The role of Governance Style, Institutional Capacity and Regulatory Culture in the adoption of ISO14001:

The case of Athens International Airport (AIA)

A thesis submitted in part fulfilment of the requirements of the degree of Doctor of Philosophy

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Abstract

This thesis examines the development of ISO14001 – an international environmental management standard - within the Greek context. Numerous organisations in Greece are adopting schemes for environmental management, but the analysis examines the processes of adopting and implementing ISO14001 in a single organisation, by examining in-depth an international airport's participation in ISO14001.

The rationale for this approach is to understand the "diffusion" of a notionally global policy instrument, by investigating the way in which ISO14001 is implemented in particular national settings through the concepts of institutional capacity, regulatory culture and governance style.

The social and institutional aspects of environmental management are crucial here: in any policy implementation situation, in spite of complex mechanisms seeking to deliver more sustainable activities, there are likely to be disputable outcomes in the implementation of the scheme. In particular this research illustrates the ambiguous nature of the institutionalisation process itself and of the uncertain power available to states and other bodies to implement ISO14001.

The findings illuminate the balance of forces promoting ISO14001 in Greece, where multi-national companies and supply-chain pressure are being joined by assertive - if not always effective - state action. The research identifies possible tensions between government policies, business initiatives and the growth of voluntarism as a force for better environmental management in Greece. The shift of certification from the state to private sector promoted by perceived deficiencies in Greek domestic institutional capacity facilitates the diffusion of ISO14001, albeit that it is seen more as a prerequisite of economic growth, rather than a significant force for environmental improvement.

This thesis critically evaluates these trends and argues for environmental management engaging with competitiveness and market pressures. Indeed ISO14001 has become a "commodity" in the market for global credibility. With public infrastructure projects at least, state legislative action is important in mandating the use of such 'voluntary tools', raising further questions about the motivation.

Market forces by themselves seem less able to undertake the required changes in environmental policy. It is shown that to facilitate environmental responsibility, proper institutional and cultural arrangements must be established and executed by the government and the wider society.

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Chapter 1 Introduction

1.1 Introduction

The central concern of this thesis is to examine how notionally 'standardised' environmental management tools become globalised, and the challenges that arise from steering such standardised tools through differentiated national and sectoral contexts.

To investigate this issue, the study examines the development of ISO14001 (an environmental management standard) with particular attention to the role of governance, regulation and institutional issues within the Greek context. There are a number of implications for the particular context of environmental policy and the development of ISO14001 in Greece, in which a range of political contradictions, actors and forces are at work.

One key theme pursued throughout the thesis is the likelihood of differing perspectives and influences on ISO14001 implementation, not least of the roles between the different actors in the development of environmental management systems. The thesis illustrates the ambiguous nature of the adoption process itself, and of how the power to implement environmental management systems, and their credibility, is pieced together by different actors.

The second key theme is to highlight the social aspects of environmental management. As in any policy implementation, in spite of complex mechanisms designed to deliver environmental protection and sustainable activities, there are likely to be disputable outcomes in the adoption, institutionalisation and implementation of the scheme. In the analysis, great emphasis is put upon what is being implemented and how the scope and nature of environmental management in the particular context comes gradually to be defined.

Thus the thesis examines how a new style of global governance is driving countries and national markets to adopt a management scheme like ISO14001, and it illustrates specifically some of the crucial dimensions of ISO14001 implementation through the context of Greece. By way of a Greek case study, it aims to elucidate how far and in what ways, therefore, ISO14001 can become a standardised global environmental management tool.

The research explores the main influences in the adoption, institutionalisation and implementation processes of ISO14001 in Greece, and seeks to address the following questions:

- To what extent is the adoption of ISO 14001 in Greece motivated by environmental sustainability or processes of economic globalisation?

- Is ISO14001 seen as a tool for environmental management that supports the environmental improvement, or is it an institution of global competitiveness that facilitates market access?

- Using the conceptual frameworks of institutional capacity, regulatory culture and governance style, can we more effectively understand the ways in which ISO14001 is implemented in particular political and organisational settings?

By addressing these questions, this study aims to contribute to wider knowledge about domestic responses to the turn towards voluntary regulatory styles, and to understand the conditions under which ISO14001 is being implemented. In particular, it explores the process of implementation with reference to the limits to voluntarism and the role of private environmental experts through the experience of adopting ISO14001.

The purpose of this chapter is to provide background information and to give an explanatory context for the thesis as a whole. After reviewing briefly the policy trends that provide the rationale for the study, the chapter proceeds to set out basic aspects of the Greek context, to list the key research questions, and to provide a sketch of the structure of the thesis.

1.2 Global Voluntary Regulations and Environmental Management Systems

In recent years, a growing body of literature and research has documented the assertion that countries should develop policies to tackle the emergent environmental problems caused by industry and development in general. The EU's legislative regime for the environment is becoming all the more demanding, pressing member states to pursue sustainable development and to adapt their policies to new, integrated policies promoting environmental protection.

Since the beginning of 1990s the fabric of EU environmental policy along with action for sustainable development more widely, is being transformed to a new style of rule making for the environment. The growth and growing recognition of the transnational nature of environmental impacts has prompted twin moves towards global governance networks and voluntary schemes for environmental management, with pressures for harmonisation and converging policy patterns (Mol, 2000).

These trends of globalisation and a shift towards voluntary policy initiatives have become pivotal challenges for many countries. More specifically, they have moved the EU member states away from a «command and control» approach, to an obvious shift towards more proactive forms of regulation. This change is clearly a world-wide trend, which appears within the sustainability discourse in the form of various tools such as environmental management systems, environmental auditing, environmental reporting and voluntary agreements (Lévêque, 1996; Gouldson & Murphy, 1998; Golub, 1998).

At the same time, the changing involvement of non-state actors has also become more obvious in global environmental governance (Knill, 2001). They have played a role in the development of European environmental policy and implementation in the member countries. Regulation, therefore, is seen to depend on the enrolment of third parties: public and private actors who are neither the ultimate target nor the source of regulation, yet who have the power to influence the behaviour of polluting firms. Regulation is not directly transmitted to deviant individuals or companies, but is actively constituted by the enrolment through discourses, incentives and sanctions of a whole range of public and private actors (Bennett, 2000).
Such voluntary schemes, therefore, are becoming increasingly important as more non-governmental actors participate in the definition and implementation of

environmental norms. Hence, the process of development of environmental management systems seems to involve complex interaction between state and non-state actors at the European and national levels in a system of global governance.

These regulatory trends have emerged hand in hand with pressures that have prompted some businesses to adjust their response to environmental matters – they have intensified trends toward globalisation of social, economic and political values. Born of this notion, ISO14001 -an environmental management system (EMS) recently incorporated in the Eco-Management and Audit Scheme (EMAS) EU regulation- is widely regarded as a management system that is voluntary in nature and that provides various incentives to companies. The development of international Environmental Management Systems, which are now replacing national and assorted EMS, illustrates an apparent shift towards a globalisation of policy and management concepts (Hillary, 1998).

To their supporters, environmental management systems are regarded as a means of improving environmental performance whilst enhancing competitive advantage, image and participation in global markets (Ekins & Speck, 1998; Porter & Van der Linde, 1995). They are developed as a means of showing social responsibility and encouraging industry to be proactive, with continuous improvement through the management process (Welford, 1999). ISO14001 in particular is claimed to provide organisations with the opportunity to tackle environmental impacts and gain other benefits by focusing on systematic and standardised implementation, though the likelihood that such systems can deliver substantive environmental improvements needs careful examination.

Thus, one of the key issues of this study is the development and institutionalisation of universal principles in global environmental discourses, strategies and instruments. Universal principles appear to offer a way of speaking with worldwide authority (Mol, 2000). As this thesis explains, the capacity of environmental management systems to obtain global authority, in a differentiated context, is always open to question.

1.3 The Greek Experience

There are a number of issues that need be considered in the geographical setting of this thesis. The EU has exerted a distinct influence in environmental policies, although the effects on individual member countries have been varied (Jordan, 2002). The EU's recent influence in promoting sustainable development and introducing new policy styles has further highlighted the immense differences between the member states, as much as it has engineered convergence. Environmental management systems recently launched due to common calls for global sustainable development are also strongly contested, thus creating the suspicion that they exist for cosmetic purposes only. There are doubts as to how far they have really penetrated the world of policy makers or altered behaviour within organisations.

Nevertheless, most European countries are now becoming familiar with a system in which private standards and government regulations complement one another (Vig, 1999). The adoption of environmental management systems, therefore, has started to proliferate across countries in an attempt to reconcile economic and environmental interests and to provide a more unified and standardised approach to environmental issues. Yet, there is considerable evidence that, despite the clear power and reference of the EU, the priorities and strategies of EU member states to a large extent derive from the domestic context. This study acknowledges the reality of differentiated responses to supra-national policy pressures, and incorporates this insight into its design.

The literature on national environmental policy styles indicates that it is questionable whether a relatively uniform pattern of environmental policies could, or should, provide adequate solutions for so many different countries (Weale et al., 2000; Welsh, 1997; Baker et al, 1997): a dilemma amply illustrated by the Greek case.

The EU has been by far the most significant factor behind Greek environmental policy during the 1980s and 1990s, but pressures of growth and competitiveness overshadow the imperative for Greece to harmonise environmental policies. So, while discourses of «Sustainable development» attempt to bridge the concerns and interests of developed and less-economically developed countries and redress the balance between the economy and the environment, in Greece there is still a general lack of specific understanding as to how sustainable development is to be attained or who is responsible for achieving it. For this reason, there is a need to clarify the political and socio-economic constructs of the local context.

On the whole, Greece has developed environmental policies that supplement national mechanisms. However, Greece has developed national institutions, including norms and rules, which seem to shape their preferences for the environmental approach, implying that what forms the decision-making process for environmental management is not a unified entity. This interaction represents a 'patchwork' of implementation motifs, which makes it difficult to understand the impact of an international scheme at the national level. It also chimes with various strands of critical literature on environmental management systems, which refer to the fact that the resulting structure of environmental governance is becoming exceedingly complex, raising a number of questions about its consistency and the manageability of the numerous new international non-state actors involved in a national context.

In explaining specific patterns in styles of governance, usually there has been a distinction between two groups of EU member states, between north and south (Eder & Kousis, 2001). Southern European countries are usually grouped together in the environmental policy literature, for reasons other than their sharing a similar climate and geography. It is generally perceived that northern EU countries are the leaders in relation to EU environmental policy developments, whilst the south comprises the «laggards». Southern policy styles are seen as largely reactive to certain policy measures, due mainly to the significant differences in their economic development in relation to the northern countries (Weale et al., 2000).

Concomitantly, the southern countries, especially Spain and Greece have been particularly open to the requirements of Brussels, although they developed their environmental policies only recently. It is widely accepted that less economically developed countries in Europe (i.e. southern Europe) appear most likely to consider the imposition of environmental policies as a threat to their market (Spanou, 1998). Specifically, Greece has traditionally viewed environmental protection as of lesser importance and was made to adopt various environmental policies as a prerequisite for success without having sufficient infrastructural status. As a result, Greece has had to make greater strides to keep pace with EU legislation than northern countries. Thus, environmental policy implementation was conditioned.

Greece thus displays many of the problems of other southern EU countries and so, within bounds, can be taken as illustrative of wider patterns of policy development, common to southern Europe as a whole. In this setting, responses to environmental

issues are explained by the priority given to rapid economic growth, along with a regulatory culture that is constrained by a general lack of a civic culture that advances collective interests and promotes environmental culture. Application/implementation costs and insufficient infrastructure are also barriers to positive action.

Other characteristics are more nation-specific in type and emphasis: Greece has long been criticised for a range of issues that pervade the fabric of civic culture, institutions and governance. Issues involve bureaucracy, a closed mentality that has inhibited the diffusion of information, inefficient administrative systems, a general weakness of professional competence, corruption, vested interests and various other systemic deficiencies. Together these factors alter the implementation of policies and compound the picture of the country's environment (Pridham et al., 1995; Pridham, 1996; Pridham et al., 1997; EC, 1997; Weale et al. 2000; Featherstone, 1998; Pridham, 2002).

A number of factors, therefore, are influential here: one cannot ignore the domestic institutional context, which is fundamental in shaping the nature of environmental policy processes. To address this, this study considers environmental institutional capacity in governments and corporations, external pressure for environmental protection, and features of the political culture in explaining policy outcomes. Jänicke (1997:1) describes as well-known examples of limitations to environmental capacity the lack of ecological, technological or administrative knowledge, the lack of material or legal resources, and the weakness of environmental organisations or institutions in relation to vested interests. In order to understand the impact of a global scheme in a national context, it is first necessary to understand the capacity of a country or an organisation to adopt and implement a policy scheme. It is all-important to consider capacity and regulatory culture for environmental management as key dependent features of a national context.

Clearly, these issues have implications for global tools like ISO14001, given the under-developed policy environment in Greece and the dependence of such tools on a culture and practice of voluntarism. The adoption of tools for environmental management in Greece is still at a very early stage, and there are reasons to believe that the social, political and economic characteristics outlined may not sustain their establishment; impeding the diffusion of environmental policy and awareness and shaping the way government has always been perceived by private initiatives.

It is evident that successful adaptation of environmental management in general requires not only the awareness of businesses, the state and the public but also changes in the government infrastructure and mechanisms of such initiatives.

1.4 The Purpose of the Study

The research examines the role and institutionalisation of ISO14001 in a complex organisational context in order to provide an understanding of the extent to which ISO14001 has had an impact on regimes of environmental policy in Greece. It attempts to identify the conditions and factors that may account for different patterns of adaptation and reaction to common «globalised» policy styles at this level. The purpose of this study is to explain the forces and processes that lead a notionally 'universal' scheme for environmental performance to be adapted, through analysing the dynamic relationship between the pressures, drivers and organisational behaviour that shape corporate approaches to environmental management.

A key issue underlying this concern is whether the adoption of a global standard for environmental management in a particular business and governmental context provides a lever for improved environmental performance, or functions as a policy tool merely satisfying vested interests, the demands of governmental credibility and current EU pressures towards harmonisation and economic convergence. In addition, to what extent is the «global» (as represented by transnational expert consultancies) crucial in sustaining the authority of EMS in «laggard» countries? The proposition of this study is that ISO14001 adds little to a company's environmental performance, but it does help to sustain corporate linkages.

A fundamental part of this thesis is to outline the argument that, to more fully understand the contested relationships between the environment, policy and globalisation, there should be an identification of the contradictions and tensions that exist between business, its stakeholders and government, in particular socio-political and environmental conditions. Such a methodological commitment requires in-depth, qualitative research; hence, the study examines the processes of adopting, institutionalising and implementing ISO14001 by examining, in depth, Athens International Airport's participation in ISO14001. The response of a network of actors involved within the organisation and their interactions with government officials, private sector consultants, other non-governmental actors, for example, will help to understand how different actors respond to such a global policy/management tool.

This, in turn, will elucidate the forces that promote ISO14001 in a local context and influence organisational activity.

1.4.1 Research questions

A number of issues are playing a crucial role in shaping the outcome of the adoption and implementation of ISO14001, and these are incorporated into the main research questions of this thesis. In pursuing the objectives of this study, the research therefore focuses on the following key questions:

- *To what extent is the adoption of ISO14001 in Greece motivated by environmental sustainability or processes of economic globalisation?*
- *How do the concepts of institutional capacity, regulatory culture and governance style assist in understanding the way in which ISO14001 (along with the EMAS regulation) is implemented in particular national settings?*

From these overarching questions, the thesis explores the following more specific issues.

Firstly, the motives for adopting ISO14001 are complex, embracing economic, technological, environmental, socio-cultural and political dimensions. It is important to explain the preference for this scheme, because it helps to explain why and how different actors have sought to institutionalise environmental management systems. The thesis explores the nature of pressures at three broad levels: global, European and domestic, at country and organisational level.

Alongside the role of government in the decision making of a company to adopt the scheme, emphasis is given to exploring the role of the private sector and the impacts of «imported» global expertise (know-how) in providing consultation services for environmental management. The study explores this area of environmental governance, which is new in Greece and has recently expanded dramatically. Issues of consultation and certification, intertwined with standardisation and credibility, are addressed. An understanding of the environmental validity of such norms elucidates the role of ISO14001, and the networks used to signify and construct credibility. Questions involve organisations' selection criteria on hiring expertise, the role of the certifier, and expertise to develop the system, as well as the ways in which corporate governance has facilitated or hindered the implementation of ISO14001.

Through this, one can begin to understand how a new policy approach helps to reframe the domestic policy setting.

Attention is given to likely impacts on government policy and the airport organisation due to the implementation of ISO14001. Questions relate to the difficulties that have to be overcome and the areas of weakness that need to be addressed in order to explore how actors internal and external to the airport organisation shape an environmental management system. Thus, it is crucial for this investigation to describe the insinuation of voluntary and proactive styles of regulation in Greece.
The investigation examines the perceptions of relevant actors towards ISO14001 and their behaviour towards regulation and environmental policies in general. It seeks to explain why a voluntary scheme seems to become a necessity and, in turn, its feasibility and the likely impacts on environmental management and national environmental policy. Voluntarism is a fundamental theme of current European governance trends, but its impact and form will reflect the civic culture and attitude to regulation in general in particular national settings. Hence, the impact of civic culture in the perception of environmental protection is explored, together with how various actors translate and value «good» environmental management and what they see ISO14001 offering in their situation.

1.4.2 Outline of the research strategy

In order to have organisation members and external actors reflect on their views and recent experiences with ISO14001, the research has employed an intensive, qualitative case-study approach (i.e. the context of Athens International Airport). Previous work in the field of environmental management in organisations has generally consisted of extensive survey-based investigations. As such, it is still a relatively new arena for research and there are still implications at the national level pointing to the employment of in-depth interviews as a methodological tool for data collection
The implementation of ISO14001 within the organisation of Athens International Airport (AIA) reflects not only the emerging high-tech character of the airport, but also the evolution of the economy in response to changes in a competitive European and global environment. It is within this context that the study seeks to investigate the impact of a global tool like ISO14001, where its emergence is challenged.

The criteria for selecting this particular case study draw primarily on processes of globalisation and policy dynamics. Given the emerging nature of ISO14001, the

airport case is of national significance, as it is an early participant in ISO14001 certification in Greece. As a result, it gives the opportunity to identify key factors that lead to paths of ISO14001 development. It also illustrates the peculiar interpenetration of state and private action in the institutionalisation of environmental management in Greece. The rationale for case-study selection is elaborated in chapter 4.

The following, interrelated factors also help to explain the case-study selection, showing the positioning of ISO14001 in the national context and thus important features of the research context:

- *The extent of the company's dependence on international markets.*

The aviation sector provides a case study with wider economic significance. It is a resource and labour intensive sector, and it plays an important role in virtually any country. The structure of the organisation (being complex on the supply side), as well as the character of administration and employees in the particular organisation plays a crucial role. Albeit highly competitive, industries in the aviation sector are enjoying favourable economic conditions and growth. Since Athens International Airport (AIA) is based around an international operations market and a complex of companies, this variety of market conditions provides an important element relevant to the adoption of ISO14001.

- *The extent to which environmental management is seen as an issue on the political agenda for this project.*

AIA shows important interactions between public and global private interests in the promotion of ISO14001 and highlights broader multinational attitudes to EMS and also global governance. The AIA is a project of major importance and the first to have been developed under public-private partnership: another central feature of the country's economic development. It is believed that by focusing on Athens International Airport (AIA), the research will shed light on the challenge facing similar establishments with wider political significance.

These factors help to explain why a sociological investigation of ISO14001 was undertaken in order to demonstrate the complexity of themes engaged in this research.

The fieldwork for this research comprised a set of semi-structured interviews with relevant actors from the organisation of AIA and beyond, selected by following networks of various groups of actors in Greece that are considered key drivers in ISO14001 adoption.

These include:

I. Government officials (Ministry departments, Councils, and relevant public bodies);
II. Corporate management consultants (verifiers, environmental experts, consultants/ certifiers);
III. Shareholders (airport Hochtief, Ministries of Economy and Environment);
IV. Corporate companies the case study and its third parties (Olympic Catering, Athens 2004);
V. The public (NGO's, local authorities);
VI. Academia.

There are numerous differences between these actors, reflecting their particular interests and values, hence a multi-actor analysis offers valuable insights for the research questions discussed above. Moreover, tracing the connections between these actors shows the role of the government and business in environmental policy coupled with the enrolment of expertise provided by private agents.

1.4.3 Definitions

Before proceeding further with the thesis, it is useful to elaborate briefly on the theoretical framework, and offer some points of definition. A central objective of this thesis is to connect the analysis of environmental management with wider developments in social science, as a way of understanding the ambivalent fit between traditional regulatory contexts and the apparent requirements of political and environmental modernity. This conceptual framework is sketched out in greater detail in subsequent chapters, but the three core concepts can be defined as follows:

- **Regulatory culture**

The concept of regulatory culture draws broadly on notions of "policy style", which can be explained through a variety of different political behaviours with reference to the types of issue at stake. Policy styles involve operating procedures within a system of actors (groups and government departments) along with a number of features that may dominate a particular *national* context (Richardson, 1982).

This shapes the way that regulation takes place – because there is a close connection with regulatory and policy-making culture – and so forms a key factor underpinning differentiated policy responses and approaches at the local level (La Spina and Sciortino, 1993 ; Borzel, 2000). Even though policy styles have become increasingly global, a number of scholars (Pridham, 1996; Ioakimidis, 1996; Lavdas, 1997; EC, 1997; Featherstone, 1998; Weale et al. 2000) identify a range of "traditional" features within countries at different stages of economic development, reflecting an immense range of values and different cultural traditions. For any particular regulatory culture, characteristic practices are linked to particular clientele and different actors that influence decisions and outcomes (Borzel, 2000).

One facet of traditional regulatory culture concerns the form of clientelism, a well established practice of the Greek socio-political and economic system (Lavdas, 1997), and deemed to be a significant impediment to deepening the Europeanisation of Greek politics (Ioakimidis, 1996). Other facets concern public attitudes towards the law, the efficiency and coherence of the administrative system, the extent of policy fragmentation, the openness of policy-making and regulatory bureaucracies, and the degree to which professionals are efficient or corrupt (Pridham, 1996; EC, 1997; Weale et al. 2000; Featherstone, 1998). The thesis therefore utilises the concept of regulatory culture as one way of linking policy priorities and the cultural shift in policy style mobilised by environmental management, and thus of understanding the national impact of international reforms.

- **Governance style**

Moving beyond the national and often governmental focus of regulatory culture, numerous scholars identify the emergence of 'governance styles' that are multilayered and characterised by the growth of transnational regimes, pressures for harmonisation and converging policy patterns (see for example Mol, 2000; Scholte, 2000, Bennett, 2000; Knill, 2001; Messner, 2002). In this thesis, therefore, the concept of governance style is intertwined with the globalisation of economy and environmental protection, and is used to connect national, sectoral developments with the extension of trans-national regulatory networks. Governance style is taken to comprise, first, an increasing acknowledgement of the role of non-governmental organisations (NGO), citizen's movements, multinational corporations, and the global market (Mol, 2000; Knill 2001). Similarly, the rise of supra-territoriality has promoted shifts in many regulatory competencies downward to sub-state authorities and upwards to supra-state governance bodies (Scholte, 2000).

A second key feature of governance style is the extent to which one can chart transformations in patterns of governance, specifically a decline in hierarchical forms of intervention and a rise in self-regulation. Regulation is constituted by the enrolment through discourses, incentives and sanctions of public and private actors (Bennett, 2000; Latour 1986, 1987), and the precarious extension of universal policy discourses. The precarious extension of such governance styles is, of course, likely to be shaped by nationally-embedded regulatory styles and – the third element of the conceptual framework adopted here – institutional capacity.

- **Institutional capacity**

The concept of "institutional capacity" provides further useful insights to the analysis of environmental management systems and regimes. In this concept, 'institutionalisation' includes the internalisation of new routines of cognition and policy action, while 'capacity' defines the necessary structural conditions for successful environmental policy and the upper limit beyond which policy failures set in, even in cases of skilful, highly motivated and well-situated proponents (Janicke, 1997). This thesis argues that institutional capacity for environmental management and policy is as critical as regulatory culture for understanding the differentiated abilities of countries to steer towards greater sustainability. According to Janicke (1997) and Weidner (2002) the presence of capacity for environmental protection within any society does not depend upon a single isolated factor but on a wide range of factors, which interact within a dynamic setting. A country's capacity is constituted by:

a. The character of the various actors that influence the policy process
b. The strategies that actors adopt.
c. The structural conditions within which actors operate.
d. The situative contexts within which actors find themselves and the character of the problem that they are seeking to address.
e. The structure of problems and the capacity to respond to them is influenced by economic performance.

The building of institutions, therefore, is a basic precondition for effective public policy, which interacts with issues of instrument choice, where design and dissemination are constitutive elements of this process (Janicke, 1997; Weidner, 2002).

Further key concepts in this thesis are the environmental management system and ISO14001, even though subsequent research demonstrates how their meanings are socially constructed and contested.

- **Environmental management system**

An environmental management system is broadly defined as a transparent, systematic process known corporate-wide, playing an essential role in the integration of environmental considerations into the firm's decision making (Honkasalo, 1998). It seeks to co-ordinate activities, to assign responsibilities and facilitates flows of resources and information through an organisation via a proactive stance, considering environmental aspects in an integrated design, process and customer service (Gouldson and Murphy, 1998). An environmental management system is seen to encompass programmes such as continuous monitoring of any process discharges (Moxen & Strachan, 2000; Welford, 1999).

- **ISO14001**

An example of an environmental management standard is ISO14001 from the International Standards Organisation (ISO), which is the most widely accepted scheme. The ISO14001, a specific management system, comprises certain elements such as an environmental policy (including a commitment to pollution prevention and a commitment to meet all applicable legislation and regulations), and a review of environmental effects, registration of and compliance with legal requirements. It further includes objectives and targets, environmental programmes, training, communication, documentation, procedures, emergencies, measurements, correction and prevention, records, auditing, and evaluation by top management.

1.5 Thesis Structure

To conclude this introduction, a brief synopsis is given of the organising structure of the thesis, to give an indication of the issues that will be discussed in greater detail in subsequent chapters.

Before tackling the subject of ISO14001 implementation, **Chapter 2** situates environmental management within wider theoretical debates about globalisation and environmental regulation. It starts by examining theories about the nature of

environmental management, from historical and geographical perspectives, and the development of the ISO14001 scheme along with the normative and fundamental arguments that propel it. This is followed by a consideration of globalisation, regulation and environmental governance. Due consideration is given to the growing inclusion of governmental and non-governmental actors and private bodies in the regulatory process. The salience and negotiation of 'standardisation' is considered here, and elements of actor-network theory (after Latour, 1987) are used to conceptualise power in terms of the transferability of 'global' tools through various settings. Attention is given also to the way in which an international scheme fits into the wider picture of environmental policy in the EU and Greece.

Chapter 3 provides the framework and introduces the conceptual setting of ISO14001 implementation in a national setting. Firstly, environmental policy and the debates about national policy styles are reviewed, before turning to address the concepts of institutional capacity and regulatory culture as crucial factors shaping the adoption of environmental policy. Together, these frameworks help to provide an explanation of the factors affecting implementation. Chapter 3 then considers the process of shaping ISO14001 development and implementation through exploring the embeddedness of these variables in the specific context.

Chapter 4 explains the research design and methodology - in-depth semi-structured interviews and documentation. In justifying the approach, attention is also given to those studies that have specifically addressed implementation of ISO14001 in Greece and have highlighted the importance of particular organisational perceptual and institutional issues. The process of piloting the research strategy and instrumentation is considered, along with a discussion of the main stages of the project. The chapter concludes by discussing the limitations of analysis and some reflections on the process of conducting the research.

Chapters 5, 6 and 7 present the research findings. **Chapter 5** examines the development of sustainability concerns and policy schemes such as ISO14001 in Greece, placing ISO14001 within the wider historical and policy context. The chapter critically reviews the implementation of ISO14001 and the benefits it contributes in the Greek context.

Chapter 6 is the case study, which sets out processes of adoption, institutionalisation and implementation in a specific organisational setting. Firstly, it provides a background review of the environmental issues and operations. It looks at the process of ISO14001 adoption in Athens International Airport (AIA) and issues regarding implementation. It provides a clear progression from looking at a particular large complex organisation and the development and implementation objectives, to a discussion of the motivations and outcomes associated with its impact in the particular organisation.

Chapter 7 discusses the findings in relation to the concepts raised in the literature review and conceptual framework - the variables highlighted by concepts of regulatory culture, institutional capacity and evolving governance style. It is organised around the key factors shaping ISO14001 development, which are highlighted through the stages of motivation, adoption and implementation. However, it looks beyond the adoption and implementation process itself and comments on the nature of environmental management being implemented. The chapter concludes with a consideration of the value of the scheme's contribution to environmental policy.

Chapter 8 concludes by demonstrating the substantive consequences and dependent outcomes of ISO14001 implementation in Greece. It links the theoretical issues discussed in the literature with the answers to the research questions.

Chapter 2

Environmental Management Systems: A Product of Globalisation?

2.1 Introduction

This chapter examines trends towards globalisation, looking on key ecological, economic and political dimensions. Globalisation trends in economy and governance have resulted in a change in policy instruments towards voluntary initiatives, which are considered to a great extent pivotal for countries to engage with. Environmental management systems can be seen as constitutive of these wider patterns.

Environmental management systems are considered to improve a company's environmental performance whilst enhancing its competitive advantage, image and participation in global markets. ISO14001 is an outcome of this trend, a response to several industry representatives, and emerges as interplay between business, regulatory frameworks and social changes, all operating at a supranational scale. ISO 14001 is based on a self-regulatory approach and is becoming increasingly popular amongst businesses in a number of countries. It is claimed to provide «holistic» integrated and «effective» co-ordination of environmental performance. This paradigm is considered to bring about more ambitious environmental improvements in enterprises and contribute to concepts like sustainable development. As a global standard, ISO14001 was launched to provide uniform assurances of environmental probity to buyers and consumers and to facilitate trade while driving improvements through market incentives.

The purpose of this study is to explain the tendencies that have promoted a universal scheme for the improvement of environmental performance. Clearly there is a dynamic relationship between pressures, drivers and organisational behaviour and the ways in which a company's approach to environmental management is shaped. Also, there is a considerable change in the style of regulators as new forms of governance evolve. The self-regulatory nature of ISO14001 is an illustrative case as it is mainly governed by industrial actors and private sector accreditation bodies whilst other interested actors (NGO's or government) have not been directly involved

in the process. Yet there is a growing governmental dimension, which often goes unrecognised. Evidence suggests that strong efforts from regulators and industry to integrate EU economies create ground for ISO14001 to become a condition to bid for governmental tenders. Also, doing business internationally by establishing it as a supplier condition with certified international firms is crucial. ISO14001 has an impact on the level of EU regulation becoming incorporated as part of the EU EMAS regulation. The EU's legislative regime for the environment is becoming all the more demanding for some member states to comply with the objectives of sustainable development and adapt their own policies to new integrated policies promoting environmental protection.

A key issue in establishing the value of formalised environmental management systems is whether or not such approaches deliver the necessary changes they seek to achieve. This study lays out the ways in which ISO14001 can be seen as a process of globalisation and aims to explore these concepts, so that a contribution can be made in understanding universal approaches of environmental management and their significance for the governance of modern society. A key question to explore is whether ISO14001 adds to the environmental improvement of a company or is an instrument of global competitiveness that facilitates market access.

On this, the evidence is equivocal. As discussed, this is due partly to the fact that environmental management is a multidisciplinary entity, raising arguments from various domains. Environmental management systems are strongly contested by a number of scholars of environmental policy, suspicious that they are for cosmetic purposes only. There are doubts as to how far they have really penetrated the world of policy makers or altered behaviour within organisations. There is also criticism that such initiatives are used to weaken the economic impact of new environmental legislation on sectors that would otherwise be affected. There are doubts that as a policy tool it merely satisfies vested interests and current EU pressures towards harmonisation and economic convergence.

The core issue of this chapter is how governance has changed and is shaped through forces of globalisation towards voluntary or market-based regulations. ISO14001 exemplifies issues that can present some challenges for environmental policy and the so-called «universal management approaches».

This chapter draws from various strands of literature on environmental management, to examine some of the social and political implications of ISO14001 within the EU and the international context. It examines the theory about the nature of environmental management and the development of the scheme, from a historical and geographical view along with the normative and critical arguments that propel it. It explores relevant literature on environmental management systems through strands of globalised governance, regulation and markets. Attention is given to the way in which an international scheme fits into the wider picture of environmental policy in the EU and the implications raised by these issues. The development of such schemes for businesses is discussed further by a review of the ISO14001 system. Finally, it discusses how environmental knowledge and expertise is converged universally and applied as questions are raised about the apparent impact of this system in the context of environmental policy.

Further, this chapter shows there are a number of barriers encountered in the design and interpretation of voluntary regulation. Also, at a national level such tools are considered to raise a number of political and institutional implications regarding pubic environmental policy and ISO14001 development in member states, which provides a rather complicated setting with a range of actors and forces often at odds with each other. It outlines the development of ISO14001 and its implementation as being far more complex than normative advocates claim, involving a wider range of issues.

2.2 Economic Globalisation and Environmental Policy

Globalisation is an important aspect of modern society, where concepts such as governance and regulation and their actual and potential contribution to environmental policy are contested. Other key aspects of modern society include the global market economy and global trade. These themes have been addressed on many occasions in the literature of environmental policy, sustainable development and in many other parts of current societal discussions. Pertinent literature shows that the globalisation of economy and environmental protection are intertwined as an important driving force in shaping current governance system debates.

From this study's perspective, an environmental management system requires attention to global governance issues, regulatory systems, and the building of institutions. This study focuses on these aspects of international governance, institutional development and regulation to lay out how a «universal» standard (i.e.

ISO14001) is conceptualised along with identifying newly established actors, in order to give an insight of the evolutions occurred.

Globalisation of economy and environment is considered to entail the increasing permeability of borders. Beynon and Dunkerley[1] (2000) claim that economic, political and cultural change is now beyond the control of any national government and environmental pollution is evident world-wide, respecting neither geographical nor political boundaries. The risks, therefore, associated with global ecological threats are no longer anchored in localities: global warming, nuclear accidents and acid rain show no respect for geographical and political borders. Globalisation is also characterised by reflexivity, where localities have an increased opportunity to interact with global processes; local businesses increasingly participate in global markets; and governments cannot risk becoming isolated. They must operate globally in terms of the developing global economy and the increasing environmental issues, which are global in magnitude (Beynon and Dunkerley, 2000). A number of changes, therefore, have been identified in the economic and environmental field due to processes of globalisation and the transboundary dimension of environmental issues.

Three issues need to be identified here as playing a crucial role in characterising the current state of economic globalisation and environmental policy, and which warrant closer investigation; first, the reformation of state authority towards multilevel governance and trends of privatisation; second, the changing business response to environmental problems and public concerns; and third, trends of harmonisation in environmental regulations, again due to calls of economic convergence.

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[1] The hallmarks of contemporary globalisation are presented as:

- More inter-state connections and decreasing effect of state policy;
- The development of increased transnational communication and activities;
- A decline in the importance of the nation state;
- The emergence of global political, economic and cultural organisations and bureaucracies;
- The emergence of global cities termed as local sites of global interactions;
- A huge increase in the flows of commodities and cultural products;
- The world-wide spread of western-style consumerism;
- Increasing speed and volume;
- Shrinking space.

2.2.1 Changing role of the state

Globalisation in economic processes of production and consumption, and the undermining of the state's autonomy, have led to more multilayered and privatised governance, which seems to increasingly extend beyond national boundaries (Mol, 2000; Scholte, 2000; Messner, 2002). There are a number of crucial points where globalisation of governance has caused the state to lose its pre-eminence.

Governments -in line with the move towards the globalised free market economy- have created an international environment of deregulation, using common environmental policy tools and standards because this is supposed to result in environmental protection without impeding economic growth. Self-regulation is widely argued to have grown at various levels of environmental policy, and has moved away from governmental control towards a more interactive and participative approach based on so-called «shared responsibility».

A number of evolving issues have played a role here. Firstly, international organisations have developed into global governance agencies with certain autonomy from states. A result of this multiplication, Scholte (2000) argues that contemporary governance has become considerably more decentralised and fragmented. Transworld regulatory agencies have clearly become a significant part of contemporary governance. Also, the rise of supra-territoriality has promoted shifts in many regulatory competencies downward to sub-state authorities and upwards to supra-state governance bodies. New forms of policy making are emerging in this global governance framework. A multilevel policy entailing increasingly densely networked local, national, regional and global policies has proved to be the rule.

Given that workable supranational regulatory systems are based on functioning national institutions, globalisation is contributing not to the extinction, but to the transformation of politics at the level of the nation state. Zito and Egan (1998:94,96) indicate the multilevel nature of environmental governance and the intersection of different environmental management networks at national, international and European levels, as critical dynamics for contemporary environmental policy. Transboundary processes and dynamics are argued to have very different effects on the governance capacity of different nation-states. Separate interests are seen to operate within different stages of the policy process where various actors shape environmental management systems as the issues of firm competitiveness and environmental regulation are becoming more enmeshed.

Contemporary accelerated globalisation has contributed to the growth of «non-official» regulation (i.e. self-regulation). There is an increasing acknowledgement that governance must now be understood as also involving non-governmental organisation's (NGO) citizen's movements, multinational corporations, and the global market. Mol (2000) argues that globalisation has prompted a proliferation of sites of governance without undermining bureaucracy as the underlying framework of administration. A nascent system of international environmental governance is now emerging from diverse quarters, proving that governance is no longer just for governments.

Global firms and global civil society actors have become instrumental in various regulatory processes as more non-governmental actors on the international stage of environmental politics, such as multinational enterprises and environmental NGOs now participate. Arguing this does not necessarily contribute to the erosion of national action potentials but may give rise to incentive structures that promote democratisation, decentralisation, international co-operation and a greater measure of effectiveness and efficiency of state action.

Whatever assessment one holds of the trend, contemporary governance has clearly broadened beyond official agencies and instruments. There is, therefore, a transformation of patterns of governance, specifically a decline in hierarchical forms of intervention and a rise of other forms of governance, such as self-regulation.

Another aspect of these regulatory debates, as Bennett (2000) puts it, is that regulation depends on the enrolment of third parties: public and private actors who are neither the ultimate target nor the source of regulation, yet who have the power to influence the behaviour of polluting firms. Regulation is not directly transmitted to deviant individuals or companies, but is actively constituted by the enrolment through discourses, incentives and sanctions of a whole range of public and private actors. Other actors are moving to the fore, particularly international corporations and NGOs (French, 2000). Nations are granting significant and growing powers to economic institutions such as the World Trade Organisation (WTO) and the International Monetary Fund (IMF), but environmental issues remain mostly an afterthought in these bodies.

Knill (2001) and French (2000) argue that one prominent example is the voluntary environmental management guidelines forged by the Geneva-based International Organisation for Standardisation, a world-wide federation of national standards-

setting bodies. The credibility of the process has been widely perceived to be industry-dominated. In recent years, the private sector has itself become increasingly and often controversially enmeshed in the standard-setting business. The International Organisation for Standardisation has regularly consulted global companies in the process of setting norms. Much of current international environmental regulation, according to Knill (2001), is being created through private international agreements that set process standards and define environmental management practices throughout the world. Voluntary schemes are becoming increasingly important as part of these norms.

By such mechanisms: policy implementers, policy advisers, policy formulators, and private agents have gained a significant role in governance of the contemporary globalising world. Knill (2001:156) also maintains that the spread of supra-territoriality has increased the scope for private sector agencies to become involved in regulatory activities. Supra-state agencies have taken initiatives to incorporate civic associations into policy making. But there are concerns that ISO14001, being an industry-dominated approach, may raise enormous risks for environmental and public policy. The resulting structure of the governance system for the environment is becoming exceedingly complex, raising a number of questions about its consistency and manageability of the many new international non-state actors involved (Scholte, 2000).

Bennett (2000:879) argues that as yet little academic analysis has actually succeeded in integrating the role of private corporate actors into international governance. This is crucial because private actors undertake many of the actions, which produce environmental risks directly. And many of the «third parties» that have the potential to influence the actions of those private individuals or companies are also private organisations. But, as again Bennett (2000) states, this very recognition also causes an important shift in the framing of governance. For whilst third parties - financial firms, government agencies, auditors and experts of all kinds -have always influenced the behaviour of regulated firms, they have in the past been treated as passive transmitters of central government programmes. The recognition today that regulatory success is critically dependent upon a whole range of actors, at a time when there is little political will to draft extensive new corporate legislation, has meant regulators have turned to enhancing the enrolment of these actors in the regulatory process.

Having said that, Knill and Lehmkuhl (2002) point out that the successful constitution of transantional markets is considered to coincide with the inability of governments to address social and political problems that are merging from economic integration, both at the national and the international levels. Private governance contributions, or even private authority, are considered to possibly compensate for the decreasing capacities of national governments for providing public goods. They might emerge from a more diverse array of private actors, such as business associations or multinational companies.

How is it possible, therefore, to ensure that private governance activities are kept responsive to wider societal interests? Knill and Lehmkuhl (2002) suggest that the relationship between public and private actors is not free of conflict. In essence there are mutual dependencies between public and private actors and their capacity to cope with specific problems is apparent in the implementation of certain regulatory arrangements. The higher the capacity of public actors to solve problems, the less problematic this question becomes. Also, concern is raised about the legitimacy and the substance of private governance activities as public actors are considered less able to influence the behaviour of private actors (Knill and Lehmkuhl, 2002).

For some, the task is political: Messner (2002) considers that transnational networks of private actors, which are intervening more and more actively in the work of international governmental organisations, constitute the humus from which a global civil society could emerge. On the other hand, sceptics have worried that the proven strengths of public-sector mechanisms may be lost and that private-sector regulatory activities can readily escape democratic controls.

The literature reviews the ways in which the co-operation between public and private domains has become an important institutional feature of global governance. Also the growth of private bodies encourages a specific opportunity structure for the creation of self-regulation. Private organisations are evolving in establishing stable arrangements of self-regulation as an alternative form of public governance. For instance in the case of ISO14001, private bodies or organisations are involved in the implementation through consultation and accreditation procedures. But, it is clear that private interests are bound to cause a number of implications in the functioning of regulation.

2.2.2 Changing business response

A variety of factors have prompted a changed business response to environmental matters. Ecological concerns are seen now as a strategic dimension of business operation, with firms interacting extensively to tackle the problems caused by environmental degradation. Organisations seem to face a wide and constantly changing range of environmental problems and challenges. Business surveys have widely revealed broad trends of adoption of environmental practices across industrial sectors and firm sizes. These surveys have concluded that adoption of such practices have brought a number of advantages to company performance.

These concern marketing potential, waste cost reductions, efficiency savings, reduced risk, employee motivation, supply-chain performance, trusting relationships with all stakeholders and «good» reputation for having a balanced environmental record, which gives a firm a competitive advantage in the long term.

As a result, many industries have recently started realising that environmental management has become a competitive issue, requiring the minimisation of environmental degradation as well as the gaining of public acceptability and credibility. Also current social and political trends concerning environmental issues are shaping stakeholders' beliefs and attitudes towards more sustainable forms of performance.

The pre-emption of regulation is argued to be an incentive for firms to innovate. Companies engage in these voluntary activities in order to satisfy existing or perceived demands from stakeholders in the firm or to generate competitive advantage. Some European businesses realise that their economic success is dependent on how EU regulation enables them to exercise leadership and first-mover advantages in the global market.

This turn in business' response is considered to encourage companies to pursue a preventive approach (i.e. environmental management systems) as part of daily management. The factors therefore, currently influencing organisations to implement environmental management systems point to a crucial question: how far do economic globalisation and intensified competition increase the diffusion of common environmental practices? As Barnes & Barnes (1999) reason, the twin issues of economic and monetary union, especially at the end of 1990s in EU, made governments and industries reluctant to accept tighter environmental legislation and

increasing application costs. It is argued that the emerging shift toward standardised regulation is used to weaken the economic impact of new environmental legislation on sectors that would otherwise be affected.

Economic growth, therefore, has tended to act as a powerful constraint on environmental initiatives and as a determinant of policy style, in particular moves towards «deregulation». Some would argue that legitimating market-based mechanisms legitimises and strengthens the global economic institutions and rules that enable economic liberalisation, at the expense of institutions and rules that are aim at environmental regulation of economic integration. Such a development in turn further enhances the primacy of economic liberalisation and competitiveness as the measures of environmental domestic and international policies (Stevis and Mumme, 2000). The increasing popularity of ISO standards across the world is considered an evidence of this dynamic.

This shift in attitude towards environmental management is profound where firms are displaying their logos on organisational documents and marketing campaigns; many of today's organisations now display their environmental performance through the adoption of ISO14001.

2.2.3 Convergence of regulatory systems and innovations in global environmental governance

A key feature in all of the above trends is the rising interest in environmental governance, which is illustrated through a turn towards convergence in regulatory patterns, along with voluntarism and private participation. This obvious trend is driven mainly by the internationalisation of processes of regulation, which apparently lead to homogenised procedures in policy and management tools.

Global governance networking and the emergence of environmental issues therefore, seem to have introduced international regimes that have gradually led to harmonisation and converging policy patterns. A global governance system is seen to comprise of an increasingly dense and interactive network of international regimes. To start with, international regimes are defined (Vig, 1999; Faure and Lefevere, 1999) as principles, norms, rules and decision-making procedures around which actor expectations converge in a given issue-area for example, the environmental area. Regimes reflect the growth of cognitive and normative understandings that facilitate voluntary co-operation, whether or not the resulting co-operative arrangements take the form of fully binding legal agreements.

There are several important aspects of this definition, according to Vig (1999), which develop in relation to policy styles and suggest a challenge in national policy styles (see chapter 3):

First, it directs attention to a large variety of functional regimes designed to address specific issues such as, for example, global warming or biodiversity loss. The new approach to compliance tries to place compliance problems in this increasingly complicated international context, with a multitude of regimes, interdependent actors, and different interest and obligations.

Second, it emphasises the acceptance of substantive principles, norms, rules and procedures rather than formal organisation and law. Governance in this sense does not presuppose a central government; rather it presupposes that co-ordination of action can occur through many different institutions, including private social and economic systems and non-governmental organisations, as well as a variety of governmental institutions at different levels (Vig, 1999:5). Voluntary schemes are seen increasingly important in the definition and implementation of these norms.

Third, it leaves the door open to non-state actors of all kinds; indeed, convergence of expectations involves the development of consensus among a broad range of participants, including political leaders, scientists and interest groups. Legally non-binding voluntary agreements/schemes are becoming increasingly important as more non-governmental actors especially businesses participate in the definition and implementation of soft law norms (Vig, 1999). Globalisation has encouraged a growth of regulatory activities through non-official bodies, thus governance has gained significant inputs from civic associations and firms. Much of current international environmental law is being created through private international agreements that set product and process standards and define environmental management practices throughout the world (Vig, 1999).

The emergence of an international political regulatory agenda, which begun to develop since 1980s, leads to the relatively rapid diffusion of policy problems and supposed solutions. As Welford (1999) puts it, governments in line with the move towards the globalised free market economy have created an international environment of deregulation, because free markets unrestrained by governments are supposed to result in higher economic growth. Privatisation has been espoused over the last fifteen years and valuable national assets have shifted from the control of

governments to the private sector in the name of efficiency. Thus the very role of governments is seen to transfer more and more power into the corporate private sector (Grant, 1993). Regulations can create markets or they can close off markets to unwelcome competition. Even if regulation cannot be standardised, the promotion of a global regulatory agenda may foster convergence. In an area such as regulation where one might expect government to be the key actor, it is often the firm that emerges as the vital decision-maker.

Tendencies of economic homogenisation and standardisation, Mol (2000) maintains, are seen as essential elements of «global green» firms. Multinational enterprises and global economic institutions are considered as the two main global economic mechanisms that propel innovations in institutional arrangements for the environment. They are seen as the driving force behind the harmonisation of national environmental regimes, pushing also for global environmental regimes and to form progressive implementing agencies of environmental management and audit schemes. Clearly, tendencies of environmental convergence exist and are pushed by international standards, regulations, codes of conducts and civil pressure.

In the European regime, decisions have to fit European requirements for environmental regulations. Moves towards harmonising rules with regimes outside of Europe bring together governments and corporate actors to play a key part in developing these regulatory schemes (Leveque, 1996). Lobbying by private interest is omnipresent in the EU whereas Vig and Axelrod (1999) consider, the general rationale for creating common EU policies and harmonising standards is to level the economic playing field. Yet, it is important to mention that the success of the EU commitment to environmental protection depends on the extent to which member states actually take the actions required by EU legislation.

Standardised systems like ISO14001 seem to emphasise the new demand on regulatory style. Environmental management systems can be viewed within this picture. They are seen now to have resulted in a world-wide trend born out of private efforts to improve environmental performance.

ISO14001 is seen to offer environmental improvements to companies, alongside an intrinsic aim to facilitate trade. However, its implementation tends to be much more controversial than improving environmental performance.

The elements of EU environmental governance are of importance. The resulting legal structure, therefore, of the governance standards for the environment is becoming exceedingly complex. It raises a number of questions about its consistency and manageability, as well as the accountability of the many new international non-state actors involved. But also of significance are notions of ecological modernisation and sustainability that pertain current rule making and institutions.
In the next section, this thesis argues that the theoretical basis of this pattern draws from theories on ecological transformation of consumption and global processes (i.e. ecological modernisation), which stress that environmental protection, and long-term economic development should be seen as mutually compatible.

2.2.4 Ecological Modernisation Theory and Sustainable Development and their Central Propositions

The changing role of state and business are fuelled through new political theories. Ecological modernisation is an enormously influential theory: particularly as a sociological theory of development (a theory of social change) but it has been also used to justify a certain range of policies (Neale, 1997; Spaargaren, 2000; Weale, 1993; Mol and Sonnenfeld, 2000). Ecological modernisation theory has developed with considerable diversity and debate not only by national background and theoretical foundation but also chronologically (Spaargaren, 2000).

As a political program, ecological modernisation is considered a break with the environmental policies as they were developed from the 1970s onward (Spaargaren, 2000). When ecological modernisation became the dominant paradigm during the 1980s, this implied a lot more than supplanting the antithetical view on environment and economic growth by the concept of sustainable development. It also implied a redefining of the role of the state *vis-à-vis* civil society, with both market actors and environmental movements redefining their former roles. The emergence of sustainable development brought into the environmental scene the importance for global action whilst stressing that environmental protection and long-term economic development should be seen as mutually compatible.

Yet, since mid-1990s ecological modernisation has become enormously influential in western Europe, as Neale (1997) and Spaargaren (2000:56) argue, both as a political programme for environmental action and as a sociological theory of development (as theory of social change). Weale (1993) refers to the latter in a

sense of a belief system increasingly adopted by policy elite in Europe, which has been used to justify a certain range of policies.

Scholars (Neale, 1997; Mol and Sonnenfeld, 2000; Mol, 2000; Gouldson and Murphy, 1998) identify certain core features which seem to be shared by different ecological modernisation theories, and which differentiate them from alternative approaches to the relationship between modernity and nature. They consider that at the core of the theory of ecological modernisation lie the following insights.

Firstly, ecological modernisation identifies a potential for re-orienting technological innovation towards solving environmental problems, rather than creating them. Ecological modernisation therefore is considered to assign a central role to the invention, innovation and diffusion of new technologies and techniques at the macro-economic level. In a search for structures, combining higher levels of economic development with lower levels of environmental impact, ecological modernisation seeks to shift the emphasis of the macro-economy away from energy and resource-intensive industries towards value and knowledge-intensive industries.

Gouldson and Murphy (1998) argue that this facilitates a move towards new approaches based on the development and application of clean technologies and techniques. Clean techniques, such as an environmental management system, integrate environmental considerations into the design and/or application of a product or process in order to anticipate and avoid or reduce its impact on the environment. Core concepts like environmental management systems, life-cycle analyses and integrated chain management all derive their meaning from the production sphere.

Secondly, ecological modernisation advocates economic reforms, which would reconcile demands for economic development with needs for environmental protection. On an analytical level, Mol (2000) argues, the growing relative independence, emancipation autonomy or differentiation of the ecological sphere and rationality from especially the economic sphere and rationality can be articulated (Spaargaren, 2000). To understand development and transformations in institutions and practices, especially in those related to economic processes of production and consumption, it will be increasingly valuable to analyse and judge them from both an economic and an ecological point of view. This is a crucial element for this study, as ecological rationality is slowly catching up with the still dominant economic rationality in the practices and institutions related to production and consumption.

Thirdly, ecological modernisation stresses the need for political reforms that would shift environmental policy making away from the design of bureaucratic control mechanisms and towards the development of more participative processes that focus on the anticipation and prevention of environmental problems rather than reaction and clean-up. Advocates of ambitious green laws, Golub (1998) claims, deny this presumed negative relationship between environmental standards and economic competitiveness, and suggest instead, that stringent environmental laws, when properly designed, actually promote the so-called «win-win» thesis (competitive advantage of firms). Two fundamental arguments are offered in support of the win-win hypothesis.

Because new instruments exhibit proper design, they are more cost-effective than traditional regulatory tools and, therefore, encourage a more efficient use of resources and lower production costs. Their design also generates incentives for investment in environmental research and development, enabling «first movers» within the EU to capture the lucrative global market for pollution abatement technology and services.

In brief, ecological modernisation has been put forward in reference to ecological criteria, procedures and norms that are gaining economical, socio-cultural and political rationalities.

2.2.5 Sustainable development and environmental management

Embracing sociological and political programmes of ecological modernisation involves debates about sustainable development and environmental management systems. Among the latest of the phases in the environmental discourse is:

«The phase of "sustainable debate", mirrored within environmental sociology by the dominant position of the ecological modernisation theory» (Spaargaren, 2000:41).

The body of literature that has been developed around sustainable development debates arises from a wide range of disciplines (Barnes and Barnes, 1999), yet it must be considered that with sustainable development and the Brundtland Report (WCED, 1987), the environment has settled itself on the top of the political agenda.
Through sustainable development the body of relevant environmental legislation has grown substantially. The object of sustainable development advocates has been to seek to transform the perception of the policy problem, so that a clean environment

and economic feasibility are no longer seen as being in conflict in the way that policy development in the 1970s conceptualised them (Barnes & Barnes, 1999). It is widely now acknowledged that environmental protection should not be regarded as a burden upon the economy but as a precondition for future sustainable growth (Weale, 1993). It is within this context of international co-operation and mutual participation that the notion of voluntary trends of regulation evolved.

One important source where this view is expressed is the EC's environmental action programmes. Whilst with this notion the concepts of economy and ecology are no longer regarded to be antithetical, a «new belief system» emerged that can be said to include the following propositions (Spaargaren, 2000:45):

1. *«Challenging the conventional idea of a zero-sum trade-off between economic prosperity and environmental concern (to be popularised later on in slogans like "creating win-win situations", "Pollution Prevention Pays", etc.);*
2. *Redefining the relationship between the state, its citizens (including those organised in social movements) and private corporations; and*
3. *A recognition of the fact that most of the pressing environmental problems exceed the level of the national state, making a supra- or transnational approach to the problem a fundamental necessity».*

But how and to what extent does ISO14001 fit into the wider context of ecological modernisation and the EU political programmes (i.e. EAPs)?

Doyle and McEatchern (2001) point out that the adoption of a sustainable development policy framework has sometimes been associated with political strategies dealing with the consequences of rising environmental concern. Adopting sustainable development does require a substantial rethinking of the terms of policy making and has at times been vigorously opposed by business, although many businesses have been willing to adopt the term as a best defence of their actions against environmental criticism. Business organisations readily came to understand that adopting sustainable development is an effective response to environmental criticism, not in the sense that it changes how business conducts itself so as to do less harm, but because it provides a rhetoric to protect the continuation of business as usual. After all, sustainable development conceptualises environmental problems in terms of resource use by people.

As a result, the business commitment to sustainable development has not been considered to mean great policy innovation, but when business needs to present a case for environmental concern then it can be packaged using this concept. As it will be shown below, there are considerable uncertainties regarding the role and impact of the «sustainability concept» in particular settings. Sustainable development is criticised as lacking in specific content as to how sustainable development is to be attained, or who is responsible for achieving it.

In this formulation it is clearly seen as a political and social construction, where the transnational nature of the environmental impacts and the change towards voluntary schemes for environmental management have played a role in the development of environmental policy (Vig, 1999). It is crucial to say that when controversial global environmental management practices have reached a country's policy agenda, actions seem to create implications. This is especially true where deregulation/self-regulation is favoured to facilitate economic globalisation and where private and transnational actors with their resources and expertise are involved.

In this context, Weale (1993) reasons that the main bodies responsible for developing the ideology of ecological modernisation were international organisations who sought to use the new policy discourse as a way of securing acceptance of common, or at least harmonised, environmental policies. The clearest example in the EC comes from observing the differential responsiveness of national policy systems to this widespread internationalised belief system.

Indeed, the European fabric of environmental policy, which evolved from the First Action Program in EU (1973)[2], is seen to be shaped by three major features (Leveque, 1996):

a. Environmental policy is intertwined with the EU economic policy;
b. The ante-Maastricht European fabric is specialised in producing technical standards (British case);
c. EU policy in the field of the environment followed national legislation rather than taking the lead in legislating first or proposing regulatory innovations.

In this regard, EU member states are seen now as part of not only the EU regime, but also of the international governance arena (Kellow and Zito, 2002). Both the domestic and European organisations shape the international environmental effort, but this system of transnational actors also defines European governance.

[2] The evolution of voluntary environmental policy is discussed in more detail below at section 2.3.

This evolution, according to Vig and Axelrod (1999), is viewed as a consequence of the ineffectiveness of some existing legislation but also because new problems loom on the horizon that require different regulatory approaches. To that extent, new approaches (i.e. voluntary instruments) are now widely advocated to improve the economic efficiency of regulation and to involve all sectors of society in shared responsibility for the environment. Having said that, it is apparent that most European countries are becoming familiar with a system in which private standards and government regulations complement one another. The interaction of standards and regulations seems to fit in well with the framework of the so-called voluntary approaches and basically does not lead to significant institutional change.

Yet, while such agreements can improve communication and co-operation between regulated industries and governments, environmental groups are generally sceptical on the grounds that they may not be transparent and may amount to a form of backdoor deregulation that allows companies to circumvent existing laws. For example, Pepper (1999:6) criticises the rhetoric of ecological modernisation arguing that it underpins a dominant weak sustainability in the 5th EAP. Pepper (1999) contends that on Europe's periphery, the problems of a proper environment-development balance are particularly sensitive. Because these contradictions within the EU tend to be ignored in much ecological modernisation discourse, the discourse itself becomes utopian and impractical.

Ecological modernisation discourse portrays environmental protection not as an impediment to capital accumulation but as a potential source of further accumulation. In this positive-sum game, technological and managerial experts, business and industry all become key actors in fulfilling the environmental agenda, rather than its enemy. It is crucial therefore to say that ecological modernisation is considered ambiguous seeing as it is not just a legitimising ideology for business as usual, but also a new departure in terms of environmental policy principles. Also, the uptake of environmental protection by the private sphere, Bennett (2000) reasons, is reflected in criticism that ecological modernisation may be criticised for being too market-friendly.

For example, the EU's emphasis is on self-regulation, voluntarism and self-policing through various schemes. Techniques of notation and calculation and procedures of formalised examination assessment, environmental audits or environmental management systems (EMSs) are techniques that render private decisions «visible, calculable and amenable to evaluation», both to outside regulators and to the

company itself. The use of EMSs and audits is an example of «reflexive environmental law», which involves the setting-up of processes that encourage self-critical thinking and learning and channel behaviour in the right direction.

Environmental management schemes encourage organisations to develop their own environmental targets without consulting any outsiders other than certifiers.

Yet, serious contradictions and weaknesses have emerged when examining the operationalisation of sustainability policies at Europe's periphery (in cohesion countries).

The next section in particular illustrates that techniques that encourage private actors to become active in their self-governance, have also become widely accepted as industry best practice: evidence of environmental management standards are increasingly required by investors, lenders and insurers.

In brief, the following key issues are formulated from the strands of literature discussed so far:

- Social, political processes increasingly operate at supranational scale;
- Linked to environmental problems and key discourses, the sustainable development and ecological modernisation together have the effect of: a) increasing business involvement and b) promoting homogeneity;
- Especially apparent are shifts towards voluntary regulation, discussed in more detail in the next section.

2.3 Evolution of Voluntary Regulation

Although traditional regulation involving command-and-control measures has flourished since the 1970s, and continues to do so, a progressive change in methods of action in regulating the environment is noticeable particularly during the 1990s (i.e. with the EAPs mentioned in previous sections). The EU fabric of environmental policy has now been recognised to change in two ways between the end of the 1980s and the beginning of 1990s. Firstly, there is the reform of the Community institutions and rule making and, secondly, there is the new way of regulating the environment, mostly in industrialised countries. The role of voluntary initiatives therefore has grown at various levels of environmental policy.

Environmental policy has moved away from governmental control toward a more interactive and participative approach based on shared responsibility. Leveque (1996) points out that these arguments have been influential in the EU and recognises that more proactive forms of environmental policy are needed.

This section offers some remarks regarding the use of voluntary regulation and discusses the propositions put forward in favour of these instruments.

Voluntary regulation may include environmental management standards such as environmental management systems, environmental auditing and environmental reporting as well as voluntary agreements[3]. There is diversity in voluntary approaches in the EU to cover a large variety of different arrangements, and this is reflected by a rich terminology:

«Self-regulation, voluntary initiatives, voluntary codes, environmental charters, voluntary accords, voluntary agreements, co-regulation, covenants, negotiated environmental agreements, accords de branch and programmi cooperativi e volontari are just a few of the terms used to refer to voluntary approaches». (Borkey and Leveque, 2000:36)

In order to clarify this concept the thesis employs a definition of voluntary regulation for ISO14001, which according to Borkey and Leveque (2000) is considered as belonging to the category of voluntary public schemes. Within this type of definition of ISO14001, participating firms agree to standards (related to their performance, their technology or management) developed by public bodies such as environmental agencies. The scheme defines the pre-conditions of individual membership, the

[3] Hillary & Thorsen (1999) distinguish in the interpretation of the concept «self-regulation» between a business and a governmental point of view. From an industrial point of view, self-regulation is considered the initiation of specific environmental improvements on a voluntary basis, with consideration of market opportunities, cost reductions, increased competitiveness or other advantages, e.g. public image in response to the growing awareness of environmental issues.
From a governmental point of view, self-regulation may be interpreted as measures in the national environmental policy that create incentives for companies to initiate specific environmental improvements. It is argued that self-regulation from a governmental point of view could provide choices for industry between normative regulation and voluntary agreements, as well as creating opportunities and rewards for enterprises implementing improvements or complying with certain excellent environmental criteria.

standards to be complied with by the firms, the monitoring criteria and the evaluation of the results.

In the corporate sphere, voluntary regulation can be equated with «self-governance». Self-governance is considered an important mode of societal governance in modern society. Kooiman and van Vliet (2000) argue that the nature of 'self-governance', its actual and potential contribution to societal governance, are not (yet) fully understood. Self-governance, one of the three modes of societal governance, points at ways in which actors-in-interaction, differentiated societal groups or even sectors of societies develop problem-solving or opportunity-creating procedures and institutional arrangements to do so 'on their own' and 'by themselves'. Increasingly, therefore, legislation is being complemented with the application of voluntary approaches as environmental policy tools complementing traditional legislation has proliferated.

Next, then, the analysis considers the arguments put forward for the voluntary turn.

2.3.1 Advocates of the voluntary turn

Key arguments for voluntary regulation is in general the criticism of command-and-control regulation. Golub (1998) argues that two decades of experience revealed a number of regulatory failures associated with the traditional command-and-control approach. These shortcomings fall into three categories:

- Economic inefficiency: command and control tends towards economic inefficiency by imposing uniform reduction targets and technologies, which ignore the variable pollution abatement costs facing individual firms;
- Environmental ineffectiveness: in some cases a command-and-control approach also introduces inefficiency by eschewing environmental quality objectives in favour of uniform emission standards;
- Democratic illegitimacy: command and control contributes to inefficiency because it stifles incentives to reduce emissions beyond mandated levels and to develop innovative pollution control technology.

Also, command and control has been argued to be not only an expensive approach to pollution reduction, but also one, which according to many analysts, has reached the limits of its environmental effectiveness. Although more stringent normative

regulation had an impact on the rate of environmental decline, policy is considered to continue to be largely reactive rather than proactive in nature. Therefore, a shift away from the reactive position toward more proactive forms of environmental regulation is seen to have a key role to play in changing the relationship between economic development and environmental protection. Voluntary regulation seems to have facilitated more participation in the environmental arena for industry and businesses. The majority of advocates contend that the more widespread the participation, the more likely that regulation will best serve the needs of this evolved governance style.

Voluntary approaches are considered to have a central role to play in integrating environmental concerns into economic decision-making, because they establish a price for all emissions and can help to internalise the external costs of resource consumption or pollution. Porter & Van der Linde (1995) argue that the increasingly complex nature of industrial society as well as the high profile of social and ecological risks has prompted greater self-regulation. They believe that lasting success can come from policies that promise to involve innovation-based solutions that promote both environmentalism and industrial competitiveness. Porter & Van der Linde (1995) emphasise such instruments instead of, or as well as, regulation as (very often) the most effective way to give firms the incentive to overcome the various obstacles to corporate innovation and technological change, including lack of information and organisation inertia. They advocate that properly crafted environmental regulation serves an important purpose for businesses by alerting companies to likely resource inefficiencies and potential technological improvements, as well as creating pressure that motivate innovation and progress.

Furthermore, major benefits are also achieved by raising corporate awareness, the uncertainty is reduced that investments to address the environment are valuable to level the transitional playing field. Crucial therefore, to unpacking the voluntary regulation debates is the need to understand how it affects firms in terms of competitiveness, environmental performance and environmental compliance.

Whilst voluntary regulation might be viewed as a means of bolstering the deficiencies of command-and-control regulation, it is recognised that it may also have more positive functions in terms of extending the role of regulation to influence corporate behaviour to respond to practices supporting sustainable development and create a competitive environment for internationally operating business. Gouldson and Murphy (1998) identify voluntary regulation as the means to influence more generally

the market and cost structures, in order to make tackling the environment a specific business and market advantage. It is considered to impose lower costs on both government and industry. From a government perspective, it may allow a reduction in public expenditure associated with environmental protection or a diversion of that expenditure towards more proactive uses. Also, efficiency gains may occur for industry to develop and apply environmental initiatives in a more flexible way. Voluntary regulation might secure higher or accelerated levels of environmental improvement than those which typically arise from mandatory regulation. They also argue that there is the ability to foster commitment to environmental improvement over a shorter time frame than mandatory regulation, as it does not have to go through the same governmental and legislative procedures.

2.3.2 Criticisms of voluntary regulation

These economic and institutional benefits are not accepted by everyone. This section discusses the main lines of criticism, intertwined with the concept of voluntary regulation notably: involuntary forces, democratic legitimisation and trust, public-private divide and capacity, and environmental performance.

A primary issue (as discussed in the literature and to greater extent throughout the thesis) is whether voluntary regulation can replace mandatory regulation, or whether it will merely supplement it. As will become clear, it is crucial to illustrate whether wider institutional arrangements are sufficiently developed to support further voluntary regulations.

A crucial point, therefore, is to address the extent to which individual countries have departed from command-and-control -the dominant form of environmental policy. Golub (1998) explains that further changes at national level probably depend upon a wide range of factors, including the preferences of environmental NGOs, the attitudes of industrial groups, the influence of individual politicians and scientists, the position of nations within larger organisations and the institution structure of the state. There is, therefore, a need to reconsider how the «effectiveness» of new instruments is judged, and how environmental policy is designed. One might expect to see conflicting goals, which are prioritised and championed differently by industry, government and «green» groups.

Gouldson & Murphy (1998) indicate that although voluntary regulation is by its very nature not covered by law, government can encourage it where, at the extreme, this effort could evolve into a *de facto* requirement for voluntary action. More specifically:

a. Government can catalyse voluntary action by establishing frameworks or institutions to develop and administer voluntary initiatives or to verify their quality and integrity;
b. Government may encourage companies to take voluntary action by providing various forms of business support or by requesting evidence of voluntary action in their purchasing or contracting criteria;
c. Government can provide the impetus for voluntary action by negotiating targets for environmental improvements with industrial groups. It can also establish a legal context that encourages but does not require voluntary action.

Moreover, in practice a switch to voluntary action alone removes what is a major impetus for innovation; namely, the imperative to comply with the demands of mandatory regulation. In some instances, voluntary action is clearly motivated by the threat of mandatory regulation. In other instances, voluntary initiatives are taken either to ensure compliance with the requirements of mandatory regulation or to respond to the financial incentives and disincentives that are established by mandatory regulation. In the absence of mandatory regulation, companies are free to assign a higher priority to the economic pressures of the short term than to the environmental opportunities of the medium to long term.
There is indication therefore, that voluntary regulation will have a greater influence on industrial behaviour where it is applied complementary to mandatory regulation rather than as a replacement for it.

A second theme pertinent in the development of voluntary regulation is environmental performance and governmental trust. Voluntary approaches may suffer from a serious democratic deficit by privileging industry and environment administrators at the expense of environmentalists, parliamentarians and the general public interest. This has led some commentators to suggest that voluntary agreements should be made more transparent, as a 'closed' voluntary approach might give polluters an 'easy ride' in regulatory terms.

As Flynn (2002) puts it, the approach requires trust, because it may not be suitable in cases where it would be imprudent to rely on trust alone (for example, dealing with

nuclear waste). Also, Flynn (2002) points to a fairly uncritical assumption made about the self-regulatory capacity of polluters in many voluntary initiatives. It may be simply naive to assume that all polluters are capable of determining their own externalities, and then easily be able to take the required measures to abate them over time. More than other policy instruments, voluntary approaches are prone to that doubt, because industry plays an important role in the negotiation process, thus giving a central role to firms. The case of ISO14001 is explicitly emphasising this assumption through its actual origin.

A third criticism is that in practice voluntary schemes are used to weaken the economic impact of new environmental legislation on sectors that would otherwise be particularly affected (Boerkey & Leveque, 2000). Neale (1997) contends that European businesses have begun to lobby more vigorously for a narrow interpretation of self-regulation, within which voluntary initiatives by individual companies or industry associations would determine not just the means of environmental policy but the ends as well, i.e. the level of environmental quality delivered.

Furthermore, a crucial point argued by Doyle and Mc Eachern (2001:163) is that these initiatives are presented as alternatives to state regulation and as a way of avoiding the grip of bureaucratic supervision. Changes in design and preferred policy instruments do not seem to be a result of increased skill in the making of environmental policy, nor a result of increased awareness of the interconnection between economic development and environmental consequences. Rather, the structure of institutions, the procedures for their co-ordination and the choice of policy instruments, seem to be more influenced by a broader debate about the character of government and its impact on economic growth. No matter how strong the preference, markets, politics, government and bureaucracy set the frame within which environmental policies are made and evaluated.

Regulatory reforms involve a new mode of governance in Europe, with alterations in political structures, actors and policy styles. But, suspicions exist that a domination of industry interests over social interest results in unambitious schemes and this might be the case for market-based tools as such and voluntary regulation in particular. It is important to examine the effects of the development of voluntary regulation relationships among actors and the economic, political and social perspectives that have emerged. Although several features put forward by these changes have

diffused world-wide, it will be shown that «global responses» are shaped by diverse national contexts. The extent to which these changes have taken place and their consequences are the central concern of this thesis. Next, the thesis reviews the particular evidence on the effects of environmental management systems.

2.4 Environmental Management Systems

This section outlines the literature on environmental management systems/standards and considers competing issues on whether or not such approaches are likely to deliver the necessary organisational environmental changes. Yet, a great part of literature on environmental management is highly controversial as it is a multidisciplinary entity.

A number of trends, especially intensified globalisation of social, economic and political values, are stimulating ecological concerns to be integrated into company management. Various concepts for systematic management and monitoring of sustainable development, therefore, have gained world-wide acceptance. Environmental management is widely regarded as bringing about more ambitious environmental improvements and contributing more forcefully to trends for sustainable development.

A lot of improvements are available in the context of business, through the growing sophistication of the management techniques, working with the grain of the market and the innovation of the industry. Ecological concerns have come to be seen as a strategic dimension of business operation; hence, questions are raised about the way businesses interact with environmental issues and how they tackle problems caused by environmental degradation. There is clear evidence that environmental management systems or standards have flourished since the late 1980s internationally and in a number of EU member states when it became quite obvious that the use of voluntary approaches as environmental policy tools are needed to complement command-and-control approaches.

Environmental management systems (i.e. ISO14001) are seen to flow from contemporary concerns of participation in governance and management practices in the environmental field and are recognised among various environmental management tools promoted at international policy level. An example of an environmental management standard is ISO14001 from the International Standards

Organisation (ISO), which is the most widely accepted scheme. Also well known is the corresponding regulation launched by the European Union, the Eco-management and Audit Scheme (EMAS), which is considered a much stricter and complete scheme for environmental performance as it requires publication of environmental information (introduced in chapter 1).

There are a number of drivers behind corporate and government interests in environmental management standards. Many industries have recently started to realise that current social and political trends concerning environmental issues are shaping the stakeholders beliefs and attitudes towards more sustainable performance. Public awareness of environmental problems has clearly heightened the rise of environmental management. Also, globalisation and the battle cry for shareholder value have intensified competition nearly everywhere, driven by the increased dominance of financial targets and the pressure for efficiency. In addition to external force, in terms of internal organisation, there has been a basic shift from functional-hierarchical to process-driven organisations.

To more fully understand the relationships between the environment, policy and globalisation there should be an identification of the contradictions and tensions, which exist between business, its stakeholders and government, along with the particular socio-political and environmental conditions. The self-regulatory nature of ISO14001 and also the fact that it is mainly governed by industrial actors whilst other interested actors (non-governmental organisations or state bodies) are not directly involved, is a key issue in establishing the value of formalised environmental management. The environmental performance of this standard is questioned and has also raised enormous risks for environment and public policy.

In this section, we review these debates in turn, after characterising the case components of environmental management systems/standards.

2.4.1 Description and Definition of Environmental Management Systems

An environmental management system is broadly defined as a transparent, systematic process, playing an essential role in the integration of environmental considerations into the firm's decision making (Honkasalo, 1998). It seeks to co-ordinate activities, to assign responsibilities and to facilitate flows of resources and information through an organisation. It further seeks to move toward a proactive

stance, considering environmental aspects in an integrated design, process and customer service (Gouldson and Murphy, 1998).

An environmental management system (EMS) is seen to encompass programs such as continuous monitoring of any process discharges (Moxen & Strachan, 2000). It encompasses the firm's activities to minimise its effects on the environment and to manage or respond to the effects of the firm on it. In so doing, it can promote the transition to an environmental corporate culture, because it organises the environmental management tasks, and also it gives credibility in the eyes of those organisational members who like to see management with systems. This includes such activities as regulatory reporting and compliance, resource minimisation, recycling, and design. It concentrates on the route of managing an organisation's activities (products and services) that give rise to impacts upon the environment (Fresner, 1998; Halme, 1997).

The management system, according to Welford (1999), must have three attributes. Firstly, it needs to be comprehensive, covering all the activities of the organisation. Secondly, the system and procedures within it need to be understandable by everybody involved. Finally, it must be open to review and there must be a commitment to a continuous cycle of improvement in the operations of the firm and in the positive environmental attributes of the services it produces.

2.4.2 The components of ISO14001

Taking a standards-based approach is widely claimed to be essential in providing an organising framework for corporate commitment to the environment, and for integrating environmental concerns throughout the organisation. The adoption of this approach has gained companies' interest because it is seen to be all the more important for better business performance, especially in sectors where environmental policy has become extremely stringent.

Standards have been developed to cover various aspects of environmental management, but only the ISO14001 standard launched in the summer of 1996 features a certification (registration) process. To achieve IS014001 certification, a company has to guarantee that its management system conforms to the principles defined by the standard. This compliance is verified by an accredited independent organisation. ISO14001 is designed to be externally verified by nationally accredited bodies, in a similar way as the quality management system ISO9001.

ISO14001, a specific standard, is considered the most important of the series. It is seen as the reference standard in the area of environmental management. ISO14001 provides, in basic terms, a framework for organisations to begin identifying and quantifying their effects on the environment. It also provides a commitment to continuous improvement of environmental performance in participating organisations (Netherwood, 1999). It is considered generic in the sense that it does not set any absolute requirements, except for compliance with the law. It only requires that organisations have a commitment to compliance. In total, ISO14001 includes the idea of continuous improvements through a step-by step framework for environmental management improvements and systemisation of the environment tasks. More specifically, ISO14001 provides a framework for an organisation to manage its environmental performance. In more detail, ISO14001 requires certain elements to be in place based on a simple «plan-do-check» framework (Rondinelli and Vastag, 2000; see Appendix III):

a. The development and adoption of an environmental policy to which senior management is committed, which identifies all of the environmental aspects of a facility's operations, legal and other requirements, a set of clearly defined objectives and targets for environmental improvement;
b. A set of environmental management programmes, a system of implementation and operation that includes a clear structure of responsibility for environmental management;
c. Programmes for training, awareness and competence among all employees of the facility, internal and external communication of the EMS, a system of environmental management documentation, a documentation control system, procedures for operational controls of environmental impacts;
d. Emergency preparedness and response creation of a system of checking and corrective action that includes monitoring and measurement, for reporting non-conformance and for taking corrective and preventive action, of record-keeping with regard to environmental management, and EMS audits;
e. A management review process through which senior management reassesses the suitability, effectiveness and adequacy of the EMS at appropriate intervals to assure continuous improvement.

A number of issues thus emerge for the implementation of ISO14001:

- Objective understanding of environmental aspects and impacts;

- Creation of environmental policy, clarifying the environmental principles, a commitment to prevention of pollution and to continuous improvement;
- Determination of the requirements that an organisation must meet, definition of objectives and targets and a path (programme) toward achieving them;
- A system defining how objectives and targets are to be realised;
- Internal Audits of the EMS to ensure effectiveness and compliance;
- Management review of the system to ensure that it continues to be suitable and effective for the organisation and its aims.

The question, then, is what evidence exists for the benefits of such a system?

2.4.3 Environmental Management System (EMS): An Effective Corporate Mechanism?

A number of commentators in the environmental management literature (Petts et al., 1999; Viser, 1997; Fresner, 1998; Jorgensen, 2000; Hillary1998; Sinding, 2000; Rondinelli and Vastag, 2000; Kirkland and Thompson, 1999; Honkasalo, 1998; Welford, 1999) claim that the promotion of EMSs can have advantages. Much of this literature focuses on moves towards consideration of market opportunities, cost reductions, increased competitiveness, relief from regulatory obligations, efficiency savings, employee motivation, supply-chain performance, trusting relationships with all stakeholders, reputation for having a good environmental record and, last but not least, environmental performance through a standardised approach.

A number of key issues have been highlighted in the debate around ISO14001 and its general environmental performance.

Firstly, an environmental management system can be seen as a positive step toward environmental performance by creating incentives for companies to initiate specific environmental improvements. This turn in business' response is regarded as providing companies with the development of a preventive approach by promoting integrated environmental management as a part of daily management.

ISO14001 is argued to benefit corporations in moving towards environmental performance through preventing pollution at source, which can save money in materials and in end-of-pipe remediation. Advocates claim that certification to ISO 14001 helps companies reduce their environmental incidents and liabilities, increase efficiency of operations by removing waste from production and distribution

processes, increase awareness of environmental impacts of operations among all employees, and establish a strong image of corporate social responsibility.

Also, Halkos and Evangelinos (2002) argue that companies are subject to better energy and raw material efficiencies, the minimisation of waste, a better company image and better relations with stakeholders. Although La Jolla and Roth-Arriaza (1997) argue that the establishment and operation of an EMS will not, in itself, necessarily result in an immediate reduction of adverse environmental impacts, the procedural approach has some advantages. It allows organisations of all sizes and from all areas to set their own goals. It does not require imposition of the same technology on firms with different needs and costs, thus avoiding some of the economic inefficiencies of command-and-control rules.

Secondly, the adoption of ISO14001 has gained the companies' interest, because it is seen not only as important for better business performance, but also useful where environmental policy has become extremely stringent. Environmental management systems are seen to have evolved within the framework of self-regulation as a means to bolster the deficiencies of command-and-control regulation in order to influence behaviour to respond to social goals, such as sustainable development (Petts et al., 1999). It is widely claimed that opportunities exist for the holistically integrated deployment of self-regulation and that the effective co-ordination of this paradigm will bring about more ambitious environmental improvements in enterprises and contribute forcefully to concepts like sustainable development.

Following from this, the argument is that companies staying ahead of regulations can have a competitive edge over those struggling to keep up. Halkos and Evangelinos (2002) argue that the prerequisite that organisations should comply at a minimum with environmental regulation is a good starting point for an EMS, even if they do not ensure that companies will progress any further than that. Investing in such initiatives helps a company to enhance its corporate responsibility and to be positioned to meet tighter standards in the future. Organisations registered are seen to gain market advantages, and a better relationship with regulatory authorities, investors, insurance companies and financial institutions, as well as to experience financial benefits through a greater efficiency in the organisation's management structure and in areas such as energy, waste and water management (Netherwood, 1999).

However, as discussed above, potential benefits for businesses also include flexibility to delay or weaken new legislative moves and the increasing legitimisation of a

company's environmental practices (Petts et al., 1999). An environmental management standard is recognised to provide relief from increasingly stringent environmental regulations (Gouldson and Murphy, 1998).

Fourthly, an environmentally progressive reputation can improve recruitment employee morale, investor support, and acceptance by the host community and management's self-respect. Welford (1999) argues that at the core of this approach is the ambition to cover not only management's responsibility but the responsibility and tasks of every individual in an organisation. A fully integrated system, which covers the totality of operations, helps management and workers to see their place in the organisation and to recognise the interdependence of all aspects within it.

The intrinsic worth of the management system proposed by the standard (rigor, follow-up, effectiveness, and so on) and better control of human behaviour (eliciting greater compliance with work procedures and instructions) are important within this context. It is argued that implemented in good faith, it may diffuse environmental values throughout a corporate culture, starting with its top management.

Integral, therefore, to these economic rationales is that ISO14001 is considered a standard of best corporate practice at the global level (Moxen & Strachan, 2000) which can act as a focus to initiate market opportunities and increased competitiveness. Ekins and Speck (1998) advocate that EMSs can actually result in net savings and improve competitiveness, if they lead to changes in company practices, which save money in excess of the cost of implementing the management systems. New «green» products and processes can increase consumer appeal and open up new business opportunities. Pressure from consumers, intermediate customers, local communities, legislation, NGOs and the general public in companies' decisions to implement EMSs drive companies to use environmental issues to strengthen their market position and access new markets.

Finally, advocates of ISO14001 also claim that an international standard assists corporations to harmonise and simplify their environmental management practices in a coherent framework and thereby reduce the need for multiple registrations, permits, and requirements under different national or local regulations. ISO14001 is widely accepted as having been introduced to offer the same universal and efficient environmental management for all organisations regardless of their nature and locality. It is recognised to apply identically to every location and every organisation,

given that companies acting in an environmentally responsible way in one country are under scrutiny to do the same elsewhere. To that extent ISO14001 is considered to avoid the potential trade barrier problems posed by attempts to harmonise performance standards across borders, as well as allowing maximum flexibility for management.

Boiral and Sala (1998) consider that ISO14001 is founded on principles similar (but not identical) to those underpinning the ISO9000 series in the field of quality management. This symmetry should make it easier for companies that have already attained ISO9000 certification or are working toward it to adopt the new environmental standard. Indeed, a growing number of organisations have set their sights on double certification. Like the quality standards, which oblige companies to require their suppliers to implement a quality system, ISO14001 compels companies not only to adopt an EMS but to ensure that their suppliers do so as well. Thus with the globalisation of trade, ISO standards are quickly gaining ground via business relations between companies.

The variety of factors influencing integration of standardised environmental management in business management processes indicates that such introduction could be a complicated process. ISO14001, therefore, may influence corporate behaviour in a number of contexts such as the connection with sustainable development, corporate environmental setting and ecological transparency and other political and cultural factors (i.e. internal organisation, shareholder global demands and publication of environmental impacts (although not required)).

2.4.4 Universal models, homogenisation and pressures for standardisation

The role of universal models is discussed by Messner (2002) where he observes a world-wide and striking standardisation of cognitive patterns in critical areas. The universalisation of cognitive patterns is accelerated by the media and world-embracing communications networks, based on «strategic actors of globalisation» such as internationally active NGOs, experts or corporations and managers. The globalisation of science follows the universalistic-cosmopolitan tradition of modern science, though it also reflects the growing urgency of world problems and the increasing need for international co-operation in processing them.

Extending this to the environmental sphere, Mol (2000) explains tendencies towards universalisation, standardisation and homogenisation by looking at two dimensions of the relationship between globalisation processes and the environment:

- The way in which the changing institutions of modernity (by processes of globalisation) affect environmental deterioration and limit adequate environmental management. A first development entails the reform of traditional command-and-control regulation due to new circumstances of international competition, free circulation of goods, the rapidly varying social context of environmental policy making and the growing complexity of social relations stretching beyond the national territories. Consequently, negotiations, co-operation, interaction and consultation with those to be regulated in an early stage of environmental policy making have become rule rather than exception in environmental politics.

- The synchronisation of globalisation and its institutional transformations, on the one hand, with processes of ecological modernisation and environmental reform on the other.

Mol (2000) considers that the most obvious contributions of globalisation processes to strengthening environmental reform might be the harmonisation or «homogenisation» of national environmental regimes. Following tendencies of globalisation, the traditional political institutions dealing with environmental reform at primarily the nation-state level become more and more inadequate and are transformed and modernised into new institutional arrangements. This can be interpreted as a redefinition of the relation between state and market at the global level, resulting in new institutional arrangements at both the sub-national as well as the supra-national level.

Standardisation trends therefore are seen as being promoted by the implications raised regarding trade. Countries that impose tough standards on their producers want to ensure that neighbouring countries do the same. During the last few decades, the need for higher environmental standards (Hillary, 1998) is seen to have prospered in developed countries at both European and international levels. Common market trade could be obstructed by different national policies and standards thus, common environmental policy tools were introduced.

Indeed, standardisation bodies are constitutive of these global trade processes as in the case of ISO14001 this is located beyond Brussels. Scholte (2000) indicates that one key way that regulation has been promoted is by the spread of global relations through standardisation. Pressures to standardisation are illustrated in four main ways: technical and procedural standardisation; liberalisation of cross-border movements of money, investments, goods and services; guarantees of property rights for global capital; and legalisation of global organisations and activities. This is the case with the International Standards Organisation (ISO), a non-governmental organisation, which has published over 10,000 standards covering pretty well all areas of technology.

Much of standardisation has concerned the considerable harmonisation of the technologies that have underpinned globalisation (albeit sometimes far from complete). In fact, ISO14001 is based on an agreement created by the (Geneva based) International Standards Organisation (ISO). The unveiling of the ISO14000 standards marked the conclusion of a long consultation process, begun in 1991 by the ISO, to study the development of worldwide standards in the area of environmental management. The ISO is a private body organisation and an international association of national standard setting bodies, which was set up to facilitate international commerce by standardising technical specifications.

For some commentators, ISO14001 was established to facilitate international trade, with respect to better environmental performance and national legislation. Altham and Guerin (1999) consider standardisation and its application to business systems, as one of the most important aspects of effective environmental management. ISO14001 has been considered an internationally agreed framework of an environmental management system that has been launched to provide businesses with relief from socio-political pressures and, in turn, help business benefit from having a pro-active attitude to environmental protection. The uniformity in this particular area of policy tools has been favoured also in Europe because lack of harmonisation between standards implies increased transaction costs of firms, thereby impeding international trade (Prakash, 1999).

But forming these standards is a complex sound accomplishment. The ISO14000 series was established with the creation of the Technical Committee on Environmental Management (TC) 2071, which was responsible for co-ordinating the efforts of groups of international experts along with the preparation ISO14000 series

of standards (Boiral and Sala, 1998). Krut and Gleckman (1998) and Boiral and Sala (1998) acknowledge the need for international environmental management standards was confirmed during the General Agreement on Tariffs and Trade (GATT) negotiations that got under way in Uruguay in 1986 (as well as at the 1992 Rio Earth Summit). Under the Final Act of 1994 GATT, the Agreement on Technical Barriers to Trade (TBT) and the Dispute Settlement Understanding (DSU) made clear reference to the international standards set by ISO. A large number of countries are expected to follow the rules of GATT, because TBT recognises that environmental rules about processes and production methods are legitimate if they follow an existing international standard.

The emerging impact of ISO14001 in various states has been linked by some to the long-term implications of the international trade system with global sustainable development. ISO14001 is considered the response of several industry representatives of the ISO and national standard setting bodies to the high profile and strong interest of sustainable development, after the UN Conference on Environment and Development in Rio in 1992. Whilst the UN Conference on Environment and Development (UNCED, 1992) was taking place, the Business Council for Sustainable Development (BCSD) came to the conclusion that the international business community would need to develop international standards on environmental performance to ensure that companies operating around the world were harmonised at an international level. The ISO14000 series, therefore, grew with the intention that it should not interfere with any national environmental legislation (Hortensius and Barthel, 1997).

The first module was ISO14001, which covered EMS in general. This was soon followed by a series of other norms, which covered the requirements for audits (ISO14010-14012) or the environmental life-cycle assessments (ISO 14030ff). The ISO set up a committee to develop an EMS, which was finalised in 1995. A single global standard, ISO14001 was adopted in 1996, at a time when the EMAS scheme was already in operation (see below).

Given the risk that flourishing local and national standards in the area of environmental management may constitute a barrier to growth in global trade, Boiral and Sala (1998) highlight that enhanced transborder standardisation has become essential in order to avoid proliferation. Moreover, as a global standard, ISO14001 relies on the idea that certification can provide uniform assurances of environmental

probity to buyers and consumers, thus facilitating trade while driving improvements through market incentives. For these reasons, most commentators have advocated the universal application of environmental management systems. ISO14001, because of its global nature, is in fact the standard that customers want their suppliers to have in order to satisfy market trends and stakeholder demands, thus appearing to be increasingly attractive to companies. As a result, the proliferation of national or sectorial environmental management systems is becoming suppressed to satisfy industry and especially multinational corporations (Boiral and Sala, 1998).

However, the line to more ad hoc implemented, mostly compliance-driven environmental rules and actions, is not considered as crystal clear.

The environmental regulatory agenda, Vogel (1997) considers, is a highly fluid one where market incentives can serve to promote the strengthening, dilution and diffusion of regulatory standards, as have transnational trade blocs. In much of southern Europe, for example, the EC is the most important cause of any additional resources they have devoted to improving environmental quality. Vogel (1997) argues that the most pressing source of political conflict over environmental standards in the EC comes not from the interests of southern member states in keeping their standards low in order to attract investment, but from the efforts of northern member states at a competitive disadvantage.
Consequently, nations are increasingly adopting the standards of their richer, greener trading partners. The EU has not only employed its economic leverage to affect the environmental standards of a number of its trading partners, but it also played an important role in negotiating and strengthening a number of international environmental treaties (Montreal Protocol, Lome Convention, etc). The EU has also explored the possibility of proposing a number of changes in WTO rules that are intended to better reconcile trade policy and environmental regulation.

2.5 Environmental Management Systems: Driver or Product of Globalisation?

Evidence indicates that participation is increasing in schemes such as ISO14001 mainly because of their corporate and global nature. According to 2001 data, 23,721 ISO14001 certifications had been issued worldwide, 64% up from the previous year. In EU member states, the uptake of ISO14001 is more than twice as popular. At that time, 10,018 organisations had their facilities certified with the ISO14001 standard,

compared to 3,800 EMAS sites. EMAS registrations rose 18% compared with a 45% growth rate for ISO14001 in the EU countries (ISO14000 update, 2001). Clearly, there is increasing participation in ISO14001 rather than in EMAS, because of its less challenging character and its systematic, coherent and structured management process, which presents a global, standardised role for environmental management.

This diffusion begs questions about its relationship to globalisation in the environmental sphere, given the number of barriers encountered by such approaches suggested by a number of critics of the voluntary turn. So, the next section involves the interpretation of voluntary regulation that is considered to provide the means for purposes of environmental protection, public policy and trade. Although these features have been put forward and have spread worldwide, it is shown that there is great diversity across countries due to national factors resulting in shaping «global responses» (an issue presented further in Chapter 3).

2.5.1 EU Context: EMAS Revision

In this context, an important illustration of the impetus towards global standardisation is the revision of the EU regulation Eco-Management and Audit Scheme (EMAS) in order to incorporate the International Standard ISO14001. The European Commission[4] adopted a proposal for the revision of the Eco-Management and Audit Scheme (EMAS), which was established in 1993:

"Aimed at promoting continuous improvements in the environmental performance of industrial activities by committing sites to voluntarily evaluate and improve their performance and to provide relevant information to the public" (EC, 1998).

The Commission argued that it took the opportunity of the revision of the 1993 regulation, to ensure the broader applicability of the instrument and to increase the clarity of the requirements and the transparency of the EMAS scheme. One of the main changes to the existing system would be to extend its application outside industry, meaning that sectors such as the financial or service sector would be able to participate. In order to facilitate the process, therefore, the proposal would also

[4] Document Reference: European Commission, Based on Commission press release IP/98/954 of 3 November 1998.

allow organisations to use the international environmental management standard ISO14001 as a building block for EMAS accreditation[5] (EC, 2001).

Yet, the EMAS regulation is much stricter in its requirements, as it demands disclosure of information on its environmental policy and plan. A number of implications arise from this revision and the development of ISO14001. Firstly, the EMAS regulation is said to have international trading implications because non-European companies are excluded from EU markets. Thereafter, the Committee of European Standards (CEN) had to decide quickly whether to adopt an extant standard or draw up its own alternative (EMAS). Anxious to avoid the proliferation of international standards, European enterprises were concerned that without some form of multilevel co-ordination, European environmental management standards would produce a standard that differed substantially from the ongoing standards negotiated at the international level.

Given the discrepancies, therefore, between international and regional standards, as well as environmental management working groups within the European standards body, the Committee of European Standards (CEN) decided that the EC should create an annex to ISO14001, applicable only to firms operating within the EC. This could act as a bridge between EMAS and ISO14001 (Zito & Egan, 1998). This discussion is on the basis of superior environmental characteristics versus the potential competitive disadvantages flowing from EMAS, and the legality of strict EU eco-audit standards under GATT/WTO rules. Although they both adhere to the principle of self-governing action, thus being voluntary (Malek and Toller, 2001), EMAS is an instrument set up by the state applicable in EU countries only and site specific. ISO14001, on the other hand, based on an agreement of a non-governmental organisation and applicable to any organisation is seen the more user friendly.

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[5] The proposed regulation would also require the Commission to develop an information and promotion strategy aimed at increasing participation in the EMAS scheme. As part of this strategy, a new logo would be introduced, allowing participants in the scheme to ensure that their commitment to improved environmental performance is more visible to the general public, who in turn would be able to track performance through a more flexible approach to reporting.
Other important elements to the proposal include the new requirement for participating organisations to involve their employees in the implementation of the scheme. Priority is also granted to increasing the participation of SMEs, and the proposal provides for the development of a set of tools for this purpose. These would include measures such as operational guidelines, guidance to verifiers, as well as initiatives such as supply-chain partnerships with their customers.

Consequently, ISO14001 was promoted to meet the requirements of the EMAS regulation in order to reach consensus on content. It is shown to be flexible enough to be used in many different situations by all types of organisations as a standard within the EMAS regulation (Hortensius & Barthel, 1997).

The European countries are seen to favour an ISO standard that can be used as a European standard within the EMAS regulation. The ISO14000 series fits in well with this approach as it is seen not to lead to significant institutional change. Given the different approaches and the regulatory situations in all countries involved, it is often no simple matter to reach consensus on the content of the standards, and most European countries are familiar with a system in which private standards and government regulations complement one another (Hortensius and Barthel 1997:35).

European corporations also prefer ISO standards. However, the EU member states have disagreed over the merits of worldwide harmonisation (Golub, 1998). Stevis and Mumme (2000) consider that as long the EU justifies support for higher environmental standards on grounds of competitiveness and free trade and adopts market-based rules that devolve policy-making and implementation to business, it will be moving towards weak ecological modernisation. This turns the choice of self-regulatory standards into a serious policy issue (discussed below).

2.5.2 Policy implications: A critical view of ISO14001

So far, many countries have relied on the traditional command-and-control ethic of legislation in the environmental arena, but there is already a discernible trend in policy-making to tie regulations to market forces in such a way that it is the market itself that provides the dynamic for change. In the particular case of ISO14001, the standard is exciting interest in the idea that self-regulation, coupled to the motive force of consumer demand and supply-chain pressure could eventually replace what is seen as the increasingly complex and inefficient webs of national legal requirements. Going further still, it is argued that certification of standardised environmental management walks the thin line between socially policed regulation and privately policed self-regulation (Sheldon, 1997).

Central to its conceptual basis is that ISO14001 provides equal and universal application at any type of organisation or location. It is portrayed as obeying specific immutable laws, universal principles valid for all organisations. By definition, a «standard» is claimed to be based on a very systematic, rational and ordered view of management and the various components of this management system are highly coherent and structured, working together to the development of mechanistic

impersonal environmental policies that do not appear to be marred by any contradictions or ambiguities (Boiral, 1998).

The development and universal application of new instruments is seen to have profound implications for the nature of governance, as it requires balancing the advantages of national diversity with the need for uniform rules. It raises important questions about the increasing interdependence of environmental and trade policies and their contribution to environmental policy.

At the same time, the ISO14000 series has attracted public interest because it has entered an area involving normative standards having public and environmental consequence. A shift from mandatory to voluntary regulation can mean that a government hands over responsibility for significant areas of public policy to the private sector - an issue that is of major importance in this study. As has been mentioned above, ISO14001 is the result of a private-sector voluntary initiative set by a body whose members include the national standard-setting bodies that are not legally binding on any of the parties (though many adopt them within a national framework of standards that is used voluntarily by enterprises operating in a country).

Hortensius and Barthel (1997) point out, that it is not only the business community that is solely responsible for the institutionalisation of ISO14000 series standards. The standards development process has also included participation from government agencies, consumer groups and NGOs. Governments have started actively promoting the adoption of sound management practices by organisations, and it is here that governments may benefit from the use of this standard (Krut and Gleckman, 1998).

The standards are considered important tools for social self-regulation in the environmental field where there is increasing talk of the government withdrawing, of companies taking initiatives themselves to achieve an improvement in their environmental performance, and of consumers making their choices partly on the basis of environmental aspects. The intergovernmental process has given environment and development issues a central focus, working increasingly with other interested parties, including environmental groups, scientists and business. In this context ISO14001 is advocated as industry's answer to the question of global sustainable management (Krut and Gleckman, 1998).

But again, crucial to this development is the tension between standardisation and (local) implementation. Krut and Gleckman (1998) indicate that existing ISO standards do not fully reflect the economic, cultural, social and business contexts.

"Since the infrastructure with certification and accreditation capacities will be imported until it can be developed locally, developing countries and economies in transition will have increased costs and dependence on developed world services. Not only has a market been created into which developing countries feel they have to buy; there may be limited organisational or environmental value to de derived from the standard." (Krut and Gleckman, 1998:76)

ISO14001 is considered a standard largely prepared and developed by corporate experts from industrialised countries. But, there may be limited enforcement power, limited experience of environmental management systems, or an inadequate infrastructure, as well as limited and technical skills, knowledge and financial resources. One of the complexities, therefore, for ISO series standing in international law and practice is that there is a strong feeling that ISO14001 can easily become a new form of protectionism and not only a market requirement but also a market creation.

Also, although the advantage of international soft law is that this practice provides a standard for global firms, even in the absence of equivalent national standards of international interest, it is crucial to say that the recent trend within less economically developed countries has been towards implementing national legislation that applies environmental standards and concepts. This is a clear, recent and under-researched trend. Hence, although ISO is considered «voluntary» because it is not for governmental regulatory use, what results from the ISO process is seen exclusionary and involuntary (Krut and Gleckman, 1998).

Yet, the fact that ISO14001 is not obligatory does not necessarily lessen policy effectiveness; it simply means that firms will not bear the administrative cost unless they see a return in it. However, an element of compulsion to these voluntary schemes is that ISO14001 may *de facto* entail a legal obligation for those firms where adoption of best practice is a defence against negligence. That is, there is a quasi-regulatory incentive for firms to adopt these standards. This could have implications for effectiveness.

Consequently, as Krut and Gleckman (1998) explain, there are two ways that ISO14001 may in practice be considered involuntary. Both are related to aspects of globalisation:

- Firstly, ISO standards are given new status as international reference measures under the new GATT (discussed in detail in section 2.5.1). Also, for firms and for countries, which were not part of the particular technical committee, the results can be imposed with the leadership of the major national standard-setting bodies and of the dominant firms in the particular product area (Gabel and Sinclair-Desgagne, 2001).
- Secondly, ISO standards often become a *de facto* condition of the marketplace. In the case of ISO9000 not only did this standard become a market condition, it also became a prerequisite of some government or government-agency procurement contracts (see Chapter 5). In addition, there are debates emerging about self-regulation within national regulatory regimes that consider how or whether to integrate environmental management systems into these regimes.

Krut and Gleckman (1998) and Gleckman and Krut (1997) argue that there is fear that this new «voluntary» environmental standard will become a market-based trade barrier, and they question whether ISO14001 may become an international trade standard without participation from NGO and government. Thus, ISO14001 is for the first time legally empowered, under the new international trade rules, to create international trade standards that will be used to judge the appropriateness of a publicly set national and local environment. There are two market assumptions about ISO14001. Within the EU context there are strong fears that strong efforts from regulators and industry to integrate EU economies will make ISO14001 soon become a condition to bid for governmental tenders in the EU member states or for doing business internationally. Further, there is strong indication too that it may become a supplier condition with certified international firms[6] (La Jolla & Roth-Arriaza, 1997; Krut & Gleckman, 1998; Prakash, 1999).

[6] ISO9001, the precedent of ISO14001, became *a de facto* ticket for admission to European markets.

2.5.3 The Sustainable development critique in the promotion of ISO14001

It is widely believed that voluntary institutions are evidence of a commitment to sustainable development. The European Union's intent within its Fifth Environmental Action Programme has put more and more emphasis on market-based and voluntary measures, which have had certainly a significant impact on the environmental profile and practices of companies. ISO14001 is clearly linked to market pressures however, there is evidence that it had little effect on sustainable development practices.

The focus here is on the «global» and procedural requirements of the scheme where it is seen to have a number of advantages but disadvantages as well. Table 1, below, summarises the key arguments.

Table 1

Strengths & Weaknesses of Environmental Management Systems/Standards

Strengths	Weaknesses
They can provide a framework for a comprehensive approach to the environment	They do not guarantee any level of environmental performance
They create the potential for improved economic performance	They may be costly to develop and apply
They can improve public image and reputation	They may increase the risks associated with legislative non-compliance
They can change the relationship between regulators and business	They may encourage short termism
They can establish a new learning network	They may increase the likelihood that the means are confused with the ends
	They may engender complacency

Source (adapted): Gouldson, A. & Murphy, J. (1998) Regulatory Realities, the implementation and impact of industrial environmental regulation, at pp. 62-64

The most frequent criticism of ISO14001 has to do with its effectiveness at achieving the fundamental purpose of any «green» effort, as it is considered not to measure the actual environmental performance of a company. A view that is broadly supported by a large part of the sustainable development debate is that ISO14001 is seen to be limited in scope and providing only superficial change (Steger, 2000; Welford, 1999, 2000; Netherwood, 1999; Boiral, 1998; Boiral and Sala, 1998).

Firms, regulators and the public are far from sure that this environmental management standard on its own will bring improvement towards sustainable development. Although ISO14001 requires companies an environmental policy to state its environmental intentions and principles, it is considered to offer no mandate to incorporate sustainable development aims.

There has been a great deal of criticism and debate about the ISO14001 given that a self-regulated environmental management system does not guarantee significant improvement in performance, so in environmental terms it could be argued that it is fundamentally flawed. Indeed, it is claimed that, although the standard obliges companies to implement an EMS, there is no promise that the system will generate measurable improvements. The term «environmental performance» used in the IS014001 system is quite ambiguous given that, unlike other regulatory standards, IS014001 is argued not to set ceilings or mandatory targets; instead, in keeping with the IS09000 philosophy, it focuses on means.

Krut and Gleckman (1998) and Welford (2000) argue that environmental management standards provide a framework for businesses to implement their own systems, plans and targets, but the underlying motivations for adopting such codes and standards are not always clear. There is some anecdotal evidence that stakeholders question the value of formalised environmental management given that companies implementing ISO14001 direct their efforts at improving the system, rather than their environmental impacts.

Also, it is argued not to enumerate the criteria for a «good» environmental performance; thus, it remains «an elusive concept, not easily defined or measured» (Boiral, 1998; Netherwood, 1999). ISO14001 is seen not to provide the paradigm shift of organisational thinking regarding its environmental impacts; it is seen to not be able to set specific limits upon energy or resource consumption, levels of emissions or levels of performance, other than those based on national compliance. The scheme, therefore, can be a weakness if organisations that integrate such programmes in a formal way stay at the business-as-usual level in their environmental goals.

Welford (1999, 2000) argues that corporate environmental management will increasingly be seen as a prerequisite for doing business but not a sufficient condition for sustainable development. Thus for businesses to change in a way to be

consistent with sustainable development, they have to think about the environmental and social consequences of their activities. But clearly, the social dimension in an environmental management scheme (whether EMAS or ISO14001) is claimed to be missing.

It is crucial, therefore, to note the immense difference between the mechanism of an environmental management system/standard and the stronger claims of sustainability.
Moreover, crucial in this context is the plethora of ambiguities in the environmental management literature, which point to a systematic approach for environmental performance without taking into account, apart from the most basic principles of sustainable development, the diverse country regulatory frameworks and their impact on global environmental policy.

Gleckman and Krut, (1997) and Krut and Gleckman (1998) question the extent to which a company with ISO14001 can demonstrate its performance to a certifying firm, to its suppliers, to regulators interested in a new public-private partnership, to the intergovernmental community seeking to address global environmental problems, or for communities interested in the environmental impact of industrial facilities on their neighbourhoods.

Gleckman and Krut (1997) argue that although ISO14001 claims Agenda 21 as its ideological parent commitments, it does not include any reference to conventions, or any other international environmental agreement. The implications of this for global environmental management are significant. While the ISO14000 series is seeking credibility as the international environmental standard, it fails to advance the goals and legal principles set over the last 10 years through international agreements and conventions. Thus, it is argued that ISO14001 is trying to claim an intellectual and political legitimacy from the international community, whilst failing to include mandatory requirements for any external references to sound engineering or to sound public policy decisions from the international community in the required policy (as, for example, is done by the EMAS). Further, as Hillary and Thorsen (1999) argue, the environmental policy commitment and procedure for legislative compliance appears less clear in ISO14001.
Consequently, Bell (1997) contends that governments are for the most part receptive of the standard, though it is not clear whether ISO14001 will lead to any changes in government policy. Environmental groups are aware of the standard to the extent

that they believe that it may lead to any relaxation of existing legal requirements. However, the ISO is an international non-governmental organisation, not an international legislative body. ISO14001 is not a law unless some national governmental entity decides to make it. It does not provide guarantees or assurances to clients, shareholders and the public that organisational impacts are being minimised. Thus, it may be used as a marketing device, instead as a catalyst for cultural change within the organisation.

In brief, if ISO14001 is perceived as a public policy tool, it raises doubts about its consistency and its standing as a meaningful opportunity to express the protection of environment by corporate initiatives (Gouldson and Murphy, 1998).

Apart from the environmental performance, issues like bureaucracy, transparency in disclosure, cost of certification, compliance and consultation as well as time resources are conceptually crucial for ISO14001. ISO14001 appears to satisfy «market trends» and «stakeholder demands» through third party certification, thus making it increasingly attractive for companies. There is a suspicion that registration adds little value other than income to consulting firms (see section 2.5.4).

Putting a system in place to improve the environmental performance of business is a change in the right direction but it is not enough. Such systems can break down when they are overtaken by more pressing concerns hence such marginal change can lead to inertia. The emphasis that businesses have put on environmental management standards means that the activities of the business are often regularised, processes are documented and rigidly adhered to and products are standardised. But, ISO14001 is a tool among many that deals with companies' environmental impacts, showing that it is not a leading edge or crucial tool that will improve corporate environmental impact. Rather, it is an internal management system to manage environmental aspects of the firm's operations.

Having said that, there is considerable criticism that it is a disconnected set of disciplines and techniques clustered around various functions and activities paying no heed to corporate cultures, specific characteristics, or individual knowledge and behaviour (Mc Closkey & Maddock, 1994; Boiral, 1998; Hillary & Thorsen, 1999; Moxen & Strachan, 2000). It is argued that ISO systems totally ignore certain contemporary trends regarded to be key to successful implementation. Formal

hierarchies, current practice and local variations need to be challenged in order to integrate such procedures effectively (Netherwood, 1999; Boiral, 1998).

For example, it is argued that the bureaucratic implementation of ISO14001, whereby a company limits itself to applying the system provisions, without taking into account the imperatives of more human, participative management, is bound to produce perverse effects such as inflated procedures, organisational sclerosis and low staff initiative. For this reason, Netherwood (1999) argues that environmental management systems are defensive, bureaucratic and do not provide an adequate framework to tackle urgent environmental issues.

Apart from being too bureaucratic, there is criticism regarding the potential benefits of registering with the standards and whether they will outweigh the costs. ISO14001 is argued to only impose definite transition costs on a concentrated group of actors in the short to medium term (Gouldson and Murphy, 1998). Thus standards may be at a political and economic disadvantage when compared with the already established normative regulation. The costs of developing, documenting, and certifying EMSs may discourage many small and medium-sized companies from seeking certification. Maintaining environmental management systems and improving performance can be compromised because there is no provision for de-certifying a company that becomes lax in its environmental practices (Rondinelli and Vastag, 2000).

Equally crucial is the issue of environmental corporate disclosure. Among international firms, levels of disclosure and reporting formats vary enormously but leading industries and many international firms now routinely produce environmental reports (Gleckman and Krut, 1997; Krut and Gleckman, 1998). However, ISO14001 does not require publication of an environmental register or publication of audit results. The requirement of continual improvement and the information collection and publication provisions of ISO 14001 are extremely problematic. The procedure is weak because of the kind of data involved, and environmental impacts are left completely to the discretion of each organisation (La Jolla and Roth-Arriaza, 1997). Environmental information is gathered for environmental management purposes and is viewed as a company-confidential.

To summarise, a number of critics of ISO14001 have widely pointed out that it is not a panacea for environmental management and question its efficacy in moving corporations toward sustainable development. The scheme has generated

institutional ambiguities as the majority of ISO critics focus on the environmental performance of the scheme in that such standards do not go far enough in environmental terms.

2.5.4 International expertise, knowledge transfer and credibility

As previous sections have explained, an integral dimension of this globalisation of environmental governance is the development and institutionalisation of universal principles in environmental discourse and strategies. Indeed, if we adopt Latour's perspective on power in terms of 'translation' (Latour 1986, 1987), then we can see that the extension of universal policy discourses is integral to the power of ISO and other management systems. In short, to exert power is to 'govern at a distance'.

To apply these arguments, it is useful to expand on Latour's perspective in a little more detail. Latour (1987, 1986) offers an approach to power that focuses on its consequences rather than power itself as some 'cause' of action. He notes that it is not possible to possess or store power. So, rather than seeing actions as diffusing from some notionally powerful 'cause', in which commands are seen as being obeyed and disseminated because they obtain an initial impetus from their powerful source, he offers a model based on translation. In this model, commands are respected because they are passed from hand to hand by agents who do so for reasons of their own. In this model, then, power is the composition of a set of actors who are temporarily enrolled in the schemes of the powerful and who accordingly lend their efforts to the project. Latour (1986) observes sets of different people trying to define the nature of social structure and then trying to persuade others to subscribe to that definition (epistemic role). (This claim has a methodological corollary, see in Chapter 4).

It is important, therefore, to discuss the role of various actors in enrolling others and thus translating instructions across space. In this perspective, powerful actors are those that are best able to enrol others in the service of their goals. But it is also true that power is the outcome of enrolment: it is only by enrolling allies that centres become powerful (as Latour argues), enrolment then is at once both the exercising and accumulation of power.

Applying this to issues of governance, the central concern is then the capacity of actors to «govern at a distance» i.e. to enrol others that will translate their instructions effectively. Following Bennett (2000), such 'steering' or governing «at a

distance» has always been dependent on the enrolment of both public and private institutions. Once third parties are seen as integral to the regulatory process, issues of implementation and practical enrolment become fundamental to the success of regulation. This is all highly germane to environmental management systems and their capacity to convey meaning, communicate value and regulate business practice across space. One of the most important attractions of such universal principles is that they appear to offer a way of speaking with worldwide authority. Through the relational nature of Latour's framework, one can see that EMS does not simply «possess» power in order to enrol third parties; rather, enrolment itself makes EMS more powerful.

To understand these processes of enrolment and translation more effectively, we need to consider the key agents of enrolment and translation. Critical to the translation of ISO14001 is the role of environmental management experts, which can be conceptualised using Haas's (1992) concept of an 'epistemic community', defined as:

"A network of professionals with recognised expertise and competence in a particular domain and an authoritative claim to policy-relevant knowledge within that domain or issue-area." (Haas, 1992:3)

Following Haas (1992), epistemic communities play an important role in articulating the cause and effect relationships of complex problems, helping states identify their interest, framing the issues for collective debate, proposing specific policies, and identifying salient points for negotiation. He argues that control over knowledge and information is an important dimension of power, that the diffusion of new ideas and information can lead to new patterns of behaviour, and that this can prove to be an important determinant of international policy co-ordination.

Moreover, Haas (1992) argues that the circumstances in which epistemic communities will play a particularly important role in translating policy discourses are precisely those circumstances that characterise current multi-level, environmental governance arrangements. These include the uncertainty created by the increasingly complex and technical nature of the ever-widening range of issues considered on the international agenda, the growth in the complexity of the international political system in terms of the number of actors, and the extent of interactions and the expansion of the global economy and the modern administrative state.

In the case of international environmental issues, decision makers are seldom certain of the complex interplay of components of the co-system and are, therefore, unable to anticipate the long-term consequences of measures designed to address one of the many environmental issues under current consideration. Under such conditions of uncertainty, then, decision-makers have a variety of incentives and reasons for consulting epistemic communities, some of them more politically motivated than others.

Consequently, it is argued that:

- Epistemic communities can elucidate the cause-and-effect relationships and provide advice about the likely results of various courses of action.
- They can shed light on the nature of the complex interlinkages between issues and on the chain of events that might process either from failure to take action or from instituting a particular policy.
- They can help define the self-interests of a state or factions within it.
- They can help formulate policies. Their role in this regard will depend on the reasons for which their advice is sought.

While acknowledging that epistemic communities can wield ideas and knowledge, to influence the way regulatory change occurs, it is important to qualify this picture in several ways. Firstly, epistemic communities are not always the passive consultees of national actors but can be collectively entrepreneurial in shaping policy agendas, as in the EU (Zito 2001). Secondly, the effectiveness of this entrepreneurship is likely to be more complex and ambiguous in the policy problems. In these circumstances, as Haas (1992) argues, the members of a prevailing community become strong actors at the national level, as decision makers solicit their information and delegate responsibility to them. Members of transnational epistemic communities can influence state interests by directly identifying them for decision-makers, by highlighting particular policy alternatives, or by illuminating the salient dimensions of an issue from which the decision makers may then deduce their interest.

But thirdly, and critically for this research, epistemic communities may contribute to the creation and maintenance of social institutions that guide *international* behaviour. This is not to deny the significance of state actors in constituting the international sphere[7]. While transnational knowledge-based networks influence the form of

[7] Wapner in Environmental Politics

specific policy choices, the extent to which state behaviour reflects the preferences of these networks remains strongly conditioned by the distribution of power internationally. Members of epistemic communities not only hold in common a set of principled and causal beliefs but also have shared notions of validity and a shared policy enterprise. Their authoritative claim to policy relevant knowledge in a particular domain is based on their recognised expertise within that domain. These features distinguish epistemic communities from other groups often involved in policy co-ordination. The EC in some cases becomes transnational over time as a result of the diffusion of community ideas. Similarly, its claims to knowledge supported by tests of validity accords influence over policy debates and serves as its primary social power resource.

While epistemic communities provide consensual knowledge, they do not necessarily generate truth. The epistemological impossibility of confirming access to reality means that the group responsible for articulating the dimensions of reality has great social and political influence (Haas, 1992:23-30). [8]

Yet there is good reason to argue that epistemic communities are integral to constituting and stabilising transnational regulatory systems, because of their particular importance in managing enrolment and policing the effective translation of policy precepts.

In the case of ISO14001, environmental expert consultancies or private accreditation bodies dominate the epistemic community. A self-certified firm can employ an internal resource or a mixture of internal resources and external consulting in the form of a knowledge-based expert. This accreditation process is, in effect, the act of translation through which the power of the EMS is realised, because its information base, validity and credibility is sustained. Proponents of «globalised» application claim that in offering external verification, a company's EMS conforms to international standards

[8] Reality is socially constructed: while their goal is to obtain «knowledge» that will ameliorate the uncertainty and give them some handle on the reality of truth, the specialists are called upon for advice in interpretations of the knowledge, which are in turn based on the causally informed vision of reality and their notions of validity. Its primary concern is the political influence that an epistemic community can have on collective policy making, rather than the correctness of the advice given. While epistemic communities provide consensual knowledge, they do not necessarily generate truth. The epistemological impossibility of confirming access to reality means that the group responsible for articulating the dimensions of reality has great social and political influence (Haas, 1992:23-30).

of management through third-party auditing. And through the adoption of EMS, the system is translated further into economic networks by spreading responsibility for maintaining high environmental standards throughout the organisation and, potentially, to suppliers, vendors, and contractors.

The role of private certification and verification of voluntary tools is argued to be central to the universal credibility and validity of the scheme, and depends on third parties providing environmental expertise (Krut and Gleckman, 1998). So, just as it is privately portrayed as crucial that ISO14001 is being adopted as *de facto* international shorthand, so too are private environmental acreditors becoming *de facto* regulators with implications for the policy of the environment. There is a clear connection between the privatisation of regulation and the discourse in «steering at a distance» occurring through establishing certification and accreditation by a proliferation of international in privatised bodies.

A crucial dimension in effective translation is the extent to which providers of environmental expertise and accreditation can be represented as universally valid, portraying therefore the power of knowledge and expertise across various spatial levels. International consultants are active in all countries, providing ISO14001 certificates, regardless of the activity of the national standard-setting organisation. It is possible that from the perspective of the local firm, the foreign consultant has a greater value because of their international status. The extent to which claims to be 'international recognised' sources of expertise confer influence in themselves is a theme that this research picks up.

Also critical to effective translation is that it belies the sanction for weak adoption. In this process, Bennett (2000) explains how international experts can confer incentives or sanctions on other parties, from the informal making or breaking of mutually beneficial social and economic relationships, to concrete financial penalties formalised in legally binding contracts. Furthermore, the discourses actors produce also help frame how other actors perceive their interest and accordingly behave.

So, to summarise these arguments so far, one can say that globalisation is partly constituted by governing «at a distance», which takes tangible form through the growing influence of private, or partially private, networks of policy practice. Integral to sustaining governing at a distance, and conferring power on particular policy tools, is the capacity of networks, notably epistemic communities, to sustain a standardised

'product', which can thus maintain universal meaning and credibility. As a means of governing at a distance, the management process of ISO14001 has allowed a form of governance which spans national boundaries, and is less framed by state institutional arrangements. In what can be described as an internationalisation of environmental policy, privatisation and non-state involvement with global profile has been central to these transformations.

This plausible thesis leads to a fundamental question in this study. How have these actors claiming international expertise and validity seen their requirements translated into particular settings, by proposing particular management standards?[9] Thus, this thesis considers to what extent a national context has been overwhelmed by the proliferation of private sector bodies that project international power in order to understand how such regulatory changes transform the national field of environmental policy. Because, as previous sections of this chapter have noted, there are tensions to this transnational projection of (largely voluntaristic) regulation.

Bennett (2000) points out that institutions have conflicting interests: increasing profits versus improved ethics; controlling clients versus keeping those clients; entrepreneurialism versus risk minimisation. As private «third parties» are being seen as «stakeholders», in the regulatory process, they are given increasing opportunities to frame the nature of regulation. The participation of third parties in the regulatory design process is an important way of ensuring, first, that regulation is tailored to institutional circumstances and, second, that third parties have a stake in the success of regulation. But this creates the risk that powerful actors and experts with their own agendas can frame problems in ways that suit them, and lobby for a narrow interpretation of ecological modernisation and self-regulation, in which industry would determine not just the means of environmental policy but the ends as well (Bennett 2000, 881).

Instrument design and accommodating geographical and institutional diversity emerge as two problematic issues (Golub 1998). This can manifest itself as considerable disagreement over which «experts» are qualified to perform the tasks of verifying and certifying industrial compliance with eco-audits standards. There is also the widespread belief that the effectiveness of new instruments depends largely on their ability to harness market forces in favour of environmental protection. While

[9] Also, Yearley (1996: ch.4, 3) introduces discourses that transcend the local and the global through their universal applicability.

independent certifiers who maintain an arm's length relationship with industry might have incentives for more rigorous oversight, they could lack the technically specific expertise to perform their task properly.

By contrast, certification by a self-administering industrial body might provide greater technical competence, but runs a high risk of regulatory capture and clientelism. And finally, there is the difficulty of translating the adoption of 'standard' managerial prescriptions into actions within organisations that affect environmental impacts. Although certification implies that companies go beyond legal requirements to achieve continuous environmental improvements, in many occasions there is no way of externally verifying that such improvements actually occur. The ISO14001 guidelines simply assume that good environmental management systems will, if they are implemented effectively, reduce or eliminate negative environmental impacts (Rondinelli and Vastag, 2000) and ignore limits to how far the network of compliance can extend. These risks may be especially great in particular national settings where institutional capacity of regulatory arrangements and government mechanisms are still at an early stage of operation.

2.6 Conclusions

Today environmental management systems can be seen as part of a set of broader trends that are fundamentally changing the way business and certain policy areas are regulated. In the last decade, globalisation and industrialisation, accompanied by the depletion of natural resources, have created efforts at the national, EU and the international level to standardise environmental management by setting out the various elements, which such a system should contain. A fundamental argument for standards of environmental management is that it is considered to improve environmental performance and efficiency, the competitiveness of the industries and environmental regulatory standards of supporting countries.

The international business community has been at the forefront of the development of the ISO14001 series standards; this enters into a field of significant public interest: the environmental performance of companies. ISO14001 has gained worldwide acceptance by promising to ensure pollution reduction through standardised implementation. Also, it has been seen as a competitive issue in all sectors of the economy requiring the minimisation of environmental degradation through gaining public acceptability and credibility. It is a new management practice presented as a

universal solution to solve competition problems and because of its generic nature, is available to all rivals.

It becomes clear that ISO14001 is characteristic of a new type of environmental governance that is more reliant on both supranational rule making and private authority in implementation. Kollman and Prakash (2001) suggest that policy makers can more easily manipulate supranational policy regimes that are procedural in nature to fit a country's institutional framework than have policy regimes that set substantive goals. The emerging issues, therefore, are twofold:

- Firstly, Kollman and Prakash (2001) consider environmental management systems, regimes that represent a new form of governance in which actual governments play a more limited role in the establishment, monitoring and enforcement of regulatory regimes. Thus, the implementation of international agreements becomes a more fluid and variable process than the implementation of domestic law, and it often incorporates a wider array of actors. The increase in the number of supranational environmental regimes in particular, has led to an extremely fragmented and decentralised form of governance with the result that states have had to adjust their national regulatory styles.

- Secondly, these regimes have different characteristics and these characteristics matter. How they matter depends on the domestic institutional imperatives for implementing the regime. Thus, the importance of domestic institutional structures in shaping actors' incentives both governmental and non-governmental in responding to supranational regimes is highlighted.

So far, it is widely believed that the shift of regulatory measures from the state to the private sector should facilitate an improvement on environmental protection. It is an illustrative case of a growing trend toward creating beyond-compliance supranational policy regimes. It also pictures a "private-sector" international environmental management and there are claims that make uneven conditions of implementation in countries less developed institutionally. That is why this study draws from these implications to explain how environmental management is shaped in a national context.

To investigate a scheme like ISO14001 and its impact at a national context, a theoretical integration of perspectives and ideas from various theoretical strands has

been required. It is crucial to explore the role of environmental management standards in the global and European terrain through the impact of the regulatory process in which actors operate in specific spatial level.

Overall, certain features of the development of ISO14001 stand out:
One feature is the seemingly irreversible commitment to the private sector as an efficient, resourceful, and effective means of providing social services (given that the protection of the environment is a «social good», as will be discussed further in the analysis). The sphere of private authority is becoming of importance as being active in the process of globalisation and intergovernmental organisations, which are established to process the implementation of global regulation. It is shown that attempts to define the changing role of regulation are mainly occupied with the possible surrender of authority to the market or to supranational organisations.
While there are obviously benefits available from the use of these practices; as discussed above, particularly to improve performance and efficiency, the involved private interests and expertise in these practices would suggest that it is difficult to always achieve the promised performance by these practices. Globalisation processes, as argued earlier, impact upon national frameworks through the establishment of universal agendas.

The increasing influence of non-state actors and private consultancies and accreditation bodies has been an important feature in the development of environmental policy that is a reflection of the privatisation of modern social life in general. Crucial, therefore, in these concepts is to reflect on new forms of governance, which focus on universal authority through non-state actors and voluntary practices. It is important therefore, in explaining the role and impact of the ISO14001 scheme in an environmental policy context, to elucidate what ways it relies on private bodies for adoption, implementation and accreditation. It is crucial to address the extent to which a scheme of universal validity is being transferred and translated in a particular organisational and national setting.

ISO14001 is seen as a form of environmental governance that assumes the uniform solution of problems through the complementarity of public and private sectors. This idea of complementarity has been translated into the environmental sphere through principal theories of ecological modernisation and sustainable development, as has been argued above, through the introduction of such processes (i.e. that minimise resource use, reduce waste and prevent pollution). Such processes are to provide

benefits to both the environment and the market as trends of globalisation indicate. Yet, literature indicates that in order to accomplish such policy conditions, a path of proper institutional arrangements must be developed by the governments, and a legal framework must be established.

The second feature is that such forms of self-regulation rest on a belief that assumes the solution of problems through the compatibility and universality of available management techniques and the homogenisation of regulatory style. A number of commentators criticise the ISO management standards as leaving no room for epistemological, geographical or cultural considerations and not complying with general currents that are pertinent in the changing business world. They are also criticised for not setting maximum waste thresholds or specific targets; instead, they focus on the systematic, standardised implementation and monitoring of policies, objectives and procedures. ISO14001 is seen among the management approaches and systems proposing ready-to-implement ideas, technocratic management and formal application of rigid management patterns. As a result, there are claims that ISO14001 with its equal and global application dismisses any heed to corporate culture, specific characteristics of the complex dimension of an organisation questions of power or individual knowledge, i.e. the complex, human dimension of any organisation.

There are analogous implications regarding failure of transformation and hollow adoption (this is an issue discussed in greater detail in the next chapter) for the role of sustainable development in national frameworks. So far the literature has shown that, firstly, the path of sustainable development is far removed from the actions of schemes run by market initiatives. In relation to the business «environmental concerns» it is crucial to highlight the extent to which companies in different sectors of industry and commerce have adopted environmental management principles.

In the next chapter, it will be shown that a number of scholars indicate the significant variations resulting from social and economic polarisation, unbalanced growth and institutional deficiencies. There is a multiplicity of green political responses to the myriad of environmental problems around the globe. According to Doyle and McEachern (2001), global solutions cannot simply emerge from the administrative documents generated by international diplomatic environmental forums. Green political solutions are partly to be found in the experiences of different political cultures.

A final feature of the analysis above highlights also a critical methodological point crucial for this study. Kollman and Prakash (2001:427-428) argue that work devoted to tracing the effects that these regimes have on domestic governments and actors is limited. Given the fact that these domestic actors implement almost all environmental regimes, the ultimate effects of these new forms of governance can be ascertained only through such implementation studies. Because of their supranational and beyond-compliance nature, EMS standards are representative of what is often purported to be the future of environmental governance.

Kollman and Prakash (2001:402) argue that very little empirical work, especially in the environmental field, has explored the interactions of supranational regimes and domestic institutional structures. Therefore, the implementation of these regimes by national governments and their effects on private actors remain under-researched. Each country's institutions have quirks that can have profound effects on the way supranational regimes function within their borders. As such, progress in understanding domestic/international linkage, can only be made through qualitative case studies that employ thick description.

This thesis wishes to contribute in providing an understanding of the increasing strength of market forces, political concepts and new styles of governance. Of paramount importance here is that a key role is attributed to the numerous actors that can make their own independent contributions where interstate co-operation is already functioning and in areas where conflicts have created this new form of governance.

Chapter 3 Understanding Voluntary Regulation

3.1 Introduction

The previous chapter located the development and diffusion of environmental management systems – particularly ISO14001- within broader trends in environmental governance. Instruments like ISO14001 can thus be understood in terms of pressures on business and government to address environmental crises, but also in terms of shifting approaches to governance shifts that span sectors and nation states. The involvement of non-state actors and the reform of the community institutions and rule making, along with new ways of regulating the environment, has become all the more obvious in environmental governance, and one particular outcome is the turn towards voluntaristic forms of regulation instead of – or in conjunction with – more traditional regulatory approaches. Thus, for example, the international business community has been at the forefront of the development of the ISO14000 series of standards.

However, the spread and impact of such governance approaches were shown to confront a tension between standardisation and flexibility. The broad, flexible requirements of ISO14001 are integral to its appeal, facilitating adoption in a range of business settings. Yet this raises questions about the motivations and impact of such initiatives on company behaviour, and the extent of the environmental improvement achieved, within a range of adoption contexts. At the same time, a modicum of standardisation or universality is required for such standards to have clear meaning, confer credibility, and instil managerial change. As discussed above, accreditation bodies and private consultancies are essential in mediating this delicate balance, and thus in translating EMS concepts from one setting to another.

Thus, common standards are seen to facilitate market purposes, and to entail diverse consequences at local and operational levels. Negotiating these 'local' contexts implies a number of complications in the adoption and implementation of instruments like ISO14001. To more fully understand the contested relationships between the environmental, policy and market rationales for EMS, there is a need to disaggregate

the global message and investigate domestic contradictions and tensions. After all, promulgating ISO14001 involves forces and pressures at the global and national, domestic levels which are not always compatible, reflecting dynamic relationships between perceptions and cultures, and making the actual impacts rather ambiguous. It is in particular contexts that business, its stakeholders and government, along with the particular socio-political and environmental conditions can significantly affect the meaning and context given to such initiatives.

This chapter seeks to understand the divergent patterns in the implementation of EMS and similar voluntary forms of environmental regulation. It begins by presenting 'policy styles' and 'institutional capacities' as useful conceptual frameworks for understanding differentiated policy design and implementation. Following from this, it highlights some of the potential complications that implementation of global schemes for environmental management must confront in a national context.

A particular axis of differentiation considered is the degree of receptiveness shown by southern EU countries to European and international environmental regulation. This regional focus comprises a range of features that are likely to be influential in policy design and implementation, including environmental institutional capacity in governments and corporations, external pressure for environmental protection, and features of regulatory style and culture that shape processes of policy implementation or push them towards particular priorities. Such contexts challenge generalised assertions that new systems of self-regulation, driven by economic globalisation and sustainability discourses, inherently benefit environmental policy, but they also raise questions about the ability of the local institutional and political context itself to adopt policy innovations. As the account sets out, the interaction of local particularities and actors along with the public-private sphere raises a critical aspect of implementation in this regional setting.

3.2 Understanding Differentiated Implementation

National contexts are increasingly influenced by global environmental protection trends for standardisation. But, there are a number of important features within which forms of environmental regulation, such as self-regulation, are developed and applied. In the context of globalisation processes, therefore, the state's ability to legitimise its own policies is to a large extent influenced not only by the economic pressures, but also by the political conditions. The latter are reflected here through the emergence of a new regulatory regime that implies a shift in the traditional state-based frameworks that may be used by a country to legitimate its policy-making. This study shows that the differences can be revealed in the priority given to economic development, in institutional capacity and in policy styles, in so far as they reflect on how certain political systems operate.

A key theme, therefore, permeating this study is the extent to which countries vary in their institutional capacities, the extent to which they are capable of renegotiating policy traditions, and in the kind of relationship government actors are expected to establish with potential polluters and private interests. A number of scholars point to a range of tensions between differentiated outcomes, which have been identified in countries at different stages of economic development, compounded with an immense range of values and different cultural traditions. As policy styles become increasingly global, governments in many countries are pressed to improve their environmental standards. Yet, there are differences at various stages and levels of development, which have profound implications for environmental policy. Differences in environmental policies at the national level are the result of differences in resource endowment and economic activity. Differences also exist in the priorities given to allocation of resources for environmental protection, and in national values.

So, set against the broad literature (presented in Chapter 2) therefore, there is indication that there are no strong patterns of policy convergence among the member states, given that environmental issues are deeply embedded in the nation's cultural, economic and social systems. There is an immense range of values, which are not absolute between countries at different stages of development or from different cultural traditions (Cairncross, 1995). Where environmental policies diverge, they may eventually reflect large differences in environmental values, but also differences in the style and capacity of governments.

These differences have not been swept away by the global endorsement given to agendas of 'sustainable development'. Certainly, it is now argued widely that sustainable development has systemic implications for the operation of environmental policy, and its consequences are administrative, political and economic but also social and cultural. It is the institutional structures and relationships between people that determine whether or not the exploitation of natural resources is sustainable or damaging in the long term. Also, it is argued that there is no single blueprint of sustainable development, given that economic and social systems and ecological conditions differ widely among countries. The implications, therefore, in the operation of environmental policies are systemic and its consequences are diverse (see, for example, Baker et al, 1997; Pridham and Kostadakopoulos, 1997).

Even within this discourse, then, a nation state's responses to European or global environmental measures are differentiated, not least because individual states interpret environmental sustainability very differently. This applies to the extent of systemic thinking and interdisciplinary approaches, and to a whole raft of social, cultural, political, economic and administrative issues. The differences in priorities and the environmental standards that accompany them create many tensions (Cairncross, 1995). This is one of a number of issues that resist the themes of institutional convergence discussed in Chapter 2.

This chapter reviews how the evolving environmental policy agenda develops a new policy rationality that is shaped by context-based and nationally specific factors. Policy formulation studies have tended mainly to give prior attention to domestic factors, and to explain divergent outcomes as deficit problems. Whether at the European, or the local level, the institutionalisation and implementation of policy involves numerous actors and there are specific preconditions for successful implementation. Policy adoption indicates a complex interplay between different actors influencing the spread of international policies at the national level.

To understand the evolution and implementation of environmental policy in a national domain, this study utilises theories of changing policy styles and institutional capacity. In particular, attention here has been directed to policy style, institutional capacity, political traditions and regulatory culture. Richardson (1982) and Jänicke (1997) propose such theories-concepts as heuristic tools for policy analysis. Through these conceptual tools, it ought to be possible to explain the uneven accommodation

of new policy norms, and to see how far this impacts on policy innovations, like ISO14001.

3.2.1 Regulatory policy style

For the most part, across the member states of the EU, environmental legislation has a relatively long history, and a rich variety of policy principles and policy styles have been identified that reflect general national approaches to policy making. Yet, as has been examined in this thesis, there is an alleged shift in dominant environmental policy styles within (and beyond) the EU from a traditional style involving instruments of legal regulation towards a new style based more on new kinds of policy instruments. They are more market-based, more reliant on co-operative decision-making, and allow states greater latitude in the implementation process. Environmental management systems (EMS) including ISO14001 and the EU variant EMAS – form part of this trend.

A variety of different political behaviours (what is called policy styles) exists in society and can be explained by reference to the types of issue at stake (Richardson, 1982). Policy styles involve operating procedures within a system of actors (groups and government departments) along with a number of features that may dominate a particular national context.

The focus of the research is on this ambivalent fit between traditional national regulatory contexts and the requirements of political and environmental modernity, as embedded in environmental management standards. But, the pursuit of international policy tools that combine voluntarism with accredited standards runs up against national policy contexts in which cultural and political factors can demarcate perceptions. The ideas of «policy styles», therefore, are considered crucial as there is a close connection with political and regulatory culture – a key factor underpinning differentiated policy responses and approaches at the local level (Borzel, 2000; La Spina and Sciortino, 1993). With regulatory culture, for example, characteristic national practices are linked to particular clientele and different actors considered to influence decisions and outcomes. It is a crucial feature of the conceptual framework of "policy styles" linking both policy priorities and the cultural shift in policy style, influencing policy style in national contexts. Consequently, policy styles are useful in explaining differentiated outcomes, as it is shown here that there is a range of complexity of existing issues among member states.

In Richardson et al.'s classic account, then, distinct national policy styles are defined as dependent variables, which are characteristics of each country reflects underlying institutional arrangements and other influences. Policy styles according to Richardson *et al.* (1982), are seen as different systems of decision-making, different procedures for making societal decisions in terms of policy making and implementation style. A policy style refers to the standard operating procedures that a nation adopts for the making and implementing of policy and to different systems of decision making that reflect deep-rooted societal values. Most societies develop legitimising norms for policy activity. However, that does not imply that the match between normative values relating to the policy process and actual behaviour is always close.

Richardson et al. (1982) concentrate on two primary features of policy-making systems in devising a typology of policy styles. From their analysis, many descriptions of individual policy systems are more or less related to the two, interconnected factors set out in Table 2:

1. A type of government's approach to problem solving is often characterised as a propensity towards incrementalism or rationalism.

Table 2 **Government approaches to problem solving**
Incrementalist: associated with conflict over values, analysis at the margins, mutual adjustment, a premium placed on consultation and agreement, successive limited comparisons, low coercion, managerial change and so on.
Rationalist: associated with central authority, high coercion ability, limited conflict over values, wide search for options, clear objectives, a possibility of radical change and so on.

Source (adapted): Richardson, J. (1982) *Policy styles in Western Europe*. London: G. Allen & Unwin

2. The relationship between government and other actors in the policy-making and implementing process, in terms of how governments deal with interest groups in society[10].

[10] Reach consensus or imposing decisions.

Adopting this framework does not imply an idiographic conception of political development across states. A number of commentators (Jänicke and Weidner, 1997; Rittberger and Richardson, 2003; see also chapter 2) have observed a global environmental convergence of patterns of environmental policy, even under extremely varying domestic conditions. In nearly all countries the policy style is changing and moving towards softer approaches and negotiated regulation that are gaining more and more importance for example, the change from command and control to more preventive approaches to sustainability. It is also argued that policy styles may converge, as nations have to deal with a proliferation of interest groups seeking to influence policy and unconventional forms of participation.

Richardson (1982) acknowledges that there are common trends in policy style regarding:

a. The sectorisation and segmentation of the policy process. The segmented state has become a primary feature of the political landscape. Policies often emerge from specialised policy communities, which can be rather closed, secretive informal structures.
b. Participation rights have been extended to a much wider range of governmental and non-governmental policy processes as a result of the environmental movement. Thus a marked feature of the European democracies has been their willingness to accommodate new interests in each policy sector[11].

Table 3 **Common trends in policy style**
Sectorisation commonly causes a disintegration of the centre. A government is several organisations and the more clients a ministry has to represent within the central machine the more it is under pressure to fight its corner against all the sectoral interests. The system of departmental pluralism within government brings with it serious problems of co-ordination.
The increased participation by groups, which has been identified, can cause a degree of «immobilisme». The greater the number of participants involved in any one policy decision, the less

[11] Richardson (1982) indicates that public policies can be divided into three main types: distributive, regulatory and redistributive; kind of politics associated with these policies differ along lines determined by the basic policy type. Also, the intensification of sectorisation together with the need to accommodate more groups into the many stages of the policy process has at least two important consequences for the policy process, which make policy making and implementation more difficult.

likely it is that agreement will be achieved. Whatever the actual incidence of unconventional participation the pressure to accommodate more and more groups into policy-making and implementing processes outweighs the disadvantages of overcrowded policy communities.

Source (adapted): Richardson, J. (1982) Policy Styles in Western Europe. London: G. Allen & Unwin

Yet even acknowledging these common pressures, one cannot automatically conclude that policy styles are becoming stable and convergent. Different nation states operate with distinctive departmental structures that are, in turn, bound up with distinctive networks of interest participation. And there are also variations in the broad approaches with which societies accommodate interest group pressures. Some societies can be categorised as emphasising consensus and a reactive attitude to problem solving. Others can be categorised as embodying a set of normative values that emphasise anticipatory or active approaches to problem solving. Others are seemingly less concerned with consensus, but see the role of the state as being rather active and willing to impose policy change in the face of opposition from organised interests. Thus, a fourth category developed by Richardson (1982) into which post-industrial societies are moving, is where governments are increasingly reactive rather than anticipatory in their approach to problem-solving, yet if any policy change is to be achieved it has to be enforced against the resistance of at least some organised groups.

Elements of Richardson's analysis are shared by other commentators, though not necessarily in reducing varying policy styles to *national* administrative/cultural 'containers'. As Flynn and Marsden (1995) indicate, national styles of regulation are likely to exist, and perhaps even subnational styles, but there may also be specific sectoral styles of regulation, i.e. practices that owe something to the national style but also have their own specificity. Moreover, Flynn and Marsden (1995) argue that it is the actors who are involved in the policy process who provide links between different spatial scales – within, across and beyond the state – as it is they who give meaning and form to regulatory processes. According to Flynn and Marsden (1995), global processes are translated by actors into local situations, and the translation of those processes varies spatially. The organising logic, or core values, of the state, the links between public and private sectors in regulatory practice, and styles of

regulation are thus all key points in the formation of policy styles[12]. In developing this thesis, they explicitly embrace the wider governance trends discussed above, in which a dominant regulatory style based upon notions of the public interest is joined by an emergent private interest style of regulation. In the second style, private interests are to the fore in both defining the public interest, or more accurately, in regulating it.

This approach to understanding policy and regulation requires a much broader understanding of the basis and conveyors of policy styles. Firstly, there is a need to accommodate the fact that private interests are beginning to take an increasingly important role in regulatory practice; they provide additional conduits for the 'internationalisation' of policy approaches, or the transposition of the styles of other national settings (from the host country of the companies concerned) into domestic practice. Secondly, there is a need to extend our understanding of regulation to embrace both the formalised enactment of legislation together with regulation established through sets of social practices, backed up by political and or economic power. At either level, the functions of the state are contested and may dissolve and be absorbed by private interests, or be reinforced as wider societal characteristics impinge on 'alien' private sector regulatory approaches.

It is clear that pressures exist for changes to national policy approaches, as discussed in the previous chapter, and one can certainly identify areas of apparent convergence. Rittberger and Richardson (2003) highlight developing trends in the environmental sector away from command-and-control regulation, across sectors and levels of government, towards the idea of shared responsibility along with the involvement of relevant actors at different levels of responsibility. Coupled with this is a general call for more self-regulation and the extension of the range of environmental policy instruments, resulting in a certain kind of new rhetoric and discourse.

But if powerful preferences for this shift in policy style towards a more mixed approach is clear at the level of policy rhetoric, evidence for substantive changes

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[12] Some matter-networks are transnational for example, ISO-accreditation, consultants, TNCs, supply chains, etc.

within national/sectoral policy styles are harder to find. In the group of forerunners for example, the Netherlands there is openness and orientation towards foreign developments. In other countries, there is a tendency for national environmental policy institutions to use the international stage in order to influence domestic policy to overcome internal resistance to change. The result is that there is more than one policy style in any one country, as well as differentiated regulatory styles across the EU, and the deployment of these new environmental instruments varies widely across states (Richardson et al. 1982; Rittberger and Richardson 2003).

So, while the concept of policy style may get us so far by helping to identify the preferred policy processes for each country - what might be termed a procedural ambition on the part of policy makers - it may also be the case that the policy issue itself may be a determinant of the way in which a problem is processed[13]. But rarely is there a single set of consistent preferences, and the actor constellation in the environmental sector is complex. Nor can policy styles easily be detached from material problems, which are also likely to influence preferences for particular types of policy instruments in particular settings. Political salience and perception of risk can play a role in shaping the choice of tools and instruments, irrespective of preferences. It is questionable whether a relatively uniform pattern of environmental policy would (or should) provide adequate solutions for so many different countries, hence the strategies introduced are strongly influenced by particular interests and state-based features.

Couching policy styles in terms of preferences, however, omits differentials in the ability of states to extend and improve their environmental policy repertoire. Consequently processes aimed at, or tending towards, convergence have varying impacts between countries, and convergence is far from assured (Weale et al. 2000), not least because the capacities and outcomes of environmental policy differ significantly across space. Thus, Jänicke (1997) and Weidner (2002) suggest that perceived environmental problems lead actors to develop and implement strategies under particular conditions and contexts. Expectations of convergence toward international environmental policies are reasonable capacities for environmental policy and management are developed – that is the subject of the next sub-section.

[13] Jordan and Richardson (1982), for example, have described five overlapping features of importance for the British style of regulation: sectorisation, clientelism, consultation, institutionalisation of compromise and the development of exchange relationships.

3.2.2 Institutional capacity

At the international level, transnational networks of policy learning point to a remarkable increase in capacities for environmental policy. Nevertheless, they may still be important to variable forms of 'institutional capacity' of environmental management as an important dependent feature within a national context. Jänicke (1997) argues that institutional capacity is associated with greater environmental awareness and thus enlargement of domestic capacities. Also, Weidner (2002) indicates that the development of environmental capacity relates to the abilities of a society to identify environmental problems and solve them. 'Capacity building' in this context relates to the process by which those abilities are developed, i.e. the *institutionalisation* of a higher capacity to identify and solve problems. This is usually promoted by crises and made possible by already existing capacities and former policy experiences (Jänicke, 1997).

This broad definition of 'capacity' encompasses a wide variety of material and nonmaterial elements for example, visions and values, policies, strategies, and instruments; organisations, political, economic, social and ecological structures; situations and information; and actors' resources, will and skills. Institutionalisation includes the internalisation of new routines of cognition and policy action. Capacity, therefore, defines the necessary structural conditions for successful environmental policy as well as the upper limit beyond which policy failures set in, even in cases of skilful, highly motivated and situatively well-placed proponents.

The concept of institutional capacity, according to Jänicke (1997), is useful for understanding such conditions:

a. The first relevant function of the concept is to stress the importance of objective limitations on successful intervention. It is not only the kind of action, but also its structural characteristics, which matter.
b. Political development or modernisation can be described as a process of capacity building since the concept is closely related to the concept of development. Political development or modernisation might be defined in general as institutionalisation and internalisation of new stages of problem-solving capacities in reaction to, or anticipation of, societal challenges or crises.
c. It provides a tool for comparison between the different abilities of different countries as well as the degrees of development of these abilities within a country.

Jänicke (1997:2) argues that the extent to which capacities for environmental policy and management are developed and increased, is crucial to understanding the different abilities of different countries to steer towards greater sustainability. Environmental institutional capacity[14] helps our understanding of the limitations (discussed below) facing the adoption of environmental policy tools. A key feature of the concept is that a country's capacity for environmental protection depends on societal forces of all kinds; thus in the field of ecological modernisation and sustainable development, it gives rise to the question of how capacities for environmental policy and management might be developed and increased. Such innovation is particularly important for an ecological modernisation strategy.

Table 4 **Determinant of environmental capacity as a multifactorial process:**
a. Usually conflicting organised actor groups, their resources, their ability to form alliances and their ability to co-operate in identifying and seizing situational opportunities.
b. Cultural, political and economic conditions; the environmental situation and public awareness and the nature of the problem to be resolved; how easy it is to solve which usually depends on the kind of interests and the clout of the polluters involved, the systemic nature of the problem, whether it is conventional or latent, creeping and so on.

Source (adapted): Weidner, H. (2002) capacity building for ecological modernisation: Lessons from cross-national research. American Behavioral Scientist, Vol.45, no.9, May 2002 pp.1340-1368

Capacity building, therefore, is a crucial dynamic for policy development. Thus, it is crucial to consider here that the limits to "environmental capacity" is an important dimension as an analytical concept where it points to a number of constraints on, and necessary preconditions for, building capacities (Jänicke, 1997:1):

"Well-known examples of limitations to environmental capacity is the lack of ecological, technological or administrative knowledge, lack of material or legal resources, the weakness of environmental organisations or institutions in relation to vested interests".

Because, Weidner (2002) reasons, environmental institutional capacity goes beyond conventional, technocratic environmental policy approaches, it focuses on inter-policy integration, collaborative goal setting and problem solving, and combines

[14] Capacity building in the environmental policy field started in 1970.

environmental measures/objectives with new public management approaches. It also takes account of the limits to traditional forms of governmental control. In a potentially interesting link with policy styles, Weidner argues that countries with politico-cultural structures and capacities that favour consensus, co-operation and integration are naturally at an advantage.

Jänicke (1997) and Weidner (2002) identify five particular factors that collectively constitute a country's capacity for environmental protection and that, in turn, provide a viable framework for empirical investigation.

a. The character of the various actors that influence the policy process

Actors are representatives of organisations and coalitions. Their salience for institutional capacity is that important types of ecological innovation can be influenced not only by particular events but also by the framework conditions in which actors operate, such as high general environmental awareness or an institutional framework that integrates ecological interests. Policy has generally been underpinned by the development of a global environmental public encompassing a broader spectrum of actor groups than merely those belonging to the so-called epistemic community. For example, the development of a green business sector starting with the eco-industry providing "green" products and services, but also consultancy firms, insurance companies and ecological pioneer enterprises with their own green organisations -can also be described as part of the process of capacity building. Such framework conditions, which create opportunities for proponents of environmental interest, might also explain polluters' attitude towards innovative solutions (Jänicke, 1997; Jänicke and Weidner, 1997).

Turning to integration, Knill and Lehmkuhl (2002) contend that the basic factor affecting the governance capacity of states is the structural potential for regulatory adjustments that aim at coping with new problem constellations. The potential for regulatory adjustment depends on the particular institutional arrangements characterising a country's legal, administrative and political systems. Although the level of reform capacity does not make it possible to predict the timing or the concrete content and direction of regulatory reforms, it indicates the structural potential of national governments to maintain their governance capacity by adjusting regulatory arrangements in light of the challenges emerging from, say, economic internationalisation, or environmental challenges.

b. The strategies that actors adopt, which are the purposeful use of instruments, capacities and situative opportunities to achieve long-term goals

They depend on capacities such as available knowledge or the possibility of strategic and co-ordinated action.

c. The structural conditions within which actors operate

Jänicke (1997) and Weidner (2002) suggest that although actors are able to exert some degree of influence, as individuals or as coalitions of interests, they are also constrained by the structural conditions within which they operate. In this respect they distinguish between three sets of structural framework conditions[15].

The first, a 'cognitive informational framework', relates to the conditions under which knowledge is produced, distributed, interpreted and applied. Regarding capacity building the most important task would not be to change the cultural traditions – the key element of policy styles -but rather to improve informational and communicative capacities. The openness of scientific community to new problems and paradigms as well as the openness of the media to new issues are important factors here.

The second, a 'political-institutional framework', refers to the constitutional, institutional and legal structures, rules and norms that make up the framework for interaction between actors. The political institutional framework may be structures as participative, integrative and for strategic action. Here we can see further connections with types of policy style. Participativeness refers to the openness of the input structures of the policy process, and is an important aspect of the opportunity structure of environmental interests. The openness of the legal system to protective interests is also important here. Integrative participation and decentralisation require a high level of capacity integration. In studies of voluntary co-operation, 'consensual capacity' is generally stressed as an institutional condition for success in environmental policy.[16]

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[15] A typology is preferred: cognitive-informational framework conditions, political-institutional framework conditions, and economic-technological framework conditions.

[16] Integrative capacities are important at different levels. Firstly, intra-policy co-operation is the internal integration of the policy field. This includes the co-ordination of environmental policy at different levels of the political system. The second field of integration is inter-policy integration and inter-policy co-ordination, the cross sectoral integration of conflicting policies. Also, the external integration of environmental policy institutions and non-governmental actors including target groups is needed.

The third, an 'economic-technological framework condition', includes factors such as the performance, sectoral composition and technological standard of the economy. Economic performance is a difficult aspect of environmental capacity, and bears directly on the particular conceptions of sustainable development that states might be prepared to adopt. This is because it has not only a strong but a contradictory impact on the environment, influencing both the structure of problems and the capacity to solve them. While initiatives for capacity building may be prerequisites for environmental policy reform in the medium to long term, in the short to medium term these capacities commonly remain underdeveloped, in the face of inauspicious economic-technological frameworks.

Other factors, which collectively constitute a country's capacity for environmental protection, are (Jänicke, 1997; Weidner, 2002):

d. The situative contexts within which actors find themselves at a particular time and the character of the problem that they are seeking to address

An important situative change is the discovery of win-win constellations where not only environmental but also economic interests are supported by the environmental protection measure. Win-win solutions may not be easy to devise for every policy problem, nor in every sector.

e. The structure of problems as well as the capacity to respond to them is strongly influenced by economic performance

The main insight of this component is to make clear that successful environmental protection is brought about by a complex interaction of influences. This has to be related to the nature of the problem: its urgency, its complexity, and the power resources and options to target groups, their allies and supporters.

Also a necessary capacity, albeit not sufficient, condition for effective regulation is the capability of governments to take a regulatory decision (or to enact a legislative mandate) (Knill and Lenschow 2003). This capacity can hardly be taken for granted, but varies across different political systems, depending on the specific institutional rules characterising the decision-making process. The level of obligation is not the only factor affecting the implementation of regulatory approaches. Of similar importance are "pull-factors", i.e. aspects that influence the willingness of implementing bodies and policy addressees to comply with European requirements.

So, in seeking to understand whether a new suite of environmental policy instruments are likely to promote sustainable development, Jänicke (1997) argues that both the structural framework conditions and the situative context in which instruments are applied cannot be ignored. Indeed, the mode of application may be as important as the instrument itself. But it also shows that instruments can have wider, less directly instrumental impacts on institutional capacity. Environmental policy instruments of whatever kind often have a general informational function that may be more influential than the specific nature of the instrument concerned, telling the polluter that there is a universally perceived problem and galvanising the will to take action against it. This indicates one way in which ISO14001 is perceived always as its role being as universal scheme despite lacking obvious regulatory sanctions. Particular coalitions of proponents and opponents are likely to emerge around this specific issue. The capacity for action of a particular coalition depends not only on the structural conditions that characterise the policy process but also on the strength, competence and constellation of the actors that seek to influence policy.

The "external" integration of new societal actors is another crucial task for capacity building. Jänicke and Weidner (1997) indicate that restrictions in a country's capacity to identify and solve environmental problems depends not only on the abilities of government and private proponents acting within a national context, which provides systemic opportunities and restrictions. Additionally, the internal integration of relevant government environmental activities is crucial. And at the same time, successful environmental policy and management depends more and more upon the participation of a broad spectrum of actors and the voluntary co-operation of polluters (target groups) that form new styles of regulation.

Concerning the strategies that various actors and coalitions adopt, Jänicke (1997) suggests that their ability to achieve long term goals depends not only on the structural conditions and the situative opportunities that they encounter but also on their ability to build their own capacity for strategic action.

The building of institutions, therefore, is a basic precondition for effective public policy, and instrument choice, where design and dissemination is one constitutive element of this process. Also, the building of institutions institutionalises vested interests in the politico-administrative system, as well as responsibilities and accountability and increases the opportunity for civil society players to exert

influence. The actual contribution of this institutionalisation to environmental capacity depends on additional factors such as resource competencies, types of embeddedness, and so on. The global process of capacity building in environmental protection is heavily dependent on national innovators. In some cases, retrograde developments in domestic environmental policy may be explained as under-utilisation of existing institutional, economic or informational capacities by political and societal actors who are lacking the adequate "will and skill" (Jänicke and Weidner, 1997; Weidner, 2002).

The underlying steering mechanisms by which regulatory objectives are achieved and seem to facilitate certain practices that challenge the regulatory context of environment also require consideration in this framework[17]. When the implementation of a programme falls short, it is political steering that is deemed to have failed (Heinelt et al., 2001 and authors cited in). Knill and Lenschow (2003) indicate that steering mechanisms that are responsive to the motivations and interests of implementers and the regulated actors assist in ensuring that the regulation in question is implemented effectively. At first sight, private self-regulation seems to rely positively on pull factors as the incentive to escape top-down regulations, inducing private regulators to formulate and comply with their own rules. However, this incentive depends on the presence of a coercive threat. If the shadow of the hierarchy is perceived to be weak, industry may respond to the opposite incentive to cheat. Private actors might implement regulatory rules in a rather light-handed way as the threat of enforcement in the case of self-regulatory failure is in terms of capacity.

Connecting environmental capacity with political steering is useful, because it highlights potential tensions between abstract capacity-building strategies, and the possibility of tensions and dilemmas between competing objectives. Successful political steering implies that the problem of knowledge has been solved (but also the problem of implementation in a narrow sense and the problem of motives). Low learning potential may fail to accumulate capacities for solving environmental problems, and even high capacities can decline. Furthermore, as the problem of knowledge is concerned primarily with building and expanding capacities for environmental protection, the focus is on environmental proponents, whereas target

[17] Ranging from the inadequacy of legal instruments, lack of knowledge and resources on the part of environmental administrations, to the resources of those potentially affected by a programme that enables them to some extent to avoid being steered.

groups are in principle seen as restrictive factors - without excluding possible changes for the better (Weidner, 2002).

To summarise this discussion, since capacity analysis deals with the structural preconditions for solutions to specific problems, the main function of the concept is to change the focus of environmental policy analysis. It is clear that the presence of capacity for environmental protection within any society does not depend upon a single isolated factor but on a wide range of factors, which interact within a dynamic setting. On the one hand, capacity relates to concrete problems where operationalisation may be possible. On the other hand, it is used for a broader field, or the sum of its concrete tasks. There is evidence, therefore, that the capacities for and outcomes of environmental policy differ significantly.

The diversity of environmental problems, the divergence of economic conditions in the different states, and the frequent conflicts between economic and environmental policy objectives all lead to incoherence and lack of integration in policy outputs (Butt Philip, 1998), which, therefore, link to the limiting aspects of institutional capacity. In countries with developing capacities, the building of institutions depends mainly on material and human resources, scientific, technological and administrative knowledge, open political access and policy integration public awareness and the strength or competence of environmental organisations. These limitations to environmental capacity suggest that the adoption and implementation of ISO14001 will be influenced by these capacity factors.

3.2.3 Mediating role of transnational bodies: the role of EU

Clearly, it is difficult to understand the factors shaping national approaches to environmental problems without considering the dynamic interactions with transnational bodies. In Europe, the European Union has been a very powerful player for introducing institutional and administrative reforms to member states, to mediate the impact of global economic changes and construct common markets, and to address the inadequate and uneven achievement of environmental goals. These pressures along with trends of Europeanisation (aspects of this phenomenon are discussed in following section) started to insinuate their own dynamics into the development of environmental policy within its member states and, in some cases, beyond them.

Since the mid-1980s, a number of factors have pushed the implementation of environmental policy up the political agenda in Europe (Jordan, 2002):

a. The internal market programme: awareness grew, particularly within industry circles, of the need for comparable regulatory effort across the Common Market in order to promote free and fair competition.
b. The growth of the environmental *acquis*: a body of binding legislation is a vital prerequisite for an implementation problem. By the mid-1980s, the EU had adopted over 200 environmental statutes.
c. Greater unity of purpose: an increasingly common environmental agenda among member states, covering cross-border issues. Only when this was established could actors supporting the illusion of high environmental standards in legislation turn their attention to the achievement of policy outcomes.
d. Rulings by the European court: the court sought to emphasise the supremacy and direct effect of EU legislation
e. Institutional crises: environmental problems of major extent and importance.
f. Pressure from EU institutions. Members of the European Parliament were instrumental in forcing the Commission to develop an improved surveillance apparatus and to publish annual reports on implementation starting in 1983.
g. Growing public concern: a great number of official complaints
h. Environmental campaigning: as well as submitting complaints, national environmental pressure groups began to publicise suspected breaches and to call governments to account.
i. Passing deadlines for full compliance.
j. Greater academic interest in the impact of the *acqui.*

Strong efforts from regulators and industry to integrate EU economies created fertile ground for tools like ISO14001, as part of a new reconciliation between environmental protection and the market. Hence, it shows some tension between the pull of national features, on the one hand; and the challenge of international trends as well as the institutional and policy imperatives of the EU on the other. The likelihood of convergence on effective environmental standards is partly a consequence of how these international agreements are entered into and formulated at the EU and national levels.

If the pressures for more effective policy implementation are clear, it does not imply that the barriers to effective implementation are easily overcome (Jordan, 2002;

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Heinelt et al., 2001; Mc Cormick, 2001; Weale et al., 2000; Dolowitz and Marsh, 1996, 2000), and additional problems arise in seeking implementation across such a heterogeneous political space as the EU. The great number of constraints in the EU, therefore, ranging from political opposition to the varying economic and social priorities of different member states, to disparities in the structure of national environmental policy structures and institutions, link to four main factors that make even conceptualising implementation difficult (Heinelt et al., 2001; McCormick, 2001; Weale et al., 2000).

Firstly, there is the nature of its multiple decision-making structures, which involve a diffusion of executive power, including the nature of the administration in charge of the enforcement of the programme. Secondly, there is the forward-and-backward movement in the dynamics of policy formulation, which refers to methods of intervention as well as to the statutory framework, defying any neat identification of separate and successive stages by which policy is, rationally speaking, carried through from conception to completion.

The EU violates certain well-known preconditions for successful policy implementation. Thus, thirdly, dependency relationships should be few in number and objectives must be understood and agreed upon. Tasks should be listed in the correct sequence and there should be perfect communication and co-ordination. Fourthly, those in authority can demand and obtain compliance. Reporting on compliance must be reliable, the actors involved must have the same priorities and implementation should be considered at the same time.

More specifically to the EU context, Jordan (2002) addresses a number of features that have exacerbated implementation problems:

a. Policies tend to have vague and/or contradictory objectives.
b. Issues pertinent to implementation are disregarded during the process of negotiation.
c. Legislation is poorly drafted and prepared.
d. The body responsible for proposing legislation, the Commission, is not substantially responsible for its application and implementation.
e. There is an absence of powerful and committed "vested interests".
f. There is too little consultation with affected parties.

g. Enforcement proceedings are slow, secretive, inflexible complex and dominated by member states and the Commission.

Clearly, the EU is a powerful shaper of national policy approaches, but the above considerations indicate that current policy challenges associated with 'global' trends might have a highly varying impact on national governmental patterns and governance capacities. They are also pertinent to understanding the extent to which a standard like ISO14001 is embedded in policy contexts and how it affects trends in environmental governance. They assist us in looking beyond 'symbolic convergence' towards translation into practice.
This discussion leaves, therefore, a number of questions to be answered in understand whether certain changes have occurred in business and government due to the implementation of ISO14001:

- Are southern countries adopting environmental policy tools with an eye to their own economic development and access to the Single Market?
- Is it the EU that pressurises member states to comply in order to facilitate free trade?
- Or, is it merely the political, structural and administrative deficiencies that pose barriers to a country's endorsement to environmental management?

It is crucial to understand how environmental policy tools have been implemented as a response to EU pressures, with an eye not only to their own economic development and access to the Single Market, but to the extent to which ISO14001 represents environmental protection measures.

Whilst the EU has been by far the most significant factor behind national strategies for environmental policy, in the past decade implementation has been impeded largely by a number of national factors. Through the understanding of these domestic concepts, it is possible to explain countries' differential policy outcomes in response to global pressures and the EU's role over the course of these regulatory evolutions. To begin this explanation, the next section examines how the impact of EU activity reflects variations in national styles and institutional capacities among its southern member states, including Greece.

3.3 Policy Convergence and Sustainable Development

3.3.1 Understanding the uneven development of EU environmental policy through the 'North' and 'South' categories

Although the objective of this study is to understand the dissemination of environmental management systems through national styles of regulation and the level of capacity of a member state, the issue of Europe's northern and southern divide also deserves some attention. It provides a degree of scene setting for the case study analysis. Usually in the policy literature there has been a distinction between two groups of EU member states, that of North and South. In defining sustainability on the global level, the Commission has defined an important parameter in this process of collective differentiation by separating the member states into leaders or laggards, in terms of national compliance with European legal norms (as is also discussed in 3.3): a framework often mapped (simplistically) onto this North- South dichotomy.

There is some justification for seeing the southern European countries as having different features from those in the North, stemming from nationally specific problems. Northern countries have a reputation of post-materialist environmental sensitivity, while the southern countries, still struggling with developmental problems and motivated by the urge for economic modernisation and higher productivity, place a much lower priority on environmental concerns. It is widely argued that a group of the northern states in general, promote stronger environmental regulations than the ones finally adopted by the EU. Germany and the Netherlands, for example, are seen clearly as those member states most advanced in relation to EU environmental policy developments, considered to gain international competitiveness, and show proactive response to future stricter environmental regulations.

In contrast, southern policy styles are seen to a large extent as reactive to policy measures emerging from the northern member states, and also reactive to crisis or emergency. Thus environmental policy initiatives are often opposed by the countries that are least economically developed (Portugal, Spain and Greece). Greece, for example, prefers strict rules, given the variety of national and subnational structures, different definitions of concepts contained in directives, and its legislative culture, though deliberate non-compliance on grounds of political expedience is also a factor (Weale et al., 2000). It is for these kinds of reasons that northern EU countries are

regarded the forerunners or the "green" countries, whilst the southern countries comprise the "laggards" (Jansen et al., 1998).

This divide between South and North reflects also an understanding of environmental policy in terms of a national style or level of capacity of the particular member states. On this basis, certain EU member states are seen as having a "greener" profile than others and this can be explained partly by problem perception and the objectives and instrumentation of domestic environmental policy (Liefferink and Anderson, 1998: 67). However, the prolific field of EU policy studies has hitherto focused on the political game in Brussels itself, the various domestic policy approaches have tended to explain foreign policy positions of countries on the basis of domestic constituencies and their interests and preferences and to neglect the dynamics of international policy making. The latter position advocates the particularities of a local context, influencing a country's response to European regulation.

Furthermore, turning to the domains of policy institutionalisation and implementation shows far more complex influences than a simple "North-South" divide. A number of scholars (Borzel, 2000; Eder, 2001; Redclift, 2001; Mc Cormick, 2001) challenge the assumption of a simplistic northern-southern problem (or a "Mediterranean syndrome"), given the considerable variation in compliance among and within the southern European member states in the area of EU environmental policy. They argue that the "leader-laggard idea" must be treated with caution, for three main reasons.

Firstly, environmental politics is replete with symbolic action. In particular, Redclift (2001) suggests, the distinction between North and South is therefore of some metaphorical force, carrying cultural and political meaning. At the same time the substantive characteristics of northern and southern European environments reflect ecological and geophysical, as well as cultural differences. Even the question of what constitutes an environmental problem is subject to different interpretations from within the discourses of northern and southern social sciences.

Commentators (Eder and Kousis, 2001; Redclift, 2001) therefore suggest that these priorities of competition reflect the concerns of the North. Some of the environmental policy preoccupations of northern Europe, notably those of ecological modernisation, lose much of their "global" relevance if placed within the contours of Europe as a whole. Many of the environmental policy concerns of the European Union are

essentially those of northern Europe, and there are parallels with the situation at the global level. A policy discourse is not a culturally objective phenomenon: it carries cultural and political bias preoccupations and interests. Practices towards sustainable strategies, therefore are contested not only through the primacy given to economic development, but also since the concept itself is embedded in a national context.

Eder and Kousis (2001) argue that this prevailing discourse includes the aim of maintaining or improving the economic well-being of the powerful North, while simultaneously enhancing the North's own competitive position vis-à-vis other economic blocs. As a result, the sustainability discourse of southern states does not appear to identify strongly with that of the northern ones, which have shaped the environmental policies of the EU. The new environmental policy regime in Europe and the progress of sustainable development is seen as fundamentally challenged. A key question here for environmental politics in southern Europe is:

"The way in which sustainable development like other policy discourses has particularistic value while at the same time being clothed in the language of universals". (Redclift, 2001:68-70)

Given the primacy of economic concerns and the target of economic harmonisation with northern states, southern governments, in collaboration with powerful economic interests in their countries, have in general opted for a more economically framed sustainability discourse.

Secondly, it would be misleading to suggest that some countries consistently lead while others consistently lag. It is more accurate to argue that all member states have a mixed record on different issues at different times, with tendencies either to lead or to lag or to come somewhere between the two. Borzel (2000) and Eder (2001) argue that the literature that claims that implementation failure and non-compliance with EU environmental law is a specific 'southern problem' argues that the southern European member states share some features of their political and administrative systems, which render them largely incapable of implementing EU environmental policies effectively. Where the overall compliance of the member states with EU environmental law is not advanced, it is often considered to be a 'southern problem'. Yet, leader states may be good at suggesting policy initiatives, but may not have such a good record on policy implementation.

Borzel (2000) maintains that there is significant variation in compliance with EU environmental laws across the European member states, which cannot be accommodated by a simple North–South divide. It is argued that there is no systematic north–south divide in accounting for compliance problems, given that the implementation patterns of a 'leader' and a 'laggard' can be quite similar. However, politically less powerful countries with less advanced environmental policies are more likely to face policy misfits than the more influential northern European member states. Indeed, non-compliance is not simply systemic to the political systems of the member states; nor is it an exclusive feature of EU environmental policy-making.
So, following Eder and Kousis (2001) and Redclift (2001), the laggard label is being applied to northern as well as southern countries and regions *at a time when the environmental agenda reflects the concerns of the North.* This is misleading, given that relatively little attention is given in EU environmental policy discourse to issues which arise from southern preoccupations. This concern is considered in effect to prioritise the policy concerns of the northern industrialised countries, at the expense of the less-developed countries of the South.
That said, it is widely asserted that less economically developed countries in the EU have considered environmental issues of minimum importance because of the more emerging issues of economic development, unemployment and poverty.

Developmentalist motives are a strong problem that is featured quite prominently with the continuing importance of the economic imperative in the South (Pridham et al., 1996; EC, 1997; Weale et al. 2000; Mc Cormick, 2001).

This is because southern EU countries, although they have been particularly open to the requirements of Brussels, have developed their environmental policies only fairly recently. It is only since the early 1990s that the dynamism of EU environmental policy is considered to really begin to have some qualitative impact on national policies. Undoubtedly, for southern member states this may be attributed largely to the existence of their authoritarian regimes, where from the late 1960s until the early 1970s they were constrained by the lack of democratic institutions, and to the fact that they were not yet member states of the EU.

Because of their late arrival in the EU, they have been under pressure to adapt environmentally and developmentally. Greece, for example, was a late entrant to the EU (1981), having greater problems in coping with the inundation of legislation (Weale et al., 2000). Moreover, it is argued that sometimes EU environmental policy

has not been implemented to improve environmental quality *per se*, but *'to be seen as good Europeans, to avoid censure,* to qualify for advantageous funds' (Yearley et al. 1994: 14)[18].

Thirdly, as we can see, trying to blame the 'southern problem' for certain 'Mediterranean' characteristics of these countries neglects these considerable differences between them. This view also reinforces specific northern European images of southern European politics and ignores the general causes of implementation failure and non-compliance arising from the nature and content of EU policies (Eder and Kousis, 2001; Redclift, 2001; Borzel, 2000). Again, as has been mentioned throughout this chapter, non-implementation issues link to more systemic causes and other features, which reflect general issues of compliance with environmental protection rather than particular southern characteristics.

This is not to deny that Mediterranean, southern member states do face considerable problems in the implementation of EU environmental policies. Because of specific features of their domestic political systems, the four southern European member states are believed to lack the capacity for effectively implementing EU policies. They stand somewhat apart, with their limited professionalism and infrastructural facilities and to some extent in their traditional concern for the economic imperative. Although these features do exist, they are not particularly considered to be a southern problem. Consequently, the southern countries do not always fully deserve their reputation for backwardness in the environmental field (Pridham 2002).

Finally, one might usefully add dimensions of power and inequality to this analysis of differentiation in environmental policy styles and performance. The difficulties of southern European countries in protecting their environment have also been referred to as the 'Mediterranean syndrome'. The Mediterranean syndrome turns out to be a device used to attribute to the culture of the countries in question, the environmental

[18] This has resulted since the later 1980s in a series of special programmes (i.e. cohesion funds), which significantly involve official recognition that the South is different from the North in terms of developmental stage. The four cohesion countries (Greece, Spain, Portugal and Ireland) are distinguished in terms of geography and resource endowment as well as economics. In addition to low per capita GDP (by which they are formally defined), all four have population densities below the EU average, while their peripheral location implies a competitive disadvantage within the EU. First of all, as a broad generalisation, environmental issues for cohesion countries relate more to resource management than to the classic problems of industrial pollution that have historically been a major concern of European environmental legislation (Barrass et al., 1997).

consequences of Europeanisation, and the concomitant liberalisation and marketisation of economies (Eder and Kousis, 2001). According to Eder (2001), the difference between North and South is better understood as generated by the structural positions of both within EU positions, which need to be explained in terms of power and inequality. Moreover, there is no 'southern style' because national styles cannot be generalised. The best one can say is that we have a convergence between national countries in terms of a transnational regime, which is the unintended result of the interaction of national cultures (Eder, 2001). Simply attributing the responsibility for lagging behind to some form of 'national deficit', instead of taking into account the structural dimension of power and inequality, amounts to a discursive strategy of downgrading the "irresponsible" (Eder and Kousis, 2001).

As we can see from this analysis, efforts to characterise the uneven development of environmental policy across EU member states according to broad regional characteristics need to be careful, both in terms of the normative and the explanatory frameworks that they adopt. But this does not imply that one cannot identify problems of capacity and policy style in such countries. It is with this in mind that one must position Greece's policy style and capacity as a case study that can illustrate wider processes shaping policy development.

3.3.2 Limitations for southern "national" frameworks

Numerous studies have shown (Fousekis and Lekakis, 1997; Spanou, 1998; Weale et al., 2000; Heinelt et al., 2001) that less-economically developed countries are increasingly trying to harmonise their environmental standards because they are finding environmental threats a pressure to economic success and the environmental management systems' logo a competitive issue. Yet, against the economic imperative, the EU has recognised that certain socio-economic characteristics differentiate the countries in southern Europe, partly because they developed their environmental policy only fairly recently, although they have been particularly open to the requirements of Brussels (see section 3.3).

For example, countries like Greece have responded to the pressures of economic globalisation, albeit to differing degrees, by reference to a number of the variables mentioned above. The poor implementation record of southern countries is usually attributed to systemic deficiencies in their political and administrative apparatus -an issue widely acknowledged. For example, statistically the average *transposition* rate of Spain (90 per cent) and Portugal (90 per cent) compares well against the UK (90 per cent), Luxembourg (91 per cent), Germany (92 per cent) and France (94 per

cent), and is only topped by the Netherlands (96 per cent) and Denmark (99 per cent). At the same time, Greece (84 per cent) and Italy (75 per cent) find themselves at the bottom of the list. When it comes to infringement proceedings, Greece and Italy account for the highest number of both Article 169 warning letters and reasoned opinions. To a large extent, practical implementation in Greece is rather poor (Pridham, 1996). This reflects the country's vulnerability to global as well as European economic forces, but also its political features and institutional capacity to receive policies and innovate policy making as necessary (see section 3.3).

By exploring this framework against the national traditions of regulation, the study is able to highlight the relevance of these structures as measures in shaping ISO14001 implementation. Pre-existing institutional structures and entrenched interests on the part of policy actors and context are crucial to explaining the development of new policy tools. Political and institutional elements offer channels that enable the transfer of policy perceptions and ideas across countries. With an emphasis on competing values, styles of policy and the capacity of the domestic structures (see 3.2.1, 3.2.2) are the conceptual tools required for understanding this policy process. In light of these elements situated in the relevant policy literature, the approach indicates a way in which current changes in institutions and governance of regulation has been applied to the national context.

It is evident that while the immense trends towards harmonisation and responses to European directives have shown converging styles of regulation that have evolved rapidly at least in the environmental sphere, the domestic scene of the institutional and political apparatus has not followed these rapid changes. In this respect, there are doubts as to how far environmental standards have really penetrated the world of policy makers or altered behaviour within organisations, creating suspicion that they are established for cosmetic purposes only. The creation of environmental standards seems to reflect a "disguised" term to facilitate economic practices or a superficial way of translating and implementing environmental policy and management.

This tendency for member states to adopt EU environmental regulations, which they know they cannot implement properly in practice for a variety of reasons, has itself generated further coercion to adapt environmentally. As has been constantly pointed out throughout this study, the EU has created a consistent pressure on these countries to consider and even implement certain new procedures (Pridham, 2002), which clearly point to a possible new trend in institutional adaptation and to cases

where member states have adopted environmental legislation mainly for symbolic reasons rather than really to change practice on the ground (Butt Philip, 1998; Jansen et al., 1998). To illustrate this point, we turn to these particular features that shape the southern national context of the EU.

There are patterns of attitudes to regulation and relations between actors in a regulatory system that create a context, particularly in terms of studying policy implementation. The study traces 'traditional' features of national environmental policy in terms of policy styles and policy content and it explains the impact of not only international but also domestic factors in terms of policy reforms. It develops the notion of regulatory culture (as part of policy style) and explores the interplay between appearances of new environmental instruments and the reality of the implementation domain. Problems of environmental management experienced by the southern countries are not considered as wholely unique, but there are special features related to institutional procedures and regulatory culture. A range of characteristics pertain the fabric of southern policy mechanisms, and affect policy style, capacities and regulatory culture, which are considered to play a role in the adoption of environmental policy tools and are reflected through a number of dominant state-based features.

A range of studies in the area of environmental policy have illustrated these features as limitations to a country's capacity and political culture related to administrative inefficiency, having a direct effect on practical implementation. Environment-related institutional reform is weak and other characteristics of southern European areas are weak, especially prior to the 1990s. They include a lack of expertise and the gradual assumption of expert roles by NGOs, defective co-ordination and political corruption, which are also to be found in non-southern European countries (Borzel, 2000).

More specifically, lack of administrative capacity in southern EU countries, and the fragmented, reactive and party-dominated legislative processes are believed to undermine public willingness and the ability to comply with EU environmental law (Pridham, 1996). Institutional fragmentation is a well-acknowledged feature of the inadequate capacity for promoting sustainability (after Weidner and Jänicke). Environmental management is considered to suffer from high dispersal of competencies between various ministries, and hyper-sectorialisation results in co-ordination difficulties and laxity of systematic planning and control (Weale et al., 2000). Environmental responsibilities in these countries are considerably fragmented

along sectoral lines, reflecting a more general tradition of intense compartmentalisation within the public administration system both horizontally and vertically (Pridham et al., 1995; Pridham, 1996; EC, 1997; Weale et al. 2000). This also entails a major problem in information and administration for companies.

What also compounds this picture is the openness of the legal systems to environmental interests, capacity to integrate environmental knowledge, public awareness, lack of openness in bureaucracy, and the country's economic performance (Featherstone, 1998:28). Pridham (2002) and Weale et al. (2000:198) argue that there is a general difficulty in introducing effective environmental administration into traditional bureaucracies as, logically, it involves some radical restructuring of ministerial responsibilities; and this is bound to encounter bureaucratic resistance because of established interests in the government machinery. It is also suggested that these problems can in part be neutralised by effective co-ordination at both horizontal and vertical levels, although ministerial rivalry and bureaucratic lethargy have proved powerful, as has the weakness of efficiency values and professional competence.

A closed mentality and weakness of professional competence are additional elements that have inhibited the diffusion of official information. Public attitudes towards observance of the law have often affected practical implementation. Southern administrations frequently do not possess sufficient technical expertise, staff. and infrastructure to apply and enforce EU environmental legislation effectively (La Spina and Sciortino, 1993:224).

Additionally. environmental management is particular weak in so far as mechanisms of control and enforcement are concerned, as environmental pressures directly linked to industrialisation are less acute and the requirements for compliance with legislation are also less onerous (Barrass et al.,1997). The least developed countries in the EU (i.e. cohesion countries) tend to be relatively deficient in infrastructure, trained manpower, and environmental information systems, which lead to difficulties, and higher costs, in compliance with environmental legislation. Costs of adaptation are severe because the South comprises the poorer member states of the EU, and they have to make greater strides to keep pace with its legislation than northern countries (Weale et al. 2000; Barrass et al.,1997).

Such countries may have to import technologies not wholly suited to their own requirements, while seeing their exports at a disadvantage due to inadequate environmental credentials. There is also a competitive disadvantage in the supply of products, services and technologies needed for the implementation of environmental policy measures, and in the development of technological solutions favouring the environment. This is a serious disadvantage, because the environmental sector is a source of technological innovation and also generates employment in a wide ranging service sector (Barrass et al.,1997). Ecological modernisation advantages, therefore, are rarely considered, even when they are visible.

Besides the administrative deficiencies, analysts refer to a civic culture, referred to as a unique feature, that sanctions non-cooperative and non-compliant behaviour; a syndrome that marks the functioning of administrative and political structures, and thus impacts directly on the policy process. It has long been argued that the outcome is a non-existent or even negative form of social learning. Such a culture is clearly evident in southern countries such as Greece.

To what extent, then, have processes of Europeanisation affected policy styles, especially attitudes to regulation? Initially, Europeanisation is important as it is considered to have developed from complex interactions, including new forms of policy, and emerged from different patterns and practices between heterogeneous actors. It influences national discourses regarding policy expectations. It enriches the analysis regarding how these practices operate and to what extent they function but also how actors perceive them. The impact of Europeanisation is seen here as a dimension that tends to relate many aspects of environmental policy resulting in a deeper understanding of the research objective. Europeanisation sets a broad context for the Greek case and illustrates part of the conceptual framework. Hence, conceptually, regulatory culture and the internationalisation of patterns of regulation are connected with processes of Europeanisation and its realities are affected by this domestic setting.

Firstly, therefore Europeanisation has affected this context, according to Featherstone (1998), as defined in terms of changing the state's role in the domestic economy and of lessening the state's domination of civil society. Europeanisation and economic liberalisation have been the two major processes that have steadily molded the political and economic context of southern Europe since the 1980s. The tension between economic development and environmental protection is visibly

exacerbated by the Cohesion funds, which give priority to economic criteria (Eder and Kousis, 2001; and an issue discussed below).

Secondly, Europeanisation also suggests to some degree the new global economy that involves increasingly open, integrated and interdependent markets with capital constituting a threat to monetary stability. Pressure for greater market freedom has grown and has been coupled with criticism of the operation of the "party-state" with its clientelistic practices (Featherstone, 1998).

Besides the effect of Europeanisation and the contested argument that southern countries are laggards (mentioned in previous section, 3.3.1), there are crucial elements that shape national realities. For example, Radaelli (2000) indicates that in Italy and Greece the discourse on Europe has become equivalent to modernisation and normalisation – in the sense of making these countries more normal, i.e. more similar to the other EU partners. This explains the rush to Economic and Monetary Union of the Italians (and, more recently, the Greeks). To qualify for the single currency was, inter alia, a way of *"losing eccentric, extraordinary, astonishing and unique features"* (Giuliani, 1999:7 cited in Radaelli, 2000). This Mediterranean political culture is seen to contradict the northern European political culture, which is built on corporate forms of social organisation on which EU environmental policies are based (La Spina and Sciortino 1993).

Southern European countries are considered to have political systems traditionally dominated by patronage, clientelism, and disrespect for public authority. Lack of trust between state and society is prominent and is part of the dynamics of a vicious circle characterising a country's political culture and practices (Jansen et al., 1998). Such elements have long been criticised as being particularly deficient regarding the implementation of European environmental norms because they share characteristics such as a civic culture based on familiaristic and or clientelistic relationships, inclined to individualism, held together by corrupt and fragmented political parties engaged in eternal struggles between factions (see Borzel; Eder). Clientelism, Weale et al. (2000) argue, clearly lies behind the powerful pull of economic interests. Given this situation, it is no surprise that policy principles have not had any profound impact on policy formulation.

Also crucial to the state of regulatory styles and institutional capacities in this context is the level of domestic mobilisation that is lower in southern European countries, where environmental organisations and citizens' groups have only limited resources. It is acknowledged that public awareness of the environmental challenge developed later in the South than in the North (Jansen et al., 1998). As a result, domestic mobilisation is often diffuse and thus, less effective. Political activism and environmental awareness are only just emerging in southern European societies. While transnational environmental NGOs become more and more influential, local groups are still weak. Improving formal compliance is often achieved through concentrated lobbying activities at national and European levels. Environmental interests have limited access to public policymaking. The main parties have only paid attention to environmental matters on an *ad hoc* basis that is, public support for environmental protection is sparse (Borzel, 2000).

Powerful trends towards harmonisation, and response to European pressures, therefore, are shown to have evolved rapidly whilst the domestic scene has not followed the rapid changes of the international political scene. These issues prove to be major impediments in the way environmental policy and awareness is diffused and the way government has always been perceived by public and private initiatives.

The picture that has emerged reflects many of the more general deficiencies of southern state apparatuses, with some negative consequences for policy innovation and response in the environmental sphere. In the long run, domestically such impediments show few positive signs for radical reform. Particular issues, therefore, concerning ISO14001 implementation are bound to unfold.

3.3.3 Intellectual and institutional processes operating within international settings: the role of standards bodies and epistemic communities

Of course, Europeanisation is not the only source of homogenisation, nor is Europeanisation promulgated solely by governmental actors. A key debate in unpacking regulation and implementation in this context is the evolution of private regulatory regimes (see section 3.2.1). Implementation is evolving in to new patterns, which seem to get shaped according to new obligations introduced within this framework. The world economy constrains individual governments, Dolowitz and Marsh (1996) point out, and economic pressures can lead to convergence in institutional structures and trading practice. Changes in the international economy, and in the location of a particular nation within it, constrain the autonomy of

politicians and may push them towards the emulation of solutions that are favoured by international companies, financial institutions and perhaps specifically, holders of the country's currency or debt. Some of the constraints derive from the political institutions within which actors operate, others are economic in origin based upon the structured inequality that characterises societies.

At the heart of implementing environmental incentives are lobbying groups, other non-governmental or private organisations that have shaped the agendas of political parties, and effectively challenged the power of companies and other vested interests (Cairncross, 1995; also illustrated in chapter 2). These groups are not necessarily restricted to national settings, but may have different links of reference in different settings.

Dolowitz and Marsh (2000) identify a number of actors as crucial in the implementation of policies and indicate that different actors[19] have different motivations. It is becoming increasingly clear that policy-makers, at both the national and international levels, are relying on the advice of consultants, be they individuals or firms, who act as policy experts in the development of new programmes, policies and institutional structures. The role of international consultants may "force" a uniform model of market reform upon developing nations, if they are hired by a government, either as the agent of an international aid agency or "independently". Such a situation clearly has elements of both voluntary and coercive transfers. While politicians are likely to institute a search for new ideas voluntarily, when international organisations become involved in the process it is likely to result in some form of 'coercive policy transfer' (in Dolowitz and Marsh's (2000) terms). This iterative process, involving the adoption of policies across a number of different nations, and subsequent adaptations within individual nations, illustrates the prevalence of policy transfer; and the role that particular individuals and institutions play within this process[20]. The institutions used to implement policy can also be transferred. Political actors can also transfer ideas, attitudes and concepts. Of course, political consultants are not involved simply in the harmonisation of political systems around the globe;

[19] Nine main categories of political actors are identified as being engaged in the policy transfer process: elected officials, political parties, bureaucrats/civil servants, pressure groups, policy entrepreneurs and experts, transnational corporations, think-tanks, supra-national governmental and non-governmental institutions, and consultants (Dolowitz and Marsh, 2000).

[20] The authors identify seven objects of transfer: policy goals, structure and content; policy instruments or administrative techniques; institutions; ideology; ideas, attitudes and concepts; and negative lessons.

their role in the policy transfer process is far more complex (Dolowitz and Marsh, 2000).

As discussed in Chapter 2, ISO14001 involves a number of private organisations in providing environmental protection expertise through consultation and accreditation services. The role of international consultants, is particularly important because they tend to offer advice based upon what they regard as the "best practice" elsewhere, often paying little attention to the particular context in the borrowing political system (see Latour in chapter 2). Pertinent, therefore, to the self-regulatory debate is the role of the international consultant as seen to influence the type of ISO14001 implementation. As the Greek case study will make clear, certain southern European countries are particularly susceptible to the influence of major consultancies, as they seek to construct international credibility for their environmental management practices.

3.4 Conclusions

EU membership and increased international global competition have led to increased demands for a reconsideration of traditional policy making procedures and policy instrument preferences. Within this context, the investigation explains why a standardised management approach like ISO14001 is preferred by organisations and what the benefits of it are. On the one hand, obligations from the EU, due to global scale environmental problems and harmonisation pressures, can be seen as offering positive solutions. On the other hand, particular features – reviewed here as policy styles and capacities – seem deeply embedded as part of the functionality of the state and market apparatus. The focus here is on these conceptual-political practices as understood widely in policy literature and as further illustrated in the analytical context.

The economic and political conditions that once framed action for the environment have changed, and the emergence of a new regime implies also a shift in the traditional styles used by the national framework to legitimate its policy making (discussed also in chapter 2). Tools like ISO14001 are seen to easily adapt to traditional domestic structures, policy styles and content. However, it is becoming apparent that there is still a need to establish a basic consensus amongst actors on these policy changes and paradigm shifts.

The ambition of southern European countries to move quickly to develop a framework of environmental policy and proactive tools directed at business is clear, but the degree of implementation of this reform has varied. Some authors imply that the problem of the southern member states in implementing EU environmental policy can be understood as the result of a fundamental 'clash' of political cultures – deeply embedded features among public and private institutions and in attitudes to regulation. The history of economic development and policy shifts has linked outcomes to the rhetorical implementation of environmental regulation. In detail, issues involve rapid economic growth along with a general lack in civic culture that advances collective interests and promotes environmental culture, the administrative/bureaucratic system and problems, development and implementation costs along with insufficient infrastructure.

The forms in which the state and the market combine in the provision of regulation makes it clear that the effect of 'globalisation' on environmental policy is not a simple transfer from the international to the local, or from the public to the private sector. It can take different forms depending upon a range of factors that, in many cases, remain nationally based and that influence processes of translation (Latour 1987). That is, concepts like institutional capacity and policy styles play a crucial role in the way "globalisation effects" are conceptualised and, more specifically, create challenges for the 'global' claims behind tools like ISO14001.

Linked to the broad framework of drivers and pressures mentioned above, the study first explores two related questions. What were the main factors allowing for the introduction of ISO14001 in a national context? And, how did implementation meet difficulties in relation to the particular features discussed above? Following from these questions, to what extent did this accreditation scheme provide improved outcomes in terms of environmental performance/conformance, and a number of priorities through issues like compliance in regulation, competitive advantage, reputation in market, good corporate relationships, investment criteria, stakeholder involvement, customer confidence, or lower costs? Questions involve possible changes, difficulties to overcome, and areas of weaknesses, as critical dynamics for exploring environmental policy implementation at the national level.

Rather than simply chart progress in implementation in some mechanistic fashion, this study develops an analysis about how the new context of policy making and core problems is shaped here through the country's capacity, regulatory styles and culture. The adoption of standardised schemes is seen to facilitate the advancement

of market-based institutions and further economic activities in Greece, but also to have systemic implications in the operation of environmental policy and the wider context of sustainable development. It is to the methodological implications of understanding the institutionalisation of environmental and, in particular, spatial contexts that this thesis turns next.

Chapter 4 Research Methodology

4.1 Introduction

This study has adopted a familiar, iterative research process, beginning with a statement of a problem, the research propositions (chapter 2, chapter 3), in which a research design is applied (chapter 4) and then data is analysed (chapter 5, 6). Finally, findings are related back to the current body of literature on the research topic (chapter 7, 8).

In previous chapters, the development of ISO14001 has been analysed as a global interplay between market, regulatory and societal changes. Trends towards globalisation and harmonisation have set the ground for such developments in the regulatory domain, which also suggest immense efforts to reconcile conflicting areas of policy concern. The issues confronting ISO14001 implementation are a microcosm of broader environmental management debates. Issues such as the appropriate balance between economic activities and environmental performance, administration, efficiency and accountability, process and structure, are central problems in both policy management theories.

This chapter begins by exploring the methodological approach and foundations of the proposed research. The first section explores philosophical issues and research paradigms related to qualitative methods. It then presents a suitable research strategy, linked to the research questions. It describes why qualitative methods have been selected, when much prior work in the field of environmental management has been broadly quantitative in conception. It is shown that there are still implications regarding the role of ISO14001 in a range of organisational contexts, as it is still a relatively new arena for research in terms of policy and national environments.

The second section of the chapter sets out the research process and strategy adopted and provides a rationale and justification for the development of this design. It further reflects on the specific techniques employed and the application of methodology.

4.2 The Nature of Qualitative Inquiry

Research methods can be classified in various ways however, one of the most common distinctions is between qualitative and quantitative approaches. This is not to deny the wide diversity of perspectives and approaches within both qualitative research and quantitative research, but it is a division between methods that has had a long history in the social sciences[21].

Quantitative research methods were originally developed in the natural sciences to study natural phenomena, whereas qualitative research methods were developed in the social sciences to enable researchers to study social and cultural phenomena. All research (whether quantitative or qualitative) is based on some underlying assumptions about what constitutes 'valid' research and which research methods are appropriate. Yet, the selection of material in qualitative research, and the variety of perspectives and approaches to analysis have tended to be more complex than in quantitative research (Punch, 1998). The motivation for doing qualitative research, as opposed to quantitative research, comes from the observation that the goal of understanding a phenomenon from the point of view of the participants and its particular social and institutional context is largely lost when textual data is quantified. This is a crucial issue when research is based on the interpretation of textual data.

Qualitative research offers richly descriptive reports of individuals' perceptions, attitudes, beliefs, views, meanings and interpretations. These reports are put together more or less coherently and consciously into frameworks, which make sense of the individuals' experiences (Hakim, 1987).

Even with qualitative research, there are various perspectives. These perspectives are defined as paradigms, as frames of reference for viewing the social world consisting of a set of concepts and assumptions. By taking the philosophical and

[21] As well as the qualitative-quantitative distinction, there are other distinctions that are commonly made. Research methods have variously been classified as objective versus subjective, as being concerned with the discovery of general laws (nomothetic) versus being concerned with the uniqueness of each particular situation (idiographic), as aimed at prediction and control versus aimed at explanation and understanding, as taking an outsider (etic) versus taking an insider (emic) perspective, and so on. Considerable controversy continues to surround the use of these terms.

theoretical approach, therefore, research inquiry is based on certain paradigms[22]. Differences in paradigm assumptions have important consequences for the practical conduct of inquiry as well as for the interpretation of findings. Guba and Lincoln (1998) and Guba (1990) suggest four underlying "paradigms" for qualitative research: *positivism. postpositivism, critical theory and constructivism (interpretivism).* The following table illustrates these theoretical approaches, through the fundamental questions that permeate inquiry.

Table 5

Contrasts between the Positivist, Postpositivist, Critical Theory and Constructivist Paradigms

Question	Paradigm		
	Positivist Postpositivist	*Critical Theory*	*Constructivist*
Ontology	Realist	Realist	Relativist
Epistemology	Dualist	Interactive	Interactive
	Objectivist	Subjectivist	Subjectivist
Methodology	Interventionist	Participative	Hermeneutic
			dialectic

Source: Guba, E. (1990) The Paradigm Dialog, at p. 78. California: Sage.

The basic beliefs that define each of these paradigms can be summarised into three fundamental assumptions (questions); the ontological, epi
stemological and methodological questions, which lead to alternative inquiry paradigms (Guba and Lincoln, 1998; Denzin & Lincoln, 1998; Casell and Symon, 1994).

The ontological assumption comprises the study of "the essence of phenomena and the nature of their existence". *But,* it is important to know what philosophical assumptions relate to the underlying epistemology, which guides the research[23]. Casell and Symon (1994) suggest that qualitative and quantitative approaches rely on different underlying epistemologies.

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[22] In the wider sense, a paradigm is seen as a perspective or frame of reference for viewing the social world. consisting of a set of concepts and assumptions given that what is objectively seen can be interpreted differently according to the researcher's concepts, assumptions, and biases.

[23] Epistemology refers to the assumptions about knowledge and how it can be obtained.

Yet, it needs to be said that, while these three research epistemologies are *philosophically* distinct (as ideal types), in the practice of social research these distinctions are not always so clear-cut. Guba & Lincoln (1998) argue that multiple perceptions of the research problem can coexist when interpretation depends on the social, political, cultural, economic, ethnic and gender factors that differentiate it. Indeed, there is considerable disagreement in social science as to whether these research "paradigms" or underlying epistemologies are necessarily opposed or can be accommodated within one study.

The positivist and postpositivist paradigms (mainly quantitative approaches) apply to disciplined inquiry and their aim is to explain, predict and control the phenomena under study, whether physical or human. Quantitative techniques are often predicated on simplistic methodological assumptions. Facts viewed from the quantitative perspective are unable to deal adequately with the issues surrounding local and case-based meanings (Denzin & Lincoln, 1998).

Turning to the analysis of environmental policy, Carley and Christie (2000) argue[24], quantitative analysis can undervalue social, environmental, spiritual and other intangible dimensions of political problems. There is also a more profound concern that decision processes, many apparently value-free, are invariably rooted in ideological assumptions and can represent a form of technocratic domination, which precludes ethical considerations and opposing views in the fundamental decisions affecting societies. A real concern arises when social science or rationalist decision techniques are purported to be politically neutral or value-free. But all such techniques may reflect the priorities of some dominant social group and exclude consideration of the values of groups that are less powerful, but often highly affected.

Moreover, much of business-related sustainability research, Welford (1998) argues, has often been dominated by objective-order paradigms (positivism) (Welford 1998). Despite the common calls for interdisciplinary research, this type of scientific approach often continues to adopt traditional, narrow techniques with the aim of explaining and predicting existing social behaviour.

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[24] Carley and Christie (2000) emphasise that quantification is closely allied to the overall positivist approach in which an assumption of rationality is fundamental to any explanation or prediction of human behaviour. Although quantitative models can be important when they contribute additional dimensions to an understanding of complex social problems, they are not surrogates for reality, nor can they be comprehensive.

On the other hand, qualitative techniques emerge from phenomenological and interpretive paradigms, where a typical feature of the paradigm debate is multidimensional and pluralistic (Punch, 1998). Welford (1998) argues that business-related research has begun to emphasise an approach more consistent with intepretivism (constructivism), which has much to offer. Many now recognise that if environmental degradation and social conflict are to be reversed, there is a need for quite radical change in the way business is conducted. Under this approach there is much more emphasis on identifying the structures that prevent progress, highlighting those barriers to the improvement of the environment. Interpretivism is a rich, deep and complex tradition that emphasises personalistic interpretation, in relation to "curiosity for culturally different perceptions of phenomena and representation of local settings" (Stake, 1998). This paradigm recognises that the world is too complex and diverse to be described by simplified models providing much richer accounts of phenomena.

This study builds on this argument and advocates the use of a qualitative approach as more suitable to interpreting phenomena or processes of change, i.e. the institutionalisation and implementation of an environmental management system in a context where a range of political, economic, organisational and cultural elements are involved. An interpretive approach is useful because it aims to understand the constructions that actors initially hold, as information on environmental management improves. It is believed that knowledge is socially constructed and case-study research is deemed to support this perspective, highlighting the construction of knowledge. Knowledge, according to this approach, is constructed in connection to individual meanings of events and relationships, taking into account local and foreshadowed meanings.

Interpretivism is a way of conceptualising the case-study methodology as presented below and maximise learning from it. But, while it is important to understand and reflect upon the philosophical factors guiding and influencing a process of scientific investigation, it is equally important to reflect upon the strengths and weaknesses of particular research methods, specifically those associated with this study. The next section presents a methodological review of studies of environmental management and ISO14001 in organisational contexts.

4.2.1 Methodological strands in environmental management research

The adoption and implementation of environmental management systems is a domain that has been widely examined through qualitative and quantitative approaches. There is also a considerable empirical field of ISO14001 studies, which illustrate suitable methodologies and point out theoretical strands that need further attention. The dominant themes identified so far are the influences of market, social and regulatory imperatives. Yet, environmental management practices are largely related with intangible concepts. Usually, a number of economic, organisational and cultural factors are invoked to explain the degree of successful implementation, typically through quantitative approaches. The need, therefore, for qualitative research is becoming essential as global schemes for environmental management emerge.

Existing studies range from national to cross-national (comparative), between countries and continents, and from sectoral to cross-sectoral. National studies and cross-comparative studies that employ quantitative methodologies have revealed a range of national and organisational differences, especially in terms of the implementation and administration of environmental schemes. Findings set out those factors that facilitate or hinder adoption and propose strategies that can be employed to overcome barriers. Sectoral and cross-sectoral studies also draw on quantitative methods and involve SMSs, large enterprises and TNCs, in the adoption and implementation of environmental management systems.

These studies focus on motives, pressures, and barriers to overcome in successful implementation – evidently a critical issue. For example, Hillary (1998) discussed the quantitative results of a study, focusing on the implementation experiences of EMAS-registered sites across the EU. The study revealed a range of national and organisational differences in the implementation of EMAS and the administration of the regulation. Strachan (1999), through an extensive survey of the first batch of enterprises to have implemented the EMAS in UK industrial organisations indicated that the reasons for EMS participation were to demonstrate environmental assurance to both internal and external organisational stakeholders, to formalise the organisation's approach to environmental management and to secure competitive advantage in their business sector. These examples show that extensive surveys have not provided enough evidence to elucidate structures and the ways such policy tools facilitate the arena for both market and environment.

Usually, studies reflecting the international dimension of ISO14001 have shown that the main reason why organisations adopt schemes for environmental management are mainly to demonstrate environmental assurance to internal and external stakeholders, to secure competitive advantage and ensure compliance with growing and stringent regulation allowing access to foreign markets (e.g. at international level, Magali (2000) involved an extensive phone survey of 140 firms in Europe and a questionnaire mailed to 55 firms in the U.S.).

At the very least, however, one can say that the geographical coverage of environmental management research is uneven. In southern European countries, there is a dearth of findings about the adoption of ISO14001 in particular settings. There is only anecdotal evidence with a few solid empirical investigations in existence, regarding the Southern Europe participants (Steger, 2000). In Greece, it is shown that there is some action to adopt schemes for environmental management either in the form of EU regulations or business initiatives. Greek businesses have started to adopt environmental management schemes/standards (EMAS and ISO14001) since the early 1990s, as the need for harmonised environmental standards is immense. To elucidate this picture, Georgiadou and Tsiotras (1998) employed extensive research to explore the adaptation of ISO14001 in Greece through a structured questionnaire involving 15 factors in five large enterprises in the chemical (EKO-Hellenic Refineries, Chemical Industries of north Greece SA) and manufacturing sectors (Siemens Tele Industrial SA, which is a multinational branch, Intracom SA and ELBO Hellenic Vehicle Industry).

What existing research does show is that the study of an organisation is useful in understanding the implications of ISO14001. A number of conditions has been identified that affect the organisation's ability to adopt an environmental management system, namely size, corporate culture, management style and individual involvement at the development process. For example, Kirkland and Thompson (1999) argue that specific barriers affecting an organisation depend on the size of the organisation, the company's corporate culture, formal and informal management styles, individuals involved in the process and the stage of the organisation's EMS development.

Extensive research across major EU airports has provided evidence regarding the participation of the airport sector in environmental management systems. Bartolomeo et al. (1998) involved a large number of cases of European airports and airport

organisations, in order to evaluate the state of the art in environmental management techniques and the actual sensitivity of European airport management in adopting environmental protection measures. The project included observation of practical implementation of elements of environmental management systems and external reports at four airports (Dublin, Milan Malpensa, Munich and Turin). It finally involved interviews with airport experts and representative bodies such as the Airports Council international (ACI). The evidence was used to support the feasibility of extending EMAS or ISO14001 to a number of airports in Europe. While useful, there is a dearth of evidence in providing information about particular issues that impede implementation or shape institutionalisation of standardised global schemes.

Also, a great number of studies have focused on intra-organisational issues as the determinant factor for the implementation of environmental management systems. Various aspects of management processes – issues of organisational behaviour, intra-organisational implications and managers' perspectives – are employed within research designs that combine a set of qualitative tools of data collection (i.e. interviews, observation and company documentation). Intra-organisational issues are deemed to shape the practical implementation of an environmental management system. Also, the process of change in an organisation and the organisational and individual behaviour is an area that plays an important role in the discourse of environmental management. In general, the main challenge addressed in such studies is the normative point that environmental management systems should be taken from the theoretical to the practical level, because there is a significant gap between environmental management systems theory and application.

By way of an example, Kirkland and Thompson (1999) interviewed and observed 32 resource-based companies in western Canada to explore the degree to which current environmental management systems incorporated practical design and implementation in order to address the barriers to successful introduction. They took into account the effects of regulation, organisational structure and the way in which environmental strategy and management is embedded in overall corporate strategy and management.

Similarly, Atkinson et al. (2000), through six case studies in UK regional electricity companies, focused on agents and processes of organisational change and outlined the gaps between environmental policy and environmental performance. The dynamic relationships between pressures, drivers and behaviour – a key focus for

this study – have received qualitative research attention before. Tilley (1999) used a qualitative research using interpretative methods of analysis in order to understand the environmental attitudes and behaviour in small firms in two sectors. Through an analysis of 60 in-depth interviews in the manufacturing and the service sector, Tilley (1999) showed that environmental behaviour is an integral part of an organisation and is illustrated in a way to contrast superficial and deep organisational behaviour.

Catasus et al. (1997) utilised a qualitative descriptive study in order to find not only how but also why managers adopted certain views on environmental management. Schaefer and Harvey (2000) gathered data mainly through semi-structured interviews, augmented by materials such as policy documents, environmental performance reports, strategy documents and similar in order to look at organisational learning issues. Petts et al. (1999) combined quantitative and qualitative (semi-structured interviews) methods, with managers and focus groups, to understand the attitudes of individuals within SMEs to environmental compliance and to understand the influence of such attitudes on business responsiveness and responsibility. Wubben (1999) used semi-structured interviews with senior managers (health, safety and environmental managers) and internal reports of the business units of a large company within the chemical industry in order to answer if environmental regulation influences the competitiveness of individual companies.

Jorgensen (2000) carried out a series of interviews at various stages of the environmental management system implementation, from its initial condition through to the final stage, and used case studies to reveal the organisational changes that two companies have undergone in connection with their quality and environmental management systems. Conducting case studies with interviews before, during and after establishment of environmental management systems has been useful for studying the process of organisational change in connection to quality and environmental management systems.

In summarising this discussion, one can see that while the use of extensive surveys has dominated environmental management research, there is an emerging trend towards qualitative research, to understand, *inter alia,* causation in decision-making, and cultural and institutional factors in behavioural change. Clearly, the relationship between environmental management and business has been extensively examined mainly from the perspective of the common experiences of companies where processes are represented. As a result, the relatively recent growth of environmental

management literature and the limited use of qualitative methodology in this field as part of a social science subject create the need for a better understanding of the interaction between business and the environment, *but also between implementing organisations and those agencies charged with institutionalising and accrediting environmental management practices*. So far, empirical work has not recognised the need for a grounded intensive investigation to explore how national contexts and organisational settings shape the issues encountered during the institutionalisation and implementation of a policy tool.

Qualitative research in this case can be extremely valuable for identifying patterns of associations between factors on the ground, as compared with abstract correlations obtained from the analysis of large-scale surveys (Hakim, 1987). Since a number of commentators now recognise the necessity for radical change in the way business is conducted, if environmental degradation and social conflict are to be reversed, then a qualitative approach to this kind of field research has much to offer.

4.3 Research Design: Qualitative Case-study Methodology

The choice of methodology here has its origins in two main concerns. Firstly, that the processes of ISO14001 adoption and the identification of pressures to adopt it are the product of more than just environmental actions; and, secondly, that the different actors involved in environmental management may see and interpret issues differently. A number of scholars (Yin, 1989, 1993; Hartley, 1994; Stake, 1998) indicate a case-study methodology as valuable in explaining such phenomena.

Case-study designs have been categorised as descriptive, selective, critical or strategic, deviant, and those aiming to experimental isolation. They can be positivist, interpretive or critical, depending upon the underlying philosophical assumptions of the researcher as mentioned in the previous section (Yin, 1989). Whether the case study is descriptive, explanatory or concerned with rigorous tests of received ideas, the use of multiple sources of evidence makes the case study one of the most powerful research designs (Hakim, 1987). Although typically associated with exploratory purposes, a case study has been described as the 'preferred strategy when "how" or "why" questions are being posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon within some real life context' (Yin, 1994:1, 1989:22-23).

The merits of a case-study methodology have been widely discussed. It is an inquiry that allows for a variety of data collection techniques and methods offering a more holistic and rounded design. It provides flexibility because it takes as its subject one or more selected examples of social entities, such as organisational contexts and events, roles and relationships, and considers a more rounded, holistic study (Hakim, 1987). A case study allows exploring new areas and issues where little theory is available or measurement is unclear, and where *'the boundaries between phenomenon and context are not clearly evident"* (Yin, 1989, 1994:13). Also it is argued to a suitable approach for assessing the close study of daily practices in diverse social contexts and is highly recommended for examining contemporary events such as organisational and managerial processes (Yin, 1993, 1989).

Case studies consist of a detailed investigation, with a view to providing an analysis of the context and processes involved in the phenomenon under study. The use of case studies has become widespread in studies of organisational contexts especially in understanding organisational innovation and change, as shaped by both internal forces and the external environment. They, therefore, are seen useful in understanding social or political processes (i.e. ISO14001) in their organisational and environmental context. Also, they can be used for exploring new processes or behaviours or ones that are little understood. Realities that conflict with expectations "unfreeze" thinking and allow for the development of new lines of inquiry and the modification of existing theory (Hartley, 1994).

Of course, the term "case study" has multiple meanings. It can be used to describe a unit of analysis (e.g. a case study of a particular organisation) or to describe a research method. The case-study methodology is frequently applied in environmental management studies or studies that track implications in complex organisational contexts. Although the subject to be analysed here concerns the use of a particular organisation, it also concerns the case study as a research method. It is a particularly complex issue because the case and its context are intertwined, and a single case may have several embedded units.

Because an environmental management system is an international scheme and a dynamic for companies, an international operating organisation is the main unit of analysis, along with a number of actors concerned with the institutionalisation and translation of ISO14001 within this context. The nature of the problem and the theories of interest dictate the case study as an appropriate method to answer the

particular set of questions, by exploring the role of various actors involved in the process.

Thus, this study employs a qualitative case-study methodology that is characterised by spending substantial time on site, personally in contact with the activities and actors involved in the case, and tracing the connections to broader structures and processes of environmental management. It is an approach that helps understand the process of implementing an environmental management system, its outcomes, and experiences of work through a network of respondents. The emphasis is generally more on qualitative methods because of the kinds of questions, which are best addressed through a case study method. The open-ended nature of much data gathering also allows for processes to be examined in considerable depth.

4.3.1 Case selection and access to Athens International Airport

The selection of a site is a critical decision, given that a rich mix of the processes, interactions and structures that inform the research questions should be present. Theoretically, the criteria for site selection is based on the rationale that the selected case reflects strong, positive examples of the phenomenon of interest (Yin, 1993). Consideration is given to the range of characteristics of the case, based on understanding the key issues comprising the study (Stake, 1998), but also on pragmatic factors such as the extent to which access is gained and a high probability of respondents is assured.

Such consideration has influenced this research, which involves an intensive investigation within a complex organisation along with the involvement of the crucial actors dealing with the implementation of the ISO14001 initiative. But it is worth reflecting on the question of the typicality of the case. Mitchell (1983) argues about the significance of the atypical case and the case in its context by stating that the merits of going to a great deal of trouble to find 'a typical case' reflects a degree of philosophical confusion about how cases generate knowledge.

"The use of case material in theoretical analysis, is that of the extent to which the problems presented as that of the «typicality» of the case. A typical case implies that the particular set of events selected for report is similar in relevant characteristics to other cases of the same type." (Mitchell, 1983:189).

Concern with this issue reflects a confusion of enumerative and analytic modes of induction. For general purposes, any set of events will serve the purpose of the analyst if the theoretical base is sufficiently well developed to enable the analyst to identify within these events the operation of the general principles incorporated in the theory.

Mitchell (1983) argues that the case study refers to the documentation of some particular phenomenon or set of events, which has been assembled with the explicit end in view of drawing theoretical conclusions from it. The focus of the case study may be a set of actors engaged in a sequence of activities either over a restricted or over an extended period of time. Also, Mitchell (1983) continues that the *particularities* of the context of the situation and of the actors are important features of case studies. The validity of the extrapolation depends not on the typicality or representativeness of the case but upon the cogency of the theoretical reasoning. In terms of this argument, case studies may be used analytically only if they are embedded in an appropriate theoretical framework.

However, generalising from case studies is no less problematic in relation to other methodologies. Hartley (1994) argues that the basis of the generalisation is not primarily about the typicality of the organisation. Rather the argument is about the existence of particular processes, which may influence behaviours and actions in the organisation. Understanding the contingencies (context) in which those processes occur is important.

The purpose of this research, therefore, is not to generalise in a statistical sense but rather to build theory and insights through the particularity of a context. The detailed knowledge of the organisation and especially the knowledge about the processes underlying the behaviour and its context can help to specify the conditions under which the behaviour can be expected to occur.

In pursuing this agenda, a number of factors have been examined through both their independent and intersecting effects, to help understand why ISO14001 has gained differing levels of legitimacy for the relevant actors. The investigation here is based on the processes by which events unfold, as Stake (1998) defines it. This case is of instrumental nature, chosen because it comprises processes that are likely to be representative of the way perceptions and responses work in general. Selection criteria draw on globalisation and policy dynamic, as well as on observations of the

case to develop a selection framework that embraces the following interrelated factors.

First of all, by focusing on Athens, Greece, which is a major urban centre, the study is able to shed light on the challenge facing southern European countries with similar institutional and cultural problems (see chapter 3). Athens[25] is the centre of Greece's administration apparatus diffused in a great number of buildings in the city centre and, therefore, the focus of the investigation.

At the same time, this case gives the opportunity to identify key factors that shape the paths of ISO14001 development. The extent to which environmental management is seen as an issue on the political agenda for Greece makes ISO14001 important, as it is an early participant in environmental management certification. Locality issues i.e. the perceptions of local residents and regulatory authorities as to what constitutes environmental problems and management are factors too. Environmental management is perceived within the context of sustainability concepts that are locally composed and locally specific, reflecting the heterogeneity of the natural world in which they occur and the diversity of the social contexts through which they are represented (Cairncross, 1995; Baker et al., 1997).

Secondly, turning to the analysis of the data in chapter 6, the aim is to explain the tendencies leading a universal tool for environmental performance to be adopted and further to grasp its impact on environmental policy more generally. It provides, therefore, an understanding of environmental management and policy in a particular setting and national level.

The Athens International Airport "Eleftherios Venizelos" at Spata displays important organisational, political, economic and institutional features, which are further illustrated in Chapter 6. The factors shaping participation in environmental management systems in southern Europe is an issue for which so far there is merely anecdotal evidence, with only a few solid empirical investigations (Steger, 1998; see chapter 5). The case of Athens International Airport provides insight into the actors' responses. It plays a theoretically constitutive role in advancing the understanding of this study, which draws towards illustrating how concerns and theoretical perspectives are manifested in the case (Hakim, 1997; Yin, 1994; Stake, 1998).

[25] Greek public governance is characterised by a centralised system of competencies.

The development of Athens International Airport "Eleftherios Venizelos" (AIA) can also be viewed as a particular concentration of global economic processes. The use of an airport, as a complex organisation operating internationally helps to illustrate these connections.

There are other institutional reasons why AIA ought to help illuminate contemporary trends in environmental governance. The airport is a major project and the first to have been developed under public-private partnership in Greece and it is of great political significance to Athens, in terms of its size, the level of capital investment and the image it conveys. The case also represents a sector that is resource and labour intensive, and plays an important role in virtually all countries. The structure of the organisation (being complex on the supply-side) and the degree of the company's dependence on international markets are crucial issues. Since AIA is based around an international operations market and a complex of companies, this variety of market conditions provides an important assemblage of supply side types, international pressures and competitive profile, identified in chapter 2 as crucial variables shaping adoption. An intensive study of Athens International Airport,[26] therefore, is important in respect of factors (governmental pressures, public-private conflicts, international management profile) exogenous to the organisation's activities, which seem to play a crucial role in company decision-making.

This study combines these elements and illustrates how and why a new regime of actors incorporates a business initiative as a policy tool, and how particular institutional implications shape the outcome in the particular case.

4.4 Qualitative Techniques and Design Aims

This section of the chapter describes the techniques adopted for data collection, which vary from interviews to observation and analysis of company and government documentation. Translating the research design into a workable programme of data collection and analysis involved a series of methodological steps, derived from the overall objectives and aims of the study and the conceptual framework guiding the research process.

[26] Athens International Airport is subsidised and constructed by a German-based multinational construction company.

Qualitative methods of data collection are used to interpret phenomena or processes of change such as the implementation of an environmental management system because a range of tangible and intangible elements are involved. Data generation and interpretation in this study involve different conditions, social values, institutions and relationships, which are likely to shape the findings (Hakim, 1987).

The following table illustrates the general techniques used for data collection in the case study along with their strength and weaknesses.

Table 6

Strengths and weaknesses of data sources

Source of Evidence	Strengths	Weaknesses
Documentation	• Stable - repeated review • Unobtrusive - exist prior to case study • Exact - names etc. • Broad coverage - extended time span	• Retrievability - difficult • Biased selectivity • Reporting bias - reflects author bias • Access - may be blocked
Archival Records	• Same as above • Precise and quantitative	• Same as above • Privacy might inhibit access
Interviews	• Targeted - focuses on case study topic • Insightful - provides perceived causal inferences	• Bias due to poor questions • Response bias • Incomplete recollection • Reflexivity - interviewee expresses what interviewer wants to hear
Direct Observation	• Reality - covers events in real time • Contextual - covers event context	• Time-consuming • Selectivity - might miss facts • Reflexivity - observer's presence might cause change • Cost - observers need time
Participant Observation	• Same as above • Insightful into interpersonal behaviour	• Same as above • Bias due to investigator's actions

Source (adapted): Yin, R. K., (1994) Case-study Research: Design and Methods. Edition: 2nd London: Sage Publications, at p. 80

Utilising this table, the chapter now turns to discuss these methods in relation to the particular study in question.

4.4.1 Interviews

Primarily, the study used interviews as the main source of information. The investigation utilises a series of qualitative in-depth interviews to gain insights on perceptions, meanings and interpretations given to the use of environmental management, illuminating the motivations and attitudes that serve to constitute a particular national and organisational framework. The interviews were conducted in Greek for best results and were translated into English.

There are several reasons why qualitative interviews were employed in this research (after King, 1994; Bailey, 1982; May, 1993; Yin, 1984; Punch, 1998). Firstly, the study focuses on the meaning of particular phenomena to the participants. Interviews are a widely used qualitative method in organisational and policy analysis research. They are considered a very good way of accessing people's perceptions, meanings, and definitions of situations and constructions of reality, within a wider social unit. Secondly, given that a number of quantitative studies have been carried out in this field, qualitative data sources can help to validate particular measures or to clarify and illustrate the meaning of the findings. Thirdly, as a method of data collection, interviewing has noticeable advantages, such as flexibility, a better response rate than a mailed questionnaire, observation of non-verbal behaviour, spontaneity and completeness.

The term 'qualitative research interview' covers various forms but the main dimensions of this variation are the degree of structure in the interview, how deep the interview tries to go, and the degree to which the interview is standardised across different respondents and situations (Punch, 1998; King, 1994). May (1993) suggests four broad types of interviews used for research: the structured interview, the semi-structured interview, the group interview and the unstructured or focused interview.

This study employs semi-structured interviews at the participants' place of work and with the relevant parties, in order to elicit contextually sensitive accounts of the environmental management procedure. The interviews could also be characterised as 'in depth'. In-depth interviews provide enough freedom for respondents, but interviewers also steer the conversation by, for example, bringing in all sorts of tangential matters, which for them have a bearing on the main subject (Hakim, 1987).

In-depth, semi-structured interviewing is the main tool of this study because perceptions and views are subjective elements, which cannot be identified by relying on administrative records or questionnaires, and which mainly represent rigid forms of research tools. Accurate details of the process of environmental policy and ISO14001 in particular, are not available for example in documentation or in formal questionnaires. Responses here illuminate whether the adoption of a global standard for environmental management in a particular context becomes crucial for environmental performance; or rather, whether it is a policy tool among others that merely satisfies vested interests and current harmonisation trends. The differences in responses are important in understanding the reasons why firms adopt such initiatives in a particular context and what adoption means for a different set of actors. It reflects the degree of importance given to such tools and the true efforts towards sustainable forms of activity.

In order to explore these perceptions and experiences, representatives of different occupational groups were chosen.

The network design (Appendix II) illustrates the actors/groups of the research strategy and relates to environmental policy in the wider sense. Access to Athens International Airport was gained through a difficult negotiation process. The research includes 31 interviews with different informants that comprise mainly four groups: external actors from government (i.e. government officials, policy makers, local authorities), non-governmental actors (i.e. NGO and academia representatives), private sector consultants (i.e. verifiers, certification bodies, environmental managers) and actors from AIA (i.e. Environment Department (ENC), Public Relations-Human Resources departments respondents and third parties). This selection process derives from preceding stages of the study and also forms the basis for the case study. It demonstrates a key feature of this research – the desire to connect processes of institutionalisation and implementation with key actors in the Greek state, shaping the wider national approach to environmental management.

The main actors/respondents were identified after a pilot investigation that took place in September 2001. However, a number of interviewees were tracked down by "snowballing" as the investigation progressed through key informants. The nature and diversity of participants was of crucial consideration.

Competencies for ISO14001 promotion and accreditation of ISO14001 in Greece lies within the Ministry of Development and particularly, the Department of Industrial

Planning and Environment, and the newly introduced Hellenic Accreditation Council (ESYD), which is a body under the aegis of this Ministry. The Ministry of Environment and Public Works (YPEHODE) plays a role regarding the contractual agreement with the airport developer (Hochtief) as it has contributed by 55 per cent to the AIA project. Steps for safeguarding the environment were among the issues included in the contractual agreement in the form of a law (2335/95).

Another group of interviewees is located in the businesses that administer the ISO series, through consultation and certification services. These are domestically and internationally operating companies, mainly branches of multinational establishments offering consulting, auditing and certification[27]. DQS, the certification body of AIA, is a German certification body, which raises interesting links about the globalisation of such techniques. Next, the external consultant that developed the system in AIA is a key informant.
The municipalities of Mesogaia where the airport is located, a number of NGO's, and academia were considered too in order to form a holistic view of the key issues.

Finally, internal actors from AIA, (i.e. the Environment Department (ENC) and executives in two other AIA departments (i.e. Public relations, corporate quality management departments) and a third party (i.e. Olympic catering) comprise the case-specific group of respondents.

Contacts were secured as follows. After the pilot stage, the next stage was to send faxes to the relevant ministry departments. The faxes were addressed to the heads of each department. Contacts were also made through the post. Communication with the organisation of AIA airport was mainly through the Environment Department (ENC), which mediated the research's context (letter) to other departments. Prior to going on-site, some preliminary telephoning and screening was undertaken, to identify the people who could bring multiple perspectives and contribute to the major topics of the study.

[27] Such establishments operating in Greece are: Bureau Veritas Quality International (BVQI), DQS (a German Certification body that certified Athens International Airport), LLOYD's Register of Shipping, TÜV Hellas Inc., TÜV Austria, TÜV Bagern, EUROCERT, S.A. Greek Ship Register etc. It is obvious that the launch of such a scheme has activated a number of private initiatives in this field.

The interview schedule was broken down into small sections that each contained a set of questions (typically 5–10) on a specific issue. An "interview guide" was used, listing topics, with attempts made to cover these in the course of the interview. The development of the guide was modified during its use by «adding probes or whole topics, which had originally not been included, but have emerged spontaneously». For each respondent, an appropriate number and mix of modules was selected to guide the interview and maximize the information obtained over the whole visit. This study involved full transcriptions of interviews; therefore, a full account of issues discussed was produced reflecting the research topics.

The Environment Department (ENC) of AIA provided a prime informant with relevant information and helped to facilitate interviews with the involved personnel. This assistance also created dilemmas for the research. ENC remained hesitant to allow investigation in other departments of the organisation. "Sensitive information" (i.e. environmental management manual, procedures, work instructions) regarding their environmental management system was not provided. The organisation showed immense control regarding the disposal of information and the participation of employees in the research.

As the analysis will show, this reticence towards the researcher highlights more general features of Greek regulatory style. The general uptake of environmental decision by the airport organisation is seen as a case of more general problems of adoption and diffusion of environmental practices, which is of particular relevance to the 'problem of implementation' experienced in Greek businesses in general. Such practices reflect issues relevant to regulatory culture (i.e. transparency and closeness). These practices are among the main features impeding upon and shaping the uptake of ISO14001.

Despite these difficulties, the findings provide a sound rationale for efforts to explain the issue of environmental implementation away from a quantitative approach to the substance of what is offered to the organisation and its usefulness in alleviating environmental problems. This is a crucial methodological point regarding useful findings, along with the controlling attitude regarding further information.

4.4.2 Triangulating data: Observation and documentation

Such a pluralistic approach points to more than one set of tools for data collection. The issue of triangulation is considered here. An in-depth case study with interviewing, observation and documentation has rarely been used in research on ISO14001. The use of these methods is appropriate for developing the specific theoretical framework as it provides a detailed description of the properties of the data collected. The approach chosen has offered the considerable advantage of being concrete, specific but also diverse.

Besides interviewing, therefore, the case-study design involves observation and the analysis of official documentation. These methods complement the primary source of data collection and offer, through the triangulation of methods, further validity and justification of findings.

Firstly, company documentation is analysed as systems of understanding, in the same way as other manifestations of behaviour. Written data sources here include published and unpublished documents, company reports, government reports, newspaper articles and so forth. Particularly for the environment-related agencies, the source of information is largely government based, through official documents and reports. In addition to these official transcripts, press releases through a number newspaper articles have been used. Other sources of data that support the research include archival records – for example, organisational records, maps and charts of geographical characteristics of the place, as well as survey data.

Usually, company documentation prescribes appropriate behaviours and different ways of getting things done in organisations, thus it is feasible to define understandings of the research problem (Forster, 1994). Documentary evidence reflects communication among other parties. It is crucial therefore to contrast perceptions and own accounts with what the organization describes "appropriate behaviours".

Secondly, the observation of relevant behaviours within and the current condition of the organisation adopting ISO14001 is another source of evidence that serves mainly a qualitative methodology. As Yin (1984) describes observational evidence is also often useful in providing additional information about the topic being studied.

Observation of an organisational unit adds new dimensions for understanding the context or the phenomenon under study.

4.5 Data Analysis

Overall, the use of qualitative analysis shows how a systematic management process is influenced by local particularities and values in the national context. In so doing, something of the power of ISO14001 to communicate across space is revealed.

The questions are explored by giving:

1. An in-depth perspective of the research problem through the investigation of a particular case study.
2. Access to valuable and more rounded information through in-depth, semi-structured interviews with the flexibility to develop the schedule both during an individual interview and throughout the study.

The approach to data analysis here can be categorised as the "editing" of texts. The editing approach has its roots in a phenomenological investigation where preconceptions are recognised through the analysis, which itself is an essential step.

"This style is termed editing because the interpreter enters the text much like an editor searching for meaningful segments, cutting, pasting and rearranging until the reduced summary reveals the interpretive truth in the text" (Miller and Crabtree, 1992:20, cited in King, 1994).

The best-known example of this is grounded-theory, which presents guidelines for developing theory grounded in qualitative data. In this project, however, the iterative process of data collection and analysis was clearly driven by the kinds of prior questions about environmental governance and management raised in chapters 2 and 3.

A key feature of most editing techniques is their cyclical nature; interpretations emerging from analysis of a particular theme or category are repeatedly compared with the original textual, which is also data called *"constant comparison: "Where its goal is to achieve a point of theoretical saturation where additional analysis no longer contributes to discovering anything new about a category" (Strauss, 1987:21, cited in King, 1994).*

Once saturation point is reached, excerpts from interviews are illustrated by displaying the range and variety of views on each question within a narrative that presents a synthesis, overview and interpretation; the degree to which subgroups, clusters and attitudes, associations, contradictions, are apparent; and the underlying logic of perspectives and behaviour are discussed (Hakim, 1987). By adopting this approach, each quotation is attributed to a respondent who is identified by a reference number, supplied with relevant occupational characteristics to understand positionality, but otherwise maintaining anonymity.

As with all research approaches, there are strengths and weaknesses, and issues of reliability and validity are key criteria in qualitative research (Silverman, 2000). There are two issues in particular that impact on this study.

The first is the issue of bias. Because qualitative research is strong on descriptive narratives, questions arise as to how events and activities are categorised and evaluated. When attempting to understand political culture, including sensitive issues like clientelism, it is important to acknowledge from the start that no single method can be expected to give "true confessions". A degree of validity is achieved by triangulating within and across interviews, and by ensuring that they present and examine alternative explanations of data, where relevant (Hartley, 1994).

The second issue concerns the linguistic problems arising where the use of both Greek and English in interviewing and other methods of data collection have led to ambiguities. As mentioned above, the interviews were conducted in Greek and were translated into English. Understanding and interpreting the language and culture of respondents is of paramount importance and there are different ways of saying things. Within this context, therefore, it was important to consider the different intellectual, social and cultural backgrounds of the actors involved in such debates. This controversy of a diverse set of responses suggests that actors hold variation in the language that mediates ideas and concepts of environmental management. This study considers this issue important and pays great attention to different understandings among participants and meanings.

Chapter 5 ISO14001 in the Greek context

5.1 Introduction

This chapter examines the adoption, institutionalisation and implementation of ISO14001 in Greece. The impact of voluntary environmental regulation in Greece is assessed with particular reference to the ISO's environmental management standard. The analysis is based on a broad framework of factors discussed in chapters 2 and 3 – bringing together institutional capacity, regulatory culture and governance style – which are intertwined in explaining how a number of factors influence decision making, adoption and implementation of ISO14001. The series of in-depth interviews are analysed to help understand the reasons why initiatives like ISO14001 have been adopted and what the impact is of their implementation for different sets of actors. Besides the response of the Greek companies, the efforts of the Greek government demonstrate that there is a strong interest in ISO14001 adoption, and also in institutionalising EMS requirements in state infrastructure development.

This chapter, therefore, focuses on a number of themes. First, is the economic and environmental context where the spectacular rise of the economic development in Greece has been accompanied by intensive environmental degradation, especially in the capital city, Athens. During the period of intensive industrialisation in the absence of effective physical planning policies, polluting industries were created that are in part responsible for today's environmental problems.

Next, the analysis considers how the institutional framework of these tools has been transformed to accommodate and connect a broader number of actors, such as business experts, environmentalists and policy makers. The implementation of an environmental management system is seen here through the interpretation of a range of competencies. The data from interviews reflects a number of doubts from the different actors involved in the national context of environmental policy. A high dispersal of environmental policy between a range of public or private competencies results in difficulties of co-ordinating and laxity of systematic planning and control.

Also, an obese bureaucracy, lack of professional competence, low environmental awareness and low communication between government and non-government actors all impact upon policy implementation.

The regulatory change from command and control towards voluntary schemes, the rise of a new market for expertise in environmental management, and moves towards more participatory forms of governance are all crucial elements for explaining harmonisation trends, competitiveness issues and disclosure efforts. It is shown that key aspects of institutional capacity and regulatory issues stand out as important. They explain implicitly the very low level of environmental management involvement in Greece.

5.2 Economic Development and Environmental Issues in Greece

Governments in Greece always considered economic development a crucial factor in relation to the country's capacity to adopt and implement environmental policies. Greece belongs to the group of southern European countries characterised by late industrialisation. Economic development up to the 1950s was markedly agricultural (Kravaritou, 1994). High rates of economic growth were attained during the 1960s and the early 1970s due to the extent of industrialization, aided by multinational capital.

At the same time, economic development was accompanied by an equally impressive urbanization movement, internal migration and the absence of adequate infrastructure to handle the effects of these changes through a rapid and unplanned process (Kousis, 1994; Spanou, 1998). The post-war Greek state before the1967-74 the military dictatorship, that facilitated and intensified unrestricted development through various economic incentives, including low interest loans, subsidies, and tax allowances, which allowed for the continuation of these processes[28] (Pridham et al., 1995; Spanou, 1998).

Although there have been impressive achievements in terms of general growth rates, Greek industry has been seen as heavily biased towards labour-intensive, low-technology and dubious-quality consumer goods (EC, 1996). In general, Greek

[28] An OECD study estimated that Greek GDP grew at an average of 6.1 per cent per year, one of the highest growth rates in the world and second only to Japan among the OECD countries.

industry was concentrated in a limited number of labour-intensive sectors and was unable to develop other sectors with a high technological content (EC, 1996, 1995). In manufacturing, development projects have been undertaken mainly in textiles, chemicals, and non-metallic minerals in the fertilizer, magnesium, soda sugar, steel and ship-building industries, all of which are heavy polluters (Lekakis, 2000).

The birth of Greek environmental law was initiated by one study in the mid-1970s, shortly after Stockholm. Efforts to put environmental regulations on the political agenda marked the subsequent period[29]. Largely as a result of international pressure to tackle the environmental problems raised at global level, the authoritarian regime (1967-1974) in Greece began to introduce basic laws on national parks, the protection of game, and the control of shipping (Weale et al., 2000).

At the same time, the government facilitated growth and financed various environmental protection projects in the context of planning for economic and social development. Shortly after the departure of the military government "junta", the start of environmental policy in Greece was marked with an amendment on environmental protection, which was included in the 1975 Greek constitution (Article 24), an issue discussed further in the analysis. The article made specific reference to the need for environmental protection of the natural and cultural environment and the government's direct responsibility towards that end (Weale et al., 2000). Whilst the arrival of democracy and the emergence from international isolation opened up the prospects for environmental policy in Greece, practically speaking environmental matters did not automatically move up the policy agenda, because of focus on various socio-economic issues (i.e. industrial growth, unemployment) (Kousis, 1994; Spanou, 1998).

Greece entered the EU in 1981 and is now considered to be among the economically developed countries of the EU (Liviakis, 2001). Since the early 1990s, the emphasis of industrial policies in Greece has been shifted in favour of policies for promoting competitiveness through multi-annual investment schemes in big and dynamic firms.

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[29] The protection of the environment has become an issue of increasing concern and has flourished at a legislative level since the 1970s through various pieces of national and European legislation along with international agreements.

The services sector has expanded rapidly. Relatively speaking, agriculture and industry have declined. The Community Support Framework (CSF) 1994-1999 programme, pursued with the co-operation of the EC, centred on encouraging foreign investment and helping enterprises with sufficient potential to meet the challenge of technological development and increasingly internationalised markets. The following Community Support Framework (CSF) 1999-2004 program was crucially centred on environmental management measures. So, since 1997, Greece can equally be compared with the economies of western Europe, namely Germany, UK, France, Denmark, and Finland in terms of GNP, inflation rates and import/export capacity. The entrance to the Monetary Union was catalytic to that progress (Liviakis, 2001).

It is not surprising that the spectacular expansion of economic development has been accompanied by the emergence of intense environmental problems. The huge growth in tourism with extensive construction of tourist resorts, increased sewage discharges, traffic congestion and extreme solid waste aggravated by uncontrolled urbanisation, unrestricted building and fragmentation of landed property are in part responsible for today's environmental problems. Additionally, there are a number of other issues magnifying the country's environmental impacts that need be addressed.

Firstly, industrial activity has been heavily concentrated in the two major urban centres, the capital Athens and Thessaloniki, causing a serious regional imbalance with a third of the population and even more of the economic activity being concentrated in the Greater Athens area (EC, 1997). Problems such as pollution and congestion have started to be noticed in these areas of high industrial concentration.

Secondly, an interesting aspect of the development pattern and extreme environmental consequences in Greece involves the plethora of small, simple-commodity production units, which are the result of both the sectoral specialisation and the business culture of the country (Vigliarolo, 1999). Greece contains a great deal of small enterprises, which employ perhaps less than five people and produce a considerable amount of pollution but are less inclined and able to embrace control of the environmental impacts. They exist alongside a few large firms comprising much of the country's industrial expansion[30] (Pridham et al., 1995; Kousis, 1994; Spanou,

[30] In industries such as energy, motor industry, electric equipment and the services sector, which contain a high proportion of large enterprises (250 employees and over), the share of total employment in Greece in comparison with the rest of EU member states is the lowest.

1998; Featherstone, 1998). That is a major contradiction in relation to the large organisations, which mainly stand out as exceptional companies of high standards (i.e. Athens International Airport).

Thirdly, at the policy level there are also implications regarding economic development and environmental protection. Industrial policy in Greece has been defined by the intense politicization of the economy and the close interlinking of political and economic concerns and objectives (Lavdas, 1997). Furthermore, the entrepreneurial background suffers from severe structural weaknesses too. These include serious administrative obstacles in different activities of productive units, policies and regulations concerning the controlling of environmental impact, lack of investment incentives and capital movement and limited labour markets (Mpitros, 1997). The absence of sectoral measures and policies, which have characterized the Greek industrial policies for many years, and the lack of a well-designed plan for interventions are two factors that constitute a serious weakness of the Greek policies (EC, 1996). In addition to the development pattern, weak social mobilisation, a consumer-oriented society and low environmental awareness have been put forward as accounting for environmental degradation in Greece (Kousis, 1994). They are important matters for this investigation.

5.2.1 Environmental policy and sustainable development in Greece

Greece is commonly viewed as a latecomer on the environmental scene, in terms of granting serious attention to environmental policy. Full membership of the EU was marked with more conscious efforts, in order to harmonise policies with other member states that took a more extensive form of measures on environmental matters.

The mid-1980s in Europe were marked by a considerable increase in infringement proceedings against member states for the non-implementation of EC environmental legislation. Undoubtedly, this measure was indicating difficulties of policy overload, not to mention the complexity of much environmental legislation. At that time, environmental degradation in southern Europe started to become a rather pressing issue, mainly because of massive economic development.

Greece replied in 1986, with an Environmental Policy Act Framework Law that was passed in order to co-ordinate approaches to the environment and to facilitate the adoption of EU directives. It was intended mainly to overcome institutional

fragmentation, which by that time was recognised as a fundamental problem for implementing environmental regulation (Weale, et al, 2000; Pridham, 1994). This framework law has been criticised as being an attempt at casting a framework for environmental protection and curbing industrial pollution without endangering growth. In fact, it is argued that the government passed it without relying on strict regulations, due to a compromise agreement with the federation of Greek industrialists that otherwise might hinder Greek industrial development. Apparently, at that time the private business and industrial sector was not the target of environmental controls (Kousis, 1994; Pridham, 1996).

By the early 1990's the emergence of sustainable development and the EU's efforts to harmonise environmental policies between member states were strengthened by a number of programmes and Treaties[31]. The emerging twin issues of Economic and Monetary Union at the end of 1990s made EU governments and industries reluctant to accept the cost implication. However, the pressure for a stricter approach to environmental protection forced member states to merge efforts to harmonise their policies (Barnes & Barnes, 1999). It is only from the early 1990s, onwards therefore, that the new dynamism of EU environmental policy really began to have some qualitative impact on national policies. Environmental regulation started to proliferate and the issue of environmental policy implementation became more prominent, for failures were now seen as a potential barrier to free trade. It became apparent that the pressures to converge policies among member states were largely with an eye to removing trade barriers. Consequently, Greece underwent more conscious efforts to develop environmental policy, in order to harmonise policies with other member states, even though it had traditionally viewed environmental protection of lesser importance. As a result, the Greek government's response to all the standard concepts current in EU and international circles pointed to adopt sustainable development although the effects have varied in relation to other member states.

A national co-ordination mechanism for environmental policy has been developed, in order to mobilise the interest and involvement of competent bodies to co-operate with all sectors of the economy. National law 1650/86 for the protection of the environment, the EC regulations and directives and obligations of Greece with

[31] Sustainable development redressed the balance between economic development and environment and was strengthened in the ratification of the Single European Act in 1987, the 5th Environmental Action Plan later in 1992, the Maastricht Treaty in 1993 and the Amsterdam Treaty in 1999.

respect to international environmental agreements and conventions are considered to constitute the Operational Environmental Programme, which aims at promoting the implementation of the environmental standards as they are addressed at European and global level.

The Greek government's national report for the Rio conference of 1992 made suitable reference to all the current standard concepts. This was the first time a major Greek policy document on the environment stated in bold terms the principles that motivated Greece's policy approach on sustainable development.

Official documents such as the national reports to the Council for Sustainable Development (CSD) and to parliament tend to highlight the establishment of new schemes/directives (i.e. EIA, EMAS etc.) as indispensable evidence of the country's commitment to sustainable development. Apart from the mandatory regulations that were set out by government to comply with European and world scales, the Greek government has emphasised the importance of the market place and its willingness to introduce voluntary regulations. Greece has encouraged the application of voluntary action in recent environmental policies. Greece (along with Italy, Portugal and Spain) shows some similarities with the northern countries, especially Germany and the Netherlands, in their preference for regulation, their inclination towards consensual and exclusive styles, and their rhetorical, if not principled, movement towards such notions (Weale et al, 2000).

Of particular importance is the role of ISO14001 in the national context since it is embodied in the EMAS regulation. The European Commission has recently adopted a proposal for the revision of the Eco-Management and Audit Scheme (EMAS), which was established in 1993 aiming at promoting continuous improvements in the environmental performance of industrial activities. The Commission has taken the opportunity of the revision of the 1993 Regulation:

"To ensure the broader applicability of the instrument and to increase the clarity of the requirements and the transparency of the EMAS scheme. One of the main changes to the existing system would be to extend its application outside industry,

meaning that sectors such as the financial sector and even the Commission itself would be able to participate." (EC, 2000)[32]

In order to facilitate the process, the proposal allows organisations to use the international environmental management standard ISO14001 as a building block for EMAS accreditation. The incorporation of ISO14001 in the EMAS regulation is establishing it as part of the EU policy framework. This has meant a crucial change for environmental management practices in Greece. EMAS regulation and consequently ISO14001 have been easily integrated into the national framework of environmental management policies, as there is no need to transpose regulation. EMAS is considered to have been strengthened by the integration of ISO 14001, the environmental management system required by EMAS.[33]

This means, in effect, that companies or organisations already fulfilling ISO standards would need only to address certain supplementary elements to become accredited to EMAS, thus complying with EU requirements. One can see how the international standard in relation to EMAS is seen to have successfully gained ground due to its market position.

5.2.2 Government actors for environmental management

The bodies and actors that comprise the apparatus involved in ISO14001 adoption are crucial in this wider context of environmental policy. The Ministry of Environment and Public Works (YPEHODE) is the competent Ministry for environmental policy and currently for the formulation and administration of a strategy for sustainable development. Historically, in 1980 the Ministry was created under the title of Physical Planning, Housing and the Environment[34]. This origin clearly suggests that environmental management was slotted into the pre-existing state machinery rather than involving any serious institutional reforms. In 1985, the Physical Planning and Environment sectors were combined with the powerful Ministry of Public Works to form YPEHODE.

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[32] Since 2001 EMAS has been open to all economic sectors, including public and private services (Regulation (EC) No 761/2001 of the European Parliament and of the Council of 19 March 2001). European Communities (2001) Commission proposes to revise EMAS: CORDIS RTD-NEWS (Record Control Number: 11513- Date: 1998-11-04).

[33] http://europa.eu.int/comm/environment/emas/about/summary_en.htm

[34] Its predecessor was the National Council for Physical Planning and Protection of the Environment, set up in 1976.

Although this Ministry with its part-title of environment has been established, environmental policy responsibility remains highly dispersed between a range of Ministries, including Merchant Marine, Agriculture, Transport, Industry and Development and National Economy (Pridham, 1996; also discussed in chapter 3). The YPEHODE has an indirect involvement in ISO14001, regarding industry-business public procurement and other contractual agreements (i.e. the contractual agreement of Greek government with multinational operations for the construction of Athens International Airport (AIA)). Nevertheless, as Weale et al. (2000:209) and Featherstone (1998:30) have argued, the overall structure of this institutional apparatus has been criticised for subordinating environmental protection to expensive developmental projects (i.e. AIA).

Besides the overgrown state bureaucracy, the ability of the Greek state to award public contracts is constrained by EU obligations, which have been tightened since 1998. Greece is bound by new EU rules on the award of public contracts, which greatly strengthen the Commission's power to intervene in such cases, providing for greater transparency and competition (Featherstone, 1998). Also, the EU has played a significant role in co-operating with the Ministry of Development in carrying out programmes like the 2nd Structural Funds Programme and the 3rd Structural Funds Programme as discussed below.

One can see this in the case of Athens International Airport, where YPEHODE contributed for 55 per cent of the total amount of the construction costs. The controversy surrounding the award of the contract to build the new airport AIA (see chapter 6) highlighted the current and future constraints. Greece needed the injection of EU funds to make the project viable: the Commission was an essential patron of the project. Indeed, it was the biggest infrastructure project backed by the EU. It is based on a public-private sector partnership and is worth some ECU 2 billion (1.64 billion pounds). The award of the contract placed Athens under the adjudication of the Commission. After much political controversy[35] regarding the partnership, the Commission went along with what Athens wanted, but the conflict highlighted the limited ability to manoeuvre available to the Greek government (Featherstone, 1998).

[35] Changes in government supported different private interests. For example, "New Democracy" supported the construction of the project by a French multinational construction company, whilst "PASOK" supported the German Hochtief. The project was initiated when PASOK was in power.

At the institutional level, the implementation of environmental policy in Greece has progressed through the development of committees. The Council for Sustainable Development is an initiative at general secretariat level (ministries). It is a body that deals with environmental planning and determines the distribution of certain activities. It has a committee[36] legally sanctioned to sectorially design and function through ministerial decrees.

The responsible body of EMAS is the department of International Affairs in the Ministry of Environment and Public Works (YPEHODE) and here again the EU plays a role. When the first EMAS regulation (18/36) was adopted in Greece, the framework of responsibilities for the competent ministries was to select two bodies for the administration of the regulation. The first is a committee[37] in the International Affairs and EU department (launched by the YPEHODE), which is the competent body for registering verified companies with EMAS. This committee has carried out a campaign for marketing EMAS, through advertisement, two seminars, publications of a EMAS manual, along with information and leaflets that were entered in various economic and business journals. Also, a database was created including all the interested parties. This committee has functioned on the occasion of the Johannesburg Summit (2002) in order to have a wider view on sustainable development matters.

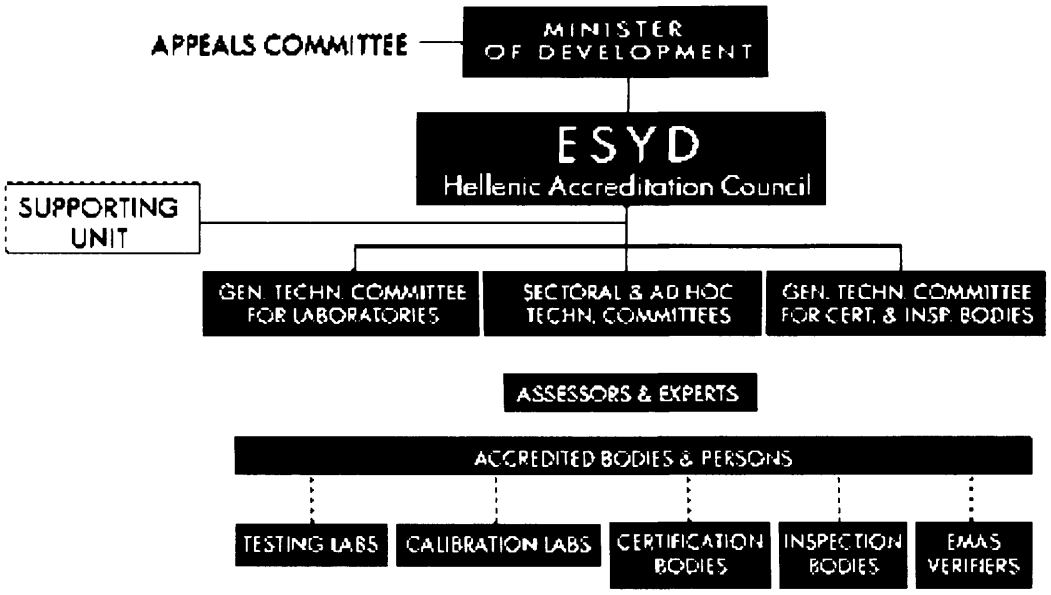
The second body, and crucial for ISO14001 dissemination and implementation, is the Hellenic Accreditation Council (ESYD), which verifies/accredits certifiers. ESYD is the country's national accreditation body, operating within the Ministry of Development. It is the state's official technical advisor and the decision-making authority for accreditation issues. The ESYD members are representatives of Ministries, of the industry and of scientific and social services bodies and organisations. ESYD is supported in its tasks by a managerial unit, by two General Technical Committees, as well as by several Sectoral Technical Committees, the members of which are experts in particular industry sectors. It employs external assessors and experts. It was founded in 1994, but it has started only recently to function as an accreditation body.

[36] (Int 27 Government Environmental Expert) Centre of SD

[37] (Int 1 Gov. Official-EMAS Expert) Department of International Affairs and EU, YPEHODE

Figure 1

Hellenic Accreditation Council (ESYD) structure



Source: The structure of the Hellenic Accreditation System. ESYD: Ministry of Development.

ESYD is involved in a number of international accreditation networks. It is one of the founding members of European co-operation for Accreditation (EA). The removal of all technical barriers as a result of the Single Market forced European Accreditation Bodies to create the European co-operation for Accreditation (EA), which is founded on the equivalent operation of its members. Members of EA are nationally recognised accreditation bodies of the countries of the European Union and EFTA. The EA members are required to operate according to the same criteria, as described in the EN45000 series of standards and the relevant ISO/IEC guidelines. For the same reason, the Accreditation Bodies enter into a Multilateral Agreement scheme, following peer evaluations among EA members.

At the global level, co-operation between accreditation bodies takes place within the International Accreditation Forum (IAF, for certification bodies) and the International Laboratory Accreditation Co-operation (ILAC, for laboratories). When required, ESYD provides accreditation services to laboratories and certification or inspection bodies in other countries, and it participates in joint assessments with other accreditation bodies too. ESYD has been accepting applications for accreditation since January 2000. The first accreditation certificate was issued in June 2000, and it has granted a great number of accreditation certificates since then.

ESYD offers accreditation to independent environmental management system certification bodies, which provide certification for ISO14001 and operate according to the standard Hellenic Organisation for Standardisation (ELOT, discussed below) EN45012 and EA Guide EA-07/02 and to environmental verifiers, according to EC Regulation (761/2001) on Eco Management and Audit Scheme (EMAS). Also, it accredits services to laboratories, which perform tests according to the ISO/IEC17025; to independent product certification bodies, which operate according to the standard ELOT EN45011. Further, it accredits services to independent quality management system certification bodies, which certify suppliers with ISO9000 standards and operate according to the standard ELOT EN45012; to independent personnel certification bodies, which operate according to the standard ELOT EN45013; and to product, process or service inspection bodies that operate according to the standard ELOT EN 45004.

Although ESYD has now been launched, its development has been dogged by controversy. It stands as a branch of a state accreditation body, but the investigation reveals that there are limited resources for the inspectors and the way it operates. At the time of writing, ESYD has not progressed on the announcement of verifiers largely due to the delayed development of the institution of verification and other institutional problems. This issue highlights a disadvantage for the ESYD, even if it does not completely undermine its prospective role.

Next to ESYD, the Hellenic Organisation for Standardisation (ELOT) is the Greek representative for ISO. According to law 372/76, amended by Law 1682/1997[38], the Hellenic Organisation for Standardisation (ELOT) identifies and is entrusted with the development of certification activities. Also, according to Ministerial Decision 22729/509/26-6-1998 "Certification Procedures of the Hellenic Organisation for Standardisation S.A", issued by the Ministry of Development (Government Gazette 708/B/13-7-98), ELOT is eligible to issue Certification Procedures and Systems (i.e. ISO certification systems). The Hellenic Accreditation Council has accredited the implementation and realisation of ELOT certification activities. ELOT has developed and operates a scheme for the certification of Environmental Management Systems, according to the requirements of the ISO14000 series of standards and is also involved in the implementation of EEC Directives in co-operation with the concerned public authorities. It undertakes sampling, testing, inspections, and assessment of

[38] Presidential Decree 155/1997 *"Incorporation and Statutes of the Societe Anonyme «Hellenic Organization for Standardization S.A.»*.

procedures and systems using its own facilities and staff or in co-operation with other accepted interested parties.

5.2.3 Implementation obstacles in Greek environmental policy

This complicated domestic/international picture illustrates particular features that shape the nature of environmental policy in Greece and complete the picture of ISO14001 implementation. Greece always lacked a coherent policy framework because of a number of deficiencies, which still represent major implementation obstacles in the area of environmental policy. As presented in chapter 3, the different ways in which EC member states administer and co-ordinate their European policies are the combined result of institutional traditions, national perspectives on EC membership, the anticipated political and economic costs and benefits, and political contingency (Lavdas, 1997). That is, this study refers to elements of policy styles and institutional capacity.

Along with the southern EU countries (i.e. Italy, Spain and Portugal), Greece's preference for economic development is playing an important role in the country's response to environmental policy and management (Jansen et al., 1998). A number of scholars have acknowledged that the persistence of the Greek state's priority to rapid economic growth is the major impediment to the country's progress on environmental matters and has its origin in the post-war period, which was a period characterised by unregulated and unrestricted development (Pridham et al., 1995; Kousis, 1994; Spanou, 1998; Lekakis & Fousekis, 1997; mentioned in section 5.2). Greek governments have traditionally viewed environmental issues of lesser importance given the emerging problems of unemployment or poverty. The country's intrinsic aim to develop economically and gain access to the Single Market is a crucial impetus that has overshadowed the environmental imperative.

But strong efforts to harmonise with the Single Market made the country take greater strides in keeping pace with EU legislation than northern countries. In recent years, Greece was made to consider the adoption of various environmental policy tools as a prerequisite for success. There are tendencies, therefore, to adopt EU legislation, which they know they cannot implement properly in practice for a variety of technical, administrative and financial reasons.

Environmental policy in Greece has been criticised from its enactment (mid-1970s) because numerous organisational restructuring of environmental issues and reports

that were produced at that time were pointing to a merely symbolic inclusion of the problem in the political agenda. The post-dictatorial period in Greece bears two major and fundamental characteristics for environmental policy: firstly, the emergence of a symbolic approach of environmental policy, thus consistent with minimal solutions; and, secondly, the fragmentation it implied (Spanou, 1998; Butt Philip, 1998; Jansen et al., 1998). This is evident with the record of Greece on transposition of environmental directives into national law. Although transposition is relatively high, the practical implementation for Greece is rather poor[39] (Weale et al. 2000; Pridham, 1996).

There is a range of particular features that shape environmental policy, influencing the fabric of the public and business sectors and play a role in the context of environmental policy. Public administration gradually began to respond to the constitutional provisions for environmental management, but the institutional and cultural picture, which has emerged, reflects many of the more general deficiencies of the Greek state apparatus, with some negative consequences in the environmental sphere (Pridham et al., 1995; Mpitros, 1997). In brief, Greece has long been criticised for its inadequate administrative systems, corruption, vested interests and other systemic deficiencies that undermine the implementation of policies.

Firstly, regulatory and political culture practices have been widely regarded as a defining feature of the Greek system. The "importation" of policies and philosophies from western Europe into the domestic Greek arena attendant on EU membership (Featherstone, 1998) has led to an asymmetric and unbalanced process of "Europeanisation", where important components of the state's political system have evolved rapidly and extensively while other vital elements of government and administration have failed to move as quickly (Ioakimidis 1996). That is not to say that EU membership implied merely a rhetorical ideological commitment to the objectives of the integration process. It involved the internalisation of norms and dynamics of the EU into the domestic policy formulation. However, this does not imply therefore automatically that the EU logic, discipline and behaviour was embodied (Ioakimidis, 1996). That is why particular political features still stand out and are worthy of discussion.

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[39] In 1994 the adoption rate of environmental directives in Greece was 85%, whereas in the UK at the same time it was 82%, in Italy 76%, and in Germany 91%.

One important feature is clientelism, an element of the political culture of the state mechanism of Greece and well established in the socio-political and economic system. Albeit to a diminishing degree, the state is seen as the instrument for satisfying clientelistic demands, as a mechanism for allocating favours. Such practices vary from the individual to the collective level, involving party machines and their control over the allocation of public resources (Lavdas, 1997:53). Clientelistic networks have developed in parallel with individualised practices and fragmentation also in the area of government-business relations (Lavdas, 1997:89). This type of clientelism, as a structural factor underpinning the interactive relationship between state and society, constitutes a significant impediment to deepening the Europeanisation of Greek politics (Ioakimidis, 1996:43). To a degree it is the inefficient practices of this kind that largely accounted for the delay and way in which EU directives were implemented in Greece (Pridham et al., 1995; Pridham, 1996; Weale et al. 2000). Evidently, it is an issue that pre-dates EU membership but remains unresolved.

Secondly, other cultural features along with the administrative system reinforce these clientelistic characteristics. Greek environmental management suffers from policy fragmentation and a closed mentality that has inhibited the diffusion of official information. There is a high dispersal of competencies between various ministries and hyper-sectorialisation, whereby each ministry incorporates an environmental division. Greece's environmental responsibilities are considerably fragmented along sectoral lines, reflecting a more general tradition of intense compartmentalisation within the public administration system (Pridham et al., 1995; Pridham, 1996; Weale et al. 2000). Also, public attitudes towards observance of the law have often affected practical implementation. Bureaucratic lethargy, a traditional lack of openness in Greek bureaucracy, an obese administration state, inefficient and corrupt and a general weakness of professional competence, compound the picture (Pridham, 1996; EC, 1997; Weale et al. 2000; Featherstone, 1998:28).

Proactive initiatives have been linked more to individual ministerial commitment than to a collective redirection of approach towards integrating environmental concerns into other ministerial portfolios. Apparently, the economic and political climate in Greece, together with administrative weaknesses holds back a sustainable development process. Furthermore, the political culture of the citizenry and economic insecurity about the future does not favour action on a broader collective basis (Pridham, 2002; Fousekis, Lekakis, 1998).

Changes occur slowly and are usually of a minimal kind; but it is this absence of environmental policy strategy that has allowed traditional and especially economic concerns to remain dominant. The adoption of environmental policy is considered a prerequisite for economic success but without sufficient infrastructural status (i.e. institutional deficiencies and cultural peculiarities) implementation may be viewed as a "hollow" process. The drive for convergence with other member states focused almost exclusively on the absorption of Community Funds (an issue discussed further) for the purpose of economic growth. Greek governments have long placed a priority on acquiring EU resources for development, specifically from the Structural Funds, irrespective of their consequences.

5.3 Harmonisation Trends through ISO14001

The majority of respondents in the public and private sector feel that harmonisation at the policy level seems to facilitate private international influences. ISO14001 incorporation in the EMAS regulation is considered a positive step in facilitating a globally recognised scheme. At the EU level, evidence suggests that there are strong efforts to harmonise policy schemes so as to avoid operating at different levels. ISO14001 was incorporated into EMAS regulation to avoid differentiation between the two schemes. It is considered a fair process, as interested parties were originally confused when two schemes came out in parallel.
The European Committee for Standardization (CEN)[40] had discussed the issue of EMAS and ISO14001 extensively and, indeed, concurred with that outcome (recent revision) after launching the EMAS regulation.

"As long as Europe has parallel and similar activities with ISO there should be one scheme from the start in order not to be accused (Europe) of not following globalisation trends". (CEN member: Int 14 Gov. Official Standardisation Expert)

In fact, it has been argued[41] that the initial aim of the Commission was for a European standard for the regulation. Then, the committee that CEN had charged to work on this matter decided to adopt ISO14001 instead of setting up another standard and creating major confusion. Cooperation between the Commission and

[40] CEN member: (Int 14 Gov. Official Standardisation Expert)

[41] (Int 1 Gov. Official EMAS Expert)

CEN was mainly due to the kind of pressures to launch a unified global tool (see section 2.4.4).

Furthermore, there is evidence here that the EU's efforts to reconcile the two schemes were because of businesses' preference for the private initiative. ISO14001 originates from a global private body (International Standards Organisation) and is more widely known to the international market and the public. ISO14001 is considered more compatible and familiar with business activities; hence, it is a business initiative itself and has a successful predecessor, the ISO9001. Some companies already have a quality management system (ISO9001) in place, which also originates from the International Standards Organisation. The familiarity and compatibility of ISO14001 with ISO9001 is a crucial factor for business decision-making. Most companies, when developing ISO9001, consider it relatively easy to go along with ISO14001 with few adjustments; hence, it is virtually the same certification.[42] From the business side, the convergence of the two schemes is seen positive because it decreases the companies' confusion and they can choose between the one or the other scheme.

These harmonisation trends are also illustrated recently at the domestic level through government initiatives. There are efforts from the Greek government to build on a sustainable strategy through the modification of a 1984 presidential decree on development (P.D. 84/84). The modification of this presidential decree, as an amendment, made particular reference to an article for the environmental management practices as part of the development improvements in the greater Attica region. It is an evolving Environmental Plan to promote sustainable practices to industry,[43] within prospective development plans in Athens and is an issue that deserves some attention in this thesis. According to this decree modification, all companies operating in Athens, Attica industrial zones must implement an environmental management scheme either according to the EMAS regulation or to the ISO14001 standard[44] if they wish to remain within these industrial zones. The choice is based on the scale of environmental impact of the company.

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[42] (Int 22 NGO Respondent - Environmentalist) (Int 11 Environmental Expert - freelance Auditor)

[43] Office for the environment: (Int 8 Gov. Environmental Expert)

[44] There is a precise list dividing between medium and high impact companies according to their activity and designates the adoption of EMAS or ISO14001 respectively.

Within Greece, ISO adoption, therefore, is becoming part of the criteria for allocating EU funds[45] as it is with the financial help of the 3rd Structural Funds Programme[46] and through the Ministry of Development that a great number of Greek businesses feel able to participate in the adoption of EMAS or ISO14001. Within this Environment Plan, it is shown that most of the enterprises expressed interest in ISO14001.

The EU's role, therefore, is seen as part of an enormous effort to motivate business to understand their potential economic benefits through a series of steps taken with the 3rd Structural Funds Programme. Certification of ISO14001 is seen as more convenient, since it can be provided not only through ELOT (Hellenic Organisation for Standardisation) but also by international independent auditing companies (commonly consultancies), which co-operate with corresponding establishments in Europe (i.e. Bureau Veritas Quality International (BVQI), Lloyds Register, Det Norske Veritas, Austrian TUV, Bagern TUV, etc.).

Prior to this initiative, in 1999, the Ministry of Development initiated a similar programme, inviting enterprises from the manufacturing sector to adopt an environmental management scheme (i.e. EMAS and ISO14001). The funding provided came partly (60 per cent for EMAS and 50 per cent for ISO14001) from the Greek government and from the 2nd EU Structural Funds Programme. The rest came from business participation, amounting to 900 GDR million. Greek businesses responded with great enthusiasm. There was strong interest from both government and industry in adopting ISO14001. Proposals were evaluated and finally 102 enterprises were able to participate under those schemes and gain certification by the end of 2000. The Environment Plan is considered a very ambitious framework law, involving practices that are now considered essential elements of the Greek regulatory industrial framework, and a great effort towards environmental industrial planning.

[45] The pressures are definitely European and here all regulations and directives have been adopted in full (Int 13 Gov. Official - ISO Expert)

[46] Eleftherotipia (Greek press, 2002) Article on allocation of Structural funds for the environment and SME's in Athens.

5.4 Limits to sustainable practices: the greening of "Greek business"

The findings of this study raise questions about the character that ISO14001 takes through the Environmental Plan (i.e. the modification of the 1984 Presidential Decree). A number of questions are raised on whether these changes facilitate environmental protection in the Attica region.[47]

First, there is the issue of whether funding will be used and utilised in favour of the company rather than the consultants. The rapid changes in the evolved industrial planning of Athens along with the 3rd Structural Funds Programme available (mentioned above) have raised great doubts about the value and credibility of consulting and certification services in implementing environmental management schemes. Environmental management experts play a fundamental role in the implementation of ISO14001, as they support the government's initiative because of benefits gained through this provision of services. Partly because institutional implications hardly help here:

"The Ministry of Development has set rules on the issue of certification and consultancy for each role to be discernible; however, it is difficult to control that." (Int 3 Environmental Expert - Consultant)

This is an issue to be discussed further. From the business side too, there is a strong suspicion that funding may imply an indirect form of investment to finance small and medium-sized enterprises, which account for almost the 90 per cent of the sectors in Greece (see section 5.2). It is favoured through the 3rd Structural Programme as ISO14001 can only mean a type of indirect governmental investment[48].

"Companies wait to get backing from the funds available from EU to have a cheap management system in place. Now, instead of paying the whole cost they are going to pay 60 per cent. That is why they are interested in the economic profit that they are going to have at once." (Int 15 Environmental Expert - Consultant)

[47] It is argued though that negotiations will end up in not so strict measures of adoption (Int 22 NGO Respondent - Environmentalist)

[48] Although, the Greek government and the EU with current EMAS revision recognised EU's commitment to prioritise EMAS by giving more incentives to companies through more funding.

According to a survey[49] during the previous programme (1999-2000), participating companies considered the financial aid that their company might receive from the adoption of such a scheme of crucial importance. For example, from the total of 25 companies that were certified by a certification body, only 2 or 3 have been certified without getting any grant from the previous Structural Funds Programme. The majority of respondents comment that before the Environment Plan and EU funding (3rd SFP) the only companies that had environmental concern were the export-oriented ones, or those of multinational administration (i.e. AIA). By that time, there was sufficient evidence that the majority of companies that developed a system and received certification received government and EU grants. Companies, therefore, are motivated mainly by economic aid, as most of the companies were funded in order to secure certification.

Secondly, besides the evolving context of private expertise and the business interests, there is a claim that ISO14001 may be translated into practice as a command-and-control initiative, rather than as a voluntary mechanism. Environmental experts and government officials highlight the EU as crucial in this matter:

"Government has played a role only in approving funding and, of course, behind this is EU, which pressurises Greece into allocating part of the Structural Funds to the protection of the environment." (Int 4 Environmental Expert - Auditor)

The voluntary nature of ISO14001 is believed to be turning into a requirement that may soon become a prerequisite for Greek companies and moreover it is seen to indirectly satisfy economic development in the region rather than to promote sustainable practices.

The development of the Environment Plan, therefore, is considered serious for the environmental policy matters of the region but creates doubts about the voluntary character of the scheme. Through this framework, law companies are obliged within the next four years to implement a system of environmental management, otherwise they have to relocate.

[49] (Int 13 Gov. Official - ISO Expert) Ministry of Development

"Through this law, we have the modified P.D. 84/84 for sustainable development since 2001 (which applies at least for companies in the basin of Athens). Companies are obligated to implement an environmental management system within the next 4 years, otherwise they have to move out. Eventually the voluntary use of these two systems is abolished in a way. Yes, it becomes obligatory." (Int 28 Gov. Environmental Expert)

Current evidence suggests, therefore, that the entry of tools such as ISO14001 will soon take the form of compulsory measures within the context of national environmental policy:

"With the environmental step-up of Attica, government will impose these systems because this law is compulsory. To a certain extent, we are dealing with market obligation criteria and legislation affecting employers." (Int 16 DQS Environmental Expert)

This may mean that the motor for adoption will be pressure due to regulatory changes, rather than spirit for proactive behaviour. There are therefore enormous attempts at harmonising Greek legislation with European legislation, so as to give companies the necessary motives to adopt EMAS and ISO14001. It is widely argued that the Greek government is, therefore, to embrace such initiative, and both environmental experts and environmentalists strongly suggest that ISO14001 is likely to become a prerequisite:

"It is heading this way. If government continues with similar patterns of legislation, it definitely will be a prerequisite. Although it is very difficult for the ISO to make that announcement, because it is a private business initiative." (Int 3 Environmental Expert - Consultant) (Int 22 NGO Respondent - Environmentalist)

ISO14001 is forecast to expand because it is seen from both sides (government and market) to have commercial and regulatory potential. Such assumptions are based also on findings discussed throughout this investigation that in Greece contractors bidding for publicly funded projects should provide assurance of a quality system (i.e. ISO9001). ISO9001 entered the Greek market some 10 years ago and recently almost all Greek companies (of course only the ones that have the capability to get certification) have implemented ISO9001. Although, originally there was terrible confusion among Greek companies, ISO9001 in Greece has become almost a

prerequisite for all companies bidding for a public project. This evidence on ISO9001 suggests that it may work for ISO14001 similarly. Environmental experts claim that:

"ISO14001 is requested in public procurement. For bigger and smaller projects, it is considered a preferred criterion." (Int 4 Environmental Expert - Auditor) (Int 3 Environmental Expert - Consultant)

In the theme of public procurement, which is believed to further shape the findings in a state-based context the 2004 Olympic Games have been crucial. They seem to correlate with the major developmental changes in Athens and there is an apparent impact on business activities. There were strong governmental efforts with regard to the EU funding to make companies adopt the schemes before the Olympic Games of 2004. Although the Environment Plan is to be finalised by the year 2005, by the time of writing:

"There are definitely pressures due to the Olympic Games. This is happening now in order to create certain warehouses for products for some industries that want to expand in production and generally at a stage that the country wants to move on environmental issues. It is not a matter of harmonisation but rather a phase within the scope of the general development of Greece[50]." (Int 26 Athens 2004 - Environmental Expert)

Government officials have claimed[51] that the government has plans to initiate "green" public procurement in the next 2-3 years. It is important to mention that specifically due to the Olympic Games of 2004 there is indeed a certain preference in public procurement procedures, and the adoption of ISO14001 is considered part of the innovation of industry and "greening" of the market.

The increasing pressures for new enterprises that wish to participate in public procurement are based on higher demand for certification of systems of environmental management that may soon become a prerequisite.

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[50] Due to the Olympic Games, the government is looking to expand these schemes to the tourist sector, which is a service sector and has been included now with the revision of the regulation (Int 13 Gov. Official - ISO Expert)

[51] (Int 1 Gov. Official - EMAS Expert)

However, institutional implications are still a major impediment. Environmental experts have argued that a large part of the web of administrative regulations and market restrictions for "green" public procurement conflicts with other administrative regulations for procurement. For example, an announcement to obtain a service or a product only from companies that have implemented ISO14001 or EMAS or Eco-label is considered an infringement of competition rules at EU level. The issues illustrate some of the consequences of the fragmented state and lack of environmental institutional building, because there is conflict between both procedures.

The issues raised here are important for this study, by raising further uncertainties about whether implementation under such conditions enforces environmental management. Immense market, government and EU pressures are establishing ISO14001 as a necessity. EMAS – the EU voluntary regulation – receives little promotion in Greece. The emerging conversion of voluntary schemes to compulsory ones is considered unavoidable due to specific procurement requirements and global market demands and EU pressures. Yet, low institutional support indicates[52] that this situation may force the majority of the companies to proceed with implementation under ambiguous conditions, especially considering the general doubt about the government's intention to promote stronger environmental policies across the board.

5.5 Institutional Capacity, Regulatory Culture and Voluntary Codes

The investigation illustrates that the implementation of ISO14001 is not solely left to the authority of private bodies and industry (i.e. private certification bodies and certified companies), but government bodies to comprise a framework for all involved, commonly drafted and accepted. Notwithstanding the Greek state's interest in making ISO14001 a condition of compliance with certain economic policies, numerous claims from the private and public[53] sectors continue to highlight the issues of professional capacity, competence and environmental expertise (know-how) as crucial for business and interested parties.

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[52] Environmental protection vs. economic profit, an issue discussed mainly by NGO respondents: (Int 7 NGO Respondent).

[53] (Int 16 DQS Environmental Expert) (Int 23 Gov. Official - Sustainable development Expert) (Int 25 Environmental Expert - Consultant)

Insufficient personnel in the operation of most relevant bodies, along with limited knowledge in the environmental management field, are argued to have major implications for the quality of services provided and thereby the implementation of the standard itself. Diffusion of environmental information in the wider sense stays between those actors in the immediate context (i.e. scientists, policy makers, and researchers)[54].

A number of doubts have been expressed concerning how ideas and information are translated between various actors. Primarily, it is the environmental expert who develops the system along with the knowledge and power to translate ideas who plays a crucial role (see Latour in chapter 2).
In the environmental management field, the epistemic community is a new order with powers of translations that comprises a range of environmental experts providing consultation and certification services. It is a new market for Greece that is expanding rapidly, proving partly to be beneficial but also to create implications for business and government. The majority of actors have seen private participation primarily as a positive development and[55] as useful for Greece, as long as there is assurance that the totality of companies has credible inspection and certification. A number of actors[56] argue that with the implementation of ISO14001, a way is offered to exercise administration under different norms. Although environmental management is considered as the baseline of compliance with legislation, ISO14001 is argued to commit companies to obey legislation and, as a result, to avoid various fines. However, in order to achieve such results, there are a number of issues that need be resolved.

Lack of communication and coordination implies potential problems for the constitution of relevant bodies in relation to the adoption and promotion of ISO14001, which also links directly to the fact that the network of actors for ISO14001 is clustered at policy level. There are efforts to gather competencies together, yet there are certainly gaps between bodies and actors. This suggests that there is an

[54] An EMAS expert argued that EMAS was not promoted efficiently because the Commission did not carry out any sound campaign. By the same token, the Greek government did not promote it as much as it should. It has been recognised as a mistake and therefore, for the purposes of the second regulation (revision) there is going to be a campaign.

[55] (Int 22 NGO Respondent - Environmentalist)

[56] (Int 15 Environmental Expert - Consultant) (Int 1 Gov. Official - EMAS Expert)

institutional framework in place but that a delay is inevitable while everybody waits for the industrial context to adjust.

Furthermore, as a government official argued, the institutionalisation of such schemes serves certain needs:

"If the state had the capacity to monitor companies, it would not regard an EMS as a prerequisite, but would visit, for example, companies three times a year." (Int 15 Environmental Expert - Consultant)

Capacity at personnel level for the communication of environmental information is essential here, but it has not increased to a satisfying level yet. Given the insufficient role of the government bodies and sporadic changes in regulatory frameworks, Greek companies interested in information have preferred private sector services.

The government recognises its inefficiencies and lack of expertise on issues of environmental management, and it is welcoming private sector incentives. The majority of environmental experts highlight that competent government bodies are not staffed adequately since there is a need for scientific personnel:

"The majority of competent bodies are staffed only low numbers, about 2-3 people, have no capacity to go through the workload." (Int 22 NGO Respondent - Environmentalist)

As has been mentioned above, the public competencies that qualify in environmental management systems and the ISOs are the state certifier, the Hellenic Organisation for Standardisation (ELOT), and the National Accreditation Body (ESYD)[57]. ELOT facilitates the government's objectives, but has not reached the desirable capacity. Not only is it less capable of covering all certifications but also it is not preferred by business.

Since its establishment, the National Accreditation Body (ESYD) has faced problems of professional capacity too. Government officials[58] point out that there is still a problem for ESYD, as it has not been able to operate properly or communicate with the verifier. ESYD is to provide private companies with the authority to certify, but has

[57] (Int 24 Athens 2004 - Environmental Expert)

[58] (Int 28 Gov. Environmental Expert) (Int 1 Gov. Official - EMAS Expert)

not yet had involvement in assuring the integrity of environmental verifiers, as it has not announced the certification of verifiers. Through the system of verification, if there is any challenge to environmental verifiers, then ESYD should take action to confront the situation or, in the case of malpractice, to take licenses to practice away. The Ministry (YPEHODE) is involved only when the prefectural authority checks the company's environmental report, in case there is an accusation of spill-over. In the case of a spill-over, it is the fault of the verifier, thus the Ministry is obliged to report to ESYD to take action against the body that has accredited the verifier.

So far, verification is exercised by private bodies, which employ verifiers from abroad. All the bodies, for example, that provide ISO14001 received verification by foreign international operating bodies (i.e. IRCA).

"Verifiers now come here for three days and then they leave and it is hard to be involved. Either you accept the environmental report or you don't." (Int 1 Gov. Official - EMAS Expert)

To date, there is still interest-co-operation with private verifiers. It is argued that all the consultants that are going to undertake the development of ISO14001 and EMAS through the Environment Plan are going to be assessed by ESYD and will be recorded. However it is also said that if the verifiers were Greek perhaps there would be closer co-operation and communication and more transparent procedures for both sides.

ESYD, therefore, has not been able to accredit verifiers and certifiers, because it has not been staffed adequately to operate autonomously. This is why the state allows private bodies to interfere in market-based schemes and cooperates with them mainly because there is still a weakness monitoring the industry. The fragmented and deficient structure of competencies point to a form of administration that has not been in a position to predict gaps or non-compatible ways of certification.

A useful development in this field has arisen from the Ministry of Development announcement that it will proceed with the creation of an environmental committee. This will involve the Council of Inspectors, a registration body of the environmental verifiers, inspectors from the Ministry, in order to tidy up the market of certification providers. It is widely argued that ISO14001 will provide environmental improvement in Greece only if the policing of companies originates from the state with the Council

of Inspectors. However, the Council of Inspectors has not been developed yet. By the time of writing, there has not been any work done even on the creation of this registration body[59]. An NGO respondent[60] advocated the institutionalisation of ISO14001 through organised and well-equipped bodies with personnel.

From the business side, goals of an environmental management standard are achieved in some companies. Yet the procedure for preparing to install the system in order to get certification requires some time. As with all management standards, if there are no available resources that is, qualified personnel and appropriate technology for environmental measuring and monitoring - the system cannot be implemented. The more complex the information and knowledge that needs to be translated to those who are not pertinent to environmental issues/management, the less the possibilities to adopt it.

"If companies do not allocate qualified personnel and want everything to be achieved by the consultant, the system collapses or stays on paper, because of inappropriate infrastructure. This is a fundamental parameter." (Int 3 Environmental Expert - Consultant)

Whether a system functions effectively in a company is a matter of whether the company allocates resources. There is a need, therefore, for qualified personnel on the subject to communicate in a direct way to senior management of companies and channel information to the whole organisation.

In short, many government respondents[61] argue that it is difficult to suggest solutions and propose ideas, or at least, to expose problems and try to find suitable expertise (academia, research institutes) to provide solutions. So far, environmental policies are administered along fragmented lines with a rather small number of actors allocated to administer environmental policies. The dispersion of competencies at various ministries and numerous private bodies creates problems in planning and coordination for environmental management as government itself cannot cope administratively especially with extensive changes and reforms.

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[59] (Int 15 Environmental Expert - Consultant) (Int 25 Environmental Expert - Consultant) (Int 7 NGO Respondent - Legal advisor)

[60] (Int 22 NGO Respondent - Environmentalist)

[61] (Int 27 Government Environmental Expert) (Int 23 Gov. Official - Sustainable development Expert)

Still, lack of commitment and a general absence here on behalf of the state, facilitates private bodies of consultation and accreditation, while being backed up with financial aid from the government. Low co-ordination (thus huge delays), lack of knowledge and lack of sufficient information among the responsible bodies are crucial factors for the operation of these institutions. As a result, certain ideas and incentives, which should be materialised and moved on a practical level, remain on an academic level for the majority of the situations. There are still problems with the procedure of problem perception, awareness, research, technology development, and implementation.

5.6 "Greening" Culture and Capacity through Standardised Procedures

This investigation also aims to explore how a standardised approach is interpreted in principle to facilitate environmental management practices. A simple explanation of this ambiguous point lies in an understanding of how environmental management occurs in Greece. A major theme is identified here.

Firstly, it is shown that there is a great deal of asymmetry in the way in which environmental, social and economic factors are brought together in Greek environmental policy. This research emphasises that the three pillars comprising participation in sustainable development (public, government, and business) are not represented in Greece. The fact that there are bodies like ESYD and some NGOs representing the private and the public sectors does not mean that a new situation has been created in the public-private sphere of relationships.

For example, there is only one non-governmental organisation interested in ISO14001 and EMAS. There are some isolated, local, small organisations that deal with specific issues, such as country planning, natural environment, water, and sea (etc.), involving highly qualified scientists. Environmental knowledge, therefore, is limited to concepts like the conservation of nature, while there is a dearth of organisations qualifying in the protection of urban environment. NGO respondents[62] argue that:

[62] (Int 22 NGO Respondent - Environmentalist) (Int 7 NGO Respondent - Legal advisor)

"The public sector and various organisations have not realised that it concerns them. There is still a dominant concept here playing with sectoral notions of trade unionism, local environment and social grouping." (Int 7 NGO Respondent - Legal advisor)

For the time being, the most dominant "imported" NGO in Greece is Greenpeace, which has knowledge on the subject and their protests receive extensive publicity. However, they scarcely engage with issues of industrial and urban environmental planning. Still, in Greece, the public interest is informed only to a limited extent and is little sensitised to become involved and participate in policy and governance matters.

But it is not only the capacity of government expertise and NGO representatives that is lacking. The context of Greek business is rather complicated too. A number of professionals[63] in this field have criticised the response towards environmental management, as "green" consciousness in Greece is an aspect that has rarely been considered. There are many issues to tackle.

Environmental experts[64] argue that attitudes towards regulation play an important role in transferring ideas from management to the employee. A company that wishes to take the lead in their sector adopts a scheme like ISO14001 because, apparently, whatever is related to standardisation fosters competitiveness and a good image. The company is self-regulated by taking specific actions into account to protect the environment to a certain degree. Whilst an environmental management standard is certified, the client is given evidence that environmental issues are dealt with using a certain methodology/criteria. But such evidence creates a major contradiction here. It seems that, within Greece, an environmentally sustainable image is important only to those who adopt an international market focus.

The majority of environmental experts[65] argue that, proportionately, public image is related to market focus and there are implications for the way self-regulation is perceived. It is shown that low environmental awareness among the public in Greece fails to turn ISO14001 into a marketing tool for the consumer or supplier.

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[63] (Int 4 Environmental Expert - Auditor) (Int 24 Athens 2004 - Environmental Expert)

[64] (Int 19 CQM Respondent) (Int 25 Environmental Expert - Consultant)

[65] (Int 25 Environmental Expert - Consultant) (Int 27 Government Environmental Expert) (Int 15 Environmental Expert - Consultant) (Int 11 Environmental Expert - Freelance Auditor)

[65] (Int 4 Environmental Expert - Auditor) (Int 15 Environmental Expert - Consultant)

"ISO14001 has not been used as a marketing tool in the Greek market. The Greek consumer and Greek society are not so environmentally aware to get services or buy products from companies that take care of the environment. This is not Germany!" (Int 15 Environmental Expert - Consultant)

Potentially, quite a few actors in Greece view environmental management standards as adequate tools for the development of research and technology, though this is scarcely realised:

"So far, there are no links between government, non-governmental organisations and industry to make us move from the problem to research and consequently to the implementation of policy or technology." (Int 11 Environmental Expert - Freelance Auditor)

The investigation shows[66] that companies feel that they must show they use all the management tools that are given in a company and, moreover, it is shown to be a matter of prestige rather than an environmentally correct and effective scheme.

In addition to this limited "green" consciousness, the general mistrust towards regulations also creates fears about the disclosure of environmental information. Despite current changes (i.e. the Attica Environmental Plan, public procurement requirements), there are claims that entrepreneurs resist these changes (see section 5.4). Thus far, Greek businesses have not seen such initiatives with an eye to improvement. The state apparatus has been seen as a mechanism to control business activities through various sectorial measures.

Situations such as this may need to be considered at both a general and case basis to determine the crucial factors that lead to such pressures and dilemmas for companies. An example is the current revision of EMAS, which also stems from companies' lack of trust towards government regulations. EMAS started rigorously at the beginning because it was the outcome of a measurement from the EU for policy practice. Yet, it intimidated entrepreneurs, as there was a fear about its strictness.[67]

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[67] (Int 11 Environmental Expert - Freelance Auditor)

"EMAS is a regulation that is verified differently, not by private bodies of certification. Private bodies may have ways that do not comply with certain criteria and undoubtedly certain companies need that!" (Int 25 Environmental Expert - Consultant)

Most of the ISO14001 certifications are for companies that have a difficult past in this matter.

"Apparently businesses prefer ISO14001 because it does not require this last stage of environmental statement/report." (Int 13 Gov. Official - ISO Expert)

The majority of Greek companies avoid EMAS because it is a regulation that requires disclosure of environmental actions including a holistic account of the company's impacts. With the adoption of EMAS, a company has to declare its environmental impact, and it is perceived that in cases where a spill-over occurs/environmental damage is reported it will get negative publicity mainly because of limited environmental awareness and education. Consequently, many companies located in sensitive sectors or areas are afraid that if they provide people with numbers of incidents without knowing what they really mean, they will create problems[68]. Companies seem to prefer ISO14001 because they are afraid of the immature environmental attitude of the market and public.

Environmental protection has not been considered a crucial reason in adopting ISO14001. Environmental management is perceived in terms of short-term goals, whilst the urban environment has not been understood as a context within which environmental protection has long-term effects. That is why, at the domestic level, it is only the government that points to coercive modes of implementation (see section 5.5). A government may impose the adoption of tools like ISO14001, and consider it essential, though such decision may alter the features of the certification (it being voluntary) and will make the company confused and hesitant.

[68] For example, companies of the chemical industry where public perceives them as high polluters.

5.7 Conclusions

In order to reveal the implications concerning adoption of ISO14001, the research focuses on a national (chapter 5) and organisational context (chapter 6), and examined the political, institutional and cultural dimensions that form the fabric of environmental policy adoption. This judgment suggests the need to highlight that as global markets have emerged, so have fresh issues, problems, and concerns. Institutional and political issues embedded in national values indicate that the implementation of a concept like ISO14001 – a global environmental standard – can have uncertain (even perverse) consequences on policy development and regulation in the Greek context.

Considering the outcome of the investigation in this chapter, the efforts of Greece to harmonise economic development with global demands in order to compete internationally are immense. Alongside these efforts, ecological concerns have started to raise questions about the way businesses interact with environmental issues. The main problem is legislation that is difficult to keep up and comply with. The scheme implies a motive and particular style of protecting the environment, but a number of doubts arise about the quality of environmental management that a company may achieve.

The adoption of ISO14001 by organisations in Greece is partly seen as a way to achieve sustainable performance and meet environmental regulation. It is also perceived to enable a number of government and global market pressures to be negotiated, which apparently most commonly affect organisations wishing to show an international profile. Some industries have already taken action to integrate environmental policies within their business strategy, although "green" awareness is still low in Greece.

The environment is less of a factor where there is co-operation between public government and business, given that it is a parameter that has generally been ignored in Greece. Changes in environmental management remain doubtful and uncertain, partly because environmental governance in Greece is still at a primary stage. There is conflict of interest between dominant short-term outcomes and long-term benefits/plans for sustainable development.

The majority of actors contend that there is ignorance concerning the environment, what 'environmental management' is and what ISO14001 can offer. The constructs in other countries where government bodies, banks, insurance companies, etc. have started to consider environmental performance of a company as a usual practice (i.e. a company that has adopted ISO14001 is considered to have an improved image in the market and if it has joined the stock market, is being treated accordingly) have not been embedded in company practice yet. Consequently, the development of an environmental management standard results in many occasions in the building of superficial systems. Such patterns, as argued,[69] are evident in the majority of Greek companies.

Crucial, therefore, are the elements demanding compliance with legislation and governance arrangements in order to institutionalise an understanding for environmental management. A number of actors argue that ISO14001 implementation is constrained on many occasions by institutional weaknesses, limited professional experience, fragmented communication for transferring ideas, lack of means and education, low awareness of the concept, fear of disclosure, bureaucracy and limited budgets. Environmental management in Greece has been accomplished to a large extent without sufficient planning, given that there is no such state institutional support, or bureaucratic support for businesses to proceed with the schemes' adoption. There is an obvious need for a policy context to manage environmental issues, as legislation has become extremely complicated and is evolving continuously.

Institutional arrangements, therefore, are one of the most important factors for the accomplishment of proper environmental management. The origin of these needs varies between public and private sectors; yet, if one wants the proper legal framework, institutional arrangements and supportive policies for the development of environmental policy need to be acknowledged. Moreover, there is a need for an institutional framework through a process directed by government rather than the private sector only. Hence, a public body, on the one hand, functions on the judgement of development, whereas the private sector functions on the basis of profit and mainly of economic criteria.

[69] (Int 2 Gov. Official - Sustainable development Expert) (Int 28 Gov. Environmental Expert) (Int 8 Gov. Environmental Expert) (Int 26 Athens 2004 - Environmental Expert)

In addition, given that the Greek context is less committed to this approach, newly developed institutions have not been able to manage this complex process adequately and are lagging behind in the environmental policy and tools in general. Building institutional capacity is a gradual process. If institutional arrangements are neglected and left to processes of private expertise and market forces, then there arises a type of 'informal institutionalisation', which has serious consequences in public policy and environmental protection.

Chapter 6 The case of Athens International Airport: "Eleftherios Venizelos"

6.1 Introduction

This chapter sets out the case study and the research findings. In so doing, it provides an understanding of the regulatory and policy system in Greece through the impact of ISO14001 in a particular organisation. Aspects of institutional capacity, regulatory culture and governance style are revealed through the adoption and implementation of an environmental management system (ISO14001) in Athens International Airport "Eleftherios Venizelos" (AIA).

Specific issues are identified and discussed in light of their influence on AIA. The case study explores the development of an international scheme, the various forces acting on the organisation and the current role of the relevant actors. It incorporates the perspectives of a variety of different actors, all of which consider the activities of a company to affect the environment. Thus the airport organisation is seen to incorporate "green" issues into international strategic decisions.

Several themes developed in this chapter have broad implications for standardised forms of environmental management. Economic development, globalisation and sustainable development are dominant explanatory concepts in shaping the relationship between public, government and company's environmental practices. The relationship between global environmental strategies, styles of governance, regulatory culture and institutional capacity is discussed in creating a sustainable management system. The investigation from the beginning indicates how these concepts shape the operating context.

The analysis begins with an overview of the airport sector and its environmental impacts. ISO14001 is used at a micro level inside the company for goal setting, control and service performance and administrative processes, and for image purposes by demonstrating environmental performance. It shows what is meant by

the development of ISO14001 in the department of a particular organisation. The contemporary situation for companies is one of great complexity where the balance of economy and environment is often not clear, and may be shifting in response to public, market and government demands. The effect of public-private partnership is addressed.

The AIA Environment Department (ENC) illustrates the extent to which environmental issues are substantiated by being specific to a standard. Evidence shows that the ENC faced a complex task in understanding and meeting the needs of stakeholders (i.e. local communities), including such diverse groups as government and employees in different departments. The case study examines efforts to define what aspects ISO14001 covers, how it is measured and verified and finally how it is being made accountable and made known to the public through a standardised process.

Next, the analysis examines the relationship between the organisation's initiatives and shaping the image of business organisation ("good" reputation) through a standardised process. Here, the focus is on networks and relationships that exist between third parties and the ENC as well as its collaboration within the organisation.

The analysis indicates apparent intersections between local cultural practices, corporate culture, and broader policy and socio-economic priorities. Organisational networking, collaboration, shareholder interests and stakeholder activism are key elements. It is also crucial to illustrate how moves towards environmental management have affected local communities. The chapter considers the viewpoints of both the organisation and the local communities in order to gain insights into how environmental information is communicated and perceived along with the management objectives and actions taking place. A variety of issues pertain to the content of communications between the ENC and local communities. It is also shown that models like ISO14001 are perceived to offer a range of measurable facts and numbers that help with public image. Crucial issues of potential conflicts of interest – between the local communities and economic concerns – are addressed.

This chapter concludes with a discussion of the factors influencing the ISO14001 take-up. It highlights the difficulties associated with managing an international scheme in a local organisational context with significant implications for the formulation and implementation process.

6.2 The Airport Sector

Airports are part of the infrastructure growth and economic development of a country, which, in the case of Greece tourism, is of increasing importance. Athens International Airport is Greece's new hub for air transport at the global level. Along with the development pattern though, the presence of environmental issues are becoming all the more urgent in this context. These create a major challenge for an internationally operating organisation like Athens International Airport "Eleftherios Venizelos" (AIA). New schemes for environmental management seem to provide a solution to the twin challenges of economic expansion and tightening environmental demands.

6.2.1 Aviation development and future trends

Air transport has been a major driving force behind the globalisation of production and distribution systems, and it is set to continue its important role for economic development in the future. Aviation, a sub-sector of the transport sector, is an integral part of the modern global economy and the communication infrastructure. It is a major service industry, contributing to both domestic and international transport systems. Apart from the direct benefits to those it employs, it has stimulated the overall expansion of the world's trade and prosperity. Other changes in management strategies, such as the adoption of global sourcing, coupled with improved information and communication systems, are increasing the demand for personal interaction at the international level (OECD, 1997; Button et al. 1998).

Of all modes of transport, aviation has shown significant growth in recent years. Its growth is fast and significant. The total magnitude of growth in the aviation sector and its spatial variations are closely related to rapid and significant moves towards globalisation of economic activities. In Europe, it has shown striking growth at rates clearly above the average growth of the EU economy (EC, 1999). The combination of market trends and institutional reforms, combined with rising incomes and increased leisure time, has contributed to the steady growth of demand taking place in the aviation markets. Also, technology advances have allowed aircraft efficiency to rise and air-traffic control systems to handle greater volumes of traffic (Button et al., 1998).

Table 7 Transport mode 1990-1997						
	Passenger Cars	Buses & Coaches	Tram & Metro	Railway	**Air**	Total
1990-1997	+ 15%	+ 6%	- 13%	+ 3%	**+ 58%**	+ 15%

Source (adapted): EC (1999) Air Transport and the Environment: Towards Meeting the Challenges of Sustainable Development

Air traffic in terms of passengers has grown world wide at an average yearly rate of 9 per cent since 1960. It is not surprising that approximately 300 million intra-European air passengers were counted in 1995, of which 125 million travelled on domestic flights within a country, 115 million flew on regularly scheduled international flights and 60 million on international charter flights, particularly between Great Britain, northern Europe, and European Mediterranean or Atlantic destinations (Gerondeau, 1997). In Europe, airline income has increased and the number of domestic and cross-border routes operated has also expanded by more than 11 per cent in 5 years. Also, the number of flights has grown by around 30 per cent during the same period (Kinnock, 1998). Similarly, there has been a net increase in the number of operators, from about 130 in early 1993 to more than 160 at the beginning of 1998 (OECD, 1997).

The sector is argued to continue expanding into the foreseeable future, albeit at differential rates, in various geographical sub-markets (EC, 1999). A number of international agencies, aircraft manufacturers and airlines that regularly produce statistics of aviation traffic forecast that passenger traffic will grow at a rate between 5 per cent and 7 per cent (Button et al, 1998).

An additional factor is aviation liberalization in the European community, developing in legal terms over a decade, which means that air transport is largely free from economic regulations. In April 1997, the liberalization of air transport within the EU entered its final phase, in which carriers are free to operate between all airports within the Union, and particularly on routes within member states (Staniland, 1997). The development of the common air transport policy has regulatory consequences for EU members states. Aviation is now subject to EU competition rules, which govern agreements between airlines, dominant position, mergers and state aid,

public service obligations and monopoly rights, as well as more general regulations, which prohibit discriminatory practices (Kassim, 1996).

Until 1998 Greece had been virtually untouched by the European liberalization process. Apart from a partial deregulation in 1991, which permitted new start-up airlines to operate regular charter services, the Greek market remained tightly controlled. Historically, aviation in Greece is closely linked with the birth of the flag carrier Olympic Airways that followed more or less the same pattern of internationally operating airlines. Until recently Olympic Airways and its regional subsidiary, Olympic Aviation, enjoyed a near monopoly within the country (Endres, 2000). But with full deregulation, the situation has entirely changed, with new challengers beginning to make their presence felt. Currently, four independent airlines operate in Greece with domestic and international flights.

The creation of a Single European Market, with new low-cost airlines taking advantage of the liberalisation of air services, has also contributed to the steady growth of demand taking place in the aviation markets. Tourism, which already accounts for a large share of overall air travel, is expected to sustain aviation's growth at rates well above those for general world output. Without extensive air transport networks, major service industries such as international tourism would not have expanded to today's levels (Button et al., 1998). The emerging pattern of economic integration, massive technological developments and broad social and economic changes, therefore, has contributed to the sector's significant and rapid growth. Clearly, an activity of that magnitude is having some impact on the global and immediate environment.

The infrastructure of airports in Greece, in relation to their geographical position and the whole institutional framework, are critical factors that frame the country's aviation capacity. A lack of innovation in infrastructure and technology in airports posed great barriers to further development – until the arrival of Athens International Airport (AIA).

6.2.2 Airport definition

In line with other sectors, an airport operates at the global level and is a complex industrial enterprise. It represents a multi-service networked industry in which disparate elements and activities are brought together to facilitate, for both passenger and freight, the interchange between air and surface transport. Airport management provides a wide range of services, which can be divided into three

distinct groups: essential operational services, traffic-handling services and commercial activities (Doganis, 1992).

The airport is a capital-intensive and labour-intensive business with pressures to stay ahead of changes in safety, technology and management. The diversity of businesses required in and around airports provides an understanding of why high levels of economic activity are generated. There are many outside suppliers to an airport (table 8) and increasingly, various services are being added to airports as they expand.

Table 8

Facilities and services provided to an airport

Administration and management *(Airport administration, finance department, engineering and construction operations, property management).*	Passenger convenience *(Hotels, conference locations, banking, money exchange services, retail outlets).*
Airport operations *(Air traffic control, navigation and electronic landing aids, airfield lighting and direction indicators).*	Terminal services and maintenance *(Terminal vehicle services, car parks, terminal maintenance, and road traffic management).*
Cleaning services *(Terminal cleaning, aircraft cleaning).*	Research *(Advertising, marketing etc.).*
Maintenance, servicing and ground support *(Hangers, shelters and engine test cells, access lifting and handling, power supplies, mobile air-conditioning, de-icing and snow cleaning, other services associated with the runway and grounds).*	Passenger handling *(Custom and excise, passenger and bag inspection, baggage handling, immigration control).*
Computing services	Postal and telecommunications services
Emergency services and protection *(Fire-fighting, terminal security, general policing of grounds).*	Law services *(Insurance and pension funds).*
Fuel and associated services suppliers *(Fuel storage, dispensing, and lubrication).*	Catering *(Ground-based catering services, in-flight catering).*

Source (adapted): Bardsley, N. (1999) *Airports, 1999 Market Report*, Middlesex: Key Note Ltd; Langley, R. (1997) *Airline, 1997 Market Report*, Middlesex: Key Note Ltd) (adapted)

6.2.3 Environmental impacts and management in the airport industry

Aviation will undoubtedly continue to grow with its environmental impacts becoming a cause of increasing concern. Environmental trends and forecasts are not optimistic about aviation's massive growth where the environment and the quality of life of citizens have become a real threat, which in turn threatens the industry's economic success. Airports, because of their global operating nature, have raised particular concerns about their environmental impacts.

Airports, in line with other industries in the aviation sector, use a wide variety of the earth's resources and have an impact on the environment at every stage, from construction to operation. There are a number of issues that the industry has to tackle, from the use of non-renewable resources to the creation of emissions and waste, land take, air and noise pollution, and congestion. Although environmental concerns have historically been restricted to the local factors surrounding airport construction, recent concerns over global warming, acid rain and a range of pollution-induced diseases have given importance to the regional and global environmental implications of aviation and airports. Moreover, as noted above, airport capacity is constitutive of the overall scale of the aviation sector and thus of its overall operational impacts.

Table 9

Environmental impacts associated with the operation of an airport

Impact	**Explanation**
1. Air pollution near airports	-Aircraft engine emissions -Emissions from airport motor vehicles -Emissions from airport access traffic -Emissions from other airport sources
2. Global emissions	-Long range air pollution (i.e. "acid rain") -Greenhouse effect -Depletion of ozone layer
3. Aircraft noise	-Noise in the vicinity of the airports caused by the aircraft movements -Engine testing and other noise sources at airports -Noise caused by the aircraft en-route (not including sonic boom) -Sonic boom caused by supersonic aircraft
4. Aircraft incidents/ accidents	-Accidents or incidents involving the passenger death, injury and damaging of dangerous goods carried as cargo -Other environmental problems that may arise from aircraft accidents - Emergency procedures involving fuel dumping

5. Congestion and delays	-Airport and en-route congestion and delays
6.Airport/Infrastructure construction	-Loss of land -Soil erosion-Impact on water tables, river sources and field drainage -Impacts on flora and fauna
7. Water/Soil pollution near airports	-Water pollution caused by inadequate treatment of contaminants in the airport waste water -Water and soil pollution caused by leakage from storage tanks
8. Airport waste management	-Disposal of environmentally harmful materials used in the aircraft servicing and maintenance -Disposal of waste from the airport and incoming aircraft

Source (adapted) Janic, M. (1999) Aviation and externalities: the accomplishments and problems, Transportation Research Part D4, pp. 159-180

Firstly, **energy efficiency** is a serious environmental issue. A considerable amount of energy is consumed from the extraction of raw materials due to the construction and maintenance of infrastructure, operation of aircraft, and manufacture of components. For example, air transport is the second largest user of transport fuels, accounting world wide for 12.4 per cent of oil consumption for transportation in 1992. The use of aviation fuel is expected to increase by more than a factor three between 1990 and 2005 alone, i.e. an annual rate of increase in excess of 8 per cent. These projections suggest that by 2005, air transport will be responsible for 27 per cent of oil use for transport, compared with the 12.4 per cent noted for 1992 (OECD, 1997).

Secondly, airports have been closely associated with **noise.** Although, advances in engine technology and aircraft design have led to significant reductions in the noise generated per aircraft, in the immediate vicinity of airports, concerns are focusing on the potential health and environmental effects of noise. Consideration has led to international conventions, which have raised more stringent requirements. Continuous fleet renewal assists in reducing further noise annoyance for people living under flight paths to and from airports. As a by-product of this, most airport infrastructure projects face heavy opposition and delays in implementation (EC, 1999). Although more stringent requirements have occurred in the global regulatory arena, there is no internationally agreed policy approach in the area of noise emissions on how to carry forward measures aimed at decreasing noise around airports.

Thirdly, the most obvious global effect of the industry is that of air pollution (with around 750 million tonnes of pollutants being emitted each year into the earth's atmosphere from the world's fleet of aircraft (AEF, 1999)). A general issue of environmental concern is that aviation contributes to the greenhouse effect and the depletion of the ozone layer. The greenhouse effect is caused by increasing concentrations of the long-lasting greenhouse gases carbon dioxide, methane, nitrogen dioxide and chlorofluorocarbons (CFCs). The emission of nitrogen oxides (NO_x) causes ozone depletion in the upper atmosphere, and has been linked to acid rain and smog in the lower atmosphere as well.

Estimations show that carbon dioxide (CO_2) emission will grow at 3 per cent annually over the period from 1990 to 2015. Aviation is currently responsible for at least 3.5 per cent of global warming, and future growth scenarios suggest that this could rise up to 15 per cent by 2050 (IPCC, 1999, EC, 1999). Aircraft engines are of greater concern now than in the past, as a result of new information that they contribute to the greenhouse effect and the depletion of the ozone layer. Although some reductions in specific emissions have occurred as a result of continuing improvements in technology and operational procedures, total aviation emissions have increased because of increased demand in air transport. Clearly this is a sector in which ecological modernisation – in the sense of technological improvements to the 'eco-efficiency of growth' (Jacobs 1993) – has proved insufficient in generating sustainability.

In the immediate environment of an airport, emissions come from ground vehicles and aircraft. They include, carbon dioxide, nitrogen oxides, sulphur dioxide, unburned hydrocarbons and water vapour. Other activities such as fuel spillage, the cleaning of components (solvents and other volatile organic compounds) and fuel consumption contribute to an airport's environmental impact on the atmosphere.

Fourthly, transport infrastructure has a permanent and often irreversible impact on the environment in terms of land use and land intrusion. It creates an urban and suburban landscape. It can disrupt or destroy natural habitats as well as cause permanent damage to areas of high landscape value (EC, 1992). Land taken for infrastructure and modification of water tables, river courses and field drainage in airport construction are important issues, given that airport infrastructure involves a substantial use of land (Banister and Button 1993). The growth in air traffic generally requires the costly expansion of airport capacity and access facilities. Airport facilities

can have potentially significant impacts on local water quality through the accidental spillage of oil and the routine use of de-icing chemicals, with the danger to enter local river systems.

Next, **minimisation of waste** and its proper disposal are substantial tasks facing the sector. As foci of mass consumption, aviation and airports create waste from numerous activities, on the ground and in flight. In-flight waste produced from catering is one of the problems. There is an apparent conflict between the provision of a high-quality service and the creation of apparently unnecessary waste. Further, the waste that is produced by aircraft maintenance activities, washing and other operations consume large amounts of water. Sewage produced by ground and aircraft operations and other hazardous waste mainly generated by aircraft maintenance carry environmental risks. Only recently have airports' management started to initiate schemes and other measures for waste management.

Finally, **air congestion** is a serious environmental and economic problem because it reduces the energy efficiency of travel, as well as the unnecessary use of materials and creating needless waste (Somerville, 1993). Congestion arises at the global and local level. It is created from fuel burned while aircrafts are in holding patterns and from fuel burned because of the additional weight of fuel carried (due to uncertainty at departures as to whether or not there will be delays at the arrival end). Congestion results from transport movements by passengers and other support activities with the consequence of impacting on local air quality through the emissions from the consumption of fossil fuels. It also creates operating expenses such as additional fuel, maintenance, and salaries for the airlines.

Congestion on the ground means that the existing capacity of many airports is over-stretched and airport access facilities are frequently inadequate. Delays, which can occur whenever demand for service exceeds available capacity of the aviation infrastructure, is an important effect at this level (Janic, 1999). Congestion is, therefore, an increasing problem for airports where inefficient use is made of valuable time and environmental damage is caused by atmospheric pollution, noise and excessive fuel use (Banister & Button, 1993).

Collectively, the various impacts of the airport industry affect global and local space and are seen to pose a threat to the **quality of life.** Consequently, a range of environmental regulations affects the airport sector, at a number of levels. There are

European and international regulations and agreements, that centre the need for integrated approaches and point to environmental management systems as a means for aviation to respond. Indeed, the integration of environmental management systems in airport management is seen as a way to respond proactively to stakeholders' pressures for expansion while achieving sustainable development, especially for those organisations operating internationally.

By 1999, several companies in eight European countries had adopted and implemented the EU Eco Management and Audit Scheme (EMAS) or the International Standards Organisation 14000 series (and specifically the system ISO14001). Most of these were airports, service centres and suppliers. Airline businesses have shown interest as well (EEA, 2000).

Table 10

Environmental management schemes in European aviation organisations by 1999

EU Member State	EMAS	ISO14001
Austria	Cargo Handling (Vienna)	
France		Air France Service Centre (Orly)
Germany	Airport (Munich) Lufthansa Service Centre (Frankfurt and Hamburg) Airport (Leipzig-Halle)	
Ireland		Airport (Dublin) National Government Airport Organisation (Aer Rianta)
Italy	Airport (Milan and Turin)	
Netherlands		Airport (Amsterdam) Airline (KLM)
Spain		National Government Airport Organisation (AENA)
United Kingdom		Airport (Liverpool and Manchester) National Government Airport Organisation (BAA) Suppliers (BAAE and ACT)

Source (adapted): EEA (2000) *Are We Moving in the Right Direction? Indicators of Transport and Environment Integration in the EU.* Copenhagen: European Environment Agency

In line with the general rationale for new forms of environmental governance discussed in chapter 2, voluntary action is argued to make an important contribution to environmental protection. The emphasis on environmental management approaches has emerged in response to inadequate results from increased recognition of transboundary environmental problems. Also, the influence of the sustainable development concept on management activities, along with greater understanding of ecology and sustainability, as well as deregulatory and proactive initiatives, have contributed to such trends. Decision-making has gradually integrated these concepts, which include participation by the public and co-ordination among stakeholders. The implementation of an environmental management system is considered to enable airport management to develop an effective and co-ordinated response to all the environmental issues mentioned above that are part of its day-to-day business.

In Greece, the development of systematic environmental management is still at a very early stage and reasons given for such impediment include the social and political phenomena mentioned in earlier chapters, as well as structural and institutional implications that emerge with the adoption of new policy tools. However, the use of voluntary schemes by Greek companies are increasing, raising the profile of voluntary policy schemes.

6.3 The Athens International Airport (AIA)

There is an obvious need, therefore, to deal with international market and regulatory demands and to integrate environmental objectives in management operations. Debates on regulation illustrate that actions would be insufficient to bring about the necessary changes in consumption and behaviour patterns; thus, a much broader range of instruments would be necessary in this context. The perceived benefits from improved environmental performance in airports, as in all sectors of global significance, have started to become recognised.

One can observe these trends in Athens International Airport (AIA) "Eleftherios Venizelos". The organisation of AIA was set up in 1996 and has an environmental plan in place. It adopted an environmental management scheme according to the guidelines of ISO14001 in December 2000.

Athens International Airport in Mesogaia (Spata) comprises a number of organisational, political, economic and institutional features that are important in this

study. The completion of this airport in March 2001 has played a strategic role in transforming Athens into an international air travel hub. It is considered to play a crucial role in the country's competitiveness as a centre for air transport to and from Europe and all other regions. The role of this new project in the expansion and development of trans-European networks is significant. It is an international operating organisation that, in view of the Olympic games in 2004, is obliged to play a leading role with ISO14001 by being a precautionary and environmentally friendly company. But, it is only the Environment Department (ENC) that adopted a system according to ISO14001 – a decision that has implications for the environmental management of the organisation as discussed below.

The airport is set in the greater region of Attica (the prefecture of Athens) 40 km (25 miles) north-east of the city of Athens. It is a modern airport owned by the Greek government, the Ministries of Environment and Public Works, Economy and Transport (accounting for 55 per cent); and a private international consortium[70] led by Hochtief, a multinational construction company based in Germany. It is a project based on a 25 year BOOT (Build-Own-Operate-Transfer) operation (accounting for 45 per cent).

It is actually the first public-private partnership project in Greece; indeed, AIA is one of the best-known examples of public-private partnership in the airport sector, which has cultivated a thoroughly positive image since its early days in operation. It is the first time at international level that the development of an airport has been funded by private capital, which makes it of further significance in this study. Besides this development, a range of building and infrastructure projects have been initiated. Also, interest from various sources of investment has mobilised fast and massive changes in the greater area of Attica.

It has replaced the antiquated airport of Hellenikon, which formerly served the Greek capital. AIA was the biggest building project in Greece as well as the highest investment programme ever in this country. It is a project of DM 4, 1 billion (EUR 2.06 billion), handling around 600 movements a day from 56 airlines with more that 50 aircrafts per hour. Right from it's opening, the number of international flights has increased on average by 9 per cent per annum. In all, the airport covers an area of about 1,244 hectares, with one main and one satellite terminal. So far the airport has a passenger handling capacity of 16 million a year, which can be increased to 50

[70] Hochtief AirPort GmBH, ABB Calor Emag Schaltanlagen AG, H. Krantz-TKT GmBH, Flughafen Athen-Spata Projektgesellschaft mBH.

million passenger throughput (30 per cent increase) through the addition of further satellite buildings and one more main terminal potentially opening in 2006 (Butt, 2001).

It is claimed that the Airport can compete with airports such as Hong Kong, Seattle, Paris, London, Zurich, Frankfurt am Main and Taipeh. The Global Monitor Survey for air transport (3rd Quarter 2001) carried out by the International Air Transport Association (IATA) rated AIA 6th in the world. Also, according to the operator's report on current projects, the AIA is now the Greek capital's new hub of civil aviation. The passenger poll gives Athens top grades for comfort and convenience in the waiting areas, value for money in the restaurants and shopping precincts[71], signage and ease of orientation, and for the speed and security of the baggage system. Twenty-five stores and five duty-free areas are available to passengers for shopping (Hochtief AirPort, 2002).

Companies nowadays are challenged to integrate environmental management into their daily practices. A coherent philosophy to all participants at various levels in the organisation is expected to adhere and provide the common direction on which collaboration can be based. But the case so far indicates that environmental management is framed by a set of political and social values. In this context, ISO14001 is considered not only a technical system, but it can be regarded as a 'socio-technical' system or a web of human, technical and organisational elements. The global profile of AIA provides an illustrative case to unpack these issues.

6.3.1 Public-private partnership in environmental management procedures

This investigation examines the organisation's attempt to institutionalise environmental management in Athens International Airport (AIA). It provides a description of the decision pattern, causes and consequences of the administration norms in efforts to build capacity and change regulatory culture to accommodate ISO14001. It links towards understanding how an emphasis on (voluntary) regulation facilitates the achievement of higher goals and ISO14001. An insight into the associated legal requirements for the performance of the organisation, therefore, is crucial here. It shows that it is the involvement of government, specific business

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[71] Restaurants, cafés and many other services in addition to retail outlets are expected to account for as much as 40% of the airport's revenues.

strategy and specific industry experience that was necessary to turn broad regulatory requirements into operational activity.

The involvement of a public-private partnership introduced a number of particular characteristics in the co-ordination of the organisation, the administration, and the management, but also in diffusion of knowledge and dispatch of various tasks. Partnership between private investment, government and EU funds seems to have played an interesting role in terms of decision making and adoption of the particular environmental strategy, because it framed specific binding terms for construction, completion and operation of the airport. The public-private partnership's objectives were crucial in helping to determine the structure of the AIA organisation, including the formulation of the environmental plan and ISO14001, which was one of the fundamental parameters of the agreement between government and the developer.

The Greek government: Ministerial Agreement 2338/95

The adoption of an environmental strategy was among the prerequisites of a framework law launched in 1995[72] by the Greek government. It is a Ministerial Agreement (2338/95 in Article 8) between government (the Ministry of Environment and Public Works (YPEHODE), the Ministry of Economy) and the main contractor and developer (Hochtief).

The Greek government is the most significant element in determining the legal environment within which public projects (in this case a 55 per cent publicly owned project) operate. The Greek government is seen to have acted as a regulator, promoting a legal framework and establishing a ground for compliance with environmental management regulations. Primarily, therefore, the role of ISO14001 in AIA is considered, from the standpoint of framework law and the government's involvement. Through this legislation the majority of interview respondents pointed out that it was clearly a Greek government requirement, rather than a voluntary initiative.

EU legislation seems to have also played a role in the process of decision making. The Ministerial Agreement 2338/95 (Article 8) included among other contractual matters the development of an environmental plan and implementation of an eco-auditing scheme. It also required the establishment of an environment department.

[72]This framework law was launched a while before the construction of the project.

"This law set the basis for the implementation of an environmental management system that has now evolved to ISO14001 to cover the requirements of EU law." (Int 5 ENC Respondent)

Article 8 provided a procedure for the implementation of an eco-auditing system and stated in a concrete way what actions the airport should take for environmental management. This article is enforced through a specific requirement under EU framework law launched for the construction of the airports. Both the operator and the ENC were within the legal frame of the airport operation. Regulatory compliance, therefore, predominates here and has played an important role in ISO14001 implementation. There is, therefore, a EU legal dimension, but one can see how the government mediated local and EU regulatory pressures in ways that reveal the weaknesses of Greek regulatory culture towards the environment in the mid-1990s.

The framework law was unclear in its terms because it did not specify requirements in each parameter, therefore policy interpretation was difficult and ambiguous. The law stated in particular the *"implementation of eco-auditing system. Something like that" (Int 6 AIA Environmental Expert)*

This implies some sort of confusion between the ISO standard and the EMAS regulation. Respondents[73] argued that there was no clarification given on the specific requirements. At that time, when the law was launched, in 1995, there was no clear picture of what an environmental management system meant either from the policy maker side or from the private sector in Greece. Interpretation of this requirement, to make the project as environmentally efficient as possible, rested mainly on the airport organisation:

"Because the intention was to implement something that was widely accepted by public." (Int 5 ENC Respondent)

The contractor (Hochtief) and subcontractors were given responsibilities to maintain a level of environmental standards through the various activities during the construction period. The Environment Department (ENC) argued that the government supported the idea of ISO14001 as a significant and widely accepted voluntary scheme. Although, such a decision was considered pioneering, it is obvious that at policy level, knowledge about environmental specifications was minimal at the time.

[73] (Int 8 Gov. Environmental Expert) (Int 6 AIA Environmental Expert) (Int 20 ENC Respondent)

Institutionalisation plays an interesting role here because, without the institutional establishment of a tool for policy innovations, chances are few of proper implementation.

The operator: Hochtief AirPort

The dynamic of private partnership is an important parameter in internalising environmental data. A number of respondents argued[74] that the developer (Hochtief) played a key role in the decision making. The developer (Hochtief) is a consortium of private investors from Germany with a strict attitude in environmental policy.

Hochtief is one of the largest construction companies worldwide and has significant experience in the implementation of management systems (both qualitative and environmental). *Hochtief AirPort GmbH* will be operating the airport of Athens for the considerable period of 25 years, a subsidiary of *Hochtief (Aktiengesellschaft),* the developer of the airport. *Hochtief AirPort's* purpose is to invest in, develop and operate airports and their facilities. Airport management involves integrating and co-ordinating the services of all parties involved in the operations of an airport, thus overseeing the development of the airport during its entire life cycle. *Hochtief AirPort GmbH* argues that their aim is to acquire airports with the goal to provide guidance for a market-oriented profitable corporation. The operator also believes that:
"the world's airports are going through a tremendous period of change, as they evolve from a "classic" transportation hub to a multifunctional service centre, thus airports can no longer rely on their monopolistic standing. The competitive nature of the business means that airport operators need to develop unique and superior solutions in order to achieve and maintain a strong market position."

In the long run, the highest standards of efficiency are deemed to be important criteria for success. By 2001, *Hochtief* had already published its first Environmental Report. In it, the company detailed the significance of environmental protection in the field of construction, and what *Hochtief* does to protect health and safety in all its fields of business, domestically and internationally, in the competition for major contracts. One prime focus of the over 100 pages document is "sustainability". The Environmental Report contains both declarations of the principle and descriptions of

[74] (Int 16 DQS Environmental Expert) (Int 24 Athens 2004 - Environmental Expert)

case projects[75]. *Hochtief* in general demonstrates a corporate-wide image and a high environmentally conscious profile.

Thus the presence of *Hochtief* as contractor, developer and operator is considered crucial in launching an environmental strategy. Its past experience in similar posts world wide led company officers to consider the adoption of ISO14001 an important asset in the airport organisation. A range of different actors have argued that:

"The German profile played a role here. "(Int 5 ENC Respondent)

"It is explicit therefore that the Germans are responsible for this development. It is part of their mentality, thus there is a lot of rationale for ISO14001 development." (Int 16 DQS Environmental Expert)

Besides,

"It would be difficult to accomplish such an aim if the body/organisation that would carry out the work would be other than German for example, a Greek company, or a Italian, or a French, other than a German one like Hochtief." (Int 26 Athens 2004 - Environmental Expert)

The Environment Department (ENC) has highlighted the importance of the framework law. But, as the knowledge on the particular schemes was vague from the government side at that time, the role of German management is considered a determining factor. Hochtief's experience in this field and the culture aiming for high environmental standards, therefore, seems apparent in the airport's management.

In particular, the procedure to adopt ISO14001 was initially a proposal made by the Environment Department (ENC) to the central administration and the board of directors of AIA, which included all necessary costs for the development and maintenance of the scheme. The administration decided to adopt ISO14001 as a first

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[75] One example is the climate-control concept for the Prisma office complex in Frankfurt am Main which saves energy by making use of the fact that the soil around any building is relatively warmer than the building itself in winter and cooler in summer.

stage and proceed with EMAS in the next two to three years, given the apparent dilemma between EMAS and ISO14001 (see chapter 5).

"This of course is the CEO's decision and not the department's." (Int 9 ENC Respondent)

The investigation revealed that government and private initiative are seen to have common interests simultaneously – both are sensitised to environmental issues. But, as the investigation revealed, the process was complex and idiosyncratic. Hence, there is much controversy in explaining the role of each party in ISO14001 implementation because, from their perspectives, respondents interpret decision making for the scheme differently. Certainly, there is no single perspective on understanding ways by which AIA was motivated to apply more effort for systematic environmental practices. But there is now a much better understanding of the process by which the organisation reached the adoption of ISO14001 on the apportionment of time and resources. It is a process that helps to explain some of the problems and difficulties faced, and it creates a clearer picture with more knowledge of the implications and outcome.

On the one hand, evidence to date suggests that the role of the operator was strategic, but involvement of government actors in the construction phase was the determining factor. But also, European influence has contributed to the government's environmental initiatives. On the other hand, AIA management and private sector respondents argued that AIA's ISO14001 adoption was an intra-organisational decision due to German management.

The investigation shows that in this case (AIA), as in any other organisation that operates internationally and is affected by the heightened profile of environmental problems, there is a linking process between government and organisational decision functions and planning, organising, staffing, directing, leading and controlling organisational effectiveness. So, through the German reputation, AIA managed to legitimise environmental goals, but also to frame it within Greek legislative and operating culture.

The investigation demonstrates a notable difference between the public and private initiatives, which lies in the degree of interaction, integration of information and orientation during the project formulation and implementation process of the scheme.

The public-private partnership in this case is largely insulated as important in understanding new policy or management processes. It is the new form of partnership that seems to have initiated and formulated the environmental activities in the organisation, with the scope and goals pursuing an environmental logic.

Private initiative is argued by the Hochtief administration to have better results in terms of image company rather than a public organisation, which seems to have less flexibility to move efficiently compared to a private organisation. Indeed, it is on its foreign private–sector partners that AIA seems to rely for the incorporation of environmental knowledge and perspectives in environmental processes. The developer and operator seem to hold the capacity of specialised skills and competencies and, therefore, can create the ground for appropriate management structure and participation in the development of ISO14001. Nevertheless, ISO14001 is considered the domain of private management, since the latter have the industry-specific experience necessary to turn decision into operational activities.

In contrast to the public sector where there is a risk of providing limited assistance to an innovative industry sector, this risk is seen to be drastically reduced in this kind of partnership through the participation of a German company of airport operations. The ENC[76] pointed out that if the airport was only a publicly owned enterprise, things would probably be different. There is no indication that the airport would have the same image and form that it has achieved today, because what currently is being done in the airport has not been done in any airport in Greece.

6.4 AIA's Environmental Profile: The Activities of the Environment Department (ENC)

The AIA organisation has located environmental responsibilities and an Environment Plan within the Environment Department (ENC) as part of its contractual prerequisites (Article 8 in Ministerial Agreement 2338/95). Only the Environment Department (ENC) has been certified to ISO14001 management system. The adoption of ISO14001 in this department was argued to be a relatively easy procedure because a holistic environmental plan was already in place and had been running in the organisation since 1996.

[76] (Int 20 ENC Respondent)

In order to understand why the AIA decided on partial adoption, there must be an understanding of the nature of influence, for it is the means by which the people of the organisation are linked to its purpose. A number of respondents believe that capacity for the organisation to advance into a holistic approach seems limited, as its capacity to coordinate and develop a system are deficient in a number of respects. Partial implementation of ISO14001 had both negative and positive effects in this situation, creating a number of ambiguities.

The Environment Department (ENC) is required to communicate its performance to the Ministry of Environment and Public Works (YPEHODE) to audit and monitor its protection programmes, and it submits an environmental report every six months. The Environment Department (ENC) has a stated primary concern to take care of the environment, in addition to service excellence and other particular local concerns such as the protection of physical and cultural national inheritance. Current environmental practices cover various facilities and activities, with monitoring and auditing on a weekly basis (see Appendix 1).

The ENC has set up perimetrically stations for control of air pollution, which have been inspected to see whether they work properly and also whether they transmit data correctly to the centre. These stations had begun measuring air and noise pollutants at least six months before the operation of the airport providing, therefore, a record of pollutants in the area.[77] Since 1996 and during the first two years of airport's operation, there has been an investment of 1 billion GDR for equipment for monitoring and carrying out environmental assessments.

The ENC implied that the system already yields specific economic benefits. It has made a number of contracts for environmental management (i.e. waste management projects). Also, third parties (i.e. subcontractors/companies operating within the airport) are obliged to comply with specific criteria towards an environmental policy.

There is, however, the assumption that employees that have been taught on environmental management issues are able to use knowledge to meet the requirements of the company's management system. It is believed that the training of employees and of the third parties of the airport community helps them become more conscientious. The investigation shows that it is the provision of a certain

[77] (Int 4 Environmental Expert - Auditor)

performance and reports to teams and individuals that is believed to give employees a tangible sense of their participation in the company's objectives. The Environment Department (ENC) has committed, according to ISO14001 guidelines, to provide compulsorily continuous environmental awareness to all AIA employees and third parties. According to the environmental auditor, employees are basically informed with regular seminars that comprise basic concepts and ideas, (i.e. concept of sustainability). Also seminars involve particular practices of daily working patterns like in-house activities (recycling/reusing paper, emailing) and on-site activities (logistics, water use, usage of chemical substances, oil spillage etc.). For example, employees have been sensitised in various recycling programs (i.e. like used toners are returned to ENC because AIA receives compensation). ISO14001 is perceived to help with the mentality of employees through raising the awareness of environmental issues and maintaining employees' high morale.

6.4.1 Institutional requirements for ISO14001 diffusion

The investigation shows that one of the reasons why ISO14001 has been partially adopted is that employees in other departments are not sufficiently aware and sensitised on the environment. It is, therefore, believed that they will be less likely to understand the procedures of an environmental management system. It is shown that when one element — technical, organisational or economic — is out of phase with the others, this impedes the further development of ISO14001. To understand these issues, one needs to explain primarily the dynamics of implementing standardised management and acknowledge the emergence of new management techniques and market needs.

Although the Environment Department (ENC) is considered to have an exceptional high record of qualification on environmental management, the other departments are not fully aware of the ISO14001 benefits through certification. From the study's point of view, ENC is conceived as an interface between the organisation of the airport with environmental services. Thus, ISO14001 is desirable because it helps to set up a certain criteria to check the work of all departments according to the prespecified tasks. ISO14001 is argued to facilitate employees in getting sufficient information on any subject easily and also help with external actors (i.e. local actors companies that wish to collaborate etc).[78]

[78] (Int 10 ENC Respondent) (Int 20 ENC Respondent)

ISO14001 is marketed through these various channels of communication so that other actors are informed on what has been achieved. On the diffusion of ISO14001, there is now direct communication with the Corporate Quality Management department (CQM) and the Public Relations (PR) department. This is considered to provide objective indicators for environmental management.

The Corporate Quality Management department (CQM) is responsible for the development and implementation of the corporate Quality Programme of AIA. The CQM department is argued to be a cross-departmental corporate function with a co-ordinating role that supports the department towards excellence[79]. It places primary focus on the passenger, aiming at the achievement and sustainability of customer Service Excellence. The Public Relations (PR) department performs three roles. First is the management infrastructure (i.e. the administrators of airport). Second is the communication to external actors and information technology, (i.e. the marketing of the airport). Third, is the direct collaboration with the Environment Department ENC concerning the way ISO initiative can be projected. A number of brochures highlight environmental sensitivity as part of the dimensions included. As the analysis shows, these departments have particular, though related objectives.

The Corporate Quality manager believes that what needs to be achieved since ISO14001 take-up is to address issues of quality assurance as a significant first effort to align all processes of departments in the organisation. The CQM department is considered important in establishing a common process that covers the way with which the processes within the organisation are published, approved and communicated. Efforts are focused now on cooperation in order to implement ISO9001 in other departments. Along with ISO9001, ISO14001 is believed to correspond to AIA's requirements.

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[79] The primary objectives for 2001, for example, were the establishment of a management system for passenger complaints, the establishment of quantifiable performance indicators measuring the level of service offered to the passengers, as well as the development of quality methods adding value to our operation.

Some indicative figures for 2001 on service performance indicators are: baggage delivery time; check-in queuing time; security screening queuing time; taxi queuing time; call centre waiting time; information desks. Also, Passenger Comment Management is an important element of the quality programme of AIA. All comments received are carefully analysed, investigated and responses are dispatched to the passengers. (Int 19 CQM Respondent)

Thus, key actors within the CQM section of the organisation consider progressive application of a management system desirable, because it is seen to have positive results. It is believed that a system such as ISO14001 helps departments to have reliable procedures with a mechanism of controlling processes;

"For processes to be followed and not to remain in the drawer." (Int 19 CQM Respondent)

Also:

"This organisation is a new enterprise which so far has earned positive opinions. It is a project that is based to a great extent on foreign loan. As a result, very often when you want to prove to the shareholders various indicators of progress, it is important to have objective indicators." (Int 19 CQM Respondent)

ISO14001 is portrayed here as a scheme to provide reliability whilst diffusing information for environmental practices. The Public Relations[80] manager argues that a long-term strategy like ISO14001 provides fundamental advantages both at the corporate and personnel levels.

"It is crucial to set objective standards as a base that shows that the services of the airport are high, and at the same time according to the rules and standards/criteria that have been objectively recognised by the institution of ISO14001." (Int 18 PR Respondent)

Efforts, therefore, are put on more long-term strategies to increase services for the improvement of the environment, whilst corrective action has also been taken on occasions when procedures did not function properly.

Under these circumstances, it takes a lengthy process of communication and training in order to prepare people to receive environmental information and practice on it. Communication (dissemination of information about environmental issues) and training are elements of environmental management designed to educate the employees in the key issues and important aspects of the organisation's norms and overall strategy.

[80] (Int 18 PR Respondent)

Existing research highlights that adopting a long-term perspective often coincides with increased environmental awareness and pressure on business for environmental performance. However, although both the Public Relations and the Corporate Quality departments advocate the expansion of the system, the airport organisation does not have immediate need for certified procedures as there are other issues to tackle first.

"First of all, there is no commercial need. That is to say ISO certification is not a market requirement in the specific contract of the airport. It is needed though as an aspect of growth." (Int 19 CQM Respondent)

Similarly, ENC asserts that a holistic approach is not considered an immediate objective because there are other more crucial issues.

"To adopt an environmental management system is still a bit early because it is relatively a newly established company." (Int 20 ENC Respondent)

It is doubtful whether ISO14001 will be pursued further in AIA given that it is not essential from a commercial point of view. Also,

"Partial adoption is not known to the public at large." (Int 20 ENC Respondent)

Nevertheless, partial development of the system allows for evaluating benefits at the micro level, in order for the organisation to be convinced.

Whether ENC broadens participation by giving employees a sense of accomplishment in their work is questionable. Doubts have been raised about the ENC's ability to be flexible and to communicate through various departments for ISO14001 development. Yet, ENC believes[81] that it is difficult to implement ISO14001 holistically, because the majority of employees here are seen as less receptive to ideas of environmental management and less familiar with environmental protection. For example, simple tasks like paper segregation or recycling, which are procedures included in an environmental management system still have not materialised. After all,

"Greece is not the most environmentally aware country! (Int 6 AIA Environmental Expert)

[81] (Int 9 ENC Respondent) (Int 20 ENC Respondent)

and,

"It is possible to convince with suitable rationale because there is certain correspondence, though it will not be easy. It is mainly a matter of culture, that is to say that people in this organisation are not very open to new ideas. We even face difficulty in convincing people to recycle their paper." (Int 9 ENC Respondent)

In essence, the emphasis on German cultural management ideals leaves a gap between formulation and implementation due to regulatory differentiation, cultural norms, and the evolving structure of the organisation.

A number of difficulties are apparent in the Environment Department (ENC) seeking to convince the organisation on the cognitive subject of environmental issues and management, as important features of the airport management. Indeed, there is a risk for the airport to have created a particular idea beyond the typical operational and management targets. Implications are inevitable in the organisation as the adoption of new management schemes implies the infringement of some employees' freedom over their actions. Evidence suggests that implementation within one department is contested. Doubts are raised, therefore, about the institutional capacity to integrate ISO14001 into daily practices. If ISO14001 remains in the department only, it might not achieve the objectives set for total environmental management for airport, such as for example, control of third parties.

6.4.2 Standardisation and the manageability of "good" reputation

As environmental issues are heightened in Greece, ISO14001 adoption has gained in reputation. According to standard interpretations, such a reputation stems from the fact that a management standard like ISO14001 implies a functional organisational structure and provides a framework for motivating continuous improvement. However, this section shows how the concept of environmental management is challenged when confronted with the way in which the standard is perceived at the corporate level. ISO14001 provides an additional insight into the nature of environmental management type and standardisation by demonstrating that indicators of good performance and reputation are related to the organisation's measure on overall success. This case questions the interrelated claims about standardisation of environmental management.

So, a standards-based approach to environmental management should make it clear that responsibilities are allocated and that certain concerns contribute to credible

evaluations. use of established methods (including professional skills of participants), and an objective and impartial stance towards the protection of the environment. A number of views advocate the systematic and standardised approach as important for the AIA organisation.

Firstly. standardisation of an environmental approach is seen in this case to provide a ground for compliance with local laws and offer evidence for regulatory change. The global character of ISO14001 is seen here to establish a reputation of national validity. High-performing companies emphasise the reputation perspective, which serves to reinforce the importance of strong public relationships, innovative character and financial status for the organisation that follows such a strategy.

In fact. the standardisation that ISO14001 offers is argued to provide sophistication to pick the most effective rules in practice, as opposed to those that make sense on paper. AIA respondents advocated that this approach has helped the airport to be more committed to the system's procedures, because it requires following precisely the processes and the steps written.
The AIA respondents have argued for the importance of having a management model to imitate. Respondents[82] (i.e. the Public Relations, the Corporate Quality departments and third parties) illustrate that with the environmental management system in effect now AIA demonstrates an exceptional type of Greek organisation. The Environment Department (ENC) plays an important role with skills and activities that contribute to good public image and high morale. The ENC considers that with ISO14001. it possesses and retains a state of stable management performance and confidence in its own ability to deal with environmental occurrences. A "good reputation". therefore, is perceived a valuable asset that is earned over time and managed carefully. But, there are critical elements that make a distinctive difference between this case and the general picture in Greece.

"ISO14001 offers a very good picture of the airport organisation to the whole network of involved actors. It shows that we have a voluntary model that helps us achieve improvement in the company". (Int 20 ENC Respondent)

The majority of Greek companies, which are small and medium-sized businesses, exhibits an absence of change and is constrained by many of the competencies that

[82] (Int 19 CQM Respondent) (Int 18 PR Respondent)

the particular organisation has. AIA is believed to be a high-profile, state-of-the-art development. It is considered to be cutting-edge, large organisation that has launched environmental initiatives due to specific regulatory arrangements. When ISO14001 was undertaken, efforts were made to highlight the importance of adopting a comparable system. However, there are no pressures similar to the ones industrial organisations face and wish to compete in the international market. As an AIA executive claimed:

"There is no basis for comparisons with previous airports, because AIA is a state-of-the-art airport at the level of services provided to the public but also at the level of enterprises that operate and share the same space, i.e. cargo, handlers, retailers." (Int 6 AIA Environmental Expert)

Sustaining this distinctive reputation is considered one of the targets of the organisation, displayed among the assets of high standard management. It is created within the wider organisational context, which has concrete and distinguishable characteristics of quality and environmental management. ISO14001 is seen as a way of establishing a reputation of international validity.

Also, there is the belief[83] that ISO14001 provides elements of political management, in terms of influencing relations with ministries, within the company (third parties), and with external actors (i.e. local communities). ISO14001 is considered[84] an advanced "concept" of management by facilitating certain management procedures in a co-ordinated way whilst providing a centralised management approach. ISO14001 is expressed through a number of ways in this case. It is considered to be a complex, dynamic and long-term commitment by a variety of actors in the organisation. It is also seen to provide publicly available information, stakeholder participation, and communication of environmental information, both intra-organisationally and externally.

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[83] (Int 20 Karamanos ENC)

[84] (Int 26 Athens 2004 - Environmental Expert) (Int 6 AIA Environmental Expert) (Int 9 ENC Respondent)

For example, ENC argues that before developing ISO14001, file-records were not in order and there was a need for a thorough and more systematic approach. In this way all information is more easily available.[85]

"It is very helpful to know where to look for information and to find it immediately. Before ISO14001, I had to search maybe four hours to dig out a file on a specific subject." (Int 9 ENC Respondent)

ISO14001 is considered to place a frame of work with certain objectives in a concrete timetable. The timetable facilitates checks whether objectives and substantiated targets have been achieved within a certain period of time. ENC acknowledges that the standardised nature of ISO14001 provides concrete specifications and requirements for a company to follow:

"This is the continuity of environmental plan in a more systematic basis." (Int 9 ENC Respondent)

"ISO14001 helps because it places activities in a frame. Simply following a plan is less concrete than following specific standards." (Int 10 ENC Respondent)

And also,

"Simply following standards is considered a positive adoption for the organisation, because it is something officially recognised and evidently sufficient." (Int 5 ENC Respondent)

Crucial here is that implementation of ISO14001 is a facet of bureaucracy – it is a concept subjected to intense scrutiny regarding management procedures. The standardisation of environmental management as routine administration of work processes is being characterised by extreme bureaucracy. Respondents from AIA argue that it facilitates procedures and:

"It helps in certain things in which the Greeks are not accustomed. But the bureaucratic role of management is an issue." (Int 18 PR Respondent)

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[85] Also, the department has established electronic document control, which was mainly an environmental action in order to minimise consumption of paper. Yet this is time consuming too (Int 10 ENC Respondent).

"ISO14001 is simply a bureaucratic system." (Int 10 ENC Respondent)

In the corporate context of AIA, ISO14001 adoption emerged as a chunk of bureaucracy that serves a role that is at least subtly regulatory, although decision making is entirely voluntary. On the one hand, methodisation of work processes is considered beneficial, though the bureaucracy this creates is not unanimously seen as a good thing. Typically, employees express the feeling that bureaucratic rules get in the way of the work. As a result, ENC[86] argues that employees are not convinced easily.

"Employees seemed reluctant when faced with such bureaucracy." (Int 20 ENC Respondent)

As a result, bureaucratic difficulties may have deterred a holistic approach: this means partly that environmental subjects and the activities of the airport are dealt with through the environment department ENC, so the organisation is relieved from extra bureaucracy.

Also crucial is the issue of cost. The decision on cost is complex in an internationally operating organisation, because it involves decision making by the company's management and its public partner (i.e. government). Administration fees and high operational fees have created risk for the company's reputation. Third parties (i.e. airline and other operating companies) have raised a series of complaints about the high cost of airport use. Consequently, the imposition of ISO14001 on companies that provide services is seen to create tensions.

"Third parties in the airport already complain of having massive operational costs. The imposition of an environmental management system in the rest of the company would debit it with an additional amount of 3-5 million GDR." (Int 6 AIA Environmental Expert)

Excessive administrative costs to develop and institutionalise the scheme (i.e. certification from a "valid" institution control, monitoring and maintenance of the system), along with equipment investment and expertise, are crucial parameters, with

[86] (Int 20 ENC Respondent)

further implications. ISO14001 is thought to endanger the organisation's management by creating excessive costs for third parties.

The decision to incur these costs is itself illustrative of the wider managerial and political tasks the EMS was required to perform. Two reasons stand out. Firstly, airport management needed to sustain expensive, high-quality services by highlighting ISO14001 as part of the state-of-the-art management and services. As mentioned above, such a project is not considered comparable with other infrastructure development in Greece.

"When companies were asking why we have such high fees, a motive answer as well as an excuse answer was to say that because we have developed ISO14001 we face various operational costs. Prices for landing fees here are slightly more expensive than other EU airports, therefore we use ISO14001 as a marketing tool" (Int 9 ENC Respondent)

High operational costs, therefore, are seen as part of high-quality services provided along with the implementation of an international management scheme. The second reason reinforces tendencies towards bureaucratic fragmentation: ISO14001 is maintained in the ENC given that holistic, cross-organisational implementation would compound already excessive costs for third parties.

This discussion illustrates some of the pressures operating on and through the AIA. The organisation may claim that its services and products are in line with ISO specifications, though a combination of social and environmental elements are mainly judged on the basis of economic and marketing criteria. ISO14001 is claimed to contribute greatly to the company's ability to compete internationally and to be[87] an effective marketing tool. It is a global standard relating to long-term, "good" management that requires balancing efficiency and local responsiveness from third parties. Tools like ISO14001 are seen to feature a novel logic and prove to be valuable in practice, irrespective of environmental circumstances, because their performance is not strongly context dependent, but rather affected by the external environment.

[87] There is the practice of benchmarking with other airports and with the system of environmental management, which nevertheless sets ground for direct collaboration and communication with other airports (Int 5 ENC Respondent).

6.4.3 Environmental knowledge, capacity and certification criteria

In order to support the development of ISO14001, AIA needed certain inputs, including the hiring of experts, labour, equipment and other resources. The basic objective – to obtain the best option and sources by the most effective means – was adjusted in light of the constraints upon the organisational environment. The Environment Department (ENC) obtained its certification by DQS, which is virtually the German equivalent of Hellenic Organisation of Standardisation (ELOT) (see chapter 5). DQS is a leading expert in Germany having certified similar establishments in the past. The national body that represents the International Organisation for Standardisation (ISO), the Hellenic Organisation for Standardisation (ELOT) was not chosen by AIA to provide certification because it was said to lack the qualification to provide certification to complex organisations like airports. Indeed, the DQS representative[88] advocated assigning certification to DQS, mainly because of their experience of similar establishments (i.e. projects on environmental management implementation in the wider transport sector).

DQS is the German Registrar for Management, providing services nationally as well as internationally. DQS was founded in February 1985 as a self-governing body of German industry and co-operates with partners in 44 countries. DQS has a branch operating in Greece and argues to be a neutral, independent partner for the certification/assessment of management systems. It supports companies in the further development of their management systems and provides information on relevant methods. DQS also actively represents the interests of German industry. DQS is involved in co-ordination activities with German and European bodies for example, in the central committee of the German Accreditation Body (TGA) and is committed to issues of harmonisation in the European internal market and worldwide.

DQS argues that its worldwide recognition of certificates is ensured by co-operation within the International Certification Network (IQNet) with multilateral reciprocal recognition – and by other bilateral agreements. DQS is a founding and full member of the IQNet, which represents national certification bodies from 28 countries worldwide, and a member of the DIN and the EFQM. DQS experts participate in the standardisation projects of the NQSZ in DIN and in the ISO Technical Committee 176 for further development of the ISO Standards family. DQS provides certification of quality management systems in accordance with DIN EN ISO9001/2/3 in all industry

[88] (Int 16 DQS Environmental Expert)

sectors. It was accredited in 1991 by the German Accreditation Body (TGA). DQS conducts assessments in accordance with Directive (EEC) 1836/93 in co-operation with registered environmental verifiers and certification of environmental management systems in accordance with DIN EN ISO 14001.[89]

DQS International focuses on: certification projects for entire companies and their partners (customers/suppliers), including all sites worldwide, international projects through Joint-Audits with IQNet and other international partner organisations sensitive to local conditions, customs, values, language and culture, internationally qualified auditors, matrix concepts, cooperation with national accreditation and certification bodies. So, through the mutual assurance of participating in international networks of accreditation, and by its claim to have a presence in various national settings as well as in trans-national governance, DQS was able to command considerable credibility for the accreditation of AIA. Such 'resources' were not similarly available to the less-connected Greek equivalents.

During the development of ISO14001 in AIA, a number of changes took place involving new competencies, learning, and acquisition of new knowledge and resources through collaboration. Environmental knowledge is embodied here in the

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[89] Accredited by the TGA since 05/96 Certification in accordance with the SCC and SCP Checklist (operational safety). Certification of QM systems in accordance with QS-9000 for the automotive and automotive supply industry. Accredited by the TGA since 01/96. Certification of QM systems for the automotive supply industry in accordance with VDA 6.1. and VDA 6.2. Registered by VDA since 01/97. Assessments as a "notified body" in statutory regulated areas for CE marking in accordance with the guidelines 93/42/EEC for medical devices, 90/396/EEC for gas installations, 94/9/EEC for "EX devices" and 89/686/EEC for personal protection equipment. Assessments as a "notified body" in the statutory regulated areas for the guidelines 90/263/EEC for weighing machines and 91/263/EEC for telecommunication transmission installations.
Certification in accordance with DIN EN 46001, 46002 (for manufacturers of medical devices). Certification in accordance with SQAS (Safety Quality Assessment System). Certification in accordance with HACCP (food hygiene) Assessment in accordance with EFQM criteria (Management for Business Excellence). Assessment in accordance with DQS-Professional/IBEC ("IQNet Business Excellence Concept") Assessments as a monitoring body within the framework of the Waste Disposition Regulation, the Beef Labelling Scheme and Road Traffic Legislation. Assessments in accordance with DQS-TIP (Trust Improvement Program) with validation of the manufacturers' declaration. Founding partners are the DIN German Institute for Standardization and the German Society for Quality (DGQ). Also, the German Association of Machinery Industry (VDMA), the Association of Electrotechnical and Electronical Industry (ZVEI), the Association of German Precision and Optical Industry (F+O), the Association of the Chemical Industry (VCI) and the Association of the German Construction Industry (HVBi).

professionals, the so-called "experts", and qualified employees with imported knowledge. The environmental expert is a new concept in the Greek business context, established in the last 10 years. However, it is crucial to consider in this case that "know-how" resources include "local knowledge", which is a combination of knowledge built up through a combination of practical experience and the frames of reference that people use to filter and give meaning to that experience. Such knowledges are not always easy to align.

The way knowledge is perceived has an impact on the credibility of the standard, where achieving credibility requires that certain obligations, specifications and terms are represented.

Certifiers and consultants need to follow particular obligations in order to avoid the risk of losing credibility. In principle, all private companies that are entitled to certify use processes that are verified from a specific institution of accreditation. In order for a body to hold a credible position to certify, it has to be accredited and announced to the European or international competent bodies (i.e. IRCA). Foreign institutions are believed to offer reliable expertise and imported know-how and benefit of high standard services for companies wishing to participate in standardised corporate forms of management. The fact that the airport was organised by a German consortium proved vital in this case. It is these actors (i.e. Hochtief, DQS) that play a crucial role, as they offer "know-how" and experience of specific policy issues and implementation techniques of global validity.

But doubts have been expressed in Greece about the selection criteria of the certification body, the quality of auditing, and implementation procedures of certified companies. According to an environmental expert, there were two key variables in determining credibility in certification[90] – the selection criteria for the certification body and the perceived lack of transparency in the selection procedures.

Turning first to transparency and disclosure patterns, consistency and transparency are crucial virtues in avoiding the risk of losing credibility in the eyes of interested parties. This is vital given the uncertain lines of accountability that govern many accreditation agencies. Many argue that the competition that exists between

[90] (Int 27 Government Environmental Expert)

certification bodies keeps certification and consultation services at a level that motivates them to fulfil specifications. The AIA respondents argue that the criteria were based on economic and experience factors;

"It (criteria) is a combination like an equation between economy, qualification and experience and the particularity of the organisation." (Int 5 ENC Respondent)

The ENC considers that despite the services marketed and provided, reputation in the area is a crucial factor in recognising quality services, because performances vary dramatically.

The second key variable in determining credibility is the importance of performance record. Performance is illustrated through the role of the consultant, which is crucial for internal auditing and implementation procedures. This is usually an environmental expert externally hired to help in developing the system. Again, international experience connotes value. Experience from abroad both externally and intra-organisationally is considered[91] a decisive factor in adopting new management techniques. Evidence bears this out in the case of the AIA. Development of the environmental management system in the Environment Department (ENC) came from an external consultant. The expert was employed by the airport organisation on a part-time basis, and was in constant collaboration and communication with the Environment Department (ENC). There is a dominant perception by participants (employees) that the implementation of ISO14001 favours the environmental manager and the external consultant that implements the system in the company. Moreover, even within such a high profile Greek project, managers perceive that it is difficult for the employee to conceptualise the role of a consultant.

"It is not easy for them (employees) to conceptualise the competences given to us (consultants), or the high price paid! It is also difficult for employees to understand that an external actor can have power and control on them. Clearly, interests here differentiate fundamentally." (Int 6 AIA Environmental Expert)

Conflicts, therefore, were traced between the external consultant and AIA employees because in their eyes it is the consultant who is seen to profit from the development of ISO14001. So, the actual role of the consultant is disputed. This illustrates an

[91] (Int 20 ENC Respondent)

important element of the Greek mentality, with implications for environmental capacity: the lack of trust towards new forms of expertise or for innovative management techniques.

On the other hand, experience from abroad has influenced the culture of AIA's organisation to a great extent and this is evident in many elements, such as for example, communication.

"The issue at stake is that people cognisant of other cultures hold a different perception on how to face various issues raised in their work or their life, and so on environmental issues as well." (Int 20 Karamanos ENC)

ENC staff argue that the fact that personnel comprises young people, most of which have studied abroad with various experiences,[92] creates the ground for understanding environmental management procedures easily. People in that sense are able to accept new ideas, new initiatives like a systematic approach to environmental management, which would be new anywhere else in Greece. Environmental experts claim that:

"In order to understand what is an environmental management system, somebody who does not know English until he grasps what the concept is about has lost considerable time and is behind compared to somebody with foreign experience." (Int 6 AIA Environmental Expert)

And,

"Even Greek consultants compared to Germans fall short on a lot of points, at least in terms of experience and time." (Int 16 DQS Environmental Expert)

One can see the contrasting perspectives being expressed regarding expertise from external actors and foreign institutions. Great reliance is placed on participants with imported knowledge and international connections. Yet, imported "know-how" concerning new knowledge creates ambiguities, where that trust relies on the mentality of the participants.

[92] (Int 6 AIA Environmental Expert)

6.5 The Role of ISO14001 in Local Communities: Environmental Impacts in the Region of Mesogaia

Undoubtedly, the construction of the airport has dramatically transformed the use of land in the region of Mesogaia. On the one hand, airport development is believed to have had a positive effect because it has stimulated economic activity and housing development. Those that prioritise economic and social concerns are in favour of it. On the other hand, environmentalists opposed these development changes; airport construction raised a lot of complaints and disquiet regarding serious environmental impacts. There is also intense pressure from local communities around the airport because of the impacts on noise, land taken and air pollution mentioned above.

Prominent among these local environmental concerns have been the effects on agriculture, land-take and planning. Agriculture is said to have suffered appreciable degradation after the construction of the airport with consequences for the local economy of the region. A large part of the population of the Spata communities, in the Mesogaia region, has been sustained economically by agriculture (the production of wine grapes[93] and olives) or small-scale tourism[94].

"The biggest environmental problem is in our agricultural products. Vineyards and olives gave a very low production the previous year. and production is definitely going to be worse." (Int 12 Local Authority)

Moreover, it is argued that,

"All the farmers who have vineyards here have been ruined. They have no other occupation and those who did not have any other income started to sell land and they sold at very low prices." (Int 12 Local Authority)

Secondly, the airport has underpinned regeneration and development projects (i.e. housing development) through the Environment Plan and the 3rd Structural Funds Programme (see chapter 5). This reflects a wider sustainability planning logic and

[93] Much of Attica wine production comes from this region.

[94] In order to save tolls the lorries pass through our settlement, & thus lorries have destroyed much of the infrastructure here (Int 12 Local Authority).

practice for the greater area of Attica (the region of Athens), involving a series of strands. One strand involves immense efforts from the government to decentralise population in order to decongest Athens through a number of satellite cities. One of these satellite cities is projected to accommodate roughly 200,000 residents around the airport. Government, but also a number of local communities, considers this alleviation of residential pressures and the expansion of the capital Athens towards Eastern Attica (i.e. Mesogaia) a positive impact.[95]

Yet, NGO respondents argue that these developments have a number of wider planning implications. Until recently, housing expansion was prohibited because the Mesogaia region was characterised as rural. But, a planning provision was drafted to reclassify all rural and private roads as provincial.

"Primarily that was prohibited because the area was designated as satiated. So, what has YPEHODE done? It suddenly classified all rural roads and private paths as sub-urban or provincial. Until recently, in rural areas you were not allowed to build within closer than 4000m^2. In provincial areas you are allowed to built within 400m^2." (Int 7 NGO Respondent - Legal advisor)

Partly, the provision was made due to the development of the airport, for which more and better transport infrastructure is regarded as essential in this area. There is also a parallel strand of the private sector, commercial growth comprising the airline, aeronautical and airport enterprises along with development of 16,000 acres around the airport, with much promotion of real estate projects[96]:

"That is a recent planning order made out of the airport's need for wider roads for better transportation. With a second reading of this order though, you realise that a dense city is about to be built! "[97] (Int 7 NGO Respondent- Legal advisor)

NGO respondents and environmental experts have argued that government plans for housing development may have drastic environmental consequences for the whole region long-term[98]. Yet, evidence suggests that local communities anticipate such changes to be positive, possibly because the value of land rises increasingly. So,

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[95] (Int 7 NGO Respondent - Legal advisor)

[96] (Int 18 PR Respondent)

[97] "On top of that there is a 22.000 (1000*m^2) of land tied up around the airport."

[98] (Int 8 Gov. Environmental Expert) (Int 7 NGO Respondent - Legal advisor)

what is the role of ISO14001 in addressing the obvious environmental impacts in the area? How is it implicated in mediating wider environmental change, and how do local actors perceive it?

6.5.1 Public dialogue and environmental disclosure through ISO14001

In answering these questions, it is crucial to reflect on the effect of various institutional and cultural elements. Part of this is conflict resolution through public dialogue and disclosure in the relationship between AIA and local communities, and the role of ISO14001. Within the AIA project, ISO14001 is portrayed by ENC as a tool to initiate dialogue with the public and resolve conflictual situations. It is considered useful in such situations, as well as for corporate-wide concerns for the processes linked to an internationally operating organisation.

Primarily therefore an important aspect of managing environmental impacts through schemes for environmental management is the disclosure of facts. Access to information occupies an important part in environmental management activities. Since the environment is a sensitive issue regarding community relations, it is thus an important part of the airport's disclosure practices. More widely, there is a legal trend in Greece[99], even since the 1990s, that information on environmental outputs of organisations, inclusive of private and public administration organisations, should be provided and actions should be accessible to all. Publication of environmental information is linked to a web of EU directives. For example, Directive 69/269 contains explicit provisions on the publication of an environmental impact assessment (EIA). These provisions have become visible in Greece with the KYA85/308, a common ministerial decision, which determines publication[100].

These trends therefore, emanate not only from the AIA's effort to make information available, but also reflect wider government and EU requirements. Indeed, the majority of respondents agree that as long as publication of environmental actions materialises, it is a positive outcome.

The airport organisation itself asserts that it publishes an environmental bulletin according to EMAS, as public exposure is not an obligatory component of ISO14001. EMAS includes wider requirements for publication of environmental information and

[99] (Int 8 Gov. Environmental Expert)

[100] The procedure of publication in Greece involves the Prefectoral Council, which announces the statement in at least two newspapers admonishing any citizen or institutional body wishes to receive knowledge on the subject matter (75/308/9512 government documentation).

explicit indications for installation of equipment etc[101]. The bulletin describes, analytically, the environmental management system and related subjects, in order to improve the airport's image towards local community.

There is a requirement for external communication, though the statement of environmental performance is not a prerequisite component.

ENC also argues that the implementation of ISO14001 placed AIA in an advantageous position within the local and national context. The imposition of regulations through ISO14001 can be seen as an incentive for the company to become green.

"Regulatory coverage is most important in terms of delivering "good" environmental management as well as in achieving a level of high standards." (Int 6 AIA Environmental Expert)

Whilst compliance with legislation is a prerequisite, reception of public opinion is subject to the company's policy in general, which is part of the holistic business management plan. The ENC has created a good image for communication and efforts have been made to convince the local communities/municipalities that actions have been taken so far to lessen the airport's environmental impacts. ENC considers environmental management "important" because it helps to improve their activities towards the protection of the environment, whilst at the same time showing a good image, not only to local communities but also to the national and international levels.

Most of the issues reported are not particular to the airport alone. There is a great effort to demonstrate that environmental issues more widely are under the airport's control, with reports and measurable data and monitoring in the area. The reports cover to a great extent the activities that have taken place at the technical level, with a series of measurements and diagrams. In the case of AIA, atmospheric quality for the region is not only the airport's responsibility, but the ENC carries out general measurements of concentrations of air pollutants. It receives feedback from all of the activities of the airport, like the waste generated from the airport, quantities of fuel, and it corresponds to the department of airport maintenance.

[101] Implications here regarding ISO14001 and EMAS have been discussed in a previous chapter and in this case are highlighted through the process of environmental publication.

AIA's contributions to the local community (Environmental Bulletin, November, 2001, at pp.11:13) are also reported through the Environmental Bulletin. Thus, overall, ENC argues that it has recognised the environmental challenges and intends to meet and surpass these challenges based on principles of sustainable development and continuous improvement,

"By creating Urban Green Areas at several municipalities in the vicinity of the airport (Markopoulo, Pallini, Glyka Nera, Spata, Koropi). In Markopoulo a park was constructed in an municipal area of 9000m^2 located within the town boundaries. A large part of the park is planted with trees of local vegetation. In Pallini a park is constructed in a municipal area of 12000m^2 located on the mountain slope on a outskirts of the city. This park is also planted with trees. The creation of Urban Green Areas in the remainder of the municipalities will start in the near future".

On the issue of noise:

"The Environment Department (ENC) with the co-operation of AIA's Human Resources and Administration Division has been informing the local communities about noise issues. Since the airport's opening, approximately 30 information meetings were held with the mayors from the vicinity and various representatives of local community organisations".

Also a special telephone line (WE LISTEN) has been established, where citizens may receive information and discuss issues related to aircraft noise aiming to foster a positive relation with the residents of Mesogaia".

Local communities attitudes and beliefs are considered a risk to the airport organisation because, as mentioned above, the area is projected to undergo intense growth (housing development etc.). Under these circumstances, it is felt to be important for the people that live in this region to remain informed on the impacts from the operation of the airport.

Although ISO14001 was preferred because of its wider acceptability and international validity, publication (following the requirements of the EU's EMAS) was put forward as a statement of good will and transparent behaviour. ENC respondents highlight,

"To inform the ministries is a legal obligation, but it is a moral obligation also to inform the community and the various institutions and third parties about the airport's activities and the department's environmental actions." (Int 20 ENC Respondent)

"The airport as a sector has obvious and great environmental impacts therefore, when it addresses the public it shows higher transparency to the outside world." (Int 5 ENC Respondent)

Reporting and transparency in current practices and operations in the airport are considered important and part of the department's obligation.

The publication of the environmental bulletin, therefore, broadly involves investment and development projects. AIA has contributed to the development of these municipalities through financial support with scholarships and aid to local NGOs that deal with rural issues and children. The Environment Department (ENC) believes that bulletins prove informative about the AIA's activities: they have achieved a high profile and foster good relations with local authorities. It is believed that environmental reports are important to AIA because of their influence on both investor behaviour and the firm's reputation in the business community. Also, the AIA's interest is to improve their image through creating a mutually satisfactory resolution with stakeholders. The municipalities have required knowledge about the internal procedures adopted to tackle environmental impacts arising from the construction of the airport.

"People ask to get informed. They ask for meetings on briefing and we have already sent bulletins for their information and in newspapers periodically to present current initiatives of the airport. This has given a very good impression to the region." (Int 10 ENC Respondent)

The above findings show that local communities are not necessarily at war with AIA, given that the airport did not ignore to disclose the environmental dimension. Evidence here suggests that the ENC comprises a well-set environment team that has created a good image among stakeholders and other departments, by maintaining a good network of relations with the local communities. It has taken a number of measures to establish communication and show an "environmentally cautious" profile within society. AIA in this way illustrates its company policy and particular attentiveness to environmental concerns. Environmental disclosure is seen

a positive task in order to maintain a vigilant department, because public bodies like the Ministry of Environment and Public Works and local non-governmental organisations, who are interested either directly or indirectly, check up on the airport's actions. Environmental activities marketed in the organisation's report are considered in general to have a positive effect on local people's protests, functioning as a breakwater for the airport to smooth relationships. Adopting and extending ISO14001 is a strategy that makes the organisation economically viable through efforts to meet the social and political realities of Greece, whilst also considering the dynamics of the industry structure and competition.

The ENC has shown signs of being concerned with wider prospects for long-term environmental objectives, but the impact of airport construction on the immediate environment creates dilemmas for the company, especially where the airport-led development strategy for the region conflicts with other priorities. Indeed, some respondents from local authorities considered that the development of the airport did not serve the growth of the region substantially and that citizens of the municipalities have not benefited from the airport. Some residents feel unfairly treated because of not getting enough compensation for handing over their land. Also, unemployment has not been combated as was anticipated for the employment of local residents in AIA.[102] All these issues, therefore, seem to have affected negatively the residents' lifestyle and quality of living.

Implementation of ISO14001, therefore, is argued not only to be in compliance with current regulation; it is also considered a precise tool in the logic of disclosure (although disclosure is not a prerequisite for ISO14001). Clearly, ISO14001 as a voluntary code of practice appears to address the concerns of their critics (i.e. in this case local communities). It is portrayed as managing wider social conflict around environmental change, although there is a distinct line between regulatory compliance and what this scheme facilitates.

Yet, a tension does exist between the company's desire to provide full information and the need to be careful about its level of disclosure. The demand for external information is growing and it is getting more precise. In principle, there is a trend for more disclosure than firms often wish to provide. The type of information required by the different external and internal stakeholders may vary considerably. For example,

[102] Ecological marginalisation

AIA is reluctant to disclose forward-looking information for several reasons. The extent to which the organisation provides environmental publication points to the fact that transition to ISO14001 may not be as satisfactory as was anticipated and promoted. Clearly, there is a need for more transparency in the voluntary disclosure; hence, the environment takes a moral dimension. Broader knowledge of corporate communication is necessary to appreciate the importance of public dialogue and disclosure.

As a result, the level of environmental understanding and ENC's ambitions to influence the public in a certain direction that may be sustainable is translated here on the company's own risks in avoiding dealing with outside problems.

6.5.2 What does ISO14001 communicate?

For AIA itself, compliance with the regulations, public investment requirements and corporate profile are considered indications of "good" environmental management. Beyond this, although sustainable development is perceived generally as a global notion that the organisation understands and appreciates, it is very difficult to find specific indicators in defining it.

"It is difficult to try and cross-correlate the notion of sustainable development with something very practical like an environmental management system." (Int 20 ENC Respondent)

Instead, airport respondents were more confident discussing dimensions of 'good environmental management'. The airport organisation believes that with the measures taken for these communities there is a "good" management profile reducing the likelihood of complaints and interference in its activities. The Environment Department (ENC) considers that an organisation can have "good" environmental management when it has recognised its impacts on the environment and measures on a continuous basis, and takes corrective action. Moreover, ENC believes that environmental management tools like ISO14001 are a good way to ease reactions in local communities and help build a bridge of communication between the company's management and the public. The wider community relations benefit are taken as read; ENC officers believe that:

"The environment department has a constant premise. We have a community relations plan that we implemented before the operation of the airport. However, that is of secondary importance."

That is not to say that the company's intended message is universally swallowed. A number of respondents have argued that the ENC has developed an environmental plan mainly to ease reactions from the municipalities of Mesogaia.

"*Through this current evolution the airport rather wanted to serve the municipalities so to gain some satisfaction and unanimity and lessen controls from the municipalities that are supposed to be carried out in the airport. It is simply in order to have good public relations so as not to get hassled." (Int 11 Environmental Expert-freelance Auditor)*

Concerns have arisen about the low levels of environmental awareness among the target groups. Conflicting, therefore, with ENC's beliefs about its reporting/implementation strategy is the fact that community awareness for collaboration in environmental management decisions is considered low.

"Few residents are environmentally aware and wish to know about our environmental management"(Int 5 ENC Respondent)

"Very often the motives are not environmental, but financial motives. For example, someone who claims compensation for damage or to sell land. But all we want is a positive response." (Int 9 ENC Respondent)

It is not only the general lack of environmental awareness. Actions from the airport are seen as satisfying their corporate image amongst narrow national and international audiences, rather than tackling the actual environmental problems of the Mesogaia region. Tools like ISO14001 and EMAS are not known publicly. Consequently, the effect of ISO14001 on local communities is believed to be minimal:

"From my experience and from what we saw, protests were not eased because there is ignorance in general. In what ISO14001 is, what EMAS is, what does it offer? There is complete ignorance in terms of the environment and environmental management." (Int 15 Environmental Expert-Consultant)

Clearly, economic development is by far the main priority for Greek regions but also for AIA. AIA advocates that the ecological dimension should not be isolated from the

economic, as ISO14001 is considered to embody the fundamental objective of economic profit combined with environmental protection. Current ENC initiatives towards local communities do not seem to reflect on a number of environmental problems that the region faces. The dominant perception of environmental management here is to reconcile business and environmental activities. ENC is believed to focus mainly on the economic growth of the region with balancing measures through schemes like ISO14001. To company operatives with a responsible approach, although an environmental management system serves the interests of a company, its interest is to be economically sustainable as well.

"The company is a living organisation that has as its primary objective the profit, to provide services, growth for the region and generally the country and within this framework it has also the obligation to protect the environment." (Int 30 ENC Respondent)

All the above issues are viewed in the context of a wider package of AIA-community relations. Environmental management, therefore, is not seen in isolation, given that it is not only the protection of the environment here that should be considered. But, also economic prosperity that seems to have priority over environmental protection. The airport organisation acknowledges that environmental awareness is seen as last on the list in relation to the economic development that the region faces. Consequently, as well as seeking to ease current protests from residents on noise, atmospheric pollution and land acquisition, AIA is also involved in a chain of beneficial regeneration projects, including waste management and fire-fighting facilities.

ENC considers that an environmental approach is the foundation for improvement through communicating for the region's needs. Social responsiveness is viewed here as "good" business practice that produces a positive public image. It also creates a high standard of model management by pointing to ISO14001 adoption. More importantly, ENC shows that the strategy adopted along with ISO14001 seems to have been developed for cementing a better image to stakeholders and mitigating effects from development changes in the area. So far, the view of society's environmental and ethical values is being inherently in conflict with business objectives. But, it is obvious that a wide lack of awareness for environmental issues leaves the company with a margin to reconcile reactions with various types of benefits. In this case, there is an effort to match two separate domains of activity (i.e.

environmental values with business objectives) perhaps apt to favour a stance that resists doing more than the minimum.

If sustainable development covers development as a response to the environmental management of the organisation and then becomes a preferred way of tackling the issues, it is not surprising that sustainable development is associated with "good" environmental management (discussed also in chapter 5). However, realising a better understanding of perceptions may improve ENC's ability to align stakeholder expectations with management objectives and strategies.

6.6 Governing through a Voluntary Code

This chapter has focused on key elements of ISO14001 adoption through the examination of AIA. It has reflected on environmental perspectives, institutional issues, governance and cultural issues. This empirical approach helped to conceptualise how contested and differentiated notions surrounding environmental management shape the way that it has been institutionalised and implemented. ISO14001, as an international standard, is seen to depend on the particular set of company's operations, with strengths and weaknesses shaped by the particular issues illustrated above. External factors such as socio-economic actors and policy actions affect the success of an environmental plan. It is evident from previous discussion on the environmental management profile of this case that regulatory initiatives are required to improve overall environmental performance, in order to meet the standards for sustainable development and avoid penalty or charges that AIA would otherwise have to face.

A number of failures have been identified that can be traced, in the implementation stage, down to the limited institutional capacities and particularities of regulatory culture. These help to explain the existence of different responses to a "standard" regulatory format. ISO14001's power is constrained within the environmental management discourse as it concentrates on the way it has been understood within an organisational context. The case study demonstrates an understanding of the cultural biases of standardisation of environmental management and the norms of the country. Cultural assumptions are incorporated into the management process: implementation of ISO14001 in this case reflects an emphasis on competing values and differences in the capacity to provide the means of achieving desirable outcomes.

It is shown that since decision-making was made on the basis of partial implementation, the process conflicts with ideals of 'holistic' environmental management; yet, within the Greek context, even partial implementation is considered to render a number of benefits. One can see how the merits of ISO14001 depend upon both the system's context, and the social and political contexts within which it is being evaluated. The ISO14001 environmental management system is believed to be a tool relating to international operations and organising a competitive business. But questions arise about the outcome. Within one department there is limited intention to produce any judgment regarding efficacy. Overall, the dilemmas of partial implementation and how this can compromise environmental management practices, reflects "Greek" perspectives on environmental management.

Although there is an understandable logic to current development of ISO14001, many commentators implied that the notion of environmental management reflects a view that sustainable practices may not be achievable (see chapter 2). A central contention of this study is that, to date, the adoption of ISO14001 solely in the ENC department is unable to provide the tools required for understanding and diffusing sustainable processes. Even if the communication skills are well developed and participation in seminars is managed effectively, there is still a key component to realising the potential of environmental management – that is building on the idea to encourage conscious environmental awareness.

This is not to deny that wider environmental agendas are operating in this case. The use of ISO14001 in ENC is seen as a tool to measure performance based on their objective, as they put it, to protect the environment of the region of Mesogaia. It is shown how ISO14001, in conjunction with other practices, is part of an effort to legitimise and manage the environmental and social consequences of airport growth at Mesogaia. Along these lines, the case described illustrates that the development of ISO14001 is not the end stage of a linear strategy, but can be conceived at various points of the regulatory-corporate-national culture in an organisation.

The change in management style has made ISO14001 a prominent management tool; yet its role, not only in the case of AIA, is not easily explained in terms of objective criteria. In part it is seen as a move toward delegating corporatism, and fixing responsibility at all levels of the organisation. This is evidenced through a number of parameters discussed above, which are taken into account in the standard's implementation (i.e. co-ordination, punctuality and long-term goal setting).

These findings suggest that the implementation of this standard is characterised by limited co-ordination among management entities and other key stakeholders, which entails information exchange and conflict resolution. The capacity to mobilise the flow of environmental awareness – and therefore, to support such implementation – is challenged.

Key difficulties encountered stem from perceptions generated in ENC of a closed mentality among employees, controlling attitude and departmental fragmentation along lines of competency and lack of a unified approach. A closed attitude inhibits the diffusion of environmental information and to a certain degree creates suspicion about non-transparent activities. Lack of transparency in disclosure to third parties is important. By the same token, lack of transparency within the organisation seems to result in inefficient instrumentation of the scheme.

Difficulties are also encountered in having the necessary skills, flexible organisational structure and other elements of the particular context to respond adequately to pressures for integrating ISO14001 as part of a company's management. Lack of personnel and capital resources, lack of awareness and technical competence, high costs of operation, uncertainty about regulatory activity, and substantial cultural constraints seem to be the causes of hollow progress towards "sustainable practices". To a point these issues illustrate the level of capacity the organisation possesses to successfully manage an environmental management system, intra-organisationally and with third parties.

The new form of partnership pursuing an environmental logic is conflicting with the public sector[103], where there is a risk of providing limited assistance to an innovative industry sector. The developer and operator together are believed to hold sufficient specialised skills and competencies, thus creating the ground for appropriate management structure, and participation in the development of ISO14001. It is shown that ISO14001 within AIA is seen to provide an example of an exceptional company whose success is largely a result of a universal approach toward implementing environmental policy. As Latour (1986) expressed (see chapter 2), it is of interest to understand how tools or techniques or any subject of interest travels and achieves universal acceptance.

As a result, the modality of the scheme as an international tool for environmental protection provides us with another dimension in this investigation. Standardisation is

[103] (Arguments that AIA cannot be compared)

argued to be of substantial importance for the airport organisation because it facilitates an objective evaluation of its performance. Standardisation is consequently universally good for the company because there are objective criteria of the levels found from country to country. That is to say, adoption of ISO14001 entails a uniform standard widely known in Greece as in any other country. Standardised techniques seem to facilitate universal reputation and recognition along with credibility and validity. Within this universality, the assumed credibility of German practitioners to a Greek audience is readily apparent, notably in the choice of DQS as the accreditation body. There is also evidence, however, that the "networked" authority of consultancy bodies sets up conflicts with "local" actors required to implement their instructions. Overall, adopting a uniform and credible management system is considered to give AIA the advantage of being recognised as the innovator, thereby enhancing its reputation.

Chapter 7 A Meta-framework Analysis

7.1 Influencing Factors in the Uptake of ISO14001

This chapter focuses on particular challenges for ISO14001, as it becomes institutionalised and implemented in Greece. It examines some of the fundamental features observed to be influencing the role of ISO14001 in this particular national and organisational context. ISO14001 is being used as both a reactive and proactive tool, depending upon complex interactions between particular groups of actors.

By examining the variables that account for these outcomes, attention is drawn to the more specific mechanisms of institutional building, evolving governance and the regulatory domain in Greece. To achieve a thorough understanding of these aspects, and determine how effective such an approach is, the analysis is extended further by viewing it as a public, business or government requirement. The findings shed light on these factors, which shape the country's response to the institutional requirements of ISO14001, and which suggest implications for understanding the inadequacies of implementation in this particular context.

This chapter proceeds as follows. Firstly, it presents the framework of the relationships between economic globalisation and sustainable development in the uptake of ISO14001 and its impact in Greece. The main thematic sections are drawn from findings and literature review, illustrating the interrelation between economic globalisation and environmental sustainability. It shows how environmental policy and management in Greece are shaped under these particular elements. Next, the chapter expands on these conflicting issues by explaining key findings from the case and its context. It is shown that the decision to implement systems according to specific certification is constrained by a complex overlapping set of factors. These, in turn, can be linked to the motives for adopting ISO14001 – namely why Greek companies, and the case of Athens International Airport (AIA) in particular, have

implemented and begun to accept the process of environmental management as part of their internal activities and image.[104]
Understanding these motivations requires us to understand the notions of competitiveness and prestige as they apply to Greece and the case under study. It also shifts attention to the wider regulatory context and the perspectives of different actors. EU pressures and the international competitive environment, but also compliance with national legislation and the need for companies to maintain good relations with local communities, are all now crucial factors in the domestic context.

In setting out this account, emphasis is given to governance style, regulatory culture and institutional capacity shaping the crucial factors in the adoption of ISO14001: conceptual interpretation of environmental management and voluntarism.

Further, the evolution of the governance mechanisms used in the implementation of ISO14001 is explained as well as the implications arising, along with the rationale for standardisation and credibility criteria.

7.2 Economic Globalisation and ISO14001 Development in Greece

There are a number of reasons why a company adopts an environmental management system in Greece. Reasons identified in existing studies correlate with factors identified by the actors involved in the investigation (i.e. government, private sector experts, NGOs, business). In general, a diverse set of motives appears, but with distinctive patterns.

Overall, the companies in Greece are motivated by a positive stance towards the protection of the environment, despite the adoption of EMS schemes constituting a small part of the national environmental regime. By the time of writing, Steger (2000) maintains that there is only anecdotal evidence with only a few solid empirical investigations in existence, concerning many of the participants in environmental management systems in southern Europe. Moreover, there has been a huge gap between developed and threshold countries and a wide range of uses of environmental management systems across nations. In particular, Steger's (2000)

[104] The driving forces for adoption are coercive (having the rule of law or markets behind them), normative (professional organisations putting forth value-laden pressure), or mimetic (actions of leading firms inducing imitation by other firms).

empirical work in southern Europe on ecological goals, economic, cost-benefit analysis, political and cultural issues show that:

1. There is no visible or measurable difference in environmental performance between adoption of EMAS and ISO14001. The goals were very similar and depended much more on companies specific systems.
2. Companies implementing EMAS practically ignored the complicated provisions for deducing their environmental goals from an in-depth analysis of the environmental impacts of their activities.

Pressures clearly stem from two broad categories of economic and social demands. As the wider literature shows, ISO14001 illustrates compatibility with Greece's objective for development plans and rapid economic growth. It is shown that environmental management standards are presented as tools to better reconcile corporate economic and ecological goals, but that willingness from member states to adopt ISO14001 is partly to facilitate economic activities (Fousekis & Lekakis, 1998:222). Also, competitiveness, reduction of production costs and improvement of public image play an important role here. Showing care for the environment is last on the list (Georgiadou & Tsiotras, 1998; Fousekis; Lekakis, 199; Heinelt & Toller, 2001). It is argued that such schemes cannot substitute politically set standards for environmental protection nor for more environmental sensitive consumer behaviour. However, Heinelt and Toller (2001:370) conclude that it is difficult to make general statements about reasons for participating in such schemes in Greece, because of the low number of companies involved.

The majority of responses here highlight economic priorities at the top of the company's list, whereas concerns for environmental measures do not seem to fit with the fabric of Greek entrepreneurship. The fundamental need is either to follow international market demands or simply to comply with regulatory measures.

Secondly, it is found that companies need to comply with regulation and resolve conflicts with third parties. Pressures from shareholders, owners, business partners, and government agencies are influencing companies to demonstrate environmental management practices insisting on compliance with legislation. The majority of respondents in this study (i.e. government, private sector and NGOs) have argued that adoption is considered important in mediating relations with local authorities and

local community. A number of environmental experts[105] consider it an "umbrella tool" for complaints, providing credibility toward third parties (see chapter 6).

"It is better to be innocent and to try to explain certain things rather than to plead guilt." (Int 6 AIA Environmental Expert)

ISO14001, therefore, is recognised as a "good" tool through which to approach communities and to relate them from a more advantaged position. It is considered by large companies as a means to ease reactions in local environment, and to help to build a bridge of communication between the company's management and the public.

Thirdly, companies consider that ISO14001 helps with their public image, but mainly when their market focus is not domestic. Indeed, market focus is an important factor explaining why those who participated in such schemes were serving European and international markets. The increase in international competitiveness, multinationals' environmental practice, the image of the company, are real influences (Heinelt and Toller, 2001:370). Companies that are more international market focused tend to prefer ISO14001, yet the main focus of Greek companies is on regional and national markets (Fousekis and Lekakis, 1998).

The respondents of this investigation – focused on a project with a high international profile – feel that systems like ISO14001 offer many benefits. ISO14001 is gaining in preference due to its international profile. It is considered an "imported" tool[106] that was made to provide companies with an incentive to be competitive, whilst taking care of the environment. Consequently, the majority of respondents (government officials and environmental experts) have advocated that Greek companies that wish to enter the international market vigorously in order to be competitive should implement a system like ISO14001, because it is tending to become a necessity and demand for Greek government and market actors.

"Companies with international orientation prefer ISO14001, because it is an international label and it is more recognisable in these areas, like ISO9001. So a company may take advantage of the recognition of the ISO series." (Int 1 Government Official - EMAS)

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[105] (Int 6 AIA Environmental Expert) (Int 1 Gov. Official - EMAS Expert) (Int 15 Environmental Expert - Consultant)

Environmental experts agree that companies are pressurised to implementing an environmental management system in fear of staying behind in the competitive, now global, market. Involvement in international trade, therefore, is of significant relevance.

"The impetus given to ISO14001 is its international validity. A company that wants to export anywhere in the world is certified by a body (CERT) that is globally recognised. EMAS unfortunately is known only in Europe." (Int 4 Environmental Expert)

The majority of companies in Greece acknowledge that they are competing in a global marketplace where stakeholders are demanding environmental performance.

An illustrative finding is that large companies like Athens International Airport (AIA) were encouraged to adopt the system because of an established position in the market as a pioneering, well-managed and prestigious, high-profile organisation. The AIA thus represents an organisation that creates major impacts on local communities and has established an international profile. Its certification to ISO14001 has, among other elements, sought to reduce opposition from local communities and establish an image of high-quality service according to global standards. It is widely believed that environmentally friendly activities marketed in a company report can have an effect on locals' protests. Increased compliance with many and complicated regulations and international rules, higher motivation of employees, more transparent and effective organisation, lower risk of liabilities, allocation of responsibility and information flow for environmental issues are all considered pertinent factors.

But also,the AIA has established a high profile of an organisation that is differentiated from other airports, creating an image of a high standard that competitors cannot match. Hence, the large companies or the exporting ones that wish to demonstrate a worldwide profile widely perceive that certification to ISO14001 an extended good statement for a company and a useful tool for marketing. The ability to use a mix of elements and data mechanisms for environmental protection provides an advantage that organisations consider the adoption of ISO14001 as a complement to the organisation's picture[107].

[107] Although arguments in the findings about non-measurable data in the environmental disclosure of the company refer to areas of low environmental performance.

Besides the prestigious image of offering high-standard services and international competitiveness, ISO14001 also has an impact on the supply chain. When large companies are able to coerce their suppliers to have a scheme in place, it is becoming clear for most companies that there is little space left for manoeuvring according to global market rules[108]. It reflects a chain of actions, as all levels of suppliers feel the need to certify according to ISO standards. Companies with an export profile have adopted ISO14001, because there is a lot of pressure from well-known clients. There is evidence that Greek manufacturing and service sector companies feel great pressure to comply with ISO14001 in order to supply or have clients in the international market place. For example, companies that export to Germany have a very powerful motive to adopt EMAS, because Germans demand in advance certain assurance for the companies' environmental achievement.

"Systems of environmental management are developed because clients from abroad ask for it. There are companies here in Greece that have been told by their client in Germany that within two years they should have an environmental management system otherwise they will not be able to buy from them, because they want to control their suppliers." (Int 25 Environmental Expert)

As a result, the adoption of such a scheme is considered a shorter way to certify an approach to environmental management. Thus, ISO14001 is "globalised" by supply-chain pressures that cross national boundaries. There are companies that ask not only for their suppliers to be certified, but have a certification already in the procurement contract. On the other hand, suppliers require other companies to reach particular standards for example, chemical suppliers demand proper labelling.
According to AIA's environmental auditor, third parties such as handling services, catering,[109] retailers, etc. have to commit their services to the company's guidelines to prepare before contracting an environmental plan that will frame their activities, in terms of the impacts on the environment. So far, there are no requirements for suppliers, although the AIA's management is considering[110] extending its requirements for suppliers too. Third parties with an established environmental plan or an environmental management system such as ISO14001 might be given preference in doing business with the airport. Trends suggest that in the future

[108] (Int 29 Environmental Expert - Academic)

[109] Olympic catering has individually adopted ISO14001.

[110] (Int 6 AIA Environmental Expert) (Int 30 ENC Respondent)

ISO14001 will become an essential tool for most third parties and suppliers. Tension, therefore, between large companies is obvious as third parties, suppliers and so forth come into playing a critical role in the way environmental performance of a company is interpreted.

Within corporate structures, it is clear that many multinationals have decided to have an environmental strategy. It is shown that adoption of ISO14001 is closely related to globalisation processes with mainly large infrastructures or multinational branches leading such changes. More specifically, Steger (2000:31) suggested that organisations in southern Europe that adopt schemes for environmental management are either subsidiaries of multinationals that had to implement environmental management systems as part of internal environmental policy, or they had large export interests in the more "environmentally conscious" Germanic and Nordic countries (Steger, 2000).

In the context of Greece, Fousekis and Lekakis (1998:222) comment that it is mainly branches of multinational companies that possess a coherent policy vis-à-vis the environment. The investigation too reinforces the evidence that it is specifically multinational companies that pressurise their subsidiaries to adopt the parent company's internal policies. It is found that companies that are aware of ISO14001 and its utility are mainly large companies with multinational administration.

"An important reason of why an environmental management system is developed is that there are subsidiaries of multinationals that have an environmental strategy and obligate the subsidiary to implement a strategy and a system." (Int 11 Environmental Expert)

But there are wider inflections to this picture. Greek companies in general consider multinationals as "good" and prestigious organisations. For example, the first companies that had adopted ISO14001 and EMAS in Greece were branches of multinationals (Heineken, Siemens A.E., etc.) or large infrastructure and industrial projects with a high international profile, like the Athens International Airport (AIA). The international profile of the German management appeared a catalytic factor (see chapter 6).

"Also typical is the example of the Greek brewery of the Heineken group. The parent company has taken a decision that has been implemented worldwide. It has been implemented in Greece and Nigeria according to ISO14001. Because Nigeria has no

legislation for the environment, the company was certified according to European directives." (Int 15 Environmental Expert)

The investigation shows that although ISO14001 so far in Greece does not pose commercial barriers to exclude companies that do not posses an ISO certification from the market, well-established companies and those of an international profile stand out to be more receptive to environmental ideas and to be a determinant factor in adopting ISO14001. Thus, environmental management schemes are developed, as discussed throughout this study, as a creeping form of coercion, turning ISO14001 into a prerequisite in the domestic market. Paradoxically, however, it is shown that ISO14001 does not count much in terms of its environmental dimension in Greece, because awareness, interest and knowledge in environmental management are low. This begs questions about the nature of compliance, and the extent to which domestic institutions and regulatory cultures are wholly supportive.

7.3 Institutional Dimensions of Environmental Management Practices and Sustainable Development

The cultural and organisational challenges of environmental management reflect difficulties at the political and institutional level. The majority of respondents (environmental experts, academics and government officials) have shown that Greece has a weak regulatory apparatus, in which key environmental policy issues have failed to materialise. Existing studies have classified these impediments to sustainable development at the national level as strategic, structural and procedural, considering that sustainable development has not been a national priority.

It is argued that the Greek government's response to all the standard policy concepts current in EU and international circles, point to a real effort to adopt sustainable development. But, the ultimate national policy objective has in fact been rapid economic growth as a means to converge with the northern EU member states (see chapter 5; Fousekis & Lekakis, 1997). Greek governments have traditionally viewed environmental protection as a threat to the country's economic growth, and businesses have scarcely been encouraged to adopt pollution abatement measures. The EU has been by far the most significant factor behind Greek environmental policy in the past decade and more, whilst pressures of growth and competitiveness have overshadowed the imperative for Greece to harmonise environmental standards.

The institutional picture for environmental sustainability that has emerged in Greece reflects many of the more general deficiencies of the state apparatus (Pridham et al., 1995). So far, very few and only fragmentary steps have been taken towards meeting the sustainable development requirements of the Rio Conference in 1992 (Fousekis & Lekakis, 1997). The Greek response to the Rio declaration has been heavily criticised because of its rhetorical nature, aimed among other things at pleasing partner governments in the EU, and arguing that less-developed countries require external financial assistance to rehabilitate the environment. Mobilisation of the national governments to support the introduction of a sustainable development plan remains problematic as Greece is argued to have never elaborated a national plan for sustainability and so far has no intention to do so (Papaspiliopoulos, 2001; Fousekis & Lekakis, 1997). The investigation similarly points out that the institutional adaptation to "sustainable development" is a cosmetic compliance, which apparently has implications for schemes like ISO14001, belonging now to the wider regulatory framework.

A number of actors demonstrate that Greece is building institutions for a sustainable development framework, because it is at the stage where it is bound by EU legislation. The pressure towards Greece from the EU is immense, with great political and economic cost in cases of non-compliance. There are a number of cases where Greece has not implemented EU environment directives and is gravely fined on a daily basis.

Government officials[111] claim that Greece has already moved on with the issue of indicators of sustainable development, which allows it to monitor progress on the policies and in general to make forecasts about sustainable practices. There are general prospects to map out progress towards sustainable development, as EU pressurises for integration in every environmentally pertinent sector with meeting groups and committees.

There is an increasing trend to building on current capacity for environmental management, through the development of research and information bodies and the employment of highly qualified experts and scientists. Environmental issues now are discussed not only at Ministry level (YPEHODE – along sectoral lines) but through committees at interministerial level, which basically is an indication of the efforts to

[111] Government official for SD: (Int 23 Gov. Official - Sustainable development Expert)

reform. Through certain indicators, government may foresee its direction on an annual basis. Already some environmental issues go through cross-sectorial practices. For example, the investigation revealed that preparation to the Johannesburg Summit (September 2002), there were long and inter-ministerial preparations for the Greek "after Rio" report. The Ministry of Environment (YPEHODE) has initiated drafting a strategy for this purpose.

"A report has to be formulated for Johannesburg, named "a national strategy for sustainable development". It is only now (March 2002) that there was monitoring and co-ordination from our Ministry (YPEHODE) to plot progress of Agenda 21 implementation in Greece." (Int 23 Gov. Official - Sustainable development Expert)

Beyond these recent measures, lack of conceptual perception and weakly organised effort towards "sustainable development" are considered[112] impediments in implementing environmental management. This partly reflects problem perception: The nature of environmental policies is relatively new in Greece. While the notion of sustainable development has worked as an umbrella to host various schemes and initiatives (i.e. ISO14001), it is still vague to the majority of the public and business. This is evident through a series of issues.

First of all, there is no clear Greek translation of sustainable development (Fousekis and Lekakis, 1997:134), but rather a diverse set of meanings, which have an impact at least at the conceptual level. There are different domestic labels but also a host of views regarding its interpretation and the means of achieving it. Similarly, the majority of respondents in the research[113] argued that sustainable development is not well known to the public and it has different meanings. Some, when talking about sustainable development, interpret it either as pure sustainability or as plain development.

"At a verbal level, sustainable development is like a slogan! At an action level, it is uncertain. Although sustainable development has verbal acceptance and is

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[112] Further enforced by the outcome of a seminar on planning and sustainable development that took place in Greece on 8/4/2002, "Implementation of the general framework of planning and sustainable development: mechanisms of monitoring and funding", Panteion University, Athens.

[113] (Int 24 Athens 2004 - Environmental Expert) (Int 27 Government Environmental Expert) (Int 25 Environmental Expert - Consultant) (Int 7 NGO Respondent - Legal advisor)

fundamental to seeing what is really being done, still there is a long way to go even at the level of the declaration that is being interpreted by various policy makers." (Int 27 Government Environmental Expert)

Views range from being value-oriented, emphasising citizen/consumer responsibility and the role of environmental education, to more radical ones emphasising diversity, self-reliance, democracy and fairness. The average Greek citizen has never heard of "sustainable development" (Viosimi- Aiforiki- Ypostiriksimi), let alone the concepts they embody, their goals, or the implications of a sustainable development strategy.

There is an indication that sustainable development is interpreted mainly as sustainable growth: basic growth, but at a slower pace. It is clear, therefore, that acceptance and understanding of sustainable development at least at the level of groups, like public and companies is low. There is a general lack in specific content as to how sustainable development is to be attained or who is responsible for achieving it. Besides the novelty of the concept, a lack of organised effort to inform the public on such issues points to extremely low levels of awareness. Consequently, there is a need to clarify the political and socio-economic constructs of the policy context.

Evidence suggests that significant actions, policies and tools have not materialised because the institutional context has not set out clearly with the necessary chain of regulatory framework. Although stricter procedures in particular stages of environmental management have been enacted, practices are generally lagging behind and vague. The reason why these issues have not progressed is because of the Greek governments' lack of industrial planning. There has been limited development on this subject from socio-economic, productive and educational dimensions, and little sign of a sustainable industrial strategy. Also,

"Government is seen to take some measures, but these are superficial and not really distinguished for professional and detailed knowledge of environmental management. That is there are no criteria in how the best methods for the development of environmental management systems should be chosen, and which investment choice should be done." (Int 11 Environmental Expert - Freelance Auditor)

Low priority and lack of political will to implement "sustainable development" are important factors. There is clear indication that the economic and political climate in the country, together with the administrative weaknesses (i.e. compartmentalisation and sectoral fragmentation), provide major blockages to a "sustainable development" process[114].

Structural problems are closely related to strategic ones. The drive for convergence with wealthier member states has overridden any other priority. In the last 10 years, the capacity of governments has been almost exclusively judged on the grounds of how quickly they absorb Community funds apparently for economic growth. Integration of environmental considerations into sectoral policies is desirable only to the extent that it does not slow these absorption rates.

The majority of respondents (i.e. environmental experts, NGOs and government officials) regard resolving the institutional dimension of the problem critical. There are two issues that seem to build will and priority for environmental protection:
Firstly, there has to be institutional definition and, secondly, legitimate competition. For the time being, there is lack of a sustained, functioning institutional framework. For environmental improvement:

"In Greece, most of the projects are unprogrammed or with programmes that are not clear either in terms of targets or in terms of timetable and environmental impacts[115]." (Int 8 Gov. Environmental Expert)

Actions also imply three different things at different levels. Government officials argue that the first is policy, namely general directions that are not indispensably consumed in the periodically elected apparatus.

"Only, when this trend integrates clearly within the EU framework then the implementation stage will proceed quickly in Greece as well." (Int 8 Gov. Environmental Expert)

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[114] There are about 50 agencies involved in the planning and implementation of environmental programs and more than 150 pieces of legislation.

[115] An issue having great impact in the Environment Plan prepared for Attica (Int 8 Gov. Environmental Expert).

The second is institutional tools, namely laws and actions of the legislative or the administrative apparatus that allow specialisation in approach. And the third stage concerns the procedures that have been set to monitor policies at the spatial level. Sustainable development starts at the level of the state and specialises at regional level where strategic assessment of the environmental impacts is taking place. Tools and programmes are two important dimensions for a Sustainable Development framework.

The investigation into AIA showed, there was explicit reference that a more holistic approach for environmental management is essential. So far, a competent institutional framework has embarked on providing the necessary communication of environmental issues to the public and interested parties to enhance participation, but the applicability of the current framework is debatable.
The need for the Greek government, to put a great deal of effort into fundamentally reforming the institutional basis is becoming all the more important. This interaction shows some tension between the pull of national features, on the one hand, and, on the other, the challenge of international trends and the institutional and policy imperatives of the EU. A solid institutional framework would assist companies adopting schemes for environmental management and above all to raise awareness and consciousness on environmental protection.

7.4 Limits to Voluntarism

A key theme that emerged from the data is how the notion of voluntarism is mobilised through tools like ISO14001. Through the experience of AIA, one can see how the institutionalisation and implementation of ISO14001 illuminates wider characteristics of environmental policy making in Greece and, more particularly, the scope for proactive, voluntaristic, corporate environmental governmental to gain a hold. Voluntary schemes in Greece are a controversial issue given that the dominant form of regulation has always been based on command-and-control measures. Focusing on regulatory culture, one component of the explanatory framework used in this study, one can see the conflictual interactions between normative/command-and-control measures and the new incentives of environmental management standards. Voluntarism is a regulatory attitude that is seen here as part of an environmental management system philosophy, an internationally agreed principle of compliance. In Greece, one can conclude that a participative and more proactive style of approach seems less likely to develop than in other, for example, northern EU countries.

The main factors that show the limits to voluntarism, and the ambiguous implications of current regulatory reforms in Greece, can be summarised as:

- Institutional deficiencies along with a preference for short-term economic development (due to a number of factors as for example the late industrialisation of the country, discussed in section 7.3).
- A civil culture loaded with mistrust towards government and 'mandatory' EU policies.
- Low awareness about the protection of environment due to lack of education, limited and fragmented diffusion of information.

First of all, environment and government experts explain that the implementation and institutionalisation of regulations is a subject that has long been criticised in policy literature as one of the major problems in Greece (chapters 3 and 5). It is an issue highlighting norms and attitudes towards regulation. Ambiguous policy results are a fundamental issue, relating to a major paradox in the Greek regulatory framework. Greece is the only country in Europe that has included the protection of the environment as part of its amended Constitution since 1986 (Skourtos et al, 1995).

"Greece has a constitution that is unique in Europe. Nature conservation in Greece is protected constitutionally since 1975 (Karamanlis). However, there is a major contradiction typical of the Greek reality." (Int 7 NGO Respondent - Legal advisor)

At the time, great efforts were made from policy makers to show that the environment and its protection, including quality of life, nature conservation, protection of game, were part of the civic responsibilities in a democratic society. The inclusion, therefore, of environmental protection in the 1986 amended Constitution has meant that there should be a drive for regulatory and administrative reform so as to be able to integrate environmental policies, as recently expressed through a sustainable development strategy. But, institutional deficiencies still thwart regulatory reforms, for two interrelated reasons:

"Firstly, there is a problem with the citizen, lets not forget that. The Greek have no ecological sensitivity. Various reasons count for that here. Geographical, historical, and a lack of serious environmental problems that northern Europe suffer.

Exploitation of natural recourses and industrial activity has been milder here (in Greece)." (Int 22 NGO Respondent - Environmentalist)

Second, taking into account the element of low environmental awareness, is the emphasis placed on economic development:

"The industrial units here do not have total political cost. They do not have to exhibit certain sensitivity for their products or services at least for social reasons." (Int 7 NGO Respondent - Legal advisor)

Governments so far have not enhanced measures for environmental management since it was not ever considered as politically important as other issues, like for example economic, social (i.e. unemployment) and development priorities. As a government official puts it:

"It is clearly a matter of priorities. And it is not the priority of the Greek government at this stage to promote environmental management. If there was a stricter legislative framework then companies would be forced to implement it." (Int 28 Gov. Environmental Expert)

Drivers to adopt environmental policy tools in Greece, therefore, are based on factors other than those identified in northern EU countries. In northern EU countries, adoption of schemes for environmental management are mainly motivated by public awareness of the environmental problems and, similarly, companies' awareness of what the economic benefits (indirect or direct) may be. Whilst for the majority of Greek companies, motivation is based on a different logic.
Contrary to other European countries, there is little awareness of the win-win arguments of ecological modernisation and how they may be realised as there is no state infrastructure to realise the advantages from environmental friendly behaviour.

"For example, if someone has waste from tyres, there are no waste management units for tyres in Greece." (Int 16 DQS Environmental Expert)

So far, there has been limited work on building policy institutions so as to help industry realise the possible economic benefits that environmental management may bring.

The second important dimension, as noted above, is mistrust and scepticism towards "imported" policies or schemes through the role of government and EU (see chapter 5; section 7.3). To grasp these issues involved, the research shows that a shift from coercive regulatory tools to a more voluntary regulatory basis demands a shift in the civic culture of Greeks and great effort from governments to gain trust for their policies. In short, socially responsible policies involve mentality issues. It is shown that there is lack of trust at the policy level and the state apparatus as reflected through business' perception of policies promoted by the government (see Environment Plan in chapter 5). The promotion of tools by the government creates distrust and fear among entrepreneurs, because government policies were always unfriendly to industry.[116]

For evidence, one can turn to government and EU pressures for the adoption of ISO14001. The Environment Plan (modification of presidential decree of 1984; P.D. 84/84) and funding from the 3rd Structural Funds Programme to prospective companies (chapter 5) both illustrates these regulatory practices in Greece.

The Environment Plan in Athens has received both positive and negative responses from all groups of actors. Advocates – mainly government officials and private sector environmental experts – consider it an environmentally correct and innovative plan towards sustainable practices. Certainly, private sector consultants and certification bodies view this evolution as a profitable opportunity.

In contrast, business views these changes as a major threat to the companies' budget and consequently their profits, considering low awareness and knowledge on environmental protection measures as discussed throughout this chapter. Also, there is a lot of criticism from environmentalists (i.e. NGO respondents). From an environmental perspective, the plan[117] is seen as a simplistic development that does not contribute to the environmental dimension or to sustainable forms of activity.

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[116] The funding allocated from EU should be allocated to environmental management purposes, but a major mistake has been taken by the government. The budget is allocated by the government to various projects but in terms of intake and not returns. Greek governments when they are talking about funds they talk about intake. That is, there is a 100% intake and not return and efficiency.

[117] According to this plan, all companies in the greater Athens area should have adopted by 2005 an environmental management system/scheme (i.e. EMAS or ISO14001) if they wish to remain in the region. However, environmental experts suggest that in practice few companies will be able to implement EMAS or ISO14001 before 2005.

An environmentalist[118] revealed that prior to the current modification of this framework, the Presidential Decree of 84/84 required some industries to relocate from Athens within a specified period of time (10-15 years). Now, according to this view, as NGO respondents claim, the recent modification of this plan suggests that industrial units may remain provided they achieve some sort of "ambiguous" environmental improvement, through implementing ISO14001 and EMAS accordingly.

"Although, companies have to adopt EMAS or ISO14001 accordingly in order to stay, in order to achieve environmental performance there has to be social consensus. This is not happening in Greece." (Int 7 NGO Respondent - Legal advisor)

So, under the suggestive title of "green" Environment Plan, the substance is that, for the first time, industrial units (heavy industries as well) are allowed to settle in the region of Attica, provided they adopt specific management standards. ISO14001 is critical to the government's attempt to achieve a balance between Greek business demands, which remain opposed to further regulation for environmental issues, and EU pressures.

"The main drive, therefore, in Greece is normative legislation. Especially in the prefecture of Attica, legislation is starting to demand ISO14001 and EMAS. Companies are not interested in developing corporate image or any other reason. It is clearly legislation." (Int 4 Environmental Expert)

A number of NGO respondents and environmental experts[119] share the belief that regulatory pressures emanating, *inter alia*, from the Athens Environment Plan, will be the main pressure for ISO14001 adoption, rather than a spirit of proactive behaviour. The national regulatory framework, market pressures and EU obligations and requirements are strong motives here. All groups of respondents[120] suggest that companies will want to adopt this scheme more as both the source of EU investment and the Environment Plan, given further impetus by the Olympic Games in 2004. (At the time of writing there were still strong indications in this direction – more

[118] (Int 7 NGO Respondent) (Int 11 Environmental Expert - Freelance Auditor) (Int 1 Gov. Official - EMAS Expert) (Int 26 Athens 2004- Environmental Expert)

[119] (Int 22 NGO Respondent - Environmentalist) (Int 25 Environmental Expert - Consultant) (Int 6 AIA Environmental Expert) (Int 24 Athens 2004 - Environmental Expert) (Int 28 Gov. Environmental Expert)

applications for ISO14001 cases are in progress). Altogether, ISO14001 is seen to play an ambiguous role in pressures for "green" development, forming part of a government regulatory compromise between economic and environmental interests, in which it acquires an obligatory character.

Also pressures to sustain growth in a competitive environment at international level have now emerged for a few organisations like AIA, in which the deregulatory potential of voluntaristic instruments like ISO14001 rises to the fore. This is not a matter of voluntary participation, because voluntarism has a particular meaning. It is an approach adopted to avoid extra regulation.

"Being friendly towards the environment is definitely not contributing to sustainable development. Hence, ISO14001 are neither presupposition nor a condition. It is simply a nice thing to have!" (Int 26 Athens 2004 - Environmental Expert)

In spite of the government's efforts to promote ISO14001, there are still strong indications that implementation is inefficient in many cases. The efforts from companies, consultation and certification services all suggest a low level of commitment, given that ISO14001 does not seem to assist with any substantial contribution to environmental protection measures. It is crucial to clarify whether such change strengthens the protection of environment, or why it is made to smooth our relations with business in order to avoid extra regulation.

The third dimension illustrates further that low awareness, a key theme throughout the thesis, is mainly attributed to core education, business education and diffusion of information in Greece.

These are elements that limit cultural changes toward environmental management matters. Limited education, lack of expert knowledge, inability to diffuse information, are recognised by the majority of respondents[121] as a fundamental barrier. Usually, experience dictates end-of-pipe solutions, because there is no knowledge about undertaking proactive environmental solutions. Environmental awareness has been low in the culture of the citizens, at least at the level of action, as infrastructure for cultivating supportive attitudes has always been weak. Of course, there are diverging

[121] (Int 11 Environmental Expert - Freelance Auditor) (Int 15 Environmental Expert - Consultant) (Int 24 Athens 2004 - Environmental Expert) (Int 4 Environmental Expert - Auditor)

levels of environmental awareness and acceptance. There are efforts towards voluntary incentives, yet these can reasonably be attributed to a minority of groups, mainly in urban centres (i.e. Athens), where clear environmental problems have emerged.

Many respondents highlight that environmental management practices require expertise and knowledge, and raising awareness to enhance the provision of resources. There is lack of knowledge as to what an efficient environmental management standard is, what legislation requires, what methods exist for proper environmental management. These have been an impediment even for schemes like ISO14001, which is a private initiative.

Neglect of the environmental performance of a company reflects a durable, Greek cultural norm, a conceptual matter deeply embedded in the civic culture of the Greek employee. In attempting to implement the scheme, employees are forced to put more effort into their work, where apparently the development of ISO14001 has been perceived as something that might make them busier.

"Every change in company management is considered an extra effort of their productivity and time and considered more patronising." (Int 24 Athens 2004-Environmental Expert)

Levels of commitment are closely related to the capacity of the company to allocate substantive resources for certification and development, to maximise market acceptance, and establish long-term training. In the case of AIA, apparently, being a state-of-the-art organisation, levels of commitment are high. Companies for example, ones that are small and medium-sized, face more resistance (i.e. increased costs and decreased economies of scale).

Evidence shows that much depends on top management, communicating the required environmental information to their personnel. Ideally, through such an education and cultural shift, the employees in every area of activity may incorporate "environment" in their mind and actions. Diffusion of information is very important for the Greek company, considering the general low level of awareness. What is needed is a proactive attitude, capable of undertaking initiatives, to accept changes and promote new techniques. Lack of sensitivity for the environment demands intense work on the consciousness and awareness of the employees. One of the challenges,

in practice, is that the development of ISO14001 does not imply a pay rise or any other reward in economic terms for the employee.

Thus the analysis returns to the dilemmas raised in earlier theoretical chapters. If there is distinct uncertainty about the effectiveness of EMS in driving forward substantive managerial changes in the Greek setting, then how and to what extent does it convey meaning and value to wider audiences? A number of interviewees saw ISO14001 as part of a wider market asset and a product that must be actively sold. A discourse of 'commodities' and 'commodification' was used by some:

"It is a commodity." (Int 16 Environmental Expert)

"When the environment becomes a commodity and is exploited and is used for profiteering purposes, it turns to a very negative impact for everybody included, such as bodies of certification, certified companies and consumers and stakeholders in general." (Int 14 Standardisation Expert)

The reason, therefore, why a company uses a standard to make an environmental statement implies primarily that ISO14001 is a commodity for the company. Moreover, ISO14001 is a brand *because* it is standardised.

Clearly there is a chain of reasons beyond the indisputable need to protect the environment, beyond the need to keep customers happy, or beyond the need to have healthy and safe products and services for the consumer. The motives for ISO14001 adoption in the Greek context vary from economic to regulatory. The acceptance of a particular badge has become a useful signifier of the benign public image of a new product; a badge which, if not voluntary, is not directly imposed.

It is shown that the entry of ISO14001 in the Greek market takes the form of a normative tool of environmental policy. Recent regulatory changes in the domestic context (chapter 5) now seem to shape it where a normative frame of conformity of rules for the protection of environment exists alongside a gap between institutionalisation and implementation. It is likely that an unavoidable conversion of voluntary policies to compulsory will emerge, either in terms of creating a competitive environment for Greek businesses, or to comply with EU standards and requirements.

7.5 Standardisation and Environment: Is There a Conflict?

Standardisation has become an increasingly important issue for environmental protection (see chapter 2). The fundamental principle of standardisation[122] is that all organisations should be under the same rules and the same conditions of operation. The study has explored how notions of systemisation and standardisation of environmental protection are entwined with constructing a meaningful and operational environmental management scheme.

Environmental management standards are seen as a complex and contested process of decision making in which organisations and stakeholders interact (see chapter 2). In any given national or sectoral context, including that of Greece, the structure and culture of an organisation may shape how standardised approaches are adopted, and adapted. Thus one influential perspective on possible environmental management failure concerns particular social conceptions of environmental 'problems' conflicting with the rationalist standardisation process of the system. The standardisation of a process of environmental management is an attempt to bridge the systematisation of management, which is seen as organisational evolution and success, and the potential failure that may have related to interpreting the environmental dimension. The extent to which benefits from a standardised approach arise may depend to a great extent on how standardisation of environmental protection is entwined with an operational environmental management scheme through diverse actors (i.e. business, government, experts) as opinions vary about what a standardised approach may offer.

The majority of environmental experts (consultants and certifiers) regard standardised systems like ISO14001 as helping a company, because they seem to build their environmental management on a particular basis. In general, the organisational approach to environmental practices has changed rapidly, mainly following the new focus of efforts to harmonise environmental concerns with market pressures. The use of ISO14001 is considered essential given that environmental issues are sufficiently complicated to warrant that companies need standardised management. A standardised approach, by which a company may certify their products or the level of their services, is also considered an additional asset. It is to a certain degree formal and prescriptive, yet it is said to be a standard that can be

[122] (Int 11 Environmental Expert - Freelance Auditor)

based on achieving a certain environmental performance. Moreover, in order to have legitimate competition, certain rules should be in place, which are expressed through standardised environmental management like ISO14001.

Evidence reviewed in earlier sections of this chapter show that Greek companies view ISO14001 as an internal reorganisation. Organisations that work to promote the adoption of standards feel positively towards it, as the standardised measures help to cultivate a supportive attitude towards managerial approaches from all stakeholders, i.e. business, consumers and government. The standard demonstrably provides a way for companies to provide reassurance about environmental protection through certain procedures being integrated within daily routines. A number of environmental experts claim that:

"Employees are kept happy by providing the company with the best of their resources. And this is virtually the meaning of the implementation." (Int 25 Environmental Expert - Consultant)

"They (companies) have confidence in their actions and are motivated to be honest with third parties, therefore they are easily accessed." (Int 15 Environmental Expert - Consultant)

It is believed that ISO14001 benefits the company as long as all measures for the protection of the environment in an organisation keep employees happy to a high degree. If it is implemented efficiently, this also keeps employees satisfied because they can be seen within the framework as an internal customer. As much as ISO14001, therefore, contributes to the image of the company for the stakeholders, it can offer to the organisation.
If this is the view of expert consultancies, however, responses reveal that the issue of environmental management is more complex as the picture begins to include not only experiences from companies' management, but government and third parties.

Evidence from the research also demonstrates that a standards-based perspective on environmental management is used to signify excellence and prestige in the services provided. Environmental experts advocate the universal benefits of ISO14001, as conferring transparency in its components. A standard aiming at measuring, monitoring, inspecting internally and auditing is considered useful for the administration of an organisation to set targets. Also, it is considered a good medium

and a good motive for the company's publicity. This is particularly illustrated through the AIA case.

Government officials[123] also advocate ISO14001 because it is based on the proactive behaviour of the companies. However, a crucial reason why it is considered a positive strategy for business is that it presupposes the exact compliance with legislation. It offers "good" environmental management through strict compliance with no space for manoeuvring. In complying with the legislation, a company may compare its position and set targets for improvement. Being within regulatory limits, a company may set procedures to manage its environmental impacts, to monitor and carry out internal inspections. In this context, legislation requires a standard in place and ISO14001 is perceived as a holistic, transparent scheme because it has requirements for every aspect, and in that way particular environmental issues are solved.

On the other hand, NGO respondents hold sophisticated criticisms towards such concepts. NGO respondents and a number of environmental experts hold reservations about standards. Some criticism of standardised approaches to environmental management is based on the argument that evaluation and rationalisation of environmental data is somehow a superficial process.

"The logic of canonisation of certain data by taking some elementary data that do not change the substance of the environmental imbalance are in principle anti-environmental. It is fraud." (Int 7 NGO Respondent - Legal advisor)

In general, any form of standardisation nevertheless puts the mind of the public and employee in rigid frames, and creates the risk of developing unnecessary bureaucracy. The tendency towards bureaucratisation in processes of environmental management has been criticised in literature, and it raises questions about whether real changes in environmental activities are emerging.
Although ISO14001 is deemed to imply a holistic administration of the environment at a certain stage, this faces the counter-argument that ISO14001 is highly bureaucratic, with its massive requirements being a distraction for an organisation. This issue is illustrated by AIA, as the organisation has proceeded with partial adoption of the scheme in order partly to avoid further bureaucratic procedures. A

[123] (Int 2 Gov. Official - Sustainable development Expert)

standardised approach has impacts on the implementation of technically orientated activities and the relationship with a social-oriented policy like environmental management.

A number of contextual arguments support these interpretations. The first is that Greece lacks the kind of environmental consciousness similar to that of northern Europe, as discussed throughout the thesis. As a result, companies have no need to show social sensitivity for their products and services, and consequently ISO14001 seems not to provide a substantial asset.

"These companies that develop such systems here in Greece are the ones that use social facts to satisfy clientelistic purposes." (Int 22 NGO Respondent - Environmentalist)

Indeed, this issue suggests major implications for the wider context of how environmental management and pertinent regulations or schemes are institutionalised with in the national policy framework. Taking into consideration that clientelistic practices have long been criticised, such arguments suggest limited reforms in regulatory cultures.

Potentially, therefore, the risk of perceiving ISO14001 certification a sufficient condition for tackling environmental problems needs be considered. For example, one should not believe that it is sufficient proof for the company to be environmentally friendly and compatible with the regulatory framework, as there is limited compatibility with the institutional context of environmental legislation.

7.6 Environmental Governance through ISO14001?

The study focuses on the ways in which a company and relevant actors respond to change, employees' perceptions, skills and competencies, which crucially mediate the reality of ISO14001. There are three main groups dominant here involved in the institutionalisation and implementation of ISO14001. These are government bodies, private-sector experts and certification bodies (as well as minor participation by NGOs). ISO14001 symbolises a new form of environmental governance, although the extent of its institutionalisation is shaped accordingly.

Within Greece, one can see that the emergence of voluntaristic, multi-actor forms of environmental governance is at a very early stage and weak mainly because it broadly conflicts with regulatory culture issues and the low institutional capacity of the country. This context of environmental governance in Greece reflects the following issues:

a. How environmental governance has evolved and shaped; and
b. To what extent private sector "governance" has been able to exert its power for approaches like ISO14001.

This investigation shows that current changes do not point to a new type of evolved governance. Although the literature demonstrates how governance is being shaped at the global level, at the national level the study argues that although a private body of certification or a company of consultants are implicated in ISO14001 adoption, it scarcely positions them as joint governors with the state. They are simply within a framework of complex decisions the company takes in order to get services from private bodies. This is largely because ISO14001 adoption makes no difference for the public on the emerging sensitisation of environmental issues. Environmental management experts[124] argue that the Greek market has not reached the kind of maturity required on this subject, yet, despite this, standards like ISO14001 are at the peak of "sale".

Evidence suggests it is only recently that an organised, social interest for environmental matters has started to develop, through some environmental groups, though in many aspects this is minimal, and largely focused on the conservation of nature and consumer welfare. Still, tools like ISO14001 are not really known to the public, even in particular non-governmental environmental organisations.

Far from the state initiatives and rhythms of achieving targets, it is claimed that there is a dearth in networking here. Actions are fragmentary and on certain occasions doubtful. The majority of respondents agreed that bodies and companies that campaign for the same purpose, i.e. promotion of ISO14001, on many occasions have no common language.

[124] (Int 25 Environmental Expert)

"There might be some efforts to create certain links between private companies and the state and NGOs, though it still is nowhere near efficient." (Int 25 Environmental Expert-Consultant)

NGO respondents state that there are quite a few bodies (mainly stemming from academia) that have participated actively in the promotion of urban environmental management and ISO14001. Local communities and Councils seem to participate at the local level only, and interest remains focused towards the immediate impacts that a company may have in the particular environment.

"Protests have not ceased because there is ignorance of what ISO14001 is, what EMAS is. There is complete ignorance of environmental management in general." (Int 4 Environmental Expert - Auditor)

NGOs in Greece do not seem to have played a role here. Active NGO participation at local and national level is very weak and almost non-existent. The protection of the urban environment and measures for minimising environmental impacts (such as for example, a strategy based on sustainable development) are vague concepts to all parties. Thus they remain on the margin.

A number of actors in this investigation confirm this picture of a low level of public debate and awareness on environmental issues, and environmental management in particular, in the Greek context.[125] Civic awareness of the protection of the environment is ambiguous, minimal and insubstantial. For a voluntary instrument, participation of citizens and business in any way economic or voluntary in Greece is extremely low.
"There is a problem of co-ordination here and this mainly has to do with awareness." (Int 22 NGO Respondent)

And,

"In Greece still things have not reached the stage of pressure as in other countries. Economic priorities still dominate the mentality of the Greeks, whilst the environment has not been considered as something to account." (Int 15 Environmental Expert - Consultant)

[125] (Int 26 Environmental Expert)

Low awareness and the country's priority to economic development (see also section 7.5) are crucial elements, which are also apparent from the Government's "green" Environment Plan for Athens. It is mainly business and a new market of environmental expertise that fundamentally influence the uptake of ISO14001 in this context that is, state control on environmental matters is ambiguous in the Environment Plan, (discussed in chapter 5 and also in section7.5). A crucial finding is that the government is seen to trade competencies off by assigning/transferring certain competencies to the private expert bodies given the lack of institutional means in government, society at large and NGOs.

As an environmental expert argued, there is no new form of governance, because in Greece the case of ISO14001 does not involve stakeholder participation. The issue of ISO14001 certification has less to do with governmentality, because it involves only the private sector certifier and consultant. But, whether the logic of profit is compatible with the protection of the public good (i.e. environmental protection) is hotly debated:

"There is a problem here. The protection of the environment is secured by the constitution and is a public good. Institutionally, we can therefore entrust common good and citizen's freedom to private interests because government has no means? (Int 7 NGO Respondent - Legal advisor)."

ISO14001 therefore creates suspicion on whether it is used as a socially responsible tool or rather moves assigned competencies from the public sector to the private sector experts for financial purposes only. Private initiatives do not seem to hold any specific validity in policing, and it is doubtful whether one can rely on an innate logic of profit being always compatible with protection of the environment[126].

For this reason there is suspicion about the way companies get hold of a certification and the way private services for ISO14001 perceive environmental management. The investigation illustrates further that this trend towards using non-state market-driven actors to address matters of concern to civil society at national and global level is itself constitutive of increasing economic globalisation.

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[126] Given that, according to the Greek Constitution, the protection of the environment has been consolidated as a public good.

7.7 Epistemic Communities: Credibility in Environmental Management

An important theme in this thesis is the role of environmental experts, which can reasonably understood as constituting an epistemic community. Current epistemic communities around ISO14001 in Greece have significant consequences for the diffusion and meaning of certification. This section reviews the current situation of environmental experts and certification procedures in Greece and presents the key issues raised concerning ISO14001.

The implementation of standards like ISO14001 requires the development of expertise able to develop specific indicators with which to apply the principles and criteria of the system. Certification of ISO14001 involves the procedure by which a third party (i.e. a private certification body) gives written assurance to the company that their management standard conforms to specified requirements for environmental performance. What has implications for this study – involve wider trends in environmental governance – is that the greatest part of the certification and consultation services for ISO14001 are assigned to the private sector, given their experience, expertise (know-how) and resources. The institutional dynamic of this context is crucial, because it directs many implications of certification to the companies as is illustrated more specifically in the case under study. At the same time, diminished government involvement creates the risk of diverse outcomes rather than standardisation.

A number of respondents, mainly government officials and environmental experts[127] have welcomed international private competencies as a positive step towards environmental management. There is the belief that environmental experts offer consultation and knowledge and substantial policing and monitoring in areas like environmental protection, which is absent from the government side.

It is only recently in Greece that transnational and domestic private organisations have been created that have the capacity to practice environmental management consultation and certification. Moreover, multinational institutions of this kind are portrayed as "better" providers of these services in Greece. It is believed that multinational-based bodies of consultation and certification have an advantage here regarding "know-how" on environment matters and the capacity to serve companies

[127] (Int 22 NGO Respondent) (Int 13 Government Official) (Int 1 Government Official - EMAS)

with specific global requirements. Eschewing government processes and state authority, these organisations have turned to the market, soliciting the support of environmental management systems (i.e. ISO14001) in order for companies to achieve compliance with certain rules. It is crucial, then, to consider how environmental certification of business operations has evolved in Greece, what kind of competency consultants and what certification conveys exactly.

There are several dimensions associated with both credibility and business criteria in environmental management expertise. Mostly, it is important to understand just what is emerging here, who is giving it support and how credible this support might be. There is indication that environmental management certification is constrained and influenced by a complex situation, and thus has varied dramatically in Greece. Hence, credibility in environmental certification and business attitude in Greece are disputed.

The concept of credibility in environmental management, as understood in this study, places emphasis on a capacity for improving management efficiency, developing mechanisms to ensure that the procedures contacted appropriately and promote a culture which recognises transparency and openness. This, in turn, implies a progression of responsibility. Yet this confronts powerful social issues, especially in Greece, linking to issues of regulatory culture (i.e. clientelism, lack of awareness)[128].

There is a chain of cause and effect traced in this situation, in which both companies of consultants and certification bodies bear part of the responsibility. Partly there are objective difficulties, which one meets with the peculiarities of each individual organisation. So, the majority of environmental experts agree that certification offers commitment for a right product or service[129]. Yet, experts should be familiar with scientific issues of environmental management (i.e. know-how). Also, they should be able to understand how all the departments of a company function and how the company's marketing and financial department functions (i.e. human resources, research and development, production). In addition, an experts should understand how a company proceeds from development to production.

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[128] While it is a crucial issue to research, it is also methodologically and ethically difficult to tease out direct responses (see Chapter 4).

[129] (Int 11 Environmental Expert - Freelance Auditor) (Int 19 CQM Respondent) (Int 6 AIA Environmental Expert) (Int 25 Environmental Expert - Consultant)

Subsequently, credibility demands that proper standards should be applied paragraph by paragraph, checking all the points thoroughly, and monitoring. Yet, ISO14001 certification runs the risk of being based on superficial implementation and procedures that skim the surface of environmental management. Credibility is thus placed in doubt.

Evidence shows that the implementation of ISO14001 may be clearly fictitious, as companies seem only to take on informal practices, merely for prestige purposes and to obtain a badge, with limited reciprocity. Focusing on credibility therefore, two main considerations are emerging here for private certification and consultation bodies, both of which seem to lag behind in Greece.

Firstly, in order for environmental management experts to carry out their responsibilities and receive recognition in the domestic market, they need to provide services of standardised and universal recognition. That should also be linked to a division between competencies of consultation and certification. A definition of credibility in this context, therefore, should be a divide between consultants, certifiers or inspectors.

Although it is recognised in principle as a moral duty to appoint separate bodies, and a matter of ethical code to have separate competencies on consultation, inspection and certification, there is suspicion that a number of companies prefer to get certification from the same body, that of consultation, given that in this way it will be developed accordingly [130]. The extent to which this actually tarnishes the symbolic or market value of attaining a standard depends on whether key target audiences challenge this basis of credibility, reducing its capacity to translate into other settings (Latour 1986). As discussions above have noted, the extent to which this happens in the Greek context is limited.
In practice, therefore, there is no control on the quality of certifications if the body is not accredited and controlled on its actions thus there is the risk of doubtful services.

So it is crucial to consider whether a body can provide certifications independently of accreditation given that organisations work to variable criteria on what they accredit and the services they provide.

[130] (Int 4 Environmental Expert - Auditor)

Despite the forces for a unified approach to environmental governance, differences have emerged among certifiers in establishing standardised environmental management rules. A number of actors claim that Greek competencies not only vary but lack essential expertise and experience and thus lack certification quality and credibility[131]. In contrast, multinational bodies offer worldwide recognition, which is perceived a useful element for the involved company (i.e. AIA). It is argued that the greater the participation from this strand of private bodies the better, because one is buying into a global and extended network of credible actors (see Latour in chapter 2). Being part of a global network of accreditation and certification thus confers further credibility on such practitioners.

One should not ignore the economics of accreditation either, as clients look for cost-effective ways of buying into these networks of credibility. Adding to the problem, therefore is the fact that credibility is also influenced by time and cost constraints. Business criteria for choosing the consultant and certifier are argued to be based to a great extent on the cost of development, expertise and other various administration costs. Environmental experts claim that companies are not interested in how reliable, objective and useful the consultant can be. Given that they have full responsibility for selecting consultation and certification experts, evidence shows that to a large extent companies go for the cheaper offer.

"Selection criteria are based for 99 per cent on the lower price. Unfortunately that means for a high percentage, 95 per cent maybe more of the cases, the implementation of the management system is superficial without useful and pragmatic results (Int 25 Environmental Expert - Consultant)."

Besides the development expert, companies select accordingly the cheapest inspector who goes simply to check, without considering all the specifications that needed to be put into practice during the inspection and after that. It is believed that delivering greater quantities of certifications is important, regardless of some indications that certifications may have rather superficial properties. Environmental experts argue that:

"It is the picture of massive certification rather the certifier's responsibility. It is a mentality of a type "get me one as well"." (Int 4 Environmental Expert - Auditor)

[131] (Int 29 Environmental Expert - Academic)

"It is a work that cannot be carried out in limited time and unfortunately our experience is that some certifications were ordered and had been given within a day!" (Int 14 Gov. Official - Standardisation Expert)

The majority of respondents traced non-credible certifications to the mentality of the Greek market, although it is difficult to assess the extent to which this is true, or the actual level of quality. There is, therefore, a tension created which many feel can only be settled if government commits itself to strict and credible monitoring (see chapter 5)[132]. In that respect, private certification within the framework of environmental governance matters for institutional growth – the translation of symbolic compliance into an ever wider range of settings – but it is seen mainly to be speeding up adjustment in the short term, rather than managing to build an infrastructure for dealing properly with environmental management. The thesis shows that there is a conditional credibility, because there are no standard criteria from institutional and state bodies to evaluate both the context and the ability to develop assessment criteria objectively.

Following on from this, a number of NGO respondents, but also government officials, have been critical of what they see as a lack of any substantial environmental dimension in the work provided here, and they attribute this to environmental management experts in general not functioning with social criteria, but merely with economic motives (see also section 7.5). This market has been criticised as offering a "strategy for profit", reinforcing tendencies towards symbolic procedures. An environmental expert admitted that;

"ISO certifications mean a good potential for massive profit for us. Consultancies here in Greece unfortunately view the environment as completely superficial. They take on the project for developing a system and certify it only for the money and at the end of the day certificates are of no value or importance if there is no substantial implementation (Int 3 Environmental Expert - Consultant)."

"There is always a gain in the mind. That is there is no company that acts altruistically and voluntarily." (Int 6 AIA Environmental Expert)

[132] (Int 6 AIA Environmental Expert) (Int 11 Environmental Expert)

The above evidence points to a symbolic aspect of the diffusion of ISO14001 in Greece. Until recently, most procedures for private certification started without a well-organised plan. Overall, companies consider reliable services to be of less important compared to procedures that they might adopt through painless arrangements that provide the means to bypass strict requirements.

Evidence suggests that where business practices have reached the status of an environmental 'problem' on the policy agenda, it is most likely to implement ISO14001 as a way of expediting problem resolution and avoid controversy, or as a way of gaining positive public opinion (see chapter 6). In the case of AIA, for example, the high level of acceptance is closely related to the ability of the organisation to allocate simultaneously the substantive costs of certification and other resources. Yet these elements maximise market acceptance and own expertise that all appear to be related to maintaining a higher level of commitment, international profile and image.

Credibility, transparency, cost and time, therefore, are key themes here and this has an impact in this sector and businesses in terms of:

a. reputation;
b. variable prices;
c. distrust in services provided;
d. reinforcement of the norm "business as usual" and "easy to get" systems.

7.8 Concluding Remarks

To connect these findings to the broad theories behind the research, this study is based on an examination of the environmental policy arena where compliance is voluntary and incentive-based rather than mandatory. One such non-regulatory approach is ISO14001, an alternative environmental management strategy that is claimed to shift the focus from downstream mitigation strategies to upstream reduction strategies.

This study examines the uptake of ISO14001 from diverse perspectives and presents an analysis of factors that influence regulatory behaviour, institutions, perception of the environment and governance. It considers the potential for tensions between the voluntary and compulsory dimension of regulation, the private and the public, with emphasis now placed on the former as opposed to the latter. It recognises the

significance of institutions in shaping the content and effects of ISO14001. It also considers the connections between global and local private governance, taking into account cultural considerations.

This study assesses the extent to which such initiative is now influenced by current developments in Greece and the possible tensions between government policies and business initiatives. Undoubtedly, the interaction between legislative change and business practice is a growing feature in Greece, from a low historical base.

A number of questions apply to the criteria that ISO14001 effectiveness is based on. In the development of this scheme, one has to take into account geography and legislation but also, administrative practices, the needs and the participation of the public, the economic realities, along with the technical possibilities. Internal practices are constitutive of, and shaped by, the wider regulatory culture and institutional capacity of the environmental governance system. Moreover, assessment of the development of this process assumes that there is an objective criterion on which 'effectiveness' can be based. The investigation has limited the factors to those that were most supported in the literature, while including both case-related and context-related factors.

In general, findings here show that it is global market forces and EU efforts through the 3rd Structural Funds Programme (3rd SFP) to incorporate the ISO14001 system in the national regulatory framework. EU pressures and governments that have lead to an ever-greater role for initiatives like ISO14001. These have influenced further Greece's regulatory framework. Economic globalisation and market pressures are widely utilised within writings in the adoption of environmental management, typically to signify the importance of economic imperatives in taking up schemes for environmental management. Much of the research in the field of globalisation and environmental policy has pointed to the susceptibility of the domestic market and industry to diverse transnational pressures. However, this study has tried to look beyond such abstract forces, to illustrate that the pressures driving companies towards ISO14001 come not only from specific institutional actors and from elements in society at large, but from economic actors.

This central argument is based on two interrelated factors, highlighted at national level, which explain why and under which conditions environmental management standards are formed.

- Processes of economic globalisation in all activities seem to have launched ISO14001 as a matter of prestige in Greece, and generally a model management of high standards that provides a paradigm for companies to follow.
- ISO14001 is institutionalised as part of the Environment Plan of Athens, and it has been imported into local conflict management contexts as a resolution tool for immediate local communities and government, yet some would see it as a way of avoiding further command-and-control environmental regulation.

Turning to the regulatory culture and environmental capacity of the Greek environmental management context, a number of factors clearly shape how ISO14001 has been interpreted, institutionalised and implemented, namely:

- Limited knowledge. There is lack of education, qualification and know-how. Environmental experts and scientific personnel are few and dispersed,[133] both in the public and private sector.
- Lack of environmental awareness from government, businesses and the wider society, reducing the level of 'action' against weak environmental management performance.
- Lack of communication, indication of unco-ordinated procedures and low diffusion of information, within and between organisations.
- Other institutional deficiencies in credibility, in bureaucracy, in collaboration and reciprocal trust between parties, and in transparency and openness.

The role that ISO14001 has been given in the Greek context, reflects a number of 'layers' of pressures. One can point to the international field of pressures for a unified management system to facilitate competitiveness and trade issues in the single market. As well as extending trading and market networks, ISO14001 has also been ascribed an obligatory character, influenced by current changes in the domestic sphere (current changes through the modification of the ministerial decree; P.D. 84/84). Partly, this is because the regulatory style of environmental protection in

[133] For example, in the public sector there has been only one official in the Office of International Affairs and EEC which deals with EMAS since 1995 and even when personnel in the ministry exacerbates needs. Similarly, for ISO14001, which has been assigned to the Ministry of Development, the department of Industrial Planning and Environment has limited qualified personnel. Only one official deals with ISO14001.
On top of that, communication is inhibited, as Ministry departments are fragmented along sectoral lines. This issue is one example that provides us with an understanding of the institutional problems that have hindered environmental policy in Greece.

Greece is still a frame of conformity with rules for the protection of environment. Although the environment was incorporated in the national regulatory arrangements, reflecting European Community requirements, the materialisation of such regulations remains ambiguous. The position of ISO14001 illustrates this, where it is combined with regulations as an additional force for pushing compliance with rules and procedures.

One should not be surprised to find a substantive gap between adoption and implementation given that Greece's institutional capacity for sustainable development is poorly developed. Communication and knowledge (training) shapes the capacity to mobilise employees to put efforts into environmental performance, but more importantly helps to build a base for long term environmental management. It is necessary though to mobilise resources (i.e. funding, equipment and employees) in order to effect improvement towards sustainable practices. The study argues that deployment of ISO14001, which may require and symbolise collective action, is in effect helping to disguise a superficial approach to management of environmental practices.

This theme is illustrated through the partial implementation in AIA. Policy is limited to the environment department because of perceived institutional problems. These include the complexity of the machinery of organisation, the difficulty in organising departments, and the ability to integrate sustainable practices along with economic objectives across the airport organisation as a whole.

These issues reflect other aspects of institutional capacity, which include recognition, responsiveness, involvement and participation, communication, transparency, innovation, bureaucracy and knowledge capacity. In addition, various changes in governance and attitudes are only a few of the variables that can help to define the merit or worth of ISO14001, as well as the capacity issues that impact on ISO14001 implementation.

There is a range of actors with considerable expertise involved in the process of developing an environmental management standard. Indeed, this has prompted an obvious change of governance style in the environmental policy arena in Greece, as ISO14001 reveals a range of companies operating in this context. This diversity, in turn, is reflected at different levels of service as well as in different sets of competencies and quality. The shift of environmental certification from the state to

the private sector quickly facilitates such an improvement, but evidence suggests that it clearly plays a modest and unclear role, and is scarcely sufficient in itself to drive forwards significant improvements in environmental management. These factors are intermingled in the development of the system and in the standardisation of work, reflecting the different cultural traditions now engaged in Greece's national context. Identifying the value of institutional building in environmental policy is challenging.

The launch of ISO14001 is perceived to promote changes in institutions, governance and behaviour, providing incentives for managerial development, which are critical for businesses. Yet to accomplish such a sequence of positive changes, specific systemic and policy conditions must be met. This study has shown that environmental management is a complicated commodity, and much rests with government and public awareness and the skills to manipulate it into a perspective appropriate for the intended goal of ISO14001.

Chapter 8 Conclusions

8.1 Introduction

This concluding chapter attempts to draw together a broad picture of an analytical framework of the influencing factors in the adoption and implementation of ISO14001. Central to the analysis are the concepts of institutional capacity, environmental governance and regulatory culture. Attention is focused on the problems of institutionalisation, implementation and the processes through which ISO14001 has been carried out in the context of Greece and the organisation of Athens International Airport in particular. It starts by looking at variations in attitudes and their significance. This investigation set out deliberately to capture plural perspectives, which seems an essential, methodological prerequisite to understanding a complicated situation.

A number of points emerge from the development of ISO14001, which operates and interacts within a national policy context, and is also being shaped by organisational contexts. Environmental management is dealt with not from simply a managerial perspective, but also from political, regulatory and institutional perspectives, highlighting conflicting interests and values between actors responsible for acting in this particular field, and the plural roles that ISO14001 performs. Given also the simultaneous need to promote reforms and changes towards ecological modernisation and strategic practices for sustainable development, the scheme has particular relevance in the implementation of environmental regulation in Greece.

8.2 Methodological Implications

In managing the complexity and possible relations in local contexts, this research provides a detailed, qualitative analysis of environmental policy implementation. A qualitative approach helps in understanding how environmental management has been understood in the construction of sustainable development practices and environmental values in Greece. Whilst the focus of this discussion is on the

implementation of ISO14001, the implications of the analysis for public policy and the social setting are also highlighted. The prominence now given to establishing links between government and third parties in regulating the environment is, of course, not unique to environmental policy research.

There are a number of implications arising from this research. Concepts such as governance style, capacity for regulatory arrangements and regulatory culture have become key words in the social sciences. However, very few attempts[134] have been made at studying how those notions intertwine by looking at a particular regulatory approach and its power embedded at national and organisational domain.

In order to investigate this, not only is a theoretical integration of plural perspectives required, but also a consideration at the empirical level that such a scheme is a form of global governance practised to a large extent by private organisations, especially private organisations acting in a quasi-regulatory role.

Empirical evidence generated by qualitative techniques points to valuable insights in the study of policy-making processes. Thus, evidence is provided through an understanding of the influences lying behind such policy developments, by scrutinising how they build on and influence national settings. As a general observation, it may be noted that the evidence is limited at country level, and that this study has considered only one case of implementation, yet there is sufficient data from which to abstract wider principles about the ways in which ISO14001 is perceived and adopted.

8.3 Theoretical, policy and empirical dimensions

Recent global developments have resulted in a growing number of international institutions, a high degree of internationalisation, and interdependence of markets. It is clear that new instruments like ISO14001 are believed to have opened up ways of transferring environmental protection experience to the business community, as well as a new domain of expertise. But, from the literature reviewed it is shown that economic, political, and institutional resources are unequally distributed across different countries.

[134] See Kollman and Prakash in chapter 2

The thesis illustrates that this "transfer" of responsibility is a complex process, by explaining some of the successes and failures of voluntary participation in environmental management. It recognises that such debates now involve important economic and non-economic values.

As a key conclusion to this study therefore, a number of important themes are drawn out that have implications for the theoretical, political and practical domains of environmental management activities. This thesis stresses the value of the contribution made by the theoretical framework, and its contribution to the three domains of interest – theory, policy and practice - represented in the model below:

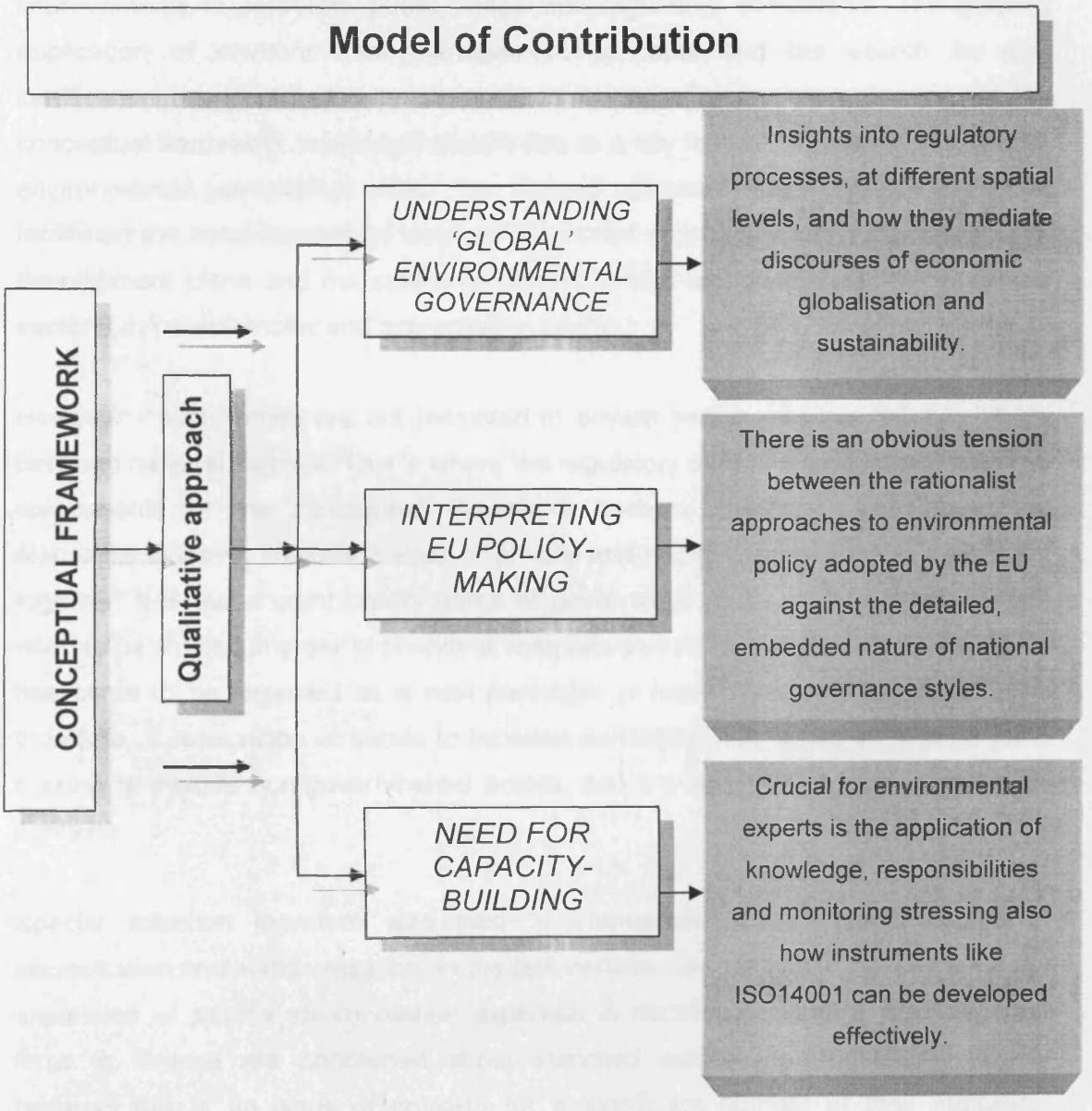

Fig. 2: Model of Contribution

8.3.1 Environmental governance through the rhetoric of EMS

A main concern of this thesis that involves sustainability and economic globalisation debates is how changing European and global contexts provide new forms of governance. In the discourse of a globalised economy and global governance, it is often argued that there is a private system of governance beyond state and market, linking different actors in a new, important international sphere.

Within this context, a key facet of the roles played by ISO14001 is the strengthening of the position of an environmental management standards "market". ISO14001 is employed to provide a scheme for management of the environment, and it is widely regarded as an important tool for future business competitiveness and also tangible improvements in corporate public image and regulatory compliance. The growing application of environmental management concepts and the search for ISO certification has contributed to an increase in private expertise – drawing on the conceptual framework, one might identify this as a key feature of an emerging 'global' environmental governance style. The rise of schemes such as ISO14001 has facilitated the establishment of new environmental agencies, advocating sustainable development plans and the uptake of environmental responsibilities by the private sector (i.e. consultancies and accreditation bodies).

However - such trends are not restricted to private sector, and the balance varies between national settings. This is where the regulatory style and institutional capacity components of the conceptual framework become important. Governance of standards systems involves blends of private and public accreditation to hold them together. It is these combinatory forms of governance in environmental policy that need to be studied in order to provide a complete picture of global governance, which has come to be regarded as a new paradigm in recent years. A key issue here, therefore, is recognition of trends to broaden participation in environmental decision making to include non-governmental actors, and the way this unfolds in particular contexts.

Special attention therefore was paid to international private-based bodies of accreditation and standardisation. In the last decade, Greece has witnessed a steady expansion of private environmental expertise in decision making. It is shown that firms in Greece are concerned about standard setting (i.e. ISO14001) largely because this is an issue of concern for a significant number of their suppliers, customers and stakeholders.

Experiences from ISO14001 in particular provide an understanding of the special features of this emerging domain (i.e. the role of epistemic communities). It is shown that incentives have been created by public intervention, but it is generally private actors who control relevant expertise (mainly "imported" know-how). In the Greek context, private actors are deemed to have superior information regarding environmental management processes, and are typically more flexible than government in adapting rapidly to technical and economic change.

Such experts engaged in the operation of policies and schemes initiated and promoted by the public sector are becoming big business in the Greek "market" (illustrated by the Environment Plan). Indeed, the actions that the Greek government has taken may serve to reinforce private standard setting as they incorporate these into building an Environment Plan. A crucial theme that the investigation illustrates is that governments are already studying the possibility of replacing certain state controls with ISO14001 certification.

In an age of shrinking budgets, it is more and more difficult for governments to shoulder the responsibility for "policing" environmental issues. Governments in this case find it easier to delegate regulation to private parties to run self-regulatory arrangements. As highlighted by connecting notions of governance styles with dimensions of regulatory culture and institutional capacity, the Greek public sector has a number of deficiencies and thus welcomes private sector participation; hence government bodies can normally replicate this expertise only by involving private sector experts. This issue, in countries like Greece, is crucial given that privatisation has taken place under weak institutionalisation of national legislation and monitoring as an alternative to fully functioning government regulation, not as an adjustment.

As a result, private organisations are enabled to take over and, progressively, there is evidence that this may contribute to the privatisation of public environmental management in the national setting.

Also, if one seeks to understand the implementation and institutionalisation of environmental management, one must take a broader for the implications of sustainable development strategies along with institutional arrangements and an enforced legal framework. Sustainability as a construct often simultaneously carries multiple meanings, associated with particular regulatory cultures and policy styles.

Firstly, it is widely used by government as a term when applied to organisations, often implying various forms of environmental management through monitoring and control.
Secondly, whilst the emerging market of environmental expertise takes over relevant functions of the state, there is indication that it also downplays the environmental dimension. It is evident that certain areas of public life (i.e. the protection of the environment) cannot rely solely on the business-oriented private sector. It is a sort of contradiction in the contemporary context of governance, market economy and civic society, readily apparent in Greece. This is especially true for environmental monitoring and certification, where we are seeing the establishment of a process driven by international actors, leading to the acceptance of the development of specific consultation and accreditation bodies.

Adopting the ISO14000 series represents a major potential source of income for consultants and experts, who are called upon regularly to implement the audit programmes and training required under the standards. Business and environmental experts commonly use sustainability as a concept to illustrate the value of management techniques. Yet, there is considerable indication that ISO14001 and the certification process end up appearing as *"commodities"* – holding together chains of marketability. As a result, the standards have an ambiguous impact not only on policy making and performance, but also on business innovation and competitiveness.

The representation of schemes like ISO14001 in this context, therefore, has played a key part in the functioning of sustainable development. The research illustrates that for many governments, ISO14001 raises unrealistic expectations about active environmental citizenship or mass engagement in environmental discourses. Indeed, a great deal of rhetoric has been extended on the benefit of ISO14001 as part of sustainability processes. Some of these claims are undoubtedly true, however.

8.3.2 Environmental sustainability through rationalist approaches

Following the previous section, it is shown that broad regulatory goals, allowing private institutions to supply specific requirements and procedures subject to sound environmental practices specified by government, must raise a number of doubts. The idea of standardisation plays a crucial role here as it can be viewed as both a measure and an ideal. As an ideal, it is used as a rationality to highlight specific

components and practices as optimal. As a measure, ISO14001 is associated with a method of making it a desirable policy outcome through the disclosure of environmental data.

But, a contention of this thesis is that the structures proposed to date to facilitate the rationalities imposed through standardisation are diverse, reflecting the competing values working their way out within EMS processes, and in the broader global governance paradigm that it is deemed to exemplify. Attention to features of national regulatory cultures and institutional capacities highlights the practical consequences of idealised, abstract rationalities. Standardised schemes have been criticised for lacking a number of essential elements in comprising the "public good". This thesis indicates that the phenomenon of standardisation has also been linked to mainly conflicting economic interests over social benefits (see also 8.3.1).

There are fears that standards of environmental management facilitate economic interests that may override the wider interests of public policy. Indeed, it is shown that private governance may respect only economic interests, rejecting environmental protection, public goods and other important values. The research suggests that the expanding standardisation techniques and their mode of regulation in the Greek context cannot adequately fill this gap, and indeed exemplify weaknesses in national institutional capacity.

8.3.3 Case-specific implications

This conceptual framework used for this research has identified reasons why rhetorical intentions at the national level are not always straightforwardly translated into sustainable practices, especially at the level of the particular case, where sector-specific social–economic–environmental interactions are operating. Given that market trends are now unfolding in a context of worldwide competition, the establishment and development of "voluntary schemes" for environmental protection in Athens International Airport "Eleftherios Venizelos" (AIA) is seen as extremely important. The implementation of ISO14001 in the organisation of AIA concerns not only the emerging high-tech character of the airport, but also the evolution of the domestic economy in response to changes in the competitive European and global environment. Two strands of argument can be followed here: *how well has ISO14001 adoption been objectified in order to enable a systematic approach, and how have the broad requirements and ideals been complied with.*

First we can see that the organisational domain here is distinctive, because such a scheme was bound up with efforts to transform the legislative framework so that it can serve both EU requirements and the domestic market. Government has sought to expand the role of the private sector through partnerships. In the specific organisation (AIA), it is shown that public-private partnership utilised ISO14001 as an opportunity for environmental management without neglecting processes of development.

Next, the environmental profile of contemporary economic development in Greece is illustrated through the case study, as it is emerging as a major player in translating a "good corporate image", and systematic environmental protection. ISO14001 was believed to help sustainable development through conflict resolution, public dialogue and disclosure to local society, as the airport increased public attention to environmental matters.

Besides the local community context, AIA also wants to ensure that third parties – companies with whom they are doing business – are behaving with social responsibility and appropriate environmental sensitivity. ISO14001 is related to the societal appreciation, values and conduct of the company. The market ability of organisations like AIA to implement policy options selectively in light of global pressures is increasing.

The findings also point to implementation through partial adoption, and factors that impeded a more systematic EMS scheme from emerging. Features of national regulatory style and institutional capacity - i.e. lack of openness, lack of communication and co-operation, fragmentation, lack of "green" consciousness and expertise – were readily apparent. Through the AIA case, one can see that the way ISO14001 is used reveals a response to community, cultural and environmental issues that is, arguably, influenced as much by local development priorities as by national development requirements. Indeed, the crucial factor affecting the nature and implementation of environmental management in the organisation may well be the ability of local pressures as well as international forces to balance economic, social and environmental interests within the encompassing market-oriented transition of the Greek economy. Yet, these dimensions may be fundamentally contradictory.

8.3.4 Institutional building and cultural reorientation in policy implementation

One must also note how ISO14001's fate is related to the EU policy framework, locating Greek national practice and corporate interests within European regulatory styles. If ISO14001 is pursued, it is because these forms of international regulation generate pressures on companies, in order to ensure that their competitors from other countries have met the same standards.

Within this context, the research suggests that institutional building and cultural reorientation are the most important factors in the accomplishment of long-term and efficient environmental management procedures. Institutional building and regulatory culture can be perceived as gradual processes, which need to be monitored when new schemes and policies are evaluated, adjusted and corrected.

In Greece, the ideological momentum driving the shift from state-centred policies to market-centred measures is still weak in relation to other countries. Calls for institutional support and the development of regulatory culture are channelled to empower awareness on environmental matters. They are crucial elements in the progress of ISO14001. Without an adequate institutional infrastructure and cultural reorientation on successful systemic change, the evolving environmental management schemes remain incomplete. Evidence shows that successful adaptation of environmental management in general requires not only the awareness of businesses, state and public but also changes in state infrastructure and regulatory mechanisms of such initiatives.

It is shown that if institutional building is neglected and left to spontaneous processes and market forces, then the forms of governance that arise are rather one-sided. Greece is a country in which government has relied on the spontaneous appearance of new institutions, which have not been able to manage the complex process of environmental policies adequately, and thus they are lagging behind in reform.

Certain risks arise where institutional arrangements are neglected and left entirely to market forces. One risk stems from *"informal institutionalisation"*, which occurs with the implementation of schemes like ISO14001 and may result in lack of credibility, transparency, openness and communication. Non-transparent procedures of accreditation and spreading clientelistic systems[135], therefore, are a few crucial examples of informal institutionalisation. This institutional inflexibility creates the

[135] The thesis takes into account a number of scholars arguing that Greece has been for a long time and systematically criticised for maintaining norms of clientelistic practices.

suspicion that ISO14001 creates pressure for national regulation as it takes the form of a command-and-control mode. Such risks are highlighted through the conceptual framework adopted for this thesis.

8.4 Reflections on the research

In this thesis therefore, the conceptual framework brought together and utilised a wide range of theoretical strands - policy literature, political science theories, sociological theories/concepts - to contribute to wider knowledge about domestic responses to environmental management and policy issues.

Attention to these wider theoretical issues has been especially effective in highlighting the varying roles of voluntary regulation in different country-specific settings. Thus the main contribution of the thesis lies in its attention to the impact of the regulatory process in which actors operate in specific spatial contexts, and how this shaped the role of EMS in the global and EU terrain. However, it is suggested that the challenge in understanding voluntary regulation is not just limited to the structures of national government, regulation and environmental activity, but it can also be seen that voluntary regulation is being reshaped by economic globalisation processes. For example, with the growing dynamism of the corporate environment, it is becoming all the more important for Greek companies to engage in schemes that are marketed to provide long-term environmental planning. That is, ISO14001 emerges and derives its features as a result of globalised competition in all sectors of the economy.

Yet, while ISO14001 legitimisation derives its powers from claims to global reach and credibility, its institutionalisation relies greatly on the capacity and regulatory style of the national context. The value of the contribution of this thesis is to be able to see schemes of ISO14001 as nationally shaped, through specific balances of competing values in particular regulatory settings. Through this theoretical framework, more general assertions of economic globalisation and sustainability discourses can be contextualised and challenged, notably the shift to homogenised voluntary forms of regulation, the role of "global" private interests - *epistemic communities* – in a system of global environmental governance. This conceptual approach has also therefore highlighted specific deficits in the stages of implementation and the challenges of an environmental management standard driven by intergovernmental organisations (i.e.

ISO). In so doing, it might lay the foundations for wider theoretical insights into contemporary environmental governance issues.

Additionally, the thesis provides some insights into EU policy-making, and the stress placed on shifting towards private regulation within the EU's 5th Action Framework. As a policy-related contribution arising from the thesis, it may be argued that an obvious tension exists between the rationalist approaches to environmental policy adopted by the EU against the detailed, embedded nature of national governance styles. In certain national contexts wider trends towards voluntaristic, business-led environmental governance are unlikely to drive sustainability. For example the phenomenon of standardisation as a measure and as an ideal/rationality is linked to conflicting economic interests over social benefits. Moreover, these trends provide a (weak) substitute for domestic, government regulatory action. For example, lack of government monitoring and building of infrastructure point to practices of *"informal institutionalisation".*

If any of the necessary elements of the required institutional capacity and regulatory culture (cultural reorientation) are missing, not only are ISO14001 and related environmental management benefits short-lived, but there may also be a negligible contribution to building a foundation for longer-term improvement in a company's environmental management. Whether or not the development of this system provides a foundation for longer-term improvement depends on the extent to which institutional capacity and regulatory culture is built. The thesis suggests that in order to facilitate progress towards sustainability through environmental management, proper institutional arrangements and a legal framework must be established and executed by the government and society at large. Market forces alone seem to fail to promote the anticipated changes in environmental policy or to enable and stimulate these changes.

Insights from this thesis may also contribute to professional practice. The thesis is not compatible with the dominant belief that private organisations and institutions could delegate governance of ISO14001. The thesis argues for the importance of considering the application of knowledge, responsibilities and monitoring, how they are dealt and the competing values that lie within. Excessive dependence on consultants' expertise that propose pre-defined standardised methods for enhancing productivity and improving quality or the environment creates the risk that a new environmental standard may represent a *"commodity"* – a badge that is symbolically

translatable around the world – yet the accreditation market may yield few environmental benefits.

ISO14001 as a standardised and policy scheme therefore offers to practitioners insights into a new framework for understanding environmental management approaches. By utilising the thesis' conceptual framework a new dimension of effectiveness, strengths and weaknesses stresses how such instruments can be developed effectively.

Although the findings are context-specific to the role of ISO14001, the abilities of various actors to influence and participate in such arrangements can be generalised. It is possible to find contexts for the dominant scheme (ISO14001), and to abstract from the Greek context, but the pressures operating on key actors – operating in increasingly international markets – clearly have more general implications.

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Appendix I

The AIA's environmental management system

The Environment Department (ENC) has adopted a systematic approach (ISO14001) to control noise, water quality, waste, local flora and fauna, air quality and cultural heritage and is argued that it makes a difference in the company's performance towards environmental improvements. So far, there have been two publications of environmental bulletins (June 1999; June 2000) where has been explicit reference to the establishment and maintenance of an environmental management system consistent with ISO14001 Standard and EMAS Regulation[136].

It is argued that all necessary steps were taken to assure and support government's aims and the necessary environmental monitoring infrastructure and auditing procedures have taken place. The organisation is committed to comply with a systematic environmental approach to a continual improvement of environmental aspects while *"monitoring the organisation's environmental performance and all third parties within the premises "*. The organisation states the importance of maintaining a quality of the environment at the Mesogaia area through 7categorised issues. These are a commitment to:

1. Environmental management

And to adhere to the principles of sustainable development and continual improvement; to pollution prevention; to comply with relevant laws, regulations and agreements; to a proactive approach for the future; to airport wide co-operation to meet environmental standards and achieve high efficiency and finally to publicise of performance and achievements.

2. Waste management

A concept which developed to be followed by all Parties (ground handlers, airlines, concessionaires, subcontractors and tenants) operating in the airport. The main aspects of waste management involve the waste chains from generation to disposal of all airport waste and are:

[136] There has been reference to EMAS regulation, because the organisation decided to publicise its environmental activities which is a prerequisite of the EMAS regulation only.

a. *Policy for waste minimisation*

- Conservation of natural resources by continuously improving waste prevention and reduction of residual wastes
- Waste separation at source for reuse and recycling

b. *Environmentally sound treatment and ultimate disposal of wastes that can not be reused or recycled*

c. *Separate hazardous waste collection and authorised treatment and disposal*

d. *Monitoring, supervision and control of all on-site waste operations*

e. *Regular audits along the waste chains*

f. *Waste Temporary Storage Area to synchronise, supervise and control all on-site waste related activities and to reduce heavy track traffic within the airport and in the vicinity*

g. *Distribution of costs to all waste generators ("polluter pays principle").*

3. Air quality management and meteorology

An AIR Quality Monitoring Network (AQMN) has been installed since October 1998 to assess the atmospheric environment in Mesogaia. This network consists of 5 fully automated permanent monitoring stations, operating in 5 municipalities around the airport (Glyka Nera, Koropi, Markopoulo, Pallini and Spata) and 1 mobile station.

The Quality Monitoring Network monitors the concentrations of the following atmospheric pollutants: SO2, NOx (NO & NO2), CO, O3, PM10, HCs, (MHCs & NMHCs) and BTX and measure routine meteorological parameters (wind speed & direction, air temperature and humidity) on a continuous basis. The network is part of the National Air Quality Monitoring Network of Greece. In the end of year 2000, a sound radar (SODAR) was installed and a special meteorological station on site, which provides data with regard to the wind field and the thermal structure of the atmosphere. Additionally, a system for direct air quality measurements on airport was installed (DOAS: Differential Optical Absorption Spectroscopy).

4. Noise reduction

AIA is the only airport in Greece that operates a permanent system of noise monitoring (NOMOS). The system (NOMOS) is supplied by Lochard Pty, a leading supplier of airport noise monitoring systems, that ahs installed similar systems in some of the biggest airports of the world (Chicago O' Hare, London Heathrow, Gatwick, Amsterdam, Hong Kong and Sydney airports). The NOMOS is used to monitor noise levels and correlate noise events with aircraft movements. The system comprises of ten permanent noise Monitoring Terminals (NMTs) and one mobile unit.

The monitoring data are used to assess noise levels in the vicinity of the airport, monitor compliance with the Noise abatement procedures, investigate complaints from the public, assess the effectiveness of new airport initiatives and general planning purposes.

The system provides with data indicating the most affected areas and enables the organisation to seek out measures to minimise disturbance in these areas. Also, noise levels are regularly recorded along the road network in the vicinity of the airport and along the airport boundaries to assess impact in the surrounding area.

5. Water (resources) management

A groundwater-monitoring program was established also in 1998. Chemical analysis of water samples from 8 on site monitoring wells is performed three to four times a year[137]. Additionally, surface water sampling points for the rainwater and drainage system have been defined in order to check regularly the surface water quality. The main aspect of water management is:

a. Water and Energy Consumption monitoring

During airport operation water and energy consumption is monitored in order to identify and propose solutions for savings. With a Building Automation System (BAS), a system that provides information and enables energy reducing policies to be applied throughout the Airport, energy consumption of concession partners is controlled and audits are conducted to identify potential areas for improved efficiency and energy saving methods.

b. a pilot programme, "Ecomapping" and a monitoring program for Gas Vapours

"Ecomapping" was introduced in 1998 for water and energy monitoring to some buildings and the supply of jet fuel to the aircraft which is conducted via an underground-piping network. The supplier continuously monitors the integrity of this network in order to detect fuel leaks.

A monitoring program for Gas Vapours has been set up to detect minor spillage of the pipeline (less than 4 litres per hour) and supplement the supplier's integrity test. For this program measurements are taken on selected gas vapour probes, drilled at regular intervals along side the piping network and the responsible Third Party (suppliers, etc.) is informed to take further actions if leakage is detected.

[137] The first results of the program showed elevated concentrations of nitrate, nitrite, and phosphate, which are attributed to agricultural fertiliser, and other anthropogenic activities including cesspool tanks and/or animal wastes.

6. Environmental audit

which are carried out on systematic bases in order to:

a. *Detect any potential environmental hazardous installations, conditions and processes*
b. *Monitor and assess environmental compliance towards AIA's standards on airport site*
c. *Conduct environmental risk analysis regarding installations, conditions and processes*
d. *Provide training to the airport community in order to prevent environmental unfriendly activities resulting in impacts.*

The results of the audits form the basis for corrective action (an element defined in ISO14001), which assists in meeting regulatory requirements of European and national legislation. Some of the contractual arrangements that were followed in the last years by the construction companies operating on site were the establishment of recycling programmes for waste, storage of oil drums on concrete base, waste oil tanks placed on impenetrable designated areas, clean up of contaminated areas.

7. Cultural Heritage

It is one of the government's main concerns to safeguard the historical and cultural heritage in the surrounding areas. During the construction of the airport there have been excavations on 16 identified areas of archaeological interest and the findings have been protected according to the instructions of the Ministry of Culture.

The organisation has established an Archaeological Laboratory on site, which is used to clean, maintain and classify the archaeological findings. Among the findings is the St. Peter's and Paul's Church dated from the 15th century AD, which was originally placed inside the airport, on the western runway construction location. The church was relocated to a new position, outside the airport boundary fence in order for the church to be open to the local public at all times.

Zagani Hill findings, a Protohellenic Settlement was found on the top of Zagani hill and was successfully removed. All findings were classified and stored according to the instructions of the Ministry of Culture. There has been an exhibition area prepared inside the Main Terminal Building for the exhibition of Zagani Hill model (model representing the settlement), related visual material and findings from the on-site excavations.

8. Public awareness and Community projects

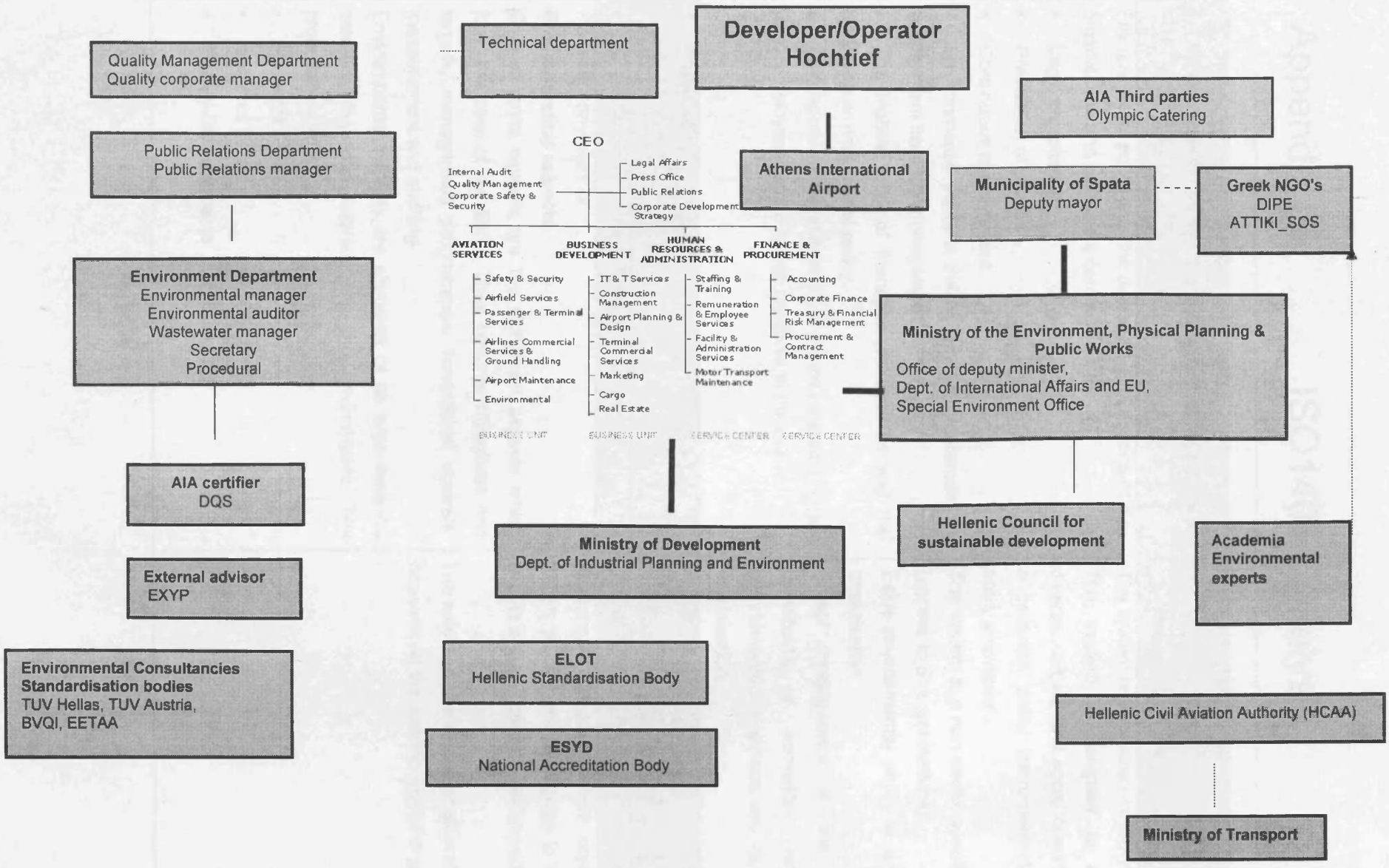
Involve the purchase of 2 fire-fighting vehicles staffed by Hellenic Fire Corps for the needs of East Attika and Mesogaia. Forest Fires that are very common during summer time. Also, the organisation provided 10 cleaning machines (road sweepers, garbage trucks, and bin cleaning machines) to the Municipalities of Spata, Koropi, Markopoulo, Pallini and Glyka Nera to help the authorities in dealing with waste management.

The organisation is in the process to create Urban Green Areas to the above-mentioned municipalities in order to enhance the natural environment in the towns and provide the citizens with a recreation area for relaxation, enjoyment and education.

9. Conservation- Bird Control

A Bird Control programme, which is established for aviation safety, to reduce the Bird Strike, hazard to aircraft. The Environmental Department established a bio-monitoring program to assess environmental impacts on ecosystems during construction and operation. The results from the monitoring program are used to initiate mitigation actions to conserve species and manage habitats as well as to consider the landscaping.

Appendix II Network Diagram



Appendix III ISO14001 Analysis

1. **Environmental policy (the starting point of an EMS)**	
Structure of the system & substance	Internal Features - External features
Environmental policy sets the overall EMS intentions of the organisation and contains a commitment to: • Legal compliance. • Prevention of pollution. • Continuous improvement. • Environmental policy is the documented statement and commitment from top management. • The highest level of management commits and then drafts the environmental policy, • After approval, the statement is communicated internally (to all employees) and is made available to the public.	The system is a voluntary initiative. The system is designed to encompass diverse, cultural and social conditions, " it is a common policy instrument designed to apply anywhere". The system is a non-sector specific standard (applies to all organisations). Each environmental policy is unique to an organisation. Senior management is the basis for developing a consistent structure of environmental objectives and targets for an organisation.
2. Planning	
Structure of the system and substance	Internal Features - External features
Planning comprises of: **Environmental aspects** Environmental aspects are the significant aspects which form the core of the EMS. They become objectives and targets, management programmes, operational controls, measurement and auditing Environmental aspects are elements of an organisation's activities that can interact with the environment. The procedure covers: • Products • Services • Facility-based aspects	Planning is the stage where objectives and targets are set and a program to achieve the targets and objectives is developed. The selection of environmental problems depends on the specific type of organisation

Legal and other requirements Legal obligations which are focused on laws and the other requirements that are applicable to environmental matters and vary from local regulations to international treaties, must be delivered by the organisation. **Objectives and targets** Setting targets and objectives is essentially the process of translating the generalities of the policy into defined goals, notably the organisation's legal obligations, significant environmental aspects, the commitment to pollution prevention and the views of interested parties. **Environmental management program to achieve targets** The environmental management programs then assign responsibilities and name the means and time frame by which the targets will be achieved.	There is no predetermined baseline of objectives and targets in the standard. Each country faces different environmental problems than other countries and perceives them not in the same manner (i.e. water, global warming, ozone depletion, solid waste, energy). Local regulations are the minimum requirement for the standard and there are differences in the stringency of legal requirements in various regions and countries and even greater differences in how these laws are enforced.
3. Implementation and operation	
Structure of the system and substance	Internal Features - External features
Implementation and operation of EMS comprises of: **Structure and responsibility** Roles, responsibilities and authority of personnel whose activities have an impact on the environment are defined and documented. A management representative to enforce EMS requirements is appointed. **Training awareness and competence** All personnel need to be adequately trained to handle the environmental aspects of their activities. **Internal Communication** Procedures for internal communication as well as receiving and responding to should be established from interested parties to all members of the organisation.	Environmental issues are integrated into daily business information. Communication should be maintained between various levels and functions of the organisation. Organisations must stipulate operating criteria and establish documented procedures which include maintenance and cover situations where their absence could lead to deviations from the organisation's policy.

Environmental management system documentation **Document control** The documents related to EMS must be reviewed revised and approved on a regular basis so that up-to-date information is available on the activities being performed. **Operational control** Operations control is to provide improved efficiency and reduce cost of operations. **Emergency preparedness and response** Accidents and emergency situations must be identified and appropriate procedures must be developed and tested internally for their efficiency.	The organisation must identify processes and activities that have a significant impact on the environment and ensure that these activities are conducted as intended. The organisation must identify environmental issues of services it uses and communicate its requirements to suppliers and contractors. The dilemma between costs and benefits due to employee training, cost of maintenance and finally certification varies.

4. Monitoring, measurement, auditing and corrective action	
Structure of the system and substance	Internal Features
Comprises of: **Monitoring and measurement** Monitoring and measuring procedures include tracking the implementation of operational controls, performance against objectives and targets, evaluating compliance with law. **Corrective, non-conformance and preventive action** Corrective action procedures, including defining responsibility and authority for handling and investigating non-conformance and initiating corrective and preventative action must also be established. **Records** Sufficient record keeping must be created and maintained to demonstrate that the system is in place and operating. **Environmental management system audit**	All equipment used for monitoring and measuring must be accurate and calibrated on a regular basis. Environmental performance is assessed against targets and objectives. Authority should correct non-compliance within the EMS and actions for prevention should be specified. The system assists companies in setting performance targets.

5. Management review	
Structure of the system	Internal Features
Management review is one of the continual improvement elements of ISO 14001. The following functions determine the capability of the EMS to achieve the organisation's environmental objectives and targets by: **Considering audit findings** The senior management audits and reviews that the system is operating effectively and provides opportunities to address changes that may be required to the EMS and the environmental policy. **Meeting third party expectations (stakeholders)** The system encourages vertical and horizontal flow of information (environmental and relevant) throughout the organisation. **Taking into account new business or operations** **Improving environmental performance**	Continual improvement enhances the function of the EMS. Although environmental policy needs to be public, environmental impacts, activities and audits are left to the discretion of the organisation.