Symbolic knowledge at work:
learning from experts in EU public policy

Over the last two decades involvement of expert groups from science, society and national ministries or agencies has become a pertinent feature of European governance. With a view to EU environmental policy, this paper seeks first to explore the conditions under which expert groups operate and become effective. The European Commission’s propensity to value expert knowledge for its symbolic functions is then the bottom line of this paper’s claim that expert knowledge becomes symbolic knowledge at work when the Commission seeks approval for its policy choices among member states, thereby substantiating its particular preferences and positions, and presenting itself as the Community’s conscience with ideas that reflect the European concerns. To make this claim, the paper draws on qualitative research on the administration of European technology policy. It accounts for organizational effects through analysis within an organizational learning framework that links the expert-based formation of knowledge with its use.

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Introduction

The European Commission is at the heart of the integration process in Europe (Nugent 2001). It plays a pivotal role in the definition of policy problems, the translation of initiatives into proposals and the management of Community policies; this it does with great openness towards the diverse and often conflicting demands from national governments, organized interests and societal groups (Mazey & Richardson 2003; Schmitter 1996). The Commission’s capacity to act as a think tank and its power of initiative are intimately linked in its pursuit of collective solutions at the European level (Laffan 1997; Metcalfe 1996; Scharpf 2006). Its authority among the institutions of the European Union depends on resources that help solve problems: “expert knowledge, political insight, and bargaining experience” (Kohler-Koch 1997: 48). One of these resources are Commission-initiated groups of experts from member state governments, scientific communities, private sector representatives or NGOs whose involvement in policy processes has more than doubled over the last two decades – from about 600 of such groups in 1990 to more than 1200 in 2007 (Gornitzka & Sverdrup 2008). This increase has made them the largest organised information system in the EU.1 Expert groups may affect the way in which problems are conceived and ideas generated to resolve them, by giving advice, providing scientific input, sharing practical experiences and serving as forums for exchange of views and perspectives.

This paper seeks to explore the conditions and circumstances under which expert groups operate and become effective in the development and enactment of EU public policies. Provision of access to outside experts does not necessarily translate into influence on decision-making (Hallstrom 2004; Kröger 2008). Despite the “truism” that emerged in the late 1990s “that public policy is increasingly dependent on relevant, timely and, especially, credible information”, most clearly in the EU’s regulatory policies according to Majone (1997: 264), and broad agreement that expert groups are more prominent in the early stages of policy-making when sound political and legal initiatives are developed and proposed by the Commission (e.g., Gornitzka & Sverdrup 2011; Hallstrom 2004; Pesendorfer 2006; Zito 2001), a number of questions have attracted only scant attention until recently. These pertain in particular to the ways in which expert group generated knowledge is used and the likely consequences of its use (e.g., Boswell 2008; Gornitzka & Sverdrup 2010; Hornbeek 2000; Pregernig 2007). Furthermore, whether expert group involvement is negligible when

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1 As Gornitzka & Sverdrup (2011: 1454) explain, the composition of expert groups “reflects the choices made by the Commission, most of the them at the level of Directorates General (DGs). Expert groups are created by the Commission. In general, this is done in two ways: 1) by a Commission decision or other legal act, or 2) by a Commission service with the agreement of the Secretariat General. Most of the groups are of the latter kind. The composition of an expert group is subject to choice, where the DGs invite actors in their environments. This is part of EU decision-making that is not regulated by formal legal rules that specify participation rights and the role that such groups are supposed to play.”
distributive EU policies are carried through is not well understood, as are the mechanisms and processes in the Commission’s interaction with expert groups that increase its anticipating capacity and entrepreneurship in both the development and management of policies.

The present paper tries to fill this gap. It argues that knowledge is created in the interaction with expert groups and that the linkage between the formation of knowledge in expert groups and its use in EU decision-making on Community policies needs to be put at the centre. Analysis of this linkage is possible if an organizational learning framework is employed. Organizational learning is understood here as the creation of structures and procedures that improve the problem-solving capacity of an organization and its capacity to anticipate future developments (e.g., Child 1997; Olsen & Peters 1996; Wiesenthal 1995). To study expert group involvement as a trigger for learning and attend to the institutional environment in which the Commission acts, the notion of “boundary spanning activities” is introduced and integrated in a process model of organizational learning (Böhling 2007). This framing is combined with Boswell’s (2008) work on the political functions of expert knowledge in the EU. She has argued that the Commission’s nature as a political organization goes hand in hand with the propensity to value expert knowledge for its symbolic functions: legitimizing the Commission’s credibility among member states and/or substantiating particular policy preferences with expert knowledge in cases of political contestation. Expert knowledge becomes symbolic knowledge at work when the Commission seeks approval for its policy choices among member states, thereby substantiating its particular preferences and positions, and presenting itself as the Community’s conscience with ideas that reflect the European concerns. Organizational learning is instrumental in this encompassing process.

Analysis of learning from experts takes as its starting point the view that knowledge provision by outside experts to the Commission has less to do with these individuals than with the political structures in which they act (Radaelli 1999). With a view to the role played by “epistemic communities” and other outside groups the Commission draws on in EU environmental policy, section 2 illustrates that interaction with expert groups has become a tool for extending the Commission’s capacity for action, and identifies a number of conditions under which expert group involvement turns into a political asset. The analytical frame in section 3 nurtures the expectation that the Commission learns in its capacity as a political organization. Absorption of constructed expert knowledge translates into “hypocrisy” (Brunsson 1989): Expert knowledge is used to meet the demands and expectations of outside groups and accommodate their interests but is decoupled from the administrative core. Evidence for the paper’s argument that Commission learning from experts is playing out as symbolic knowledge at work is provided in section 4 with findings from qualitative research into the history of European technology policy. Discussion of this argument’s implications for EU environmental policy in which the Commission draws
extensively on expert groups and is faced with significant challenges to its authority seals the paper.

**Expert groups in EU environmental policy**

Involvement of expert groups is an important characteristic of environmental policy – not only in the EU but also at the national level and in the context of international environmental regimes (e.g., Pregernig 2007; Wurzel 2002; Underdal 2008). In European environmental policy, the notion of experts is a broad category and includes a variety of different actors from member state governments, national agencies, science, business/industries and environmental NGOs (e.g., Brown 2000; Pesendorfer 2006; Zito 2001). Gornitzka and Sverdrup’s (2011) analysis of a data set covering all of Commission expert groups (N = 1237 in 2007) shows that a mixed mode of participation is as frequently used in DG Environment as the pure governmental type in which national officials are the principal actors. Although in general, “the government level is considered to be the most appropriate relationship to cultivate for the Commission, in order to collect information and to promote sound and well-grounded initiatives and policies” (Gornitzka & Sverdrup 2011: 1460), in EU environmental policy use of scientific or technical knowledge plays also a prominent role (Hallstrom 2004). It may become more important than direct lobbying as Brown (2000) suggests in her analysis of the revisions in the EU water quality directive and emergence of climate change policy during the 1990s. Another example is the EU acid rain policy in which DG Environment heavily relied on technical expertise of various scientists to further a particular approach in addressing the problem of transboundary air pollution (Zito 2001).

Paraphrasing Heclo (1974) it may be argued that the politics of EU environmental policy is not only about powering, it is also about puzzling. The relationship between political haggling and use of outside sources of expertise, however, is not a simple trade-off. Rather, “the distinction between [the Commission’s] purely information-gathering activities and those that use information as a political asset to oppose competing policy alternatives is often blurred” (Brown 2000: 591). DG Environment, for instance, prefers scientific and technical knowledge whereas interaction with environmental NGOs is built around a model of the latter as “recipients of policy information” (Hallstrom 2004: 189). This preference is perhaps the Commission’s response to its lack of legal authority and legitimacy in environmental policy (Gornitzka & Sverdrup 2011). Faced with the problem of great implementation deficits in member states (e.g., Knill & Liefferink 2007; Koutalakis et al. 2010), the Commission may boost its authority with reliance on scientific and technical experts as an important source of information. As will be shown below, in EU environmental policy external sources of information or knowledge are not simply ‘out there’, ready to be absorbed but are constructed to fit particular ends (Bennett & Howlett 1992).
To explore the relationship between the Commission’s authority in the formulation and enactment of environmental policy and its use of expert groups, it is helpful to take a closer look at the circumstances under which these groups operate and become effective. A starting point for doing so is through analysis of the role played by “epistemic communities” in EU environmental policy. The notion of epistemic communities has been introduced by Haas (1992; 2000) to move beyond state-based understandings of international policy coordination in environmental regimes. According to this line of thought, there is latitude of action beyond the constraints from domestic pressure if professionals with recognized expertise and competence in a particular domain help states in the (re-)definition of their interests through the epistemic frameworks they deliver and the identification of salient points for negotiation. In EU public policy, epistemic communities may shape the policy “discourse and form consensual ideas when particular issues are complex and full of ambiguous choices” (Zito & Schout 2009: 1112). An implication of this view is that the epistemic ordering of environmental politics and power-based bargaining among states are analytically separate activities. In its applied form, however, the epistemic communities approach shows that knowledge and ideas developed by a network of professionals sharing a common worldview turn into a dynamic for persistent cooperation among EU member states if effective entrepreneurship, especially by the Commission, occurs (Zito 2001). Entrepreneurship involves “setting the policy agenda, popularizing the issue and potential solutions, building support and legitimacy for particular positions, inventing solutions that overcome political hurdles and brokering deals” (Roberts 1992; quoted in Zito 2001: 586).

As Zito (2001) showed, the Commission has set the agenda for further EU action to combat the harmful effects of pollution from large combustion plants (LCP) when it endorsed “critical loads” thinking of EU funded scientists. The notion refers to the amount of pollution an ecological system can endure before harmful biological effects occur. It implies a paradigmatic shift in the regulation of pollution in the sense that concrete damage of ecosystems is put at the centre rather than industrial competition. Zito explains this shift in terms of two sources: (a) recognition inside the Commission/DG Environment that critical loads thinking had gained substantial acceptance among scientific expert communities and policy-makers, notably in Sweden and the UK; and (b) success of the critical loads community in shaping the acidification discourse in the ‘softer’ UN Economic Commission for Europe (UN/ECE) – a member state forum in which non-binding regulatory protocols are negotiated. Inside the EU the line was taken that policy documents had to be fully compatible with UN/ECE decisions.

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2 The United Nation’s Commission for Europe was set up in 1947 and now consists of 56 member states. The forum is part of the UN’s economic and social work (ECOSOC) and has the main aim to coordinate pan-European economic integration. This includes the business sector, but also energy, environment or landuse planning. UN/ECE sets out norms, standards and conventions to facilitate cooperation within the regions. Among others, the 1979 Convention on Long-Range Transboundary Air Pollution (LRTAP) and its follow-up or the Aarhus Convention has been negotiated in UN/ECE.
Therefore, critical loads vocabulary entered the Commission’s acidification strategy of the late 1990s and the Fifth Action Programme for Environmental Policy (1993-2001).

Zito’s (2001) discussion implies that the Commission has made the shift toward critical loads thinking only rhetorically as the EU’s subsidiarity principle in environmental policy is at cross-purposes with policies controlling pollutant deposition in water, air and soil. The Commission was cautious to reopen the difficult LCP Directives debate of the 1980s in which Germany, for instance, pressed for uniform emission limits based on the best available technology (BAT) principle3 whereas countries like Spain or Portugal opposed additional strains to their economic development. Instead, the matter of negotiating emission ceilings moved to the Environment Council which started discussing a National Emissions Ceilings proposal in 1999. Apparently, however, substantial differences between southern and northern member states could be settled through reliance on the critical loads approach as the basis for the EU Emission Ceilings Directive of 2001. Perhaps adoption of the critical loads approach in the UN 1999 Protocol to Abate Acidification and measures within countries that seek to protect nature conservation sites against atmospheric deposition facilitated its endorsement in the EU Directive – despite the fact that estimated costs of emission control measures required by all these legislations run into billions of Euros (Skeffington 2006).

The combination of expert group involvement, EU efforts to assume a leadership role in international environmental regimes, and nestedness of the particular environmental measures in economic policy is also a characteristic of the EU’s climate change policy. The EU asserted a leadership role in the negotiations towards adoption of the Kyoto Protocol (1997) according to which the EU was going to take substantial, highly costly action on greenhouse gas emissions. Today, the EU threatens to impose “a carbon tax on imports from countries that do not maintain similar restrictions on carbon emissions … the EU is now likely to rely more heavily on leveraging its market power to press other states to join it in making substantial commitments to reducing emissions” (Kelemen 2010: 345). This threat is based on an old idea that was generated in the late 1980s in a DG Environment initiated expert group. It had recommended the employment of fiscal measures to achieve climate goals when the Commission was in the process of preparing a first policy proposal to the Council that set options for limiting GHG emissions in 1990. The Commission seized the opportunity to assume a leadership role in international climate policy but was faced with an issue area characterized by a high degree of uncertainty and complexity. Reliance on outside experts for scientific data and policy guidance in addition to development of in-house capacities was crucial to reduce complexity and play a prominent role in the emergent climate regime. As

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3 The idea behind the BAT principle is to link the setting of emission limits with developments of pollution abatement through technology. The danger with this approach is, as Wurzel (2002: 22) pointed out, “that such an approach can lead to ‘technical fixes’ which fail to solve the problem while delaying urgently needed behavioural changes.”
Brown (2000) points out, these Commission moves were flanked by international talks on concerted efforts to limit GHG emissions: among others, the Netherlands-hosted 1989 two-day ministerial conference on Atmospheric Pollution and Climate Change with 70 countries participating, and a 1990 meeting of 34 European and North American ministers, including members of the UN/ECE, who agreed informally to stabilize GHG emissions at 1990 levels by the year 2000.

“During Winter and Spring of 1992 preceding the June UNCED conference in Rio, climate policy was at the top of the Commission’s agenda. A so-called Forward Study Group … persuaded [then-President of the Commission, Jacques] Delors that climate change was a significant threat, and he came to support in principle an energy-carbon tax.” (Brown 2000: 588)

The picture of substantial expert group involvement in EU environmental policy reflects the overall trend that was triggered by the 1992 UN Conference on Environment and Development in Rio de Janeiro to involve private sector representatives, environmental NGOs and other public interest groups in the development and enactment of environmental policies. Pesendorfer (2006: 106) provides a critical discussion of the revisions that were undertaken in the EU’s chemical policy between the late 1990s and early 2000s under the EU’s ‘new’ approach to environmental governance of “delegating decisions from lawmaking institutions to technical committees with a strong involvement of public and private stakeholders.” According to Pesendorfer (2006), the EU looks at itself as a leader in the various international arenas in which chemicals policy takes shape and whose bottom line is that regulations should not endanger economic growth and must be based on hard scientific facts. The EU is the largest producer of chemicals in the world. In the 2003 Commission proposed rules on Registration, Evaluation and Authorisation of Chemical substances (REACH), little had sustained from the initial Swedish impetus to adopt stricter data requirements for chemicals, including a ‘no data, no market’ policy, and definition of criteria to enable the phase-out of hazardous substances.

“As expected, the Commission did not ignore the major concerns and worries from industry and some governments and the proposal is definitely not a tough new policy as envisaged by ‘green’ actors … [It] includes elements of deregulation (with regard to new substances), a strong trust in information provided by industry without sufficient requirements for transparency and with institutional weaknesses that will lead to new implementation deficits.” (Pesendorfer 2006: 109)

Pesendorfer explains this outcome with the winning ‘business coalition’ consisting of DG Enterprise, industry associations, business-friendly MEPs and key ministries of France, Germany and the UK, among others. The ‘green coalition’, by contrast, consisting of the internally divided DG Environment, environmental and consumer protection NGOs, ‘green’ MEPs, and environment ministries from ‘leader states’ in environmental policy repeatedly failed to have its strict regulations and bans perspective incorporated in the revised chemicals policy. As business associations continued to press for light regulations, then-heads of state Jacques Chirac, Gerhard Schröder and Tony Blair warned the Commission to propose a new
chemicals policy that was going to negatively affect international competitiveness, and the Commission decision to have the EU Competitiveness Council take the lead in resolving the issue (rather than the Environment Council), the green coalition was faced with the reality that environmental policy has to integrate economic aspects in the Europolicy, rather than the other way around.

**Summing up** this review of studies on epistemic communities and participation of non-state actors in EU environmental policy, at least two insights about the circumstances under which expert groups operate as knowledge providers in the EU polity can be derived. First of all, the general claim that input from outside experts is far from an objective, interest-free and transferable good but a means to strengthen the Commission’s authority in EU public policy (e.g., Horn 2008) can be supported but requires further differentiation: The Commission may install groups of experts from various backgrounds to generate supporting coalitions, frame a new policy or establish an agenda. Whether these moves transform the preferences of decision makers across the various veto points in the EU polity, however, is an empirical question as use of expert groups is embedded in Commission-internal dynamics and linked up with the other EU institutions like the Council or the Parliament and other actors in its environment, including member state governments and ministries, public and private stakeholders (Gornitzka & Sverdrup 2011; Zito 2009). Secondly, expert group involvement seems to be an important ingredient of the Commission’s efforts to assume a leadership role in international environmental regimes. Active participation in these regimes implies two things, namely (a) that the Commission uses the international arena to devise ideas and promote the European interest beyond the EU, and (b) that forces external to the EU may become significant drivers of environmental policy in Europe (Kellow & Zito 2002; Pesendorfer 2006).

To account for the former set of conditions of expert group involvement, a model of organizational learning will be proposed that links the construction of knowledge in expert groups with its use inside the Commission. The latter set of conditions is beyond the scope of the current empirical case on which the remainder of this paper is built but may inform future research on emerging forms of environmental governance beyond the nation state.

**Analyzing learning from experts in the European Commission**

Expert groups play an important role in shaping the discourse within which decisions on EU policies are taken. It is common practice among the different Directorate Generals of the European Commission to initiate and consult expert groups on a regular basis (Gornitzka & Sverdrup 2008). But to treat the recommendations they provide as an impartial good in pursuit of enlightened policy processes in the EU would be misleading as the Commission operates in a politicized environment and decides which experts are to be consulted for what ends and which are not. The Commission is an organization that possesses knowledge as its
main resource (Radaelli 1999). Partnering with outside experts and reliance on their input is pertinent to secure support for policy-related initiatives and activities rather than to enhance rational argumentation. It therefore seems safe to argue that composition of and interaction with expert groups is a carefully managed process by the Commission in which a broad notion of expertise coexists with the opportunity to use informal and temporary meeting formats in addition to the more permanent and formal ones (Gornitzka & Sverdrup 2010).

That knowledge is not just out there in EU public policy but constructed to fit particular ends is the bottom line of this paper’s concern with the linkage between the expert-based formation of knowledge and its use in the Commission. It resonates with the traditional paradigm in organizational learning theory that distinguishes between the creation of a willingness to learn, the accumulation, distribution and interpretation of knowledge and its integration with organizational memory as distinct stages of learning (Berthoin Antal & Krebsbach-Gnath 2001; Huber 1991). Organizational learning in this perspective is often accompanied with the expectation that the processing of information and its conversion into relevant knowledge expands an organization’s potential range of behaviours. It suggests that learning does not simply occur by acquiring information from internal or external sources, but encompasses internally-based and externally-oriented strategies for identifying (new) knowledge and for disseminating that knowledge deeply and widely enough for action to be taken. As Child and Heavens (2001: 322) note, the “significance of information for organizational learning is not just what it literally says but also where it comes from and how its social implications are interpreted.” Thus, information needs to become meaningful to an organization’s activities and turn into relevant knowledge through interpretation and memory storage in order for it to have an effect on organizational behaviour.

Stage models of learning are criticized for their overriding emphasis on the processing of knowledge, lacking sufficient attention for organizations as socio-political systems with distinctive activities and social practices that sustain learning (Child 1997; Geppert 2000; Gherardini & Nicolini 2001). Applying the notion of learning to the Commission requires understanding of its nature as a “politicized bureaucracy”, which refers to the Commission’s (a) strong preference for rule orientation and rule coherence, hierarchical organisation, and functional specialization, and (b) the politicization of its major fields of activity, which are to propose legislation, implement policy, and ensure compliance (Christiansen 1997: 76). It is also conceived as the “steering body of the world’s most encompassing supranational regime” (Hooghe 2005: 862) with an ongoing interest in the expansion of its competences (Kröger 2008). This interest, however, is likely to be playing out in a subtle way. The Commission cannot manage its priorities in an impositional style and rise roughshod over the interests of its opponents, which invariably include at least one member state according to Cram (1994: 199). If expert knowledge is used to raise support for own priorities without alienating important stakeholders in the Commission’s environment, this process may be comparable to
a “background process” in which the Commission forges transnational coalitions and connects different political arenas through “discourse framing” (Bauer 2002: 387).

The analytical framework takes up these ideas and proceeds in two steps: (1) the larger context of expert group involvement is scrutinized for those mechanisms and processes in which gathered knowledge is shaped to become meaningful for Commission activities, and (2) used to bolster the Commission’s credibility through what Brunsson (1989) calls “talk” and “decision”, i.e. ideology which the political organization is anxious to demonstrate to the outside world but which may have little to do with what is actually done at the administrative core. With a focus on stabilizing or increasing legitimacy for Commission activities and accommodating interests in a political environment, this two-step approach shares with research on ‘policy learning’ in the EU an interest in “the ‘knowledge utilization effects’ related to learning” (Radaelli 2009: 1146). Yet, it accounts for these as organizational effects rather than the result of EU characteristics like its multi-level and multi-actor governance structure of which the Commission forms one part (see Zito & Schout 2009). Rooted in organizational learning theory, the present paper seeks to revisit a current claim in the policy learning debate that the institutional context sets strong limits on the potential of learning to transform the relationship between an agency and its principals (Zito 2009). In order to do so, the relationship between the Commission and member state governments will be scrutinized in the analysis of learning from experts according to the following two steps.

Step 1. The involvement of expert groups by the Commission is conceptualized as a form of “boundary spanning activities” (Böhling 2007). The notion of boundary spanning activities depicts the openness of organizations to their environments and captures the interactions across an organization’s external boundaries (e.g., Aldrich 1979). Boundary spanning activities direct attention to the mechanisms and processes by which knowledge gathered from external stakeholders is constructed to become relevant for organizations ends. Knowledge formed through boundary spanning activities is relational, context-specific and anchored in the inter-subjectively shared beliefs of those involved (Gherardi et al. 1998). Forming knowledge with external stakeholders through boundary spanning activities is a source of power: it absorbs uncertainty “by selectively paring away the world’s native complexity” (Gordenker & Saunders 1978: 87).

Boundary spanning activities vary with the perceived goals, underlying orientations and rules that drive this process (Crozier & Friedberg 1980). The regulation of boundary spanning activities according to standardized rules and procedures leaves little manoeuvring room to

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4 One example is Brown’s (2000: 576) understanding of learning in EU public policy, conceptualizing it “as new information including policy feedback and new causal understandings that result in more effective policies, defined as more complex, integrated, flexible, and implementable legislation that enhances goal achievement.”
the actors who are trying to influence the terms for defining relevant knowledge and the ways it is channelled into the organization. Conversely, flexibility in the regulation of these activities gives the actors involved discretion to form knowledge according to their interests and provide it to the organizational members who are not directly involved in the boundary spanning activities. Looking at the social constitution of boundary spanning activities with its issues of power and regulation thus reveals that valuation of expert knowledge in the Commission has to do with the structures in which it is formed and channelled into the administration.

**Step 2.** Boundary spanning activities are linked with intra-organizational processes in distinctive ways, which determines how and to what extent the different groups in an organization gain access to the knowledge formed with external experts (Shrivastava 1983). Relevance can be created through effective handling of the communication flow between boundary spanning activities and those members of the organization who are not directly involved in these activities. It cannot be established once and for all, however. The fact that organizations have multiple realities and practices makes interpretation of constructed knowledge through boundary spanning activities an essential element of learning (Berthoin Antal et al. 2001; Levitt & March 1988). Interpretation is grounded in an organization’s memory or “repository of organized knowledge” (Walsh 1995: 286), i.e. knowledge encoded in the norms and forms of an organization, its rules and routines (March 1991). The notion of organizational memory implies that organizations do not passively accept new input coming in but influence the learning of their members with retained layers of past learning (Hedberg 1981).

Organizational learning theories assume a tension between the stabilizing element of organizational memory and the risk of destabilizing an organization’s core activities through the use of knowledge that is constructed with external groups. It may be inconsistent with conceptions of appropriateness in an organization (Levinthal & March 1993) and incompatible with core beliefs (Wiesenthal 1995). Political organizations like the Commission respond to this tension through “hypocrisy” (Brunsson 1989: 39): expert knowledge is drawn upon to satisfy the variety of ideas, demands and expectations of the diverse groups in the Commission’s environment and win their approval through legitimizing and/or substantiating particular decisions. It becomes ideology that is decoupled from the norms, beliefs and practices that guide the actions of Commission staff in their daily work. Thus, knowledge formed through boundary spanning activities with experts has mainly symbolic functions, helping to legitimate particular decisions and underpin the Commission’s authority rather than increasing the performance of EU policies (Boswell 2008).
Symbolic knowledge at work in EU technology policy

Implementation of a European research programme to foster the adoption and development of information and communication technologies (ICT) has been selected to show that symbolic knowledge utilization is not only pertinent in the Community’s regulatory policies with their dependence on expert knowledge but may characterize the implementation of distributive policies as well. This research programme is part of European technology policy, which is one of the few areas where a substantial policy role of the Community appears relatively uncontroversial among the member states (Peterson & Sharp 1998; Sandholtz 1998). The inherent fluidity and shifting priorities of the influential actors in IC technologies, however, fuels the difficulty of getting member states to condone a particular approach to technology policy beyond any temporary compromise (Cram 1994). The Commission has learned to gather support for the prioritization of a particular approach to IC technologies, to weave the knots between the powerful actors in the field and to act as a think tank providing new solutions to the old problem of competitiveness (Cram 1994; Roobek 1990). Increasing the importance of the Information Society in its agenda, was the Commission’s attempt to respond to the changes in the European industries related to IC technologies, where computing services became one of the few areas of growth during the phase of market saturation and oligopolistic competition that plagued hardware manufacturers in the 1990s.

Yet, “it is uncertain that Europe is really progressing in the adaptation of its citizens and territories to the new socio-economic paradigm of the information society, and worse, it does not seem to know whether this path is the right one.” (Gómez-Barroso et al. 2008: 788)

Reflecting these broad changes, the paper focuses on the management and administration of the research and technology development programme that promotes a ‘user-friendly information society’ in the 5th Framework Programme (1998-2002) of the European Community – a key component of the so-called 1999 Lisbon strategy aimed at turning the EU into ‘the most competitive and dynamic knowledge-based economy in the world by 2010.’ Implementation of this programme is pertinent for the present paper because involvement of an expert group has triggered emergence of a paradigm as the espoused programme rationale. The qualitative study on the administration of the Information Society Technology Programme (IST), on which this paper’s empirical analysis is drawing, is based on 43 semi-structured in-depth interviews with Commission staff (30), members of a comitology committee (7) and an expert group (6), conducted between 1999 and 2003. Interviews with Commission officials covered different hierarchical levels, including directors, their supporting staff, heads of unit and project officers. Anonymity was guaranteed. The study relied on qualitative methodology to furnish sufficient insight into the micro dynamics of learning and its potential to focus on activity sequences as they unfold (Maitlis 2005). In the following section, some background information on governance of the IST programme is provided to situate this particular case analysis of learning from experts in its context.
The EU context for implementation of the IST Programme

The IST Programme was intended as a turning point to address the convergence of technologies. It integrated the different foci of its predecessor programmes in the 4th Framework Programme. These forerunners include the European Information Technologies (ESPRIT) Programme, with its focus on information technology, constituting one of the building blocks of European technology policy; the Advanced Communication Technology and Services (ACTS) Programme, which centred on the development of communication technologies and the Telematic Applications (TAP) Programme. The IST Programme was financially the largest of the four specific research programmes – it received 3.6 billion euro in funding – within the European Community’s 5th Framework Programme (FP5), whose total budget amounted to 14.96 billion euro. The IST Programme was (and is) administered by the Directorate General for Information Society (DG INF SO), which too was formed in the late 1990s by merging the former DG for Telecommunications and Innovation with parts of the DG for Industry. Whereas the predecessor programmes had focused on distinguishable sectors in the economy, the newly formed Directorate General was challenged to operate somewhere between the constituencies of IT, telecommunications, software, content producers and very different fields of use such as automotive manufacturing, the entertainment industry and the healthcare sector.

Programme implementation was (and is) monitored and regulated by a comitology committee. The members of the committee were (and are) appointed by the governments of the member states, the then-accession countries and the associated states to represent their interests in managing the IST. In principle, the committee had a substantial say in a number of programme management matters like approving the annual work programme and funding decisions, but in practice its influence was limited. The strong reliance on informal discussions for reaching agreement solidified the general expectation inside the Directorate General that the committee was a control board and “more of a financial committee that has an overseeing role in [the DG’s] implementation of the programme … [it gets] very little feedback from this committee now about directions for research.” The delegates acted appropriately when representing their governments in the management of the programme and showing an interest in its administration. Directorate General staff was firm on this matter, which led to disappointment among delegates about the apparent lack of concern for their “interesting backgrounds in science, technology, and strategy … and experiences like having run a national programme” in the field. One delegate stated: “It is true that the committee

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5 Comitology regulates delegation and control of the Commission’s executive powers. It enables member states to challenge individual administrative decisions and influence the broad outlines of Commission policy; it operates as an early warning system for potential Council intervention and permits the member states to be closely involved in funding decisions (Blom-Hansen 2008; Dogan 1997). Oversight is limited to three categories of committees, viz. advisory, management and regulatory, whereby the level of control over the management process increases progressively from the first mentioned category to the last.
deals primarily with administrative tasks, but it also approves a work programme, doesn’t it? So in the [committee] there is definitely expertise available.” Regarding the preparation of the IST programme for its inclusion in the 6th Framework Programme, another delegate noted that the Directorate General “didn’t analyze the industrial situation. All these discussions, they were at the technology level. … They [DG staff] didn’t have a very clear understanding of the industrial situation in the different countries.”

The committee questioned the strong technology focus in the programme’s implementation. It wanted to have more socioeconomic thinking incorporated in order to “really affect the needs of the industry” and “define in an appropriate manner their needs.” But these criticisms were buffered through the Directorate General’s expert-based decision-making style of work programme drafting. The national delegates were perceived among project officers as not having “strong opinions about directions for research and things like that”, while “most of the time they can’t agree because they all have different interests.” Simultaneously, delegates referred to the comprehensiveness of the IST programme and the size of its budget, which made it difficult for them to discuss substantively with the administration’s staff:

“The more widely open a programme is, the less likely it is that the delegates are experts. They tend to be bureaucrats. … I would know much better my own country because I would know all the players. So I would understand exactly the problems in a much better way. If you make a very, very large and very wide programme, it is very difficult for one person to discuss with the Commission. … The politician will not be able to discuss because he will lose any discussion with the Commission. The Commission will be an expert on what they are saying. Politicians will just say vague things.”

Control of decision making about the selection and funding of research proposals was in fact biased toward the Directorate General’s preferences. In its “main aim to push the industrial and economic structures toward a new paradigm”, the Directorate General formed alliances with powerful players in business and society to “help the emergence of a so-called common view.” Doing so framed the seeking of approval among the committee members. An official with the task to support work programme drafting explained that the policy-makers in the member states have to be convinced “that there is an interest to develop such a vision and to address certain aspects in research.” The Directorate General set the agenda in the negotiations with the delegates through the formation of a discourse on the future Information Society in Europe, “running the show really with little influence of the member states” as one delegate observed.

The formation of expert knowledge through boundary spanning activities

The formation of the “common view” on the future Information Society took shape in boundary spanning activities with experts who were gathered in an advisory group. The 26 members of the group were selected by the Directorate General for their expertise and authority. Most of them originated from the business sector – large, European-based
corporations that can be considered as main drivers in the development of IC technologies. Drawing on the Commission decision of 22 October 1988, the Directorate General provided the expert group with an official mandate to advise on proposals for spelling out the annually updated work programme, to assess views about the timetable of calls for proposals, to consider criteria for evaluating project proposals and to determine verifiable objectives for achieving the aims of the IST Programme’s key actions. This mandate was redefined in the process of drafting the work programme. Given the difficulties of achieving technology convergence, the heterogeneity of the programme’s constituency and competing interest constellations, the Directorate General’s senior management eventually realized that the group’s speaking with a concerted voice about future trends in the Information Society could prove to be an asset for coming to terms with the Council decision on the IST programme, which required the anticipation of changes in technology, markets and socioeconomic contexts through annual work programmes.

Drafting of the work programme was guided by the norm of openness. Receptiveness to developments in the environment was seen as essential for the running of the programme. One head of unit explained: “You are forced, if you want to do this job properly, to follow very closely all technological, policy, and economic changes.” Accordingly, the first step in drafting the work programme was consultation with the affected constituency. Meetings were set up to inquire about the needs and preferences of the research communities, with the objective “to draw conclusions as well about possible actions to anticipate future needs.” To feed into work programme design, consultation reports were then produced based on the meetings with the research communities. Some officials with particular responsibilities in the drafting process were concerned about the “danger” of consultation reports: “You might end up with a report that [has] a little bit of everything and … no definite line of producing.” One of them explained:

„You need to focus because you do not have available all the money in the world to spend. … And this focusing runs counter to the fact that there are many interests from the various constituencies … but only a few aspects are considered to be of strategic importance for Europe.‟

The drafting process of the annual work programmes was the main area in which the involvement of the advisory group became effective. The group described its view on the future developments in Information Society in terms of the ambient intelligence vision, which was perceived as the concept of converging technologies – that is, bringing together electronics, information technology and communications in such a way that technology becomes less visible, yet more relevant.

“The key issue was to sell the idea [of ambient intelligence] to the directors that there was something in it for them”, as one member of the Directorate General unit ‘Work Programme and Cross-Programme Themes’ noted. The work programme unit was a new unit designed to coordinate the drafting of work programmes; it operated horizontally across the different
directorates of the administrative hierarchy. Because the work programme unit had a stake in the establishment of a coalition between the Directorate General’s senior management and the expert group, the unit used the plenary meetings of the group to nurture agreement on a rationale that could bind the different parts of the programme together. Its immediate access to the directors and the group’s experts gave it authority in the delicate balancing of work programme drafting. The work programme unit looked at the group’s advisory reports as “key recommendations” because they “reinforced [its] position … as a unit [strengthening its ability and power] to give orientation.”

Flexibility in regulating the group’s conduct provided the opportunity for the work programme unit to strengthen its role in the drafting process. One of the unit’s members explained: “There were no precedents for how to manage or run [the expert group in the Directorate General]. … There was no ideal size and no ideal constitution.” The broad guidelines for the group’s work were determined in the plenary sessions, held on four or five days a year in Brussels. One group member described the interaction thus: “And then these kinds of things are linked with internal things in the Commission: we have to take such and such decisions … for us to influence it; we need that thing [by] then. That is how it works and it works quite well.”

The work programme unit made sure that the recommendations of the group were channelled into the Directorate General; the unit also exerted influence concerning how these were dealt with internally. Thus use of the recommendations became a source of power for the work programme unit in its capacity as coordinator of the editorial board (created to generate a first draft of the work programme). The unit pulled together the consultation reports and additional inputs from each of these directorates; it then proposed a first draft to the editorial board and the directors. Although it lacked the formal authority to decide on the content, its influence was undisputable: As one official external to the work programme unit candidly observed, “everything else is [just] an adjustment of the very first strategy that is taken.” The work programme unit was “holding the pen” in the editing process:

“So they [pull] this together with my director and some support from the operational sector. … But essentially someone has to hold the pen, so it comes down to these few people … the process of writing or distilling information, in passing it on that certain facts and figures have to be put in, certain facts and figures have to be left out. It’s in the [author’s mind], for [what] purpose he is writing – what should go forward. Some information [is] passed, some … left behind.”

This led many of the Directorate General’s staff to believe that major decisions on the content of the programme were taken within this unit, the advisory group “and who ever they talk[ed] to.” By the end of 2000, then, just one year after the vision of ambient intelligence was introduced, it “had become a mainstream philosophy and [in] that sense you [get] things [done more easily] if you link [up] to that concept.” Reference to the ambient intelligence vision meant desirable action in the Directorate General: “When you try to write something
and you want to get it through, you tend [at the same time to refer] to the ambient intelligence vision.”

In early 2003, when the Directorate General started to implement the follow-up IST Programme within the 6th Framework Programme, pragmatic use of the consensus on the ambient intelligence vision was common practice among officials. It “has made quite an impact on the thinking. ... It is a guiding vision for the whole programme and everybody is recognizing it.” When implementing the IST Programme in FP6, DG INFSO looked at the ambient intelligence vision as a new paradigm for how people can work and live together. This paradigm has been revised somewhat in the current ICT strategy. Based on the belief that the future Internet will be a new infrastructure, in addition to bridges and roads, its contribution to the survival and wellbeing of society is stressed more explicitly by ISTAG. As such, the IST strategy has become part of the Commission’s ‘Digital Agenda for Europe’ with its focus on ICT to play a prominent role in European recovery after the latest financial and economic crisis through numerous concrete actions that are going to be completed in 2013 – just like the current FP7.\(^6\)

**Inconsistence between external representation and core beliefs**

A crucial issue in theories of organizational learning is the process in which adopted knowledge is embedded in an organization’s established beliefs and practices. Looking at the ways in which the notion of ambient intelligence was handled inside the Directorate General indicates that the initial definition of the term by those who were directly involved in boundary spanning activities with external experts became relative. The Directorate General is far from being monolithic. The vision of ambient intelligence has connotations other than its being a mere guideline for the programme as a whole. Among project officers, one of the major issues in the discussion of this vision concerned its origin because, in the words of one interviewee,

> “… this clearly came from Philips. So there is some company culture also behind it; there are some corporate interests … behind it … you have to always [be aware of] … how far this should influence [you]; you should know what interests are behind [it] and what industries.”

The ambient intelligence vision was criticized for its bias towards home electronics and entertainment; it seemed to be of little use for application in professional working environments – a “fuzzy term” with limited relevance for the great bandwidth of research activities within the programme. In the words of one critical interviewee,

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“I strongly believe that there is no IST vision. … This vision doesn’t apply to the full Information Society applications. It … originated from [the] consumer electronics manufacturers’ view and the specific situation of the home user. So when you try to expand it and to speak of ambient intelligence as an overall structuring vision, either it totally breaks down, that is it becomes such a fuzzy term that everybody can just say, ‘Oh, I am doing something that contributes to ambient intelligence!’ or it generates relatively absurd results. … I think I can even prove that it doesn’t exist because I can prove that many of the individual visions that are implemented are contradictory with each other and have not been reconciled or arbitrated in the sense that if a vision [is] structuring, then we [choose] one thing and not another.”

The discussion about the ambient intelligence vision was fuelled by at least two factors: the Directorate General’s relatively high-calibre staff and its particular organizational culture. More than half of the 540 people working for the administration were scientifically trained, performing administrative and advisory duties. Possessing a considerable level of expertise implied that a large share of the administration’s personnel was knowledgeable about the technologies, their main drivers and significant actors of (parts of) the IST Programme. The vision was therefore perceived as just one way to present trends in the evolution of technologies. The ability to assess trends and developments relevant for the programme management was also coloured by different programme cultures stemming from IST predecessor programmes. In 2003, four years after the Directorate General was formed, officials pointed out the continued existence of different working practices at the operational level of programme implementation:

“How reviews are done, how projects are monitored; there are different cultures going. It depends [on whether] you come from ESPRIT, from ACTS, from Telematics. … I mean they [some methods] got a bit more streamlined, but you still see a lot of different ways of how projects are monitored, depending on where the people came from.”

The adoption of ambient intelligence as the official programme vision has effected only limited change in the Commission’s underlying beliefs about goals and objectives of IST within the 5th Framework Programme. The official rationale behind the IST was inconsistent with the Directorate General’s fragmented repository of organized knowledge. Reference to the vision was primarily a means of external representation, which resulted from

“… daily [involvement] in discussing the Commission’s vision with [its] customers, with the [members of the] research community in Europe who want to know where [the Commission’s] focus is, … where they would be more likely to be successful in bidding for funding for research, … what topics to choose.”

Using the notion of ambient intelligence in this way helped the Directorate General to legitimate its role among the EU member states as the driving force behind the development of IC technologies in Europe. This in addition to the Directorate General’s outward oriented communication with the delegates of the programme committee to clarify the technocratic grounds on which funding decisions were taken and the tendency to emphasize prescribed limits in operating the program saved it from having its conduct questioned. Endorsement of the ambient intelligence vision thus functioned symbolically by demonstrating the credibility
of the Directorate General’s decision-making on the scope and direction of the ambitious IST Programme among constituencies and interested parties.

**Conclusions**

The recent proliferation of expert groups that are organized by the European Commission requires a comprehensive understanding of their contribution to the consensus-forcing decision-making style in EU public policy. Apparently, the Commission chooses to cut through potential conflicts by commissioning the provision of possible solutions for complex problems to experts, perhaps more even in the enlarged Union of 27 member states. This analysis of the implementation of a research programme within European technology policy indicates that consultation with an expert group helped the Directorate General for Information Society to attain agreement among the EU member states requiring their consent, i.e. in the ongoing development of the programme and in funding decisions. On the one hand, it sought to present itself as an agent that serves the interests of its governmental principals through routinised regard for their concerns and expectations within comitology. On the other, the Directorate General used the credibility of the expert group and shaped the discourse within which these decisions were taken with little *de facto* influence from member state representatives. The knowledge the Directorate General made sure to gain access to in the boundary spanning activities with the expert group became a means of winning the support for its implementation powers. It was symbolic knowledge at work: talk and decision on the development of IC technologies in Europe were buffered and decoupled from action in this area.

The Commission operates with discretion in initiating and partnering with expert groups. In the present case, room for manoeuvre in determining the constitution, modalities and precise mandate of the group enabled the Directorate General to exert entrepreneurship and move the locus of decision making away from the gatekeepers of member state sovereignty towards an elite group of senior officials and outside experts. A wider actor coalition that was spanning the boundary of the newly formed Directorate General was sought and established to attain recognition as Europe’s driving force in the ongoing technology race of the global economy. This move has undoubtedly affected – though not transformed – the relationship between the Directorate General and the member state delegates in the governing programme committee by strengthening the Commission’s leadership role in this area (see Zito 2009). Interaction with the expert group affected the relationship with the member states not only by shaping the discourse within which their interests were accommodated, but also by rendering member state delegates’ views as of rather limited relevance to the Directorate General’s internal staff – despite their mandate to govern programme management. Simultaneously, Directorate General staff was keen to demonstrate compliance of programme administration with its legal basis which points to the limits in the transformative potential of expert group involvement.
Overall, influence from outside sustained retained layers of past learning, including fragmented sets of beliefs and practices. Beyond that point, not much changed in the Directorate General.

This core finding of the empirical analysis about learning triggered by boundary spanning activities with expert groups in a Directorate General of the European Commission confirms other research which concludes that a symbolic use of expert knowledge dominates in its administrative fabric and cautions to equate learning with policy improvement (Boswell 2008; Radaelli 2009). Even in distributive policies, expert knowledge is not formed to play out on the ground of policy implementation but is entangled with political purposes like framing the debate, expanding the bureau or shifting the blame (Gilardi 2008; quoted in Radaelli 2009: 1147). This phenomenon seems to be a pertinent feature of policy areas in which the Commission assumes a leadership role as comparison with environmental policy suggests. In this area of EU policy making, both reliance on expert groups and implementation deficits have increased considerably over the last two decades (Gornitzka & Sverdrup 2011; Knill & Liefferink 2007). Whether the parallel trends of rising expert group involvement and implementation deficits are indicative of a disjuncture between ideology and substance, and if this disjuncture can be addressed by politicization of expertise or increased accountability of the Commission may be a fruitful avenue to further discuss the knowledge utilization effects related to expert group involvement. The alternative is public policy at the heart of the European Union that may be everything else but close to the original political intentions it claims to pursue.
References


