the object of assessment (what is being assessed and why). Development processes, as sustainability-oriented ones) cab presuppose the creation of legitimacy. For Schuman (2005: 574) *legitimacy* is a "a generalised perception or assumption that the actions of an entity are desirable, proper or appropriate within some socially constructed systems of norms, values, beliefs and definitions". Thus, legitimacy can be comprehended as a state of appropriateness, where thinking of legitimacy is not only to think as an output attribute but also throughout the entire development (and SEA) process in a way that all actors can related with the proposal and are internalising what is being institutionalised. This 'sense of appropriateness' (following Berger and Luckmann 1966) can be translated into three types of legitimacy: 1) input legitimacy (focusing on the range and composition of actors involved in the process – the players); 2) throughput legitimacy (if the process follows characteristics of inclusiveness, fairness, responsiveness, accountability and transparency – as the justification of the governance context based on the quality of procedures); and 3) output legitimacy (focusing of the strategic or policy solution through the success of the new or improved governance mechanisms). Legitimacy implies knowledge and it is a way to understand why something is made as it is – without knowledge it is not possible to assume a development process as legit. Also is important to acknowledge that the assessment of legitimacy rests upon understanding how a given context frames the development problem, critical blockages and existing opportunities (following Schuman 1995). Bond et al. (2016) also stresses that addressing legitimacy in SEA also implies to learn about the legitimacy of the decisions already made.

Elling (2009) addresses knowledge as transformational: knowledge can transform a situation. Sustainability-oriented processes requires continuous processes of *learning* anchored in the existing knowledge and on the gaps that exist. Such learning processes can be said to be iterative processes of reflection through which knowledge, ideas, motivations, interests and experiences are shared. The existing development problems are unstructured and uncertainty exist in respect to the values, the needs, and the solutions. Learning about those problems is a critical element if a positive change is to be reached. SEA wins by approaching and promoting learning as a transformative process (following Mezirow 1997) that helps to transform strategic processes of development into more sustainability-oriented ones. The reflection required in transformative learning involves a critical sense on the rationale and functionality of the underlying motivations and expectations; and focus learning on three levels: 1) the content ('what' or 'learn from inside'), 2) the process ('how' or 'learn from outside'), and 3) the premise, reflecting on both content and process to develop recommendations ('why' or 'learn about').In SEA is important to promote stimulating spaces of engagement that might facilitate the exchange of information and knowledge, open the minds of the

actors for a critical reflection on what we are facing and where we want to go, and how, or even to promote willingness of powerful actors to search for engagement processes based under principles of equity, justice, inclusiveness, transparency and accountability.

Key dimensions:

A proposed guide to support the operationalisation and reflection of the 'MtG' in SEA is presented in **Figure 21** and here presented upon the integration of the six governance-related attributes in four dimensions of analysis: *actors*, *context*, *strategy* and *assessment*. The four dimensions represent attention areas for SEA:

1. *Actors*: The strategy-making process is develop in multi-actor context. In processes that are sustainability-oriented it is required a more pluralistic perspective to SEA (as to the strategy-making process) in order to recognise and work with the multi-value system that exist. It is thus critical to understand what actors exist, what are their roles in both the development process and SEA process, what are the critical actors (stakeholders, rightholders, change agents, etc.), and to have a representation of the web of relationships, capacities, motivations, etc., with influence (positive and negative) to the strategy-making and SEA processes;
2. *Context*: Each context has distinct cultural and political-administrative settings. This influences how the strategy-making process is conducted as well as how the SEA is perceived and developed. Also, SEA capacity is 'context-influenced. This requires a robust understanding of the dynamics and patterns that represent how the context works, as also a way to understand the installed (and aimed) capacities for SEA and strategy implementation;
3. *Strategy*: A full exploration and explanation of the strategy-making process is imperative for SEA to be able to achieve its intended purposes. An analysis of the contextual characteristics from the lens of the strategy is required, as to understand the strategy itself in terms of the sustainability posture, competencies, opportunities, or risks it represents;
4. *Assessment*: To ensure the quality of the assessment it is critical to conduct the SEA with a reflection posture and question what can be the most appropriate way to develop SEA under the existing contextual conditions and how use SEA as an incentive for engagement processes.

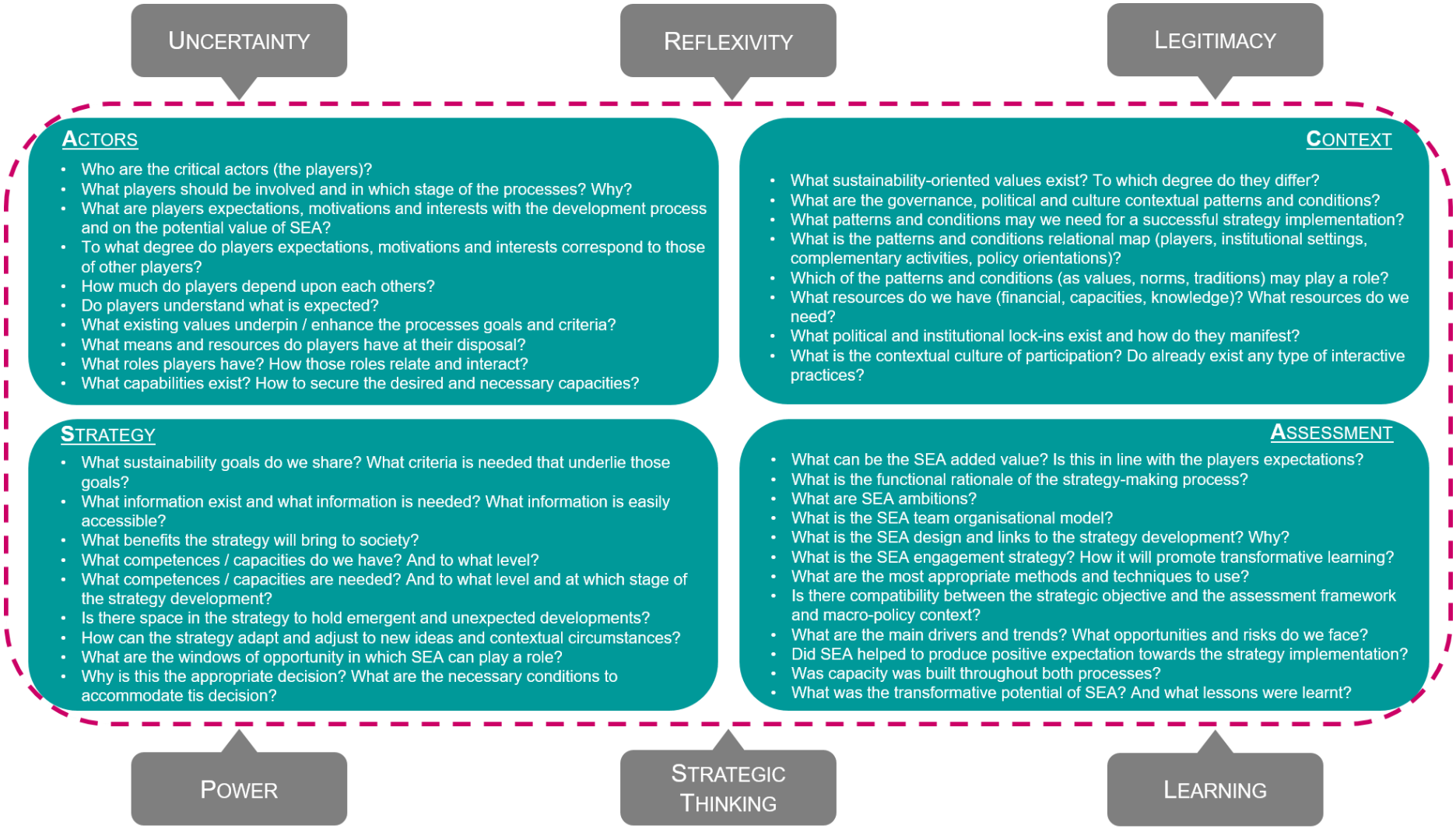

Figure 21. *Proposed 'MtG' framework to support SEA*

Expected outcomes:

It is considered that adopting the 'MtG':

- Allow to ensure a broad sustainability-oriented vision in terms of context-specific perspectives on sustainability, as well as to trigger debates on what the society is expecting with the development proposal;
- Creates reasoning on the importance of the contextual conditions for SEA be able to contribute in steering strategic development processes towards sustainability;
- Help to understand the existing motivations, expectations and values sustainability, the strategy development and SEA, at the same time that actors can learn how to manage different expectations towards success. Also it will help to reflect on how both processes can accommodate the different expectations;
- Can trigger new and/or improved transformative learning processes, recognising the different levels of knowledge that exist and players' capabilities and resources. Is important to reflect on how to put people willing to participate in ways that throughout the process they feel engage and relevant;
- Promote empowerment in acknowledging that each critical actor (the players) are capable actors that can transform a strategic process in a successful way. For this processes of capacity-building is relevant to, for example, increase the players' intrinsic motivation to participate;
- Recognise political lock-ins and the consequent lack of adaptability of a context to new (or different) challenges;
- Allow to think of SEA also as a platform that contributes to the creation/enhancement of the existing governance conditions oriented towards sustainability;
- To obtain real benefits for the strategy making process;
- Ultimately to position SEA as a legitimation instrument that contributes to the development of sustainability-oriented strategies, it properly applied. This passes by recognising SEA as a legitimization instrument that can help to understand the space (and consistency) between what is proposed and what are the development outcomes.

Possible challenges:

Being a conceptual approach with orientation guidelines there can be some open questions and possible limitations to its real application. Possible challenges can be:

- The conceptual orientation given to the 'MtG' can make it difficult, at a first phase, to understand the concepts and terminology used, thus it can exist issues on how to reach a unified mean for how to work with the conceptualisations presented;
- Since the "MtG" is placed at a conceptual level there is a challenge when the approach is seen in a negative manner as, for example, in questioning the

real significance of adopting a governance approach in SEA that promotes to open up the strategy-making process to external influences and interests;

- The requirement of questioning the existing motivations, expectations and assumptions towards both the SEA and strategy-making processes implies that all actors (even SEA practitioners and decision-makers) are open to discuss their own perspectives on what is on the table without disempowering the perspectives that don't meet their owns;
- There is the question of what constitutes a collective sustainability-oriented vision. SEA itself works (or at least it is expected to) with sustainability contexts, and it can help to promote discussion and debates (as a mediator instrument) based on the sustainability goals and criteria (these can be work using, for example, the frame of the Sustainable Development Goals [SDGs] and confronting the strategy to the SDGs);
- The use of reactive and restrictive approaches of SEA along with the framework, since the attitude of 'react to' and 'just do something' is contradictory to the nature of the 'MtG' and may lead to an unsuccessful use of the 'MtG' as well as unsuccessful achievements with the SEA;
- The lack of resources or willingness to participate when there is the idea of promoting continuous learning processes. the lack resources of willingness to operate such type of approach can be an imposition on adopting a governance approach to SEA based on the proposed attributes;
- The existing institutional capacities (not in line with processes of development of strategic levels) that may influence the expected outcomes of the SEA.

8.4 Chapter Conclusion

In this Chapter the Thesis argument was presented together with the conceptualisation path in the construction of a governance approach to SEA. First the main results of the exploratory literature review and explanatory empirical analysis developed in previous Chapters were presented. Based on these results, a first developed proposal was presented which was subjected to an expert opinion to understand its validity, relevance and potential. Considering the comments and suggestions of the experts, another round of exploratory literature review was made to 'reformulate' and 'refine' the governance approach and create theoretical robustness. After this, a final proposal of a governance approach was presented and discussed. The key lessons are as follows:

- The 'MtG' approach comprehends six governance-related attributes: *uncertainty*, *strategic thinking*, *reflexivity*, *power*, l*egitimacy* and *learning*. It is focused in achieving sustainability-oriented strategies, success-induced transitions to sustainability, trigger transformative learning and ultimately legitimise the development process at the eyes of society;
- The 'MtG' is presented upon the integration of mentioned the six governance-related attributes (uncertainty, strategic thinking, reflexivity, power, legitimacy and learning) in four dimensions of analysis that represent attention areas for SEA: *actors* (considering the importance of recognise the multi-value system

that SEA works on), *context* (acknowledging that the specificities of each context influences how the strategy-making process is conducted as well as how the SEA is perceived and developed), *strategy* (considering that a full exploration and explanation of the strategy-making process is imperative for SEA to be able to achieve its intended purposes), and *assessment* (acknowledging that is critical to ensure the quality of the assessment in terms of what can be the most appropriate way to develop SEA under the existing contextual conditions). For each dimension guiding questions are proposed to support reflection and use of the 'MtG' in any SEA (or other environmental and sustainability assessment instruments);

- Adopting a governance lens in SEA, grounded in a collective sustainability-oriented vision, can help to enhance the application of SEA towards sustainability, eventually positioning SEA as an instrument of signification (to interpret and give meaning to actions) and legitimation (to give value to actions to validate decisions).

Chapter 9.

Conclusions and further research

This Chapter completes the Thesis by drawing conclusions from the research. It restates the research problem, research questions and objectives, followed by the key outcomes of this investigation and a summary of the theoretical, methodological and practical contributions to the existing body of knowledge on governance in SEA. In addition, suggestions for further research in this area of study are provided.

9.1 Restatement of the research: problem, questions and objectives

The main objective of this Thesis was to understand the role of governance in enhancing SEA towards sustainability. This was approached with the main research question: *how can SEA be enhanced by adopting a governance lens*? The development of this Thesis was grounded on four specific research objectives:

1) Investigate how governance is being addressed in both the theory and the practice of SEA;
2) Explore the existing relationships between institutionalised practices of SEA and different governance contexts;
3) Understand why governance is important in SEA and the role it plays in the assessment; and
4) Create a theoretical approach to incorporate governance in SEA.

The research was constructed to be exploratory and explanatory in nature. The qualitative nature of this Thesis adopted an illustrative action research case to assist in a theory-building process, with the phenomenon studied being the SEA process and practice.

9.2 The research question: how can SEA be enhanced by adopting a governance lens?

The overarching assumption in this Thesis is that governance can be used as a '*leverage dimension*' to create opportunities for changes that could lead to shifts in SEA practices, ultimately increasing SEA capacity to reach its intended purposes.

The primary research question was addressed by developing a conceptual governance proposition to help enhance SEA capacity in contributing to sustainable development processes. The proposition, named 'Matching though Governance' ('MtG'), means to align SEA application with the aimed SEA capacity and values (as seeking sustainability). MtG is focused on achieving sustainability-oriented strategies, success-induced transitions to sustainability, trigger transformative learning and ultimately legitimise the development process at the eyes of society.

A main premise of the 'MtG' is that each of the governance attributes can be best operationalised if and when made context-specific. This means that adopting a governance lens in SEA can help to enhance the contribution of SEA towards sustainability, eventually positioning SEA as an instrument of signification (interpret and give meaning to actions) and legitimation (give value to actions to validate decisions). Since the Thesis statement comprehends the overall findings of the exploratory and explanatory research, conclusions are now presented for each of the research sub-questions.

9.2.1 What is governance in the context of SEA and Why is governance important in SEA?

Linking concepts of ´governance', 'strategic environmental assessment' and 'sustainability' presents a complex challenge. For that an exploratory literature review was developed to learn about: a) general governance literature and particular pluralistic governance approaches; b) claims and assumptions of SEA for sustainability; and c) governance consideration in broad IA literature.

Theoretically, in the context of SEA governance is framed under nine specific governance aspects: accountability, transparency, participation, uncertainty, complexity, power, knowledge, learning and effectiveness. Upon reviewing the body of knowledge on IA and governance it became clear that the majority of the existing research does not inter-relate different governance aspects, instead it focuses on individual aspects of governance at a time. In addition, rationalistic perspectives dominate the way each of the governance attributes are conceptualised in the context of IA - accountability as a purpose to hold governments responsible for their decisions; disclosure of information as the quest for transparent processes; participation as a goal of IA; uncertainty and complexity neglected to find ways to deal with present realities; power asymmetries promoted in the existing legal requirements; knowledge acquisition in participatory IA practices; learning without depending on deliberative arenas for discussion; or effective instruments through rigid frameworks.

But, as demonstrated throughout Chapters 6 and 7, governance in the context of SEA can be used as a strategic dimension of analysis that opens up the possibility for SEA to elaborate on issues that are usually neglected in its practice and in its theoretical developments. This perspective of governance encompasses the notion that complex contexts of public policy making are characterized by the vision and expectations of powerful actors, by the organizational posture of the system in terms of structural and substantive institutional norms, by vertical and horizontal relationships, as well as by the quality of the outcomes of political and assessment processes as a result of the established capacities. This led to the recognition that governance is of particular importance in internalising the legitimacy of decisions and of established political and institutional roles and responsibilities. The values, institutional settings, political motivations can define how SEA is understood by policy-makers and decision-makers, thus SEA cannot be dissociated from broad governance context since it influences and is influenced by the elements that compose that context, demanding "tailor made" or "fit to purpose" SEA.

9.2.2 What is the role of governance in prompting the SEA role at the policy level?

Drawing on the research findings, looking through governance is to try to understand how it is possible to create capabilities among political actors, support (or transform) normative values, preferences and resources, build and hold systems of meaning, and understand the culture and history of a given context to share lessons for current development processes. Policy is about people. Social actors are getting more involved in the process of public policy making, influencing and being directly engaged in decisions affecting social choices. A plurality of actors interact to express, promote, and reach common objectives. In its essence, governance shapes functioning patterns of the development system, underlying the formulation of public policies and respective regulatory aspects. Thus, addressing governance in SEA can play a pivotal role in SEA capacity to contribute to defining goals, setting priorities and making choices, with SEA applied in contexts characterised by relationships.

SEA can be seen as a platform that asks how the roles of actors interact and what are possible benefits / constraints that might come from that relation (the 'role constellations') to secure the prosecution of sustainable public policies. But the Thesis also highlighted the fact that disregarding governance issues and the analysis of existing governance conditions in SEA can result in a rather reduced capacity of SEA to adequately address a development proposal, since a lack of knowledge remains about the decision making context, underlying policy intentions and if that context is prepared to deal with the changes at all levels of decision. Through the development of a governance-inclusive SEA case it was concluded that discussing governance in SEA enables focusing on what is critical and what are root causes when addressing the policy and societal challenges. All these considerations situate SEA at the policy level and stress the role of SEA as a public policy instrument that cannot be dissociated from a broad governance context since it influences and is influenced by the elements that compose that context.

9.2.3 Can governance be a leverage in SEA for promoting sustainability?

Sustainability is being highly institutionalized, ultimately discussing what can be governance arrangements and instruments that help set, formulate and implement more sustainable policies. So, in order to develop more sustainable policies and strategies of development, it is important to think and reflect on the suitability of the existing governance conditions to foster sustainability in a reflexive and interactive way. Empirical observations discussed in this research were insightful in realising that current institutionalisations of SEA are facing constraints of a more normative and cognitive nature than of a structural one. The value of SEA is not equally internalised in SEA systems, possibly influencing SEA capacity to act.

For SEA to act as an instrument of signification and legitimation this Thesis proposes approaching governance in SEA through a comprehensive perspective built upon principles of uncertainty, strategic thinking, reflexivity, power, legitimacy and learning, adequately adapted to the contextual circumstances and political landscapes in which

SEA is applied. This perspective, translated in a governance-based proposition, can represent a transformative turn in the SEA state-of-art, ultimately prompting SEA in the promotion of sustainability.

9.3 Original contributions to the body of knowledge & remaining challenges

This research, through the proposal of a governance approach in SEA, contributes to the larger theoretical debate on the purpose of SEA and its role in enhancing development processes towards sustainability. This is considered to be the key contribution for the SEA research domain, creating also an opportunity to trigger debates on the importance of governance environments and contextual conditions in SEA.

It was not my intention to propose a new SEA approach and methodology. The 'MtG' intends to be inspirational in leveraging SEA, drawing attention to issues of governance that have an influence on SEA capacity. Also, it implies a reconsideration of the very notion of governance in SEA area of research, positioning governance at the heart of SEA. It claims the need to set aside the 'silo effect' that currently characterises theoretical approaches of governance and embrace governance as a whole in an explicit, interconnected and integrated manner, allowing to rethink SEA as a transformative instrument in improving governance contexts in relation to environment and sustainability.

This conceptualisation allows to open new doors for applied research in underexplored areas in SEA as governance itself, SEA capacity and its relation with governance contexts. It is still a challenge to further demonstrate the importance for SEA to focus on issues that have a crucial role in the success of SEA: values, motivations, expectations, power influences, interests, institutional structures, dynamics of relationships, or macro-policy orientations.

Finally, I am full aware of the complexity of the issues worked in this research. Governance is in itself complex and entails principles of complex nature. In addition, currently mentalities of SEA practitioners and decision-makers (and of other environmental and sustainability assessment instruments) are largely locked in old IA traditions and lack motivation for innovative forms of SEA, which can potentially constraint the consideration of governance. It is thus essential to stimulate capacity-building and spaces of engagement throughout SEA processes to promote knowledge-brokerage and transformative learning, at the same time that are tracked personal transitions in such changing processes.

9.4 Suggestions for further research

The role of governance in SEA is a vast theme that could be approached by different angles – I chose to explore the role of governance in SEA, and not governance *of* SEA or even governance *for* SEA. There are remaining unanswered questions as I am aware that my research is one small effort in the attempt to connect these two complex topics.

The proposed ‘MtG’ approach need to be improved and refined in order to strengthen its robustness in addressing governance issues in SEA. For example it would be important to subject the ‘MtG’ to contrasting scenarios – a governance-inclusive thinking scenario, on the other hand a scenario where there are some suspicious on the real benefits in considering governance in SEA, and a scenario where serious opposition to such an approach would exist. This would enable exploring the level of sensitiveness of the ‘MtG’ to different postures and idealisations, thus gaining further understandings on the role of governance in SEA.

When aiming to enhance SEA, it is crucial to address SEA capacity to perform and achieve its intended purpose of putting environmental values at the centre of decision-making. It is important to analyse the governance conditions that will enable implementing the strategy in a sustainable way. It would be important to fully understand the institutional sphere that surrounds SEA systems and the influences that established institutional settings have in the application of SEA. However, it is quite relevant not only to focus on what conditions exist but also on the present loopholes and how these ‘absences’ influence SEA – as, for example, the planning and political culture, relational maps of cognitive nature, traditional knowledge, learning culture, and historical transformations in institutional and organisational dynamics.

Also relevant is how to approach governance in SEA in a positive manner in contexts that are absent of an institutionalised SEA system, or where SEA do not have a focus on governance in their practice, or in SEA guidance. Such research could be relevant to explore and search for the adequate form of SEA that is compatible with the existing governance conditions, thus contributing to establish and enhance SEA capacity to reach overall objectives (for example exploring the constraints and the enablers for a full institutionalisation of SEA).

Finally the original statement of enhancing SEA through governance can be ‘inverted’ by questioning about the role of SEA in enhancing governance contexts. Approaching governance in SEA ultimately requires to call into question the possible necessary changes that may need to occur in governance contexts to accommodate sustainability-oriented development proposals, and what may be the role of SEA is triggering such governance changes.

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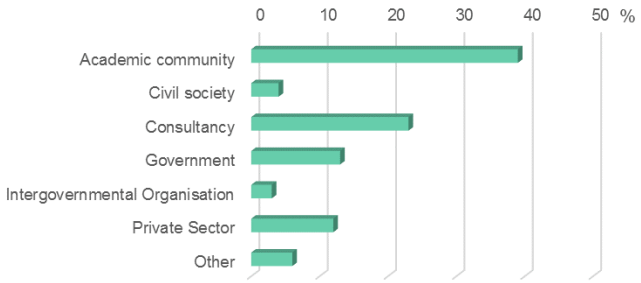
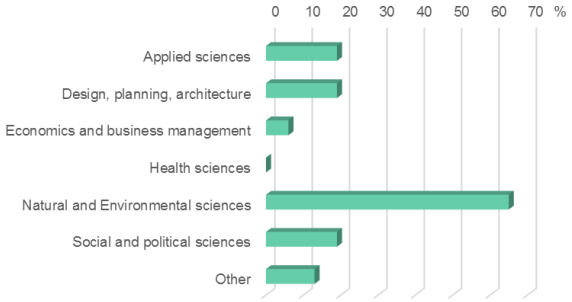
Appendix A.

- Statistical findings of the online survey on Governance and SEA –

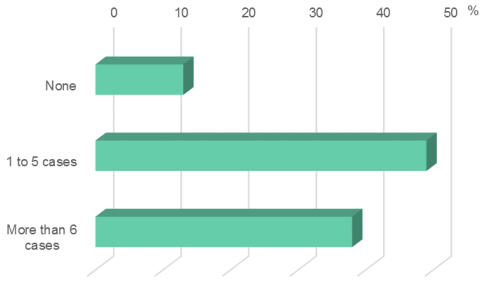
1. What is your institutional affiliation?



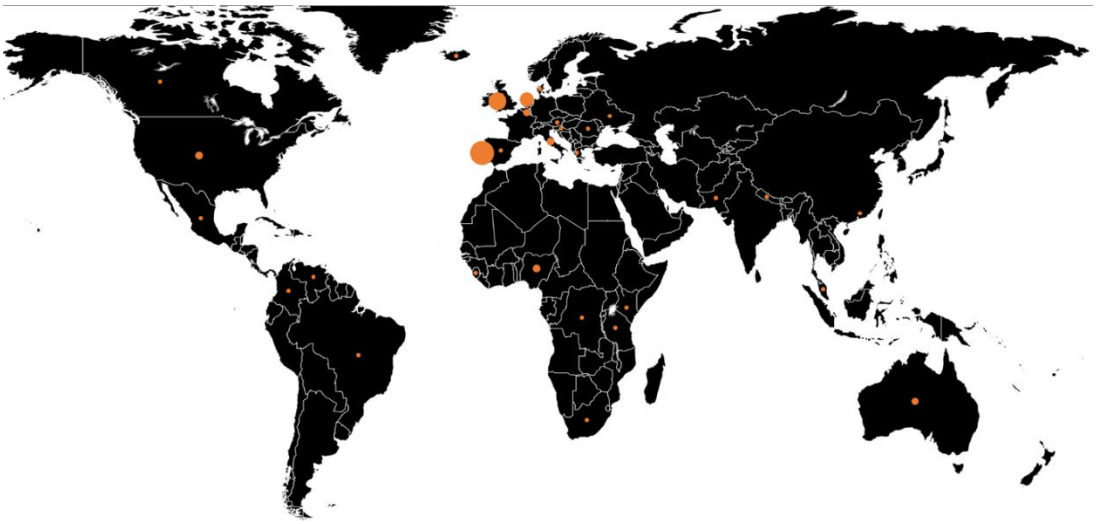
2. What is your field of expertise?



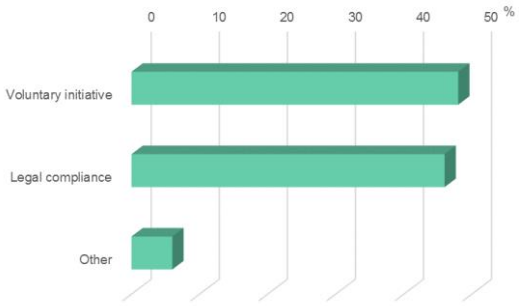
3. What is your experience with Strategic Environmental Assessment?



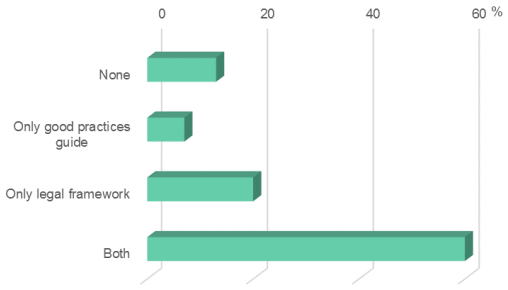
4. Please indicate the country where you have professional experience in SEA.



5. What is your motivation to use SEA?



6. What instruments exist for SEA in your country?



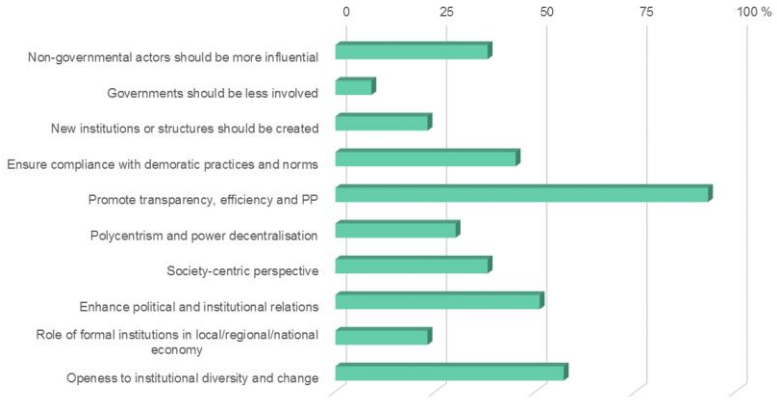
7. What may be crucial for the success of SEA that is lacking in your country SEA regulatory system?

(After clustering by similarity of theme in decreasing order of responses)

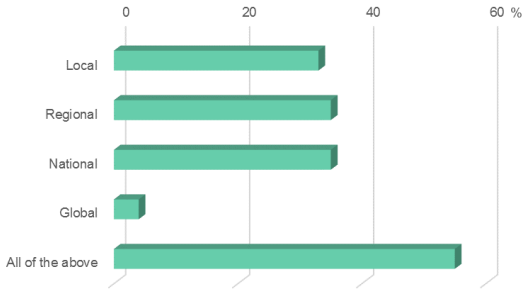
- Integration of SEA in the development process.
- Coordination between public authorities with decision power.
- Demonstration of the added-value of SEA for the development process.
- Good governance principles as transparency, accountability and public participation.
- Decentralisation of power.
- Strategic perspective.
- Democratic values.
- Development of the follow-up stage.

- Sectorial integration.
- Consideration of the benefits of SEA for sustainable development.
- Sensitiveness to the context of application.
- Cooperation between stakeholders and civil society.
- Financial supports.
- Arrangements that could prevent political manipulation.
- Long-term perspective.
- Support incentives for non-mandatory cases.
- A single SEA decree law (not being integrated in environmental management and EIA regulations).
- Cumulative impacts.

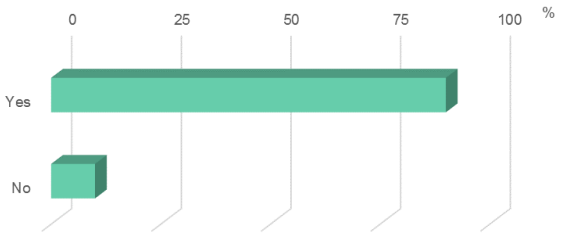
8. What are the main changes that in your understanding needs to be observed in governance systems? Tick all that apply



9. At which level are governance concerns more relevant? Tick all that apply



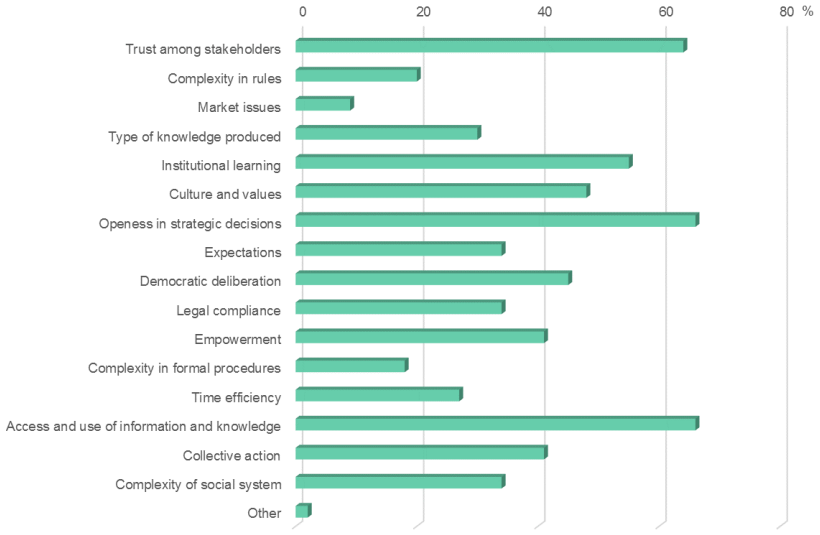
10. Do you think that different institutional and political settings affect the success of SEA? Why? Please provide three main reasons.



(After clustering by similarity of theme in decreasing order of responses)

- Power (as lobbying, manipulation of political support, knowledge, personal interests and political priorities)
- Openness.
- Transparency.
- Lack of creativity and rooms for improvement.
- Qualification of decision-makers and institutional capacity.
- Governmental ways of acting (as national cultures - context).
- Level of collaboration.
- Quality of information and knowledge promoted in institutionalised practices.
- Changing environments.
- Quality of public participation.
- Learning processes.
- Accountability.
- Information flows
- Economic interests.
- Current approaches to planning that are institutionalised.
- Time.
- Tiering with lower level decision instruments.
- Trust.

11. Regarding governance in SEA practice what are, in your view, the main issues to consider? Tick all that apply



12. Any other comments?

(Examples)

The importance of SEA is not been appreciated across sectors with no apparent influence in the final decision-making.

Societal priorities are not in favour when designing for the reach minority.

There is the need to ensure maximum transparency in all SEA processes for decision-makers fill the need to comply with the assessment recommendations.

SEA must be a legal requirement to have any teeth in strategic decision-making.

SEA may provide an opportunity to improved public consultation and community empowerment. If not SEA wll become another process that is seen by practitioners as a waste of time and money.

An important issue for SEA/EIA is the contested information. Government / Science is not trusted by stakeholders, stakeholders that have access to much data via internet / media. So a big issue is the quality of the data / information and therefore the arguments used with it.

There is the need for formal introduction and institutionalisation of SEA in developing countries not practising SEA, countries in which governance as well as strategic decision-making processes are week.

Appendix B.

- List of Portuguese SEA Environmental Reports –

Table B. 1 *List of Portuguese SEA environmental reports*

Acronym	Name	Year
POSEUR	Operational Programme of Sustainability and Efficiency in the Use of Resources	2014
PUSC	Urban Plan of Serra da Carregueira	2014
PDR-C	Rural Development Programme of Portugal Mainland 2014-2020	2014
PETI	Strategic Plan of Transports and Infrastructures	2014
PENSAAR	Strategic Plan of Water Supply and Waste Water 2020	2014
POFEAMP	Operational Programme of the European Funds for the Maritime Affairs and Fisheries	2015
PIT-A	Integrated Plan of Transportation of Azores	2015
EFMA	Alqueva Multipurpose Project – Secondary Irrigation Network	2013
PGRH-A	River Basin Management Plan of Azores	2015
PO-L	Operational Programme of Lisbon	2014
PO-C	Operational Programme of the Central Region	2014
POCI	Operational Programme for Competitiveness and Internationalisation	2014
PO-AL	Operational Programme of Alentejo Region	2014
PO-M	Operational Programme of the Autonomous Region of Madeira	2014
PDR-M	Rural Development Programme of the Autonomous Region of Madeira	2014
PDR-A	Rural Development Programme of the Autonomous Region of Azores	2014
PDM-C	Municipal Plan of Cascais	2015
PDM-B	Municipal Plan of Barcelos	2015
PDM-AL	Municipal Plan of Aljustrel	2013
PDM-S	Municipal Plan of Seixal	2013
PDM-FA	Municipal Plan of Fornos de Algodres	2015
PDM-P	Municipal Plan of Penamacor	2015
PDM-O	Municipal Plan of Oleiros	2015
PDM-VNF	Municipal Plan of Vila Nova de Famalicão	2015
PDM-FV	Municipal Plan of Figueiró dos Vinhos	2015
PDM-OF	Municipal Plan of Oliveira de Frades	2015
PDM-I	Municipal Plan of Ilhavó	2013
PU-FZ	Urban Plan of Ferreira do Zêzere	(-)
PP-P	Detailed Plan of Pedregal	2014
PU-CE	Urban Plan of Caliços-Esteval	2013
PDM-V	Municipal Plan of Vinhais	2014
PDM-OE	Municipal Plan of Oeiras	2015
PDM-G	Municipal Plan of Gondomar	2015
PDM-BR	Municipal Plan of Braga	2015
PDM-MC	Municipal Plan of Macedo de Cavaleiros	2015
PDM-CP	Municipal Plan of Castanheira de Pera	(-)
PDM-OV	Municipal Plan of Ovar	2013
PDM-VVR	Municipal Plan of Vila Velha de Rodão	2015
PDM-ER	Municipal Plan of Eco-Park Relvão	2015
PP-FT	Detailed Plan of Fonte da Telha	2014

PDM-RB	Municipal Plan of Ribeira Brava	2014
PDM-VA	Municipal Plan of Viana do Alentejo	2015
PANCD	Action Programme to Combat Desertification 2014-2024	2014
PP-HC	Detailed Plan of Herdade da Cegonha	2014
PDM-OD	Municipal Plan of Odivelas	2015
PDM-E	Municipal Plan of Estremoz	2015
PGRH-T	River Basin Management Plan of Tagus	2012
PERSU	Strategic Plan for Urban Waste 2020	2014
PO-CT	Operational Programme for Cross-Border Cooperation between Spain and Portugal	2014
PU-AEV	Urban Plan of the Business Area of Valença	2014
PDM-M	Municipal Plan of Mafra	2014
PDM-BA	Municipal Plan of Batalha	2015
PDM-BE	Municipal Plan of Beja	2013
PDM-OB	Municipal Plan of Oliveira do Bairro	2015
PGRIA	Flood Risk Management Plan of the Autonomous Region of Azores	2016
PIER	Rural Space Intervention Plan of the Camping Park of Quarteira	2015
PDM-MA	Municipal Plan of Manteigas	2014
PDM-V	Municipal Plan of Viseu	2013
PDM-AC	Municipal Plan of Alter do Chão	2013
PDM-N	Municipal Plan of Nisa	2015

Appendix C.

- Sintra's SEA Case: Layout of Questionnaire applied to Citizens–

For your answer to be helpful, it is essential to **fill in all the questions.**

The answers to this questionnaire shall be strictly confidential.

Characterisation of the respondent

Parish: _____ ZIP Code: _____ -_____

Gender: Male ☐ Female ☐ Age: ☐ 0 – 24 years ☐ 25 – 64 years ☐ more than 65 years

Education: ☐ No education degree ☐ Forth degree (1st cycle) ☐ Sixth degree (2nd cyle) ☐ Ninth degree (3rd cycle) ☐ Twelfth degree (Secondary) ☐ Higher degree

Work condition: ☐ Employed ☐ Unemployed ☐ Student, Domestic ☐ Retired

Questionnaire

1. Please indicate what you consider to be the five most positive aspects in Sintra's municipality:

☐ Accessibilities and parking
☐ Mobility and transportation
☐ Incentives to business setting
☐ Agriculture
☐ Stone industry
☐ Economic dynamics
☐ Job opportunities
☐ Culture, traditions and local products
☐ Built historical heritage
☐ Mountain and Natural Park
☐ Coastal areas and beaches
☐ Ethnic diversity
☐ Public space and built environment
☐ Social equity
☐ Health services
☐ Education
☐ Leisure equipment's and green spaces
☐ Social equipment's
☐ Functioning of municipal services
☐ Active participation of citizens
☐ Urban growth
☐ Environmental quality
☐ Sanitation
☐ Security
☐ Tourism
☐ Other: _____

2. Please indicate what you consider to be the five aspects that need to be improved in Sintra's municipality:

☐ Accessibilities and parking
☐ Mobility and transportation
☐ Incentives to business setting
☐ Agriculture
☐ Stone industry
☐ Economic dynamics
☐ Job opportunities
☐ Culture, traditions and local products
☐ Built historical heritage
☐ Mountain and Natural Park
☐ Coastal areas and beaches
☐ Ethnic diversity
☐ Public space and built environment
☐ Social equity
☐ Health services
☐ Education
☐ Leisure equipment's and green spaces
☐ Social equipment's
☐ Functioning of municipal services
☐ Active participation of citizens
☐ Urban growth
☐ Environmental quality
☐ Sanitation
☐ Security
☐ Tourism
☐ Other: _____

3. What would you like it to be Sintra in 20 years?

_____

4. Any further suggestion?

_____

Appendix D.

- Sintra's SEA Case: Layout of Questionnaire applied to Sintra's Municipality Head of Units–

The aim of this Inquiry is to look at the internal communication and the coordination among the different Units of the Town Hall in Sintra.

Filling in the inquiry will last for about 20 minutes and your answers are strictly confidential.

The inquiry is to be answered only once and it is not to be transmissible. The data will be treated all together in an integrated way allowing the confidentiality of the answers.

Thanks for Your collaboration.

Institutional Information

Department: _____ / Division: _____ / Service: _____

Organic Unit Performance

1. Using no more than 5 words, express what you think about the mission of the Unit you belong to:	
a)	
b)	
c)	
e)	
f)	
2. Do you think that the organisational model of Sintra Town Hall (2014) expresses the structure and competences of your Unit?	
□ Yes	□ No
2.1 If you have answered No, why? Please provide three reasons at the utmost.	
3. Do you agree that the functional tasks and activities of your Unit are clearly fixed?	
□ Yes	□ No
4. In your opinion which are your Unit biggest constraints for answering new orientations given by the municipal executive? Only choose the main three.	
□ Disordered goals of the organization	
□ Lack of human resources	
□ Lack of financial resources	
□ Lack of equipments and/or technical means	
□ Human resources's qualifications / competences unsuitableness	
□ Under the stress of stated periods	
□ Interferences of unplanned activities	
□ Uncoordinated Units	
□ To have difficulty in communicating internally	
□ Others:_____	
5. The human resources working for your Unit correspond to the real needs of the service?	
□ Yes	□ No
5.1 If you have answered No, why?	
□ Human resources's qualifications unsuitableness	
□ Human resources's competences unsuitableness	
□ Lack of human resources	
□ Human resources's lack of motivation	
□ The competences and knowledge are not shared within the Organization	
□ Lack of commitment of the human resources towards the Organization	
□ Others:_____	
6. Is there a training politics of Human Resources?	
□ Yes	□ No

6.1 If you have answered Yes, is the training politics adequate for the activity area of your Unit?	
□ Yes	□ No
6.2 1 If you have answered No, why?	
□ The diagnosis of the training frame doesn't include all the competences / formative areas that my team needs □ The Training Frame doesn't consider the needs according to the Performance Evaluating System □ Difficulties including suggestions for specific training areas, on individual and /or team needs □ The training proposals do not correspond to the originally set goals □ The methodology used in the training actions do not suit the teams reality and the competences to be developed □ Lack of internal trainers with relevant experience in Training and Development practice, in specific areas □ Others:_____	

Internal Communication and Coordination between Units

7. Are there any projects or common initiatives between your OU and any other(s)?	
□ Yes	□ No
7.1 If you have answered Yes, mention three main examples:	
□ a) □ b) □ c)	
8. Is there openness / availability of other Units for interdepartmental communication?	
□ Yes	□ No

9. Please provide the frequency by which you use / consult the following means of internal communication:

	Often	**Regularly**	**Sometimes**	**Never**
Fix phone				
Mobile				
Municipality website				
Institutional webmail				
SmartDocs				
Informative boards				
Newsletters				
Meetings				
Written communication				
Oral communication				
Intranet				
Social networks				

10. Classifique a eficácia dos meios de comunicação internos abaixo identificados:

	Very effective	**Effective**	**Little effective**	**Ineffective**
Fix phone				
Mobile				
Municipality website				
Institutional webmail				
SmartDocs				
Informative boards				
Newsletters				
Meetings				
Written communication				

Oral communication				
Intranet				
Social networks				

11. If interdepartmental meetings are common practice, please indicate their periodicity.

- □ Monthly
- □ Once in three months
- □ Once in six months
- □ Annual
- □ Other:_____

12. Do you consider enough the existing interdepartmental means of communication?

□ Yes □ No

13. Classify the following statement regarding the interdepartmental communication:

	Fully agree	Agree	Disagree	Totally disagree
Enough				
In time				
Clear				
Coherent				

14. Which percentage of time of your Unit is spent working with other Units?

□ 0 – 25% □ 25 - 50% □ 50 – 75% □ 75 – 100%

15. What is your level of knowledge about the projects and initiatives developed by other Units?

□ 0 – 25% □ 25 - 50% □ 50 – 75% □ 75 – 100%

16. Which practices could be implemented to enhance or further improve your knowledge about the work developed by other Units?

- □ Intranet
- □ Phone networks
- □ Internal newsletter
- □ Periodic meetings
- □ Institutional website
- □ Social networks
- □ Collaborator Gateway
- □ Website of the Municipality
- □ Annual meeting with the Heads of Units of the Town Hall
- □ E-Learning community of discussion
- □ Public presentation of Units objectives / projects
- □ Public presentation of Units good practices
- □ Other(s):_____

17. What is your knowledge level about the revision process of Sintra's municipal master plan?

□ 0 – 25% □ 25 - 50% □ 50 – 75% □ 75 – 100%

18. What is the level of engagement of your Unit in the revision process of Sintra's municipal master plan?

□ 0 – 25% □ 25 - 50% □ 50 – 75% □ 75 – 100%

Appendix E.

- "Matching through Governance": 1st draft proposal of a Governance Approach as sent for expert review -

1. Introduction

Strategic Environmental Assessment (SEA), as a political support instrument that adds value to strategic decisions over constructively consider sustainability, can facilitate decision-making, help understand the complexity of the decisions within environmental, sustainability, and institutional contexts, or pointing out the relevancy of the exercise of power in strategic developments. But, as generally acknowledged, current SEA practices are strongly linked to the assessment of effects following a technical perspective. The point is that by adopting a technical perspective SEA is disregarding the success-induced change that can have in processes of sustainability transitions, limiting the capacity of SEA to meet sustainability aims.

The disconnection prompts the following question: ***how can SEA be enhanced when dealing with development processes of sustainability*?**

The argument that frames the research and is used to address the question is the following: ***adopting a governance approach, supported by a sustainability point-of-view, can help enhance SEA success in contributing to sustainability transitions.*** Support statements of the argument are:

- SEA is an instrument that has a steering capacity to desirable futures;
- SEA is rooted in the dynamics of the governance environment in which is applied since it works with multi-actor processes and multi-institutional realms;
- Governance environments are themselves part of the dynamics that are being steer by SEA;
- Different contexts of governance (or systems) influence the success of SEA, since the conditions of the context directly influences the personal and institutional backgrounds of the actors involved and also how SEA is applied to integrate sustainability issues in strategic processes of development;
- Sustainability is being highly institutionalised, ultimately raising the debate to what can be the governance environment conditions that prompts SEA to more sustainable directions.

With that being said, I propose that ***any SEA approach needs to be built upon elements of reflexivity, complexity, strategic-thinking, uncertainty, contextually, power and learning, here conceptualised as governance attributes***.

2. A governance approach to SEA – The "MtG" Framework for SEA

2.1 Guiding notions to understand the construction of the framework

Four are the notions that frame the construction of the framework being proposed: *sustainability*, *governance, sustainability transitions*, and *strategic environmental assessment*:

- **Sustainability**: In this context sustainability is treated as an adaptive and reflexive objective, following Loorbach (2007) definition "guiding notion that allows us to search for long term collective goals and ambitions" and framed by Voß and Kemp (2006) one of "way of structuring and handling problems.
- **Sustainability transitions:** Sustainability transitions are worked as "fundamental change in structure, culture and practices" (Loorbach and Rotmans 2010), change that is oriented to a sustainable society;

- **Governance**: Governance is worked as a relational concept that provides legitimacy to the exercise of power. This view is influenced by Meuleman (2008) definition of governance ("totality of interactions… aimed at solving public challenges or creating public opportunities") and is also based on Voß and Kemp (2006) one of "patterns or processes by which society handles its problems and shapes its own transformations".
- **Strategic environmental assessment**: SEA is seen as a political support instrument that adds value to strategic decisions by constructively consider sustainability, following Partidário (2007) view of SEA as an instrument that "establish a strategic context for assessment that will enable understanding the problems and the… ways to… help shape a sustainable future".

One fundamental premise that structured the construction of the framework is the following: I did not tried to capture the essence of each concept in one all-encompassing working definition, but instead construct a guiding notion suitable to be used in the context of strategic and sustainability assessments, particularly SEA. The way each notion is used to construct the framework follows a specific thinking logic:

- Sustainability is framed under the principles of intergenerational phenomenon, multi-scale, integration, justice and governance. Sustainability goals constitute ambiguous and moving objectives (context-shaped) that regularly need to be revised to consider changing values and perceptions in the course of transitions (following Voß and Kemp (2006)).
- Sustainability transitions are characterised both by incremental changes (to adjust to new circumstances through gradual development) and radical changes (change in structure and institutional conditions) (following Loorbach and Rotmans 2010). Are also directed into a common sustainability vision.
- Governance environments can be said to be in continuous transformation when considering that they foster spaces for learning and experimentation (from a reflexive point-of-view) in the own transformation of society.
- Strategic environmental assessment can be an instrument of sustainability transitions when helping construct a collective vision and driving strategies through sustainability directions.

For the construction of the framework another important consideration is made: the framework is built upon a strategic approach to SEA instead a policies, plans and programmes (PPP) approach. This means that SEA is here seen as an instrument to be applied to the strategic 'side' of PPP or even strategic intentions that set directions instead of a set of actions.

The proposed framework is termed "***MtG***" ('**Matching through Governance**') and is constructed with a lens of governance to respond to the question of *how can SEA be enhanced when dealing with development processes of sustainability*? It is termed "MtG" because what I am proposing help/allow SEA to reach sustainability in a given context by adopting in the approach a set of governance attributes. Figure E.1 presents the conceptualisation of the framework and an ensemble of key requirements obtained from previous literature review.

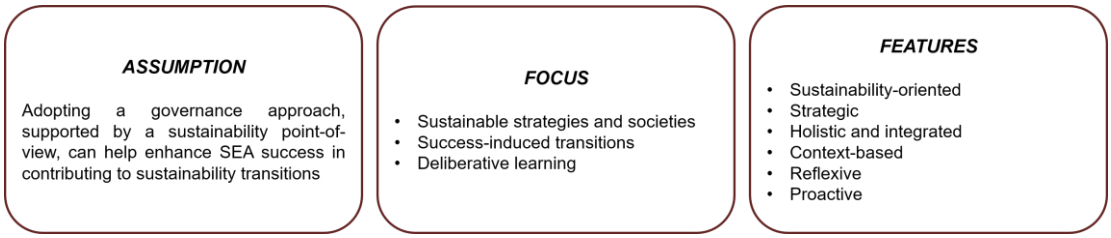


Figure E. 1 *Conceptualisation behind the construction of the "MtG" framework*

The framework is construct to help SEA orient development strategies to *sustainable outcomes*. The framework is *strategic in nature* as it recognise different perceptions, adopts a *holistic and integrated perspective* and is strongly characterised by a conscience of uncertainty.

It promotes a *context-based approach* since it is to be suitable for application in different contexts and is dependent of each context specificities. The intention to have a focus on *success-induced transitions* is given by the premise that SEA is successful if provokes self-reflection in the governance contexts orienting development strategies to sustainable outcomes. This is possible also by giving the framework a *reflexive* temper (SEA prompting the governance context itself to be part of the dynamics that are being steered towards a desirable intention).

Also important is the focus on *deliberative learning processes* with the application of the framework being dependent on knowledge-share and on actors' capabilities and resources in order to be able to transform perceptions to meet sustainability principles at a given place and time. Furthermore, the proposed framework is constructed to be applied *proactively* as assuming future challenges and promoting SEA to embrace them in the assessment.

2.2 The "MtG" Framework

The **"MtG" Framework for SEA** is built upon a set of governance attributes and assumes that to promote sustainable paths of development any SEA approach needs to be built upon them.

Since SEA is conceptualised as a strategic instrument that follows a strategic approach, the framework is presented to complement that type of approach. It was constructed upon the premises of the 'strategic thinking approach to SEA' develop by Partidário (2012).

The "MtG" framework is presented in Figure E.2.

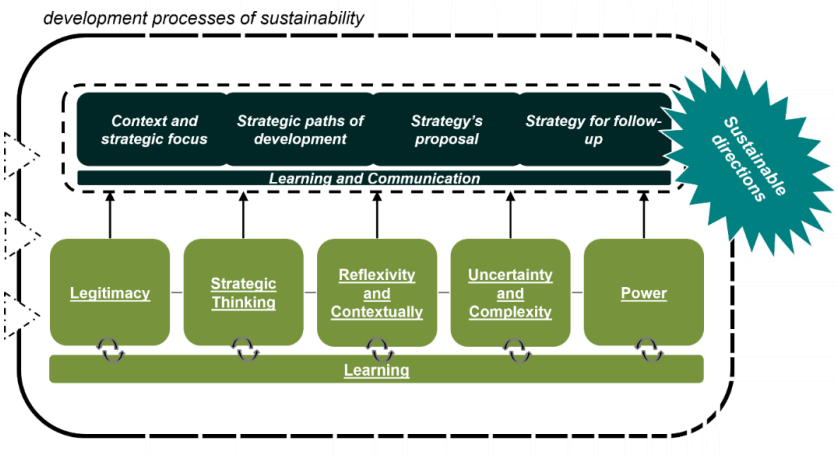


***Figure E. 2** Proposed "MtG" Framework for SEA*

2.3 The governance attributes

The "MtG" framework is built upon the premise that in promoting sustainable paths of development any SEA approach needs to be built upon a set of governance attributes. For each of the attributes a brief explanation is presented, as well as possible implications. Conceptual propositions are suggested. The extent each proposition can be approached positively indicates the extent of SEA in advancing sustainability (a *measure* of success).

Legitimacy

Processes of transition to sustainability presuppose the creation of legitimacy. But not only thinking of legitimacy as a output attribute but also throughout the entire process in a way that all players that are related with the development process feel consistency with what is being institutionalized (the final result). This 'sense of appropriateness' (following Berger and Luckmann 1966) can be translated into three types of legitimacy: 1) *input legitimacy* (focusing on the range and composition of actors involved in the process – the players); 2) *throughput legitimacy* (if the process follows characteristics of inclusiveness, fairness, responsiveness, accountability and transparency – as the justification of the governance model based on the quality of procedures); and 3) *output legitimacy* (focusing of the strategic or policy solution through the success of the new or improved governance mechanisms). Legitimacy implies knowledge and it is a way to understand why something is made as it is – without knowledge it is not possible to assume a development process as legit. Also is important to acknowledge that the assessment of legitimacy rests upon understanding the way a given context frames the problem at stake (following Schuman 1995).

In the "MtG" framework, thinking in legitimacy implies:

- Understand the objective of the strategy (*what* is being assessed and *why*);
- Ensure the representation and inclusiveness of the players. Involves understand *who* are the players and focus on the quality of the involvement (*how*);
- A continuous deliberation through feedback loops, with the sustainability vision and all that it implies as referential. This means to understand and analyse the space between the performance-oriented legitimacy (output) and the inclusive-oriented legitimacy (input);
- To follow an 'appropriate' orientation instead of a consequentialist logic of performance.

Box 1 – **Conceptual proposition for Legitimacy**

SEA is an instrument of legitimation since promotes legit development processes of sustainability by validating strategic solutions throughout the process. Legitimacy presupposes knowledge-share, transparency and accountability.

Strategic thinking

When working at strategic levels of development, a strategic thinking attitude can help deal with the characteristics of complex processes and adopt a holistic and integrated perspective. In transition processes to sustainability, a change requires creativity and a collective construction of a vision (following Mintzberg 1994). It is so important to open the minds to new possibilities instead of anchor the processes in predictable solutions. Adopting a strategic thinking attitude can help to construct pathways to a desirable future which, by nature, recognise the strong conscience of uncertainty that characterize strategic levels of development. Knowledge is thus of strategic nature, as also a strategic resource. From a governance perspective, a strategic thinking attitude helps to recognize the interconnection between strategic goals, contextual strategies and emergent strategies that arise from deliberative learning processes and new knowledge created. The attitude can also influence the values and perceptions of the players, consequently their attitudes towards current and new sustainability processes of developments.

In the "MtG" framework, thinking in strategy implies:

- A collective construction of a sustainability vision through a systems perspective, recognizing the interconnectedness between the elements of the system itself;
- Creativity in the construction and development of potential courses of action;
- Recognize that sustainability processes of developments are organized around different values and perceptions that may influence the outcomes of course of action;
- Express uncertainties and gaps in knowledge with a positive posture, using both issues as forward-looking ones which requires intuition and innovation to be dealt with;

- A continuous shape and re-shape of the strategy being assessed through constant analysis of situational patterns.

Box 2 – **Conceptual proposition for Strategic Thinking**

The SEA requires a collective sustainability vision or intention to follow and to align the sustainability goals in a holistic and integrated manner. Thinking strategically implies to recognise the range of perspectives and attitudes towards sustainability processes of developments.

Reflexivity and Contextually

Any strategic process takes place in contextually defined governance environments. It is so important to acknowledge that any strategic process is shaped by power dynamics, by the amount of information available, by the existing governance mechanisms, by ambivalent policy goals, etc., all framed by high levels of uncertainty and ambiguity. With governance seen as a problem handling notion, embrace a reflexive attitude that focus on a shared construction of problems instead only on collective solutions open's up the possibility for the governance environments itself to undergo changes in face of new knowledge and dynamics. Working with reflexivity and contextually assumes a constant adaptation to new circumstances and not undergo with processes that are pre-established; implies to 'learn about how to learn' by providing the players the chance to recognize failures, blocks and successes and act upon the lessons learnt. Such 'blocks' can be, for example, lock-ins that act as barriers to possible innovations, slowing down restructuring and change.

In the "MtG" framework, thinking in reflexivity and contextually implies:

- Understand the governance environment (dominant trends) in order to understand why decisions are made as they are (dominant drivers);
- The creation of deliberative arenas as a mean for continuous dialogue of re-evaluation of both assessment and sustainability process of development;
- Recognise and deal with lock-ins in a positive manner – through processes of learning knowledge creation and improvement of expectations;
- Adopt attitudes of creativity and projectivity in engagement activities, encouraging the players to shift their thinking models from the 'the past' to 'the future';
- To conceptualise monitoring as a contextual learning activity and a space of experimentation.

Box 3 – **Conceptual proposition for Reflexivity and Contextually**

SEA can work as an instrument that orients sustainability processes of development with a sense of self-critic and self-reflection, in a context-oriented way. This orientation feature can only success if it is acknowledge that the governance environment itself is being confronted with new inputs that call into question current practices.

Uncertainty and Complexity

Sustainability-oriented processes have complex 'tempers'. They address interconnected challenges, multi-scale and multi-value inclusiveness, and are characterized by a range of norms and beliefs. Also when dealing with processes is vital to handle issues of uncertainty as a way of anticipating possible knowledge gaps, opportunities, vulnerabilities and risks. Such future-oriented processes have intentional strategic patterns, although there are also emergent patterns which can be understood as reactions to unexpected external events and as consequences of continuous learning. Due to this complexity, any observer needs to recognize that he cannot fully understand what he is observing. As complexity theory suggests, in a sustainability realm, it is important to shift the mental models from compartmentalized parts to a system as a whole.

Strategic decision-making processes, as the ones that SEA applies to, have persistent and unstructured problems, rooted in different societal and institutional domains; the level of related uncertainty must be recognized as a condition instead of characteristic. There's uncertainty related with the amount of available information and how it is interpreted; uncertainty when dealing with players that have their own perceptions; and uncertainty about the institutional background of the players and interactions. Diminishing the complex nature of sustainability-oriented processes a problem may lead to an asymmetrical uncertainty that is created when focusing on short-term issues without understanding the consequences for long-term change. Can also lead to 'locked' solutions that can be unsuitable for the collective vision.

In the "MtG" framework, thinking about complexity and uncertainty implies:

- Recognise that sustainability processes of development has intended and unintended consequences and that is necessary to deal with both at the same time;
- See complexity as a leverage for steering instead of an obstacle;
- Acknowledge three levels of uncertainty: substantive (about information), strategic (about payers personal views), and institutional (about players institutional backgrounds), and that the three are fundamental to be threaten in equal manner;
- To approach learning as a necessary precondition to change that has a looping causality to incrementally adapt and adjust to new knowledge and new emergent governance models;
- Guide and direct strategic processes to the desirable future with the necessary flexibility required to cope with change, creating capacity for adaptation and innovation.

Box 4 – **Conceptual proposition for Uncertainty and Complexity**

SEA must acknowledge the inseparable relation between content (what) and process (how). A 'logic of appropriateness' mentality is a requirement to understand the how, as it to understand the complexity and uncertainty to approach the what. The interconnection between both allows to integrate sustainability visions in strategic development processes in an interactive and incremental manner.

Power

Sustainability processes of development are processes of interests and power. The multi-actor feature of such processes calls for the attention of power dynamics, as how power is distributed, how is exercised or even the role it has in the construction and development of sustainability visions. Positioning any assessment process at a strategic level is thus acknowledging the presence of several players with different institutional backgrounds, different priorities, and different personal norms and values. Power is strategic processes is created through system biases since it imposes structural constraints in specific actions that empowers or disempowers players. Power is usually perceived as a threat, limiting the success of any sustainability and assessment process. In contexts of transitions to sustainability perceiving power as a transformative capacity (following Giddens 1984) can enhance the expected outcome in sustainability terms (and consequently the governance environment) since it implies that each individual and collective player is able to participate and transform themselves (and those around them) in a conscious way and with a sense of direction.

In the "MtG" framework, thinking about power implies:

- Conceptualise power as a quality of the system and as present in all relations;
- See power dynamics as influential of adaptation and transition.
- Recognise that power relations can limit strategic thinking since the last implies an interconnection between the elements of the system, as the players and their diverse values and perceptions;

- Adopt a posture of power sharing and empowerment to seek reduce possible conflicts and potentiate constructive learning processes;
- Dynamic cooperation between holders of a passive exercise of power (those who create and develop new ideas and visions) and holders of an active exercise of power (those who are able to materialize the ideas and visions);

Box 5 – **Conceptual proposition for Power**

To be successful, a SEA needs to consider power as a transformative capacity (instead a controlling one) and to acknowledge power as present is 'assessment for sustainability' processes. An empowerment posture can help to make players believe that they can (and want) to active participate in constructing the desirable future.

Learning

Sustainability processes of development requires continuous processes of learning. Such processes can be said to be iterative processes of critical reflection through sharing of knowledge, ideas and experiences. When dealing with transitions to sustainability, the existing problems are unstructured and uncertainty exist in respect to the values, the needs, and the solutions. Learning about those problems is a core element if a successful change is to be obtained. SEA wins by approaching and promoting learning as a transformative process (following Mezirow 1997) helping to transform the strategic processes into more sustainability-oriented ones. The reflection of this such processes involves a critical sense on the functionality of the underlying assumptions and expectations; and focus learning on three levels: 1) the content ('what' or 'learn from inside'), 2) the process ('how' or 'learn from outside'), and 3) the premise, reflecting on both content and process to develop recommendations ('why' or 'learn about').

In the "MtG" framework, thinking about learning implies:

- Approach learning in a proactive and reflexive manner;
- Acknowledge that learning emerges at all levels of the sustainability and assessment processes and that is an intrinsic attribute for all the others governance attributes;
- Create stimulating spaces of engagement that facilitate the exchange of information and knowledge;
- Open-minded players that are aware of what is under assessment and critically reflect on the underlying assumptions, including their own;
- Powerful agents to be willing to participate in an equitable way and to recognise the need to change some governing values in face of the sustainability dilemmas being work on, thus acquiring the ability to embrace change;
- Players to adopt the following thinking mode: "think inside the box", "think outside the box", "think about the box".

Box 5 – **Conceptual proposition for Learning**

Sustainability processes of transition requires SEA to perceive learning as an active, collaborative and continuous process. Deliberative learning needs to be approached as transversal to all SEA elements.

2.4 Expected outcomes

The expected outcome with the application of the "MtG" framework are:

- A reconsideration on the very notion of SEA and the 'power' of governance in such instrument;

- Ensure a broad vision on sustainability and develop context-specific perspectives on sustainability. Trigger debates on what is expected (the sustainability vision) from a development process;
- Acknowledge SEA as a proactive and strategic instrument, instead of reactive and restrictive;
- Create reasoning on how governance should be integrated in SEA in order to contribute to the role of SEA in steering strategic development processes towards sustainability;
- Allow to think of SEA as a platform that contributes to the creation of new governance models. This particular outcome emerges as a 'consequence' or 'effect' of SEA in sustainability transitions since these transitions implies also change in governing structures and institutions;
- Position SEA as a legitimation instrument that contributes to a perceived sense of consistency between what is proposed and what are the outcomes;
- Creation of legitimacy also by transforming power relations through an attitude of empowerment;
- Treat uncertainty levels (substantive, strategic and institutional) as sources of information and knowledge. SEA also adopts a positive attitude in dealing with unexpected outcomes;
- Understand different perspectives and attitudes towards sustainability and learn how to manage different expectations towards success;
- Trigger new and/or improved deliberative learning processes, recognising the different levels of knowledge that exist and players' capabilities and resources;
- Promote empowerment by acknowledge each player as capable agents that can transform a strategic process by increasing the players' intrinsic motivation to do so;
- Recognise political lock-ins and the consequent lack of adaptability of a context to new (or different) challenges;
- Annul anchoring attitudes of 'just do something', enhancing learning through strategic thinking postures in sustainability development processes.

2.5 Challenges of the "MtG" Framework

The "MtG" framework for SEA is built upon theoretical and conceptual considerations, even though I also made use of my own professional experience. Being a conceptual framework there are some open questions and possible limitations to its real application. Possible challenges can be:

- Understand the concepts and terminology used: since the proposal is placed at a conceptual level, and since each of the notions that make the "MtG" framework are characterised by contested perspectives, there is the issue of how to reach a unified mean on how to work with the conceptualisations presented;
- Underlying assumptions that exist in any sustainability process of development: the challenge of questioning those assumptions implies that all players (even practitioners and decision-makers) are open to discuss their own perspectives on what is on the table without disempowering the perspectives that don't meet their owns;
- Collective construction of a sustainability vision: SEA itself needs a sustainability vision to work on and without one that is discussed and debated may harm the assessment process itself as well as impose major difficulties in using the "MtG" framework;
- Dependencies between the governance attributes: As seen the attributes are connected and think in one implies thinking on another even though in an implicit way. Power can be an obstacle to adopt a strategic thinking attitude; deliberative learning processes can be seen as a contradiction in situations that uncertainty rules; or even reflexivity can contradict perspectives of a rational legitimation of sustainable solutions;
- Approach the framework negatively: since the "MtG" is placed at a conceptual level there is a challenge when the framework is approach in a negative manner, as diminishing the problem and approach it in a simple manner; as contradicting the existence of the problem giving it a small importance; as questioning the personal ability to make positive use of the framework in favour of SEA; as questioning the real significance of the adopting a governance approach to

SEA influencing the way the framework could be used; or for example questioning the feasibility of the framework due to its conceptual perspective in terms of how to operationalising it;

- The use of reactive and restrictive approaches of SEA along with the framework: the attitude of ‘react to’ and ‘just do something’ ae contradicting the nature of the framework and may lead to a unsuccessful use of the framework as well as unsuccessful achievements of the SEA;
- Difficulty in integrating different thinking logics: short and long-term, content and process;
- The lack of resources or willingness: when promoting continuous learning processes the lack resources of willingness to operate such type of approach can be an imposition on adopting a governance approach to SEA based on the proposed attributes;
- Difficulty in integrating different thinking logics: short and long-term, content and process.

Appendix F.

- Expert Opinion Survey Layout-

Dear ……,

My name is Margarida Monteiro and I'm writing to you regarding my Ph.D. research on Strategic Environmental assessment and Governance, conducted at the Instituto Superior Técnico (IST), Centre for Management Studies of IST, University of Lisbon, Portugal. The research aims to understand *how can SEA be enhanced when dealing with development processes of sustainability*? For this purpose a framework for incorporating governance considerations into SEA was built and is proposed in order to enhance SEA in sustainability processes.

In order to understand the viability, relevance and add-value of the proposed framework, I'm seeking expert opinion on how this proposal can be considered a valid contribution for current theory and practice of SEA. Attached you may find a document where the SEA "Matching through Governance" Framework: Strategic environmental assessment for governance enhancement in promoting sustainable paths of development is presented.

I kindly request your participation through the small survey attached, which can also be accessed through the following link:

https://qtrial2013.qualtrics.com/SE/?SID=SV_6gn38UXtBT3PaIZ

I would very much like to benefit from your thoughts and experience, which will significantly help my research. Please feel free to only answer the questions that you feel comfortable with as being inside your field of expertise. Your answers will be a valuable contribution and will be used only for scholarly purposes – namely in the refinement and reassessment of the framework.

The survey will be open up to December 15th 2016.

I really appreciate your availability and valuable input.

Thank you in advance for your collaboration! If you have any questions or concerns do not hesitate to contact me at margarida.monteiro@tecnico.ulisboa.pt.

Sincerely,

Margarida B. Monteiro

***Online survey outline**:*

Q1. In your opinion is the "MtG" framework appropriate for its purpose (i.e. SEA to contribute to the promotion of sustainable governance in advancing sustainability)?

☐	Yes
☐	No

Q1.1 Why? (Please provide your perspective regarding the framework purpose)

Q2. Regarding your personal knowledge, do you agree with the attributes that are being proposed?

	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
Legitimacy					
Strategic thinking					

Reflexivity and Contextually					
Uncertainty and Complexity					
Power					
Learning					

Q3. Do you consider that the attributes are sufficiently explained to understand the logic behind the "MtG" framework?

	Yes	No
Legitimacy		
Strategic thinking		
Reflexivity and Contextually		
Uncertainty and Complexity		
Power		
Learning		

Q4. Would you suggest any other topic should be proposed for the purpose of the "MtG" framework?

□	Yes
□	No

Q4.1 If YES, what other(s)?

Q5. How do you rate the expected results of the application of the "MtG" framework for the field of SEA?

	Not important	Fair	Undecided	Important	Very Important	Not Relevant
Reconsider the very notion of SEA and governance in SEA						
Promote context-specific perspectives on sustainability.						
Acknowledge SEA as a proactive and strategic instrument.						
Create reasoning on how governance should be integrated in SEA.						
SEA as a platform that contribute to the creation of new governance models.						

Position SEA as a legitimation instrument.						
Promote an attitude of empowerment.						
Treat uncertainty as source of information and knowledge.						
Learn how to manage different expectations.						
Trigger new and/or improved deliberative learning processes.						
Increase players' intrinsic motivation to participate.						
Recognise political lock-ins.						
Annul anchoring attitudes of 'just do something'.						

Q6. To what extent do you think the "MtG" framework is suitable to the current practices of SEA? Please consider the 1 Not Suitable and the 5 Very Suitable

1. □	2. □	3. □	4. □	5. □

Q7. In your opinion what do you consider to be the main strengths of the "MtG" framework?

Q8. In your opinion what do you consider to be the main weaknesses of the "MtG" framework?

Q9. Do you have any additional comments?

Name (*optional*)

Appendix G.

- Expert Opinion Summary of Results-

Q1. Appropriateness of the 'MtG' for its purpose:

Yes - **6**
No - **2**
[One expert choose both]

Q1.1 Why:

Yes:
Allows SEA to provide good information to decision-making.
Presents a basis for social learning to support the development of policies and plans
Addresses relevant aspects of governance

No:
Absence of guidance on how it would work in practice and who would use it.
Does not address SEA failures and actors interests.
Far to academic and theoretical.

Q2. Personal agreement with the attributes proposed:

	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
Legitimacy	**1**			**1**	**4**
Strategic thinking	**1**				**5**
Reflexivity and Contextually	**1**		**1**	**1**	**3**
Uncertainty and Complexity	**1**		**1**		**4**
Power	**1**				**5**
Learning	**1**				**5**

[One expert didn't respond]

Q3. Quality of the explanation of the attributes:

	Yes	No
Legitimacy	**6**	**1**
Strategic thinking	**6**	**1**
Reflexivity and Contextually	**4**	**3**
Uncertainty and Complexity	**4**	**3**
Power	**3**	**4**
Learning	**6**	**1**

Q4. Suggest any other topic:

Yes - **2**
No - **2**
[Three experts didn't respond]

Q4.1 Others:

Communication. Sense-making.

Q5. Rate of the expected results of the application of the 'MtG':

	Not important	Fair	Undecided	Important	Very Important	Not Relevant
Reconsider the very notion of SEA and governance in SEA				**4**	**1**	
Promote context-specific perspectives on sustainability.			**2**	**1**	**2**	
Acknowledge SEA as a proactive and strategic instrument.				**3**	**2**	
Create reasoning on how governance should be integrated in SEA.				**2**	**3**	
SEA as a platform that contribute to the creation of new governance models.				**3**	**2**	
Position SEA as a legitimation instrument.				**3**	**2**	
Promote an attitude of empowerment.			**2**	**2**	**1**	
Treat uncertainty as source of information and knowledge.			**2**		**3**	
Learn how to manage different expectations.		**2**	**1**		**2**	
Trigger new and/or improved deliberative learning processes.				**4**	**1**	
Increase players' intrinsic motivation to participate.		**1**	**2**	**1**	**1**	
Recognise political lock-ins.				**2**	**3**	
Annul anchoring attitudes of 'just do something'.		1		**2**	**2**	**1**

[Two experts didn't respond]

Q6. Suitability of the 'MtG' to current practices of SEA: (1 Not Suitable and 5 Very Suitable)

1. **1**	2. **1**	3. **2**	4. **1**	5. **2**

Q7. 'MtG' main strengths:

Addresses issues that urgently needs to be considered in SEA.
Pays explicit attention to governance and power.
Is a comprehensive and innovative approach that could unfold the full potential of SEA.
The various notions fit well with each other in a coherent package.
Potential for enabling or contributing to aspects of sustainability transitions.

Q8. 'MtG' main weaknesses:

Needs to be operationalised, missing thoughts on how it can be used in practice.
Missing substantive components.
Difficult to translate into concrete actions and consequences.
It is too theoretical and far to academic.
Do not include what is understood by 'context-specific perspective on sustainability' and how is possible to reach it.
Needs further explanation on its real purpose.

Additional comments (considering the two e-mail responses):

Important to move from the fuzzy level and define core substance and contextual particulars – the what, who, how, when.
Misses the consideration of what characteristics should be present if a vision is to qualify as 'sustainability-based'.
Recommend to have in mind that even considering that sustainability objectives must be suited to (and must largely arise) from the context, that context is always to some extent global.
The 'MtG' might serve as a starting point for an iterative process to revise / amend / fine-tune the framework as such (e.g. via Delphi method).
The expected results are remote from day-to-day practice of SEA that makes it difficult to see the real implications.
Scepticism of the strategic approach.
Important to make an attempt to operationalise the 'MtG' and see how it would react in SEA practice (its sensibilities).
In its application in practice is here its potential and implications will be discover.
Needs further explanation on its real purpose.
Relevancy of considering procedures, as SEA, as power constructs designed to make actors mutually dependent.
Question for reflection: who are the actors in a societal subsystem and how SEA makes them more interdependent?
Concepts should be truly joint and fully understood by the collaborating actors.
For a proper use of the 'MtG' it comes down to translating it to questions people will understand, thus enabling interpretation to understand in which degree each attribute exists in a specific SEA context.
Consider traditions, skills, rules, functional system and make the question "what appears to work well in practice" and "how can actors be seduced to apply it" to enhance the 'MtG'.

Appendix H.

- Paper I -

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Governance in Strategic Environmental Assessment: Lessons from the Portuguese practice

Margarida B. Monteiro; Maria R. Partidário

Abstract

The analysis of governance in Strategic Environmental Assessment (SEA) can help understand why, whether and how strategic decision-making happens. Understanding the governance context is strategic to improve the role and capacity of SEA to stimulate, and legitimate decisions that integrate environmental issues and are sustainability driven. The objective of this paper is to discuss why governance is important in SEA. In the SEA literature governance is mostly addressed in silos (i.e. public participation or decisions transparency or accountability) rather than in an integrated way. In addition few authors adopt a strategic view to address the governance context within which SEA is used. In this paper we address the heuristics of governance in SEA based on theoretical and empirical evidence, suggesting how SEA may incorporate the governance dimension. First a review of the SEA literature in relation to governance sets the context to the analysis on how governance is approached in practice, based on 60 Portuguese SEA cases. This is followed by the presentation of an empirical SEA case conducted in Portugal to illustrate what, in our understanding, can be an example of good practice in considering governance in SEA. Final discussion reflects on the role of governance in SEA in promoting engagement, enabling collaborative action, learning processes and dialogues, concluding on the relevance of governance in creating development contexts that can deal with change.

Keywords: Strategic environmental assessment; governance; learning processes; stakeholders; Portugal

Introduction

Overview of Governance in SEA

Governance and strategic environmental assessment (SEA) can hardly be dissociated. According to Meuleman (2015) the construction of SEA systems is highly dependent on the procedural, incremental and substantive dimensions of respective governance contexts. Meuleman (2008: 11) defines governance as 'the totality of interactions, in which government, other public bodies, private sector and civil society participate, aiming at solving societal problems or creating societal opportunities'. In the political arena, governance can be tied to three political dimensions as the political system itself (politics), the institutional structures and political instruments (polity) and the political processes and contents (policy) (Meuleman, 2015).

The consideration of governance in SEA gains special meaning in the legitimisation of strategic decisions, based on the relationship between society and the decision-makers. This is also because it is through governance that multiple types of knowledge can be better incorporated to enable learning processes. In the context of this paper, governance can be understood as a dimension of analysis that should be strategically positioned in SEA to enable the achievement of

desired development objectives. In its essence, governance shapes functioning patterns of the development system, underlying the formulation of public policies and respective regulatory aspects. Thus, addressing governance in SEA can play a pivotal role in defining goals, setting priorities and making choices.

The objective of this paper is to understand why governance in important in SEA. Research on governance in SEA is expanding but still fragmented into single aspects of governance (e.g. public participation, monitoring and follow-up, capacity-building, decisions transparency or accountability). The broad 'match' between governance and SEA is therefore not easy to assess or review. The evolution of SEA theory throughout the years shows an increasing concern with governance issues, however generally looking into particular aspects: the need to understand the context of decisions (Hilding-Ryedvik & Bjarnadóttir, 2007; Ahmed & Sanchéz-Triana, 2008; Bina, 2008; World Bank, 2011); the role of communication between actors for a successful assessment (Vicente & Partidario, 2006); the importance of considering the political dimension of SEA (Slootweg & Jones, 2011; Jilliberto, 2012; Partidario, 2015); the production of legitimate knowledge to support decision-making (Partidario & Sheate, 2013; Sánchez & Mitchell, 2017); the influence of actors on dynamic processes and influence of SEA in decision-making (Runhaar, 2009; Van Buuren & Nooteboom, 2010; Hansen et al., 2013); the understanding of SEA as a social construction tool with influence in the mediation of power in decision-making processes (Cashmore & Axelsson, 2013). Governance in an integrated way, conciliating these various single aspects, tailor-made to particular circumstances, and addressed broadly to improve the role and function of SEA is yet rather unexplored in the body of SEA literature. This paper aims to contribute to fill in this gap.

We argue that the theoretical evolution in relation to governance in SEA discourse is perhaps nested in the increasing concern with the adoption of strategic perspectives in the SEA literature. However, the still dominant traditional impact assessment feature in the practice of SEA, with an undervalued strategic dimension, well recognized in the literature (Tetlow & Hanush, 2012; Bidstrup & Hansen, 2014; Lobos & Partidario, 2014; Noble & Nwanekezie, 2017), limits SEA ability to understand the governance context of development. And that is because SEA is mostly reactive to concrete planning and programme development proposals, largely using a technocratic and rationalist approach (Lobos & Partidario, 2014), looking for territorial materialized consequences, often limited to biophysical aspects, following what Partidario (2015) called the compliance or marginal approaches as opposed to the constructive approaches.

Meuleman (2015: 13) alerted to the fact that '[impact assessment] IA problems can be related to typical weaknesses of governance styles' and that 'it makes sense to think seriously about governance when IA is carried out, as governance systems offer both constraints and opportunities for the governance of IA systems and procedures'. According to Meuleman (2015) the IA problems (related to scoping, alternatives, uncertainty, public participation or follow-up) can be associated to bureaucratic issues, partitioning of the public administration, centralization of knowledge and power, political struggles or even the culture of participation. Wang et al. (2012: 415) also claim that 'the core reasons of blocking the effective SEA implementation are, in most cases, the issues relating to political cultures and institutional background, such as lack of powerful environmental governance and accountability'.

A critical shift in IA expertise, essential to broaden the understanding of SEA, is needed. An increasing body of knowledge on public administration, political and social sciences, psychology and behavioural economics and management is making way in the range of expertise involved in SEA, beyond the original physical, engineering, biological or geographical based knowledge, enriching the understanding and triggering the potential of SEA (Partidario, 2000; Geneletti, 2015;

Partidario, 2015; Runhaar & Arts, 2015). But we argue in this paper that in addition to the expansion of expertise in SEA governance, constructive approaches are also necessary, with positive and strategic thinking adopted in SEA to act as an instrument of change (Partidario, 2015).

Following the above lines of argument, in this paper we question why governance is important in SEA. And we address this issue by exploring strategic thinking as an orientation norm and as a SEA approach, because we consider strategic thinking of extreme relevance for adopting a governance perspective in SEA.

Strategic thinking in SEA: governance as a component of SEA for sustainability

Strategic thinking in SEA implies addressing SEA differently from what has been traditional theory and practice. From early days Partidario (1996: 3) argued that 'SEA must address the strategic component in any of the decision instruments incorporated in its scope', and that SEA should seek to add value to decision-making as a strategic move to integrate environmental and sustainability issues in development processes. Strategic thinking, as an orientation norm, can help give meaning to complex environments as the ones SEA apply to. It allows to use forward-looking thinking when addressing the consequences of decisions, with the purpose of helping to ensure adaptation to new challenges arising from changes in an uncertain and complex environment. We argue that strategic thinking in SEA can enable a better understanding of governance contexts to drive 'transitions in governance and decision making processes' (Noble & Nwanekezie. 2017: 171).

Three reasons may help to understand the relevance of strategic thinking when discussing governance in SEA: 1) it allows the consideration of a wide range of perspectives and understandings in complex systems, positioning governance at the heart of the strategy itself; 2) it enables focusing on what is critical and what are root causes when addressing the policy and societal challenges; and 3) it provides the capacity to choose and learn when dealing with intended strategies (goal-rational oriented), with deliberative strategies (contextual-oriented) and with emergent strategies (learning oriented) in contexts of high interaction.

We also argue in this paper that governance is an essential dimension in SEA to enable sustainability. Partidario (2000) argued that SEA would fall largely behind its potential by focusing solely on physical and ecological issues and instead 'environmental assessment must understand and integrate sustainable development principles' (Partidario, 2000: 651). However, there are claims that broadening the scope of SEA to integrate other sustainability dimensions, and addressing it holistically, will likely weaken SEA as an environmental assessment instrument, as it will reduce the weight given to the environment in detriment of economic and social issues (e.g. Morrison-Saunders & Fischer, 2006, Jiliberto, 2009, Sadler, 2016). We are with Sheate (2009) when he points out that sustainability is a basic purpose in all environmental assessment instruments. The issue is how and to what extent sustainability is perceived: embrace sustainability from an environmental perspective, address sustainability based on the 'three-pillar model', or to approach sustainability in a broadly and integrated manner. We position SEA as part of a *sustainability* governance system.

Following this line of thought, a Strategic Thinking (ST) approach in SEA to advance sustainability has been developed over the last decade (see, for example, Partidario, 2007a, 2007b, 2009, 2015) motivated by the need to assess how a development context is prepared to deal with change, while keeping an integrated sustainability perspective. This inevitably includes addressing governance. In developing this approach, Partidario pointed out the importance of searching for the drivers of social and/or ecological/biophysical changes in strategic assessments (Partidario, 2007a, 2007b). Governance addresses many of these drivers, expressed through roles and responsibilities, policy priorities or power tensions. There are examples around the world already explicitly recognise

governance in national guidance for SEA. Chile, for example, published the Orientation Guidance for the Application of SEA in 2015, giving emphasis to the institutional context, inclusive engagement of stakeholders, and the overall governance conditions of the development context.

Partidário (1996: 9) pointed out that the 'implementation of SEA depends on effective political will…' needing 'administrative and institutional mechanisms (….) and the most appropriate ways to ensure a certain degree of accountability', a concern subsequently also argued by other authors (Kørnøv & Thissen, 2000; Wallington, 2002; Bina, 2003). This means that governance can be incorporated in SEA as a technical component (context analysis, macro-policies setting direction), as an institutional component (levels of influence, roles and responsibilities), and through engagement and communication (stakeholders' engagement, public participation and learning) with no rigid sequence, recognizing the need to be adjusted to the decision process cycle (Nitz & Brown, 2001; UNEP, 2009).

Paper outline

Following an emphasis on the need to consider governance in SEA, drawn from literature, an empirical analysis of how governance is dealt with in the Portuguese SEA practice, and the role it plays in the assessment, is developed. For that purpose a framework composed is proposed. A recent SEA case is presented to show how governance may be approached in a strategic thinking context, and what has been the added value for the plan formulation. The case is chosen by the role governance played in steering the strategic development process towards sustainability, enhancing the success of the implementation of the Plan. This is consistent with what was discussed in the Workshop on the Application and Effectiveness of the SEA Directive held in May 18th 2016 in Brussels that positioned SEA as a key instrument for good governance (EC, 2016). A discussion is then presented, with some reflections on how governance in SEA can help seek more sustainability-led outcomes. Finally conclusions are drawn highlighting the insights gained to understand why governance is important in SEA, with suggestions on how to improve the consideration of governance in the practice of SEA.

Methods

Research questions

The objective of this paper is to understand why governance in important in SEA, by producing findings on whether governance is being integrated in the practice of SEA in Portugal, in line with the theoretical grounds above presented. To achieve this objective a review of Portuguese SEA environmental reports was conducted to find out how governance has been addressed by existing practice, and results are shared. An empirical case that used a governance-driven approach integrated in a ST SEA will be presented as a success case. The following questions guided the research:

1) Is governance being addressed in the Portuguese practice of SEA?
2) How is governance being addressed in the Portuguese practice of SEA?
3) How can we address governance in SEA in a way that makes strategic sense?

Analytical components for empirical analysis

The empirical analysis in this paper has two components. First it builds upon the analysis of 60 environmental reports developed in Portugal on different sectors and geographical areas, and prepared by different teams. Second it uses an empirical case on the application of governance in SEA, developed also in Portugal, to share learning aspects from successful practice in addressing governance in SEA. This dual analysis was chosen to determine if practice regarding governance

in SEA follows what is advocated in the Portuguese Guidance on SEA, which was published and formally adopted in 2012 by the Portuguese Environmental Agency (Partidario, 2012), but also to present a case that successfully incorporated governance in SEA, with positive benefits to the development process.

Environmental reports review

To answer to research questions 1) and 2) 60 environmental reports published between 2012 and 2016 were reviewed. These reports address the whole Portuguese territory and different sectors of activity. Not all cases had issued the respective Environmental Statement by the time of the review, but all had the institutional and public consultation phase closed and results incorporated.

The framework to review the environmental reports is presented in Table FH.1 and is based on the ten checking points for a successful ST SEA of the Portuguese Guidance, which was published and formally adopted in 2012 by the Portuguese Environmental Agency (Partidario, 2012). One critical vector of such an approach is the use of 'critical decision factors' (CDF) to enable focus on what is relevant and a priority for long-term sustainable development. These ten checking points have already been used and adapted in other contexts (Lobos & Partidario, 2014; Lamorglaese et al., 2015; Carvalho et al. 2017).

Table H. 1 *SEA framework for governance analysis in the environmental reports review*

Elements	Criteria	Review questions
Expression	Explicit	Is the word governance explicitly present in the report and/or is considered in an implicit way?
	Implicit	
Entry point	Assessment framework	Where is governance considered in the reports?
	Governance Framework	
	Assessment	
	Engagement and communication framework	
	Monitoring and follow-up	
Assessment Framework	Critical Decision Factor	Is governance defined as critical decision factor? Is governance defined as an assessment criteria? Are governance-related indicators defined?
	Assessment criteria	
	Indicator	
Governance framework	Actors	Are the relevant actors and their responsibilities in the planning and SEA processes identified? Are institutional relationships, between actors and between policies, identified?
	Explicit responsibilities	
	Relationship between actors	
	Relationship between policies	
Assessment	Context analysis	Is a governance-related context analysis done? Are alternative options of development contextualized to the strategic objectives? Are guidelines and/or recommendations for the proponent proposed?
	Contextualized options of development	
	Guidelines / recommendations	
Monitoring and follow-up	Guidelines for follow-up	Are guidelines and/or recommendations for the follow-up stage defined? Are governance-related monitoring indicators defined? Are responsibilities for the implementation phase exposed? Is an engagement and communication strategy for the follow-up stage created?
	Indicators for follow-up	
	Responsibilities for follow-up	
	Engagement and communication strategy for follow-up	

Empirical case analysis

The research question 3) is addressed using the SEA of the revision of the Sintra's municipal master plan as an empirical case. This case involved the active participation of the authors in conducting a ST SEA and is presented as an example of how governance may be successfully incorporated and integrated in the assessment and planning processes. The analysis first follows the elements presented in Table 1. We then reflect on the results following the four action-oriented impact assessment governance principles suggested by Meuleman (2015): a) reflexivity (how the development process adapted to the SEA process); b) governance environment (how the governance environment of the development process works and relates with the ST SEA); c) governance styles (how the governance styles oriented both development process and SEA process); and d) how participation activities were developed and provided appropriate inputs for both the development process and the SEA process. The intention is to explicitly demonstrate what can be expected from considering and addressing governance in SEA processes, and what can be the added-value for both development and SEA processes.

The Portuguese profile in approaching governance

Portugal cultural tradition reveals a hierarchical administrative culture in its functioning and developments approval (Niestroy, 2005), focusing on short-term results accompanied by a fragile public participation and low level of civic involvement. The Portuguese culture lacks on 'evidence-based instruments to accompany policymaking, with virtually no application of regulatory impact assessments', as well as a weak 'strategic component of decision-making', 'and 'monitoring of institutional governing arrangements' with 'little systematic effort to improve strategic capacity by making changes to these institutional arrangements' (SGI Report, 2016). Also relevant is the high preference for avoiding uncertainty and focus on achieving quick results, and the Portuguese normative culture in thinking tradition (Hofstede et al., 2010).

Governance analysis in the Portuguese SEA practice

The main observations on how governance is considered in the 60 environmental reports and few examples are presented in Table H.2. The results presented in Table H.2 are detailed in the following sub-sections, structured according the elements of the framework for analysis.

Table H. 2 *Examples of how governance is used in the assessment framework and in monitoring and follow-up as found in the environmental reports*

Elements	Criteria	Statistical Results	Examples
Expression	Explicit	75%	
	Implicit	25%	
Entry point	Assessment framework	48,3%	
	Governance framework	0%	
	Assessment	66,7%	
	Engagement and communication framework	6,7%	
	Monitoring and follow-up	40%	
Assessment Framework	Critical Decision Factor	31,7%	Organization and municipal management. Governance model. Development agents. Territorial management.

			Knowledge, innovation and governance.
	Assessment Criteria	33,3%	Citizen's culture and participation. Financial management and promotion of economic vitality. Adaptive management and public-private collaboration. Knowledge and capacity-building. Efficiency of decision-making structures.
	Indicators	45%	Financial sustainability. Citizen's voter participation. Public discussion sessions promoted by the municipality. Number of 'single contact points' (costumer services). Co-responsibility schemes. Number of entities involved in consultation processes.
Assessment	Context analysis	30%	
	Contextualised options of development	6,7%	
	Guidelines / Recommendations	61,7%	
Monitoring and Follow-up	Guidelines / Recommendations	38,3%	Promote programming transparency and public-private intervention schemes. Bet on concessions to activate co-responsibility schemes. Reinforce the effectiveness of inspections and improve the application of existing legislation. Assure the execution of Civil Participation programmes. Invest in the creation of participatory budgets. Ensure the establishment of information, awareness and clarification activities considering the different subjects to attend.
	Indicators for follow-up	41,7%	Financial sustainability. Citizen's voter participation. Public discussion sessions promoted by the municipality. Plan's degree of achievement. Execution projects of sharing and knowledge dissemination at an interdepartmental level. Level of information available in a transparent way. Degree if stakeholders' influence in decision-making processes.
	Responsibilities for follow-up	58,3%	

	Engagement and communication strategy for follow-up	3,3%	

Expression and Entry Point

Concerning the use (*expression*) of the word governance, the Portuguese practice is quite encouraging since 75% of the cases make explicit use of the expression at least in one of the elements of the analytical framework. In the same cases governance is also implicitly considered, for example when exploring the functional model of the planning/programmatic system or in relation to the public participation and stakeholders' engagement. In 25% of the cases the word governance is absent, and this occurs mainly when the focus of the assessment is limited to biophysical aspects. It can however be assumed that, even if absent as a term, the governance dimension is always incorporated through the institutional and public consultation of the environmental reports.

On the *entry point* approximately 67% considers governance in the assessment phase, more than 48% of cases in the assessment framework and in 40% of the cases governance makes it entry only in the monitoring and follow-up phase. Very few cases establish an engagement and communication strategy for both the planning and the environmental assessment processes, and when participation is introduced it is most often to comply with the legal requirements (e.g. PDM-VA, PDM-BR). None of the cases reviewed includes a governance framework.

Assessment framework and governance framework: understanding the strategic focus

Getting and understanding a strategic focus is critical in ST SEA and aims to adapt 'to the natural, cultural, political and economic context of the object of assessment' (Partidario, 2012: 33). It includes, but is not limited, to the traditionally labelled "scoping". In 48,3% of the cases governance (or a related expression) is included in the *assessment framework*. Of these 65,5% (31,7% of total) adopt governance as a critical decision factor and 93% (45% of total) as an indicator. Within cases that consider governance as a CDF, 84% also define criteria and indicators for governance. Most indicators address the financial sustainability of the plan or programme (mostly in terms of investments and private partnerships to assure economic stability as for example in PDM-C) and budgeting issues for the proponent (e.g. municipal budget in PDM-RB).

In ST SEA it is vital to ensure that the strategic issues and the objectives of the object of assessment are considered in building the assessment framework. It is about the so called 'tailor-made' or 'fit-to-purpose' SEA. Practice reveals some disconnection between what is defined as the object of assessment and what then is the actual focus of SEA. 50% of the cases reviewed reveal that governance aspects are included in the plan or programme stated objectives (for example the achievement of more collaborative functioning models, transparent decision-making, administrative modernization, or capacity-building of human capital, to name few), but only 23,3% build an assessment framework that responds to the plan's governance-related strategy (e.g. PGRH-A, PDM-VA). This reveals that SEA does not really engage with planning, and maintain a distant and separated definition of issues of concern, independent from the planning issues. Two main aspects with this lack of coherence between the assessment framework and what is being assessed regarding governance can be noted, suggesting that there is little awareness on the role that governance can have in SEA:

- When the object of assessment (plan or programme in Portugal) includes governance issues, but the SEA does not consider those issues in the assessment framework (about

50% of the cases), that means governance will not be considered in the assessment in SEA;

- When the object of assessment (plan or programme in Portugal) does not include governance issues, normally the SEA assessment framework contains an assessment factor that is construct upon issues of openness's, transparency, participation, accountability, efficiency and effectiveness, and coherence.

As previously mentioned, in no case a *governance framework* is presented, referring to the actors with interest in the development proposal and their responsibilities, or the relationship between policies and macro-orientations important for the design and implementation of the proposal.

Assessment: pathways for sustainability

According to Partidario (2012: 31), *assessment* in a strategic context 'corresponds to the assessment of possible choices on strategic pathways (…) considering evolving trends, specificity of context, views and expectation of stakeholders and uncertainties'. In the cases analysed we noted the absence of any kind of engagement and incorporation of stakeholders' views and expectations in the identification of different strategic pathways for development (alternative options).

In 30% of the cases a context analysis is developed in terms of the governance system and related aspects (for example, PUSC provides a context analysis for the municipal governance systems, specifically for the territorial management strategy, existing public-private partnerships, and models of public participation), in line with the plan's strategic objectives. Curiously there are also cases that made an analysis of the governance context without having a governance or governance-related critical decision factor, criteria or indicator (e.g. PGRIA).

The recognition and assessment of alternative options is one important step for the success of SEA. This is only seen in 6,7% of the cases (with only half constructing and assessing alternative options for the plan's or programme governance objectives, as for example PDM-E and PUSC). This is in line with current claims that the definition of 'fit-to-purpose' alternatives is one major problem in SEA practice (e.g. Lynhe, 2013; González et al., 2015). In the majority of cases the assessment is of the materialisation of specific actions and measures (as concrete development projects) or even, the no-action alternative. So alternatives or strategic options are not really being much used in SEA, let alone to address governance objectives.

Lastly, 61,7% of the cases presents recommendations to assist the planning authority in successfully implementing the strategy, minimize the risks or potentiate the opportunities, and to deal with uncertainty in the follow-up stage. The recommendations given are governance-related mostly concerned with cooperation and collaboration between the planning authority and the different agents with special interest and formal (or informal) responsibilities in a specific area of activity (e.g. PETI). The inclusion of governance in recommendations is a good practice element that has been well accepted and followed by practitioners and decision-makers in Portugal.

Monitoring and follow-up

The role of governance in *monitoring and follow-up* is quite relevant for the success of SEA. As Lobos and Partidario (2014: 41) states 'follow-up in SEA is based not only on monitoring environmental and sustainability indicators, but also on analyzing the governance and processes of action'. To analyse the inclusion of governance-related issues in the monitoring and follow-up, three aspects are considered: 1) the need to have monitoring recommendations and indicators defined in the environmental report, 2) the need to identify formal and informal responsibilities for

a successful strategy implementation, and 3) the need to develop an engagement and communication strategy for follow-up. On the engagement and communication strategy for follow-up, only two cases present an engagement strategy and a concrete methodology to an effective application and engagement of stakeholders and the general public (PDM-I and PANCD). Both justify this strategy with the intention of creating a more inclusive planning process, and also to allocate more responsibilities to the general public on the evaluation of the plan implementation.

About 42% of the cases defines governance-related monitoring indicators, basically using the same already identified in the assessment framework. Even with a relatively good number of cases that proposed governance as a theme to be followed, it is normally seen a monitoring and follow-up strategy that does not translate the results of the assessment phase. A smaller number of cases have guidelines for follow-up to understand the development and what was identified as critical for governance in the assessment (e.g. PDM-B). Also, more than half define specific responsibilities for the relevant stakeholders, called as 'Governance Guidelines'. In approximately 30% of all cases it is possible to observe:

- The definition of monitoring guidelines and explicit responsibilities even when no governance direct of related assessment factor or criteria is identified (e.g. PETI, PDM-FV); or
- The definition of a governance or similar assessment factor, but no inclusion in the monitoring and follow-up programme, namely in terms of institutional responsibilities (e.g. PGRH-A, PDR-M).

One possible justification why less than half of the cases consider governance issues in this monitoring and follow-up phase is uncertainty. And the reason why the other half consider may be related to the recognition that implementation of SEA depends strongly on responsible organizations and other stakeholders. But as mentioned, most of the indicators used in follow-up tend to be quantitative and easy to collect and measure (with already existing data) - rare are the cases that use monitoring as a way to overcome uncertainty, and to deal with the complexity of the context.

Empirical Case Evidence: The case of Sintra's Municipality

The research question 3) is "how can we address governance in SEA in a way that makes strategic sense?". To address it we adopt the case of the SEA of the revision of Sintra's municipal master plan, developed by the SENSU research team, a research group in the Centre for Management Studies of Técnico Lisboa, University of Lisbon.

Sintra is a coastal municipality (Figure H.1) included in the Lisbon Metropolitan Area (LMA), with 377.835 inhabitants, representing about 13% of the LMA population and the second most populous county of Portugal (just behind Lisbon). The Village of Sintra is an UNESCO World Heritage Site, and one of the most relevant touristic sites in Portugal. The first municipal master plan dates from 1999, and after 13 years the executive deliberated its revision. In 2014 a ST SEA methodology for the Plan's revision was approved, following the Portuguese Guidance approach. The case is currently in the process of formal institutional and public consultation.

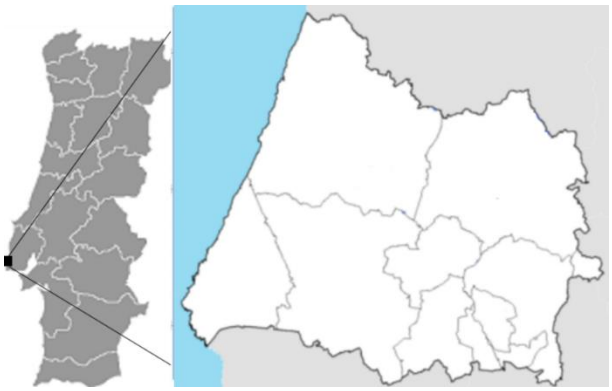

Figure H.1. *Sintra geographical context.*

Next we show empirical evidence on how governance was considered in the SEA, in a strategic way. The timeline of the SEA case is presented in Figure H.2.

Allowing space for governance to be considered in the assessment and governance framework

In the revision of the Sintra's municipal master plan, the SEA was initiated with the beginning of the spatial planning process and full alignment was ensured (Figure H.2).

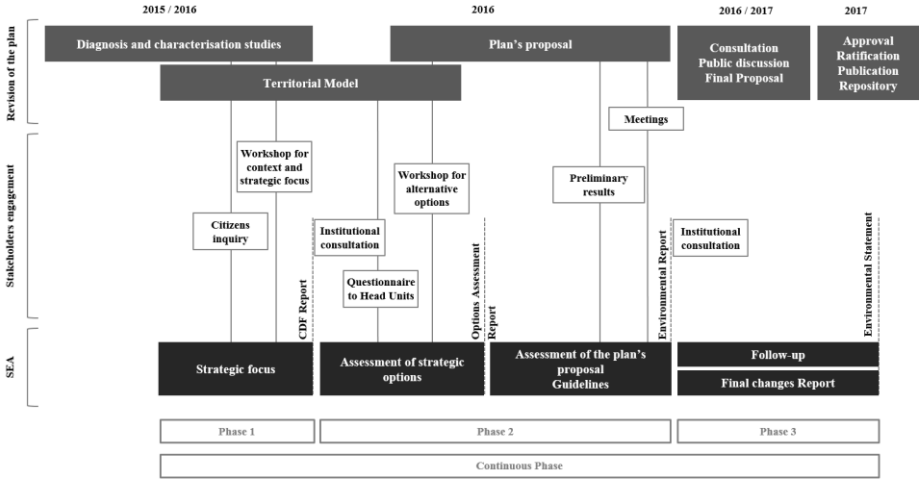

Figure H.2. *Procedural alignment of Sintra's case*

Right at the outset it was agreed to have a collaborative process and an active engagement of stakeholders, including the population, throughout the whole planning and assessment processes altogether. Table H.3 indicates the various types of engagement and communication activities used during the process.

Table H.1. *Engagement and communication activities throughout the SEA process.*

Engagement and communication activities
Workshop for context and strategic focus. Citizen's Inquiry for context and strategic focus. Workshop for the definition of alternative options of development.

Questionnaire to the Organic Units of the Municipal Council. Meetings with the Municipal Council and Sectorial Entities.

The strategic objectives were politically set but open to be revisited and refined by incorporating the citizen's views and opinions, to increase a sense of ownership and commitment towards the Plan. To that purpose two activities were carried out: a) a workshop for context and strategic focus, with invited stakeholders, reflecting on the main problems and potentialities that express priorities of development in a sustainability context; and b) an inquiry applied to the population to find out what are, in the citizens opinion, the most important aspects to consider, and those that are not of so much importance, to a sustainable development processes in the municipality.

The workshop for context and strategic focus took place in November 2014. 102 agents were invited and 57 attended, including municipal council officers, local associations, private sector, security forces, regional administration and local agents. The purpose was to agree on priorities for municipal development and to get a strategic focus through a participative planning process. First the problems and potentialities of Sintra municipality were identified with the stakeholders and categorized to define success factors to a sustainable development in Sintra. Secondly an interactive discussion took place to define the strategic focus, based on the success factors, and define the CDF to the development of Sintra (the outcome of this discussion is presented in Figure H.3). Regarding governance, not only governance was elected as a CDF, but this engagement arena indicated two important aspects to understand the municipal decision institutional context:

- The power struggle between different political factions, with different discourses and strong positions, with the opposition against policies defined by the current Executive Board;
- Hierarchical relations between those with leading positions and trainees, with the trainees feeling constrained in giving their own opinion if someone with a higher hierarchical position was in the group.

It was a challenge to manage both situations, and the SEA served as a discussion arena to manage different perceptions and opinions. If in the first case the SEA worked as a mediator providing the same level of importance to any contribution, in the second case it worked as an empowerment instrument, levelling every participant and allowing similar roles in the discussion.

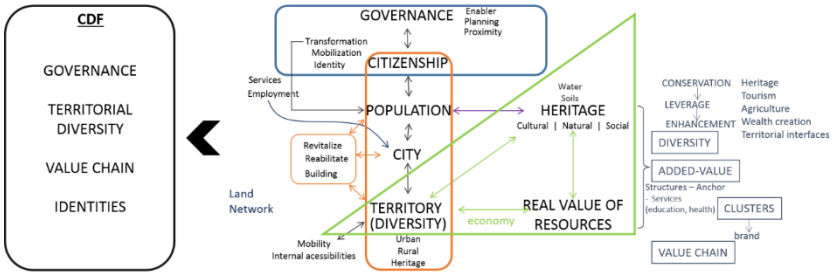

Figure H.3. *Result of the Focus Workshop - Systems thinking for context and strategic focus.*

Another engagement activity was an inquiry to the general population, applied in December 2014, asking two main questions: the five most positive aspects of Sintra and the five aspects that need to be improved. Approximately 1,3% of the Sintra resident population responded, 2.282 answers were received. The inquiry allowed the incorporation of a different type of knowledge with

considerations and understandings from those who live the municipality and live through its dynamics. Again the SEA worked as an empowerment instrument and enabled the consideration and integration of a very diverse range of opinions in the planning process.

Based on these two participative moments, the planning team felt the need to redefine the strategic objectives of the Plan in order to incorporate specific issues that were initially overlooked. This reflexive attitude of critic and reflection from what was initially defined by the municipality, and the new results from the engagement activities, allowed important issues to be incorporated in the planning decisions, enriching the strategy of the proposal. Two of the most important issues were the inclusion of the ecosystem services and their valuation, and the promotion of activities associated with the coastal area. Also important was the increasing importance given to cultural aspects, as Sintra unique identity is highly recognised. This change in strategic objectives illustrates the capacity of SEA to influence the plan development, which was only possible because the plan was still being conceived.

Both the participative moments fostered the inclusion in the Plan's strategy of important inputs to the municipal sustainability and, at the same time, legitimate the planning process in the eyes of the public and other relevant stakeholders. In addition, the fact that the assessment framework was largely identified in the workshop with contributes from different stakeholders, means the public also influenced the SEA. This can be considered one of the key conditions for the success of the SEA.

Table H.4 shows how governance was included in the SEA according to the framework of Table H.1. Governance was defined as a CDF to bring attention to the existing social networks, strategies and policies, power relations, as well as the governance model. This enables the analysis of the relationship between different units of the municipality (internal effectiveness), between the municipal council and the community, and between economic agents, public entities, private sector and the contiguous municipalities. Citizenship was a concern widely mentioned, so it was adopted as a criterion to ensure looking into questions of diversity, associations and society initiatives for promotion of local values.

Table H.2. *Sintra's municipal master plan – Examples of governance in the assessment and governance frameworks*

Elements	Criteria	How governance was included in the SEA
Assessment Framework	Critical decision factor	Governance (To assess efficient and effective planning and management and active engagement).
	Assessment Criteria and Indicators	*(CDF Governance)* Municipal Governance Model: Adequacy of the institutional structure to the development strategy. Communication and cooperation between Organic Units. Schemes of public-private partnership. Level of territorialisation and mainstreaming of public policies.
		(CDF Governance) Community Proximity: Level of municipal transparency. Coverage and effectiveness of municipal local services. Citizen's engagement initiatives.
		(CDF Identity) Social Network and Citizenship: Promotion of social entrepreneurship, Associations and Volunteer Programmes.
Governance Framework	Actors	Local authorities (13 actors identifies). Public administration (national and regional) (7 actors identified).

		Neighbouring municipalities (6 actors identified). Public and private services (4 actors identified). Economic agents (generalised). Associations (generalised). Media (generalised). Local citizens and tourists.
	Explicit responsibilities	Formal responsibilities for each stakeholder group were explicitly outlined according established institutional settlements.
	Relationship between actors	Relationship between each stakeholder group formal responsibilities and the strategic areas of development.

Crucial in the SEA was the governance framework. As mentioned, this is a generally ignored aspect in the Portuguese practice, maybe because it is not a legal requirement. In this case, the governance framework covered two aspects: actors and relationships between them. The most relevant agents with responsibilities in the territory of Sintra were identified and their formal (and informal) responsibilities in relation to the strategic objectives of the Plan and decision problem outlined. This allowed the identification of gaps and overlaps in the existing responsibilities (like the concentration of responsibilities in planning activities between the Municipal Council and regional administration) which are important information for the planning authority to consider in the plan management, and also for the SEA to assess the existing institutional capacity to a successful implementation. It was also possible to verify the role of each agent in the planning process and consequent implementation, as for example the current passive role of the citizens in planning activities or the active role of economic agents in the promotion of local assets.

Using governance in the assessment

The assessment phase requires yielding critical trends so that we can understand the dynamics of what is going on regarding the existing social networks, strategies and policies, power relations and governance model, and assess to what extent the proposed strategies will enhance what is good (opportunity) or, otherwise increase the difficulties (risk). In the case of Sintra it was not easy to access an analysis of the existing municipal governance model and the plans governance environment, both in relation to connections and communication between different municipality units, or even in relation to the territorialisation and mainstreaming of local public policies.

To cover this gap of information and knowledge, a questionnaire was directed to the heads of units of the municipality of Sintra to find out about the communication and cooperation between the units. Two objectives steered the construction of the questionnaire: 1) to analyse and understand the internal function of the units of the municipality; and 2) to analyse and understand how the different units communicate and collaborate between them. Of 52 expected answers 29 were obtain (56%). The most relevant results relate to the existence of interdepartmental decisions to allow an understanding of the organisational structure (institutional functions and rational hierarchical roles vs. strategic areas of development), and to the governance model of functioning.

Results achieved allowed the identification of several critical trends of the municipality in terms of governance, which are:

- The organisational structure has been based on traditional bureaucratic relationships and defined in terms of rational hierarchical roles; organizing in strategic areas of development would enhance strategic practices, however that does not seem to be the trend as far as structural organization goes at municipal level;
- Low level of interdepartmental communication, despite the efficient and effective internal functioning of the municipality units;

- Increase of the municipal transparency index, in terms of information sharing on the internal functioning of the municipality;
- Improvement of the municipality human capital through professional training;
- Upgrade in the provision of public services, despite the geographical centralisation.

At this point one interesting fact was acknowledged: that even following a hierarchical culture in its functioning system, Sintra's municipality has a great capacity to adapt and complement its culture with broad participatory activities, with a view to ensure a more successful Plan.

Essential in the assessment is to identify what is being assessed. In the case of Sintra a second workshop was held to identify strategic options and assess risks and opportunities.

The strategic objectives of the Plan did not include, in its initial draft, an explicit governance objective, but as shown in Table H.5 several alternative options were constructed under a governance theme in the second workshop when relevant stakeholders identified possible alternative options of the Plan. This assessment workshop engaged 41 stakeholders including local and regional administration, local NGOs, private sector, and municipal services. The strategic objectives of the plan and the critical trends identified in the context analysis provided the support to contextualize the alternative options identified by stakeholders.

Table H.3. *Sintra's municipal master plan – Examples of governance aspects in assessment activities*

Elements	Criteria	How governance was included in the SEA	
Assessment	Context analysis	Was developed a trend analysis focusing on the CDF Governance; was applied a questionnaire to the head of units of the municipality of Sintra; were identified the key critical trends regarding governance.	
	Contextualized alternative options	Plan Strategy "Valuation of ecosystem services"	Alternative Option 1: The decision on the uses of areas with significant ecosystem services assets should be based on a demonstrative evaluation of their tangible and intangible value. Alternative Option 2: The decision on the uses of areas with significant ecosystem services assets should be based on an adaptive management and incentive generation schemes for their protection and recovery (Transfer Development Rights).
		Plan Strategy "Processes and decision – society engagement"	Alternative Option 1: Develop and boost participatory platforms. Alternative Option 2: Promote the transparency of decisions and access to information.
	Guidelines / Recommendations	*(e.g. for the CDF Governance)* Assure the creation of collaborative platforms rooted on the assumption of continuous dialogue and cooperation. Focus on the Administrative Modernisation (licencing, inspection and capital management). Implement an organisational system between properties for an easy, effective, fair and responsible participation in management of the territory (e.g. associations).	

Even though governance was not explicitly considered, results from the trend analysis, as well as from the questionnaire applied to the heads of units of the municipality and personal perceptions

of workshop participants determined the identification of issues of transparency in public policy processes, decentralisation, streamlining and process simplification, or new schemes to promote public participation as crucial to be the basis of some options. The results of the workshop prompted the planning team to incorporate governance issues in the alternative options, as for example, the development of new participatory platforms and promotion of transparent decision-making processes and access to information. The process of constructing the alternative options was therefore a result of a reflexive interaction between the workshop participants, the SEA team and the planning team, paying special attention to incorporating sustainability-contextualised concerns in their construction.

From the point of view of the CDF governance, the assessment of alternative options resulted in the identification of several opportunities and risks, specifically regarding promotion of a sense of ownership in relation to the plan, improvement of public-private relationships, increase the engagement of local community in the decision-making process, strategies and policies harmonisation, investment in a proximity policy creating equal conditions of time, costs and quality services, and loss of dialogue between key stakeholders, pressure in the financial sustainability of the municipality, management difficulties due to increasing need of inspection and bureaucratic constraints (Table H.5).

Based on the resulting opportunities and risks, governance guidelines were recommended:

- Make clear the investment priorities of actions and measures in the implementation phase;
- Ensure a more active role of all stakeholders in planning and management activities, including the general population, by recognising its fundamental and structural role to the pursuit of the Plan's strategy;
- Emphasise the need to establish strategic alliances with relevant agents of the society to create projects that can add value to Sintra and can contribute to a sustainable implementation of the strategy;
- Assure that the different municipal public policies are aligned regarding its strategic orientations and intentions;
- Promote transparency and share information about all developments in the implementation process;
- Reduce the administrative red tape cost by betting in the administrative modernisation and simplification of planning processes;
- Promote the creation of networks, and knowledge share, and in its integration in the municipal governance model, moving towards an adaptive management model.

Monitoring and follow-up strategy with a governance perspective

As mentioned, the plan preparation is still ongoing and is now getting to its negotiation phase, running the formal institutional and public consultation process, in an integrated way. Several public meeting are being held in different parts of the municipal territory to present the Plan to citizens, and the outcomes of the SEA, and gather opinions and views. An open link is also available to all interested public to provide ideas and comments on the Plan and on the SEA. After these activities, the planning and SEA teams will again refine the strategy and the assessment.

To overcome the high uncertainty and complexity concerning governance, a monitoring and evaluation process need to be established as a continuous process. Governance-related indicators (Table H.6) will contribute to monitor the extent to which the strategic objectives of the Plan are met and also to help incrementally integrate in the Plan's implementation unexpected issues that will occur throughout. With governance as a CDF, monitoring guidelines and indicators were therefore

defined to “measure” the functioning and maintenance of the proposed territorial system, the implementation capacity of territorial management strategies, and public participation and engagement.

Table H.4. *Sintra’s municipal master plan – Examples of governance aspects in monitoring and follow-up*

Elements	Criteria	How governance was included in the SEA
Monitoring and follow-up	Guidelines / Recommendations for follow-up and respective indicators for follow-up	Monitor the public participation in the decision-making processes and the effectiveness of the engagement schemes: - Number of participatory budgets. - Outcomes of local agent’s partnerships to territorial development initiatives.
		Monitor the implementation capacity of territorial management strategies: - Actions of knowledge dissemination at an interdepartmental level. - Degree of achievement of municipal sustainability strategies.
		Monitor the functioning and maintenance of the proposed territorial system: - Overseeing the compliance of legal and regulatory provisions, with systematisation and justification of cases of shortcoming and mismatch. - Coverage of public services.
	Responsibilities for follow-up	Central Administration: - Contribute to the institutional cooperation and articulation, promoting the creation of collaborative platforms and monitoring and provision of information of their areas of activities.
		Municipal Council: - Develop capacity-building activities at an internal level to assure an adequate implementation of the proposed management model.
		Associations and population: - Assure individual and community proactive initiatives that value the municipal sustainability.

Discussion and Conclusions

With this paper we intended to share our findings on how governance is approached in SEA using the Portuguese practice as an example that can provide empirical evidence. For that 60 environmental reports were surveyed, and a framework of analysis based on governance elements and criteria was used, as well presented a case that we consider successfully in approaching governance. The use of governance in the case of Sintra allowed to understand the decision-making context, the collection, consideration and incorporation of different perspectives and values in the assessment as well as how the context (governance, social, environmental) may react to future changes. Issues such as participation, uncertainty, complexity, transparency were addressed in the assessment in different ways and produced palpate benefits for both the assessment and the planning processes.

Most importantly we wanted to show the role governance play in the assessment. The case of Sintra is a real case. It is not theory, and it is not simulation. It has happened. The quest was not without some constraints and limitations many due to the sensitivity of what analysing and assessing governance implies.

For each of the research questions we can draw some lessons learnt with this investigation, allowing us to discuss why is governance important in SEA.

Is governance considered a relevant factor in the assessment?

Governance is a relatively new subject in the field of environmental assessment and the work development in the World Bank and with several authors demonstrates its relevance in SEA, but results of the review undertaken illustrate the still predominant biophysical and territorial understandings in the SEA practice. The overview of the Portuguese practice suggests that although governance is significantly considered in the assessments, it is not yet acknowledged as a relevant factor. It is mostly used because the Portuguese Guidance indicates governance should be addressed, and then in the review process authorities require to see governance as in the guidelines. But the way governance issues are included show that there is no real acknowledgment of its added value for SEA, as already recognized in the literature, since:

- There is a lack of understanding of the benefits in approaching governance as factor promoting the planning process. The governance conditions are not properly analysed and adapted to the decision problem being assessed. Even in cases when governance is a strategic pillar in the plan or programme, most of the times it is not considered in the assessment framework because it is not physical, or materialized on a territorial base with visible impacts or effects. This shows also the little capacity of most SEA to recognize the plan, and to be integrated with what the plan is concerned about. Also sometimes after the SEA process, a lack of knowledge remains about the decision making context and if that context was prepared to deal with the changes proposed;
- A culture of participation and engagement of relevant stakeholders still lacks, with the current practice following a 'blueprint thinking' whereby engagement and communication components are done by regulatory imposition. With such 'blueprint thinking' the opportunity for collaborative assessment is lost, and with it the opportunity to create a shared vision for development and the potential to reduce the level of uncertainty by engaging and committing interested parties.

How is governance being addressed in the Portuguese practice of SEA?

Results achieved with the review of the 60 reports show that generally governance issues can, and appear to be considered, in different stages of the SEA. Although 75% of the cases explicitly refers to 'governance', only 31,7% address governance explicitly in the focus of the SEA, identifying a governance-related critical decision factor. The expression is more pronounced in the SEA defined guidelines and recommendations in the follow-up phase.

Even though mentioned in the reports, governance in SEA is still reduced. The fact that governance is mentioned in the official guidance for SEA is probably the reason why some reports use the word "governance". However then governance is not really adopted since it is not a typical issue of analysis in environmental assessments. Possible reasons for this to happen is that governance is not legally required and there is insufficient knowledge, experience and practice, together with lack of available data and a high level of uncertainty (for example on the functioning of the governance environment, relationship between stakeholders, coordination and cooperation). Conversely, the importance of this subject for the follow-up stage is higher when referring to the responsibilities of those with interest in the implementation of the strategy, since this becomes more tangible. And in fact incorporating governance in follow-up can be a good way to start addressing it in SEA.

We can conclude that governance is being addressed in SEA in Portugal but, as currently practiced, is generally not having a real impact on the development of the planning strategy and its

implementation. The lack of concrete governance analysis to understand the context of development inhibits its potential value in improving the strategic assessment process.

How can we address governance in SEA that makes strategic sense?

We recognize that it is not easy to strategically consider governance issues in SEA - it engages complex systems, and therefore effort and commitment, and it also forces mind-shift towards issues that are not physically or territorially materialized in a direct way. The case of Sintra's municipal master plan was used to show a possible way on how to address governance in SEA in a strategic way. The ST SEA, with its inclusive, creative and adaptive nature, enabled engaging governance in different SEA activities to: 1) understand the development context, 2) integrate different perspectives, 3) achieve a high level of consideration of environmental and sustainable issues in the planning process, and 4) overcome the lack of knowledge regarding specific governance issues as the internal functioning of the municipal council. Each of the activities focused governance in a specific way to enhance a more collaborative, empowered and governance-oriented approach. This 'governance-inclusive approach' allowed:

- The SEA to function as a discussion arena, managing different expectations, and as an empowerment tool;
- Different stakeholders to share their views and to influence the development of the strategy in a constructive way;
- The promotion of dialogues and creation of a sense of ownership, ultimately providing legitimacy to the final Plan;
- Overcome uncertainty to some degree, on how the development context is prepared to deal with change, by identifying links between governance and planning actions.

The process was very iterative throughout the SEA and in particular during the assessment, with consecutive assessments made in interaction with the development of plan proposals: a total of four versions of the plan were assessed, with the planning team incorporating several SEA recommendations each time, resulting in a more sustainable and environmental oriented Plan.

Worth noting is how the plan revisited and changed their strategic lines of orientation as a result of the inputs brought into the SEA, namely in relation to the consideration of ecosystem services, the use of the coastal area as well as the ways governance issues needed to be incorporated. From a governance perspective, the final Plan promotes: articulation and agreement between public and private entities to establish and potentiate relations; the adoption of an adaptive management model in the internal governance model, looking specifically into interdepartmental relations; coherence between proposed actions and the development strategy, prompting the planning capacity of the administration; the creation of an informative and management platform to increase the success of the implementation of the strategy and more proactive actions and knowledge brokerage; and public participation and engagement in development projects and in the continuous monitoring of the Plan, in order to incorporated non-technical knowledge in the decision-making processes and increase the municipal transparency and access to information.

Concerning the four principles proposed by Meuleman (2015), some considerations were made for the case of Sintra. We conclude that Sintra is a case that positively approaches each of the principles in a way that promoted a sustainability-oriented strategy of the Plan, as well as the governance environment that nested the SEA, ultimately enhancing the success of SEA:

1) Reflexivity: the trust established between the two teams and the collaborative attitude that drove the process allowed a close contact and interactivity between teams. Also the political

willingness created by the Mayor of Sintra to accommodate this on-going, collaborative process allowed moments of critic and reflection that changed the strategy to a more sustainable design;

2) Governance environment: understanding, through a context analysis, how the Sintra governance environment works allowed both planning and SEA teams to adapt and adjust the proposed strategy to reality, since the existing institutional settings, roles and responsibilities of agents, as well as what are the citizens perceptions and development perspectives became quite clear;
3) Governance styles: the political willingness of the Mayor of Sintra allowed to complement and shift between governance styles. The municipality is hierarchically organised and is proposing market-oriented strategies to be incorporated in the Plan's strategy (e.g. Transfer Development Rights Strategy to valuate ecosystem services) and promoting broad participatory activities, stimulating the success of both Plan's and SEA processes.
4) Participation: during the entire process the participatory activities enriched both planning and SEA processes with new knowledge, new ideas, new perspectives and perceptions, and promoted the socialisation of the development strategy.

Final remarks and future research

So, why is governance important in SEA? First, any SEA is nested in a specific decision cultural context, where the particular way decisions are made influence the capacity of SEA to achieve its objectives and add value to the decision, determining its effectiveness and success. Second, the characteristics of the decision context is directly related with how SEA is approached and its scope. The actors, institutional settings, political strategies define how a process such as SEA is understood by policy-makers and decision-makers. Third, SEA is in itself a public policy instrument that cannot be dissociated from the political arena and broad governance context since it influences and is influenced by the elements that compose that context. And fourth, the advocated need for a "tailor made" or "fit to purpose" SEA requires (and demands) an analysis of the governance context. Only with this analysis a SEA can be contextualised to where it is applied.

It was not our intention to advocate that all governance issues must fall within the scope of SEA. We do not see it that way. Instead we argue that all SEA should address and incorporate governance issues that are directly related to the strategy being assessed. Since SEA is an instrument oriented to sustainability, it is important to analyse the governance environment in order to understand how the strategy is to be implemented in a sustainable way, and what may be the needed governance conditions for strategic implementation. For example the recognition of what are the relevant agents, and their roles and responsibilities towards the process, is an important first step. Approaching governance in SEA cannot be limited to explicitly identifying governance as a CDF (or assessment factor). It should also mean constructing and developing an assessment process that provokes self-reflection and self-critic oriented to sustainable outcomes. We suggest that is important to approach governance in SEA in a positive manner, as a relevant factor that will enhance the success of SEA. This perspective may be addressed in future research on comparing these results with the practice of SEA in countries that do not have a focus on governance in their practice, or guidance for SEA. Such research outcomes may provide further recommendations for policy-makers, decision-makers, and SEA practitioners on how to approach governance in SEA in a successful and contextualised way.

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Appendix I.

- Paper II-

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A comparative analysis on how different governance contexts may influence Strategic Environmental Assessment

Margarida B. Monteiro; Maria R. Partidário; Louis Meuleman

Abstract

This paper explores the relationship between governance contexts and the development and outcomes of Strategic Environmental Assessment (SEA). The main objective of this paper is to understand if, and how, the governance context may influence the system and institutionalisation of SEA, and the capacity of SEA to reach its objectives. The research methodology is based on the comparison of six country-cases that have an established SEA system, including three European countries, two Asian countries and one in Latin American, with distinct national culture and political-administrative setting. Results show that cultural and institutional values impact how SEA is interpreted and carried out, and that SEA systems are facing constraints of a more normative and cognitive nature. Connecting governance contexts and patterns in the SEA systems confirm that SEA is not 'context free', but instead 'context-influenced', while its capacity is dependent on its level of adaptation to the governance environment.

Keywords: Strategic Environmental Assessment; Context; Governance; Capacity; SEA Country Systems; Institutionalisation

Introduction

Literature acknowledges that Strategic Environmental Assessment (SEA) has developed largely under the philosophy of Environmental Impact Assessment (EIA) as designed for development projects (Partidário 2000; Bina 2007; Fischer 2007; Verheem and Dusik 2011; Tetlow and Hanush, 2012; Noble and Nwanekezie, 2017) through what has been commonly named 'EIA-based' model of SEA. The EU SEA Directive (Directive 2001/42/EC) is the outstanding landmark of the 'EIA-based' model of SEA (Dalal-Clayton and Sadler, 2005; Verheem and Dusik 2011; Tetlow and Hanush, 2012), determining the institutionalisation of SEA within the European Member States, but also influencing how the SEA legal framework has been adopted in many parts of the world.

Internationally SEA systems may target strategies, policies, legislations, plans, and programmes, according to the country of application (Ludovico and Fabietti 2018). Also the structural dynamics of the SEA systems has been suggested to be largely influenced by governance contexts (Ahmed and Sánchez-Triana 2008; Bina 2008; Slunge and Tran 2014). In this paper we build on the work of Meuleman (2015: 4) who argued that "IA [Impact Assessment] (…) is influenced by (…) the governance environment in which IA takes place". We can assume that governance and IA instruments cannot therefore be dissociated and, in similar lines, that SEA systems and SEA capacity are highly dependent on the governance contexts (illustrated by specific values, traditions, relationships and dynamics) in which the SEA systems operate. We add that when establishing SEA in a given jurisdiction it is particularly important to address *how* the governance environment can influence SEA. Our argument in this paper, as a consequence of the above, is that SEA will need to learn and adapt to governance patterns (given the existing practice of governing –

hierarchical, market or networked according to Meuleman, 2015) that define such contexts if it is intended to more adequately address decision problems.

The main objective of this paper is to understand if, and how, the governance context may influence the system and institutionalisation of SEA, and the capacity of SEA to reach its objectives. This paper takes stock on a long-term discussion around the nature of SEA as a context-specific instrument (Hildén et al. 2004; Fischer and Gazzola 2006; Hilding-Rydevik and Bjarnadottir 2007; Runhaar and Driessen, 2007; Bina 2008; Noble 2009; Gibson et al. 2010; Wirutskulshai et al. 2011; Slunge and Tran 2014; Partidário 2015; Azcárate 2015). Such premise is axiomatic in this paper, but we intend to go further by focusing on how a particular governance context may influence the institutionalisation of SEA and consequently the capacity of SEA to act as a decision support instrument.

The following sections of the paper present the paper theoretical frame that informs the empirical work around the comparative analysis of the selected cases. The examples selected and the arguments developed aim to critically support the need for SEA systems to be 'reflexive' of the governance context of implementation, and the specific governance patterns, if SEA intends to more adequately address decision problems at a strategic level, in other words, be fit for purpose. A discussion on the implications of the main research findings regarding the functioning of the SEA systems and the importance of the governance context leads to concluding aspects and possible pathways for future research.

The importance of context for SEA capacity

When discussing the importance of contexts for SEA, Hilding-Rydevik and Bjarnadóttir (2007: 668) defined context as "the set of facts or circumstances that have an impact on the chosen approaches to SEA". For quite some time SEA researchers agreed that SEA, like other IA instruments, is context-specific, and that context would have an influence on the performance of SEA, seen not only as a procedure but also as an instrument influencing decision-making (e.g. Hilding-Rydverik and Bjarnadóttir 2007; Bina 2008). However, several researchers have shown that SEA often have little influence on the outcomes of decision-making processes (Runhaar and Driessen 2007; Lobos and Partidário 2014) and this may be because of a lack of adequacy of SEA to the case-specific governance in place.

Contextual influence in SEA capacity can be addressed in different ways, as pointed out by Polido et al. (2014): some authors emphasize the influence of the political and planning systems (Fischer & Gazzola 2006; Bina et al. 2011), others the decision-making context (Partidário 2000; Runhaar and Driessen 2007; Runhaar 2009), and also the institutional capacity to deal with SEA (Hilding-Rydevik & Bjarnadóttir 2007; Slunge and Tran 2014). Bina (2008) and Meuleman (2015) also emphasised the cultural dimension as responsible for constraining the interpretation in assessment, public participation or even knowledge management. We highlight the relevance of the inherent system of values, from both cultural and institutional dimensions, on how SEA can be interpreted and carried out. For example Fischer (2005: 409) raised concerns on this aspect: "there are indications that if SEA results contradict values of decision makers, stakeholders and other actors, effective implementation will be very difficult, if not impossible, despite of, for example, high quality documentation and processes". Also, different views of planning and planning practices are subject to interpretation (Hildén et al. 2004) thus directly influencing how SEA is perceived, and what it is for, and consequently how it is to be conducted, and even by whom.

In IA the concept of capacity has been addressed by some authors. For example Kolhoff et al. (2009, 2018) discuss the capacity for EIA in developing countries, suggesting that the performance of an EIA system (consisting in EIA regulatory framework, actors and capacities, and processes of

capacity development) is context-dependent. Capacity as a concept is referred by Kolhoff et al. (2018: 100) as the "ability of the EIA organisation to achieve their interests and objectives". Other authors refer to capacity with slight different angles, for example Kaplan (1999: 16) refers to capacity as "the ability of an organisation to function as a resilient, strategic and autonomous entity"; while Morgan (2006: 8) defines capacity as "the emergent combination of attributes that enables a human system to create developmental value", in other words, the ability of a system to create value.

While Kaplan (1999) and Kolhoff et al. (2018) situate the analysis of capacity at the organisational level, others use different lens to look into the concept of capacity at a more macro institutional level, more in the lines of Morgan (2006), as an imbued system of values. In these cases the analysis of capacity is placed on the functional rules and modes of operation of the SEA system and its contextual culture and governance styles (Runhaar and Driessen 2007; Runhaar 2009). We follow this latter perspective and define SEA capacity as the ability of the SEA system to create value (Partidário, 2000), being shaped by the dominant system of values so as to perform and achieve its intended purpose of putting broad sustainability values at the centre of decision-making (Partidário 2005; Partidário and Wilson 2011; Cashmore and Partidário 2016). Partidário (2005: 662) highlights the "motivations that can enable the positive role of SEA", Partidário and Wilson (2011) relate the SEA performance with institutional capabilities, while Cashmore and Partidário (2016) identify the politicians' mind-sets and the cultural context of the decision as relevant factors in building SEA capacity.

The variety of concepts and purposes of SEA is further reflected in the chosen SEA approaches that countries select when establishing their SEA models, which should be presumably linked to the dominant decision-making cultures in place, and therefore context-specific, in line with Hilding-Rydevik & Bjarnadóttir (2007) and others (e.g. Kørnøv and Thissen 2000; Bina 2008; Sheate 2012). However, often adopted SEA models basically replicate SEA systems conceived under other cultural decision contexts. We argue that a capacity gap might then occur between the formal stated aim of the imported SEA model, the expected SEA outcomes, the installed governance capacities for performing SEA and the actual SEA outcomes. This may be the case when, for example, non-European countries replicate the EU SEA model in their own decision context, with limited adaptation, as we will further discuss in this paper.

Institutionalisation of SEA systems

For Steinhauer and Nooteboom (2012) institutionalising SEA is embedding SEA structurally into a country's planning practice, while the system is institutionalised when there is sufficient expertise in SEA application, a sound legal and financial basis for SEA, and a clear institutional structure with agreed allocation of roles and responsibilities. Referring to the importance of implementation, Slunge and Tran (2014) added the effectiveness of the system as crucial for a complete institutionalisation, with institutionalisation being described as "a process of internalizing a new set of formal norms into an existing system of formal and informal norms so that the new norms become rules that are actually used in practice" (p. 54). The same authors further state that a SEA system that is institutionalised is effective in improving "integration of environmental concerns in strategic decision-making, ultimately contributing to improved environmental outcomes" (Slunge and Tran 2014: 54).

However the institutionalisation process is dependent on the institutionalists' perspective adopted, and consequently also dependent on the conceptualisation of what is an institution according to different approaches in the New Institutionalism (NI) theory. NI analyses policy outcomes from the perspective of institutions – how institutions channel, constrain and shape the behaviour of

individuals (Peters 2012). The main assumption is that institutions matter (Bulmer 1994) in structuring political actions and outcomes. Hall and Taylor (1996) distinguished three approaches to NI: historical institutionalism, rational choice institutionalism, and sociological institutionalism. Besides these, Peters (2012) also identified normative institutionalism (very much related to the sociological) and discursive institutionalism.

These different perspectives in the NI provide a framework to understand the institutionalisation of SEA, and ultimately its effectiveness. Considering the institutionalisation process is crucial in creating capacities to make decisions, the institutionalisation of SEA systems will most probably depend on the institutionalist perspective followed. From the historical institutionalism we learn that embodying ideas in SEA structures will create institutions that only exist as long as the ideas are accepted, since those ideas are attached to capacities that maintain the institution functioning; from a rational point of view SEA is fully institutionalised when there is full compliance with established formal rules, irrespective of the decision culture and environmental context; while from a sociological and normative perspective, the process of SEA institutionalisation imply the infusion of norms and cultural values in the structures of institutions influencing motivations; finally, from the discursive perspective, the institutionalisation of SEA is created through interactions and discussions, meaning that the institutional structure of SEA becomes more informal and is always open to new ideas and debates.

Methodology

The paper addresses the relationship between contextual governance and level of SEA capacity, observing the direct link between the dynamics of the SEA system and the political and administrative specificities of the governance context. To that end a comparative analysis of six SEA country systems (Chile, China, Denmark, Netherlands, Portugal and Vietnam) is undertaken to analyse patterns of influence and the sensitiveness of the established SEA systems to its governance context.

The countries are chosen to represent distinct geographical and political-administrative contexts within which SEA systems were established, all largely influenced by the dominant EU SEA model. While three are EU member-states (Denmark, Netherlands, Portugal) and therefore legally mandated to adopt the EU model, they nevertheless show different governance characteristics and institutionalization of SEA. The other three countries, of which two are Asian (China and Vietnam) and one Latin American (Chile) have established their SEA systems influenced by the EU model through acknowledged working relationships with at least one of the first three countries (respectively). The selected countries intend to illustrate the replication across countries on models and methodologies for SEA, enabling the investigation on the relationship between the specificities of a given governance context and the level of aimed, and established, SEA capacity. A brief description of the countries governance profile is provided in section 2.1.

The research methodology is structured in two components –SEA systems and SEA literature - represented in Figure I.1. Both components are analysed in an integrated manner in Section 3, with the results discussed in Section 4 in light of the description of the countries governance contexts.

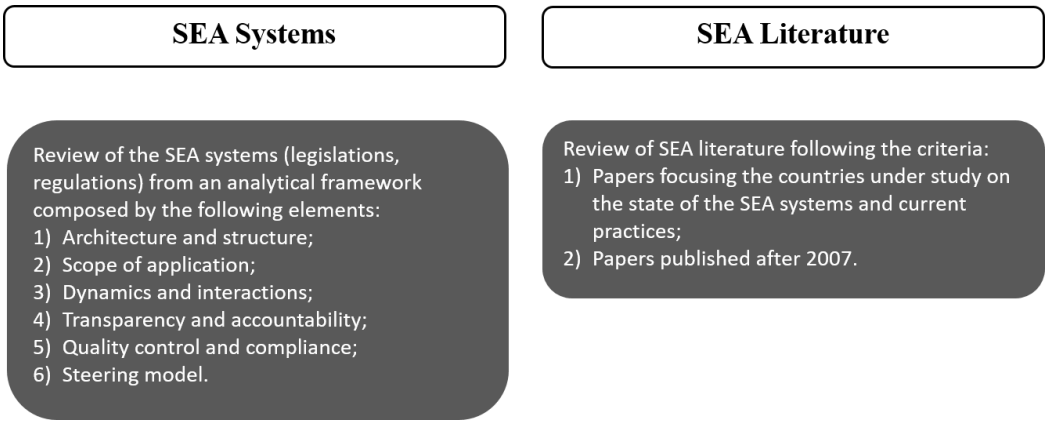

Figure I.1. *Methodological components in the SEA comparative analysis*

For the first component - to analyse the SEA systems - an analytical framework is developed around eight elements inspired in the work of Meuleman (2008, 2015). The framework is used to review the provisions and procedural aspects set by SEA legislation (overall requirements) and regulations (procedures) in each country (the analysed documents and publication year can be seen in "SEA system core legal documents" of Table I.3). This analysis is of a qualitative nature and follows an interpretivist position, and it is important to recognize *a priori* that it relies upon the subjective evaluation of those who read the documents. Also, the data used in the analysis is contextualized since the documents were developed by the countries governmental actors that, theoretically, provide formative impact in the SEA system of values. All the documents reviewed were obtained from websites of the respective governmental authorities (English version in the case of Denmark, the Netherlands, Vietnam and China) or from FAOLEX database.

Table I.1 presents the elements of analysis used in the review of existing SEA capacities and also how the governance contexts are reflected in the respective SEA system.

Table I.1 *Elements of analysis and respective rationale to review the SEA systems*

Elements of analysis	Purpose	Rationale
Architecture and structure	Understand how the country SEA system is structurally organised (governance structure and operational model).	What elements constitute the SEA main procedural steps and what type of organisational structure characterises the SEA system?
Scope of application	Understand the SEA system conceptual boundaries (stated SEA aim).	What are SEA objectives?
Dynamics and interactions	Understand the system flows of relationships and what type of interactions (degree, between whom, etc.) are demanded.	What relational dynamics characterise the SEA provisions? Are stakeholders' roles and responsibilities in the SEA process clearly defined? How is the public participation process?
Transparency and accountability	Understand the level of transparency promoted by the SEA system and the accountability in terms of actions justification or process performance.	How is disclosure of information being promoted? For whom transparency is promoted? What type of accountability scheme is behind the SEA system?

Quality Control and Compliance	Understand the level of SEA process quality control and existing mechanisms of compliance.	Is there any review process formally established and how it works? What are the compliance mechanisms?
Implicit steering approach	Understand the type of approach promoted.	What SEA approach is followed?

The second component consists in the review of the state of the art of SEA in published scientific articles in peer review journals and organisational reports. The purpose is to understand the state of play in practice-based experiences with the application of SEA. The SEA scientific articles were selected using two criteria: having been published for less than 10 years and to have the keywords 'strategic environmental assessment' and '*X*' (*X* being China, Chile, Denmark, Netherlands, Portugal or Vietnam). The results of this literature review will be used along with the analysis of the SEA systems to understand current SEA practice.

Countries governance profile

For each country in study - China, Chile, Denmark, Netherlands, Portugal and Vietnam – a brief description of the governance environment is provided using two different categories of indicators: The World Bank Governance Indicators (WGI) and the Hofstede Dimensions for National Culture. As indicated by Meuleman (2015: 7) "national cultures may show an underlying *'default' governance approach*" [emphasis added]. This enable us to develop a description for each country governance context according to the most similar and suitable style of governance (hierarchical, networked or market-oriented).

The WGI is commonly used to identify and describe governance trends while the Hofstede Dimensions explores the tendency of the effects of society in specific cultural values. A total of nine indicators are selected from these two sources and applied as a form of 'describing' the governance contexts – from WGI (Kaufmann et al. 2010): voice and accountability (extent of citizens participation in governmental issues), control of corruption (extent to which public power and private interests are exercised), rule of law (extent of agents confidence and abide in rules of society), regulatory quality (ability of government to formulate and implement policies and regulations), and government effectiveness (quality of public services and policy formulation and implementation); from the Hofstede (Hofstede 2011): power distance (degree to which the less powerful members of a society accept and expect that power is distributed unequally), individualism (degree of preference for a loosely-knit social framework), uncertainty avoidance (degree to which the members of a society feel uncomfortable with uncertainty and ambiguity), and long term orientation (degree to which a society maintain links with its own past while dealing with the challenges of the present and the future).

Table I.2 summarises the application of the nine indicators to the countries in study. The six countries have different approaches in their national governance context (e.g. Lijphart (1999), Meuleman (2008)), but are easily coupled in pairs of two given some general similarities: both China and Vietnam follow a hierarchical style of governance, with some mixtures of market-driven aspects (more control-driven approach); Denmark can be said to follow a network-driven style (flexible approach), with Netherlands, besides the network characteristics, also showing some mixture of individual and hierarchical orientation (functionalistic approach); and both Chile and Portugal follow a hierarchical-style even though both present some network-oriented issues in their society (albeit more rigid approach).

Table I.2. *Countries governance profile based on the WGI (WB 2017) and the Hofstede Dimensions (Hofstede Insights 2017)*

Country	Description
China and Vietnam	Centralized authority, with autocratic processes of decision-making where final decisions rest on the top of the hierarchy. Lack of formal channels for citizen voice and accountability. Increase perceptions over the quality of public services and policy formulation and implementation. Collectivistic in nature and very group-oriented –emphasis in the obligations towards groups, and in maintaining relationships for the groups' benefits. Pragmatic cultural nature, more focused in long-term benefits and economic growth. Considerable sense of conformity by the society. Light increase in the control of corruption probably related to current economic decentralisation.
Denmark and Netherlands	Danish hierarchical structure of a flat nature, and Netherlands explicit role of actors' in terms of allocation of power, even though dialogue and communication existing at a good level. Individualistic societies that place self-interest over the collective one and have preference on horizontal relationships over vertical. Danes comfortable with uncertain situations, being able to accept change and easily incorporating it in their daily lives. Dutch with the need for rules and policies to overcome uncertain situations. Denmark tends to be more short-term oriented (more normative) and Netherlands more long-term oriented (more pragmatic) in thinking. High culture of public participation, high confidence in the rules of society and high perception of the quality of policy formulation and implementation.
Chile and Portugal	Centralized authority marked by established hierarchical levels with low delegation of power. Collective societies, group-oriented with well-defined social norms that shape the behaviour of individuals. Tendency to avoid uncertainty through rigid rules and codes of behaviour, clearly delineated administrative structures, and resistance to innovation. Normative thinking, with a focus on stability of traditions (tradition and cultural rules play an important role in the behaviour of society). Perception that citizens are given opportunities to actively participate and express their concerns in political matters. Positive perception of provision of public services and policy formulation and implementation.

Results: analysis of SEA systems versus practice-based experiences

The analytical framework of Table I.1 was applied to the six country cases. To address the objectives of this paper, the analysis of the SEA systems will be done along with the literature review on published SEA practices. Table I.3 summarizes unique features of each country SEA systems.

Table I. 1 *SEA systems – Style of governance, legislation and specific features in countries reviewed*

Country	**Style of Governance**	**SEA system core legal documents**	**SEA unique features in each country-case**
China	Hierarchical-driven with marketization features.	Law of People Republic of China on Environmental Impact Assessment of 2002. Plan Environmental Impact Assessment Ordinance of 2009. Revised Environmental Protection Law of the	Different typologies of plans require different levels of assessment: comprehensive plans must have a chapter of environmental impacts, and special plans an impact assessment statement. Only special plans have explicit requirements for quality control of a group of state

		People's Republic of China from the 24th of April 2014.	representatives and specialists. Half of the group must be composed by specialists.
Vietnam	Hierarchical-driven with marketization features.	Law on Environmental Protection no. 52/2005/QH11 2005, repeal by Law on Environmental Protection no. 55/2014/QH13. Decree no. 18/2015/ND-CP. Circular no. 27/2015/TT-BTNMT.	Establishes important roles for experts throughout the assessment (advisory and review). Agency members in charge of SEA must be Certificate in SEA consultancy by the Ministry of Natural Resources and Environment. Individuals composing the Assessment Council for review must have established experience in the area from two to seven years according to their qualification degree (from Bachelor to Doctor degree).
Chile	Hierarchical-driven with network features.	Law no. 19.300 on the General Bases of the Environment of 1994, amended by the Law no. 20.2017 of 2010. Decree no. 32 of 2015.	The responsibility to assess a request to develop a SEA falls under the Council of Ministries for Sustainability. The competent authority for the development of the plan is stimulated to adopt different forms of engagement to deepen public engagement.
Portugal	Hierarchical-driven with network features.	Decree-Law 232/2007, of 15 June, amended by Decree-Law 58/2011 of 4 May.	The Portuguese Environmental Agency must prepare and present on an annual basis a report on the state of SEA and quality of environmental reports.
Denmark	Network driven.	Executive Order no. 1533 of 10 December 2015 (Consolidated Act Environmental Assessment of Plans and Programmes). Law no. 425 of 18 May 2016 (General Act of Environmental Assessment of EIA and SEA), amended by Executive Order no. 448 of 10 May 2017.	The competent authority must conduct an institutional consultation before the screening decision.
Netherlands	Network driven with hierarchical features.	Environmental Management Act amended in 2006 (Act that includes EIA and SEA arrangements). Environmental Assessment Modernisation Bill of 1 July 2010.	It is mandatory for the competent authorities to ask the Netherlands Commission for Environmental Assessment (NCEA – independent body) advice on the environmental report (a review recommendation). Mandatory public consultation on both the scoping and environmental report phase.

All countries in the analysis reveal a similar architecture of SEA model, inspired in the EIA-based SEA model of the 2001 EU SEA Directive. The analysis however suggests considerable variations in observed cases, trusting on the achieved results. All the countries in the study have enacted SEA systems, the oldest one with more than 15 years (the Chinese arrangements were regulated

via EIA Law in 2002). In all SEA was preluded with a long tradition of EIA instruments and SEA idealisations. For example the concept of EA was introduced in Chile in 1994 (Law 19.300 - General Environment Framework Law), and by that time the need to incorporate the principles of EIA in land planning instruments was recognised. But officially only in 2015 SEA was regulated. Similarly, a SEA idealisation was presented in Vietnam in 1994 in a governmental decree with plans included in the screening categorisation – but only in 2005 SEA requirements were introduced in the national EIA Law.

Regarding the European countries, in Denmark the tradition with EA instruments started in 1989 with the introduction of an EIA system, and shortly after (in 1993) a circular for the EA of Government Bills and Other proposals was published. The EU SEA Directive of 2001 was transposed to the Danish system by a single act, in 2004, but currently SEA and EIA regulations are in a Consolidated Act. In Netherlands EIA was introduced in the late 1980's via The Environmental Management Act, with the EU SEA Directive being formally transposed with the amendment of the Environmental Management Act in 2006. Finally, in Portugal the idea of an EA for plans was introduced in the Environmental Policy Act of 1987, with EIA being first regulated in 1989. But only in 2007 Portugal transposed, by a single act, the EU SEA Directive to its legal system.

Structurally the SEA regulations in all studied countries follow similar procedural elements of an EIA-based SEA: the determination of the need for SEA (screening), the emphasis on the assessment and mitigation of impacts on the environment, the development of an environmental report, a public consultation prior to the approval of the proposal, quality review processes and requirements for follow-up. Despite these structural patterns in the regulations, there are three relevant differences: 1) Vietnam has unspecific requirements regarding the scope of the assessment; 2) both China and Vietnam lack concrete requirements for the consideration of alternatives and give greater emphasis to the assessment of impacts and mitigation measures; and 3) both Chile and the Netherlands mandate a public consultation in the scoping phase.

The institutional model established by the EU SEA Directive is profoundly influenced by the technical-scientific philosophy of EIA (Tetlow and Hanusch 2012; Lobos and Partidário, 2014; Bidstrup and Hansen, 2014) and has been successfully implemented in several EU countries, particularly in the Netherlands that has served as a role model for many countries in the world. The EU SEA Directive model could be seen as relatively flexible, setting minimum requirements and opening to consideration the coordination arrangements for an effective function of SEA regarding the countries administrative culture. However what we observe is that while the common EU inspirational model sets the architecture and structure of responsibilities of the respective SEA systems, there is limited adaptation according to specific governance features. The analysis showed that while the SEA model is replicated, the implementation of SEA varies across the six countries, showing distinct levels of success. Results achieved suggest that, as discussed in the following paragraphs, the governance environmental context seems to determine the performance of SEA.

The SEA system in both China and Vietnam reveals reduced flexibility, with coordination largely controlled by direct supervision of the State (power centralised at State level), limiting SEA influence in decision making (Bina et al. 2011; Che et al. 2011; Zhu et al. 2010; Victor and Agamuthu 2014; Slunge and Tran 2014; Gao et al. 2017). This may result in a lack of systematic coordination and collaboration at administrative levels (Bina et al. 2011; Che et al. 2011; Clausen et al. 2011; Victor and Agamuthu 2014), influencing institutional relationships that may be crucial for a successful application of SEA. In China for example, the control of the State is usually linked

to a game of interests that influences the scope, range and openness of the assessment, leading to low coordination and collaboration between governmental bodies (Bina et al. 2011; Che et al. 2011). Also, the SEA regulation lacks on a clear identification of roles and responsibilities of governmental bodies in the SEA process (Bina et al. 2011), with implications in the necessary dynamics that influence both assessment and decision capacities. This situation is quite similar with what happens in Vietnam (Victor and Agamuthu 2014).

In Chile there is an idealisation of a strategic SEA approach (based on Partidário [2012]) that can open the possibility for SEA processes to be adaptable to the strategic objectives of a development proposal. However the system is highly characterised by standardised routines, formalised procedures, and functional group tasks, sign of the rigid environment in which SEA operates. On the other hand, in Netherlands, Denmark and Portugal, probably influenced by the multilevel governance structure of the EU, the coordination of the system is based on a standardisation of professional skills, where expertise is of professional nature through formal autonomy. This facilitates adjustments in the process depending on the development context to which SEA is applied (as happens in the Dutch case [Van Buuren and Nooteboom 2009]).

The purpose of SEA, as stated in the countries regulations, is to integrate environmental considerations in decision-making, assess potential environmental impacts and propose mitigation measures. A common pattern is observed in the six countries with environment being conceptualized more restrictively as biophysical in character, incorporating some social and economic aspects, but through environmental lens.

Concerning institutional and public consultation the six countries have requirements for screening (Denmark and Portugal, in the latter only institutional consultation), scoping (Chile, Denmark, Netherlands and Portugal) and environmental reporting (all the six). While in the Dutch case stakeholders are actively involved throughout the SEA process (Van Buuren and Nooteboom 2009; ACEE and NCEA 2014; EC 2016), in China the high sense of confidentiality and the governmental control of the SEA process are set as obstacles for effective public participation (Bina et al 2011; Wu et al. 2011; Victor and Agamuthu 2014; Ogihara et al 2016). This contributes to a lack of public participation and publicity of SEA, sometimes developed after the decision is made (Che et al. 2011; Wu 2011). The importance of public participation (and the lack of) is also highlighted in the Vietnamese practice of SEA (Slunge and Tran 2014; Victor and Agamuthu 2014), in Denmark (EC 2016; Elling and Nielsen 2017) and in Portugal (EC 2016; Polido and Ramos 2015), as well in Chile (Sanhueza and Fuentes 2016; Bustos et al. 2017).

Regarding accountability, both China and Vietnam frame their accountability process on the basis of political authority, with the State playing the role of decision-maker responsible for quality control. Chile, Denmark and Portugal give more importance to following the established procedures through the action of the administration, while Netherlands subjects the SEA process to professional expertise of external control bodies. In both Portugal and Chile the Ministry of the Environment is highly accountable for the quality of the SEA process, namely in terms of the required level of involvement in the review of the environmental report. On transparency, China and Vietnam do not present requirements for disclosure of information on the SEA process (Wu 2011; Slunge and Tran 2014). For example, the Chinese arrangements promote transparency for political purposes only, namely by exposing assessment results and SEA process development to departments under State authority (Che et al. 2011, Bina et al. 2011, Li et al. 2016, Wu et al. 2011). The three European countries, as in Chile, have similar transparency arrangements following the Directive requirements, stating the need to disclose information throughout the SEA process, that according to recent reports seem fully accomplished (EC 2016).

Comparing the SEA processes of review and compliance, we found the following outstanding features:

- Institutional consultation and public scrutiny as forms of quality control throughout the SEA process, with the competent authority having the responsibility for the quality of SEA in a non-binding basis seem to take place in Chile, Denmark and Portugal;
- Administrative, public and regulatory levels of review and compliance, all together with the quality control of the SEA report laying down on an independent control body seems to characterise the Netherlands);
- Regulatory, administrative and professional control for review and compliance, with SEA report quality review relying on expertise, with explicit conditions established for the composition and functioning of the review group, as in China and Vietnam.

For example in the case of Vietnam, where explicit requirements for an experts-based Assessment Council exist (perhaps inspired in the Dutch model), the situation is then affected by a lack of expertise and knowledge on SEA (Clausen et al. 2011; Victor and Agamuthu 2014). SEA practitioners and governmental bodies have a quite good background on EIA development, with this possibly leading to a low quality of SEA appraisal (Slunge and Tran 2014).

In conclusion, the more control-driven the governance context is, the more closed and rigid is the SEA system, influencing SEA performance (for example in China) and limiting flexibility and capacity in the adjustment of imported requirements for SEA. Networking characteristics appear to promote more open and flexible features influencing SEA, such as for example the positive philosophy of institutional collaboration and cooperation in the Netherlands and Denmark. It is clear that all countries are formally positioning SEA as a *post de facto* instrument to analyse the environmental implications of development proposals. China and Vietnam appear to emphasise expertise in SEA to give credit to development proposals and the efficient use of the existing information; Chile intends to drive environmental sustainability thinking in transparent and open SEA processes; Portugal and Denmark focus on the nature of decision-making and accountable and transparent SEA processes; and in the Netherlands, besides accountability and transparency, the highlight is broad consultation. The difference between what is expected and how SEA is being practiced seems to be related to the established institutional specificities that determine functional and technical capabilities, as well the values and motivations to perform an SEA.

Discussion

Three patterns of governance styles can be observed in the six countries: China and Vietnam (more hierarchical and market oriented, but control driven), Denmark and Netherlands (more networking and flexible, with the Netherlands revealing hierarchical functionalistic features), and Chile and Portugal (hierarchical but with network solutions, – although still rigid). Regardless these different styles, all the countries appear to follow the model set by the EU SEA Directive. In other words, countries may be adopting a model considered ‘adequate’, because it works well elsewhere, because it is recommended by international experts or because it is readily available as a model to be followed, regardless of the contextual circumstances and the consequences on the institutionalisation of SEA. In this section we will reflect and discuss on what appears to be influencing SEA capacity considering the relationship between governance contexts and SEA systems.

Selznick (1957: 17) argued that institutionalisation involves “to infuse [something] with value” to be more than simply mechanical. Institutional structures (in formal an informal terms) such as SEA are socially constructed (Berger and Luckman 1967) and require individuals for the on-going reproduction of their settings. We argued that context matters in influencing SEA capacity in terms of participation, flexibility, coordination, autonomy, and transparency values. Research results suggest that the adoption of SEA in non-European countries appear to neglect the contextual governance characteristics that should influence SEA institutionalisation, specifically the substantive conditions for SEA.

All the countries have some sort of arrangements for public and institutional consultation. But while some structurally promote consultation of a pluralistic nature (as Netherlands), others tend to close the SEA process to single consultation actions (as China or Vietnam). More hierarchical countries, such as China and Vietnam, have the tendency to conceptualise their institutional structures in a more rational and restrictive way, aligning their cognition with the idealisation that open spaces of discussion require more bargain and possibly more conflict management. Scaling down such moments would then lead to more reliable results of the assessment, and to a more effective implementation of the proposals. Similar parallelism can be made for Portugal and Chile. Both abide by strict rules, while expressing the need for clarity and structure and the importance of traditions and stability. While in Portugal arrangements for public consultation is regulated in one single stage, in Chile the process is more open and mandates a public consultation phase in the beginning of the SEA. But more requirements for public participation process does not necessarily mean better practice. Chile is a country with poor public participation and citizen engagement, associated to the society low confidence in public authorities (OECD 2017) and, together with Portugal, is at the bottom of the OECD countries for civic engagement (OECD 2017). This indicates a gap between regulatory rhetoric and reality in practice regarding participation, with possible influence in SEA capacity.

The transdisciplinary nature of SEA (Jha-Thakur et al. 2009; Runhaar and Arts 2015) implies the need for highly coordinated and collaborative agency, as coordination between government departments of sectorial nature. Our results suggest that coordination issues, aligned with agency autonomy, are highly sensitive to the characteristics of the governance context. Countries that are characterised by power decentralisation, relatively high individualism, moderate to high long term orientation, a good rule of law and regulatory quality are expected to bond relations through influence and interests among organisations or departments. More consensual politics of both Denmark and Netherlands stress out horizontal relationships, as also reported in SEA literature (Van Buuren and Nooteboom 2009; Lyhne et al 2017).

Studies indicate that in Portugal, despite the innovative national guidance that promotes a strategic-thinking based SEA methodology (Partidário 2007, 2012), the use of an EIA-based SEA approach still prevails (APA 2010). Even though the new terminology for SEA set in the guidance is extensively used because of authorities demand, the spirit followed in practice and the assessment philosophy has not changed in practice. Similar situation occurs in Chile where SEA regulation was constructed with an idealisation of strategic thinking SEA, influenced by from the Portuguese SEA national guidance, but practice falls short of such strategic SEA idealization. This indicates a gap in the capacity and commitment for conducting strategic SEA, and creates difficulties in practice. The low agency capacity for conducting SEA (possibly) due to lack of knowledge, incentives and willingness to act, may lead to an implementation trap with short coping ability. A centralisation of power and responsibilities can decrease departmental autonomy to act, which is linked to lower levels of competences to perform SEA, to resistance to change in institutional settings, and a lower capacity to respond to changes reflecting limits in institutional

autonomy. Autonomy is an essential element of institutionalization, representing the capacity of institutions to make and implement their own decisions (Peters 2012). And these can well be reasons behind difficulties in adopting strategic thinking SEA both in Portugal and in Chile.

Partidário (1996: 40) referred in the early days of SEA that "countries with open and flexible political and cultural structures are more likely to have established conditions to develop sound environmental policies". Flexible structures are more capable of adapting to changes in the substantive environment, but the degree of flexibility is highly connected to the countries governance context. Countries with more centralised power of decision and political authority show a lower level of flexibility in SEA formal institutional structure and arrangements, such as the case of China. In contrast, more flexible governance styles (as in Denmark and Netherlands) enable the scale up of SEA in order to achieve better performance and broader results. Van Buuren and Nooteboom (2010) noticed that the collaborative nature of planning processes is translated to the practice of SEA in Netherlands, with the flexibility of the SEA process leaving room for manoeuvre. Additionally, it is also observable that more closed cultural contexts, as the case of China and Vietnam, tend to have high sense of secrecy and confidentiality of policies and strategies (Victor and Agamuthu 2014). There is a lack of political will to conduct SEA through transparency principles and, in this particular case, there is a deficit of baseline information also due to the privatisation of data (WB 2011). The general lack of transparency might limit the capacity of SEA to influence decision-making (also acknowledge by Slunge and Loyaza [2012]).

We consider that a 'capacity gap' exists in the way SEA is conceptualised and implemented in a given context. This gap has been expressed by issues of flexibility, coordination, autonomy, transparency and participation, highly dependent of the established motivations to conduct SEA. The European countries focus on democratic principles and flexible formal institutional structures that presumably create conditions for SEA to perform, of which the Netherlands is the most outstanding example in the countries reviewed. In fact the EU SEA Model seems to be more compatible with the functional rationality of the Dutch governance environment, and less compatible with the other two European countries. The rationalistic characteristic of the EU SEA Model is similar to the cultural governance environment of the Netherlands, where the EIA-based SEA approach seems to fit well. That fit is not obvious in Demark and in Portugal and constraints seem to exist in the institutional dynamics in these countries, with the philosophy of EIA-based SEA not in line with the planning philosophy and decision culture practices. Another situation appear to reveal a clear capacity gap in China and Vietnam where the focus on expertise, possibly inspired in the Dutch practice, finds an absence of governance conditions, resulting in inefficient and inadequate institutional capabilities, trusting on the literature. Chile idealises a strategic thinking SEA, but regulates standardised and tough procedures and functions through highly bureaucratic routines, indicative of a mismatch between what is intended and what subsists.

Three reflections can be made: first, current SEA systems seem to continue locked into a traditional practice of environmental assessment established according to the philosophy, the rules and the practices for EIA; second intangible agency and structural capacity elements, such as values, management styles, cultural traditions or governance settings appear to affect how SEA is perceived and carried out, no matter the formal arrangements established; third the institutionalised context for SEA is different from the practical context of SEA due to a possible detachment between structural norms and agency of SEA

Concluding remarks

In this paper we focused on how governance contexts influence SEA systems and SEA capacity to reflect on the claims that 'context is crucial' for SEA. Our findings show that there is a gap

between the aimed SEA capacity (how the SEA system was intended to work, as stipulated by formal institutional structures) and how it works in practice (the actual SEA capacity). This 'capacity gap' is influenced by the governance context of SEA implementation and reflects the lack of adjustment of formal SEA model requirements in relation to the need to fit for purpose in specific governance contexts.

It is important to reinforce that the main objective of this paper was not to compare full SEA systems but rather to reflect upon particular cases of analysis. The review of the six countries illustrates that countries with similar SEA model tend to favour the application of what is perceived as the 'best practice' SEA. The dominance of the technical-rational perspectives in the design and shape of formal SEA presumes that similar resources and constraints might be put effectively in place, establishing SEA as a standard instrument, independent of its context. We saw that the SEA systems follow a similar structure for implementation (in terms of screening, scoping, assessment, mitigation and monitoring) and particular requirements concerning expertise, baseline data requirements, reporting and consultation, despite differences in terms of structural flexibility, participation philosophy, or quality control, resulting in different levels of development and implementation that symbolise full institutionalisation. This may be due to the fact that the value of SEA is not equally internalised in the SEA systems, missing to influence the SEA capacity to achieve its purposes. Results achieved suggest that a capacity gap takes place when countries absorb imported models and 'best practice' lessons without having installed capacities for practical implementation. A good example could be the import of expert-based review systems in countries where sufficient expertise is not available and where inherent flexibility and transparency requirements are absent in the governance model.

The overall findings suggest that the governance context seem to influence SEA capacity particularly in terms of the flexibility of institutional structures, the dynamics of coordination, the autonomy to engage in steering processes and use relevant decision windows, the transparency of both SEA and proposal processes, and the role of participation in SEA. In general, we are facing more constraints of a more normative and cognitive nature than a structural one.

Any process of change begins with the willingness to reflect and question current practices, and then accept that change is needed. In the adoption and review of SEA systems it may be important to understand first what is wanted from SEA and what might be needed to fit to governance conditions. This appears to be needed to 'enhance' SEA capacity and improve the level of SEA institutionalisation that will enable the achievement of SEA purpose. And then explore and search for the adequate model of SEA that fits with the existing governance conditions. For example, to understand what are the values and expectations of actors, institutional capabilities, the cultural context, and the dynamics of the governance environment can provide positive lessons on what is influencing SEA and what might be the constraints and the enablers of a full institutionalisation of SEA.

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