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# Knowledge brokerage context factors – What matters in knowledge exchange in impact assessment?

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#### ABSTRACT

The success of an impact assessment (IA) can mean both instrumental success of applying IA results directly in decision-making, and conceptual success linked to learning about policy problems more generally. Both instrumental and conceptual success can be claimed to be reliant on the knowledge exchange context of the IA, shaped by factors such as the complexity of the policy problem, type of policy area, organisational norms, actor constellations and continuance and openness of information sharing. Even though such context factors may be pre-set, they are nevertheless contested and reformulated during each IA process. This paper ties together lessons from six different IA processes that were performed between 2011 and 2013. The cases include agricultural policy at the EU and regional level in Greece, national-level climate change and energy policy in Finland and Estonia, resource efficiency policy at the German national level, and sustainable land use policy in Inner Mongolia, China. The paper introduces and applies a typology of knowledge brokerage context factors. The paper asks how knowledge brokerage is shaped by different contexts and what determines the consequent application (or non-application) of IA tools and the use of IA results. The paper concludes by highlighting the significance of identification and acknowledgement of different knowledge exchange contexts in IA.

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#### 1. Introduction

Impact assessment (IA) is understood here as a policy-level appraisal focusing on the ex ante assessment of the key impacts of legislative or strategic proposals. IAs are increasingly performed as a mandatory part of national and supranational (EU) policy formulation (Adelle and Weiland, 2012). Often presented as a step-wise process including phases like identifying the problem, defining objectives, identifying policy options and analysing impacts by applying

a variety of quantitative and qualitative assessment methods and tools (EC, 2009), an IA can provide a framework for the production, dissemination and use of knowledge for the policy process. However, carrying out an IA guarantees neither the appropriate use of IA results in policy-making nor better decisions (Sheate and Partidario, 2010). The inclusion of specific knowledge brokerage approaches and practices may provide routes towards a more successful IA. Knowledge brokerage is defined here as a process of communication and interaction aiming for knowledge exchange and learning between parties with different

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knowledge bases (van Kammen et al., 2006; Michaels, 2009; Partidario and Sheate, 2013).

Successful IA can be described as a process leading to the creation, exchange and use of relevant knowledge during different phases of the policy process. The success of IA in policy formulation and implementation is linked to knowledge dissemination and learning at multiple levels (Hildén, 2011). It concerns the "first-level" learning of policy officers and researchers about the specific policy problem but it is also about "second-level" learning of the functioning of sciencepolicy relationships more widely. The success of an IA is a result of different and often complex processes perceived differently in different jurisdictions (Radaelli, 2004). In practice, the production of IA results is often outsourced to consultancies or research organisations and the results produced by them are - in the best case - used by policyand decision-makers or even by other stakeholders (Weiss, 1998). The success of IA in different countries and in the EU has been questioned in a number of critical studies, which refer, for example, to poor implementation of the IA procedure, the narrow scope of the assessments, poor timing and inadequate use of the assessment results in policymaking (e.g. Radaelli, 2004; Lee and Kirkpatrick, 2006; Turnpenny et al., 2008; Hertin et al., 2009; Russel and Jordan, 2009; Russel and Turnpenny, 2009). In another case, the IA process serves merely as a façade for decisions that have already been made or it is used to hide other relevant knowledge (Lyytimäki et al., 2013).

Here we start from the rough division between instrumental and conceptual success. Instrumental success refers to the direct use of assessment results in decision-making and is thus linked to instrumental (acting on research results in specific, direct ways) and symbolic (use of results to legitimise and sustain certain predetermined positions) use of knowledge (Bayer and Trice, 1982). Conceptual success denotes the wider social learning process involving changes in the thinking and behaviour of individuals, and/or organisational changes in procedures and cultures (Preskill et al., 2003). However, this division should be understood as a conceptual partition between two overlapping layers rather than absolute separation between opposite ends of the same continuum.

Both the instrumental and conceptual success of IA is reliant on how the knowledge is created and exchanged during the IA process, as well as during the actual policy process. By knowledge exchange we mean processes of interaction involving both knowledge producers and users and including knowledge production, dissemination, transfer and use (Fazey et al., 2013; Ward et al., 2012). The effectiveness (i.e. the extent to which the desired outcome of the IA process matches the actual outcome) and efficiency (how easily an outcome is achieved given a set of resources) of knowledge exchange in IA processes can be enhanced through the instrumental and conceptual success of knowledge brokerage (Cash et al., 2003; Fazey et al., 2013).

Knowledge exchange during an IA is not just a simple unidirectional communication process between different parties, but a constellation of different interaction processes affected by the context in which the knowledge exchange takes place (Mitton et al., 2007; Contandriopoulos et al., 2010; Fazey et al., 2013; Højlund, 2014). The knowledge exchange

context is formed both by factors related to IA itself, the actors involved and the policy process. These factors are partially pre-set, depending on the level of institutionalisation of the specific science-policy interrelationships. They are also contested and reformulated during each phase of the IA process through interaction between the actors involved, notably IA knowledge producers (i.e. scientists and IA consultants) and IA knowledge users (i.e. policy officers in charge of IA and policy development).

The diverse practices of IA provide a fertile ground for introducing and testing new knowledge brokerage approaches. Knowledge for an IA can originate from various sources. It is partly based on existing knowledge and partly produced with a wide variety of IA methods and tools. Nilsson et al. (2008) categorise the IA tools into three groups. The simple tools include easy-to-use checklists, questionnaires and other generic assessment frameworks that can give a quick qualitative overview when resources for assessment are scarce, or only indicative information is needed or possible to produce. More formal tools include scenario techniques, cost-benefit analysis (CBA) and multi-criteria decision analysis (MCDA), which entail predefined analytical steps, require special know-how and provide decisionmakers with suggestive quantitative knowledge. Finally, there is a group of advanced tools; sophisticated and complex computer-based modelling approaches that try to produce robust and detailed quantitative knowledge. Most of these tools focus on providing policy-relevant knowledge and the instrumental success of IA. Hence, the actual interaction and knowledge exchange may remain neglected both by knowledge providers and users (Nilsson et al., 2008; Fazay et al. 2013).

Based on a claim by Fazey et al. (2013) that knowledge exchange is very significantly influenced by a range of contextual factors including political and social considerations, power relationships, the status of individuals, and what the process aims to achieve, we start from the assumption that contexts shaped by various case-specific factors may be significant both for the instrumental and conceptual success of the IA. In our study we refer to these factors as knowledge brokering context factors. Our aim is to consider the types of knowledge exchange contexts and their impact on the success of knowledge brokering in IA. More specifically we:

- (1) Build a conceptual typology in order to identify the knowledge exchange contexts in IA.
- (2) Explore the knowledge exchange in IA based on the experiences from six case studies.
- (3) Discuss how researches can, by using various knowledge brokering strategies, acknowledge the context and contribute to the success of an IA.

The following section presents the conceptual typology and the cases that provide insights into different knowledge exchange contexts. Key results from case studies are then presented. More detailed information on the cases can be found from other contributions of this Special Issue (e.g. Adelle, 2014) and from the deliverables of the LIAISE project (Söderman et al., 2012, 2014). The results are discussed from

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