

Impact of Europeanization in Policy Network Governance Patterns

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Abstract

This paper draws on the conclusions of an international research project on EU Enlargement and Multi-level Governance in European Regional and Environment Policies. The project's main goal was twofold: first, to evaluate the impact of Europeanization of public policy on the governance structures of three traditionally unitary countries (Ireland, Portugal and Greece), and their response, in terms of learning and adaptation, to the European environment in the regional and environmental policies; and second, to identify the appropriate reforms that new member states (Poland and Hungary) should undertake, in order to facilitate the adaptation and adjustment of their public policy structures to the European environment.

Focus is given to institutional formal and informal networks that sustain the policy-making process and its relation to EU policy, which were analyzed with SNA methods, namely, density, centrality and structural equivalence measures. This methodology allowed the research to identify points of resistance to change and to assess the level of expertise involved in the policy-making process and subsequently of the presence of relevant forms of governance. More centralized networks (Ireland and Poland; Portugal in regional policy; Hungary in environmental policy) were associated with the concentration of power in state actors; More dense networks (Ireland, Poland and Portugal), however, enabled better levels of informational flows and knowledge exchange. Structural equivalence revealed pattern similarities among central state actors on the one hand, and more peripheral ones on the other.

On the basis of these findings, a new research program is proposed to address unanswered questions, with recourse to more sophisticated SNA methods.

Keywords

Public Policy; Social Capital; Inter-organizational Networks; Institutional Theory; Adaptation and Networks; Policy Networks

1. Introduction

The ADAPT research project¹ has focused on facilitating the adaptation process of the prospective new member states of the EU (Central and Eastern European Countries – Hungary, Poland) to the multi-level system of governance in the regional and environmental policy areas, by conceptualizing learning, institutional and policy adaptation within the EU system of governance, and by drawing lessons from the experience of previous enlargement waves' countries (Cohesion Countries – Ireland, Portugal, Greece). Hence, its main goal has been twofold: first, to evaluate, on a comparative basis, the impact of Europeanization of public policy on the governance structures of three traditionally unitary countries, and their response, in terms of learning and adaptation, to the European environment in the regional and environmental policies; and second, to utilize this research outcome in identifying the appropriate reforms that the new member states, and in particular Poland and Hungary, should undertake, in order to facilitate the adaptation and adjustment of their public policy (administrative and governance) structures to the -new- European environment in the selected policy areas.

Within this framework, in regional policy - and especially in the case of the Cohesion and CEE countries - Europeanization has been viewed as an independent variable crucially affecting and challenging well-established structures within the domestic systems of governance and playing an important role in the administrative restructuring and devolution processes within the member states and in enhancing the institutional capacity at the sub-national (regional and local) levels. In particular, its impact on the regional and local policymaking arenas has been supposed to be twofold: a direct one, by providing increased resources through redistribution; and an indirect one, by shaping intra-regional interactions and thus promoting local institutional capacity through the creation of intra, inter and trans-regional networks that support local development initiatives. In that respect, the Europeanization function in regional policy may be considered as almost synonymous to “sub-national mobilization” at the European level.

In environmental policy, Europeanization has traditionally been interpreted as a process by which new member states, either contribute to the formulation and/or advancement of the EU environmental policy towards their own national priorities (higher standards in environmental protection), or adopt the already more advanced European regulations into their domestic policies. This takes place within the framework of the intergovernmental bargaining between the so called “pioneers-forerunners” group, consisting - prior to the last enlargement - mainly of Germany, Denmark and Netherlands, and the “latecomers” group, which comprises mainly the cohesion countries (Spain, Portugal, Ireland and Greece) (Andersen and Liefferink, 1997). This, in turn, has led to important institutional innovations in almost all cohesion countries. In this respect, especially in the case of the Cohesion and CEE countries, Europeanization has, again, been viewed as an independent variable crucially affecting and challenging well-established structures within the domestic policy-making structures in environmental policy.

The theoretical part of the project has explored the academic and political debate on the EU multi-level system of governance in public policy (see Kohler-Koch, 1996; Rhodes, 1999) in general and in regional and environmental policies in particular, with emphasis on exemplifying the notion of institutional “goodness of fit” as a crucial intervening variable affecting policy and institutional change at the national and sub-national levels of government (Paraskevopoulos and Leonardi, 2004). Governance structures are the structural manifestation of a complex multiplicity of governing bodies, organizational practices, norms and policy styles. Multi-level governance here

¹ “EU Enlargement and Multi-level Governance in European Regional and Environment Policies”, EU Funded Project Contract HPSE-CT2001-00097, from 2001 to 2003, involving Greece (Research Institute of Urban Environment and Human Resources of the Panteion University), Hungary (Centre for Regional Studies of the Hungarian Academy of Sciences), Ireland (University of Limerick), Poland (European Institute), Portugal (National Institute for Public Administration) and the United Kingdom (London School of Economics and Political Science).

implies a dual interaction process within sub-regional, regional, national and supra-national authorities – vertical interaction refers to connections between different levels of government; horizontal interaction involves actors within the same level. On the other hand, Europeanization is here conceived as the process of institutional and policy-making practices’ adaptation to EU policies and governance model. One important assumption underlying this work is that despite the bearing of the Europeanization process on national transformation of governance systems, the implementation of EU public policy is significantly dependent on the learning capacity of the pre-existing institutional infrastructure. The outcome of this exploration constitutes a comprehensive theoretical framework for understanding any possible differentiation in the transformation of governance structures between the Cohesion and the CEE countries.

The empirical part has involved comparative case studies in regional and environmental policies in all participating countries, incorporating analyses of both the national (central state) and sub-national policy-making structures. Based on the empirical findings, the research has: first, identified any possible differentiation in learning, adaptation and Europeanization processes among the three Cohesion countries; second, explored the emerging different patterns in the transformation of their governance structures (patterns of multi-level governance); third, identified the appropriate reforms - if any - for the Hungarian and Polish regional and environmental policy-making structures to improve their capacity for adaptation to the EU policy environment.

Finally, the conceptual part has concentrated on exemplifying the qualitative features of a governance paradigm that fosters learning and adaptation processes in EU public policy in general and regional and environmental policies in particular, based on the notion of institutional “goodness of fit”.

The methodology has been based on comparative public policy research methods focusing on measuring the impact of the Europeanization process on domestic institutional structures and systems of governance. In particular, it has involved quantitative and qualitative analyses of a wide range of socio-economic data (national and regional) of the relevant case studies in the participating countries and Social Network Analysis (SNA) at the domestic (national and sub-national) levels of governance. This methodological approach has enabled a comparison between complicated systems of interactions, focusing on both interactions among actors and interactions between structural and cultural features (see Metcalfe, 1981; Knoke and Kuklinski, 1982; Granovetter, 1985). Thus in regional policy the research has concentrated on the implementation of Structural Funds programmes (national and regional Operational Programmes) in selected regions of the three Cohesion countries, while in the CEECs specific regions have been selected as well, according to relevant criteria (i.e. border or disadvantaged regions, PHARE regions). In environmental policy, a specific policy area (urban waste management) has been selected for facilitating the comparative analysis among the countries.

Given the specific criteria that have been identified for measuring the impact of the Europeanization process on domestic institutional structures and systems of governance, the research has focused on evaluating the following aspects of public policy, which correspond to the research objectives of the project:

- a) Qualitative and quantitative analysis of policy implementation;
- b) Policy change/policy adaptation;
- c) Contribution of the private sector to the implementation of the EU programmes; and
- d) Level of network development/institution building.

Additionally, for capturing all aspects of the “goodness of fit” -namely on both strands of the “new institutionalist divide”- the project has also concentrated on the following crucial aspects of public policy-making:

- a) Identification, through SNA, of points of resistance to change, that is multiple veto points –if any- at the national and regional levels;
- b) Identification, through SNA, of the level of expertise (i.e. think-tanks, professionals) involvement in the policy-making process and subsequently of the presence of relevant forms of governance, i.e. epistemic/advocacy/issue networks, at the national and sub-national levels; and
- c) Identification of social capital, as crucial informal norm/institution playing a key role in the creation of co-operative (political and/or organizational) culture at the national and sub-national levels of government.

Finally, for the evaluation of the learning capacity of the domestic institutional infrastructure (institutional networks), the following criteria have been used:

- a) Given the importance of dialogue and communication for the learning process, the presence of fora for dialogue, such as conferences and committees focusing on specific fields, will be used as the first indicator for the identification of learning;
- b) The building of new institutions and the expansion of the already existing institutional networks, bringing in new actors in response to changing external conditions that necessitate new policy areas and subsequently new sources of information and knowledge, are seen jointly as the second criterion for learning capacity;
- c) The problem identification procedures and the gradual achievement of general consensus among the actors about the problem, which can be seen as the previous stage of the Sabel's (1993; 1994) 'learning to co-operate' capacity, constitutes the third indicator of learning;
- d) The presence of a good amount of formal and informal communication channels among the policy actors of the public sphere, broadly defined, and private interest actors (firms), whereby the public/private divide is being overcome, is seen as the last but not least necessary prerequisite for institutional thickness and learning.

This paper presents the main synthetic findings of this research, for both regional and environmental policies across the five countries, focusing on the evolution of policy misfits, of adaptational pressures and of formal institutional and policy-making structures, as well as on the role of non-state actors, resistance to change, civic culture and assessment of learning capacity. In order to have a deeper knowledge of Social Network Analysis methods employed in the research, the report on the Portuguese case, in the field of environmental policy, is presented in Annex.

2. The Europeanization of public policy, domestic governance structures and adaptation

2.1. Regional policy: regional development

The research looked comparatively at the Europeanization of regional development in the cohesion and CEEC states, focusing on the domestic governance structures and adaptation. The adaptational pressures and reactions in the cohesion states (Greece, Ireland and Portugal) and the CEECs (Hungary and Poland) were analysed and compared. We considered the degree to which the pre-existing domestic governance structures in the cohesion states enabled adaptation to EU policy, and whether the domestic structures fitted with EU policy, or created policy misfits. It is often assumed that EU policy is a major catalyst for policy adaptation and institutional change, and that the reform of the EU's structural funds in 1988, created pressures for such change in the cohesion states. This assumption, however, needs to be examined in the overall context of the domestic structures and civil society in each of these states. The new regional policy requirements were likely to challenge pre-existing national approaches to regional policy as the states were required to adopt new National Development Plans/CSFs in congruence with EU regulations. The 1988 and subsequent

reforms challenged the states to change their approaches to regional policy planning and particularly required a broadening of the consultation process, thereby ensuring that both public and private actors at the regional and local levels were involved with central state actors in the policy-making process. Similar types of challenges to the domestic governance structures and civil societies have faced the CEE states in preparing for accession and responding to the pre-accession instruments in regional policy making and implementation.

The research looked at the evolution of policy misfits and adaptational pressures in regional policy in both the cohesion and the CEEC countries. It then examined the goodness of fit of the domestic governance structures by considering, in each country (a) the evolution of central state policy-making, (b) the resistance to change, both at an institutional and societal level (c) the participation level of the non-state actors (e.g. private actors, experts, etc) in regional policy making and (d) civic culture. Finally, an assessment of the learning capacity in each of the five states is examined by looking at the learning capacity of the domestic governance structures, the range of actors involved in regional policy and the societal context. In particular, the conclusions draw on a range of qualitative data and on the Social Network Analysis undertaken in each of the case study regions.

Evolution of policy misfits and adaptational pressures. In examining the goodness of fit (or misfit) between EU regional policy and the domestic structures in the five states we find that all of the states have faced considerable difficulties, or adaptational pressures, to varying degrees. In no case could it be observed that there was an initial ready fit between EU policy requirements and existing domestic political and social structures.

With the exception of Ireland, the transformation of the systems of governance primarily through administrative restructuring, devolution and decentralization in the other participating cohesion (Greece, Portugal) and CEE (Hungary, Poland) countries - put forward as necessary steps towards meeting the EU conditionality criteria and facing the challenges of Europeanization - have coincided with the transition from authoritarianism. Thus Europeanization is associated with democratisation and modernization, and should be viewed as a primarily independent variable, affecting the institution building and learning processes at both the national and sub-national levels of government. Consequently, in regional policy, Europeanization has led to substantial administrative restructuring, involving devolution, network creation and institution building at the national and more importantly at the sub-national level of government in all these countries, albeit in varied degrees. In Ireland, on the other hand, Europeanization is viewed as significantly affecting the governance structures that are traditionally based on the so-called Westminster model of government.

Therefore, in sum, the degree of adaptational pressures facing all the participating countries should be considered as generally high, though a crucial diversification variable might be the duration of authoritarianism. Nonetheless, other domestic variables, such as culture and institutional infrastructure, may be important in accounting for variation in the degree of adaptational pressures than merely the duration of authoritarianism.

Evolution of formal institutional and policy-making structures. Focusing on the evolution of the central state policy-making structures it needs to be noted that there have been varying degrees of change in each of the states arising out of Europeanization and in response to adaptational pressures.

In all three of the cohesion states there have been changes in the way and manner in which the central state policy-making process manages EU regional policy. In Greece and Portugal the existing central state structures and administrative processes made it initially hard to adapt existing practices and approaches to cope with the exigencies of EU policy. Whereas in Ireland, while there was also a traditional reluctance to develop a strong regional policy, the reforms of the structural

funds accelerated the change in national policy-making practices and procedures, and acted as a catalyst to broaden the range of actors involved in the planning and implementation of interventions. Ireland, of course, having joined the EEC in 1973, had a greater understanding and knowledge of how the EU worked than Greece or Portugal, as well as having a different history from the other two cohesion states. The key point here is that Ireland has had a much longer period to adapt its domestic structures and policy-making processes to EU membership, and while the adaptation is far from complete, it has learnt valuable lessons from its work with the DG Regional Policy in the Commission (as well as other EU institutions) from its early experiences with the structural funds.

Nevertheless, the cohesion states have adapted their national administrations and regional structures in response to the requirements of an evolving EU regional policy. The change in structural funding has induced a certain amount of social learning and adaptation of domestic institutional structures, especially at the sub-national levels. In the cohesion states, significant administrative change has occurred, with administrative reorganisation and changes in the responsibilities and roles of central government departments evident. New sub-national regional actors have been created in two of the three states; perhaps strongest in Greece, still relatively new (and weak) in Ireland and non-existent in Portugal. In Greece decentralisation did lead to the creation of a new regional tier and the introduction of administrative regions in 1987.

Whereas in Ireland eight regional authorities were established in 1994 and in 1999 two regional assemblies were created. The Portuguese government adopted an approach based on decentralisation, through the Regional Coordination Commissions, and has sought to include non-state actors and local government, at least since the 2nd CSF, as an integral part of the consultation process. This is an interesting finding, given that the adaptation pressures have been high in Portugal and yet change has largely been confined to administrative reorganisation rather than formal institution creation. Such a finding raises fundamental questions about how well EU regional policy should fit with existing territorial structures, and whether it is sufficiently flexible to deal with domestic contexts.

Poland and to some extent Hungary have followed the 'South European' - primarily the Greek and to a less extent the Portuguese - paradigm of administrative adjustment to the Europeanization of the policy process, involving devolution and decentralisation. This is particularly evident in the establishment of regional governance units at the NUTS II level. Given, however, the inherent weaknesses of the institutional infrastructure, especially at the sub-national level, they followed the trend of recentralisation - encouraged by the EU Commission - since the mid-1990s. Hungary is widely considered as a "frontrunner" in administrative adaptation at both the national and sub-national levels of government (Goetz and Wollmann, 2001).

The dominant issues facing Hungary and Poland in relation to their adaptation to the EU regional policy-making structures largely concern the coordination of the actions financed by EU funds (mainly Phare/CBC, ISPA and SAPARD) and the gradual adoption of the principles of concentration, programming, partnership and additionality. In Hungary this has led since 1990 to a series of reforms decentralising the state administration, re-establishing the autonomy of local governments and delegating to them broad responsibilities in delivering local public services were introduced. The formal policy-making structures for regional policy, however, were established in the period 1996-1999 by the Act on Regional Development and Physical Planning 1996 (amended 1999) and the creation of a three-tier system of Regional Development Councils at the county, regional and national levels of government. The main administrative innovation in terms of regional policy has been the establishment, in 1999, of the seven administrative regions/Regional Development Councils (NUTS II), as the main locus for coordination of the activities of de-concentrated government departments. Decentralisation and reform of the regional governance

system, however, has gone hand in hand with increasing concerns about the strengthening central administrative capacity.

Poland faces similar challenges to Hungary with the Phare, SAPARD and ISPA programmes acting as initiators of the democratic programming approach to development. Poland follows Hungary in the process of administrative reform at the central state level, demonstrating similar patterns of “enclaves” of professional and expertise excellence, mainly confined in the sectors dealing with the EU (Goetz and Wollmann, 2001). The objective of the reform of the administrative system after 1989 has been to re-establish the self-government structures and gradually decentralise the policy-making process. The reform of 1999 introduced three tiers of local and regional government territorial units, that is 16 voivodships (NUTS II), over 300 poviats (NUTS III) and the local level (communes-gminas). The elected regional councils (Sejmiks) and the management boards directed by the Marshal represent the self-government structures. The reform in terms of the decentralisation of competences was a success; however, lack of sufficient financial resources and over-dependence on the central government prevented regional self-governments from fulfilling their statutory roles and they are limited to drafting regional development plans (Gilowska 2001: 145). Overall, the lack of co-ordination between the national and sub-national actors and levels of government as a result of unclear allocation of competences constitutes a serious problem for the planning and implementation of the EU structural policy.

The following table summarises some of the key policy fits / misfits in the regional policy arena.

Table 1: Institutional and Policy Fit and Misfit

State	Policy Fit	Policy Misfit
Greece	Centralised administrative System	Centralised policy-making Poor administrative tradition Institution building Lack of consensus
Ireland	Administrative pragmatism Strong civil service tradition Moderate degree of institution building Consensual policy-making Strong civil society	Centralised policy-making Weak local government
Portugal	Centralised administrative tradition Deconcentration	Centralised policy-making Absence of institution building Absence of regional policy tradition Lack of consensus
Hungary	Adoption of EU acquis Growing civil service expertise on EU matters	State-led policy-making Poor national coordination Administrative capacity Weak sub-national institutions
Poland	Adoption of EU acquis Growing civil service expertise on EU matters	State led policy-making Poor coordination between ministries Poor institutional adaptation Institutional capacity

Table 2: Cases of misfits, adaptational results and mediating factors

Country	Policy Misfit	Adaptational Result	Mediating factors
Greece	Centralised policymaking	Slow change	Central structure/clientelism
	Poor administrative tradition	Slow change	Centralised institutions
	Institution building	Resistance	Static system
	Lack of consensus	Slow change	Weak civil society
Ireland	Centralised policymaking	Slow change	Central structure
	Weak local government	Slow change	Central structure/political climate/civil society
Portugal	Centralised policymaking	Slow change	Central structure
	Absence of institution building	Resistance	Central structure/society
	Absence of regional policy tradition	Slow change	Central structure
	Lack of consensus	Some change	Weak civil society
Hungary	State-led policymaking	Some change	Centralised structure/civil society/clientelism
	Poor national coordination	Improving	Government
	Administrative capacity	Improving	Civil Service

	Weak sub-national institutions	Slow change	Centralised state/funds
Poland	State-led policymaking	Some change	Centralised structure/civil society/clientelism
	Poor coordination between ministries	Improving	Government
	Institutional Building	Slow change	Central structure/funds
	Institutional capacity	Slow change	Multiple veto points

The patterns of change described above are evident in the types of central actors identified in the Social Network Analysis as involved in regional policy in the five regions in the following table. It is notable that in Portugal and Poland these actors are largely deconcentrated national representatives, whereas in Ireland and Hungary the key actors are institutions representative of the region and locality.

Table 3. The most central actors in regional policy in the five regions

	Notio Aigaio, Greece	Mid-West Region, Ireland	Lisbon and Tagus Valley, Portugal	South Transdanubian Region, Hungary	Lodz Region, Poland
1	ROP Managing Authority	Shannon Development	Ministry of Planning	South Transdanubian Regional Development Council	Voivodeship Office in Lodz
2	Regional Secretariat	Mid West Regional Authority	Regional Development Directorate General	South Transdanubian Regional Development Agency	Marshal Office, Department of Economy
3	Cycladese Development Agency	Limerick County Council	Lisbon and Tagus Valley Coordination Commission	Assembly of Somogy Council	Marshal Office, Department of Development Regional Policy
4	Cyclades Prefecture	Ballyhoura Partnership	Lisbon Metropolitan Area	Assembly of Baranya Council	Foundation for Enterprise Development
5	Dodecanese Prefecture	Department of Environment and Local Government	Abrantes Municipality	University of Pécs	Incubator Foundation in Lodz

Non-state actors. In the case of Portugal and Greece the evidence suggests a low level of participation by nonstate actors, experts and private actors with limited fora in which participation might take place, whereas there are greater levels of organised non-state actor activity in Ireland that is aided by the existence of a range of fora at the national, regional and local levels. Both Hungary and Poland demonstrate low level of performance in all the indicators of participation and cooperative culture (fora for dialogue, expertise, PPPs and NGOs), which may be attributable to authoritarianism. These conditions may be similar to the experience of Greece and Portugal. This of course does not necessarily mean that the performance of the latter has been dramatically improved.

In Greece there are limited fora for dialogue in which non-state actors have an opportunity to participate in the policy-making process, with regional policy still predominantly a public sector activity under the control of the Ministry of National Economy. In Ireland over the three programme periods there has been increase in the level of formal consultation and involvement of non-state actors. At the national level, non-state actors, such as the social partners, have played a growing formal role in the formulation and implementation of regional policy arising out of three National Development Plans. At the regional level, in the Mid-West the preparation of the second (and also the third) NDPs involved an extensive consultation process (Quinn, 1999). The Social Network Analysis highlights the key role played by the Mid-West regional authority, as a forum for such dialogue. In Portugal there has been an incremental and growing involvement of non-state actors in the planning process, reflecting a slightly stronger civil society than in Greece. The central actors remain the Ministry of Planning and the Regional Development Directorate General. At the regional level, the Lisbon and Tagus Valley Coordinating Commission, provide the main forum for dialogue.

In Hungary the Regional Development Councils constitute the main fora for dialogue. At the central state level, the National Regional Development Council is viewed as the most important forum for dialogue, despite its consultative role in policy formulation. At the regional and county levels the crucial role of the respective Development Councils, as fora for interest intermediation, dialogue and policy consultation is revealed by their central position within the regional policy network. In Poland the existing fora for dialogue at both the national and sub-national levels of government are related to institutional innovations brought about, either directly or indirectly, by the Europeanisation of policy-making. Thus, as the fieldwork suggests, the main fora for dialogue at the national level, such as the Agency of Enterprise Development, the Agency for Regional Development, the Agency for Agriculture Market and the Committee for European Integration, mostly deal with either the administration or distribution of pre-accession funds. At the regional level, on the other hand, the main forum for dialogue and policy consultation is the Marshall's Office.

In all five states the role of policy experts, such as research centres and individual experts, is fairly limited. In Greece, there is very limited evidence of any involvement in the Notio Aigaio region. In Ireland and Portugal the role of experts remains limited but has grown reflecting an increasing use of independent experts for policy analysis and assessment, although largely integrated into the existing central government policy-making frameworks.

In Hungary there has not been identified significant presence of expertise - in the form of think tanks - in the formulation of policy. There is some evidence, however, of issue-specific networks. Thus, at the regional level, the development council is assisted by a non-profit regional development agency, operating as a public utility company and participating in the management of the Phare pilot programme. There is no evidence of expertise involvement in the policy-making process in the form of think tanks in Poland. Experts' involvement is usually constrained to professional and advice consultancy on the drafting of legislation while the implementation stages are characterised by the predominance of the central government administration.

In all the cases private interest actors do not play a direct role in policy-making, but are often involved in the implementation of programmes. In Greece most interviewees considered private actors, such as trade union and associations, to be poorly informed. Chambers of commerce are an exception. In Ireland individual private actors and private organisations are not involved in policy-making, but are involved through associations and chambers of commerce on the Mid-West's EU operational committee, although not on the regional authority's management or operational committee. In the private sector in Portugal there is a wide range of profit and non-profit organizations but with relatively little involvement in national or regional fora. The interviews with actors suggested that there has been an increase in the number of entrepreneurial associations at local level. The major objective of these associations is to develop lobbying power with regard to national decision makers, namely ministries, in order to obtain financial support.

The level of private sector and PPPs participation in the Hungarian policy process is generally low. The only significant actors are associational actors, namely Chambers of Commerce, but with limited representation at the Development Councils. In Poland the main form of private sector and PPPs participation is that of associations and primarily chambers at the regional (i.e. Polish Chamber of Textile Industry, Lodz Chamber of Industry and Trade) and local (i.e. Lodz Business Club, Chamber of International Economic Cooperation) levels, there is some presence of public-private agencies (i.e. Agency for Regional Development), which are almost exclusively related to EU programmes. In general, there are serious doubts about the success of PPPs in Poland, given the unfavourable cultural environment, in terms of lack of trust and cooperative culture (Czernielewska et. al., 2003).

In Greece there is limited NGO participation, outside of the two chambers of commerce, which are considered private actors. The local university is identified as an actor in our analysis, and as a

part of the network, but is not a central player. The finding is not surprising, given the weakness of civil society in Greece, and the predominant role of state actors. In Ireland there are many local and regional organisations, as would be expected given a strong civil society, but many of these actors are not directly involved in regional policy. Civil society in Portugal is relatively weak, with NGOs not normally involved in the development of regional policy. The exceptions would appear to be regional business associations (e.g. Leira Regional Business Association), which do play a role in the regional process, some limited trade union activity, and lastly, Agricultural Development Associations have developed strong links with other NGOs, municipalities and municipal associations. In Hungary and Poland the presence and role of NGOs in the policy-making processes are very limited and is an indication of the weakness of civil society in these states. In Poland although there are numerous NGOs (around 41,500) the majority are weak and do not play significant role in the policy-making. The legal and regulatory environment is perceived as detrimental to the development of the NGOs.

Resistance to change. In all three cohesion states there have been varying degrees of resistance and evidence of veto players. The evidence suggests, however, that there have been higher levels of resistance among national level actors to EU regional policy in Greece and Portugal, than in Ireland, where such resistance has been offset by pragmatic considerations. Hungary and Poland, while considered as frontrunners in terms of learning, adaptation and Europeanisation among the CEECs, face problems of resistance to change in their domestic institutional and policymaking structures. The points of resistance are identified with both veto players/points related to specific constellations of actors/interests and crucial cultural aspects of the domestic institutional infrastructure. In this respect, they are similar primarily to Greece and secondarily to Portugal and Ireland.

The centralised character of the Greek state has militated against successful adaptation to EU regional policy. In the Greek case strong central government departments and a weak civic culture have provided an impediment to change, resulting in incremental adaptation. In the case study, the regional secretariat and CSF managing authority were perceived central actors, although not necessarily veto points. Ireland has had a positive outlook on Europeanization, although in practice there has also been some resistance to change at both the national and local levels. National government departments did resist attempts at devolution, preferring to adapt existing procedures and practices, and only finally accepting limited regional structures when EU funding appeared under threat. Local actors were also resistant to change and to the development of regional structures and questioned their necessity in a small state. In contrast to the Irish and Greek cases, there has been considerable resistance to change in Portugal. Notably, the referendum in 1998 at which the public were consulted as to whether regions should be created or not, lead to a no vote. This reflected opposition to creating new structures that might threaten the authority of national and local structures. The central government, and in particular the Ministry of Finance and the Ministry of Planning, are the main central players that are most likely to be veto points.

Although Europeanization of public policy in general and of regional policy in particular is popular in Hungary, resistance to the changes in policy styles that it entails is possible. This can be explained either by high compliance costs, vested interests or long lived institutional traditions. Despite the fact that it is difficult to clearly identify institutionalised veto points, there are certain actor constellations that have some strong motivation to resist change. These may include: central government actors/interests; territorial interest groups; and other vested interests (elite professionals, technocrats etc.). In Poland resistance to formal changes is weak with the country having moved to adopt formal changes ahead of EU membership. Nevertheless, devolution to the regions and application of EU principles has encountered difficulties. Against the background of underdeveloped regional identities, weakness of the new institutional structures and their financial

dependence on the centre lead to strengthening the 'gate-keeper' role of the central administration in the regional policy-making and public funds redistribution.

There is evidence to suggest that the lack of crucial institutional infrastructure elements, such as cooperative culture, at the domestic level of governance may have serious consequences for the learning and adaptation process, in the sense that it may result in the absence of crucial mechanisms that facilitate the learning process (i.e. for a dialogue and experts for the diffusion of new norms etc.). In the Greek case, long-term consolidation of societal corporatist arrangements capable of negotiating social pacts has not emerged. Trade unions and employer organisations are fragmented and have played a limited role in the policy formation process, whereas the state remains characterised by party-dominated political clientelism. The process of adapting to European programmes has been slow and organized interests seem to lack the capacity to play a part in the policy formation process. Similarly, the Portuguese state remains highly centralised with limited civic participation. The involvement of NGOs in policy-making structures is limited and the public show little interest in playing a role in regional development. Whereas in Ireland the adoption of the partnership model in the 1980s and the overall corporatist nature of the Irish state has made it easier to adapt to EC funding requirements.

In Hungary and Poland, like Greece and Portugal, there are low level of cooperation, weak civil society, and political clientelism. As in Greece, in both the CEECs the role of party dominated clientelism serves as a strong socio-cultural veto point. In particular, the problems related to the lack of cooperative culture and the other relevant mechanisms for facilitating the learning process (i.e. fora for dialogue and experts for the diffusion of new norms etc.) are more acute in Poland than in Hungary (see Czernielewska et. al., 2003). Subsequently, low levels of cooperation, extremely weak civil society and political clientelism seem to be intrinsic elements of the domestic institutional structure and may constitute the main impediments to the learning and adaptation processes.

Civic culture. In both Greece and Portugal civil society and social capital are quite weak, being stronger in Ireland. It is noteworthy that while there seems to be fora for dialogue and communication, public, private and NGO participation remains quite low in most of the states under examination. Such a finding is important in terms of the goodness of fit between EU policy and domestic governance structures. In Poland and Hungary the data suggest a relatively low level of social capital and weak civil society. The situation is worse in Poland than in Hungary, especially in the level of corruption and the extent of clientelism. This has severe implications for the capability of the institutional and policy-making structures, especially during the period of transition and facing the challenges of Europeanisation.

Greece has a weak civil society, with low citizen involvement and limited awareness by the public of their rights and obligations. The strongly centralised and clientelist nature of the state with limited intermediary institutions and fora for dialogue works against citizen involvement. The lack of social capital, such as trust, norms and networks, is a further feature of the system. There was a clear mismatch between European policy expectations and the nature of civil society in Greece. The Portuguese case is very similar to that of Greece in that the state has been highly centralised with limited citizen participation and involvement in policy matters. In interviews participants did identify the importance of a strong civil society and social capital as a part of the policy process, but nonetheless, saw this as absent with the public distant from and uninterested in the policy process. In contrast Ireland has a strong civil society and one in which NGOs have become formally involved in the policymaking process. While the Irish political system is characterised as clientelistic, it has been underpinned by a strong civil society, in which trade unions and employers' organizations have since the 1980s been involved in partnership with government.

The main features of social capital and civic culture in the CEE countries are: relatively high level of interpersonal trust; low level of trust in public institutions; increased levels of corruption and

political clientelism. These features are closely linked to the long duration of authoritarianism and have important implications for the strength of the civil society and cooperative culture in these countries (see Mishler and Rose, 1996, 2001; Rose, 2002). Although Hungary demonstrates these characteristics, it is considered to be in a better position than most of the other CEECs, especially corruption (Rose, 2002). This is partly attributed to the less oppressive character of its authoritarian past. Nevertheless, these characteristics crucially affect the capability of the domestic institutions and policy-making structures of the country. Poland exhibits a weaker position than Hungary on all the social capital/civil society indicators mentioned above, and especially on corruption and the extent of political clientelism (e.g. Mishler and Rose, 1996, 2001; Rose, 2002), with serious consequences for the capability of the institutional structures.

Assessment of learning capacity. In assessing the learning capacity of the cohesion and CEE countries it would appear important to consider the pre-existing domestic structures and societal norms in assessing the capacity of the systems to adapt to Europeanisation. There are clear similarities between the Greek/Portuguese and Hungarian/Polish cases, with the former exhibiting slow learning tendencies and having a limited capacity for adaptation, which seems to be mirrored in the Polish case, and to a lesser extent Hungary. Ireland is the exception, given its pre-existing democratic structures, relatively effective system of governance and strong civil society. Nevertheless, there are similarities between Ireland and the other two cohesion states, with intergovernmental relations still in a state of change and flux. In all of the cases, the regional level of identity remains weak, with a poor policy fit with EU regional policy characterizing all but the Irish cases.

On the basis of the indicators discussed above the following table summarises the strengths and weaknesses of the learning capacity in each of the five regions.

Table 4. Key indicators of learning capacity in the five regions

Country/ indicator	Greece	Ireland	Portugal	Hungary	Poland
Resistance to change	Strong	Medium/Weak	Strong	Medium	Medium/Strong
Decentralisation trends	Weak/Medium	Medium	Medium	Weak	Medium
Participation of non-state actors	Weak	Medium	Medium	Weak	Weak
Civil society	Weak	Strong	Weak/Medium	Weak	Weak
Co-operation climate	Weak	Strong	Medium	Medium	Medium
Fora for dialogue	Weak/medium	Strong/medium	Weak/medium	Medium	Medium
Development of PPP's	Weak	Weak/medium	Weak/medium	Weak	Weak/medium
Common understandings	Strong	Strong	Strong	Strong	Strong
Institution building	Weak	Medium/Strong	Weak	Medium	Medium

In summary, there is resistance to change in all of the states, with it being strongest in Greece, Portugal and Poland, in comparison to Hungary and Ireland. Resistance is likely to limit change and in turn learning.

There is limited decentralisation in all of the states, although deconcentration has occurred in Greece and Poland, and there has been moderate decentralisation in Ireland and Greece. In those instances in which there has been decentralisation, such as in Ireland, there have been greater opportunities for non-state and peripheral actors to participate in regional policy-making and implementation. In such cases there is also likely to have been a greater exchange of knowledge and more innovation leading to an improved regional (and national) learning capacity.

The participation of non-state actors is limited in all the case studies, except for Ireland and Portugal, where there appears to be a moderate level of NGO and expert participation.

All of the cases, except for Ireland, exhibit weak civil societies and are characterised by low citizen participation. In the case of Ireland, the strength of the civil society provides an important underpinning that enhances its learning capacity. This would appear to be supported in the Social

Network Analysis wherein Ireland has a high level of network centralisation and density. This suggests there is a greater degree of communication among the actors in the Mid West region with a more dense flow of information, knowledge and ideas, which increases the learning capacity of the actors involved in the policy network.

The existence of a climate of cooperation and consensus appears strongest in Ireland, and to a less extent in Portugal, Hungary and Poland, while being weak in Greece.

In all of the cases examined a variety of formal fora exist at the national, regional and local levels, wherein state and non-state actors interact, although the impact of such for a on the policy process is less clear and in some instances appears largely designed to satisfy EU requirements for consultation.

The growing importance attached to developing PPPs is not yet reflected in the practical growth of such arrangements on the ground and while some states such as Ireland, Portugal and Poland favour such arrangements, implementation still seems problematic.

There seemed to be a common understanding of development problems in all of the case studies, although with actors perceiving such problems in different ways and offering different solutions and approaches to dealing with regional problems

New institutions and structures have been developed in all the states to facilitate the development and delivery of regional policy. The practice on the ground, however, reflects the difficulties that most of the states face in changing their governance structures to accommodate EU regional policy requirements. It is particularly worth noting that Greece and Portugal have made limited process in this area and that changes in Ireland have not led to broader political institutions at the regional level. The evidence in relation to Poland and Hungary suggests that there will be similar problems in both of these states, as the realisation of regional structures remains problematic in such centralised, unitary political systems.

These findings are in the main supported in the results of the Social Network Analysis undertaken in the five case study regions, which are summarised on the basis of two indicators in the following table.

Table 5: Structure of the networks in the five case study regions

Region/Network characteristics	Centralisation degree ²	Density ³
Noitio Aigaio, Greece	61.58	1.143
Mid-West Region, Ireland	137.09	1.76
Lisbon and Tagus Valley, Portugal	105.56	1.24
South Transdanubian, Hungary	56.10	0.406
Lodz Region, Poland	106.40	1.46

In general, there are low degrees of centralisation in Greece and Hungary, with lower levels of density, whereas in Poland, Portugal and especially Ireland, the findings suggest higher degrees of centralisation, with higher levels of density. In the former cases, this may lead us to suggest that the networks are more likely to facilitate the flow of information and exchange of knowledge thereby enhancing learning. Nevertheless, in all of the cases central state actors still dominate the networks in the cohesion and CEEC states. These findings, however, need to be qualified by noting that the sample of actors surveyed in the Greek and Portuguese cases were small, while in the Irish case a larger population of actors were identified, but not all actors were willing to be interviewed. In

² Centralization degree refers to the extent to which this cohesion is organized around specific actors: those with the greatest number of linkages. Centrality measurement reveals actors' involvement in network relations and demonstrates the structure -horizontal or vertical- of the networks and also constitutes an indicator of the distribution of power among the actors.

³ Density measurement refers to the degree of connectedness of the entire network whereby zero indicates no connections between any actor and one means that all actors are linked to one another. Because density demonstrates the strength of ties, it can be used as a partial measurement for thickness. However, thickness has qualitative features, which will be explored during the interviews.

using Social Network Analysis we need to be aware of the limits of the data and it should be used in conjunction with the qualitative findings in drawing reasoned conclusions.

Further conclusions can also be drawn in relation to learning by looking at the networks' structural equivalence in the five regions. In examining the structural equivalence of the matrices that were used in the analysis of the relations between the actors it is possible to look at what sub-groups of actors emerged as being strongly related to each other. In all of the cases four sub-groups of actors were identified (i.e. those that were strongly or negatively related). In the case of the cohesion states (e.g. North Aigaio Region, the Mid West Region in Ireland, and Lisbon and Tagus Valley) the central state and regional actors tend to fall into the first and second groupings, although there are some variations, arising from the response rate to the questionnaire that need to be considered. The third and fourth groups tend to include the more peripheral and less connected actors. Similar findings are apparent with regard to the CEECs (i.e. Lodz Region, Poland and the South Transdanubian Region, Hungary) where central state actors dominate in the first sub-group. Again, when we look at the other sub-groups it becomes harder to generalise, although the data largely supports the qualitative findings about the growing importance of regional authorities and the limited (but growing) role of non-state actors and private interests.

In summary, as in EU environmental policy, the process of Europeanisation in the regional policy arena has had an important impact on the domestic governance structures and administrative and policy practices in the five states leading to significant learning. The nature and pace of learning has been affected by the differing political and administrative cultures and structures, the degree of institutionalisation and the system of institutional interactions, the range of actors involved and their respective roles, the types of network that exist and the levels of social capital and civic engagement. It would seem important to bolster and underpin the development of dense networks in order to facilitate the flow of information and co-operation at all levels of governance and to build a strong and effective institutional infrastructure.

2.2. Environmental policy: urban waste management

The research analysed and compared the adaptational pressures and reactions which have come about in three of the Cohesion states (Greece, Ireland, Portugal) and two of candidate countries (Hungary and Poland), in the field of environmental policy (urban waste management). We consider the degree to which the pre-existing domestic governance structures in the five countries under consideration were in a position to adapt to the EU environmental policy, and the extent to which these domestic structures fitted with EU policy, or alternatively created policy misfits. It tends to be assumed that EU policy is a major catalyst for policy adaptation and institutional change in the field of the environment. We have also tried to incorporate the added value of the Social Network Analysis by linking the results to the issue of learning capacity. The summary report examines from a comparative perspective, the impact of the EU's policies and programmes in the environmental (waste management) policy area in the three Cohesion countries and the two accession states in terms of policy fits and misfits and learning capacity.

The research looked at both the Cohesion and the CEEC countries and the evolution of policy misfits and adaptational pressures in the area of environmental policy. It examined the five countries under consideration and the goodness of fit of their domestic governance structures, by analyzing in each country a) the evolution of central state policy-making, b) the resistance to change, c) the participation level of the non-state actors in the environmental policy making and d) the civic culture. Finally, the assessment of the learning capacity in the five countries under consideration was attempted through the evaluation of the learning capacity of the domestic institutional structures of the environmental policy.

Evolution of policy misfits and adaptational pressures. The five countries under consideration have faced important challenges during the Europeanization process of their national environmental policy. In all of the cases there was an acute pressure put on, in order to harmonize their national environmental policy with the European standards. The majority of the policy misfits in each case study have been mainly related to the non-compliance with the EU's legislative framework. Though, all of the above countries have made explicit efforts to harmonize their national laws with those of the EU. Within this framework the Cohesion countries have managed earlier than the CEECs to comply "on the ground" with the European standards. Nevertheless, in all five countries the most important policy misfit, in the field of environmental policy, is the delay in the implementing European laws.

Ireland and Portugal compared to the other three countries seem to face less policy misfits in the field of environmental policy. Within this framework, both countries have developed, to a satisfactory degree, institutions and co operational networks capable of embodying the standards of the European environmental policy. In addition, Ireland has also made important steps in the field of administrative changes. In contrast, in Greece, Poland and Hungary there has been limited institutional building. The absence of the necessary institutions in the field of environmental policy strengthens the existence of policy misfits. Furthermore, the Greek and Polish environmental policies are characterized by state-led policy making processes, which is contrary to the pro-active type of policy provided by the EU. Greece, compared to the other two Cohesion countries, has not adopted the appropriate environmental policy tools, mechanisms, networks and styles to enable it to comply with the EU requirements.

In relation to the CEE countries, only Hungary has sought to adopt new environmental policy instruments. Also, in Hungary and Poland the main reason for the policy misfits in the environmental area is the absence of the adequate financial support.

Comparatively, the evolution of policy misfits in the five studied countries is presented in the following two tables.

Table 6. Goodness of fit by country

Country	Fit	Misfit
Greece	Legal harmonization	Regulatory policies Implementation State-led policymaking Absence of cooperation climate Institution building
Ireland	Legal harmonization Policy innovation Consensus climate Institution building Local authority funding	Implementation Ad hoc reactions Regional designation for waste management
Portugal	Legal harmonization Improved policymaking	institution building implementation regulatory policies
Hungary	Legal harmonization	Implementation Rule-making Political decisions Regulatory policies Institution building State-led policymaking
Poland	Legal harmonisation	Implementation State-led policymaking Institution building

Table 7. Cases of misfits, adaptational results and mediating factors

Country	Policy Misfit	Adaptational Result	Mediating factors
Greece	Regulatory policies	Slow change	Central structure
	Implementation	Resistance	Multiple veto points
	State-led policymaking	Resistance	Centralized structure/static system
	Absence of co-operation climate	Slow change	Personalistic attitude/weak civil society
Ireland	Institution building	Slow change	Static system
	Implementation	Slow change	Centralized structure
	Ad hoc reactions	Partial change	Learning capacity
Portugal	Regional designation for waste management	Slow change	Centralized structure
	Institution building	Slow change	Centralized structure
Hungary	Implementation	Slow change	Insufficient funds
	Rule making	Partial change	Centralized structure
	Political decisions	Resistance	Politisation/static system
	Regulatory policies	Slow change	Centralized structure/multiple veto points
	Institution building	Slow change	Insufficient funds
	State-led policymaking	Resistance	Centralized structure
Poland	Implementation	Slow change	Insufficient funds
	State-led policymaking	Partial change	Centralized structure/civil society
	Institution building	Slow change	Insufficient funds/multiple veto points

Evolution of formal institutional and policy-making structures. Looking at the evolution of central state policy making in the five countries under consideration, it must be stressed that in all cases there has been important progress. The policy making process in the field of environment has been significantly affected in all cases by Europeanization with the Irish and the Portuguese central state environmental policy making most affected when compared to the other three countries. More specifically, in both cases the coordination/consensus climate has been increased and new mechanisms and integrated practices have been adopted. Moreover, in Ireland policy innovation was introduced (e.g. establishment of EPA) and in Portugal the environmental policy was improved. In Greece, the central state's environmental policy making process was not empowered by Europeanization in comparison to the other two Cohesion countries. The least progress has been evident in Hungary and Poland.

In examining the administrative processes in Greece, Ireland and Hungary there has been limited progress, as the environmental policy making process remains state-led. Within this framework, in these three cases, the Ministries of Environment, their national bodies as well as other sectoral Ministries are in charge of the environmental policy formation. In comparison, in Portugal and Poland there has been a more decentralized administrative environmental policy making structure. In these two cases with the exception of the Ministries, the regional and local authorities have been actively involved in the environmental policy making process.

In terms of importance of the institutional actors in the process of environmental policy making, it is clear that the role of NGOs and other civil organizations is very limited in the cases of Greece, Hungary and Poland. In Ireland, NGO involvement tends to be fragmented but nonetheless does exist. The most progress is emerged in Portugal where a series of institutional changes has lead to a greater participation of NGOs in the environmental policy making process.

The dominance of the central state actors concerning the environmental policy making in all five countries is depicted by the SNA conducted in the five case-study regions (Attica Region, Mid-West Region of Ireland, Lisbon Metropolitan Area, Region Central Hungary, Lodz Region). In the following table the most central actors in the field of waste management in the five case study regions are identified.

Table 8. The most central actors in the field of waste management in the five regions

	Attica Region – Greece	Mid-West Region of Ireland	Lisbon Metropolitan Area - Portugal	Central Region of Hungary	Lodz Region - Poland
1	Ministry of Environment, Urban Planning and Public Works	Limerick City Council	Ministry of Environment	Environmental Protection Chief Directorate of the Middle Danube Valley Region	Voivodeship Office in Lodz, Department of Environment
2	Region of Attica	Environmental Protection Agency	Waste Institute	Ministry for Environment Protection and Water Management	Voivodeship Inspectorate for Environment Protection in Lodz
3	Union of Municipalities and Communities of the Prefecture of Attica	Department of Environment	Quercus NGO	Municipal Public Space Management Shareholder Company	Voivodeship Fund for Environment Protection and Water Economy
4	Ministry of the Interior, Public Administration and Decentralization	Clare County Council	Geota NGO	Association of Public Owned Waste Management Service Providers	Eko-Boruta in Zgier
5	Managing Authority of the Operational Programme “Environment”	Limerick County Council	Amtres	Office of County Pest	Marshall Office, Department of Agriculture and Environmental Protection

The data depicted in the above table confirms the dominance of the central state actors in the process of policy making in the field of waste management, as only in the Lisbon Metropolitan Area there is a broad participation of institutionalized actors (NGOs). Also, in Poland, under the wide liberalization progress, the participation of the private sector is also emerging.

Non-state actors. Referring to the existence of fora for dialogue, many weaknesses can be discerned in the three Cohesion countries. The principal fora are developed and controlled by the state. Among the three Cohesion countries, Ireland appears to have the most formal fora for dialogue, while in Greece and Portugal there is a significant absence of dialogue concerning environmental issues. In addition, especially in the Greek case study, dialogue takes place on the basis of personal relations. In the case of the CEEC countries there are also many weaknesses that can be discerned concerning the existence of fora for dialogue. Nevertheless, they have developed a more satisfactory level of formal fora for dialogue in comparison with the three Cohesion countries. In both countries, the main formal fora are developed and controlled within the operational framework of state actors and European programs. What is common between the three Cohesion countries and the two CEE countries is the absence of citizens’ and NGOs’ participation from the environmental policy making process.

Regarding the role of the private sector in the sector of environmental policy in the three Cohesion countries not many steps have been taken to enable its empowerment, despite the overall agreement on the necessity of the development of co-operation between the public and the private sector. On the contrary, in all three countries, the public-private partnership model remains weak and rather marginal. Only in the Portuguese case study did some municipalities develop public-private partnerships with the participating private companies being responsible for the implementation of the multi-municipal waste management systems or for the design, building and operation of those systems. In the Greek and Irish case studies no public-private partnerships have emerged because municipalities provide the necessary waste management services directly to the citizens without co-operating with private companies. In Ireland no PPP’s currently exist in relation to recycling facilities but the private sector is increasingly becoming involved in the collection of waste and recycling. In this case the collection of municipal domestic waste as a service provided by local authorities is declining and a number of private contractors have come on the scene in the past three years. With reference to the role of the private sector in the field of waste management in

the three Cohesion countries, the following basic similarity has been discerned: private companies, related to waste management, contract with municipalities in order to undertake specific parts of waste management, like manufacturing and trading of waste collection equipment, waste collection, recycling, separation and road cleaning.

In comparison, many steps have been taken in the process of liberalization of environmental policy and waste management market in Hungary and Poland. Within this framework various schemes of public-private partnerships have been developed in both countries. Extending public-private partnerships are established in order to support financial waste management infrastructure projects. Within that framework, local/county authorities in both regions have developed public-private partnerships with private companies in order to implement regional or EU Programmes. With reference to the role of the private sector in the two CEE countries, the following basic similarity has been discerned: private companies, related to waste management, contract with local authorities in order to undertake specific parts of waste management, like landfilling, waste collection and recycling. These companies are smaller operators (Poland) or larger companies/multinationals (Hungary). In the case of Hungary foreign private companies are also involved in the sector of waste management.

The role of the experts in the environmental policy making structures in the five studied countries remains limited. It is only in Portugal, that mechanisms capable of ensuring the participation of the experts in the environmental policy making structure have been developed. In Ireland the role of experts is weak but is increasing. Also, in Hungary, in comparison with Greece and Poland, the experts have a small participation degree in the policy-making, but even in this case their role remains limited.

The role of the NGOs also remains limited in the majority of the Cohesion and CEE countries under consideration. The only case, where NGOs have a satisfactory participation degree in the environmental policy making structure, is Ireland. This happens because of the country's traditional strong civil society and cooperative and consensus climate. In Portugal and Hungary there is only a limited participation of NGOs in the environmental policy making structure, while in Greece and Poland their role remains even more limited.

Resistance to change. In all the five countries under consideration there are important institutionalised veto players who are opposed to the Europeanization process in environmental policy. The most important institutionalised veto players in all the five case studies are the local authorities. Particularly, in Greece and Portugal local authorities are the only veto players, who are also responsible for the existence of the NIMBY syndrome. In Ireland the main veto players are the locally elected representatives. In Poland and Hungary, except from local authorities, the NGO's and civil organisations are acting as veto players causing the NIMBY syndrome.

Regarding the cultural aspects that adversely affect the Europeanization process in the environmental field, it must be stressed that in all five countries there is resistance to change. Nevertheless, these aspects are differing in each country. Within this framework, the aspect of clientelism characterises the Greek and Irish environmental policy. The personalism and the egoist attitude are highly developed in Ireland and Portugal. The politisation of the general political climate as well as the local/regional political climate exists in Greece, Hungary and Poland. The lack of a consensual and co-operational climate characterises the Greek, the Portuguese and the Hungarian environmental policy-making, while the lack of ecological awareness characterises Hungary and Portugal. Finally, the aspects of low organisational culture, transparency and accountability are typical in Poland.

Civic culture. The role of the social capital endowments as well as of the civil society is considered indispensable for the Europeanization of the environmental policy. Nevertheless, in Greece,

Portugal, Hungary and Poland there is a weak civil society. In those four countries the existence of a weak civil society is expressed by the absence of awareness on environmental issues. Furthermore, in Greece, Portugal and Hungary there is a limited citizens' participation in civil organizations, in comparison to Poland where, although there is a high level of citizens' participation in civil organization, only a small percentage of them are actively involved. Also, in Greece and Poland there is an increased general climate of distrust, which negatively impacts upon the social capital endowments. In the above-mentioned countries the existence of a weak civil society comes as a result of the absence of a consensus climate and the lack of intermediary institutions and information.

In contrast, Ireland has a traditionally strong civil society, which is characterized by the high degree of citizens' participation in civil organizations, by the existence of empowered civil organizations and by the development of a strong co-operative climate. What is positive for the future development of the civil society in the five countries is the common understanding of the development problems by almost all the actors. This fact can lead to a higher degree of citizens' participation and to a higher degree of awareness on environmental issues.

Assessment of learning capacity. In general, the Cohesion Countries have succeeded a more extensive Europeanization of their domestic institutional infrastructure than the CEECs, because the last two decades they had a better compliance of their national legal framework with EU's directives and regulations. Moreover, the participation of the Cohesion Countries in the CSF's and Programmes financed by the Structural Funds offered them more opportunities to transform their domestic institutional infrastructure. On the other side the absence of adequate funds in the Accession Countries deficits their opportunities to harmonize their domestic institutional infrastructure. This is why in the Accession Countries more delays emerge in the implementation of environmental projects, and problems regarding environmental infrastructure. In addition, the cohesion countries have developed environmental management practices to a great extent, but in some cases there are still problems related to the allocation of new sanitary landfills and to the existence of uncontrolled dumping sites.

In the following table the comparative results of the parameters indicating/affecting the learning capacity in the five studied countries are presented.

Table 9. Key indicators of learning capacity in the five regions

Country/ indicator	Greece	Ireland	Portugal	Hungary	Poland
Resistance to change	Strong	Medium	Medium	Strong	Medium/Strong
Decentralisation trends	Weak	Weak	Medium/Strong	Weak	Medium
Participation of non-state actors	Weak	Weak/Medium	Weak/Medium	Weak	Weak
Civil society	Weak	Medium/Strong	Weak/Medium	Weak	Weak
Co-operation climate	Weak	Strong	Medium	Medium	Medium
Fora for dialogue	Weak/medium	Medium	Weak/medium	Medium	Medium
Development of PPP's	Weak	Weak	Medium	Strong	Weak/medium
Common understandings	Strong	Strong	Strong	Strong	Strong
Institution building	Weak	Medium/Strong	Medium	Medium	Medium

From the above Table the following comparative conclusions can be extracted:

- In all countries there is resistance to change, which is more intense in Greece, and Hungary, compared to Ireland, Poland and Portugal. The higher resistance to change means less communication and exchange of knowledge, which in turn reduces the learning capacity.
- In Portugal and Poland there is more decentralization in comparison to the other three countries. That means that in these two countries there are more opportunities for nonstate and peripheral actors to participate in the environmental policy making process, increasing the exchange of knowledge and innovation among actors.

- The participation of non-state actors is limited in all the five countries, except in Portugal where a more extended participation degree of NGOs and experts into the environmental policy-making is recorded.
- Regarding social capital endowments, in all countries there is a weak civil society and limited participation of citizens and civil organizations, with the exception for Ireland, which has a traditionally strong civil society. The existence of a strong civil society in Ireland means a wider communication between actors and a more dense flow of information, knowledge and ideas, which increase the learning capacity of the institutional actors in environmental policy.
- The existence of a consensus and cooperation climate is stronger in Ireland, Hungary, Portugal and Poland, respectively, in comparison to Greece where a cooperation climate is absent.
- In regard to the existence of fora for dialogue, in all countries under the EU initiatives informal fora have been established and controlled by the state. Nevertheless, in the most cases they have many weaknesses in how this has operated.
- In all five countries there is a common understanding of development problems.
- The development of PPP's is stronger in Hungary and Portugal, respectively, in comparison to the other three countries, where this model has not yet been developed.
- New institutions have emerged at national and regional/local level (regional/local authorities) in order to facilitate environmental policies and implementation. Nevertheless, In relation to institution building there are more deficiencies in Greece in comparison to the other four countries, where a wider range of institutions have been established.

We can also draw further conclusions for the learning capacity from the results of the Social Network Analysis that was undertaken in the five regions of the studied countries. Regarding basic characteristics of identified policy networks in all regions one should study comparatively the centralization degree³ and the density degree⁴ of these networks. The less centralized networks are more horizontal, facilitating the distribution of funds and power in more levels of governance, as also the more dense networks facilitate cooperation, formation of partnerships and consequently the flow of information. The centrality degree and the density of the five studied networks are presented in the following table.

Table 10: Structure of the networks in the five case study regions

Region/Network characteristics	Centralisation degree	Density
Attica Region, Greece	99.26	0.7
Mid-West Region, Ireland	121.43	1.65
Lisbon Metropolitan Area, Portugal	81.90	1.15
Central Region of Hungary	110.54	0.45
Lodz Region, Poland	195.86	1.1

Within this framework the Cohesion regions, in general, have less centralized networks compared to the CEEC regions and more dense networks. This means that, in the three Cohesion countries there is a wider flow of information and exchange of knowledge and ideas in comparison to CEEC countries, where these networks display more weaknesses. Nevertheless, what is common in all Cohesion and CEEC case studies is that central state actors dominate the networks. More conclusions concerning the learning capacity can be derived from looking at the networks' structural equivalence in the five studied Regions. Analyzing the structural equivalence of valued matrices it's crucial to study how central actors are apportioned in the sub-groups. In all five regions' networks four sub-groups emerge. In the cases of the Attica Region, the West Region of Ireland, the Lodz Region and the Region of Central Hungary there is a dominance of the central state actors in the most subgroups, while the other groups, where there are no central state actors, have less power. On the contrary, in the Lisbon Metropolitan Region the central state actors along

with the most important NGO's dominate the formed sub-groups. This fact shows that in Portugal there is an increased participation of the non-state actors, which increases the exchange of knowledge and ideas and as a consequence enforces the learning capacity.

Overall, the process of Europeanization has impacted significantly on administrative and policy practices in the five countries leading to widespread learning. The nature and pace of learning has been affected by the political and administrative cultures and structures, the institutionalisation level of those structures, the system of institutional interactions, the procedures determining information and communication flows, the range of actors involved and their respective roles, the types of network which exist and the levels of social capital and civic engagement.

In conclusion, in both CEECs and Accession (especially in the CEECs) regions, further steps must be taken towards the Europeanization of the domestic institutional infrastructure. Within this framework, it is necessary for all case study regions to adopt the required stable rules in order to reduce uncertainty among actors, to support the emergence of dense networks, to facilitate the flow of information and co-operation at all levels of governance and of course to proceed with the building of the necessary institutional infrastructural basis. This will lead to the emergence of stable intra-regional networks with a good learning capacity capable to adapt to the dynamically changing environment.

3. Conclusions

In summary, «single-loop learning» seems to be the dominant pattern of the learning process in all the countries studied, while there has been only little and sporadic evidence of social learning. This is an important finding with regard to the impact of Europeanization on domestic institutional and policy-making structures. Europeanization may open up exit and voice options for actors in the domestic level of governance through the redistribution of resources and power, but the changing of actors' preferences or identity seems to be a much more difficult exercise and less readily amenable to pressures from Europeanization. This points to the limits of the impact that the supranational level of governance can have on the transformation of domestic governance and policy-making structures and emphasises the crucial role of pre-existing institutional infrastructure in the learning and adaptation processes in public policy. The following table summarises the main findings in relation to the patterns of learning.

Table 11. Patterns of learning in Cohesion and CEE countries

	Policy Learning Capacity of Domestic Institutional Structures	Patterns of Learning
Greece	Very poor; some positive albeit sporadic evidence since mid-1990s;	Institution building as institutional creation in both policy areas; 'single loop' learning;
Ireland	Medium; Stands out vis-à-vis the other countries, but not ideal;	Transformation/adaptation of the pre-existing institutional structures; 'single loop' learning;
Portugal	Medium to poor; Central state capacity but at a cost;	Extensive institution building at central state level; 'single loop' learning;
Hungary	Poor to medium; 'Western- style' core executive;	Institution building as a challenge; danger of limited 'formal' compliance; 'single loop' learning;
Poland	Poor; 'Southern-style' central administration;	Institution building as a challenge; danger of limited 'formal' compliance; 'single loop' learning;

A crucial variable that explains different degrees of adaptational pressures across the countries may be the duration of authoritarianism, although other crucial variables, such as culture and pre-existing institutional infrastructure, must also be considered. In the field of environmental policy-making, all countries can be characterized as being «laggards», with considerable policy misfits.

Europeanization has led to significant legal harmonization but this has not been successfully followed by the necessary institution-building and the establishment of the required implementation and enforcement mechanisms. Although regionalization has been, to varying degrees, a dominant feature of intergovernmental relations in all countries, the gate-keeping role of the central state has remained unchallenged and prominent in almost all of the cases. A possible explanation may be the underestimation of the crucial role of state-society relations, and particularly of civic culture and identity as important components of the local institutional infrastructure.

Two main patterns of governance were identified with regard to non-state actors' involvement in public policy-making, relative to two groups of countries. Greece, Hungary and Poland demonstrate low levels of non-state actors' participation in the policy process, and a corresponding relevant role of political parties. In contrast, primarily Ireland and, to a lesser degree, Portugal exhibit a more positive policy environment and hence governance structures, characterized by varying but increasing levels of non-state actors' participation in the policy process.

New governance features have been introduced at the supranational and the national levels, although with different impacts. Values and ideas seem to have been the most successful domain in penetrating all political and social discourse and practice, which may be seen as an effect not only of EU integration but also of a global scale increase in awareness and commitment.

The influence of the European Commission is mostly felt in the field of policy instruments, as institution building remains restrained by domestic organizational and mediation structures. Differences in national culture, political and socio-economic systems, as well as material problems facing each country, determine to a large extent the governance arrangements put in place. According to Lenschow (1999: 59), this in turn suggests that, more than a uniform new model of governance, we should be aiming at a "wide *repertoire* of governance strategies".

Despite the sound findings this research has achieved, it also presented some limitations, namely the incompleteness of the studied networks, as some actors refused to be interviewed; the one-dimensional character of networks, as only information on the general interaction between actors was collected; and the limited use of Social Network Analysis methods, due to limited knowledge on the techniques and to scarce data on which to work. In order to surpass these limitations, a research project is under way within a PhD Program in Political Sociology, where similar theoretical problems will be further explored. This research will look into network governance arrangements and dynamics in the Portuguese environmental polity, focusing on institutional arrangements and social actors' positioning within networks, as well as on interaction patterns and power relations. Basing the empirical research on the case of groundwater management, the analytical dimensions will be, at the network level, (1) interaction patterns between actors, (2) rules and processes in-use and (3) diversity of represented interests; and, at the actor level, (4) actor's participation strategies, (5) influence in decision-making process, and (6) autonomy from state actors. These analytical dimensions will subsequently be operationalized through more complex SNA measures than those used in the previous research.

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Annex

Social Network Analysis Report

Environmental Policy – Lisbon Metropolitan Area (Portugal)

1. Introduction

The main aim of the present report is to identify patterns of institutional and policy learning and Europeanization in Portugal. This will be attained by performing a case study where a specific region is selected, and by conducting a series of interviews with the main actors in the Environmental area, from which a Social Network Analysis will emerge. Thus, three steps will take place:

1. to present the main characteristics and the reasons for the selection of the specific case study;
2. to present the results of the semi-structured interviews and the Social Network Analysis; and

3. to evaluate the interaction between domestic institutional structures and the European context.

The selected region was the Lisbon Metropolitan Area (LMA) and 38 actors were selected, but only 17 were effectively interviewed. However, according to the political and institutional importance of the interviewed actors, their opinion was a major input for this report. The status of these personalities is referenced in the following table, where the actors are grouped by regional level and institutional sector.

Actors and interviews			
Regional Level	Institutional Sector	Actor	Interviewed personality
National	Public	Ministry of Environment	Eng José Sócrates (Minister)
		Waste Institute	Eng Dulce Pássaro (President)
		Water and Waste Regulation Institute	Eng António Teixeira Cardoso (President)
	Private NGOs	National Environmental Sector Business Association	Eng Marcos Levi Ramalho (President)
		Quercus NGO	Eng Rui Berkmeier (Board of Directors)
		GEOTA	Eng Marlene Marques (Board of Directors; actual Director in Loures Municipal Department)
		Environmental Engineering College	Eng Arménio Figueiredo (Board of Directors)
		Environmental Engineers Association	Eng João Pedro Rodrigues (Board of Directors)
		National Council for Environment and Sustainable Development	Dr. Aristides Leitão (Executive Secretary)
		Lisbon Metropolitan Area	Dr. Rui Carreteiro (Presidency assistant)
		AMTRES	Dr. Herculano Pombo (President)
		AMARSUL	Eng Emídio Xavier (President; actual Barreiro Municipality President)
		Local	Public
Lisbon Municipality	Eng Ângelo Mesquita (Departmental Director)		
Oeiras Municipality	Dr. José Eduardo Costa (Departmental Director)		
IPODEC	Carlos Raimundo (Board of Directors)		
TRIU	Eng Carlos Artur Rato Albino (Managing Partner)		

2. Profile of the region

a. Reasons for the selection of the region as a case study

The case study for the Environmental Policy analysis has the Lisbon Metropolitan Area (LMA) as its scope. From two existing Metropolitan Areas in Portugal (Lisbon and Oporto), this one is the most important and one of the more significant in the Iberic Peninsula, similar to Barcelona Metropolitan Area. It is the most populated area in the country, with 2.682.676 inhabitants (more than a quarter of the total population) and the most important from the politic, economic and administrative point of view. It is also strongly representative in environmental terms, due to its special geographical location around the biggest Estuary of European Continent, the Tagus Estuary.

Regarding our case study - Waste Management - all the municipalities of LMA are considered, except the Azambuja Municipality (a rural one) because it belongs to a separate waste management system out of this area.

In terms of waste production, LMA represents 20% of the country's total (1.335.000 tons in 2001), although it represents only 3,39% of the total mainland area. The waste production per capita in 2001 was 1.400g / inhabitant / day, but there are substantial differences in this indicator inside urban areas and between those and rural areas⁴.

The LMA was a pioneer region in Portugal to implement Integrated Waste Management systems (in technical, institutional, socio-economic and environmental terms), as well as separate collection (paper/card, package, plastic, ferrous and non ferrous materials, aluminium, wood and glass) and valorisation systems (multi-materials, energetic, organic matter and composting).

In terms of quality considerations, this area can be considered as a very good example of evolution of a region from the economic secondary to tertiary stage of development. It may be also referred that several municipalities of this area, including the city of Lisbon, are trying to implement good practices of sustainable development and Local Agenda 21, where the topic of Waste Management has an important role.

In institutional terms, we can find in this area a wide range of configurations: direct management by the municipality (Almada, Alcochete and Montijo); delegated management by association of municipalities to public-private partnership (AMTRES); delegated management by association of municipalities to public companies (Setúbal Association of Municipalities); concession to public companies (North LMA and Setúbal District); and concession to private companies (Setúbal Municipality).

It is also in the LMA that we can find the most variety of technological solutions applied to waste management systems: energetic valorization (dedicated incineration), organic valorization, anaerobic digestion, composting, material sorting facilities, multi-material valorization, multi-functional landfilling facilities (household waste + non-dangerous industrial waste + incineration bottom ashes valorization).

Finally, in the LMA during the last decade, there was a very strong application of EU Funds (both cohesion and structural funds).

b. Local characteristics through history

The Lisbon Metropolitan Area is composed by 19 municipalities, which are the joining of two NUT III Regions (“Greater Lisbon” and “Setúbal Peninsula”) and Mafra and Azambuja Municipalities (belonging to “West” and “Lezíria do Tejo” NUT III Regions correspondingly). Its area represents 3,39% of the country's area, and it accounts for 25,65% of the total Portuguese population.

⁴ Environmental Institute, Report on the State of Environment, 2002

Main indicators on area, population and waste management

	LMA	Portugal
Area (Km ²)	3.128,0 (3,39%)	92.141,5
Resident Population	2.559.510** (25,65%**)	10.318.084*
Coverage ratios		
Water supply	99%	90%
Waste water drainage	90%	70%
Waste water treatment	60%	50%
Waste management	100%	98,1%

* 2001 estimates; ** 1998; Sources: Centro Nacional de Informação Geográfica, Instituto Nacional de Estatística; Relatório do Estado do Ambiente em Portugal, Instituto do Ambiente, 2002

The LMA has been one of the most important areas for social, economical and administrative development in Portugal, but has two clear complementary realities: a Central Metropolitan Area focused in the City of Lisbon and a Peripheral Metropolitan Area, characterized by a disorganized dissemination either of the suburban population or the productive activities and soil occupation.

Central Metropolitan Area concentrates the main and major potentialities for development and implementation of high quality life standards, but at the same time some of the most serious problems that the LMA faces.

As a matter of fact it is in the City of Lisbon, a big town that is the political and administrative capital of Portugal, that important strategic resources for development, high levels of economic activity and international relationships and highest patterns of consumption are concentrated. However it is also in the City of Lisbon that one can find critical situations of environmental degradation, unsustainable patterns of soil occupation and serious problems of social exclusion⁵.

The Peripheral Metropolitan Area, developed around the City of Lisbon and in the Setúbal Peninsula (South of the River Tagus) suffers the enlargement of the sub urbanisation, the effect of intensive pendulum traffic (between work at the city and home in the suburban areas), the concentration of many activities that have been expelled from the Centre and the increasing demand for the building of secondary residences. Moreover, its proximity to an important centre of consumption and economic activities carries some advantages, such as the development of intensive agriculture and animal farming, civil architecture and storage and logistic sectors⁶.

In terms of environment, the infrastructures of water supply, wastewater management (drainage and treatment) and the collection, transport, treatment, recycling and valorisation of residual urban waste play a very important role in the regional and municipal policies, since they are crucial sectors to implement a better quality of life in all the Metropolitan Area.

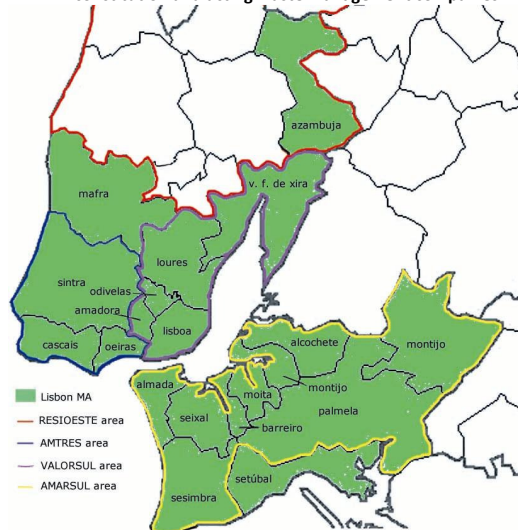
c. Political climate and how it has evolved in the region

In terms of Environment politics there was a significant evolution during the nineties, mainly in the second part of that decade. This evolution concerned not only important sectorial developments, namely in water, wastewater and waste management, but also in the attempts to execute a vertical and horizontal integration between environmental approaches, rules or recommendations and the others spheres of government at local, regional and national levels, with special relevance in the Lisbon City and the corresponding Metropolitan Area.

The impact of environmental policy on the national and local scientific community was very huge in terms of acquisition of knowledge and learning. This fact had a positive effect on the political climate concerning environmental issues, including its impacts on territorial planning⁷. A major consequence was the increase and the enlargement of partnership among public institutions and the entrepreneurial private sector⁸. In the case of the Metropolitan Area of Lisbon all the largest enterprises

collaborated with the Ministry of Environment, namely in the following sectors: cellulose, pulp paper, energy and chemical industry. The collaboration between the Ministry of Environment and the Municipality of the Lisbon City was also well developed, namely within the scope of the Strategic Urban Solid Waste Plan (PERSU)⁹.

LMA constitution and acting waste management companies



Accordingly, the interest and sensibility of the civil society for environmental problems evolved very much. The strong participation of the NGO in the discussion of several important projects and programs, and in the implementation of the local, regional and national policies was an important contribution for the enlargement of the public awareness and consequently for the implementation of the civil society participation. However it must be stressed that NGO's participation was sometimes more reactive than pro-active, as it was the case for the construction of waste embankments and of waste incinerators¹⁰.

d. Patterns of interest intermediation/representation in the region

The Portuguese environmental legislation approved in 1987 forces all activities to have the approval of the Ministry of Environment. In 1997, a national Law on waste management was approved, establishing the rules to be respected all over the country. Accordingly, the elaboration and the execution of the National Waste Management plan, as well as waste sectorial plans, as it is the case for the Urban Waste Management plan, are under the responsibility of the Ministry of Environment and more specifically under the responsibility of the Waste Institute¹¹.

Concerning Urban Waste Management, the Law establishes that Municipalities or Associations of Municipalities are the entities responsible for the final disposal of waste¹².

The implementation of the environmental politics in Portugal and the Lisbon Metropolitan Area, namely in the water, wastewater and waste management was built based on Multi-municipal Systems that attend on several Municipalities. This format was also applied to the Lisbon Area with a satisfactory success, till now.

This Multi-municipal Systems assure the representation of several actors¹³, as well as the intermediation of the interests represented by them, in the definition and execution of the main topics concerning the management strategies assigned to them, namely Central Government, Municipalities and sometimes other public or private companies. This is the case for Valorsul, a urban waste management company for Lisbon City and three Municipalities

⁵ Comissão de Coordenação da Região de Lisboa e Vale do Tejo (2000), *Plano Estratégico de Lisboa, Oeste e Vale do Tejo – 2000-2010, O Horizonte de Excelência*.

⁶ Comissão de Coordenação da Região de Lisboa e Vale do Tejo (2000), *idem*

⁷ Frade, Catarina (1999), *A Componente Ambiental no Ordenamento do Território*, Conselho Económico e Social, Série “Estudos e Documentos”, Lisbon

⁸ Ministério do Ambiente, Instituto dos Resíduos (1999), *Plano Estratégico de Gestão dos Resíduos Sólidos Urbanos*

⁹ Pássaro, Dulce (2002), Report: Waste Management in Portugal between 1996 and 2002, in *Waste Management*, Elsevier Science Ltd.

¹⁰ from the interview with ex-Minister of Environment, Eng. José Sócrates.

¹¹ Decree 236/97 (September, 3rd)

¹² Decree 239/97 (September, 9)

¹³ Decree 372/93 (October, 29)

situated on the north of Lisbon, that has the EDP – Electricity Company of Portugal as one of its shareholders.

This kind of co-habitation is an original model for Portugal and it is playing till now a good role in the evolution of the forms for the implementation of waste management in order to perform sustainable environmental areas.

The implementation of environmental policy developed entrepreneurial awareness for opportunities of business in that field. Consequently some companies dedicated to waste management appear, such as Ponto Verde (package waste recycling), KOCH, IPODEC and TRIU. (local integrated waste management). Moreover, entrepreneurial associations based at national, regional or sub-regional areas improved their participation in environmental activities in order to take benefits from investments, mainly for the construction of environmental infra-structures. The activities of all these kind of firms are submitted to the control of the Ministry of Environment, through its appropriate organic structures¹⁴.

The lack of civil participation implies that civil interest is not very well represented in the AML, except by the Municipalities since they are elected by citizens. Nevertheless we can mention some the local activities undertaken by two NGO, namely Quercus and GEOTA, though these NGOs have a nationwide vocation.

e. Major development problems

The major development problems in the LMA were identified in relevant bibliography, experts opinions, as well as in the interviews conducted, and can be summarized as follows:

Demographic Problems

There is an increase of ageing population and high levels of immigration. The absence of a proper integration policy for immigrants leads to ethnic ghettos, characterized by a huge cultural heterogeneity.

Social and Economic Problems

LMA concentrates the richest population, which increases the perception of social exclusion and marginality. In LMA, there are also strong socio-economic disparities between the upper and the lower classes. Many ageing people face poverty problems, but poverty is also related to low professional qualifications. Delinquency and criminality are increasing and are essentially related to drug addiction.

Infrastructures¹⁵

Related with poverty and social exclusion, there are some highly degraded housing problems, as well as the proliferation of slums in suburban areas, mainly in the left margin of Tagus river. In the city of Lisbon, during the nineties, there was a very successful policy in order to eradicate slums.

In the peripheral region of Lisbon, urban planning is not yet efficient, because of high speculation on soil and pressing lobbying on municipalities, whose budget depends on building taxes.

Disarticulation and inefficiency of the transport system networks is another major problem in the area, considering the needs imposed by urban growth increases. As a matter of fact, the territorial expansion due to urban growth contributes to the intensification of daily traffic in a circle of 45Kms around Lisbon's centre.

In terms of equipment, there is still a major lack for the ageing population and the public health system is not able to answer the needs, in spite of the fact that LMA is one of the Portuguese regions with better attendance levels in medical care.

Environmental and territorial problems

One of the major problems in this field lays on a historical process which conducted to unrulid urbanization and to the improper use of soil in social and spatial terms.

A new problem emerged, related to this, namely the desertification and degradation of historical urban centers, as well as the increasing process of sub-urbanization.

As to waste management issues, and in spite of real improvements, the efficiency of the process has difficulties due to the lack of environmental education and the existence of several different solutions used by the municipal waste management systems.

As a matter of fact, there are municipalities with different deposits for glass, metal and paper waste (municipalities of Amarsul and Valorsul); others collect door-to-door and distribute specific bags for packaging or paper to their residents (Oeiras); others simply collect selectively glass (Lisbon). In terms of treatment solutions, there are also different situations, ranging from separation, transferring and land-filling facilities. It would be more efficient to have a uniform system, because it would be more efficient for population's sensibilization and on the articulation and partnerships between private and public sectors.

Besides this diversification on collection and treatment of waste, the various municipal and multi-municipal systems face huge costs on transferring substantial parts of waste that cannot be recycled in the country. Another weakness is the kind of deposits and the transport equipment chosen for selective collecting¹⁶.

But a greater problem is underway. The previous government intended to install two new co-incinerating centrals, one in Setúbal, but the present government stopped the process and asked once again for environmental impact studies before any decision. Meanwhile, some of the land-filling facilities in LMA, such as Trajouce, managed by Amtres (who integrate Sintra, Cascais, Oeiras and Mafra municipalities) and another, managed by Amarsul, were closed because they were full.

f. major institutional actors of the region and their role

National Level

The Ministry of Environment, with the collaboration of the Environmental Directorate-General, designs the global policy for the country and according to the strategy planned, delegate responsibilities to the Waste Institute and Water and Waste Regulation Institute. The Waste Institute is responsible for implementing the national policy and formulating sectorial plans for waste management, whereas the Water and Waste Regulation Institute has at its charge the regulation and monitoring of the waste management systems.

In collaboration with the Waste Institute¹⁷, the Environmental Inspection controls waste management operations. As for citizens and NGO's participation, general information programs and integration of environmental issues in the education system, the Environmental Promotion Institute is the most relevant actor.

The private sector is represented at the national level by AIP – Portuguese Industrial Association, which has great influence and lobbying power, but as far as the environmental sector is concerned, the National Environmental Sector Business Association is the representative of the common interests of companies operating in that field.

Moreover, there is a relevant actor – Sociedade Ponto Verde (Green Dot System)¹⁸ – which manages the whole life cycle of packaging materials, and is shared by all companies involved in that process (from paper producers to sellers, etc.).

In terms of Civil Society, public opinion is usually led by Quercus, a nationwide environmental NGO with high visibility and widely respected. They are usually who exposes critical situations and launch the debate on important environmental issues, promoting the debate and producing technical documents to support their positions. The national Council for Environment and Sustainable Development is an independent institution which produces evaluations and proposals on transversal environmental issues and is usually consulted by policy decision-makers.

Finally, Universities play an important role in contributing to technical research and development in the environmental area, with special reference to the Environmental Department of the «Lisbon New University».

¹⁴ Levy, J., Teles, M., Madeira, L. and Pinela (2002), *O Mercado dos Resíduos em Portugal*, AEPSA.

¹⁵ Comissão de Coordenação da Região de Lisboa e Vale do Tejo (2000), *idem*

¹⁶ Decree 142/96 (August, 23) and Decree 236/97 (September, 3rd)

¹⁷ Levy, Teles and Pinela (2002), *idem*

¹⁸ Levy, Teles and Pinela (2002), *idem*

Major actors involved in Environmental Policy and Waste Management in LMA

Regional Level	Institutional Sector	Actor	Role
National	Public	Ministry of Environment	definition of national environment policy (in collaboration with the Environment Directorate)
		Waste Institute	regulating, planning, licensing and monitoring at the national level, as well as coordinating the management operations; collaborates in the inspection and controlling with the Environment Inspection, and promotes R&D at the national level
		Environmental Inspection	inspecting and controlling operations at the national level, with the collaboration of the Waste Institute
		Water and Waste Regulation Institute	regulating, inspecting and controlling the municipal/multimunicipal waste management systems
		Environmental Promotion Institute	executing the policies on citizens participation, information and teaching, as well as cooperating with NGOs
		Environmental Directorate-General	coordination of policy at the national level; collaborates in defining the policy
	Private	National Environmental Sector Business Association	Association of private companies and local associations in the environmental area; defends their associates interests
		Sociedade Ponto Verde	manages the life cycle of recyclable packaging materials
		AIP. Portuguese Industrial Association	Global association of private companies; defends its interests (with an important lobbying power)
	NGOs	Quercus NGO	Environmental NGO, which has a waste management studies group. Promotes debate and produces reports on the subject
		LPN. Nature Protection Association	Environmental NGO, dedicated to the preservation of Nature
		GEOTA	Environmental NGO, with emphasis on land-use issues
		Environmental Engineering College	Contributes to regulating the environmental engineers activity and scope of responsibility
		Environmental Engineers Association	Represents the environmental engineer's professional class, defends their interests
		Portuguese Association for Basic Sanitation Studies	
		National Council for Environment and Sustainable Development	Independent council which produces evaluations and proposals on transversal environmental issues
		Environmental Department – University of Lisbon	Research & Development activities in environmental areas
		CGTP	Union, defends the workers rights and interests
		UGT	
		Regional	Public
Setúbal Municipalities Association	Coordinate common interests of municipalities in the region		
Lisbon Metropolitan Area	Coordinate transversal issues to the metropolitan area		
AMTRES	Waste management systems; run by public management		
Private	RESIOESTE		
	VALORSUL		
	AMARSUL		
	AERLIS - Lisbon Business Association		Associations of private companies; defends their associates interests
	AERSET		
NGOs	Quercus Lisbon Section		As Quercus, but focusing on Lisbon area problems
Local	Public	Almada Municipality	Management of local public interests
		Barreiro Municipality	
		Lisboa Municipality	
		Loures Municipality	
		Oeiras Municipality	
		Setúbal Municipality	
	Privado	KOCH	Local waste management company
		IPODEC	
		TRIU	

Regional Level

In the public sector, the major institution is the Environmental Regional Directorate (for Lisbon and Tagus Valley), which coordinates the environmental policy in its area of influence, and is responsible for planning, licensing, monitoring and inspecting management operations. The promotion of research and development activities in the region is also at its charge.

Lisbon Metropolitan Area¹⁹ (with the same name as the region itself) is formed by all its Municipalities, and is formally responsible for coordinating transversal issues to the

metropolitan area, but it has become more the arena for local interest battles and therefore lost real power of influencing policy making.

The multi-municipal systems, namely Valorsul²⁰, Amtres and Amarsul, have an influent role in implementing strategies. The three systems are quite different, but all share the core activity of collecting and treating waste, as well as establishing partnerships with private actors. These systems represent a way of articulating central administration's interests with municipalities' ones and, in some cases, with private's ones. Among NGOs, the regional structure of Quercus is very dynamic and its analyses and reports are well covered by

¹⁹ Law 44/91 (August, 2nd)

²⁰ Decree 297/94 (November, 21)

general media and public opinion, and not rarely taken into account by policy decision-makers.

Local Level

As there are no formal regional administration institutions, Municipalities tend to have a great share of influence in decision making, since they are ultimately responsible for waste management. As referred before, the solution most widely adopted was the long-term concession of the waste management process to multi-municipal systems that operate in the region.

At the private level, besides share holding in multi-municipal systems, some all-private companies operate in the waste management sector, either in specific areas like public space cleansing or in an integrated manner, from collecting to final disposal of urban waste.

3. The European context

The Portuguese environmental policy was born with the adhesion to the European Community and more specifically with the Cohesion Fund and CSF II.

As a matter of fact, unlike CSF I, the CSF II elected environment as a new area of intervention. However as the Environmental Policy is an horizontal one and CSF II continued to favor the sectorial perspective of development, funds dedicated to environment represented only 1.3% of the total CSF II.

The environmental intervention of CSF II followed the Strategic Options Plan defined by the Portuguese Government for 1994-99 and it was integrated into one of the two major objectives pursued by CSF II, namely to promote social and economic cohesion in Portugal. In terms of implementation, environmental interventions of CSF II were mainly undertaken by two central areas of action : (1) promotion of quality of life and social cohesion; (2) support of regional development.

Concerning the promotion of quality of life, an integrated intervention for environment and urban re-qualification was established. In the specific field related to improvement of environmental quality the intervention was concentrated on sewerage and water systems, although there has been some interventions on remedying environmental damage due to productive activities and on the preservation and the valorization of the natural heritage, especially in protected areas and the coast line²¹.

Corresponding to the five Regional Coordination Commissions (RCC), five Operational Programs were established for the development of the five mainland plan Regions. These Programs were integrated in the CSF II interventions to support regional development, and included environmental actions namely to pursue the following objectives:

- To promote the settlement of population in the less developed regions in order to avoid rural desertification and to reduce the concentration of population in the Metropolitan Areas of Oporto and Lisbon;
- To improve the quality of life of the population, specially in the environmental field.

However, it must be stressed that specific environmental investments financed by these Operational Programs were not huge since they were oriented to support small local infra-structures.

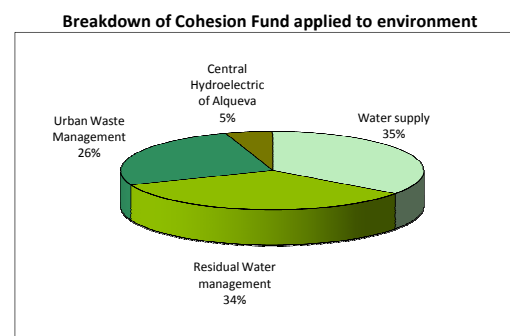
Concerning EU Initiatives with some impact on environment we can refer INTERREG II, LEADER II, URBAN and KONVER. INTERREG II has been broken down into three action vectors, namely INTERREG II-A for co-operation between Portuguese and Spanish border regions, INTERREG II-B to finalize the natural gas distribution system and its connection to the Spanish gas system, INTERREG II-C for the border regions co-operation with regard to regional planning, including flooding prevention and fight against drought. LEADER II supported interventions to manage rural development. URBAN supported the re-qualification of residential quarters in the Metropolitan Areas of Oporto and

Lisbon. KONVER supports the recuperation of some military infra-structures in order to fit civil purposes, namely in Oeiras, a municipality in the Lisbon Metropolitan Area.

The management of the CSF is the responsibility of the CSF Management Commission²², formed by representatives of national institutions responsible for each Community Fund and presided by the national interlocutor of the FEDER. The monitoring of the CSF is at charge of a CSF Monitoring Commission, integrating representatives of regional and sectorial institutions which are technically responsible for designing and implementing the execution of public policies, as well as representatives of economical and social partners, appointed by the Social and Economical Council, and representatives of the European Commission. The Sectorial Operational Interventions are the responsibility of Management Units.

As far as Lisbon Metropolitan Area is concerned, the relevant institutional structure responsible for Fund management and implementation is the Regional Coordination Commission for Lisbon and Tagus Valley, which LMA is only part of.

However the most important and efficient EU Fund for environmental developments was the Cohesion Fund as 50 % of the total fund, 1.495 million Euros, was dedicated to support environment. The breakdown of environmental investments is presented in the chart below.



Source: www.dgdr.pt - Regional Development Directorate-General website

In order to accomplish EU environmental requirements, Portugal undertook important changes in terms of legislation, institutional structure and planning. In the field of legislation the starting point was the 1987 Environmental Law that stated a wide range of environmental issues and created the National Institute for Environment. Since then and step by step all the environmental CEE Directives were transposed to the Portuguese national law. At the end of the nineties this task was finished.

In 1990 the Ministry of Environment was created. The institutional structure of this Ministry comprises bodies with responsibilities at national level and bodies with responsibilities at the regional level. Competent bodies at national level are: (1) the Environmental Directorate, responsible for coordinating the policy at national level; (2) Environmental Inspection; (3) Waste Institute; (4) Water and Waste Regulation Institute; (4) Environmental Promotion Institute. Regional Environmental Directorates are the bodies responsible for coordinating the policy at regional level, namely the plan regions corresponding to the five mainland Regional Coordination Commissions. Regional Environmental Directorates are also responsible for regulating, planning, monitoring, inspecting and controlling all the interventions at regional level, as well as to promote regional R&D activities.

Environmental policy planning began with the adoption of National Plan for Environmental Policy, in 1995. The general Law on waste management, that was approved in September 1997²³, stated the urgent need to implement a National Plan

²¹ Ministério do Planeamento (1999), Plano de Desenvolvimento Regional, 2000-2006

²² accordingly to European Council art. 17, d) of the CE Regulation n.º1260/1999

²³ Decree 239/97 (September, 9)

for Waste Management as well as four sectorial plans dedicated to urban/municipal waste, hospital waste, industrial waste and agricultural waste. In November 1997, the Government approved the Strategic Sectorial Plan for the management of Solid Urban Waste (PERSU). This Plan was based on the EU strategy concerning waste management as it was stated by the Council Resolution of 7 May 1990 (JO C122/2, 18 May 90) and by the Parliament Resolution of 19 February 1991 (JO C72/34, 18 March 91)²⁴. In order to analyze correctly the Portuguese real situation of waste final disposal, a country wide survey took place.

The implementation of PERSU fit with the need to coordinate, to rationalize and to increase the effectiveness of the municipal waste management systems, as well as to help Municipalities in order to make use of EU Funds on a more efficient and effective way. As a matter of fact, Municipalities are responsible for urban waste management, namely for collection, transport and final disposal of waste. However if Municipalities were able to accomplish waste collection, the main problem of inadequate systems for the disposal remains.

The Waste Institute, in collaboration with the Regional Environmental Directorates and the National Association of Municipalities plays an important part in fulfilling the objectives of PERSU²⁵. Consequently Municipalities created joint waste management systems. Additionally, the Ministry of Environment implemented the creation of enterprises dedicated to urban waste management whose assets were mainly public.

Lisbon Metropolitan Area was a pioneer region concerning the implementation of integrated waste management systems from the collection to the valorization phases. It may also be said that several municipalities in the Lisbon Metropolitan Area²⁶, including the city of Lisbon, are engaged in implementing good practices of sustainable development and Local Agenda 21. In institutional terms, municipalities of this metropolitan area created different kinds of waste management systems. Multi-municipal systems are the most widely adopted. Each of these systems is used by several Municipalities in an integrated way and their implementation has been supported by EU Funds and by national public funds whose management was in charge of the Empresa Geral de Fomento (a public company dedicated to finance public investments). At present, these systems are managed by private enterprises whose assets are mainly public and whose bodies depend on Municipalities.

4. The domestic context

a. Social Network Analysis Matrices

Two matrices were produced: valued matrix, where the connections between actors are valued from 0 (no relationship) to 3 (very strong relationship); and an adjacency matrix, where this same data is dichotomized, meaning that connections between actors are regarded only as existent (1) or inexistent (0). We should point out that, although neither matrices were in its origin symmetrical - a given relation between two actors was valued differently by each one of them - the responses were assessed in order to transform the original matrices into symmetric ones. Therefore, in subsequent analysis, symmetric criterion was applied.

In a first look at the matrices, we find that the national level actors are the only ones that have widespread relationships with all the other actors, whereas the regional and most of all, the local actors have reduced incidence of connections with other actors.

Valued Matrix

		1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	
		M	E	W	W	Q	U	G	E	E	E	E	E	E	A	M	A	M
1	ME	0	3	2	2	2	3	2	2	2	2	2	2	1	1	2	1	0
2	WI	3	0	2	2	2	2	1	2	1	2	2	2	2	2	2	2	1
3	WWRI	2	2	0	1	1	1	0	0	0	1	2	1	0	0	0	0	0
4	NESBA	2	2	1	0	1	2	1	1	1	2	1	1	1	1	1	1	1
5	QUERCUS	2	2	1	0	3	0	2	1	3	2	1	1	2	3	0	0	0
6	GEOTA	3	2	1	2	3	0	1	2	1	1	1	1	1	1	1	1	1
7	EEC	2	1	0	1	0	1	0	2	0	1	0	0	1	0	0	0	0
8	EEA	2	2	0	1	2	2	2	0	0	2	1	1	1	0	0	0	0
9	AML	2	1	0	1	1	1	0	0	0	0	0	1	1	2	3	0	0
10	AMTRES	2	2	1	2	3	1	1	2	0	0	2	0	0	0	3	2	1
11	AMARSUL	2	2	2	1	2	1	0	1	1	2	0	3	1	0	2	1	0
12	ALMADA	1	2	1	1	1	0	1	1	0	3	0	0	0	0	1	0	0
13	LISBON	1	2	0	1	1	1	1	1	2	0	1	0	0	1	0	1	1
14	OEIRAS	2	2	0	1	2	1	0	0	3	3	0	0	1	0	1	0	1
15	IPODEC	1	2	0	1	3	1	0	0	2	2	1	1	1	0	1	0	1
16	TRIU	0	1	0	1	0	1	0	0	0	1	1	0	0	0	1	0	1

Adjacency Matrix

		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	
		M	E	W	W	Q	U	G	E	E	E	E	E	E	A	M	A	M
1	ME	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	WI	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	WWRI	1	1	0	1	1	1	0	0	0	1	1	1	0	0	0	0	0
4	NESBA	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	QUERCUS	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1
6	GEOTA	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1
7	EEC	1	1	0	1	0	1	0	1	0	1	0	0	1	0	0	0	0
8	EEA	1	1	0	1	1	1	0	0	1	1	1	1	1	0	0	0	0
9	AML	1	1	0	1	1	1	0	0	0	1	1	1	1	0	0	0	0
10	AMTRES	1	1	1	1	1	1	1	0	0	1	0	0	1	1	1	1	1
11	AMARSUL	1	1	1	1	1	0	1	1	1	0	1	1	0	1	0	1	1
12	ALMADA	1	1	1	1	1	0	1	1	0	1	0	0	0	0	1	0	0
13	LISBON	1	1	0	1	1	1	1	1	1	0	0	0	0	1	0	1	1
14	OEIRAS	1	1	0	1	1	0	0	1	1	0	1	0	0	1	0	1	0
15	IPODEC	1	1	0	1	1	1	0	0	0	1	1	1	1	0	1	0	1
16	TRIU	0	1	0	1	0	1	0	0	0	1	1	0	0	0	1	0	1

Network Density

Valued Matrix

In this case, the analysis resulted in a network density of 1.15, and a Standard Deviations within blocks of 0.88.

BLOCK DENSITIES

		1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	
		M	E	W	W	Q	U	G	E	E	E	E	E	E	A	M	A	M
1	ME	3	3	2	2	2	3	2	2	2	2	2	1	1	2	1	3	3
2	WI	3	3	2	2	2	2	1	2	1	2	2	2	2	2	2	2	1
3	WWRI	3	2	2	1	1	1	1	1	1	1	2	1	1	1	1	1	3
4	NESBA	3	2	2	1	1	2	1	1	1	2	1	1	1	1	1	1	3
5	QUERCUS	3	2	2	1	1	3	2	1	3	2	1	1	2	3	3	3	3
6	GEOTA	3	3	2	1	2	3	1	2	1	1	1	1	1	1	1	1	3
7	EEC	3	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	3
8	EEA	3	2	2	1	2	2	2	2	1	1	1	1	1	1	1	1	3
9	AML	3	2	1	1	1	1	1	1	1	1	2	3	3	3	3	3	3
10	AMTRES	3	2	2	1	2	3	1	1	2	2	2	3	2	1	3	2	3
11	AMARSUL	3	2	2	1	2	1	1	1	2	1	3	1	2	1	3	2	3
12	ALMADA	3	1	2	1	1	1	1	1	1	3	1	1	1	1	1	1	3
13	LISBON	3	1	2	1	1	1	1	1	2	1	1	1	1	1	1	1	3
14	OEIRAS	3	2	2	1	2	1	1	3	3	1	1	1	1	1	1	1	3
15	IPODEC	3	1	2	1	3	1	1	1	1	2	2	1	1	1	1	1	3
16	TRIU	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3

Density (average value within blocks): 1.15
Standard Deviations within blocks: 0.88

Adjacency Matrix

In this case, the network can be considered as having a relatively high density, with a 0.74 value, and a Standard Deviations within blocks of 0.44. One can find less density within local actors, whereas higher density levels are usually associated with national ones.

²⁴ Plano Estratégico Sectorial de Gestão dos Resíduos Sólidos Urbanos, Ministério do Ambiente, Instituto dos Resíduos, 1999

²⁵ Decree 239/97 (September, 9)

²⁶ Comissão de Coordenação da Região de Lisboa e Vale do Tejo (2000), *idem*

BLOCK DENSITIES

										1	1	1	1	1	1	1	1	1	1	1							
										1	2	3	4	5	6												
										ME	WI	WWRI	NESBA	QUERCUS	GEOTA	EEC	EEA	AML	AMTRES	AMARSUL	ALMADA	LISBON	OEIRAS	IPODEC	TRIU		
1	ME	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
2	WI	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
3	WWRI	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4	NESBA	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
5	QUERCUS	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
6	GEOTA	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
7	EEC	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
8	EEA	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
9	AML	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
10	AMTRES	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
11	AMARSUL	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
12	ALMADA	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
13	LISBON	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
14	OEIRAS	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
15	IPODEC	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
16	TRIU	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3

Density (average value within blocks): 0.74
Standard Deviations within blocks: 0.44

Centrality

Freeman's degree centrality method was used, assuming diagonal connections as not valid (references by an actor to itself are ignored). The adjacency matrix identifies more properly actors with more connections (independently of its strength), whereas the valued matrix takes the strength of ties into account for the centrality degree of actors (the more relations are strong, the more central the actor is).

By analyzing the adjacency matrix, we have a 29,52% centrality, which represents a moderately de-centralized network. But if we analyze the value matrix, we have a 81,90% value, which means that the most intense connections are located amongst central actors.

If we have a closer look at actors' individual centrality measures, we find that in general terms, the most central ones are the Ministry of Environment (ME) and the Waste Institute (WI), followed by QUERCUS, as far as the Valued Matrix is considered. If we consider the Adjacency Matrix, we find that the Waste Institute (WI), the National Environmental Sector Business Association (NESBA) and GEOTA are the most central ones, although this only means that they have more relationships, despite its degree.

In both cases, the less central actors are the TRIU company, the Water and Waste Regulation Institute (WWRI) and the Environmental Engineering College (EEC).

Adjacency Matrix

FREEMAN'S DEGREE CENTRALITY MEASURES

Diagonal valid? NO
Model: ASYMMETRIC

Centrality degree

		1	2
		Degree	NrmDegree
1	ME	14.00	93.33
2	WI	15.00	100.00
3	WWRI	8.00	53.33
4	NESBA	15.00	100.00
5	QUERCUS	13.00	86.67
6	GEOTA	15.00	100.00
7	EEC	7.00	46.67
8	EEA	10.00	66.67
9	AML	9.00	60.00
10	AMTRES	12.00	80.00
11	AMARSUL	13.00	86.67
12	ALMADA	10.00	66.67
13	LISBON	11.00	73.33
14	OEIRAS	9.00	60.00
15	IPODEC	11.00	73.33
16	TRIU	6.00	40.00

DESCRIPTIVE STATISTICS

		1	2
		Degree	NrmDegree
1	Mean	11.13	74.17
2	Std Dev	2.80	18.69
3	Sum	178.00	1186.67
4	Variance	7.86	349.31
5	Euc Norm	45.89	305.94
6	Minimum	6.00	40.00
7	Maximum	15.00	100.00

Network Centralization = 29.52%

Valued Matrix

FREEMAN'S DEGREE CENTRALITY MEASURES

Diagonal valid? NO
Model: ASYMMETRIC

Centrality degree

		1	2
		Degree	NrmDegree
1	ME	27.00	180.00
2	WI	28.00	186.67
3	WWRI	11.00	73.33
4	NESBA	19.00	126.67
5	QUERCUS	24.00	160.00
6	GEOTA	22.00	146.67
7	EEC	9.00	60.00
8	EEA	16.00	106.67
9	AML	13.00	86.67
10	AMTRES	22.00	146.67
11	AMARSUL	21.00	140.00
12	ALMADA	13.00	86.67
13	LISBON	13.00	86.67
14	OEIRAS	16.00	106.67
15	IPODEC	16.00	106.67
16	TRIU	6.00	40.00

DESCRIPTIVE STATISTICS

		1	2
		Degree	NrmDegree
1	Mean	17.25	115.00
2	Std Dev	6.18	41.20
3	Sum	276.00	1840.00
4	Variance	38.19	1697.22
5	Euc Norm	73.29	488.63
6	Minimum	6.00	40.00
7	Maximum	28.00	186.67

Network Centralization = 81.90%

Structural Equivalence

The Concor algorithm (Convergence of iterated correlations) was used, assuming diagonal values of reciprocal (value 1, from 0 to 1), and a maximum partition value of 2. The results are as follows:

Adjacency Matrix

CONCOR

Diagonal: Reciprocal
Max partitions: 2

Initial Correlation Matrix

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		ME	WI	WWRI	NESBAQUERCU	GEOTA	EEC	EEA	AML	AMTRES	AMARSUL	ALMADA	LISBON	OEIRAS	IPODEC	TRIU	
1	ME	1.00	0.68	0.38	0.68	0.79	0.68	0.33	0.49	0.43	0.22	0.30	0.49	0.56	0.43	0.15	0.29
2	WI	0.68	1.00	0.26	1.00	0.54	1.00	0.23	0.33	0.29	0.45	0.54	0.33	0.38	0.29	0.38	0.20
3	WWRI	0.38	0.26	1.00	0.26	0.48	0.26	0.38	0.77	0.63	0.29	0.48	0.52	0.13	0.38	0.67	0.52
4	NESBA	0.68	1.00	0.26	1.00	0.54	1.00	0.23	0.33	0.29	0.45	0.54	0.33	0.38	0.29	0.38	0.20
5	QUERCUS	0.79	0.54	0.48	0.54	1.00	0.54	0.42	0.29	0.54	0.09	0.59	0.62	0.37	0.54	0.37	0.37
6	GEOTA	0.68	1.00	0.26	1.00	0.54	1.00	0.23	0.33	0.29	0.45	0.54	0.33	0.38	0.29	0.38	0.20
7	EEC	0.33	0.23	0.38	0.23	0.42	0.23	1.00	0.68	0.27	0.22	0.42	0.16	0.32	0.52	0.32	0.36
8	EEA	0.49	0.33	0.77	0.33	0.29	0.33	0.68	1.00	0.62	0.15	0.29	0.20	0.31	0.36	0.59	0.33
9	AML	0.43	0.29	0.63	0.29	0.54	0.29	0.27	0.62	1.00	0.07	0.22	0.36	0.49	0.49	0.76	0.16
10	AMTRES	0.22	0.45	0.29	0.45	0.09	0.45	0.22	0.15	0.07	1.00	0.09	0.45	0.54	0.07	0.23	0.45
11	AMARSUL	0.30	0.54	0.48	0.54	0.59	0.54	0.42	0.29	0.22	0.09	1.00	0.62	0.02	0.54	0.37	0.37
12	ALMADA	0.49	0.33	0.52	0.33	0.62	0.33	0.16	0.20	0.36	0.45	0.62	1.00	0.59	0.36	0.03	0.33
13	LISBON	0.56	0.38	0.13	0.38	0.37	0.38	0.32	0.31	0.49	0.54	0.02	0.59	1.00	0.49	0.13	0.24
14	OEIRAS	0.43	0.29	0.38	0.29	0.54	0.29	0.52	0.36	0.49	0.07	0.54	0.36	0.49	1.00	0.49	0.42
15	IPODEC	0.15	0.38	0.67	0.38	0.37	0.38	0.32	0.59	0.76	0.23	0.37	0.03	0.13	0.49	1.00	0.52
16	TRIU	0.29	0.20	0.52	0.20	0.37	0.20	0.36	0.33	0.16	0.45	0.37	0.33	0.24	0.42	0.52	1.00

PARTITION DIAGRAM

```

A Q
M U L A A I O
A N E G I L M P E
R E R E S M T O W I T
S S C O B A R D W E A R E R
M W U B U T O D E E R E M A E I
E I L A S A N A S C I A L S C U

Level 1 2 1 4 5 6 3 2 0 5 3 8 9 4 7 6
-----
2 XXXXXXXXXXXX XXXXXX XXXXXXXX XXXXXX
1 XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXX

```

Relation 1

Blocked Matrix

		1	2	1	4	5	6	3	2	0	5	3	8	9	4	7	6			
		M	W	A	N	Q	G	L	A	A	I	W	E	A	O	E	T			
1	ME	3	1	1	1	1	1	3	1	1	1	3	1	1	1	3	1	1	3	
2	WI	3	1	1	1	1	1	3	1	1	1	3	1	1	1	3	1	1	1	3
11	AMARSUL	3	1	1	1	1	1	3	1	1	1	3	1	1	1	3	1	1	3	
4	NESBA	3	1	1	1	1	1	3	1	1	1	3	1	1	1	3	1	1	3	
5	QUERCUS	3	1	1	1	1	1	3	1	1	1	3	1	1	1	3	1	1	3	
6	GEOTA	3	1	1	1	1	1	3	1	1	1	3	1	1	1	3	1	1	3	
13	LISBON	3	1	1	1	1	1	3	3	1	1	3	1	1	3	3	1	1	3	
12	ALMADA	3	1	1	1	1	1	3	3	1	1	1	3	3	3	3	1	1	3	
10	AMTRES	3	1	1	1	1	1	3	3	1	1	1	3	3	1	1	1	3	3	
15	IPODEC	3	1	1	1	1	1	3	3	1	1	1	3	3	1	1	3	3	3	
3	WWRI	3	1	1	1	1	1	3	3	1	1	3	3	3	3	3	3	3	3	
8	EEA	3	1	1	1	1	1	3	3	1	1	3	3	3	1	3	3	3	3	
9	AML	3	1	1	1	1	1	3	3	1	1	3	3	3	1	3	3	3	3	
14	OEIRAS	3	1	1	1	1	1	3	3	1	1	3	3	3	1	3	3	3	3	
7	EEC	3	1	1	1	1	1	3	3	1	1	3	3	3	3	3	3	3	3	
16	TRIU	3	1	1	1	1	1	3	3	1	1	3	3	3	3	3	3	3	3	

R-squared = 0,558

The first subgroup is composed of actors which have relationships with practically all the others. This would be expected since they are all national level except AMARSUL. In this case, this typology of relations can be explained by the fact that it is a widely influential waste management system in the area and is therefore related to almost every actor in this sector.

All the other subgroups have a typology of relations very similar to the first one, except for the fact that they don't have any relations between themselves. These are mainly local and regional level actors. Only the Water and Waste Regulation Institute (WWRI) and the Environmental Engineers

Association (EEA) are national level ones, but their specific and limited range of activities explains this situation.

Only the last subgroup is not totally related to the first one, revealing some distancing from those central actors in the field of environmental policy and waste management. OEIRAS Municipality and the Environment Engineering College (EEC) are not related to AMARSUL since this company does not operate in the Oeiras area and have had no contacts with the College. The TRIU company has no relationship with the Ministry of Environment (ME) nor with Quercus ONG since it's a very local and specialized waste management company.

Valued Matrix

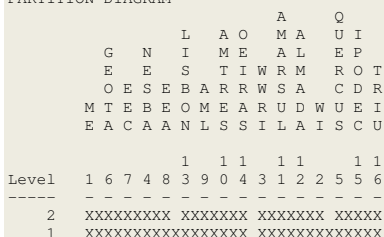
CONCOR

Diagonal: Reciprocal
 Max partitions: 2

Initial Correlation Matrix

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		ME	WI	WWRI	NESBA	QUERCUS	GEOTA	EEC	EEA	AML	AMTRES	AMARSUL	ALMADA	LISBON	OEIRAS	IPODEC	TRIU
1	ME	1.00	0.64	0.52	0.69	0.55	0.65	0.40	0.60	0.26	0.44	0.14	0.46	0.59	0.42	0.26	0.44
2	WI	0.64	1.00	0.58	0.67	0.66	0.67	0.44	0.44	0.46	0.52	0.59	0.38	0.19	0.27	0.44	0.10
3	WWRI	0.52	0.58	1.00	0.61	0.37	0.51	0.32	0.66	0.28	0.32	0.63	0.71	0.26	0.31	0.66	0.48
4	NESBA	0.69	0.67	0.61	1.00	0.65	0.59	0.56	0.69	0.21	0.34	0.43	0.23	0.29	0.56	0.41	0.46
5	QUERCUS	0.55	0.66	0.37	0.65	1.00	0.48	0.40	0.36	0.18	0.63	0.41	0.35	0.25	0.47	0.65	0.65
6	GEOTA	0.65	0.67	0.51	0.59	0.48	1.00	0.53	0.65	0.28	0.63	0.39	0.31	0.39	0.38	0.46	-0.04
7	EEC	0.40	0.44	0.32	0.56	0.40	0.53	1.00	0.72	0.17	0.15	0.12	0.08	0.24	0.25	-0.00	0.11
8	EEA	0.60	0.44	0.66	0.69	0.36	0.65	0.72	1.00	0.16	0.29	0.26	0.18	0.23	0.41	0.58	0.30
9	AML	0.26	0.46	0.28	0.21	0.18	0.28	0.17	0.16	1.00	0.37	-0.09	0.04	0.50	0.53	0.33	-0.13
10	AMTRES	0.44	0.52	0.32	0.34	0.63	0.63	0.15	0.29	0.37	1.00	0.08	0.40	0.41	0.36	0.58	0.23
11	AMARSUL	0.14	0.59	0.63	0.43	0.41	0.39	0.12	0.26	-0.09	0.08	1.00	0.73	-0.12	0.35	0.51	0.17
12	ALMADA	0.46	0.38	0.71	0.23	0.35	0.31	0.08	0.18	0.04	0.40	0.73	1.00	0.54	0.07	0.36	0.50
13	LISBON	0.59	0.19	0.26	0.29	0.25	0.39	0.24	0.23	0.50	0.41	-0.12	0.54	1.00	0.46	0.11	0.23
14	OEIRAS	0.42	0.27	0.31	0.56	0.47	0.38	0.25	0.41	0.53	0.36	0.35	0.07	0.46	1.00	0.41	0.24
15	IPODEC	0.26	0.44	0.66	0.41	0.65	0.46	-0.00	0.58	0.33	0.58	0.51	0.36	0.11	0.41	1.00	0.45
16	TRIU	0.44	0.10	0.48	0.46	0.65	-0.04	0.11	0.30	-0.13	0.23	0.17	0.50	0.23	0.24	0.45	1.00

PARTITION DIAGRAM



Relation 1

Blocked Matrix

		1	6	7	4	8	3	9	0	4	3	1	2	2	5	5	6				
		M	G	E	N	E	L	A	A	O	W	A	A	W	Q	I	T				
1	ME	3	3	2	2	2	3	1	2	2	2	3	2	2	1	3	3	2	1	3	
6	GEOTA	3	3	1	2	2	3	1	1	1	1	3	1	1	1	2	3	3	1	1	3
7	EEC	3	2	1	1	2	3	1	1	1	3	3	1	3	1	3	3	1	3	3	
4	NESBA	3	2	2	1	1	3	1	1	2	1	3	1	1	1	2	3	1	1	1	3
8	EEA	3	2	2	2	1	3	1	2	3	3	1	1	2	3	2	3	3	2	3	3
13	LISBON	3	1	1	1	1	3	2	1	3	1	2	3	1	1	3	3	1	3	3	3
9	AML	3	2	1	1	3	2	3	3	1	1	1	3	1	3	3	3	1	3	3	3
10	AMTRES	3	2	1	1	2	2	3	3	1	2	2	3	3	2	1	3	3	2	1	3
14	OEIRAS	3	2	1	1	3	1	3	3	3	2	3	2	1	3	3	3	2	1	3	3
3	WWRI	3	2	1	1	3	1	3	2	1	2	3	1	3	1	3	3	1	3	3	3
11	AMARSUL	3	2	1	1	1	3	1	1	2	3	2	3	2	3	2	2	1	3	3	3
12	ALMADA	3	1	1	1	1	3	1	3	1	3	1	3	1	3	2	3	1	1	3	3
2	WI	3	3	2	1	2	2	3	2	1	2	2	3	2	2	2	3	2	2	1	3
5	QUERCUS	3	2	3	1	2	3	1	1	3	2	3	1	2	1	2	3	3	3	3	3
15	IPODEC	3	1	1	1	3	1	2	1	3	2	1	2	3	3	1	3	1	3	3	3
16	TRIU	3	1	1	1	3	1	3	1	3	1	1	1	3	1	3	1	3	1	3	3

R-squared = 0.139

By analyzing the valued matrix, we have more sound and coherent findings. The first subgroup is composed of national actors whose activities are mainly related to contribute to the knowledge of the environmental situation and providing assessments and orientations.

The second subgroup is clearly the group of regional actors in the Lisbon Metropolitan Area, with strong responsibilities for the operational management of regional and local issues, including waste management.

In the third group, we can identify two subgroups: Water and Waste Regulation Institute(WWRI) and Waste Institute (WI)

are central government autonomous institutions with responsibilities in the environment administration; ALMADA Municipality is responsible for the area where AMARSUL operates.

The last group is the local actors' group, and although Quercus NGO is a national level actor, its operational activities are more developed through local relationships.

Matrix Visualization

The Metric multidimensional scaling was used to produce a display of actors, and the resulting graph is as follows:

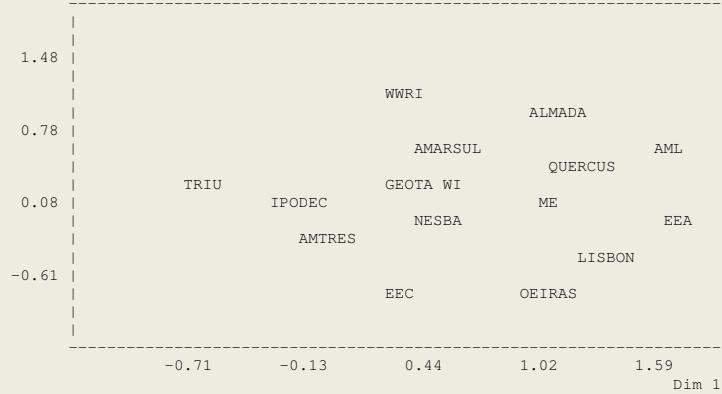
Adjacency Matrix

METRIC MULTIDIMENSIONAL SCALING

Starting config: GOWER'S PRINCIPAL COORDINATES
 Type of Data: Similarities
 Initial Stress = 0.818
 Final Stress = 0.299 after 7 iterations.

		1	2
1	ME	1.06	0.08
2	WI	0.63	0.23
3	WWRI	0.31	1.44
4	NESBA	0.47	-0.11
5	QUERCUS	1.15	0.59
6	GEOTA	0.32	0.41
7	EEC	0.30	-1.08
8	EEA	1.74	-0.18
9	AML	1.69	0.73
10	AMTRES	-0.13	-0.29
11	AMARSUL	0.46	0.89
12	ALMADA	1.05	1.19
13	LISBON	1.30	-0.47
14	OEIRAS	1.03	-0.93
15	IPODEC	-0.26	0.18
16	TRIU	-0.71	0.34

Dim 2



Stress = 0.299 in 2 dimensions.

Valued Matrix

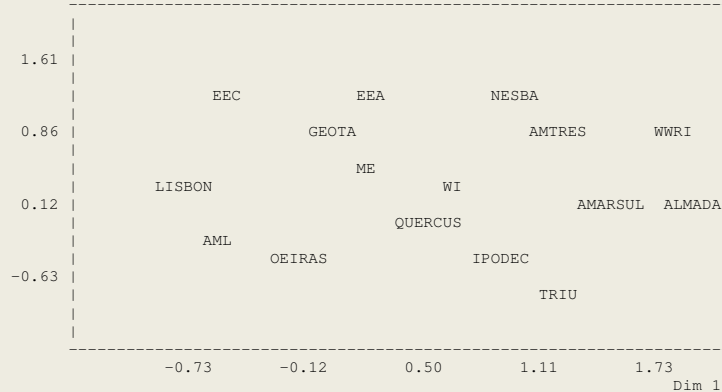
METRIC MULTIDIMENSIONAL SCALING

Starting config: GOWER'S PRINCIPAL COORDINATES
 Type of Data: Similarities
 Initial Stress = 1.633
 Final Stress = 0.293 after 8 iterations.

		1	2
1	ME	0.14	0.71
2	WI	0.67	0.49
3	WWRI	1.86	1.06
4	NESBA	0.94	1.60
5	QUERCUS	0.43	-0.04
6	GEOTA	-0.04	1.02
7	EEC	-0.57	1.60
8	EEA	0.21	1.69
9	AML	-0.66	-0.32
10	AMTRES	1.14	1.03
11	AMARSUL	1.41	0.18
12	ALMADA	1.89	0.05
13	LISBON	-0.88	0.39
14	OEIRAS	-0.25	-0.51
15	IPODEC	0.85	-0.54
16	TRIU	1.20	-1.13

Coordinates saved as dataset COORD

Dim 2



Stress = 0.293 in 2 dimensions.

The centrality of both the Ministry of Environment (ME) and the Waste Institute (WI) is evident in both graphs, as well as the fact that local and regional actors tend to be placed in the periphery. Four groups of actors can be identified as relevant:

- Lisbon Municipality (LISBON), Oeiras Municipality (OEIRAS) and Lisbon Metropolitan authority (AML) are regional or local actors and are located in the Lisbon area. Both Lisbon and Oeiras municipalities are formally represented in Lisbon Metropolitan authority;
- Ministry of Environment (ME) and Waste Institute (WI) are central government institutions. WI has a direct dependency on ME;
- AMARSUL (waste management company for the region south of Tagus River) and Almada Municipality (ALMADA; which is in that same region, and whose waste generation is managed by the first);
- And finally, TRIU, IPODEC and AMTRES are waste management systems operating in the Lisbon Metropolitan Area.

Types of institutional networks and their significance for learning and adaptation

The institutional networks found seem to be very formal and mainly influenced by operational imperatives. Relationships between actors tend to be more of institutional kind, revealing to some degree a lack of informality and spontaneous character.

The environmental policy domain is still very centralized around national level actors, and mainly public authorities. Nevertheless, some changes are noted. At the national level, Geota and mainly Quercus NGOs are assuming an influential position through public opinion pressure.

b. Existence of fora for dialogue and negotiation

Dialogue was mainly supported by the Ministry of Environment, which maintained relationships with all kinds of actors in order to overcome the initial indifference in public opinion regarding environmental problems.

Concerning waste management in LMA and according to the interviewed actors, the action of both Environment Regional-Directorate and Waste Institute was essential to overcome society's indifference towards environment and more specifically, to increase awareness and effectiveness of municipal authorities for waste management problems.

In particular and according to the Environmental Law, Waste Institute has the responsibility to cooperate for the licensing and the supervision of all waste management systems. This responsibility implies a permanent dialogue and negotiation with all the actors concerned by environmental problems. We should stress that even environmental NGOs' initiatives were

unfeasible without some financial support of the Ministry of Environment.

With regard to private actors, the dialogue and negotiation undertaken by the Ministry of Environment were able to change entrepreneurial attitudes vis-à-vis the importance of waste management, opening business opportunities in the field of environmental issues.

c. Public-private partnerships and the role of the private sector

The pattern of dialogue and negotiation described in the previous item determines the model of public-private partnerships and the role of private sector. In order to accomplish the Urban Solid Waste Plan (PERSU), some municipalities of LMA implemented multimunicipal waste management systems that are run by private companies, although most assets are public.

Moreover, the responsible authority (municipality or association of municipalities) can give the concession to design, build and operate these systems to private actors.

In other cases, municipalities contract all-private companies to assume these tasks or other specific activities, like road cleaning, waste collection, separation, treatment or recycling.

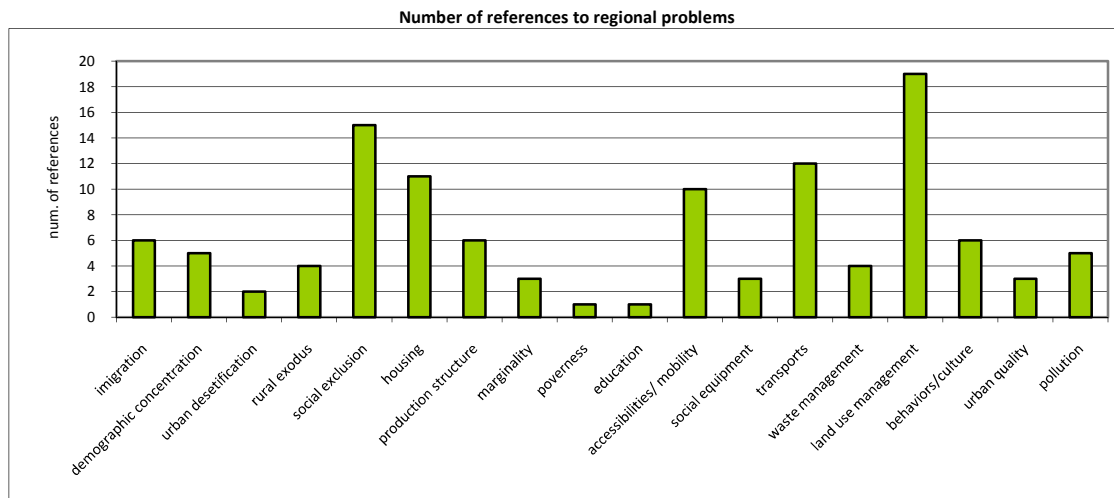
In other situations, private sector takes the lead due to legal imperatives. This is the case in packaging waste, where companies that produce or import packaging materials are both owners and clients of Sociedade Ponto Verde, which runs the whole life-cycle of these materials.

Besides the increasing perception that environmental issues create opportunities for businesses conducted to the emergence of other private actors involved in the environmental area. That was the case of TRIU (a micro-company acting in urban cleansing) and of IPODEC, owned by Vivendi Environment and dedicated to global waste management.

We should also point out the creation of AEPSA, a national level association of companies for the environmental sector. AEPSA comprises firms dedicated to urban and industrial waste management, water supply and waste water management.

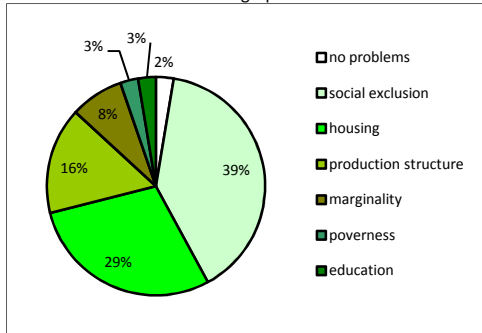
d. Common understanding of development problems

In general terms, there is a relative common understanding on development problems in the region, since some specific issues gather enormous consensus. Nevertheless, each actor centers his point of view in terms of his specific field of action. Local actors (public in particular) tend to address less attention to regional or national problems, whereas private actors usually attribute more importance to issues that influence productivity and business performance.

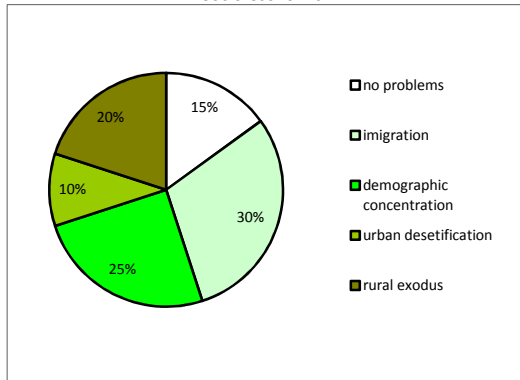


The most consensual problems are land-use management, social exclusion and transports. As to the first, the urban pressure caused by both internal and external migration flows, but mainly the absence of formal and pro-active regional institutions are pointed as the main reasons to the lack of strategic transversal regional approaches. Public actors tend to evaluate the creation of these regional institutions as more benefic, whereas private ones usually foresee more bureaucracy and political clientele.

Breakdown of referenced problems
Demographic

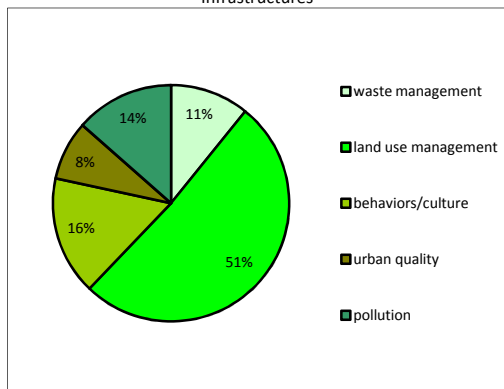


Socio-economic

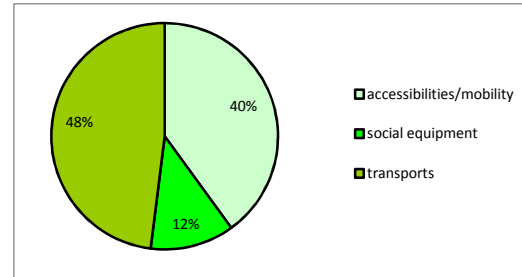


Urban disqualification, consequence of a high population concentration in urban areas, allied to a relative lack of social infrastructures, integration difficulties and a poor housing quality and planning (a widespread concern), create the conditions for social exclusion.

Breakdown of referenced problems
Infrastructures



Environmental and Land Use

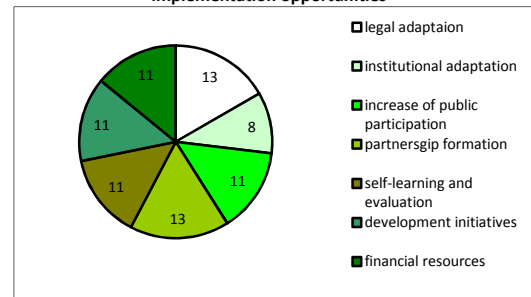


Transports, along with accessibility and mobility are the main infra-structural problems in the region, with special focus to Lisbon periphery. The absence of a specialized authority gives way to the lack of a global and harmonious strategy. Public transportation are poor, and private vehicles (usually with low occupation rates) still predominate. The accessibilities problem is inseparable from this, since improvement and road building are usually accompanied by increases in the number of vehicles. The outcome of these two problems is the mobility: with the loss of economic importance of traditional urban centers, people tend to live far away from their workplaces, and dense traffic situations are too common.

e. Evidence of policy adaptation and institution building

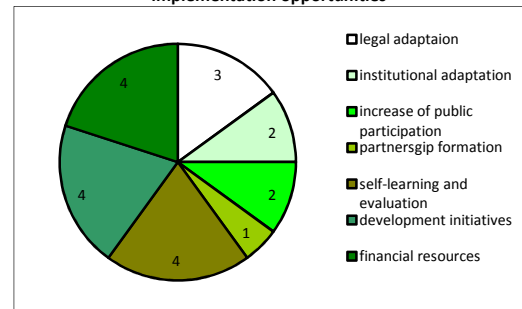
Most of the actors recognized that their engagement in order to profit from the opportunities granted by EU environmental policy. However, they pointed as major objectives, the improvement of legislative and the establishment of networks and partnerships, whereas the institutional adaptation was the least referenced objective. This lack of aiming at the institutional adaptation is due to the fact that most actors were «born» by the implementation of EU policies itself, which was not seen as an adaptation process.

Breakdown of referenced goals in exploiting EU policy implementation opportunities



Moreover, in the scope of effectiveness, most actors considered that the implementation of EU environmental programs did not contribute to the attainment of the referred objectives. Such a contradiction derived from the fact that the major motive force of environmental policy was the Ministry of Environment. Actually, only this Ministry and the Waste Institute considered that the implementation of EU environmental programs was an important and essential contribution to attain those objectives.

Breakdown of referenced changes in exploiting EU policy implementation opportunities



f. Centre-periphery relations and distribution of resources

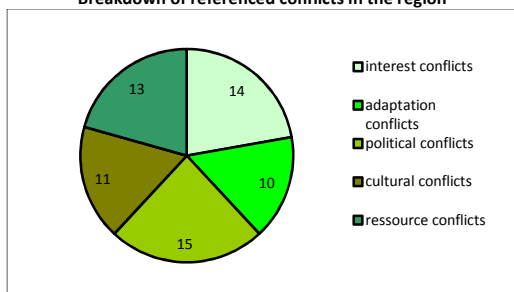
The centralization of Portuguese administrative structure, the absence of effective decentralized administrative regions, the small dimension of municipalities and the essential leadership of the Ministry of Environment are major reasons to explain that centre-periphery relations are top-down and subjected to the political options decided by that Ministry.

Such a reality produces conflicts between actors concerning the distribution of resources. With regard to allocation of funds, conflicts exist between the Ministry of Environment, municipalities and metropolitan authorities. Moreover, the lack of coordination between municipalities results in over-dimensioning of waste equipments and in loss of efficiency.

Another kind of conflicts is related to the use of soils and concerns central and local authorities, and mainly the construction sector. The absence of real political capacity of Lisbon Metropolitan Area also hampers sustainable management of soils and hydric resources in the region, and is a major cause for inefficiency of the metropolitan transport networks.

Finally, many actors considered that information is not well diffused, which presents difficulties for better use of resources and subsequently brings conflict about.

Breakdown of referenced conflicts in the region



g. Social capital endowments

Although civil society and social capital in general are regarded as indispensable for social and economical development and effective policy implementations, in practical terms, levels of civil participation, informal networks and citizen's participation and involvement in public matters are still very low in Portugal. In fact, the State remains as the main and more influential actor in contributing to general and sustainable development.

State and civil society

	Indispensable	Necessary	Not so important
Impact of social capital	13	2	2
Role of the state	14	3	0
Importance of civil society	12	4	1

Citizen's participation

	Satisfactory	+/- satisfactory	Not satisfactory
In voluntary associations	0	6	11
In planning and implementation	2	4	11

The politician class, at both the national and local level, is regarded as relatively trustworthy. For the Lisbon Metropolitan Area, politics are in general evaluated as democratic and somewhat participative but also as having a top-down structure and being centralized.

Trust

	Trust	Trust w/ exception	No trust w/ except	No trust
Political decision makers	2	8	5	2
Local and regional elected bodies	2	10	5	0

Regional politics

	references
Democratic	11
Top-down	8
Command and control	8
Participative	7
Hierarchic	7
Political clientalism	5
Honest	4
Bottom-up	2
Corrupted	0

The groups that can be considered as more important and influent in politics in the region are Municipalities and the Press & Mass Media, followed by national party leaders and government ministers. The less influent would be Unions and NGOs.

Influence in regional politics

	Great	Considerable	Little	None
National party leaders	6	7	4	0
Local party leaders	4	6	6	1
Local elected bodies (2 nd tier)	3	4	9	1
Press/media	6	11	0	0
Government ministers	6	7	4	0
Local elected bodies (1 st tier)	13	4	0	0
Local private actors	3	8	6	0
Trade unions	0	6	7	4
NGOs	0	7	9	1

As far as Central State institutions with regional responsibilities are concerned, several qualitative issues of performance were addressed. The only one with a clear positive evaluation was at the cooperation with local authorities level. In relation to EU Funds use, and cooperation with central government, there is a moderate degree of satisfaction. We should point out that the institutions concerned here are hierarchically dependent of central government, and therefore have a formal and direct relationship with them. The issues with highest degrees of dissatisfaction are related to planning capacity, timeframes to implement decisions and citizens' participation in decision making.

Satisfaction towards governance at regional level

	Satisfied	+/- satisfied	+/- dissatisfied	Dissatisfied
Planning capacity	0	3	11	3
Utilization of EU funds	1	8	7	1
Time to implement decisions	0	3	7	7
Co-operation with local authorities	0	12	4	1
Utilization of university research capacity	1	3	6	6
Co-operation with central government	1	8	7	0
Citizen's participation in decision making	0	3	7	7

Most of the actors supported that there is a general feeling that there has been some change in the social structure of the region, and that general concern for global issues is increasing. With respect to civil participation the opinions on social capital endowments can be summarized as follows:

- People sometimes tend to by-pass the law, but respect it when doing so does not collide with their interests;
- Everyone should participate in community life;
- There are people actively and genuinely involved in defending public interest;

In terms of political issues, most of the actors agreed that:

- In addressing social and economic issues, political considerations still tend to be taken more into account than technical ones;
- There is still a low level of trust amongst political actors, which is usually due to party preferences;
- Although extreme positions should be avoided, political compromise does not mean treason of one self's principles;
- Solutions for regional problems are not rarely the result of negotiation between actors with different views.

Statements	Agree			
	Agree	+/- agree	+/- disagree	Disagree
People generally obey the laws only if they are not contradict their individual interests	5	8	4	0
technical considerations have greater weight than political ones	2	4	9	2
Normally in politics one can trust others	0	2	11	4
one should avoid extreme positions because the proper solution usually lies in the middle	1	10	6	0
In spite of the development of recent years the social structure of this region has remained unchanged	1	5	9	2
The compromise between political opponents is dangerous because that normally leads to the betrayal of one's own side	1	1	11	4
in this region no one is much concerned with what happens to his neighbour	2	5	10	0
At the regional level there are no great differences of opinion on the principal problems	0	8	9	0
All citizens should participate actively in the collective life of his/her community	13	4	0	0
He, who asserts that he is motivated by the public good rather than by his private interest is a liar or a fool	2	1	11	3
One's primary responsibility is towards one's own family or towards oneself, not towards the whole community	2	6	9	0

5. Conclusions

a. Learning and adaptation and the Europeanization of the domestic institutional infrastructure

All actors interviewed agree that the domestic legal adaptation to the European environmental law is done. Moreover, most of the actors recognized their engagement in taking advantage of the opportunities granted by EU environmental policy, in terms of legislative and institutional adaptation, promotion of civil participation, establishment of networks and partnerships, development of self-learning and use of evaluation processes, as well as the development of planning activities and endogenous resources.

In general, all the actors, either public or private, either national, regional or local, are concerned with European trends and, obviously, try to be informed of the legal and

institutional adaptation and are specially interested on get access to financial funds.

The gradual Europeanization of domestic institutional infrastructure enhanced learning internal methods and incremented know-how and experiences with other sectoral Europeans partners, namely International Solid Waste Association²⁷.

This process involves also an increasing concern, among civil society, specially young people, about environmental problems.

Finally, we must stress that the role of the Ministry of Environment was crucial for all the adaptation and the learning processes.

b. Trends of the current period

The most relevant trends we can find, in the period covered by the study, are related to the implementation of regional structures of water, wastewater and waste management involving national, regional and local actors and also representatives of the public and private sector²⁸.

At the same time there was a significant effort to integrate the main policies of environment including its interception with the main sectors of economic, agriculture, industry and urban activities. The EU directives concerning some important aspects such as Environmental Impact Statements, implementation of the Environmental Managements Systems, the approval of the EU Directive Framework for Water Management are examples of the positives impacts of the Europeanization of the national and regional policies for Environment in Portugal.

Moreover, the development of environmental policy, including efforts in order to aware the civil society, tends to improve private investments and business in projects related to the preservation on environment, in general and to waste management, in particular²⁹.

c. Patterns of success and failure of institutional and policy-learning-Europeanization

Patterns of success

- All European Directives on environment have been transposed to Portuguese law, regarding the study period.
- At central level, the needed bodies to promote the implementation of a proper waste management structure were created.
- EU funds were properly used allowing to reach basic population needs on water supply, waste water collection and treatment and waste management.
- At present, 100% of urban waste is treated.
- Private sector and civil society are now more concerned by environmental issues.
- Municipalities were engaged in solving waste management problems, by creating new kinds of technical and management structures and by developing partnerships with public and private actors, including Universities.

Patterns of failure

- The persistence of egoist behaviors at individual and corporative level, regarding the preservation of natural environment.
- A still insufficient qualification on environmental issues of human resources in Municipalities and Regional bodies.
- The insufficient investment on new forms of treatment, reducing, recycling and reutilization of urban wastes.
- The weak coordination amongst municipalities in environmental area.
- The insufficient coordination between regional development and environmental policies

²⁷ Pássaro, D. (2002), *idem*

²⁸ Pássaro, D. (2002), *idem*

²⁹ Levy, Teles, Madeira and Pinela (2002), *idem*

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