



Public administrators' roles in the policy adaptation of transport directives: How knowledge is created and reproduced

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ARTICLE INFO

Keywords:

Policy adaptation
Transport
Public administration
Knowledge
Sustainable transport
CBA

ABSTRACT

The European Union (EU), as well as many national governments, has adopted directives intended to reduce the environmental impact of transport. For example, the EU's clean fuel strategy requires member states to develop national policy frameworks for the market development of alternative fuels and their infrastructure. Given these directives, policy solutions must be formulated and proposed by member states. This paper focuses on the policy adaptation phase of a policy process, specifically on administrators' knowledge-making when constructing policy proposals. The paper combines policy theory with planning theory and provides a theoretical framework for studying policy adaptation, specifically, administrators' construction of knowledge in such processes. The empirical study is based on two cases, both situated in the Swedish context. It concludes that administrators use several sources of knowledge: process knowledge, project knowledge, and context knowledge. New policy solutions are constructed by reusing data from existing reports and policy proposals. There has been a specific focus on the use of economic analysis as an instrument for evaluating solutions. The paper shows that, in the policy adaptation phase, no new analyses are conducted and that decoupling strategies are used when dealing with economic analysis.

1. Introduction

The European Union (EU), as well as many national governments, has adopted directives intended to reduce the environmental impact of transport. Given the adoption of such directives, policy solutions must be formulated and proposed by member states. For example, the EU's Directive 2014/94/EU on the deployment of alternative fuel infrastructure requires member states to develop national policy frameworks and action plans for the market development of alternative fuels and their infrastructure. The transport sector consists of interrelationships between actors who combine their resources in policymaking (Hansson, 2010). These actors all play parts in the process of moving from political vision to final output. This paper focuses on the policy adaptation phase of a policy directive, specifically on the role of administrators' and their knowledge making when constructing policy proposals.

In the policy adaptation phase, there is an underlying efficiency goal that should be addressed, when adapting transport directives into policy solutions, both at the EU level and in many national governments. For example, in Sweden, the general objective is to “ensure the economic efficiency and long-term sustainability of transport provision for citizens and enterprises” (Swedish Government, 2008). The fulfilment of the

general objective is evaluated on a yearly base, and in this evaluation, the general objective is broken down to 15 indicators. Economic efficiency is one indicator (Transport Analysis, 2018). Therefore, when adapting transport directives into policy solutions, the efficiency goal should be taken account. However, a comprehensive analysis of the use of impact assessment in the EU shows that many assessments still overlook important economic components, such as for example cost-benefit analysis (Cecot et al., 2008). This is also evident in Sweden (Nerhagen and Forsstedt, 2016). Practitioners and academics debate the use of cost-benefit analysis (CBA) in the transport sector. For example Næss (2006) argued that CBA analyses of transport investment projects tend to neglect long-term environmental impacts. Flyvbjerg et al. (2003) claimed that cost estimates used in decision-making for transport infrastructure development are “highly, systematically and significantly misleading” (p. 71). Börjesson, Eliasson, and Lundberg (2014) highlighted the apparent concern among planners and decision-makers that CBA rankings are so sensitive that even small changes in uncertain or controversial entry parameters can result in completely different policy recommendations. They believe that this has led to long debates about scenario assumptions and values and, in some cases, led to rejection of the utility of CBA as decision support (Börjesson et al., 2014). To address

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<https://doi.org/10.1016/j.tranpol.2019.10.008>

Received 29 June 2019; Accepted 25 October 2019

Available online 26 October 2019

0967-070X/© 2019 The Author.

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criticisms of the method, Börjesson et al. (2014) also investigated the robustness of cost–benefit rankings of transport investments, and demonstrated that all studied variations of these rankings are robust. This paper pays specific attention to how this dimension (economic analysis; e.g., CBA) in the policy adaptation process is dealt with. Are there signs of similar discussions among administrators? Are there scientific conflicts and, if so, how are they handled? The paper complements the discussion of the use and non-use of economic analysis in the transport sector by addressing how it is taken into account when adapting directives into policy proposals.

The paper is situated in policy theory, and one of its main contributions is to refine our understanding of the administrator’s role in the policy adaptation phase. Sætren’s (2005) extensive literature review on policy studies in political science and public administration journals shows that there are limited studies of the transport sector. There is a clear scholarly bias in research topics towards a few policy sectors. Most of the reviewed studies dealt with the education sector (38%), followed by health (15%), the environment (9%), and social policy (8%). Transport studies were not categorized and did not even account for 1% of the reviewed studies (Sætren’s, 2005, p. 571). Hill and Hupe (2002) presented similar results. Marsden and Reardon (2017) analysed 100 papers from the two leading policy journals in the transportation literature, finding that only 13% of the papers considered specific aspects of the policy cycle, whereas 60% focused on “tools” for policy and two-thirds did not engage with real-world policy examples or policy makers (Marsden and Reardon, 2017). Marsden and Reardon (2017) argued that questions of governance are largely ignored in the transport literature (p. 238), demonstrating that only four papers concerned the “ends or aims” of policy, i.e., the goals, objectives, or settings (p. 244); moreover, they identified a dominance of quantitative studies in the reviewed literature. Hansson (2011) presented a similar discussion concerning studies of the public transport sector, arguing that the body of theory used in public transport studies has mainly been developed using experimental or quantitative empirical situations. Thus, conclusions drawn regarding actors’ actions, values, and beliefs have not really been subject to qualitative analysis (Hansson, 2011, 2013). The present paper combines policy theory with planning theory and provides a theoretical framework for studying policy adaptation, specifically, the construction of knowledge in such processes. This perspective is general and can be applied to studies beyond those presented here.

2. Theory

2.1. Policy adaptation: sources of knowledge making

A policy process consists of various activities: problem definition and agenda setting, policy formulation and adaptation, implementation, and evaluation (see Fig. 1) (Knill and Tosun, 2012). The present paper focuses on the public administrators in the policy adaptation phase of the policy process (the grey circle in Fig. 1). In this paper, administrators are limited to nonelected public officials working at the national government level in agencies or government departments.¹

Policy adaptation occurs when a formal decision or directive has been issued and administrators are given the task of interpreting it and translating it into one or several policy proposals. Policy proposals are defined in a broad meaning, and include action plans, government programmes. The proposals should suggest some types of solutions for future implementation. The solutions can be broadly defined or more concrete.

One way to investigate how policy adaptation occurs is to study knowledge-making, taking into consideration what information

¹ Different terms are used to refer to nonelected officials, for example, “civil servants” and “public officials”; the word “administrator” will be used in this paper.

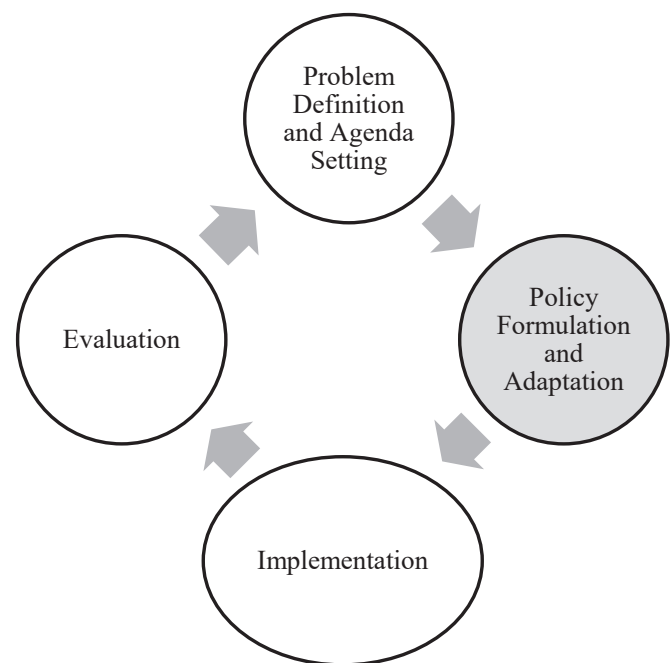


Fig. 1. The policy cycle modelSource based on information from Knill and Tosun (2012), p. 9.

administrators use when adapting a policy directive and how this information is translated into a proposal. The role of knowledge-making has long been of interest among planning scholars, and this paper will use some of these theories to complement political science theory on policymaking. Planning studies have shown that planners use various knowledge sources when making plans, some sources being more dominant than others (Flyvbjerg, 2001; Healey, 2006; Hysing, 2013; Rydin, 2007; Tennøy et al., 2016).

Tennøy et al. (2016) presented an overview of sources of knowledge that planners use when making plans: process knowledge, knowledge of the project/objectives, context knowledge, and expert knowledge. *Process knowledge* relates to rules and regulations for how planning and decision-making processes should be performed, for example, when plans should be discussed in hearings. It also includes knowledge of negotiating and of presenting plan content to stakeholders (Healey, 2009; Tennøy et al., 2016). *Knowledge of the project/objectives* includes knowledge of the aims of, and intentions underlying, the project (Healey, 2009; Tennøy et al., 2016). *Context knowledge* relates to existing information, such as existing plans, official statistics, and government investigations, that is relevant to the plan-making process (Healey, 2009; Rydin, 2007; Tennøy et al., 2016). *Expert knowledge* concerns empirical, theoretical, and methodological knowledge about causal effects, for example whether, how, and to what degree different measures can cause effects in different contexts and how these effects can be measured. It is assumed that academic background/education influences how a planner interprets and addresses goal conflicts in a plan-making process (Tennøy et al., 2016). It has been argued that expert knowledge has been de-emphasized in favour of more communicative approaches (Healey, 1992; Næss et al., 2013; Tennøy et al., 2016).

It is worth noting that the above definition of expert knowledge in planning studies differs from the political science view of expert knowledge in the public sector. In political science, an “expert’s power lies in the special skills or abilities that the expert has” (Henriksson, 2016, p. 31). Expertise is built up by systematically allocating time within an area. Administrators gather knowledge throughout their professional lives through long-term work in their sectors (Henriksson, 2016). This means that experience-based factors are included in the

definition of expert knowledge in political science.

2.2. The role of public administrators in the policy adaptation phase

Administrators have a central role when translating policy directives into concrete proposals. As shown above, one can assume they use various types of knowledge when constructing such proposals. However, to understand administrators' role in policy adaptation, the political dimension also needs to be taken into account. In a government system, public administrators and politicians have different functions. Politicians are elected persons and have a political ideology that should/might be taken into account in a decision process. Public administrators are employed (and not elected by the citizens) and have a function to uphold impartiality in the government system. They should ensure fairness, objectivity and not become politicalized. Hence, there is a separation between elected officials and administrators. The separation between politics and administration was central in early studies of policymaking, and often referred to as a Weberian perspective on bureaucracy (see, e.g., Pressman and Wildavsky, 1984, cited by Hill and Hupe, 2002). Policy was seen as a process that results in an authoritative decision made by politicians, while the implementation process is undertaken by objective administrators, i.e., decision-making and implementation were seen as separate processes (Barrett, 2004). However, today it is established that the policy process is often imprecise relative to the original decisions made, prompting new decisions and sometimes a rethinking of the direction of the original decision (Hill, 2005; O'Toole, 2000; Peters, 2001). Despite politicians and public administrators different functions in the government system, numerous scholars have pointed out that politics and administration can not be considered in isolation from each other (Hansson, 2012, 2013; Hill, 2003; Lipsky, 1980). Public administrators have also been criticized for becoming too politicalized and have lost the central function of impartial administrators (Svara, 2006). Svara (2006) described the relationship between politicians and administrators as heterogenic, emphasizing control and distance/differentiation between the two actor groups.

Table 1 presents four types of administrator roles (Svara, 2006, p. 955). When the distance and differentiation between elected officials and administrators are both large and the control of administrators by the elected officials is strong, there is a clear subordination of administrators to politicians and their roles are seen as separate. Elected officials set broad policy objectives and conduct general oversight of performance, and both technical expertise and organizational resources shape the administrators' behaviour. The role of the autonomous administrator is evident when the distance between elected officials and administrators is large, and the control of administrators by elected officials is weak. Then the administrators have influence that is equal to or greater than that of the elected officials, and administrators are described as being distant from the elected officials and self-directing to the point that political control is questionable. The role of responsive administrators becomes evident when the distance and differentiation between elected officials and administrators are both small, and the control of administrators is strong. In this case, there is no clear separation of the roles between politicians and administrators; instead, there is close political alignment between them. There may be political

Table 1
Political-administrative relationships and administrator roles

		Distance and differentiation between elected officials and administrators	
		Large	Small
Control of administrators by elected officials	<i>Strong</i>	Separate roles	Responsive administrators
	<i>Weak</i>	Autonomous administrators	Overlapping roles

Source: Adapted from Svara (2006, p. 955).

incursion into the administration and/or administrators may adopt political norms when making decisions. The administrators anticipate the reactions of politicians and act in expected ways. The last role in Table 1 concerns a relationship in which there is mutual influence between elected officials and administrators, and the roles are overlapping. Here, administrators are active in a broad range of decisions and elected officials are involved in the detailed choices associated with administration. As with the responsive administrator, there is extensive interaction, though in their overlapping roles, the separate norms of the two actor groups are maintained.

2.3. Analytical model

Fig. 2 proposes a model that illustrates the central components used in analysing administrators' sources of knowledge and their roles in the policy adaptation phase. The model is constructed based on the theories presented in Sections 2.1 and 2.2.

The triangle in Fig. 2 illustrates the policy adaptation phase analysed in the policy cycle. In this phase, a directive is translated into policy proposals that include recommendations of policy solutions for later implementation. Administrators use different sources of knowledge (i.e., knowledge of the project/objectives, expert knowledge, context knowledge, and process knowledge) in gathering information and constructing policy proposals. Administrators have a central role in this phase of the policy cycle, but they are part of a political system and interact with the political level. The arrows in Fig. 2 illustrate the relationship between administrators and elected officials. The relationship between administrators and politicians can have different features: the distance and differentiation between elected officials and administrators can be large or small, and the control of administrators by elected officials can be strong or weak. The relationship between elected politicians and administrators is also context dependent. For example, premises for this relation can be stated in a country's constitution or regulated in other ways. Hence, the model provides a structure for the relationship; however, the arrows on both sides of the triangle might be stronger or weaker, depending on the country that is analysed.

3. Method

The findings are based on two case studies, both situated in the Swedish government context. Both cases concern policy directives adopted to promote alternative fuel in the transport sector. Case A concerns the policy adaptation of an EU directive and Case B the policy adaptation of a national government directive. The cases were selected based on following criteria. First, in order to minimise the contextual variations that may affect a comparative analysis, both cases had to work with policy adaptation within the same policy area/directive (promote alternative fuel). After this cases were selected based on criteria's related to the theoretical framework presented in section 2. The cases need to open up for a possibility to study a presumptive variation in the political-administrative relationships and administrator roles (theoretical model by Svara, 2006). In Case A, the administrators are working at the Ministry of Enterprise and Innovation, and in Case B, the administrators are working at independent national agencies. One can assume that there are differences in distance/closeness and control in relation to political level in the cases, since the administrators in Case A work at the Ministry (the same building as the politicians) and the administrators in Case B work at independent agencies. The selected cases should also open up for possibilities to analyse different sources of knowledge and how these were used. Therefore, one shorter process with fewer personnel was selected (Case A) and one longer process involving several administrators working at different agencies (Case B). The material comprises analyses of documents and eight interviews with administrators working at the Swedish national government level. Documents are the main source of information in the study. An extensive document analysis was conducted in both case studies, covering existing

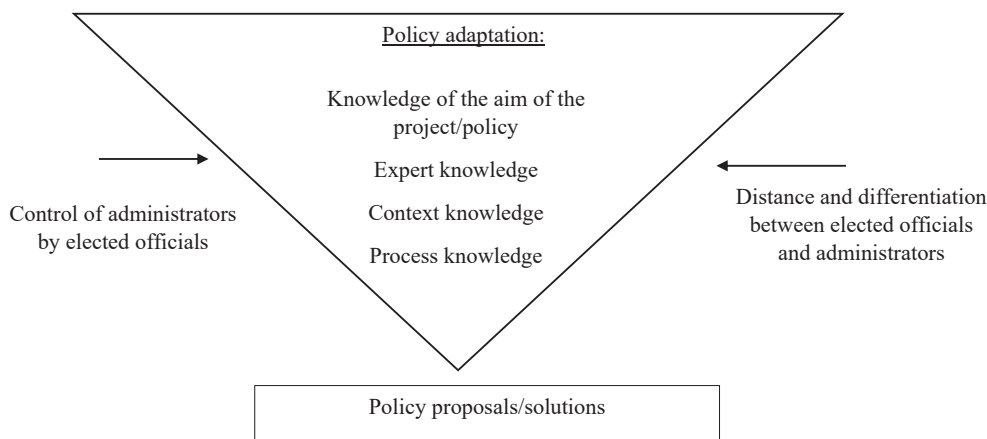


Fig. 2. Administrators' knowledge-making in policy adaptation
Source: Author interpretation.

reports, notes, protocols, legislative documents, etc. The documents give an indication of the sequence of events in a process, the actors involved, and when meetings occurred as well as information about sources/references used when constructing the policy proposals. The results of the document analysis and the theoretical framework were used when constructing the interview guide. During the interviews, some documents were also collected (e.g., if given by the respondents). In Case A, there was only one administrator that worked on the policy proposal and this person was interviewed. The rest of the interviews were carried out with administrators in Case B. Some respondents were interviewed multiple times, to cover changes in the policy process. An interview as a knowledge source is primarily useful for gathering information that cannot be retrieved otherwise, for example, to capture values, beliefs, and feelings. Respondents use their memory to reproduce an event; they can choose to withhold information or present it in a certain way. In interviews with public actors, it should also be assumed that the interviews are public records. Hence, the interviews are seen as an additional source to complement the documents (Czarniawska, 2007). A final analysis was conducted after all the empirical data had been collected (Bryman, 2016). The final analysis was performed chronologically as well as content wise. The chronological analysis captured the relationship between the political level and the administrators in Fig. 2. It identified if, and when meetings were held, what actors attended, changes in the process etc. The content analysis focused on the sources of knowledge used in the policy adaptation phase (see Fig. 2). It analysed the final policy proposals and recommended solutions, and traced back the sources that lay behind the final proposals (for example older reports, evaluations, notes from hearings, etc). The findings were presented at a seminar attended by administrators from various Swedish national agencies. The seminar discussion helped to triangulate the findings and confirmed some of the conclusions reached in this paper (not all findings were presented at the seminar).

3.1. Short introduction to the Swedish context and the empirical cases

Sweden is located in northern Europe. It is a unitary state with a two-tier government system: national government and local government. The local government consists of counties (regional level) and municipalities (local level). Sweden is also a member of the EU. Proposals for new laws are presented by the national government, which also implements decisions taken by the Swedish parliament. The government is assisted in its work by the Government Offices, which comprise a number of ministries and approximately 400 central government agencies (Swedish Government, 2018). In Sweden, the agency structure is based on independence. The government has instruments to steer the operations of national agencies, though it has no powers to intervene in

an agency's decisions in specific matters relating to the application of the law or the due exercise of its authority. In many other countries, it is common for an individual cabinet minister to have the power to intervene directly through a decision in an agency's day-to-day operations; this is not allowed in Sweden (Swedish Government, 2018).

Case A covers EU Directive 2014/94/EU of the European Parliament and of the Council of 22 October 2014 on the deployment of alternative fuels infrastructure. The Directive requires that the EU member states each formulate an action plan for dealing with alternative infrastructure in the coming years (Swedish Government, 2016). The Directive states that the action plan should outline targets and objectives as well as actions to develop the market for alternative fuels (EU Directive, 2014/94/EU). In Sweden, the action plan was to be presented in a report/document (Ministry of Enterprise and Innovation, 2016). The Swedish Minister of Infrastructure delegated the development of the action plan to administrators working at the Ministry of Enterprise and Innovation. Case A is a rather short process with few administrators involved in the work. The process lasted less than a year.

Case B concerns a process in which central agencies were responsible for formulating a strategic plan for a fossil-free transport system. The Swedish Energy Agency was given the coordinating responsibility, but the instruction from the national government was that the work should be done in collaboration with other agencies: the Swedish Transport Agency, the Swedish Transport Administration, Transport Analysis, the Swedish Environmental Protection Agency, and the Swedish National Board of Housing, Building, and Planning (Swedish Energy Agency, 2016). Case B is a larger process, involving administrators from different agencies, and the work continued for three years.

4. Findings

4.1. Knowledge-making in the policy adaptation phase – premises set by the political level

In both cases, written instructions from the political level set the premises for the public administrators' work.

In Case A, the EU Directive set out some points on what was to be covered in the action plans, but allowed member states great discretion to interpret and shape the content of the plans. It was stated that national political aims should be included in the work and proposals should be related to these aims (Ministry of Enterprise and Innovation, 2016). It was then up to the member states to prioritize and formulate recommendations. In Sweden, the work was delegated from the national government to a senior public administrator, working at the Ministry of Infrastructure and his trainee. The administrator received the assignment due to his long experience of similar work and his available

capacity at the time (Interview, Case A). The public administrator provided information regarding the progress of the work to the Minister for Infrastructure but, according to the public administrator there were no discussions regarding the content that was to be in the final report. The administrator chose a relatively free interpretation of the instructions from the EU when formulating the plan, for example, not addressing all the points required by the EU. Consequently, the final plan covered only some of the requirements stated in the EU Directive. This resulted in written dialogue between the EU and the Swedish government, and the administrator had to complement the plan with additional information (Interview, Case A).

In Case B, it the national government gave fairly detailed instructions to the Swedish Energy Agency. It was even specified as to what information sources they could use when writing the plan:

The plan may include proposals for legislative work, government duties, or impacts on Sweden's outside world. Starting points for the work can be the report Fossil Free on the Road (SOU, 2013), the Environmental Commission's forthcoming report on a climate policy framework, and international developments (Swedish Energy Agency, 2016).

The quotation above is an example of where the political level uses written instructions in order to try to influence the administrators' selection, and use, of knowledge sources in a certain direction. From a Swedish perspective, such detailed government instructions, as found in Case B, can be questioned since the agency structure in Sweden is based on independence.

In both cases, the public administrators also relied on the Swedish government's existing political aims for a more sustainable transport sector when working on their proposals (Ministry of Enterprise and Innovation, 2016; Swedish Energy Agency, 2017):

[The work is] based on the goals now proposed within the climate policy framework, primarily the goal of at least a 70 percent reduction in greenhouse gas emissions in the transport sector between 2010 and 2030, but also an outlook that Sweden by 2045 should not have any net emissions of greenhouse gases into the atmosphere, and to subsequently achieve negative emissions. (Swedish Energy Agency, 2017, p. 47)

There was little discussion of the aim itself among the administrators (Interview, Case A and B). Instead the interviews stated that the aim of at least a 70 percent reduction in emissions in the transport sector by 2030 was seen as a common basis for the work and something that the administrators could work from.

In Case B, knowledge of the political intentions was also obtained through a formalized dialogue with the Ministry of the Environment and Energy:

Work on the plan has been discussed on a regular basis with the Ministry of the Environment and Energy every six weeks. Results have also been presented to other groups at the Government Offices. (Swedish Energy Agency, 2017)

The interviewees also emphasized the importance of "checking in" with the ministry regularly through the process in Case B (Interview, Case B).

This section shows that the government's instructions, as well as political goals and intentions, set the premises for the administrator's work in the policy adaptation process in both cases. In regard to Table 1 and Fig. 2 in the theoretical section, the relationship between the administrator and the political level at this stage recalls the separation of roles in Case A. This means that the administrator was informed of the political direction and overall political goals, but worked more or less independently of the political level. The administrator in charge, have worked in the ministry for many years, and the interview gave the impression that he holds a "hidden knowledge" about what the political

level expects the administrator to do in terms of work and not much instruction is needed. When problems occurred in this situation, the elected officials had the capacity to control or steer the administrator in the right direction. This indicates a high level of control from the political level (see Fig. 2 and Table 1). In Case B, the administrators are situated in independent agencies, and not at the ministry. The process is formalized by having regular meetings with the political level and more detailed written government instructions. In regard to Fig. 2 in this paper, Case B show signs of more formalized control functions from the political level as well as formalized structures (regular meetings etc.) to minimize the distance between the political level and the administrators.

4.2. The final reports - re-use of existing written material

In both cases, the policy recommendations proposed in the final reports (i.e., the action plan in Case A and the strategic plan in Case B) were not new. Analysing the final proposals, one can find references to sources from existing agency reports, policy documents and other written information. These are clearly cited in the final reports in both cases.

In Case B, it is clearly stated in the final report that the proposals are based on published information found in existing agency reports:

The proposals come mainly from previous investigations and we have not made any new assessments as to whether the proposals are enough. (Swedish Energy Agency, 2018)

As stated in the previous section, the national government gave fairly detailed instructions to the Swedish Energy Agency as to what information sources they could use when writing the plan. For example, the instruction recommended that starting points for the work can be the report Fossil Free on the Road (SOU 2013: 84), the Environmental Commission's forthcoming report on a climate policy framework, and international developments (Swedish Energy Agency, 2016). Hence, the government instructions clearly encouraged the administrators to use existing reports and policy documents when formulating the action programme. Analysis of the final product shows that the suggested sources, listed in the government instructions, were important for the result (Swedish Energy Agency, 2017), and this was confirmed in the interviews.

The administrator in Case A stated that the knowledge needed for formulating the action plan for alternative fuels was already available: producing the final report mainly entailed summarizing available information (Interview, Case A). On the question of why no new analyses were carried out, the administrator argued that it was not relevant, since the information already existed and the period given for the work did not encourage new analysis (Interview, Case A).

Hence, it can be concluded that existing agency reports and policy plans are central sources when adapting a policy into a finalized policy proposal. This type of knowledge source is defined as context knowledge in the theoretical section (Tennøy et al., 2016). The use of existing reports and analyses will be further examined in Section 4.4 Economic analyses in the policy adaptation phase.

4.2.1. Emphasis on new process knowledge in Case B

In Case B, process knowledge was also a central source in the policy adaptation process:

We are six agencies that have jointly developed a strategic plan ... The process, that is, how we worked together and the organization and coordination we have built up between the authorities, is quite unique However, most of the policy solutions [proposed in the plan] are not new. (Swedish Energy Agency, 2018)

The quotation illustrates that new process knowledge was created during the policy adaptation process; knowledge of how to coordinate

work between agencies in a productive way.

In Case B, the work was organized through horizontal working groups, covering administrators from the different agencies, with one group working on the overall plan and other groups focusing on specific areas (e.g., air transport). Much of the work took place in these groups (Interview, Case B). Besides horizontal coordination, there was vertical coordination as well. A “manager group” was created in which the managers from the agencies were represented. The directors-general of the agencies also formed a group. The manager group had, according to the interview material, an important role in terms of anchoring the decisions made by the administrators and legitimizing them higher up in the organization. The manager group was also important in terms of resolving conflict. If there was a disagreement among the administrators in the working groups that could not be resolved, the issue was escalated to the manager group. Thus, the administrators could move forward but did not have to solve major problems by themselves (Interview, Case B). Here, organizing the work in formal structures helped move the process forward and was seen as a result in the policy adaptation phase (Swedish Energy Agency, 2018).

4.2.2. Consultation rounds – a blurry function

The theoretical definition of process knowledge also includes rules and regulations for how planning and decision-making processes should be performed, for example when plans should be discussed in hearings and other forms of stakeholder involvement (Healey, 2009; Tennøy et al., 2016). Both cases had processes to capture external interests.

In Case A, a written instruction from the EU stated that the work should be done in broad cooperation with different actors and organizations:

Member States should ... establish national action programs ... in close cooperation with regional and local authorities and with the industry concerned ... Member States should cooperate with other neighbouring Member States at [the] regional or macro-regional level, with [a] round of opinions [i.e., a consultation process]. (EU, 2014)

Case A was of great interest to Swedish industry since the outcome of the plan’s recommendations could potentially benefit or hamper certain industries. The quotation below reflects the expectations of some industry actors:

There are high expectations from industry regarding the national plan. A joint wish from, among others, the energy companies in Sweden, the 2030 Secretariat, the Power Circle, the Swedish Gas Association, Hydrogen Sweden, and SPBI is that the plan will contain interim targets on the road to a fossil-independent vehicle fleet in 2030. Nordström (2016)

The Ministry of Enterprise and Innovation arranged two hearings to inform and discuss the work with various stakeholders. The hearings involved representatives from various associations, regional organizations, municipalities, and Swedish industry (Ministry of Enterprise and Innovation, 2016). There were also smaller meetings and several debate articles in newspapers.

Case B involved a broad consultation process. The involved administrators arranged meetings with stakeholders, including regional and local organizations. They also created an “open forum”, inviting stakeholders and other interested actors to submit their opinions (Swedish Energy Agency, 2016a)

Over 800 emails were sent to municipal, regional and national authorities, industry associations, associations, universities, as well as to different networks. In addition, the invitation was published in several newsletters and highlighted on the agency’s website. (Swedish Energy Agency, 2016a)

The purpose of the open forum was to obtain a broad overview of

what should be prioritized. In total, about 100 actors contributed, and their contributions were summarized in a short report (Swedish Energy Agency, 2016a). These contributions can also be found on the Swedish Energy Agency’s website.

Despite the broad rounds of consultation, it is impossible to identify what impact the external communication process had on the final reports in Cases A and B. When interviewing the administrators, it was difficult to get a concrete answer as to what effect these consultation processes had. The use of different forms of consultation processes has been discussed in the academic literature, and studies have shown that managing a large amount of information can be problematic (Bickerstaff et al., 2002; Booth and Richardson, 2001; Bjärstig et al., 2018). However, consultation processes can also be used to legitimize a project, and to inform actors of the process and upcoming proposals (Rydin, 2007). The consultation rounds may have had such functions (i.e., legitimizing and informing) in both cases. However, it is impossible to establish whether these consultation rounds were used as sources of knowledge in the policy adaptation phase.

4.3. Economic analyses in the policy adaptation phase

The Swedish government’s goal for transport is to ensure the economic efficiency and long-term sustainability of transport provision for citizens and enterprises. This study paid specific attention to economic analysis, and to how it was taken into account when prioritizing and deciding on recommendations. Information on economic analysis work, such as CBA, was sought in the document analysis, and questions about how CBA was accounted for in the studied policy processes were raised in the interviews.

There were no references to the use of CBA in Case A. It is not mentioned in the final report, and the administrator who formulated the action plan confirmed that the plan had not undergone any type of economic analysis: “Such analysis was not included in the written directive from the EU and it was not prioritized to be taken into account when writing the framework,” said the administrator in Case A.

In Case B, economic analysis, in terms of cost-efficiency, received more attention. In contrast to Case A, in its instructions to the Swedish Energy Agency, the government stated that cost-efficiency should be considered when formulating the plan (Swedish Energy Agency, 2016). Case B organized a working group that focused on evaluation, which included the responsibility to formulate a plan for evaluating economic effects. In addition to the working group, it was clarified that parts of the economic analysis work could be conducted by the ASEK group² (Interview, Case B).

Besides the final report, a separate report was written containing an evaluation plan. This is not a detailed set of guidelines, but draws attention to the evaluation of proposals and stresses the importance of using economic analysis. However, the report does not contain any new analyses, only citing existing analyses and reports, for example:

The Swedish Transport Administration estimates that reduced emissions through vehicles adapted to biofuels have a relatively high cost to society, while energy-efficient vehicles have a low, or even negative, cost to society. (Swedish Energy Agency, 2017b, p. 39, p. 39)

The bonus–malus report describes the economic effects and motives to ... (Swedish Energy Agency, 2017b, p. 40, p. 40)

One can also note an inconsistency in the writing concerning economic analyses in Case B. The final report contains several passages stressing the importance of evaluating cost-efficiency, for example:

² ASEK is a government consultation group consisting of representatives from various Swedish agencies. ASEK can make recommendations regarding calculation principles to be applied in the CBA of transport measures.

When designing and evaluating individual instruments and measures, it is necessary to take into account the short-term and long-term cost-effectiveness of the initiative as well as how it interacts with other relevant actions. (Swedish Energy Agency, 2017, p. 8, p. 8)

However, other passages in the report mention uncertainties concerning the method, for example:

The valuation of costs to society is associated with great uncertainty. [This is] [p]artly because the transport system and the impact on society change over time and partly because knowledge of the various effects of traffic is rarely complete, as are the methods used to evaluate these effects. (Swedish Energy Agency, 2017, p. 41, p. 41)

There were no indications from the data that the administrators working in Case A or B have a sceptical view of CBA. However, some administrators lacking an economic background were reluctant to talk about the method. Some were unsure as to how to respond to questions related to economic analysis; instead, they recommended talking to administrators working with such methods (Interviews, Case B).

Some administrators who are economists and work with CBA described their work as sometimes isolated and said that they felt essentially alone in their role. Some administrators revealed uncertainty as to their role, in terms of others expecting them to be experts on CBA:

I took a CBA course at the university, but there are many other economists who are better than I am at it. However, they often work in academia or in consultant firms. (Interview, Case B)

The interview material indicates a difference between the administrators' roles. Administrators working in specific policy areas (e.g., energy and infrastructure) can come from different academic backgrounds, for example engineering or social science, but the administrators responsible for performing economic analysis are defined based solely on their academic background (i.e., economics). This division of work into empirical policy areas and a disciplinary group is also illustrated in the organization of the policy process in Case B, in which a specific group was created to handle evaluation, including the analysis of economic effects.

5. Conclusion

5.1. Political intentions and re-use of existing material shape policy proposals

The EU has adopted directives intended to reduce the environmental impact of transport. Given these directives, member state governments must formulate and evaluate policy options. This paper focuses on the policy adaptation phase of a policy directive, specifically on administrators' knowledge-making when constructing policy proposals. Fig. 2 illustrates the components of administrators' construction of knowledge in the policy adaptation phase of a policy process.

It is concluded that administrators used different sources of knowledge when constructing their policy proposals, so their knowledge-making is composite. The administrators used political aims as a central component of the process. These aims form a common basis for the work between administrators, similar to what planning studies call "knowledge of the project/objectives" (Tennøy et al., 2016).

Process knowledge is present in both cases, and the administrators are aware of how a process should be designed. Case B illustrates the creation of new process knowledge, through the design of a collaborative structure between the agencies and large rounds of consultations. However, it was impossible to identify how the rounds of consultation were processed in relation to the recommendations made in the final reports.

In both cases, no new analyses or solutions were presented; instead, the recommendations were mainly based on the synthesis of existing

sources. The final report mainly consists of citations of knowledge sources that can be described as context knowledge, for example references to existing reports, statistics, and policy proposals.

One can ask whether it is problematic to rely on existing sources in a policy adaptation process. Given the character of a project, this does not have to be bad, for example, Case A was a smaller process with limited personnel and time resources. However, for Case B, which was a longer process lasting several years and involving many actors, one must ask how efficient the process was, in view of the result presented in the final report.

From a more general perspective, it is relevant to discuss implications that re-use of sources may have for the long term. There are elements of path dependency in the policy adaptation process. Path-dependency occurs when decisions of today are limited or influenced by decisions taken, or events that occurred, in the past. The tendency of path-dependency in this paper lies in the re-use of contextual data in the final report, as well as the acceptance of incorporating existing, instead of performing new, analysis. The risk with path dependency is that circumstances of the past may not always be relevant today and might lead to unintended consequences, such as lock-ins. Additional studies that examine elements of path-dependency and presumptive lock-ins in the policy adaptation phase are therefore encouraged.

5.2. Requirement to use economic analysis is met by decoupling strategies

The study had a specific focus on how economic analysis is used when evaluating policy alternatives. In Sweden, the overall transport objective holds an economic efficiency component: "The goal for transport is to ensure the economic efficiency and long-term sustainability of transport provision for citizens and enterprise throughout Sweden" (Swedish Government, 2008). Economic efficiency is also pointed out as a goal-indicator and is evaluated each year in order to measure if the general objective is met (Transport Analysis, 2018). Hence, when adapting transport directives into policy solutions, the efficiency goal need to be considered. Expert knowledge, as defined in planning theory, is not evident in the reports. One could assume that expert knowledge might be captured by economic assessments of the policy solutions, but no such analyses were conducted in the two cases.

It was also found that the economic analysis work was decoupled from the ordinary policy process. This conclusion is based on Case B, in which a separate working group was organized that had responsibility for evaluation, including a plan for evaluating costefficiency. The working group wrote a separate report on its work, so the overall evaluation was not included in the final report/plan. As presented in the introduction of the paper, there is debate among practitioners and academics on the use of CBA in the transport sector (Börjesson et al., 2014; Flyvbjerg et al., 2003; Næss, 2006). Aspects related to this debate can be found in the Case B final report, which contains passages supporting the use of economic analysis, as well as other passages concerning the uncertainty of the method. However, that administrators hold a sceptical view toward economic analysis was not confirmed by the interviews.

However, a decoupling tendency can be found in the role definition of the administrators' tasks. Administrators working with CBA are economists, and their tasks are defined in relation to their academic skills/background, while administrators working in sectoral areas (e.g., energy) can come from different academic backgrounds, and their roles and tasks are not related to the same extent to their university degrees.

5.3. Who upholds impartiality in the policy process?

When striving to understand administrators' role in policymaking, one must take account of the political system they are working in. There is a relationship between administrators and elected officials in the policy adaptation process (Svara, 2006). In both cases, there are clear examples of strong government control over the public administrators in the policy adaptation process. The government primarily influences the

administrators via written instructions for the work that the administrators are to perform. These instructions contain information on what should be included in the final proposals, and in Case B, they even specify the knowledge sources that can be used. Government instructions are also used to preclude the use of certain information sources or the taking of certain actions. For example, in Case A, the administrator stated that economic analysis was not performed, since it was not required in the written instruction from the government.

Svara (2006) described the relationship between politicians and administrators as heterogenic, emphasizing control and the distance/differentiation between the two actor groups. The roles between the administrators and the political level differ between the two cases. In Case A, the administrator was aware of the political directions and intentions but worked more or less independently; however, the political level had the ability to steer the administrator should problems arise. In Case B, there are several examples that indicate a formalization of the process in order to shorten the distance between elected officials and administrators while maintaining political control. Here, the administrators had regular meetings to discuss their work with the elected officials; the written government instructions on the process were much more detailed, and the instructions were closely followed and not questioned by the administrators.

Government systems are based on a separation between politics and administration. A public administrator's function is to uphold impartiality, fairness, and transparency. It should provide politicians with solid information that is used for the political decision-making process. However, this paper illustrates a closeness between the public administrators and the political level, which might question the role of impartial public administrators. The elected officials are not critically challenged; new, alternative information that might not be in line with the political intentions are not presented. The public administrators mainly take on a "coordination role" in terms of re-producing existing policy solutions. One must then ask who holds the role of upholding impartiality in the political system. Moreover, who takes on the role of bringing in expert knowledge that might evaluate the policy recommendations in terms of realism and cost-efficiency? More studies are needed on the relationship between public administrators and the political level in the policy adaptation phase.

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