

E-GOVERNANCE AND CITIZEN INFORMATION

**The Generalitat of Catalonia
in the International Context**

Summary of the final
Research Report



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**Generalitat
de Catalunya**

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Preface

E-governance and Citizen Information: the Generalitat of Catalonia in the International Context

Description of the research

The study we present in this report has the principal aim of analysing the transformations that are taking place in the area of incorporating technological innovations into citizen information processes on the part of public administrations. The transformations we have analysed are concerned with three basic areas: the way in which citizens and administration relate to one another, the organisation and the internal working of the administration and the form innovation management takes, bearing in mind especially the roles taken by the different actors involved. The research is supported by an international comparative study about Quebec, Emilia-Romagna and Scotland.

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Chapter 1

Introduction

The main purpose of the study presented in this report is to analyse the transformations that take place with the incorporation of technological innovations in citizen information processes carried out by the Public Administrations. These technological innovations obviously belong to the group of information and communications technologies (ICTs) with a digital basis, where the Internet and IT systems play a predominant role, but they also include some of the oldest technologies, such as the telephone. These citizen information services basically include the corporate interface of the Administration with the three main channels: telephone, web and face-to-face support.

The transformations under analysis are related to three basic considerations. Firstly, we have focused on the changes in the way in which citizens (as the main users) and the Administration interact. Secondly, we have analysed the transformations in the internal operation and within the organisation of the Administration, as a result of the transformations in the communications channels employed by users. Finally, we have considered the changes in the practices used to manage (design, plan, organise and execute) change and innovation, taking into account the roles of the different actors (not only public ones) that participate in these processes.

The thematic scope of the research is e-governance, a term which, as explained later on, has a wider scope than electronic government (e-government), in addition to a series of theoretical connotations that make it more suitable for our analytical objectives. In addition, the studies have a clearly empirical character: with a series of research questions and an analytical model built mainly in accordance with a prior revision of the relevant literature, we have carried out an extensive empirical study based on various research techniques.

The empirical study has two main objectives. Firstly, the Administration of the Generalitat of Catalonia (Autonomous Government of Catalonia). Most of our fieldwork was carried out within the very heart of this institution, mainly on some innovation projects developed by the administrative unit in charge of running the corporate support channels: the Citizen Information Department (Direcció General d'Atenció Ciutadana or DGAC, part of the Presidential Department). This unit has a special interest in our research project, given the transversal character of its activities and projects. However, we have also carried out an empirical investigation of the activities of other areas of the Generalitat: either by following the development process and operational branches of the projects of the Citizen Information Department, or by analysing other projects linked to ICTs in all other departments.

In addition, we have also carried out a small study – with a smaller scope and depth – on e-governance in three international regions with the purpose of contrasting the phenomena, problems and trends detected in the Generalitat. The three regions selected were: Scotland (United Kingdom), Quebec (Canada) and Emilia-Romagna (Italy).

The empirical research study was designed mainly with qualitative analysis techniques, although in various points of the study – as we will see later on – quantitative techniques have also been used. The qualitative section involved a long period of observation, in which two of us worked in the Generalitat, carrying out interviews and attending many different work meetings. The quantitative part involved the analysis of different surveys – we were involved in the design of some of these – carried out by the Administration on various aspects related to the object of the study and with an analysis of social networks, in order to determine the evolution of interdepartmental relationships.

The aim of the empirical work was to deliberately go beyond *online* phenomena linked to e-governance. Therefore, our aim was not solely focused on studying the websites of Public Administrations, and we designed our own empirical research project to obtain an in-depth analysis of the processes that support these portals and the services offered by them – in addition to analysing other channels that deal with citizens. In any case, the details and justifications of empirical work are given with more comprehensive and additional data in the methodology chapter.

In addition, the project is conceived as an analytical study, not only as a merely descriptive report, despite the fact that it also offers large quantities of descriptive information about the different aspects of the projects and phenomena analysed – information which has been very useful and is quite interesting in itself. We have always tried to contrast the information gathered from the projects analysed with different sources and informers.

In addition, the analytical perspective of study has not been conceived from the well-known scheme of the social impact of technology. In other words, we were not trying to determine the impact of ICTs in the relationship between the Administration and its users, or in the internal running of the organisation. Therefore, we have not tried to formulate simplistic hypotheses to establish linear correlations between the use or diffusion of technology in Administrations and determined transformations in its structure or functions. Our project considers problems concerning precisely this type of deterministic relationships between technological innovation and social change (in our case, mainly organisational). On the contrary, we have tried to trace the type of associations established between the – fairly heterogeneous – different elements involved in these innovation processes, as well as detecting and analysing the conditions that link certain technological innovations – through a more or less stable, more or less problematic approach – with some organisational changes.

This study forms part of a research project with a wider scope, called Project Internet Catalonia (PIC). PIC is an interdisciplinary research programme about the information society in Catalonia, carried out by a group of researchers at the Internet Interdisciplinary

Institute (IN3) at the Universitat Oberta de Catalunya (UOC), led by professors Manuel Castells and Imma Tubella. The project was designed as a comprehensive analysis of the uses and penetration of the Internet in various sectors of Catalan society; basically in homes, companies, schools, universities, media, the Public Administration and healthcare institutions.

More specifically, our study is the first of a second phase of activities within the scope of the PIC. In this sense, it is the second part of the study about the uses of ICTs in electronic Administration that will be developed under the title “E-Government and Public Services: a case study of the inter-administrative portal CAT365”, published at the beginning of 2004.¹ Even though both studies set off from a similar theoretical framework, both their analytical scope and empirical base are different. The work presented is focused on the technological innovations surrounding the corporate relationship channels of the Administration of the Generalitat; the first was developed as a case study of the Administració Oberta de Catalunya (Open Administration Project in Catalonia) and dealt specifically with its procedure and formality portal CAT365. Although the internal transmissions of the Administration is still an important axis for analysis, we have given more importance to the changes related to users and the role of the different actors (in particular those of the private sector) in these innovation processes. The purpose of the empirical study has also varied quite a lot, as shown in the methodology chapter.

We would also like to stress that although we have not carried out a quantitative base study and thus do not have a large amount of numerical data that can be analysed with statistical tools, the volume of information gathered is quite large (interviews, field notes, documentation obtained, etc.). Even though it cannot be considered as a preliminary analysis, the analysis carried out with this information does not represent the highest possible degree of comprehensiveness and exhaustiveness. We set aside this task for future and more comprehensive analytical procedures.

The report is divided in four sections. The first section presents the theoretical framework, including a review of the scientific literature, the research questions and the analytical model, as well as a detailed explanation of the methodology used to develop the empirical work and the analysis of data gathered. The second section includes the results of the analysis in accordance with our three basic dimensions. The third section contains the findings of our international comparative study, and, finally, the fourth section provides a summary of the key conclusions.

1. You can find the study at http://www.uoc.edu/in3/pic/cat/govern_electronic.html.

Finally, this study does not aim to provide a regulatory framework or assessment of the findings obtained. Nor does it aim to judge the suitability of the specific projects analysed nor the general policies of the Catalan Administration on e-governance or electronic Administration. In addition, it does not seek to provide direct recommendations to governments, administrations or other social agents to improve or reshape their initiatives in these fields. It is obvious that some of our conclusions and part of the descriptive characterisations offered can be used later on to deliver positive or negative verdicts about the initiatives we have studied. However, we will not become involved in these activities in this study. Our basic objective has been to understand the transformation processes that can be linked to the intensive use of ICTs within the current environment of administrations, detecting certain evolution patterns or trends in accordance with our prior research activities – and with that of other research projects. We consider that in light of the currently incipient scientific research activities based on these issues, the value of our work must be pinned in accordance with its contribution to analysis, with an empirical base, of the phenomenon of e-governance.

Chapter 2

Theoretical Framework. The Network Administration

2.1. Introduction

The extraordinary spread of information and knowledge technologies (ICTs) to almost all production environments and social life over recent decades is one of the major characteristics of today's society. Many authors have linked this technological revolution to a large-scale transformation of the very forms of social organisation which affects all levels, from the relationship between companies and capital flows to the dynamics in personal relationships or social movements (Castells, 1996; Carnoy, 2001; Minc, 1987; Drucker, 1987). Public Administrations have also formed part of this process, both with the adoption of the intensive and innovative use of ICTs in their everyday inner workings and in their approach to the new organisational forms associated with the Net. In addition, many areas expect them to become the driving agent behind the distribution and promotion of the information society, with their predominant role as a consumer of technology² as the driving agent behind the said distribution³ (Jordana et al., 2003).

The theory of the network society developed by Manuel Castells (1997, 2001) considers the structure of the new society that replaces the hegemony of the industrial society to be built around information networks. The new information society is an interconnected structure of dynamic and open nodes that can be modified without threatening its equilibrium (Castells, 1997). New technologies have supported this change, which is mainly organisational and provides an answer to the crisis in capitalism which appeared in the 1970s. In this sense, the Internet becomes the technological and material base for the network society, allowing new ways of social relationships that could not be materialised without the network (Castells, 2001). Therefore, the network dimensions and form were consolidated as an efficient response to the crisis of capitalism during the 1970s. This organisational form was mainly developed in the leading sectors of the economy at a time when the advances of science and technology put a series of tools in the hands of economic agents to overcome the crisis – by flexibilising economic management and globalising capital, production and trade. Basically, the aim was to organise activity around projects with specific timeframes, internal decentralisation of management and cooperation with other companies (Castells, 1997).

However, we should stress that as in the case of the industrial society, which lived with other forms of organisation and production, the network society lives with previous forms of eco-

2. For example, Layne and Lee's study (2001) indicated that, taking into account the corresponding expenses, the public sector is the second market for the Internet - the first market is financial institutions - and this predominant role will be maintained by its investment in the construction of infrastructures, the establishment of interoperability and the development of public policies for or with the implementation of technology.

3. Jordana et al. (2003, Page 12) indicate the following: "The public actions aimed at driving the Information Society constitute a diverse set of initiatives that extend throughout the majority of public administrations' traditional areas of intervention."

conomic organisation and production, even though it is becoming the predominant form. Therefore, we can observe the predominance of the Ford-type company that characterised the industrial society giving way to companies with a high degree of internal decentralisation and connection between small and medium enterprises, and strategic alliances and associations between the main companies and their auxiliary networks. This is known as a network company (Castells, 1997) or a flexible company (Atkinson et al., 1983, 1984).

As we have already mentioned above, these transformations affect practically all spheres of social life and production. Thus, for example, they shape new social movements, like the antiglobalisation movement characterised for mobilising a myriad of groups with different, sometimes contradictory, objectives but with common specific interests (Jures, 2004).

This research project aims to analyse the transformations that are taking place in other areas: the Public Administration. This sector is changing more slowly than others, but it is starting to transform its organisation and the way in which it runs. Over recent decades, many authors have talked about different elements – especially based on New Public Management concepts, but also based on the theories of democracy and international relations– that mark the crisis of the traditional state bureaucratic model. They can be grouped in the following fashion:

- a) Questioning the structure of the Public Administration, due to the perception that it has become too costly and inefficient (Osborne and Gaebler, 1994; Hughes, 2001; Heeks, 2001; Jain, 2004);
- b) A democratic deficit, generally based on citizens' increasing lack of interest in and/or distrust of politicians and political institutions in general and the Public Administration in particular, which is criticised for having put too much power in the hands of a structure of unelected civil servants (Huse, 2003; Clift, 2003; Hayan, 1997), and
- c) A change in the role of the public sector, as a result of globalisation and changes in society and the market (Peters, 1998; Pierre, 2001), which can be seen in the need for intervention in new spheres and with new methods, e.g. regulation of telecommunications and the Internet especially (CE, 2003; Hague and Loader, 1999; Castells, 1997 y 2001).

Various strategies have been designed to tackle these problems. One of the first changes was the introduction of joint management of the public sphere by the private sector, seen as a way of palliating the tax deficit and maintaining the levels of quality and quantity of the services offered (Peters and Pierre, 1999-2001). Similarly, another of the policies that achieved a greater diffusion was the proposal to reduce the size of the Administration – mainly by means of a pri-

vatization process that was carried out most intensely in the energy sectors (Rhodes, 1996). Finally, in the specific terrain of technology, towards the end of the 1990s, the introduction of ICTs in Public Administration started to be considered as a way to help tackle the challenges faced. This last dimension defines what is known as e-government, a process of change towards a new form of organising and running the Administration.

Therefore, since the last decade, administrations are starting to consider ICTs, and, in particular the Internet, as a key element for their future and one of the main pillars for modernisation. New technologies allow us to think about ways in which we can break the “rules” used to run the public sector, thus enabling more dynamic and fluid communications, not only between units of the Administration but also between this body and external actors, automating and simplifying entire administrative processes, and incorporating the private sector and its management practices while improving the Administration's internal efficiency. With these objectives, e-government initiatives have proliferated spectacularly in recent years and are currently present in many administrations at all levels of government (Hargittai, 1999; Milner, 2002; Guillén and Suárez, 2001; Jordana et al., 2003, Dunleavy et al., 2003; Fountain, 2001; Castells and Ollé, 2004; Criado and Ramilo, 2001).

As we will see in the following sections, despite the abundant literature on these matters, the scenario shows that there is not much consensus about the most important characteristics of e-government, its most remarkable consequences, most reliable indicators or the most adequate ways to analyse and assess specific projects. In addition, most of the literature has a clearly futurological approach and is focused on the speculative exploration of the potentially positive or (to a lesser degree) negative consequences of this type of innovation projects rather than on a rigorous determination of the current changes or transformations.

In addition, most of the studies which focus on the analysis of administrative structure state that, in fact, there have been no radical changes to the Public Administration's structure and operations (Hinnant and Moon, 2001; Aibar and Urgell, 2003; Fountain, 2001). Similarly, decades of intense promotion of technological innovation and administrative reform lead us to consider which variables can explain change and its permanence within the structure of the Public Administration, as well as technological innovation processes. With the purpose of studying these issues, we will briefly go over the conceptualisation of electronic government. Likewise, we will try to explain the main dimensions and variables of the concept we have focused on for this research project: the Network Administration.

2.1.1. Our Conceptual Perspective

Despite the wide diffusion of the concept of e-government, a look at the existing bibliography reveals the problems of trying to pin it down precisely. This problem is explained by both the proliferation of definitions and practices included within the concept. e-Government has a variety of different definitions, including the following:

- The uses of ICTs by public administrations.
- The use of ICTs to provide public services to citizens and companies.
- The optimisation of public services and access to public information by means of ICTs
- A new form of government focused on citizens and orientated towards results
- The distribution of online public services
- The reduction of bureaucracy with the use of technology to improve citizens' access to the Administration
- e-Business within government
- The use of ICTs to increase Public Administrations' efficiency and efficacy
- The use of ICTs in all functions of government

In addition, we often find use of all the following terms: e-government, e-governance, e-administration and e-democracy. We will start by defining the last two. The concept of the e-administration emphasises the new way in which Public Administration is organised – not only in the delivery of external services and external government relationships – and how it redesigns internal processes. In this sense, some of the organisational changes that affect internal information flows, the mechanisms for the coordination of different units or hierarchical relations are highlighted (Prins, 2001). Similarly, e-democracy focuses on the use of electronic communication means that hand over part of the power to citizens to control the responsibility of the actions of legislators and politicians in the public sphere. This is achieved by strengthening of the transparency of the political process. In addition, by improving the quality of information offered to citizens, another aim is to facilitate the creation of opinion and encourage citizen participation decision-making processes (Trechsel et al., 2003)

As regards e-government, we should make clear that there are many definitions, and that they usually come from the private sector and international institutions. A common point is the determining weight of technology (OCDE, 2001; UN, 2001) and, in particular, the digitisation of public services and their delivery on government websites (Gartner Group, 2000; SIBIS, 2003). In parallel, many authors and companies have started to criticise the restricted

meaning of e-government, which basically refers to the digitisation of public services to analyse their evolution and growth in the uses and methods of work originating from technological evolution (Mahler and Reagan, 2002; Layne and Lee, 2001; Finger and Pecoud, 2003; Accenture, 2004; Gartner Group, 2000).

In this sense, Finger and Pecoud (2003), for example, states that three moments can be identified in the development of electronic government. One of the first moments is the replacement of traditional management tasks with digital tasks, a second is during the transformation of the way in which governments produce services and a third is seen as the time when new services are created, whereby the private sector will probably participate, incorporating its greater capacity for innovation. During this process, the Administration changes its role, from a predominant role as a service provider to an entity that transforms and manages the resources generated, thus obtaining the definition of “information manager”. Finally, the conception of the policy making process is changed, incorporating new actors.

This incorporation of actors is vital in the transition from e-government to e-governance, the last and final concept considered.

The term “government” includes the different aspects of political organisation and administration within a country. In turn, the concept of governance has a wider scope than government, and includes other organisations that also participate in the management of the public space (Peters and Pierre, 2001; Mayntz, 2001; Prats i Català, 2005). Finally, under this concept, we can consider a series of norms, principles and values that establish the interaction of actors that participate in the development of specific public policies (Cerrillo, 2005).

We talk about governance when considering the situation in which state and non-state institutions, public and private actors, participate and often cooperate or interact in the formulation and application of public policies (Rhodes, 1997; Mayntz, 1998). Clearly, this form of management could be seen in many cases before the recent technological transformation. However, ICTs have become an element that has facilitated the implementation of this trend. The term e-governance introduces a new approach that allows us to observe the changes in the articulation of power, incorporating different government levels (supra-state, state, regional and local) as well as the private sector and civil society, in a scenario of action and exchange operating under an organisation supported by the use of ICTs.

During this research project, we aim to explore technological innovation in the Public Administration, not only the internal aspect covered by e-administration or by focusing exclusively on technological innovation, as in the case of electronic government, but rather by considering organisational change, the participation of new actors and the reconfiguration of relationships

with citizens. In other words, following the concept of e-governance. Since our theoretical perspective is set within the framework of the network-society theory developed by Castells, we have chosen to use the Network Administration concept. Therefore, we aim to analyse the extent to which public administrations are adopting the network organisation form that is starting to characterise, for example, some large companies or private corporations, as well as many other institutions and social relations in today's world. Likewise, we aim to analyse to what degree technological innovation acts as a driving agent for the aforesaid transformation.

Before carrying out this analysis we should consider the dimensions included in the concept. To do so, we will focus on the different authors who have analysed the characteristics of the new Administration (Grandori, 2000; Hall, 2002; Hinnant and Moon, 2001; Finger and Pecoud, 2003; Fountain, 2001; Dunleavy and Margetts, 2000, among others). We should also stress that no systematic theories have been developed in this sense. Therefore, based on the bibliography, we consider the Network Administration to be characterised by the following features: a) changes in the running of the bureaucratic Administration – hierarchical and compartmentalised – towards a more flexible form, with relations that are more horizontal than those of the traditional Administration, b) with the incorporation of new actors – in addition to the public sector – involved in the design and implementation of public policies and, c) considering a new relationship with citizens, focused on a greater interaction – partly based on a diversification of the methods of interaction – and increased transparency and delivery of customised services.

All in all, this would be a new and more flexible and horizontal organisational form, where networks of actors from the public and private sector, with a contingent and dynamic character design and manage the public policies in a political system where the citizen holds an important place as the user of public services and often acts as the joint manager of the administrative procedures (with more rights for access to information and the possibility of new ways to participate and interact).

The theoretical revision developed in the following pages is aimed at becoming the base for an analytical model to help us identify the variables that operate and have an impact on the configuration of the technological innovation and organisational change processes in the Public Administration. We will start by analysing the pillars that characterise the Network Administration:

- the structure and internal running of the Public Administration,
- the management of innovation, in particular considering the new networks of public and private actors that are involved in the design and implementation of public policies,
- the relation between the Administration and citizens.

2.2. Structure and Running of the Administration

We will analyse this dimension with a brief summary of the characteristics of the Weberian Administration and the criticism received. This criticism led to consideration of a reform of the administration during the 1970s. In particular, within the proposals for change, we will consider New Public Management and e-government, paying attention to its effective development and predominating studies.

2.2.1. The Weberian Bureaucratic Administration

The Weberian bureaucratic model describes the predominating organisation of the Public Administration since the early 20th century until now. With the growth of industrialisation and the consolidation of the mass society, there was a growth in the tasks and competencies of the modern society, further implemented by this organisation (Osborne y Gaebler, 1994; Fountain, 2001). Osborne and Gaebler, 1994; Fountain, 2001). The hierarchical structure organised around the posts established in the organisation, as well as the uniformity of routines and processes, guaranteed by formal action procedures, consolidated a system with a stability that was above that of people (Weberian, 1992). The objectives of this form of organisation were efficiency, rationality and fairness in the resolution of its actions.

During the 1980s, there was considerable consensus that this model had run its course, despite nuances in the causes and way of overcoming these problems (Jain, 2004). The basic criticism was based on the rigidity of its bureaucracy, especially the inflexibility of processes and regulations, which did not allow responses with appropriate answers to new problems in a highly complex and changing environment, characterised by the globalisation of markets. In addition, the low productivity in the Administration seemed to be a result of the public sector's work structure, which, though the guarantee of job stability regardless of any assessment of results, encouraged inefficiency. Therefore, the need to set up results-assessment mechanisms was suggested, starting the debate on the ways of measuring the productivity of the public sector.⁴ Likewise, there was bureaucracy's tendency to reproduce and expand its own operating structures, as well as the high costs and subsequent poor

4. Productivity is defined as the result obtained between the quantity produced of any good and the factors of production used to produce this good, so that the production of more goods with the same quantity of inputs is a productivity indicator. The public sector is responsible for a series of functions in its direct relationships with citizens (health, education, justice or subsidies). However, in this diversity of services, the public sector does not necessarily have to produce more: for example, the need to reduce the quantity of management practices with the exchange of information between administrative units. On the other hand, its characteristics as a non-profit sector that is not subject to market rules prevent the application of traditional productivity measures.

management practices. Low efficiency was presented as one of the explanations for citizens' dissatisfaction. This situation should have led to searching for different options to the exclusive competition of the public sector for the provision of services to citizens (Hugues, 1998; Barzelay, 2001; Osborne and Gaebler, 1994; Peters and Pierre, 2001).

Jain (2004) gathered the most common criticisms of bureaucracy depicted in the current literature, summarised in the following: Excessive adherence to the rules and inflexibility in the application of formal rules to real situations; 'under-optimisation derived from the fact that the units were aimed at objectives that were at conflict with the objectives of the organisation; resistance to change generated by the priority of the hierarchy and control that would favour behaviours seeking to maintain the status quo, and penalise the transformation process; corruption, inefficiency and concentration of power, political interferences and dissatisfaction of workers.

More recently, other studies have been presented in the defence of some elements of bureaucracy – partly as a reaction to New Public Management which, as we will explain later on, has protected the drastic reduction of administrative mechanisms, partly based on privatisation processes. Therefore, Olsen (2004) explains that as an analytical concept, we can differentiate bureaucracy with the set of organisational characteristics (hierarchy, formalisation, specialisation, etc.), with a professional staff (civil servants) and a regulated and institutional structure on which the authority is based (the legal-rational political order). In this sense, the author sees bureaucratisation as the growth of bureaucratic forms, not necessarily a deviation. Bureaucracy can be seen as a rational tool for the execution of decisions taken by political leaders, as well as a structure that determines the authority and resources that can be used legitimately in the correct period, by the correct role and with the correct mechanisms and tools.

Bureaucracy can also be understood as an institution with its own principles and norms. In accordance with these premises, many of the problems detected – such as civil servants' supposed resistance to change – derive from the fact that the postulates of bureaucracy are not met and the articulation between politicians and bureaucrats is not effective, which generates conflicts between the different parties (Olsen 2004).

In any case, we can highlight that, although there are a set of common parameters that allows us to speak of a bureaucratic model, there are also different traditions in which bureaucracy acquired its particular characteristics (Salvador, 2003). Anglo-Saxon countries – the United States, New Zealand, Australia and the United Kingdom – characterised by an administrative structure that is not so rigid and with a lower dimension than, for example, continental European structures, were the pioneers in suggesting an alternative model to

the Weberian bureaucracy. This model was focused on New Public Management (NPM), one of the most important proposals within the framework of the so-called post-bureaucratic theories (Cerrillo, 2005).

2.2.2. New Public Management

New Public Management (NPM) is based on the private sector's model of competition and is aimed at creating reduced and decentralised administrative structures that enable a certain degree of administrative flexibility. The main objectives of NPM include its goal of creating organisational forms that are less hierarchical, with an emphasis on efficiency and efficacy and focused on the citizen (Hugues, 1998). Another consideration is the creation of entrepreneurial governments to promote competition between service providers, and shifting the control of bureaucracy to the community. There is also a proposal to modify assessment criteria, previously based on considering expenses. The new criteria involve assessing results, and changing the budget allocation mechanisms, since rigid allocations and the impossibility of reorientating items would not generate incentives to save or increase the efficacy of management (Osborne and Gaebler, 1994). Finally, another aim is to decentralise authority through participative management, and market mechanisms are preferred over bureaucratic mechanisms (Barzelay, 2001).

In short, we can summarise the basic premises of NPM as the following:

- Importing personnel management systems from the private sector (for example, individualised remuneration systems, in accordance with salaries and wages).
- Hiring personnel from private companies.
- Introduction of competition in the Administration with the creation of semi-markets, establishing, for example, networks of organisations – both public and private – in the provision of public services (which favours outsourcing and privatisation of part of the services or part of the same service).
- Decentralisation (both functional and territorial) of administrative bodies.
- Focus on the consumer (citizen) and emphasis on the quality of services and customisation of products.
- Focus on results and emphasis on the establishment of performance indicators measured by results.
- The introduction of private financial techniques in the public sector.
- General emphasis on efficiency, efficacy and economy.

In this sense, Dunleavy and Hood (1994) states that NPM was materialised in two major directions of change: a) Rapprochement with the private sector: This took place with the replacement of bureaucratic hierarchies by fragmented and decentralised structures, the change of public ethics to a private operation style and the replacement of the concern for complying with the formal rules with the concern for results and, b) the reduction of the rigidity in the operation of the public sector, materialised in the new concern for the agility and efficacy in the attainment of the objectives set.

However, NPM also started to receive criticism. For example, Dreschler (2005) has also stated that there is no empirical evidence that implementation of these policies increases productivity or welfare; that states have not lost their dominating role, but rather that their role is vital for the economic development, even indicating a positive correlation between the Weberian bureaucracy and economic growth. Likewise, Goodin and Klingemann (1996) indicate that this theory poses a series of contradictions because, on the one hand, public administrators are asked to become more autonomous and use an entrepreneurial approach, but they are also asked to be more sensitive to their political heads; or they are pushed to become decentralised and delegate authority with a more strict financial control.

Some empirical studies have even questioned whether New Public Management has had the desired effects at all. Dunleavy and for example, Margetts (2000), states that during the last twenty years of NPM there has been a dominating trend in Anglo-Saxon countries, with two remarkable effects: On the one hand, the reduction of citizens' competencies, i.e. their capacity to resolve and intervene autonomously in their problems or social issues; and on the other hand, an increase in administrative complexity and the resulting decrease in the efficacy in administrative systems. According to these authors, the results seem to show that NPM has simply aggravated the problems it was aiming to solve.

The principles of NPM are also linked to many of the objectives pursued by electronic government. Nevertheless, during the 1980s and at the early 1990s, most of the studies dealing with the Public Administration and technology developed autonomous analysis approaches. Some authors observed a convergence of the postulates of New Public Management and the possibilities opened up by ICTs for organisational change. Basically, technology was viewed as an agent that could break the rules of the bureaucratic Administration, increasing the efficiency in its management (Hughes, 1998). For example, we expected the common information systems to decentralise the management of the different agencies that were strongly connected but not structured in a hierarchy and thus reduce the management costs (while using the same systems) and improve the management practices, since the administrative processes would be reduced and simplified.

The links between the two proposals were prominent in the centrality given to citizens as customers of the public sector and the focus on results. The differentiating elements are mainly based on the fact that technology has not played a major role for NPM, while this is one of the pillars of the electronic government. Likewise, NPM does not view the present objectives or guidelines related to the most political aspects of the relation between citizens and the Administration as a key factor. Even when the introduction of citizens' opinions and assessments is conceived as an innovative factor in the provision of services, as regards the political decision processes and, in general, the participation of citizens as political subjects, no new mechanisms or strategies are envisaged (López and Leal, 2002).

To clarify the similarities and differences between the two concepts, we will now analyse electronic government.

2.2.3. Electronic Government

Within the framework of electronic government we find projects and objectives with very different approaches: from the creation of informative websites to the construction of inter-administrative portals where users can carry out their procedures or formalities online, as well as the creation of blogs by government representatives or the interconnection of databases.

Closely linked is the proliferation of initiatives, where we can detect a strong pressure in public administrations to adopt the intensive use of ICTs, which become the motor for diffusion and the promotion of the information society. This can be observed in the strength with which companies and private corporations in the ICTs sector (from hardware and software manufacturers to consultancies) contact the administrations for the joint development of electronic government projects (Fountain, 2001). Also, we must not forget that the public sector represents one of the key sectors in terms of expense and it is still a terrain with enormous business prospects (Layne and Lee, 2001).

The electronic provision of services in electronic government is not solely reduced to the introduction of a new channel of distribution for services: The Internet. In most cases, determined changes are also detected in the organisation of the distribution, access and management of services. According to many authors, the first transformation took place during the change of focus of service provision. In electronic government, the Administration usually adopts the perspective of the citizen, i.e. the customer or user of the services. The focus moves from supply (Administration) to demand (users). The focus is on the citizen and not self-addressed to the Administration itself (Milner, 1999).

However, the concepts of “centrality of the citizen” or “centrality of demand” are often used in a rhetorical and quite ambiguous approach. In each case, we should understand how they are specifically operationalised and what type of actions, programs or initiatives or procedures are established to identify and/or characterise citizens' needs or demands (with surveys, focus groups, etc.). Since these “user” configuration processes can be very different, general formulations are not very useful for analysis.

In addition, within e-government studies, two types of analysis stood out: comparative studies of government portals and studies on good practices. These analyses were developed by university and research centres, as well as consultancies from the private sector and international organisms (Accenture, 2003 and 2004; Gartner Group, 2000; Demchak et al., 2000; SIBIS, 2003; Wong and Welch, 2004; Dunleavy et al., 2003).

For different reasons, the comparative studies of government portals acquired a central role in what can be considered as the first stage in the development of e-government. This was partly due to the fact that portals quickly became a new space for the management and communications with citizens. And from the perspectives of analysts, the strength of these studies is that they have the advantage of allowing comparison of a large number of cases with a relatively low cost in terms of resources and time. However, their weakness lies in the fact that an analysis does not allow us to understand where the Administration is changing, since these analyses are generally focused on the external transformations and those that are most visible from the portals.

We can make a similar criticism of the “good practices” studies developed mainly by consultancies, (Accenture, 2003, 2004; Gartner Group, 2000). The focus was mainly on the design of initiatives, without an analysis of the uses and global results of the technological incorporation processes. Two criticisms show the basic problems of these approaches: A deterministic vision of technology, conceived as an efficient recipe *per se* for changing the state of affairs; and a “depoliticised”, or at least decontextualised conception of the Public Administration, where innovation would arrive without the mediation of contexts and actors. One of the consequences is the perception of both the problems and their solutions, which can be extrapolated with no major difficulties to different institutional contexts (Aibar and Urgell, 2003; Fountain, 2001).

Nevertheless, in recent years the studies that incorporate organisational changes have started to grow in importance. Therefore, for example Layne and Lee (2001) establishes a model with four stages: a) cataloguing, which involves the offer of information; b) transaction, which allows complete electronic transactions and therefore starts a two-way information flow; c) a vertical integration stage, which involves the integration of dif-

ferent levels between administrations (local, regional, state, etc.); and d) horizontal integration, which covers integration between departmental units, but with a transverse approach in this case and depending on the territorial competencies.

In addition to broadening the perspective of websites and projects towards the evolution of processes, another aspect is the need to consider the elements that act as the motors of the process or that explain its limitations. In addition, this would allow the differentiation between cases, identification of differences and consideration of particular elements.

2.3. Managing Innovation

A look at the aforesaid literature leads us to consider which elements should be observed to analyse the technological innovation processes in the Public Administration. The magnitude of the organisational changes that must occur or that are taking place with electronic government and the consequences of these transformations to the traditional Weberian bureaucracy model are yet to produce clear results. In this sense, a study on the cultural barriers of electronic government, Margetts and Dunleavy (2002), states that the first difficulty is the negative experience of many administrations in the projects dealing with change related to ICTs. In fact, the areas for technological innovation surrounding ICTs have been a terrain populated by failures, large expectations and not many real benefits. In addition we could perhaps add civil servants' huge degree of distrust in major administrative reform projects – due to both an excess and a lack of political leadership (Gil and Casamayor, 2003).

From a wider perspective, Fountain (2001) suggests that the challenge for a government is not to put services online, but rather to reorganise and restructure the institutional processes on which they are supported. For this author, the Internet – as a new communications, co-ordination and control infrastructure – could bring about major structural changes: in budget and supervision processes, and the structure of committees, linked to the growth of interdepartmental and inter-administrative networks. However, against the idea that “the Internet will change everything”, she also states that the Internet is often used to strengthen the old institutional structures rather than to expand the scope of communications.

In any case, among the basic issues raised in recent years we can highlight the need to overcome administrative compartmentalisation, the rigidity caused by hierarchy or the effects of the lack of efficiency criteria. We should consider the interaction between the organisational structure, actors and technological innovation processes to help us understand how these processes occur and what their characteristics are. And finally, we could support the construction of our analytical model for this research project.

2.3.1. Administrative Compartmentalisation

The literature on this subject states that the institutional design of public bureaucracy often hampers the development of interdepartmental processes and initiatives (Hudson, 1999). In fact, collaboration between departments within the same administration, which is vital in electronic government, is usually where the hardest obstacles are identified. Some of the drawbacks would be the fragmentation of the Administration – not only in government units but also

with the recent proliferation of autonomous and semi-autonomous bodies – and the structuring of control and supervision tasks – including those that are related to budget matters, which strengthen the autonomy of departments and competencies, more than cooperation, between them (Fountain, 2001).

Fountain (2005) states that the public authorities face perverse incentives in the execution of technological innovation processes since they pursue contradictory objectives. Among other elements, this is because the power of the government unit is measured by its resources. However, the objective is often to reduce costs. Therefore, for example, if new and more efficient information systems are implemented, their resources would not increase, probably facing decreasing budgets. Once again, if information systems that reduce the redundancies between administrative units and programs are implemented, resources will probably be reduced rather than gained. Therefore, the traditional incentives used by the public authorities are “perverse” incentives for governance networks.

2.3.2. Hierarchy and Centralisation-Decentralisation Processes

The presence of hierarchic structures has been identified as a problematic factor for inter-departmental initiatives, which are basic for the integration of services or to break administrative compartmentalisation. One of the pioneering studies by Kraemer and Dedrick (1996) talks about certain trends of public organisations towards de decentralisation of IT functions from the mid-1970s. However, the current trends seem to be towards centralisation as a way to fight against homogeneity. Therefore, the centralisation of the control of management and the decentralisation of services could sometimes be defended. But in many cases control follows the location of services. In this sense, the centralisation of information technology centralises the power and decentralisation provides more power to sub-units. In conclusion, these authors show that a) ICTs are not centralising or decentralising agents *per se* but rather try to reinforce existing trends; b) ICTs would have favoured peer-to-peer relationships as a result of transverse information systems, and c) the elite players of power tend to use their control on the acquisition and use of technology to maintain their commanding positions. Benveniste (1984) states that, in any case, the decentralisation processes of the Public Administration are usually not perceived as a loss in prestige and power, something that does not imply a conflict (actually, it seems that there is a loss in discretion).

2.3.3. Results Vis-à-vis Legitimacy: the Problem of Efficiency

We often talk about a drastic decrease in the costs of public services and, as a consequence, an important contribution to the elimination of administrations' budget deficit. If we

simply address the reduction of costs generated by the path of conventional transactions to electronic transactions, the figures offered by some authors are spectacular. For example, Fountain (2001a), talks about 50% savings in simple transactions and even higher percentages in more complex transactions.

Similarly, the electronic provision of services has a clear effect on internal efficiency and the external efficacy of services. There is an impact on internal efficiency because of the simplification in procedures and the speeding up of administrative processes (Layne and Lee, 2001) and because there is a great reduction in costs (Fountain, 2001) – elimination of the use of paper, simplification of tasks and savings in different expenses that generate face-to-face attention. There is also an impact on the external efficacy of services because there is an improvement in the distribution of services, since they use more channels and greatly expand the working hours and geographical scope of attention and, as a result, provide a much broader access. In any case, other studies show that the cost-benefit analyses derived from digitisation are minor and even exceptional in these innovation processes (Cohen and Eimicke, 2001). In addition, he mentions that the benefits do not feature as criteria for the running of the public sector and this hinders the establishment of efficiency measurement criteria (Dreschler, 2005).

2.3.4. Networks of Actors

Actors and the relationship networks established to implement technological innovation projects are vital to understand the results of these processes. We are talking about complex networks that count not only on the participation of the Administration and technology providers. In turn, there is a wide range of agents that are involved in these projects: from the different departments to the administrative units that deliver the services, politicians, civil servants, actors from the private sector and other social institutions.

Conceptually, the framework of e-governance provides elements to understand these networks. Thus, it is seen as a concept to overcome a conception of government that could act with greater autonomy. The concept of governance encompasses the norms, processes and competences that have an impact on the exercise of power from the supranational level and, especially, from the point of view of opening the participation grounds to actors from the public and private sectors, the political sphere and civil society.

E-Governance reveals the administration's difficulties in the management of change with the analysis of the different actors' influence on the performance of technological innovation projects. To consider these elements, we will summarise a) the concept of governance,

b) the relationship between governance and New Public Management, with an analysis of the outsourcing policies, and c) networks of public and private actors.

2.3.5. Governance

The White Paper on European Governance (2001) highlights the principles of this new form of governing. The proposal is aimed at opening the process for the design and application of public policies to the majority of citizens and organisations, with the purpose of improving the degree of transparency, increasing the level of responsibility and legitimising a joint action of the member states as a tool to better answer the needs of citizens. The proposal for change must include a focus that is less orientated on downwards trends and the implementation with non-legislative instruments:

- A higher degree of participation and expansion: more online information, more mechanisms for dialogue, more attention to the regional differences and particularities. The role of organisations in civil society as important interlocutors is emphasised.
- Better policies, regulations and results: the need for action and level of action must be assessed.
- World Governance : the efficacy and powers of international institutions must be increased.
- Focus on institutions to define a global strategy.

Although there are significant differences, in general the literature that talks about governance, gives a similar description of the changes in governments (and in socio-political organisation), especially the public-sector trend towards adopting organisational models from the private sector; establishing tighter links with the civil society and private sector and the partial incorporation of the private sector in the design and implementation of public policies (Mayntz, 1998 and 2001; Rhodes, 1996; Scharpf, 2000; Cerrillo, 2005). Therefore, networks acquire the necessary relevance as a complement to markets and government structures with resources, exerting control and coordinating complex societies (Rhodes, 1996).⁵

5. In the same line and linked to the theory of governance, the importance of the concept of policy networks in political science is justified by the limitations observed in governments as management centres, and the emergence of actors from different areas and natures in the sphere of public policies. The network concept aims to acknowledge the existence of this complexity and plurality (Cerrillo, 2005).

All in all, governance introduces a new focus that can be used to observe the changes in the articulation of power, incorporating the supranational, regional and local government levels, including the private sector and civil society. The analysis of government does not try to reject a perspective focused on the Administration; on the contrary, it aims to incorporate new elements that interact in the management of the public space. In this sense, as stated by Peters and Pierre (2005), the concept appears to have been created to depict an effective change in society as an analytical tool generated by social scientists for the improvement of the quality of prior analyses. In addition, as mentioned above, the newly created New Public Management (NPM), has also had a relevant role in the questioning of the traditional Public Administration and a significant influence on the design of policies for the administrative reform, especially in the Anglo-Saxon world.

2.3.6. Governance and New Public Management

Even though the theories of governance have tended to be contrasted with New Public Management, we can state that the former is a political theory while the latter is an administrative theory (Ewalt, 2001). Peters and Pierre (1999) states that the coincidence between both theories lies in the emphasis on the dissolution of the limits between the public and private sectors. NPM is orientated on results, while governance analyses the processes and in some cases the resources employed to provide balance to a system that acts with greater autonomy.

There is agreement on the need to incorporate new actors to public management activities, partly to support the provision of services, despite the tax deficit and decline of the “producer” role previously held by the state (Pierre and Peters, 2001). In this sense, the ICT industry is consolidated as the dominant competition of the private sector which will then become the provider of the public sector.

Despite these basic agreements, some authors indicate that there is a danger of some services and systems being privatised, e.g. to avoid internal difficulties in the governmental integration of back office functions (Dunleavy and Margetts, 2000). Fountain (2005) argues that privatisation in the e-government sphere can be an error because the negotiations to introduce technology include negotiations that require a learning and cultural adaptation process. At this point, the problems appear in the mutual reinforcement of various elements. The fragmentation and autonomy of departments, in addition to the outsourcing of IT services – as required for each department to follow a different strategy in the incorporation and use of ICTs – would generate excessively differentiated contexts.

Finally, Mayntz (2005) states that the horizontal cooperation of actors in the private sector and the formation of policies in these networks bear witness to the problem of democratic accountability, since private actors in public political networks do not usually have democratic legitimacy.

As studied in specific cases, if outsourcing does not solely refer to technology, but also to large part of the design and conceptualisation of its projects, the private sector will be responsible for the design of the specific services that take place out of their real context (regulatory, legal and organisational) of application (Aibar and Urgell, 2003). The main difficulty derived from this situation is the large distance (not only physical but mainly cultural) existing between the context of design (external consultants) and the implementation context (the Public Administration).

2.3.7. Relationships between Actors in the Public and Private Sectors

Olsen (2004) points out that when presenting change, we must know the malleability of the administrative organisation and its practices, as well as know about the balance between stability and flexibility. The growth of these networks with many centres causes leaders to lose part of their authority and political power to drive the reform of the Public Administration (Olsen, 2004).

Fountain indicates the role of civil servants in the transformation process: these are the very members of the bureaucracy whom the theory aims to transform, who can drive the process for the transformation of the Administration from the inside, while understanding and having the legitimacy to carry out this process (Fountain, 2005).

The process of creating new systems that are suitable for the design of policies forms part of the transformation process. Fountain (2005, 2001) mentions that even though a privatisation process might seem the easiest path for action, the states must make the decisions related to their specific assets, i.e. the understanding and skills that must reside within governments (Fountain, 2005). The change towards a Network Administration requires cooperation: moving from the current competitive environment to a cooperation culture (to share work, remote access for experts, cooperation through administrative barriers, etc.).

In some cases, outsourcing can be an error because the negotiations required for integration inside a government lead to a compulsory learning process and cultural change with the introduction of technology. States must make their own decisions related to knowledge and skills that are vital within all governments.

2.4. Administration and Citizens

Political science literature has provided empirical proof during the last few decades of the growing lack of interest and trust of citizens towards political parties and institutions (Huse, 2003; Clift, 2000; Carnoy, 2001; Hague and Loader, 1999; Castells, 2001; OCDE, 1991). This can be seen in the decrease of traditional political participation, the low credibility of political representatives and the new forms of participation that are not channelled through political parties (Clift, 2001; Hayan, 1997; Inglehart and Clark, 1998).

Citizens' indifference towards political institutions has extended to the running of public bureaucracy, so that the growing distance between citizens and the Administration is clearer than ever. In 2002, a study showed that almost 59.3% of the Catalan population did not agree with the statement "citizens can influence the Government's decisions". Similarly, approximately 69.4% of the population believed that "it is impossible to exert our influence on the decisions of politicians" (Castells et al., 2003).

As we will see later on, this scenario is leading to a crisis in the legitimacy of the operation of states' administrative systems and the political system of representative democracy.

2.4.1. Crisis in the Traditional Political Participation Mechanisms

Firstly, among the indicators of crises in democracies, we can see a constant decrease in the participation in political elections in Western democracies since the late 1970s. In particular, participation in US presidential elections dropped from 62.8% in 1960 to 48.9% in 1996 (Putnam, 2002). Likewise, the average participation in Europe dropped from 84% during the 1970s to 75% during the 1990s (Anduiza and Bosch, 2004). According to these authors, this phenomenon is closely linked to the decrease in the affiliation of political organisations in parties and syndicates. This is further demonstrated by new forms of participation that were not included in traditional representation systems (Inglehart and Clark, 1998) and by citizens who are losing interest in political processes (an aspect that, according to some authors, is linked to the generalised trivialisation of politics by the media [Blumler and Gurevitch, 1995]).

Finally, empirical evidence shows a constant decrease in the trust in political representatives, parties and government institutions, with a persistent bad reputation given to the political class in general (Putnam, 2002; Gibson et al., 2003).

The widespread use of ICTs throughout the 1990s created the possibility of significantly transforming the relationship between citizens and political institutions, both in terms of political participation and in the delivery of public services. Therefore, the idea that ICTs and, particularly the Internet, represented a possibility to overcome the said crisis started to gain importance. The Internet was seen as the ideal channel to improve democracy, providing space to new channels for citizens' participation in public matters and communicating with their governments (Gibson et al., 2003; Clift, 2000). Various theoretical proposals were born, including the improvement of democracy under the umbrella of the so-called "e-democracy". Out of these theories, we currently find different experiences that include new forums and chats for political debate on the Internet, as well as the possibility of electronic voting.⁶ However, for the time being, these experiences are not very widespread internationally (Virapatirin and Peixoto, 2006; Trechsel et al., 2003).

2.4.2. Crisis in the Operation of Public Bureaucracies

The crisis in the legitimacy of political institutions is similarly extended to the ordinary operations of administrations (Gibson et al., 2003; Norris, 2000). Citizens do not trust bureaucratic structures, and many believe that they are inefficient, complex, obsolete and costly. The high and persistent level of organisation into a hierarchy and compartmentalisation of the administrative units, with the resulting difficulties in communication and cooperation, being subject to inflexible regulations and norms or the traditional identification between aims and resources that results in the sustainable growth of the Administration's volume (Jain, 2004; Benveniste, 1984; OCDE, 1991) are perceived as characteristics of the same essence in bureaucratic organisations. The discrediting of political institutions is explained by the fact that these elements hinder the consolidation of the relation between citizens and the Administration.

These criticisms have led authors to rethink the organisational approach of the administration and its more immediate objectives. Various research projects state that the changes that will improve the perception of the Public Administration should be implemented in the areas that are directly linked to citizens and the quality of public services offered (OCDE, 1996; Spears et al., 2003; Gil and Casamayor, 2003). In short, in the areas where there is a closer relation between the public sector and citizens. In parallel, and in the same way in which ICTs have been viewed as an opportunity for new methods of political participation, they have also been considered within this context as the ideal instrument to carry out these transformations since, in theory, they facilitate proximity, accessibility, customisation, transparency, etc.

6. To provide a preliminary image of these situations in Spain, see Borge, 2005.

2.4.3. Change and New Conceptualisation of Citizens

During the 1980s, there was a common belief that solving the problems of efficiency, secretism, slowness, etc. would improve the global operation of the public sector and, in turn, improve citizens' relationship with and bad perception of the Public Administration. To tackle these problems we can highlight two lines of action.

Firstly, part of the action is focused on improving the support and delivery of services to improve citizens' perception of the Public Administration. Secondly, and directly linked to the theories for the improvement of democracy, another part of the action is focused on strengthening the view of transparency and accountability of government, thus creating new spaces and channels for citizen participation.

Beneath these two lines, there are two perceptions of the concept of the citizen that in some situations can be mutually exclusive: citizens as customers and as individuals with a series of political rights.

a) Citizen as Customers: Trends and Problems

Citizens' perception of Public Administrations can be explained by various factors. Firstly, according to various empirical studies, in general there is a direct positive relationship between a country's living standards and its satisfaction with public bodies. Secondly, citizens have a negative opinion about the Administration, in accordance with the generalised ideas on the running of bureaucratic organisations, mainly linked to their most negative aspects: slowness, secretism, inefficiency, etc. (OCDE, 1991). Finally, and of particular interest to us here, the perception of the Administration is finally built with the contact between citizens and the Administration, mainly in the provision of information and services. In this case, the difference with the previous cases lies in the fact that the perception of the administration is generally based on direct experience, so that the conception of the Administration has more favourable results. Since it is an environment based on experience, it is possible to have an impact on and improve it (OCDE, 1991).

If we focus specifically on the Catalan Administration, various studies back up the previous opinion about the different perceptions of the population.⁷ In the survey on citizens' opinion of the public function included in the White Paper on the Public Function (2006), 72.2% of

7. <http://www.idescat.net/cat/idescat/estudisopinio/rpeo/R-345.pdf>

those surveyed consider that the Public Administration is slow and 46.5% consider that it is very strict in terms of compliance with regulations. However, 55% of those surveyed state that they have a “very good” or “good opinion” about the public service offices of the Generalitat. Therefore, there is a qualitative leap in citizens' generalised negative perception towards administrations and a good opinion based on direct experience.

Within this context, several years ago many administrations started to implement strategies aimed at improving relationships with citizens through improved quality of information and services. This happens in the environments addressing public services and the delivery of these services, especially in the spaces where citizens' image of the administration can have a major impact. In this sense, the internal evaluation and quality regulation adaptation processes are more common in the public sector. In general, there is a new approach for most of the indicators that must guide the ideal running of the public sector, adapting them from the ones used in the private sector.

The improved relationship with citizens has been possible thanks to the incorporation of values from private companies. As a result, not only do the parameters governing the internal running of the public sector change, there is also a reconfiguration of the figure of the citizen, who becomes a customer or a consumer of services. This change in approach is mainly introduced from the doctrines of NPM, in accordance with the concept of the focus on the customer (Osborne and Gaebler, 1994; Barzelay, 1992), obtaining an important acceptance in the administration modernisation processes in any part of the world (initially in countries such as New Zealand, Australia, Italy, Norway, etc., recently extended to Asia, Africa, Latin America, etc. [Barzelay, 1992]).

This transformation aims to improve the activity of the Administration by paying greater attention to the relationships established with its customers (Brugué et al., 1994). Therefore, despite the fact that citizens are used to a market that offers personalised products, the Administration has been traditionally characterised by offering products with no distinctions (Osborne and Gaebler, 1994). To face this situation, the NPM proposals aimed to offer citizens public services focused on the specific needs of each citizen.

Electronic government initiatives adopted the NPM doctrines with the same emphasis on the focus on the citizen, marking the need to improve the quality of services, access to information, creation of new interaction channels, etc. (Zweers and Planqué; Margetts and Dunleavy, 2000). In this sense, as stated by Dunleavy and Margetts (2000) or Soete and Weehuizen (2003), ICTs and in particular Internet logic should take more account of the users of the Administration and use their feedback for the re-engineering of the public services; while citizens and governments can follow the procedures directly with a disintermediation

process, eliminating bureaucratic mediators, linking sources of information, changing the organisational structure and services.

Nevertheless, the conception of citizens as customers has posed many problems since the public sector readily assimilates the private sector's forms of action. This poses a series of problems, not only in the ordinary running of the Administration, but also in its governing principles.

Firstly, in the scope of the relationships between the Administration and the citizen, a paradox has been detected in recent decades. Even though there is an interest in the relationship with citizens and the increase in the general volume of competencies of the Administration (Prats, 2005; Cerrillo, 2005; Jordana et al., 2003), in practice, the private sector is increasing its contact with citizens. This is partly due to the generalised outsourcing process of public services in many administrations during the 1990s, including all associated consequences. Among other elements, through outsourcing processes, the public services offered to citizen are mediated by the private sector.

In parallel, there is an underlying problem of legitimacy in public services. The term “customer” implies a relationship with a monetary transaction and this can affect the nature of the relationships in the provision of services. Based on the idea that some citizens are customers of the administration, some countries have adopted the “user fees” concept for determined public services. However, the relations between administrations and citizens are different to those in the private sector. Firstly, because customers have different options in the market, and this is not the case with government services. Likewise, while customers pay for their services, citizens have a deeper relationship and responsibility with the government than that which simply involves the payment of a service. In the private sector, differential treatment – for length of service to the customer or wealth of the customer – is valid, while this is not ethically right in the case of governments (Dunleavy and Margetts, 2000; Fountain, 2005).

Thirdly, as regards the internal running, the similitude between the public and private sectors is taking place since the public sector is adapting its objectives, roles and even concepts of the private sector. It is not merely adapting the use of the “customer” concept that is so commonly used, but rather transforming its everyday operations to prioritise objectives, such as productivity, imposing a type of Administration based on management (Prats, 2005; Castells and Ollé, 2003; Haque, 1999).

In short, in public management focused on the customer, citizens find their dimensions as a member of the political community restricted and, therefore, can enjoy a series of rights, as explained below.

b) The Citizen as an Individual with Political Rights

We started this chapter talking about citizens' globally negative perception of the internal running of public bureaucracy. There are two closely linked main elements in this perception: transparency in the running of the public sector and citizens' participation in political decision making processes. Again, literature on the subject and political initiatives have portrayed ICTs as an opportunity for improvement and strengthening of the democratic processes. But, to what extent have ICTs represented a true change in this direction?

– Accountability

One of the main differences between the public and private sectors lies in the fact that the former is subject to accountability processes, a concept that is largely used to describe how organisations show how they achieve their goals (Benveniste, 1984). In other words, accountability processes and transparency in the decisions made by the administration.⁸ The public sector is “responsible” for collective groups and individuals, while the market is at the forefront for the private company (Stewart and Ranson, 1994).

Accountability is particularly relevant in theoretical e-governance proposals, so that many initiatives see a change in the form and functions attributed to them. A common feature that had previously only been present in the public sector is viewed as a tool for improving the provision of goods and services, making transaction costs more transparent and thus contribute to more efficient actions (Soete and Weehuizen, 2003).

– Citizen Participation

Marshall relates three aspects of the citizenship concept: civil rights (freedom of ideas, right to private property, etc.); social rights (right to economic welfare) and political rights (right to participate in the exercise of power) (Flynn, 1997).⁹ Direct adoption of the postulates of the NPM neglects the democratizing capacity that e-governance can have. In addition, this element arrives in parallel to an important reduction in the social services of the Welfare State. Therefore, some authors state that since the 1970s, civil rights have increased (such as the right to private property) to the detriment of social and political rights. Therefore, the re-conceptualisation of the figure of the citizen as a customer that we have presented as close to the commercial philosophy (Musso et al., 2000, Stowers, 1990) has

8. To read more about this concept from the perspective of electronic government, see Hague and Loader (1999).

9. To read more about the historical and philosophical evolution of the concept, see Haque, 1999; Van Gunsteren, 1994.

had an important simplification in the relationship between the Administration and citizens as the main consequence. In short, the metaphor of public services is for many a degradation, minimisation and perversion of the state-citizenship relationship.

Within this context, we have seen ICTs as an alternative to the political participation formulae to recover the space inherent to the concept of citizenship. However, despite the initial pessimism, the latest research has shown the difficulty in carrying out this type of actions, mainly for two reasons: Firstly, administrations do not have enough willpower to open spaces for new participation processes (Borge, 2006; Aibar and Urgell, 2004). Empirical evidence shows that the widespread participation of citizens is perceived with scepticism and passivity (OCDE, 1999). The results are a minor success in many initiatives of e-democracy .

2.5. Two Paradoxes of (the Research in) E-government

As we have already seen, most empirical studies on e-government agree on the very limited performance of their initial expectations. Despite the large number of projects and initiatives and the large amount of resources invested, the benefits obtained until now are not many in number and are not particularly obvious. In particular, the envisaged transformation of administrative systems into highly flexible and efficient structures is not taking place and the changes in citizen-administration relationships are not clear.

When explaining this situation, given the relative failure of e-government or, the very limited success of the associated transformations, the theoretical analyses seem to provide two paradoxical explanations. On the one hand, as stated by Jain (2004), e-government is often presented as a tool to overcome the basic characteristics (and deficiencies) of the Weberian bureaucracy. Strangely enough, these characteristics are used when trying to explain their failure. e-Government seems to be the ideal instrument to dilute hierarchies, to fight against compartmentalisation and the autonomy of units, as well as slackening the rigidity of norms. Even so, to understand the reasons for the failure of many projects, bureaucratic hierarchy, the division of work and the rigidity of norms are used as explanatory elements.

On the other hand, some authors agree on the need to link the introduction of technological innovations to relevant organisational changes, so that e-government can be a real transformation element of public administrations. However, this argument often adopts a paradoxical way of explaining the failure of some projects: The lack of organisational transformations caused by the implementation of e-government seems to be explained by the lack of organisational transformations associated with the project!

These two paradoxes partly indicate that current research on the interaction between e-government and bureaucracy is undergoing its initial development stage. This is largely due to the fact that we started off with analytical models with suppositions that ought to be revised and partly because the empirical studies in this area are few in number and in many cases are hard to compare.

Chapter 3

Research Questions and the Analytical Model

3.1. Research Questions

Our research questions can be formulated synthetically as follows:

What changes are being produced in the Public Administration as a result of the incorporation of technological innovations in public service processes?

To formulate this question more precisely, we can specify some of the elements present. On the one hand, the changes explored are not generally associated with the Public Administration, so we will focus on three specific areas which encompass a large diversity of aspects:

- Changes in the relationship between citizens and the Administration
- Changes in the organisation and internal running of the Administration
- Changes in the management of innovation and, in particular, in relation to other agents

As regards public service processes, we have tried to mark the limits of their scope. In this sense, we are talking about the relationship interfaces that are being widely used with users-citizens – setting aside new or obsolete methods and systems (DTT, teletext, WAP, etc.). In particular, we are talking about telephone, web and face-to-face services. In addition, and as explained further on, we will focus our analysis in the corporate channels of these three methods of communication in the Generalitat of Catalonia.

As regards technological innovations, we have obviously mentioned those linked to digital ICTs. It is important to highlight that the transformations we aim to analyse are those linked directly or indirectly to the incorporation and use of ICTs. In other words, our analytical and empirical access to the object of the study is focused on technological innovation. We should analyse each case in which technological changes are geared towards organisational, cultural and political aspects.

In this sense, the strict meaning of our research questions should not be understood in technologically deterministic terms, i.e., the analysis of the consequence of using ICTs has various aspects of the organisation and running of the Administration – which is usually expressed as the social or organisational “impacts” of ICTs. We are looking for associations or links between specific forms in the use of these technologies and other organisation elements. It is worthwhile mentioning three of the most important aspects of this matter.

The analysis of associations clearly emphasises the contingency of links and not its necessary character. Based on our first study and other studies discussed in the theoretical framework, we have observed how adoption of a technical system can have clearly different consequences and, in some cases, depending on a series of factors that range from the type of organisational structure, the method of management or planning of change to the relationship between IT personnel and the rest of workers. Therefore, it is important we detect and observe these conditioning elements and not establish the simple causal relationships between technology and determined organisational effects.

Secondly, we should focus on the way in which the technical systems are adapted, modified and translated by organisations. This does not involve considering technology as an unfinished and opaque element, but rather obtaining a clear picture of its use contexts. Firstly, because it is in the use (or uses) where technologies – or technical systems and mechanisms – usually acquire a stable meaning. And also because – especially in the world of ICTs – the periods for the design, implementation and use, far from being correlative, tend to be overlapping.

Thirdly, our point of view also wishes to avoid the consideration of technological systems as external elements of the organisation. Within this context of the Public Administration, any information system – from the origins of the state in ancient Oriental empires – has been based in a technical system (from systems based on paper and manual calculations, to tabulation systems and statistical calculations that are automated by mechanical procedures). Information systems are not a secondary complement to the administration, but are part of its most essential nucleus – there would be no administration without them.

With these elements, we can formulate the basic hypothesis as follows:

“The intensive incorporation of ICTs makes – as in other social environments – the path towards other network organisational forms possible; this organisational form in the context of the Public Administration is what we call the Network Administration”.

The main purpose of our research project can be understood as a way of contrasting empirically these hypotheses, with an in-depth analysis of the specific Administration and, with fewer details, three additional international administrations. Therefore, we are trying to establish the extent at which this organisational form is replacing or tensioning the old ways of organisation.

In addition to establishing the scope of our questions in three specific areas of the Public Administration, we can do the same with our basic hypothesis: “In the scope of the relationship

between citizens and the Administration, the most important characteristics of the Network Administration are the increase in the interaction with users (both qualitatively – an increase in the methods to interact with the administration – and quantitatively – an increase in the demand for information, queries, etc.), the increase in information available, improved flexibility in access to information and public services, as well as the transparency of administrative action”.

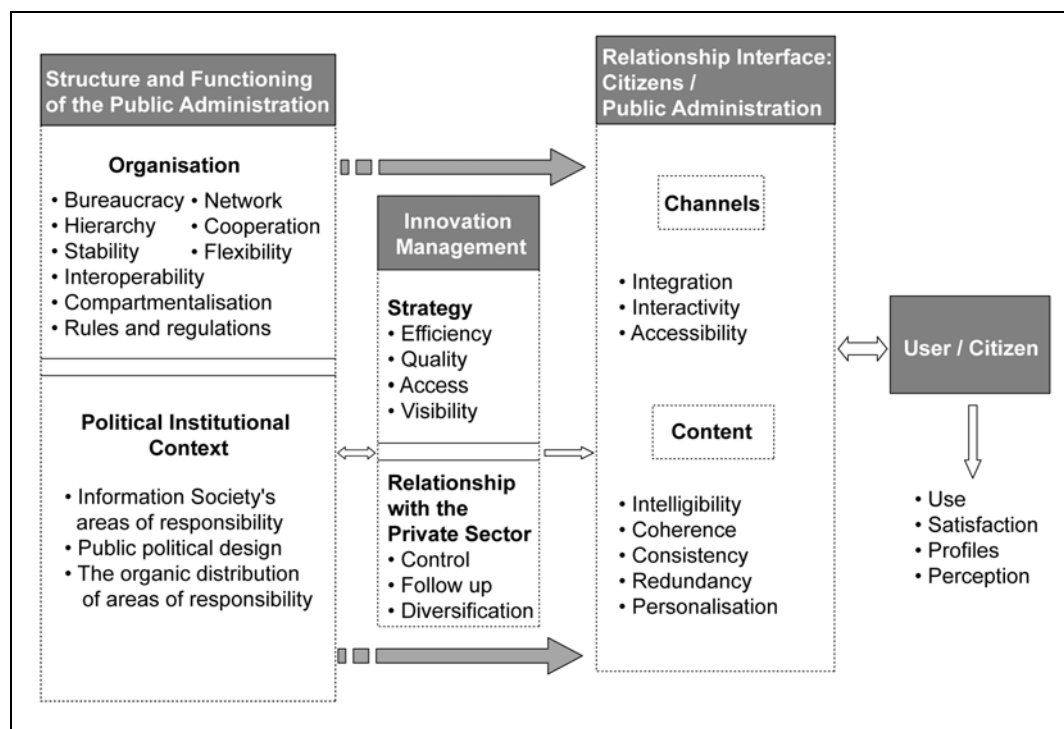
Within the scope of the internal organisation and running of the public sector, the Network Administration shows a big improvement in transversality: more interdepartmental cooperation, more coordination to carry out projects jointly, more transfers of information and more shared information. All of this lead to a Public Administration that is more flexible, capable of producing better and quicker responses to social contingencies and, in general, more effective and efficient.

Within the scope of the relationships with other agents, the Network Administration translates into an increase in the relationships between the private sector and other public administrations on the same or different level. Therefore, public services are increasingly structured as networks of private and public actors, where the delegation of execution is promoted and centralised control is increased. In this sense, the services are jointly managed and the different private agents participate in specific projects with limited deadlines.

3.2. Analytical Model

Our analytical model is derived from the theoretical framework and is therefore the result of the combination of different variables proposed in the literature on the subject to understand the technological innovation and organisational change processes, as well as our first research project on the Catalan Open Administration project (AOC). To understand this process of incorporating technological innovations in the environment of the Administration's public service channels – the purpose of the study – we have marked four general dimensions: a) the structure and running of the Public Administration, b) the management of technological innovation, c) the interface for the interaction between citizens and the Public Administration and, d) citizens or users. Next, we will briefly explain each of these dimensions and the elements included to present the interaction of all of these elements in the model. The graphical representation of the model is as follows:

Figure 1. Analytical Model of E-governance and Public Services



Source: in-house production

3.2.1. Structure and Operation of the Public Administration

This sub-dimension is divided in two parts. On the one hand, we consider the competencies of a government, the design of public policies (as a result of the political decision-making processes) and the same organic distribution of competencies operating within this political-

institutional context, for the development of organisational change and technological innovation strategy. Similarly, this context interacts with the organisational values (organisation), which have been recently defined by the Weberian bureaucratic model, but in tension with new organisational forms. In this sense we will analyse the presence of elements such as, for example, hierarchy, compartmentalisation or the strict adherence to regulations that characterise the Weberian Administration, as well as other indicators, such as interoperability, cooperation for the development of tasks, and flexibility.

In other words, we set off with the prior verification (supported by our previous research projects and other international studies) that there is no radical transformation or superseding of the Weberian model in a strict sense, but rather a growing interaction with new organisational forms that generate a degree of organisational heterogeneity – in other words, the more or less problematic coexistence of different organisational models subject to different tensions. In this interaction, we can define, at a first level, the characteristics acquired by the Public Administration.

All in all, the political institutional context and the tension between organisational areas in the Public Administration are the first driving agent behind innovation. These innovations or transformations – mostly linked to the use of ICTs – will have an impact on the structure and running of the Public Administration. Similarly, the wishes, uses and satisfaction of citizens are a result of this process, as well as a new source for change and innovation.

3.2.2. Management of Innovation

In this dimension we include the strategy resulting from the process described in the previous block. Firstly, the objectives of the strategy developed (which can emphasise clearly different elements, such as the efficiency, quality, access, political visibility, etc.). Secondly, we consider the mechanisms used for the innovation process, including the interaction between actors as a predominant role – in particular, the interaction with the private sector. In this relationship with the private sector, there is a modification to the strategy – an obvious result of the interaction between actors with highly different techno-organisational cultures. There are also elements that will form part of the particular e-governance model and which will be analysed with the evolution and characteristics of the relationship between the public and private sectors. In particular, we will consider the control and monitoring of projects by the public sector, the quantity and type of companies that participate in these processes.

The presence of this dimension in the model, with its own entity and partially at the margin of the structure and running of the Administration is not a secondary fact. It reflects a circumstance that is present every day in many administrations: the establishment of

units – often with significant powers and their own considerable budgets – in charge of the explicit design, planning and implementation of transformation processes required to incorporate the intensive use of ICTs into their basic functions. In other words, the management of innovation – in particular, linked to technology – is now becoming common in the specific scope of activity of administrations.

3.2.3. Interface for Relationships between Citizens and the Public Administration

The interface for relationships between citizens and the Administration is the dimension that includes the direct objects of technological innovation processes in the public services analysed in this document. This dimension basically incorporates the three main channels (in terms of the use and resources destined) of the interface for interaction with users: the face-to-face channel (public service offices), telephone or Internet. In particular, we study the innovation projects linked to this interface, focused on introducing new information and management systems, improving and/or completely reforming existing systems and modifying related decision-making processes.

This selection is justified because the support channels allow us to analyse a) the internal structure and running of the Administration in the provision of service and information, and b) the role developed by technology in the provision of services in a key area for the incorporation of technology to the Administration and c) the role of the private sector in the design and implementation of these initiatives, as a provider or joint manager of the Administration in the delivery of public services; and, finally, because d) most of the interaction between citizens and governments is concentrated around these channels (in addition, naturally, to from elections).

Even though these channels are a privileged space for technological innovation and organisational change, they are also a space for the permanence of traditional organisational forms and, therefore, for tension with network forms. We will mainly analyse two aspects: the channels themselves (integration of channels, interactivity, accessibility, etc.) and their contents (intelligibility, coherence, consistence, redundancy, personalisation, etc.).

3.2.4. Users/Citizens

Finally, we will consider the results of these results of this process focusing on the citizen. In this sense, the citizen acts as the “end user” and main driving agent in a process of change, through their uses and demands. The indicators considered will thus be use, satisfaction, user

profiles, perception, etc. From the point of view of dynamic relationships, our analytical model reflects the fact that the contact between the Administration and citizens is produced with the participation of a growing number of mediators (in the form of technologies, units, actors, etc.). The channels for interaction with citizens appear in the model as agents with their own entity and characteristics.

The importance of channels is reflected in the fact that citizens' perception of the Administration is strongly conditioned and intermediated by their perception of the service channels (by their efficacy, capacity of response, flexibility, etc.). The efforts of administrations to improve can obviously prove highly profitability in terms of the public image.

The link between citizens and service channels is two-way, not only in that citizens and administrations exchange data and documents in many procedures, but also because the administration receives metadata from users, i.e. data or information about users' level of satisfaction, channel saturation levels, number of complaints, etc. In fact, one of the characteristics of the Network Administration is the huge importance acquired by this data.

Similarly, the relation between the structure and operation of the Administration and its ways of managing and planning innovation is also two-way. On the one hand, the specific characteristics of the Administration have a certain influence on the way in which the incorporation of technology is planned and how new information systems are introduced in the organisation – despite the empirical evidence in the international environment, where the variability of administrative systems is contrasted with a relatively homogeneous environment of problems in the deployment of e-government. However, the strategies for innovation management have a direct or indirect impact on the changes in the structure and organisation of the administration. The objective of our empirical work also includes determining the extent to which these transformations represent a change in the global organisational model or are simply isolated changes in determined elements of the structure.

Chapter 4

Methodology

4.1. Background Information and Presentation of the Research Project

The research project is backed up by solid background information. During the first phase of the Project Internet Catalonia, the Public Administration had already been subject to the analysis of two case studies. Firstly, the study “The Barcelona II Model: Barcelona City Council in Catalonia’s Network Society”, where technological innovation, organisational change and the transformation of public services and political processes of the local administration of the city of Barcelona were analysed. The second research project, titled “E-government and Public Services: a case study of the inter-administrative portal CAT365”, completed the e-Governance CAT365 study promoted by the Generalitat and Consorci Localret. In this research project we analyse the class of interactions produced between technological innovation (represented by this project) and the organisation and internal running of the Generalitat of Catalonia.

Therefore, this is the background information for the study of the Generalitat of Catalonia. However, the following research project has notably modified its focus and the object of the analysis. The research project analyses the transformation of the administration as well as the relationships between the Administration and citizens, derived from the implementation of e-governance, initiatives in the Generalitat of Catalonia.

4.2. Justification and Interest in the Study

This research project falls within the framework of e-governance studies and is aimed at understanding the way in which the relationship between the Administration and citizens is transformed through technological innovation processes. In particular, the study focuses on the use of technology as the interface for the interaction between citizens and the administration, as well as the processes in which these uses are configured in the Generalitat of Catalonia, while configuring their internal organisational and external links. We will mainly analyse the key elements (technological, organisational and cultural) in the design and/or reform of the public service channels, as well as their operation.

4.3. Purpose of the Study

The research project has been designed as a study on e-governance, based on a methodological approach that, with the use of mainly (though not exclusively) qualitative tools, has allowed us to achieve a high level of precision in the study of the transformations of the Public Administration. As explained above, the purpose of our analysis is the Generalitat of Catalonia as a whole. But there are some elements that we must take into account. In the first place, even though the transformations linked to technological innovations in citizen interaction channels are clearly being observed in the Autonomous Catalan Administration, there is a unit in charge of controlling and managing the different corporate channels used to communicate and interact with citizens (mainly face-to-face support, telephone and the Internet): the General Public Service Department (hereinafter Citizen Information Department). In parallel, in accordance with the change in orientation adopted after the change in Government of the Generalitat of Catalonia (December 2003), this unit became responsible for leading most of the initiatives based on e-government. This situation led us to limit the empirical study – at least most of it – to the Citizen Information Department and the projects promoted from this organisation.

A basic and fundamental element in this project has been its empirical base. The base has been created with a vast and exhaustive amount of fieldwork that has addressed the wide diversity of research techniques and different sources of information (both primary and secondary). In this sense, the dimensions of the Generalitat represented too large a scope for this kind of study and for our rather small research team. Therefore, limiting the empirical study to the Citizen Information Department has represented a practical advantage by its dimensions, which can be handled by the team.

In parallel, the interest of this research project is not simply to analyse the changes citizens' relationships with the administration, but rather to observe the structural, organisational or cultural transformations within the administration. If we focus on a single unit, we can set the limits for our empirical work, following a series of determined projects and obtaining in-depth information in some cases about the branches or roots of the organisation, gathering additional information from the general organisation structure. This would have been impossible for the set of organic units of the Generalitat as a whole.

The Citizen Information Department is quite a large unit if we compare it with the Generalitat (with currently more than 50 employees) and one of its main features is its transversal nature. This function is mainly developed through the coordination of the Gencat portal, the 012 helpline and the SAC information system (used by all departments to interact with the Citizen Information Department). Therefore, in accordance with the operation of the

unit we will achieve a twofold objective: The study of technological innovation projects linked to the relationship with citizens and the analysis of the organisational reform with the presence of these projects in the different departments of the Generalitat. In addition, the circumstances of the three systems started a reform and transformation process in 2003 and 2004, which has allowed us to view their conceptualisation, design and design process. Therefore, our new research project will be mainly focused on monitoring the main projects promoted from the Citizen Information Department. Similarly, we have used a more or less comprehensive approach for monitoring other projects drafted by the unit (for example, the project for the implementation of a Content Manager, the e-Catalonia project, etc.), or by other units with similar characteristics (such as the Hypermap project of the Department for Town and Country Planning and Public Works).

Despite the main interest in the Citizen Information Department, the fieldwork has not been exclusively focused on this unit, but also on other units and departments of the Generalitat. Thus, it is important to highlight the analysis carried out on the organisation of IT in the Generalitat as a whole, depending on the transversal character mainly in the hands of the Telecommunications and Information Technology Centre (Centre de Telecomunicacions i Tecnologies de la Informació, CTTI).¹⁰ In this case, rather than simply monitoring the reform project, the evolution of the different models adopted for the organisation of IT has been studied since the start of the operations of the Generalitat.

The transversal character of the projects selected did not take into account the changes produced individually within each department through its own projects. For this reason, the other part of the empirical work has dealt with detecting the departments' innovation projects. Therefore, our aim was to present a global picture of the Generalitat and the main projects in operation, being implemented or simply designed and promoted individually or in groups.

Finally, the research project also incorporated an analysis of the particular characteristics of e-governance in the Catalan administration in relation to the international context. The analysis has been carried out with a comparative study of the leading initiatives in three regional administrations of Europe and North America: Scotland, Emilia-Romagna and Quebec.

10. The Telecommunications and Information Technology Centre is an autonomous body that reported to the Department of Universities, Research and the Information Society until the government reorganisation in May 2006. As a result of this reorganisation, the Telecommunications and Information Technology Centre now reports to the Presidential Department.

4.4. Empirical Research

The focus on the analysis of technological innovation processes led to an approach based mainly (though not exclusively) on qualitative methodologies. Therefore, the interviews and participating observation are the foundations on which the research project is supported. In parallel, to address specific aspects we have chosen the use of methodological tools with a quantitative approach (such as surveys or the analysis of social networks). In any case, the results presented throughout the research project are duly differentiated in accordance with their empirical source. Detailed information about the methodological tools used is shown next.

4.4.1. Participating Observation

One of the most relevant aspects of this research project is the fact that two of the three researchers had the possibility of being physically located in the Generalitat of Catalonia during a period of almost two years (between June 2004 and May 2006). So, there was a prior agreement at the start of the research project whereby the researchers of the project could be physically inside the Administration with a small work space. In particular, we were located in the Citizen Information Department, which allowed us to study the daily running of the Administration and also gave us privileged access to its employees.

The observation has mainly involved the monitoring tasks carried out during the design, development and follow-up of the projects promoted by the Citizen Information Department, on which our analysis has been focused. The meetings were recorded in notebooks and not only included the description or account of the matters discussed, but also a first-level analysis, following an observation outline. The notes were transcribed in digital format for their subsequent analysis. The next step, in parallel to the theorisation activities, was the analysis and categorisation of the material with the ATLAS.ti content analysis software.

4.4.2. Interviews

The second technique used was semi-structured interviews, carried out at the end of the research project (between June 2004 and April 2006). A total of 106 interviews were held with different people, 75 of which were carried out with Generalitat personnel and 31 were members of the administrations of Quebec, Emilia-Romagna and Scotland. Since the projects studied were evolving, various people (due to their central role in the projects analysed) have been interviewed more than once. The total number of interviews was 124.

The average length of the interviews was one hour and the information gathered has been used to draft this report in the form of quotes from the people interviewed (coded to maintain

the anonymity of the people interviewed). So, each quote is presented in inverted commas with a code "P" and the number of the corresponding interview (for example, "... [P56]"). The categorisation and analysis of the interview material was carried out with the ATLAS.ti program.

4.4.3. Surveys

For the reform of the Gencat portal, the company Abilbo carried out a survey with the different managers and supervisors of the webs that report to the Generalitat. The surveys were used by the Citizen Information Department as an initial approximation method to learn about the stage of development of the different departments, secretariats, general management areas, autonomous units, etc. with a website.

With access to this information and the prior agreement of the Citizen Information Department, the research project used part of these surveys. However, the level of response of web managers and supervisors varied depending on each department, so that there was a clear under-representation in each department. In addition to the fact that many surveys came from external entities or organisations, we chose to solely focus on the main webpages of each department. In this sense, the data related to these operations do not aim to be representative of the total number of websites (267 during the survey) of the Generalitat. They are, however, representative of the data of the main websites of each department, without a doubt the pillar at organisational level.

4.4.4. Network Analysis

The Governance Department regularly drafts a document with the list of commissions in the Generalitat and the departments that lead them. These documents give the departments and specific units that participate in these commissions so that it is possible to see how the relationships between these departments are configured.

With this information an analysis was carried out with the social network data related to February 2003 and February 2006, so that it has been possible to carry out a comparative analysis. In particular, an affiliation network has been created, coding double inputs, matching actors and events (i.e. the commissions where they participate).¹¹ It has not been possible to provide a graphical

11. Affiliation networks are bimodal networks that consist of a given set of actors and a given set of events. Therefore, the analysis is not directly focused on the links between actors, but the links established between them with joint results in a given event. With this information, we have built a single-mode affiliation network solely composed of actors.

representation with the analysis of the setup of networks between actors at two different moments in time. We consider that it is a useful indicator about the internal running of the Administration when compared to the cooperation and integration of the Administration's units.

4.4.5. Documentation Analysis and Use of Secondary Sources

The documentation analysis has been especially important for drafting this report. The documentation was obtained from the Administration and external consultants and companies present in the development of the projects. In parallel to this information, we should stress the information with an analytical character generated by the Generalitat with its own studies. With the use of this information as the secondary data source, in some cases we can even access the original data directly and work with it (mainly data matrices of surveys and users of channels). Finally, the documentation analysis has also included legislative documentation.

4.4.6. Email Tests

As a complementary analysis to the dimensions related to transparency, we have also carried out an analysis on the contact channels of the Generalitat through the electronic mail addresses. So, a query message was sent to the addresses accessible in each department, to request their location and opening hours of each corresponding department. We have then calculated the response time in each case. This test was of special interest since it was a test that had been carried out in the previous study. We have been able to study the evolution of the Generalitat in time.

4.4.7. Comparative Study with Other Countries

Finally, the research project is aimed at analysing the particular characteristics of the transformations of the Generalitat within the international context. To do so, a comparative study was carried out between the administrations in three regions (two in Europe and one in North America), which analysed – mainly through interviews and documentation analysis – its internal operations derived from technological innovation projects and the existence of different e-governance models. The regions chosen were Quebec, Emilia-Romagna and Scotland. There are various reasons that justify this choice.

Firstly, they belong to models in different states: liberal-Anglo-Saxon (Scotland and Quebec) and conservative (Emilia-Romagna and Catalonia). This will allow us to contrast the influence of the institutional context on e-governance. Secondly, two of the regions have

relatively similar levels of competencies and have been operating for a longer period (Quebec and Catalonia).

Finally, they are regions with different levels in comparison with the indicators of the information society and e-administration (very good in the case of Quebec, similar between Catalonia and Scotland and lower in the case of Emilia-Romagna).

Chapter 5

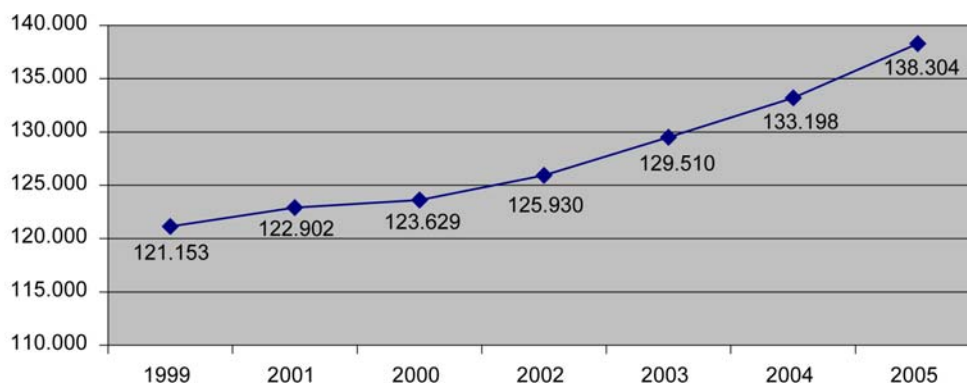
Structure and Organisation

5.1. The Internal and Employee Structure of the Public Administration

Despite the fact that there have been some initiatives in the global organisational transformation of the Generalitat,¹² its organisational structure still has the characteristics of traditional public bureaucracy. Therefore, the different reforms of the administrative structure did not follow a process that would rethink the existing organisational structure in other departments. This is why the Generalitat is still characterised by a high degree of organisational compartmentalisation.

In addition, the literature on the subject has often talked about the sustainable growth of the public sector as a characteristic that is the true essence of the Administration (Jain 2004, OCDE 1991). Despite the many different proposals on the need to reduce the number of employees of the Administration – the Generalitat has followed this path at times (Salvador 2005) –, the generalised trends have not followed this path. Firstly, there has been an increase in the volume of employees of the Generalitat during the last six years. The following graph shows the evolution of the total number of employees of the Generalitat since 1999.¹³ In absolute terms, there has been an increase of 17,151 people, a 14.1% increase between 1999 and 2005.

Figure 1. Generalitat Staff



Source: Public Function. In-house production

12. For example, we can highlight the Governance Plan CAT21 (1999-2003 parliamentary term), a project with a clear vocation for transversal integration that was clearly above the division and compartmentalisation of the Generalitat, facilitating the coordination between workers. However, there is no express will to change in relation to the administrative systems (Salvador, 2005).

13. It includes the employees linked to departments; autonomous bodies; autonomous commercial, industrial or financial entities; management entities of the Social Security and the Catalan Healthcare Service, as well as other bodies (in particular, the Legal Advisory Commission). <http://www.gencat.net/governacio-ap/administracio/estudis.htm> (Acceso 27/6/06).

An element that explains the increase is the fact that it has gone hand in hand with the deployment and recovery of competencies of the Generalitat since it was established. In this sense, for example, the number of employees of the “Mossos d'Esquadra” (Local Police) has doubled between 1999 and 2005 and currently accounts for 9.9% of the total employees of the Generalitat. However, the transfer of employees does not completely explain the figures exposed, since the growing trend has been common throughout Spain. Thus, between 1990 and 2001, despite the decrease of employees in the Central Administration (-23%), in global terms, the employees of the Public Administration (central, autonomous and local administration) increased by 19% (OCDE, 2002).

This information does not imply that the elements of the organisational and internal operating structure would not have been left untouched. On the contrary, in recent years, the autonomous Administration has seen the transformation of its organisation and internal operation dynamics. We will now focus on the aspects related to these changes in the Generalitat and, globally, on the changes in the public service areas. With this analysis we will see the elements for the transformation or survival of the bureaucratic organisation.

5.2. Compartmentalisation, Cooperation and Transversality

During the last weeks of 2003, the Administration of the Generalitat had 15 departments, 15 sector secretariats, 92 general management areas, 27 autonomous organisms or agencies, 59 public companies and 3 health and social security management centres. Even when this element can be viewed as an example of decentralisation, for most interviewed people it is an obstacle in the cooperative operations of the Generalitat (P64, P17, P15) that prevents the development of integrated policies. Therefore, departments are viewed internally as totally independent compartments that are not connected to one another. As explained next, it is a circular argument that helps explain the difficulties in the cooperation and transversality of the Generalitat, which reflects the need to “regroup the government” (P59).

One of the most characteristic elements of the transformation of the public sector towards the Network Administration is the trend towards cooperation and transversality, which would occur after a greater interrelation between administrations and units within the same Administration (Layne and Lee, 2001; Mahler and Reagan, 2002; Castells and Ollé, 2003). The aforesaid information is conceptualised as a vertical integration (when the increase in relationships is between administrations from different levels) or as a horizontal integration (when the increase is within the same administration) (Aibar and Urgell, 2004). This research project has focused on the horizontal integration, observing what is happening within the Generalitat and its different bodies.

Next, we will analyse the extent of horizontal integration in the Generalitat. In fact, we will explore one of the main hypotheses: that currently there is a transition processes in the Administration that is leading to an increase in the degree of transversality, to greater cooperation between departments and greater coordination to carry out joint projects.

As a result we should stress that the empirical work does not allow us to speak of a radical change in this direction and especially with the same weight or with the same elements at all levels of the Administration. For these reasons, in the analysis we can distinguish between global events of the Administration – what we have considered as the relationships at the managerial levels and with a higher power – and the events at the operating levels that incorporate the intermediate and lower levels of the Administration. We will focus on the first of the two cases.

5.3. Cooperation and Transversality at the Management Levels of the Administration of the Generalitat

The sources to observe the horizontal integration at the management levels of the Generalitat mainly come from the analysis of the social networks, used to visualise the relations between the departments of the Generalitat. The relational data show the link existing between two elements and from here we can build networks that graphically show a general vision of the state of relations in a defined set of actors (Molina, 2001). The knowledge of the links existing between authors gives us not only a descriptive analysis that will help us understand the connection between actors in a determined field. In addition, the high explanatory power provided by the graphical representations of networks (Brandes et al., 2005) allows us to identify the neuralgic points of the network of relationships between departments and the nodes with a higher weight (and power).

5.3.1. The Interdepartmental Networks

The interdepartmental commissions are organs with a high political level and executives of the Generalitat (mainly the chairman, members of the board, general secretaries and managing directors), the origin of which “is to guarantee work in cooperation” (P107).¹⁴ For some years now, the Generalitat has registered the existing interdepartmental commissions, the name of the commission, the regulations, the main purpose and finally, the departments participating in it. With this information, we have carried out a comparative study of the existing commissions in February 2003 and April 2006, through which we have observed, at least partially, the evolution of relations established between the councils of the Generalitat.¹⁵ The participation in common events (the interdepartmental commissions) creates relations between actors (councils) (Wasserman and Faust, 1999).¹⁶ In this sense, to obtain a good connection to the network, not only it is important to be present in a large number of commissions, but actors present in the network must also be well connected. We are interested in observing not only the volume of relations but also the number of participating departments, those with the most constant presence, the centralities configured, etc. To carry out this study, we have carried out an analysis of affiliation networks.

14. The Interdepartmental Commissions are administrative organs used for coordination, consultation, assessment and proposal tasks, aimed at managing issues that could affect more than one department. They have consulting competencies.

15. We must take into account that the number of departments existing as of April 2006 was higher (16) than those existing in February 2006 (13).

16. Even though in affiliation networks the joint-results do not necessarily involve a relation between actors, in the case of the networks analysed, an initial budget has been used, since the decisions of the commissions link participating departments.

Before analysing the results, we must highlight a series of elements. Firstly, all departments will be connected, since in many interdepartmental commissions everyone participates. In other words, this is a particular characteristic of the networks being analysed, since all nodes will be connected. Furthermore, we are interested in analysing the characteristics of existing links, between which actors they are formed and which hold the central positions. The strength and intensity of these links will be mediated with the volume of joint results of actors in interdepartmental commissions, in other words, the actors that share the assistance to these commissions. Therefore, some of the commissions can be redundant for the network of relationships in a department if, for example, it coincides with the same actors.

a) Assistance and Joint-results in Commissions

An important element we must highlight first is the fact that the number of commissions has been reduced, contrary to what we expected. So, while in 2003 the total number of interdepartmental commissions was 53, the figure dropped to 38 in 2006. The data of the affiliation matrices is shown next for the two moments in time studied. Table 1 shows the joint result matrix in commissions for the 13 departments existing in 2003.

Table 1. Affiliation Matrix 2003¹⁷

		1	2	3	4	5	6	7	8	9	10	11	12	13
		DA	BE	CU	EC	EN	GO	JU	MA	PT	PR	SA	TR	DU
1	DARP	26	16	17	23	19	23	19	23	26	23	23	25	14
2	BENESTAR	16	25	18	16	21	19	20	13	17	19	21	21	13
3	CULTURA	17	18	22	16	18	21	18	14	17	18	19	18	13
4	ECONOMIA	23	16	16	32	19	25	19	20	23	28	23	25	17
5	ENSENYAMENT	19	21	18	19	27	21	23	16	19	23	25	21	15
6	GOV/RRII	23	19	21	25	21	32	22	20	24	25	25	26	15
7	JUST/INT	19	20	18	19	23	22	26	16	19	22	25	20	13
8	MAMBIENT	23	13	14	20	16	20	16	24	23	20	20	23	14
9	PTOP	26	17	17	23	19	24	19	23	28	23	23	27	14
10	PRESIDENCIA	23	19	18	28	23	25	22	20	23	34	24	23	16
11	SANITAT/SS	23	21	19	23	25	25	25	20	23	24	34	26	15
12	TR/IN/CO/TU	25	21	18	25	21	26	20	23	27	23	26	35	15
13	DURSI	14	13	13	17	15	15	13	14	14	16	15	15	18

Source: in-house production

The diagonal of the matrix shows how the number of commissions in which the commissions participated dropped from 18 (corresponding to the Department for the Information Society) to 35 (corresponding to the Department for Employment, Industry, Trade and Tourism). In turn, if

17. DARP (DA): Department for Agriculture, Food and Rural Action; BENESTAR (BE): Welfare; CULTURA (CU): Culture; ECONOMIA (EC): Economy; ENSENYAMENT (EN): Education; GOV / RRII (GO): Governance / Institutional Relationships; JUST / INT (JU): Justice / Interior; MAMBIENT (MA): Environment; PTOPT (PT): Department for Town and Country Planning and Public Works; PRESIDÈNCIA (PR): Presidential Department; SANITAT / SS (SA): Healthcare / Social Security; TR / IN / CO / TU (TR): Employment / Industry / Trade / Tourism; DURSI (DU): Department for the Information Society.

we analyse the number of joint-results in commissions by pairs (i.e. the data outside the diagonal), the range observed is 14 (from 13 commissions to 27). The standard deviation is 2 points.

Here is what happens with the affiliation matrix in 2006. As regards the number of assistance to commissions, the range of this case goes from 19 (corresponding to Culture) to 30 (corresponding to Presidency, only absent in 8 commissions). On the other hand, if we focus on the number of joint results in commissions by matching departments, the values are between 17 and 25 commissions (with a range of 8 points), while the standard deviation is 0.9.

Table 2. Affiliation Matrix 2006¹⁸

		1	2	3	4	5	6	7	8	9	10	11	12	13
		DA	BE	CU	EC	EN	GO	JU	MA	PT	PR	SA	TR	DU
1	DARP	26	16	17	23	19	23	19	23	26	23	23	25	14
2	BENESTAR	16	25	18	16	21	19	20	13	17	19	21	21	13
3	CULTURA	17	18	22	16	18	21	18	14	17	18	19	18	13
4	ECONOMIA	23	16	16	32	19	25	19	20	23	28	23	25	17
5	ENSENYAMENT	19	21	18	19	27	21	23	16	19	23	25	21	15
6	GOV/RRII	23	19	21	25	21	32	22	20	24	25	25	26	15
7	JUST/INT	19	20	18	19	23	22	26	16	19	22	25	20	13
8	MAMBIENT	23	13	14	20	16	20	16	24	23	20	20	23	14
9	PTOP	26	17	17	23	19	24	19	23	28	23	23	27	14
10	PRESIDENCIA	23	19	18	28	23	25	22	20	23	34	24	23	16
11	SANITAT/SS	23	21	19	23	25	25	25	20	23	24	34	26	15
12	TR/IN/CO/TU	25	21	18	25	21	26	20	23	27	23	26	35	15
13	DURSI	14	13	13	17	15	15	13	14	14	16	15	15	18

Source: in-house production

The previous results show, in the first place, the total number of commissions and the distance between actors that have a higher and lower participation, which have decreased in global terms in 2006. In this sense, we could infer – at least as regards this source of information – that there is a lower interrelation in 2003 in comparison with the Generalitat as a whole in 2006. However, if we look at the results with more detail we find some relevant elements that contradict this interpretation.

In the first place, we can see that the range and standard deviation are lower than that existing in 2006, indicating that the departments have been notably homogenised and that there are less internal differences between departments. We can analyse this matter with more details. As we have stated in relation to connectivity and cooperation with other actors, the fact of assisting many commissions is not relevant, but rather the fact that these commissions share the assistance with other actors (the greater the number and the greater the

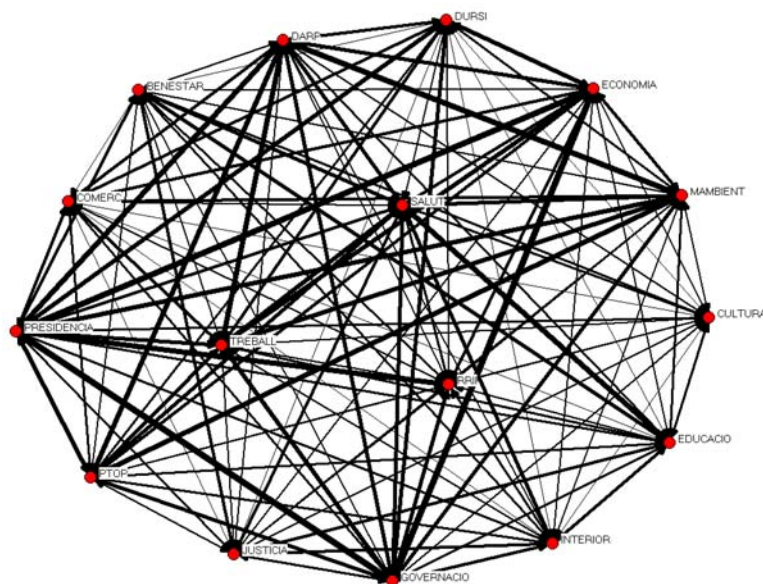
18. DARP (DA): Department for Agriculture, Food and Rural Action; BENESTAR (BE): Welfare; COMERÇ (CO): Shopping; CULTURA (CU): Culture; ECONOMIA (EC): Economy; EDUCACIÓ (ED): Education; GOVERNACIÓ (GO): Governance; INTERIOR (IN): Interior; JUSTÍCIA (JU): Justice; MAMBIENT(MA): Environment; PTOPI (PT): Department for Town and Country Planning and Public Works; PRESIDÈNCIA (PR): Presidential Department; RRII (RR): Institutional Relationships; SALUT (SA): Health; TREBALL (TR): Employment; DURSI (DU): Department for the Information Society.

centrals, the better the connectivity). To see this, we can look at the joint-results on the matrix (data outside the diagonal line). If we analyse the results as a set, we find that the average number of joint-results per department in 2003 was 16.9, while in 2006 they were 19.5. Therefore, despite the lower number of spaces for cooperation between departments at the global levels, actors cooperated more and found more common spaces to work together in 2006. So, in 2006 there is more connectivity and a greater general cohesion than in 2003. In other words, the existing commissions are more efficient to link departments for joint work.

5.3.2. The Interdepartmental Networks

The system of relations between departments at each moment is configured as follows. We will look at the affiliation network first, taking into account all commissions existing in 2006. As we can see in Figure 2 with the set of existing commissions, all departments are linked – with a greater or lower intensity. In particular, the graph shows how the nodes are linked if we count all commissions. We must take into account that the strength or intensity of the connection is reflected in the type of link (a thicker connection indicates more joint-results and, therefore, more intensity in the link) and not by the physical position that the nodes hold on the graph. In fact, the physical distribution of these departments in the network of this analysis is random.

Figure 2. Total Commissions 2006¹⁹

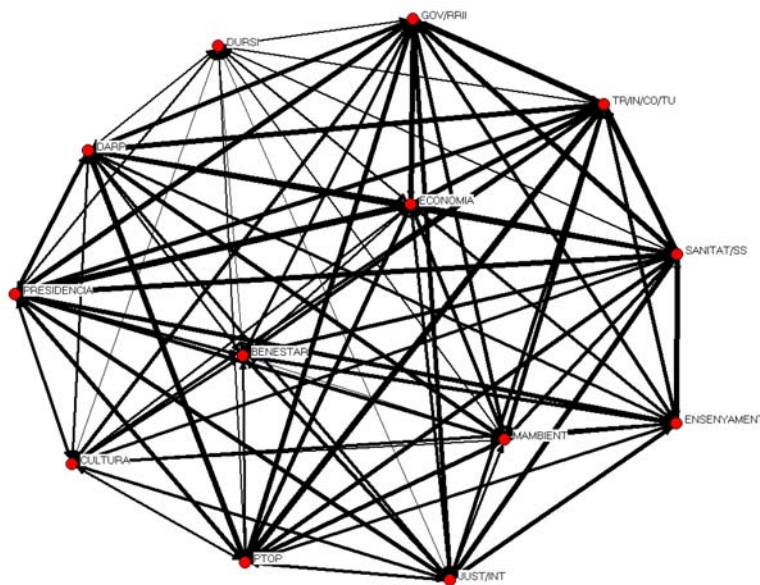


Source: in-house production

19. DARS: Department for Agriculture, Food and Rural Action; BENESTAR: Welfare; COMERC: Shopping; CULTURA: Culture; ECONOMIA: Economy; EDUCACIO: Education; GOVERNACIO: Governance; INTERIOR: Interior; JUSTICIA: Justice; MAMBIENT: Environment; PTOPI: Department for Town and Country Planning and Public Works; PRESIDENCIA: Presidential Department; RRIL: Institutional Relationships; SALUT: Healthcare; TREBALL: Employment; DARS: Department for the Information Society.

The situation presented does not vary substantially if we compare it to the total network of commissions in 2003 (Figure 3), since it was at that moment that the councils were connected. However, there might be a denser network of links between departments than in 2006.

Figure 3. Total Commissions 2003²⁰



Source: in-house production

We are now interested in observing up to what point relations are more or less strong between departments and which have a determining weight. In the previous graphs, this element can be sensed by the thickness of the lines that link nodes. In this sense, for example, we can see how in 2006 the Departments of Culture or Justice are joined to the rest of departments by various links, but they are much weaker (the joining lines are thinner) than those that link the Presidential Department or Department for Town and Country Planning and Public Works.

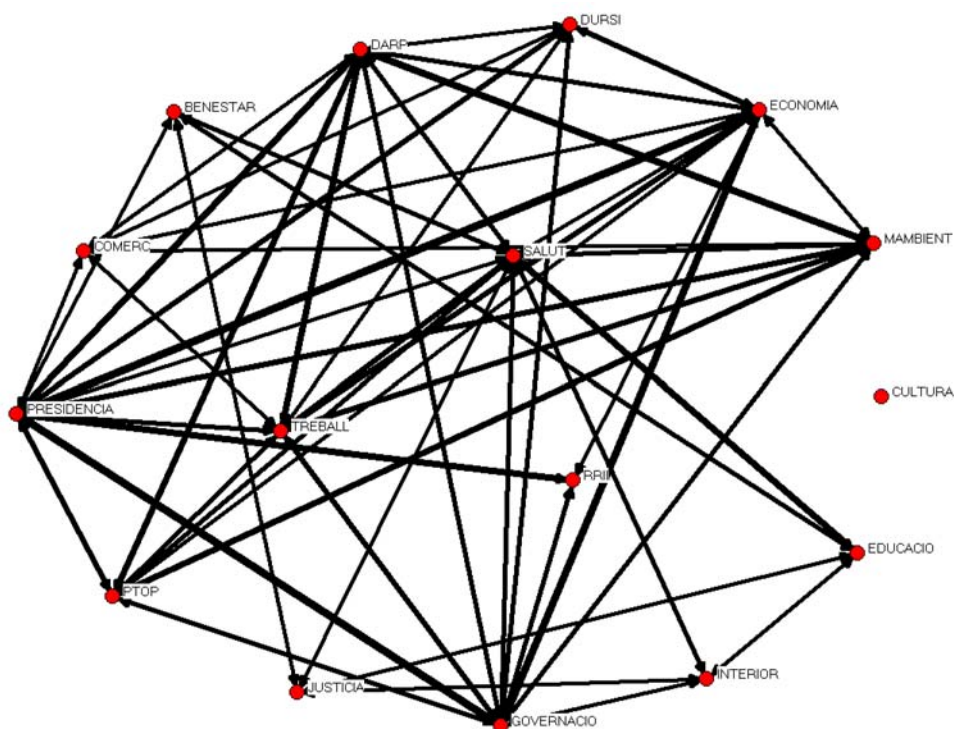
The analysis of networks allows us to clearly visualise these elements, providing more precise information on the graphs. In the previous point we have visualised the total number of commissions existing in the Generalitat during 2003 and 2006. We will now only look at the networks where the joint-results are established in departments with a minimum number of commissions and we will progressively increase this minimum number until we find more interconnected departments. Likewise, this will also allow us to see the

20. DARPA: Department for Agriculture, Food and Rural Action; BENESTAR: Welfare; COMERÇ: Shopping; CULTURA: Culture; ECONOMIA: Economy; EDUCACIÓ: Education; GOVERNACIÓ: Governance; INTERIOR: Interior; JUSTÍCIA: Justice; MAMBIENT: Environment; PTOP: Department for Town and Country Planning and Public Works; PRESIDENCIA: Presidential Department; RRII: Institutional Relationships; SALUT: Healthcare; TREBALL: Employment; DURSÍ: Department for the Information Society.

departments with fewer connections and which are further away from the connection nucleus every year.

Firstly, we can see what happens in the network in 2006 with the detection of joint-results of departments in 20 or more commissions. The first department that is disconnected from the rest is the Culture department. One of the interviewed people explained this situation: “it is a department that has traditionally had more relationships with bodies external to the Generalitat, such as, for example, museums or musical entities” (P107). This is corroborated in 2003, since Culture was the second department disconnected.

Figure 4. = 20 Commissions 2006²¹



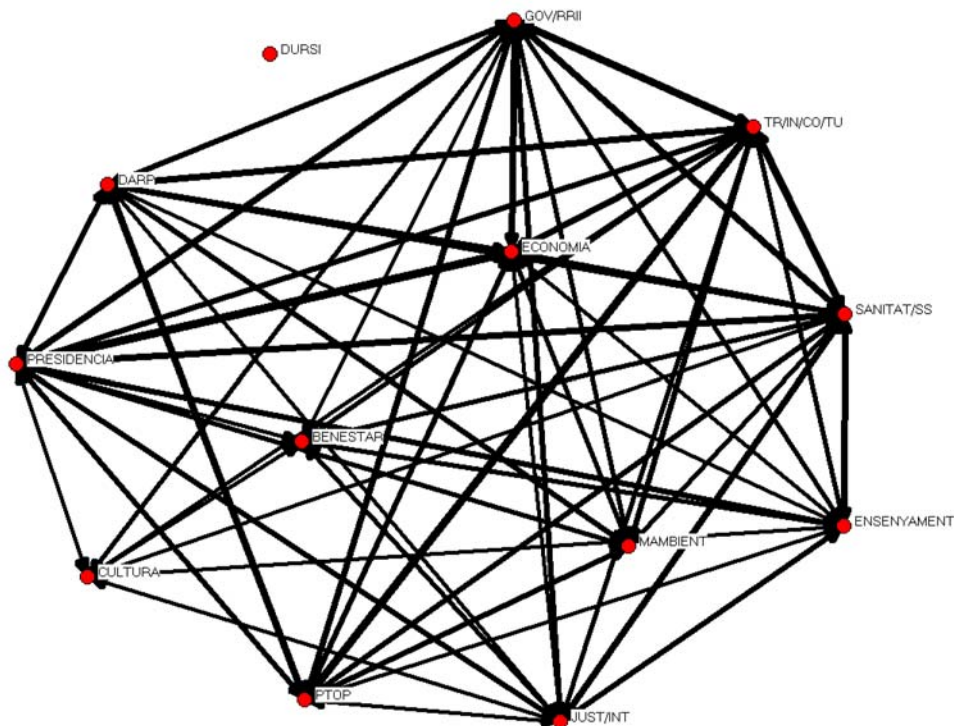
Source: in-house production

If we plot the network configured in 2003 for the joint-results of departments in 19 or more commissions (Figure 5), we can see that, as in the case of Department for the Information Society, it is the first department that is disconnected from the network. This element is specially relevant for the purpose of the study if we take into account that Department for the Information Society was (until May 2006) the Department in charge of the Information Society

21. DARS: Department for Agriculture, Food and Rural Action; BENESTAR: Welfare; COMERC: Shopping; CULTURA: Culture; ECONOMIA: Economy; EDUCACIO: Education; GOVERNACIO: Governance; INTERIOR: Interior; JUSTICIA: Justice; MAMBIENT: Environment; PTOPI: Department for Town and Country Planning and Public Works; PRESIDENCIA: Presidential Department; RRII: Institutional Relationships; SALUT: Healthcare; TREBALL: Employment; DURSI: Department for the Information Society.

policies of the Generalitat. So, an area that is currently considered transversal (P17, P59), was in 2003 part of the most peripheral department.

Figure 5. 19 Commissions 2003²²



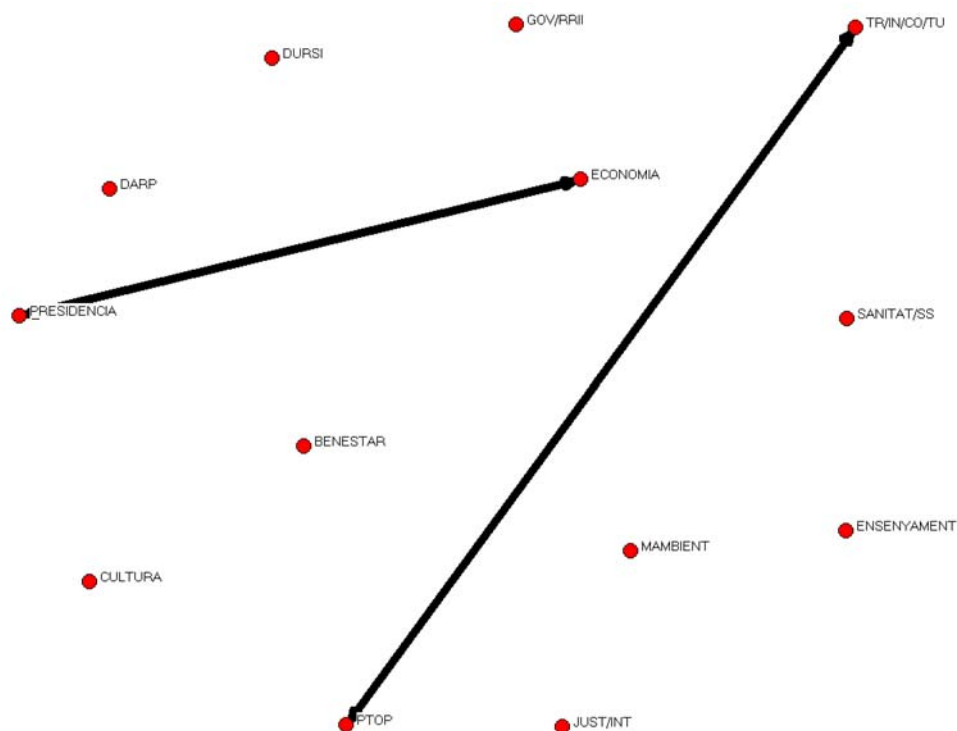
Source: in-house production

We will not stop to explain each level of relations and present all relations between departments in the graphs, since we can see this as a set in the dendrograms at the end of this section. However, we have considered that it would be interesting to see how the networks are configured in the last stages, i.e., where there is a high number of relations between councils.

a) *Final Network Stage 2003*

We can see how the networks were configured in 2003 with 27 or more commissions (figure 6).

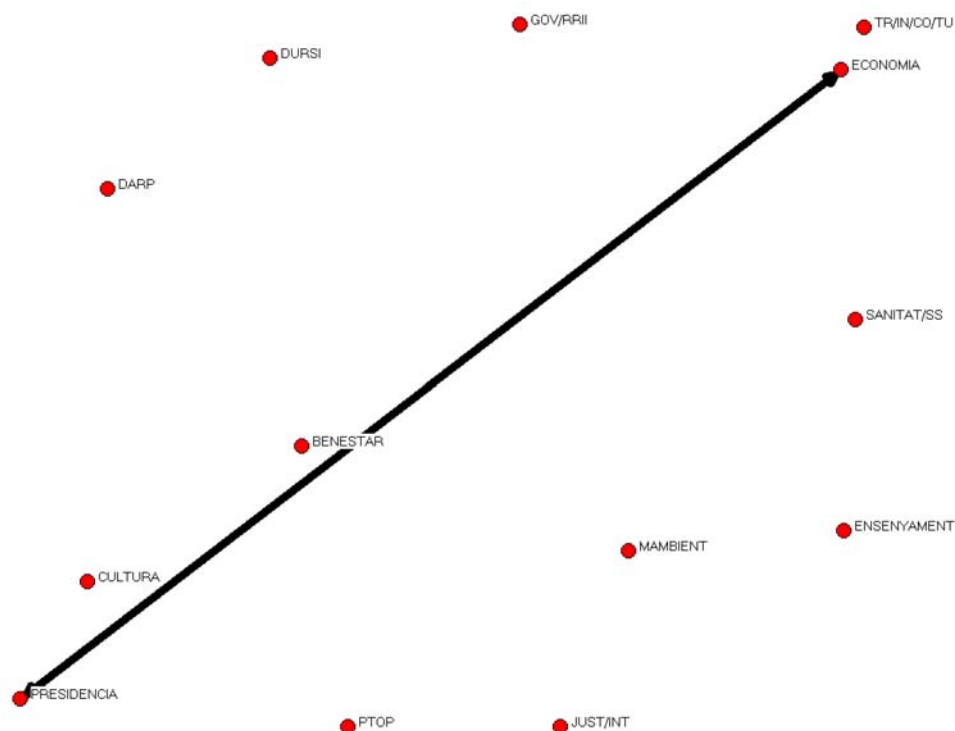
22. DARF: Department for Agriculture, Food and Rural Action; BENESTAR: Welfare; CULTURA: Culture; ECONOMIA: Economy; ENSENYAMENT: Education; GOVERNACIÓ: Governance; JUS/INT: Justice/Interior; MAMBIENT: Environment; PRESIDÈNCIA: Presidential Department; SANITAT/SS: Healthcare/Social Security; TR/IN/CO/TU: Employment/Industry/Trade/Tourism; DURSI: Department for the Information Society.

Figure 6. ≥ 27 commissions 2003²³

Source: in-house production

As we can see in the previous graph, the number of departments present in the network has been substantially reduced and two groups or clusters have been formed. There is a first group, composed by the departments of the Department for Town and Country Planning and Public Works and the group formed by Employment/Industry/Trade/Tourism. This fact would partly explain the importance of this node, since it groups many departments in one. The other group would be formed by the Presidency and Economy areas, the group that had the greatest centrality in the network at the time. The following and last graph for 2003 (corresponding to 28 commissions) shows how these two departments have the same figures, which have not changed through the years.

23. DARP: Department for Agriculture, Food and Rural Action; BENESTAR: Welfare; CULTURA: Culture; ECONOMIA: Economy; ENSENYAMENT: Education; GOVERNACIÓ: Governance; JUS/INT: Justice/Interior; MAMBIENT: Environment; PRESIDÈNCIA: Presidential Department; SANITAT/SS: Healthcare/Social Security; TR/IN/CO/TU: Employment/Industry/Trade/Tourism; DURSI: Department for the Information Society.

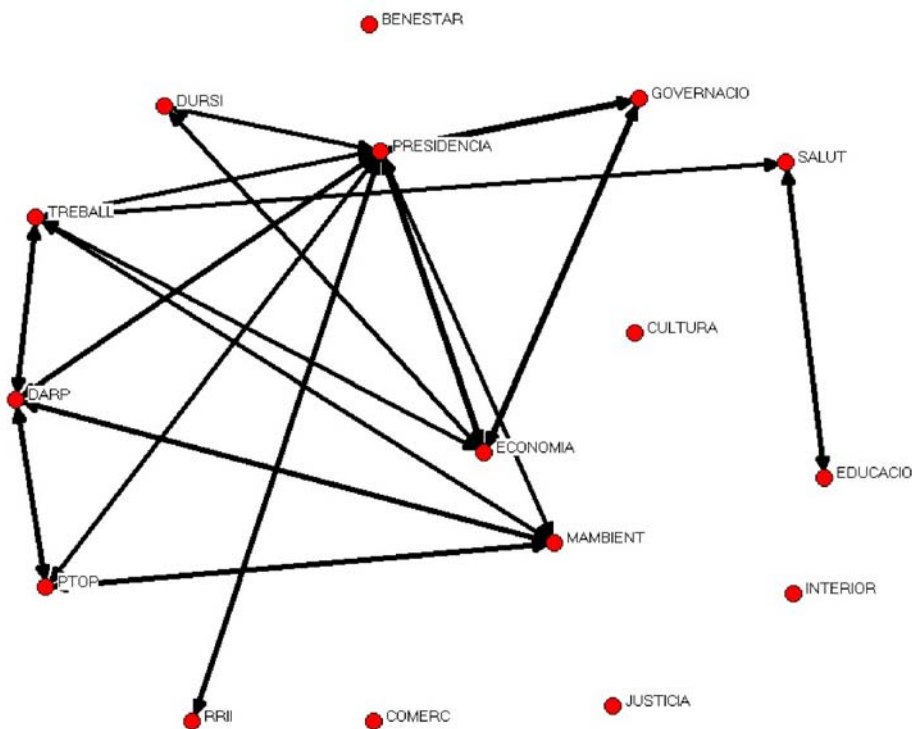
Figure 7. 28 Commissions 2003²⁴

Source: in-house production

b) *Final Phase Networks 2006*

We will now look at the last phases of the networks for the year 2006. First, however, we wanted to highlight the figure showing departments connected in 22 or more commissions. It is the last diagram in which the Department for the Information Society (which at the time the data was gathered was still located in the Secretariat for the Information Society), appears connected to the network. Aside from the obvious differences with respect to the situation in which this department found itself in the 2003 network (completely peripheral, the first to disconnect), it is noticeable that in 2006 the Department for the Information Society appears in fact directly connected to the Presidential Department and the Department of Economy and Finance (the two central departments in 2003 and two of the three most important, as we can see, in 2006). In this way, it is to be emphasised how, over the years, the Department for the Information Society (and with it the transversal questions related to the IS in general and to the organisation of information technology in particular) occupies a very important and interconnected role.

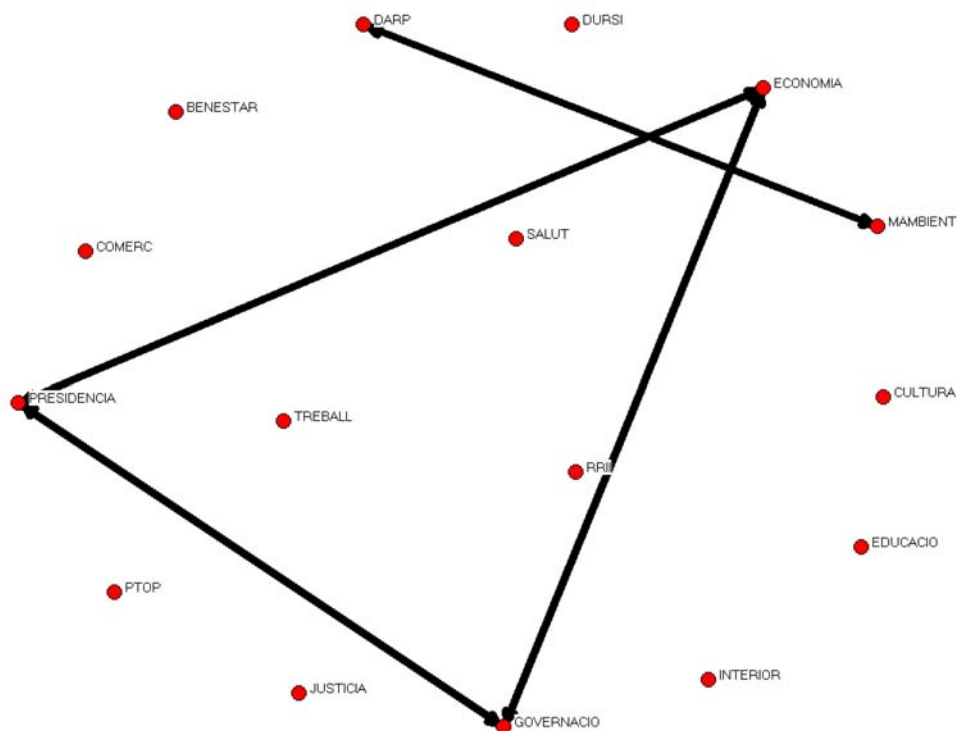
24. DARP: Department for Agriculture, Food and Rural Action; BENESTAR: Welfare; CULTURA: Culture; ECONOMIA: Economy; ENSENYAMENT: Education; GOVERNACIÓ: Governance; JUS/INT: Justice/Interior; MAMBIENT: Environment; PRESIDÈNCIA: Presidential Department; SANITAT/SS: Healthcare/Social Security; TR/IN/CO/TU: Employment/Industry/Trade/Tourism; DURSI: Department for the Information Society.

Figure 8. ≥ 22 Commissions 2006²⁵

Source: in-house production

This said, we should take note of what happens in the final stages of the 2006 network. If we represent the relationships based on the 24 or more commissions, they form two separate clusters (Figure 9). The first group constitutes the Department of the Environment and Housing and the Department of Agriculture, Livestock and Fishing (in the dendrogram that follows these diagrams we put forward a possible explanation for this relationship). In addition, it is possible to observe a second, larger group formed by the two most important departments in the 2003 network (Economy and Presidential), to which has been added the Department of Governance.

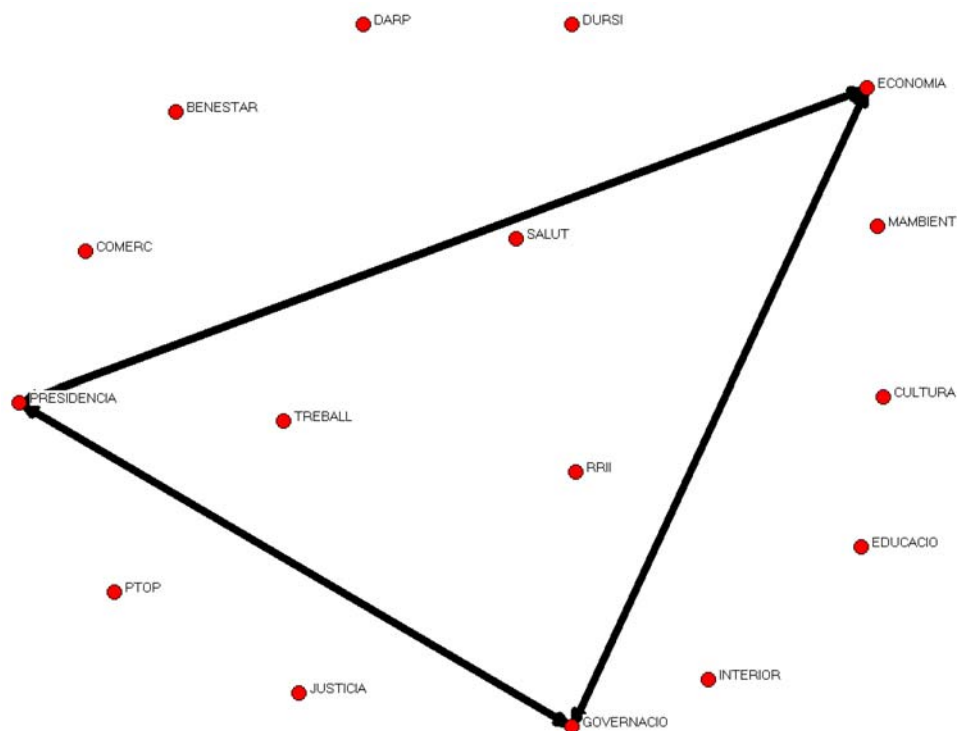
25. DARP: Department for Agriculture, Food and Rural Action; BENESTAR: Welfare; COMERÇ: Shopping; CULTURA: Culture; ECONOMIA: Economy; EDUCACIÓ: Education; GOVERNACIÓ: Governance; INTERIOR: Interior; JUSTÍCIA: Justice; MAMBIENT: Environment; PTOP: Department for Town and Country Planning and Public Works; PRESIDÈNCIA: Presidential Department; RRLL: Institutional Relationships; SALUT: Healthcare; TREBALL: Employment; DURSÍ: Department for the Information Society.

Figure 9. ≥ 24 Commissions 2006²⁶

Source: in-house production

The Presidential/Economy/Governance group is, finally, the cluster formed in the last of the networks that we are representing corresponding to the 25 commissions. An interviewee explained this result: “in fact, it's because they're the departments central to the functioning of the Administration” (P107). Thus “Economy is the competent department in the area of economic resources; Governance, in the area of personnel; and the Presidential Department, in terms of the general coordination of the Generalitat” and, with these areas of responsibility, all three have “a voice in those aspects that touch on interdepartmental relationships” (P107).

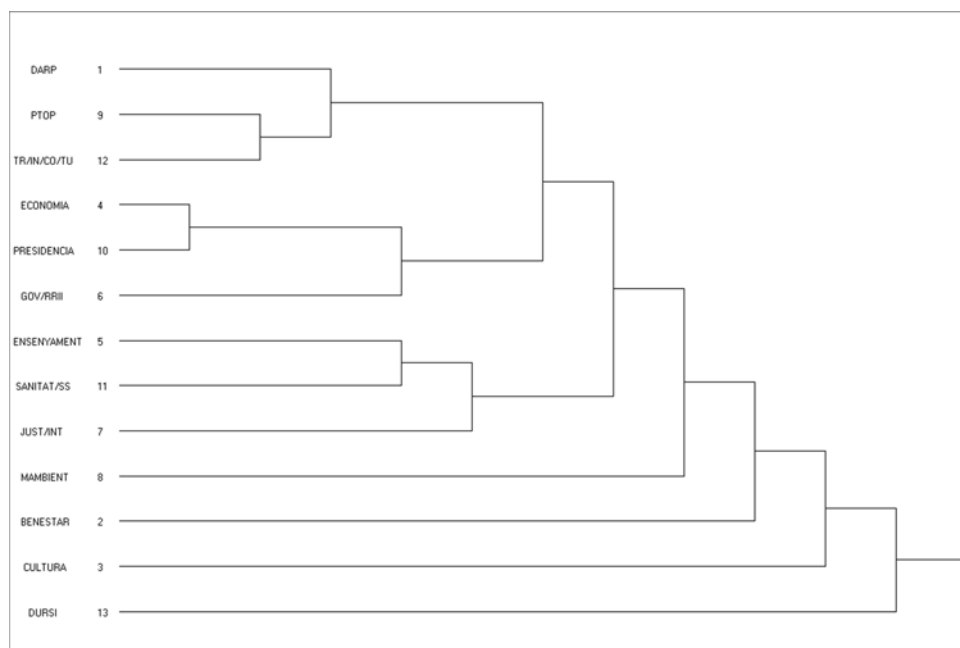
26. DARP: Department for Agriculture, Food and Rural Action; BENESTAR: Welfare; COMERÇ: Shopping; CULTURA: Culture; ECONOMIA: Economy; EDUCACIÓ: Education; GOVERNACIÓ: Governance; INTERIOR: Interior; JUSTÍCIA: Justice; MAMBIENT: Environment; PTOP: Department for Town and Country Planning and Public Works; PRESIDÈNCIA: Presidential Department; RRLL: Institutional Relationships; SALUT: Healthcare; TREBALL: Employment; DURSÍ: Department for the Information Society.

Figure 10. 25 Commissions 2006²⁷

Source: in-house production

Finally, as a kind of general summary and in order to take a look at the remainder of the relationships that we have not illustrated with diagrams, we can see how the connections between the departments are formed based on the dendrograms corresponding to each year. Firstly, referring to the 2003 dendrogram, globally, we can speak of three main groups or clusters. The first is formed by the Department of the Economy and the Presidential Department, to which is added, quite some way ahead, Governance and Institutional Relationships. The second cluster was formed by the Department for Town and Country Planning and Public Works and Employment/Industry/Trade/Tourism, joined by the Department for Agriculture, Food And Rural Action (before, in fact, Governance was included in its group). The third group is formed by Education, Health and later Justice (curiously Welfare, despite the closeness of its responsibilities to the first two, is not included in the network until much later). The three groups join together amongst themselves before the remaining four departments do: Environment, Welfare, Culture and, lastly, the Department for the Information Society.

27. DARP: Department for Agriculture, Food and Rural Action; BENESTAR: Welfare; COMERC: Shopping; CULTURA: Culture; ECONOMIA: Economy; EDUCACIÓ: Education; GOVERNACIÓ: Governance; INTERIOR: Interior; JUSTÍCIA: Justice; MAMBIENT: Environment; PTOPI: Department for Town and Country Planning and Public Works; PRESIDENCIA: Presidential Department; RRLL: Institutional Relationships; SALUT: Healthcare; TREBALL: Employment; DURSI: Department for the Information Society.

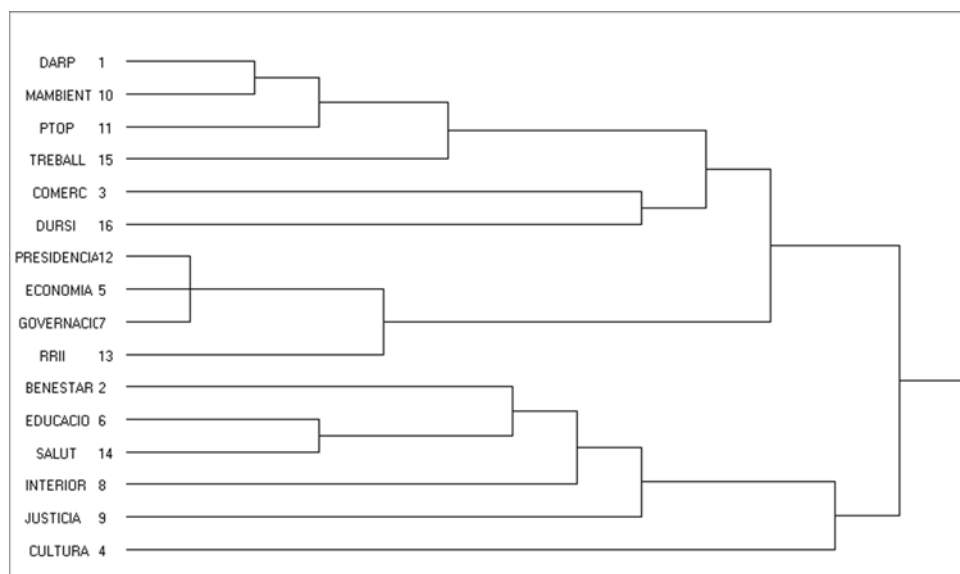
Figure 11. Dendrogram 2003²⁸

Source: in-house production

From the 2006 dendrogram we can highlight, as we have already seen, that the three departments coming together to form the first cluster are the Presidential Department and the departments of the Economy and Governance. In the following stage, without a connection with these three departments, we find the second cluster formed by the Department for Agriculture, Food And Rural Action and Environment, to which is added the Department for Town and Country Planning and Public Works. Department for Town and Country Planning and Public Works. This grouping could be explained, according to an interviewee, because it concerns three departments with responsibilities impacting on the territory (P107). The next department to connect itself would be the department of Institutional Relations and Participation, which would group itself with the first cluster.

Finally, we would like to emphasise two of the groupings to be observed. Firstly, the group formed by Education, Health and lastly, Welfare. These are three very closely related areas because of their links to social policies. Lastly, we can highlight once more how the Department for the Information Society is connected at an earlier stage than in 2003 and forms a group (together with the Department of Trade and the Department of Work in cluster 2) that joins (before the rest of the departments) with the group with most connectivity (cluster 1).

28. DARP: Department for Agriculture, Food and Rural Action; BENESTAR: Welfare; CULTURA: Culture; ECONOMIA: Economy; ENSENYAMENT: Education; GOVERNACIÓ: Governance; JUS/INT: Justice/Interior; MAMBIENT: Environment; PRESIDÈNCIA: Presidential Department; SANITAT/SS: Healthcare/Social Security; TR/IN/CO/TU: Employment/Industry/Trade/Tourism; DURSI: Department for the Information Society.

Figure 12. Dendrogram 2006²⁹

Source: in-house production

In summary, the analysis that we have done enables us to recognise various important elements. Firstly, the fact that, globally speaking, the volume of commissions between departments has fallen in recent years. Despite this, the volume of relationships in global terms has risen substantially and the outlook is more homogenous: the range (4 points) and the typical deviation (1.1 points) are lower in 2006 than in 2003. Similarly, the average of 16.9 relationships per department in 2003 has risen to an average of 19.5 in 2006. Despite the fact that there are fewer commissions, the departments are more connected between themselves, in such a way that, in relation to connectivity, we could consider the 2006 networks as globally more efficient than the 2003 networks.

There are other interesting aspects related to the configuration of the networks. Firstly, there is confirmation of the growing importance of the Presidential Department and the departments of the Economy, and Governance. Thus, the departments in question become the most transversal and have a larger presence at the heart of the commissions. In other words, the majority of the commissions require the presence of these three departments, whose position, owing to their areas of responsibility (budget, general coordination and personnel respectively), will be “crucial in the resolutions that are made” (P107). This configuration of the network, according to the same interviewees, “reinforces the hierarchical relationship” existing between the Generalitat's departments, since it concerns those de-

29. DARP: Department for Agriculture, Food and Rural Action; BENESTAR: Welfare; COMERÇ: Shopping; CULTURA: Culture; ECONOMIA: Economy; EDUCACIÓ: Education; GOVERNACIÓ: Governance; INTERIOR: Interior; JUSTÍCIA: Justice; MAMBIENT: Environment; PTOp: Department for Town and Country Planning and Public Works; PRESIDENCIA: Presidential Department; RRII: Institutional Relationships; SALUT: Healthcare; TREBALL: Employment; DURSÍ: Department for the Information Society.

partments within the Generalitat that already “have the most power”. We can consider that this situation already obtained in 2003, but in the 2006 data we can see that it has been emphasised further.

The second relevant aspect of our analysis is what is happening to the areas related to the Information Society and technological innovation. Responsibilities in this area are shared (in 2003 as well as in 2006) between the Presidential Department, the Governance Department and, above all, the Department for the Information Society (including the IS Secretariat). Although the Presidential Department occupies the central position in both the years analysed, in 2006 the Department of Governance is located at the nucleus of the network, improving its connectivity with respect to 2003. But what is more interesting is what is happening to the Department for the Information Society. This department has not only shifted from being the most peripheral in 2003 (with 12.3 average relationships) to being in 10th position in 2006 (with 18.9 relationships), but also the group to which it belongs (cluster 2) is the first to join itself to the central departments (cluster 1).

Lastly, there is a still more relevant fact that the network analysis has not picked up on because the 2006 data corresponds to the month of April. With the last government reorganisation (May 2006) the Secretariat for the Information Society ceased to be part of the Department for the Information Society and joined one of the three most important departments: the Presidential Department. In this way, the central core of the technology and IT organisation has returned to the department where it was first created. The recovery and growing importance of this area within the Administration as a transversal sector, as opposed to its 2003 completely peripheral position, stems from this change. Moreover, this result is in line with what we have observed regarding IT organisation, where we have detected an increase in control and the centralisation of decision-making in transversal aspects (although the departments still retain a certain discretion).

5.4. Cooperation and Transversality at Intermediate and Low Levels of the Generalitat's Administration

The commissions that we have analysed in the above section only offer us an incomplete view of transversal relationships, not just because they were not picked up but also because of the nature of their mainly consultative character.

There is another way of looking at integration, on a micro level. It is concerned with the integration of the databases and the authorisation of transversal information systems that shift the traditional functioning of Public Administration towards greater simplification, efficiency, etc. In other words, apart from the framework of general relationships that occur between departments, transversality, cooperation and horizontality also occur in those internal processes and specific projects involving the participation of intermediate and low levels of the administration. The analysis of (corporate and departmental) database operations, of information systems and simply the applications necessary for the day-to-day functioning of Public Administration in terms of interoperability offers us a complementary view of the internal functioning of the Administration regarding the aspects in question. In order to analyse this part we have focused on the qualitative fieldwork of interviews conducted and on the projects observed in the area of Citizen Information services.

Firstly, however, we focus on the global situation with respect to the integration processes in the area of the Citizen Information service's channels of communication and the extent to which these affect the entire Generalitat.

5.4.1. The Citizen Information Service's Channels of Communication

The relationship between citizens and the Administration of the Generalitat takes place, above all, through three channels: face-to-face contact, the Internet and the telephone. The results observed are different for each channel.

a) Face-to-face Contact

The Generalitat's advice and information offices are the channel where the compartmentalised nature of the Generalitat's organisation is most prominent. At the beginning of 2004, the Generalitat had up to 453 staffed information points in Catalonia (with offices for practically all the departments). Nevertheless, except the five information offices with a general character belonging to the Presidential Department (Citizen Information Offices) and to a certain extent the offices of the Welfare Department, the information offices of the

remaining departments only offered information relating specifically to those departments' own area of responsibility. This has clear costs in terms of economic and human resources.

The compartmentalisation of the Administration in this case is not only explicit in the duplication of the organisational division across the territory (above all in the various major cities), but also, as has been observed, when there are attempts at unification, the departments are reluctant even to share the information about citizens they have at their disposal (P14).

There is, nevertheless, a plan for future implementation that would break the logic that has dominated until now. Thus, for the integration of this communication channel, "what is wanted is to bring together the Generalitat's existing offices and convert them into general offices or ones that at least offer this general information as well" (P75). The departments still carry a lot of weight in this, since, as the same interviewee commented, "it still remains to be seen what the departments will have to say about it" (P75).

b) The Internet Channel

With regard to the Internet, at the beginning of 2004 there were a total of 267 websites linked directly to the Generalitat of Catalonia. The websites, moreover, showed a high level of heterogeneity with respect to their design, presentation, contents and level of development. The use indices of the large majority of the websites were low, a fact that highlights problems like the high dispersal of information and resources used (creation and maintenance of these websites). Despite having made an effort at homogenisation with the approval of a stylebook for all the units and the structuring of part of the contents using a so-called "vital statistics" organisation, in many cases these directives were not followed. Because there were actions that had not been "agreed with the departments, they did not feel involved" (P27).

Therefore the Generalitat's Internet presence was structured along the lines of bureaucratic compartmentalisation. In other words, by associating the majority of the contents with the various existing administrative units, without homogeneity "either at the design or the technical level" (P15).

The plan to redesign and revamp the portal sought to overcome this situation with a thematic organisation of all the information available and a new style guide. At the same time it pointed to the possibility of closing some of the websites according to rationalisation (economic, information, etc.) criteria. Finally, a new portal was launched with a new way of organising information and which, moreover, adopted a single domain name for all the

websites. In parallel with this, it should also be pointed out that the hiring of a manager of corporate content has helped to deal with the existing dispersion, at the same time as it will help the publication tasks of the different units.

Nevertheless, in the process of implementation some difficulties arose that forced a rethink of objectives such as the process of reducing the number of websites. Similarly, management of the majority of the websites remained, in the end, in the hands of the departments and their units, despite the fact that a common strategic and conceptual framework for web initiatives that gives minor discretion to the departments has been created.

To sum up, with respect to the Internet, from the position of leadership taken on the part of the Citizen Information Department and the Telecommunications and Information Technology Centre, we can conclude that, although not all the initial objectives aimed at confronting compartmentalisation have been achieved, a significant change has taken place in the adoption of common and transversal initiatives.

c) The Telephone Channel

Lastly, the telephone channel occupies a more significant position than we had initially expected with respect to the organisational transformations that have taken place. Thus, the Generalitat's corporate telephone channel shows a tendency to change according to the actors taking part in the production of information and the centralisation of this information.

The process of unifying the Generalitat's telephone advice lines (where a high degree of compartmentalisation also existed) was globally successful. Its operation was unified, for example, around the information source consulted (based mainly on the internal Citizen Information Service, SAC). The process of outsourcing extended the schedules and the tasks of the information-givers, and became more user-oriented through the growing importance of evaluation mechanisms. We have observed how over the last few years this process of unifying the telephone service has been looked into deeply. In addition, at the same time as increasing internal evaluation processes, it also highlights the creation of a common tool for the Generalitat's information-givers (although principally aimed at the 012 number workers): the information-giver's portal. In short, as we have pointed out, the telephone has experienced a process parallel to the unification of management and centralisation of relevant information that is in direct contrast to the Administration's inertia and tendency towards compartmentalisation.

In summary, we can say that a process of general but unequal transformation has been started: a coexistence between two stages characteristic of a period of transition has

been identified. Regarding face-to-face contact we observe how although there are more or less developed plans for reform, it still remains a highly compartmentalised organisation. The Internet is found, for the time being, in an intermediate state with respect to communication with citizens through the existing websites. We have seen how a certain level of compartmentalisation persists, although the shift towards integration has been substantial with respect to the demarcation of common style and organisation criteria, such as the adoption of corporate tools that should help with tasks and the interoperability of the back offices. Lastly, the telephone channel – despite some exceptions – represents an example of general integration as a corporate channel of communication.

It is important to highlight one final element with reference to the processes of integration between the channels themselves. Certainly, the clearest indicator concerning the growing integration in this direction is the verification that, in fact, for all the channels, the Internet and Gencat Internal tools (for instance the SAC and the information-giver portal or the corporate search engine) are their principal information source. Thus, true integration of the channels is only currently possible thanks to the ICT and an information systems design based on the three methods of Citizen Information: in order to obtain information, both the telephone operator and the worker in the registry office use a computer. It is precisely this emphasis on information systems that characterises the current stage of the electronic Administration.

5.5. Internal Decision-making and the Centralisation of Information and Management

Cooperation and transversality also have a structural perspective relating to the transformations in decision-making and the organisation and management of information. Connected to the process of the horizontalisation of tasks, a similar process in decision-making can arise, in other words, transformations towards a co-decision or even co-management. The opposite processes would lead, at one extreme, towards the centralisation of decision making and, at the other, to a dispersion towards a higher level of discretion for agents.

In order to analyse decision making, It is necessary to consider the actors who take part and the procedures followed; however, here we shall focus only on what happens with respect to the strictly internal functioning of the Generalitat.

The centralisation of decision-making regarding IS areas has clear consequences for the day-to-day functioning of Citizen Information services and IT organisation with respect to decision-making mechanisms.

In the section above we pointed out the administrative units' high level of discretion with regard to information policy. Going somewhat deeper into this aspect, one of the interviewees explained what the specific situation was in their department: "there isn't centralisation in a single unit of information: some use the Web and others use the SAC, the registry offices and face-to-face contact". In fact, "until now there hasn't been a formal relationship" between both units in information management (P23). Although in some departments the units in charge of giving out information are more focused, in others we have observed that this scheme is repeated or even worsened (incorporating more divisions and more people from different units).

Despite this situation of internal dispersion of the departments, corporately speaking some interviewees also pointed out a tendency towards actions seeking to bring together areas of responsibility and decision-making in information policy. This is what happened in the case of the Citizen Information Department. One of the interviewees explained to us the changes that had taken place: "for the time being the areas of responsibility are the same but the difference is that politically and on a budget level the Citizen Information Department now has much more support", an element that, amongst other things, has gone hand in hand, for example, "with a growth in the number of people" (P17) working there (practically doubling the staff in three years).

With respect to the area of information organisation we have seen how its historic organisation is also an explanatory factor in the dispersion of solutions adopted by the

departments: “a moment comes when it costs the departments less to purchase from the private sector” (P32). But, more recently, the increase in the importance of the Citizen Information Department has gone hand in hand with the growth of both its areas of responsibility (de facto) and the central position that has been acquired by the Telecommunications and Information Technology Centre within the whole Generalitat. Thus the departments continue to have power and decision-making capacity with respect to information management; however, progressively these questions have been delegated to the Telecommunications and Information Technology Centre. In this way, “if somebody is opposed to the recommendations of the Telecommunications and Information Technology Centre, they don't have the ability to veto them, however, they can certainly put obstacles in their path” (P10). As in the case of the Citizen Information Department, this strategy has also led, amongst other actions, to the considerable increase in the number of people in this unit.

The centralisation of Telecommunications and Information Technology Centre decision making has translated, principally, into the adoption of common technological solutions for the whole Autonomous Administration, but also with respect to information organisation. One of the main consequences of compartmentalisation in information policy is the redundancy of workers' tasks. In parallel with this, technological and organisational difficulties have made the integration of databases very difficult (with different and normally non interoperable standards). There has also been an effort in this direction to overcome the situation: “the current situation is that each department has its sources of information and puts them in its portal; that's how it's worked until now. The idea is to create a common information deposit where there is global access to the entire contents. In this way the contents will be shared and it will give them a general coherence” (P72).

The centralisation of information, apart from the rationalisation of finances and efforts, should permit improved information organisation towards the exterior. In some cases, however, the situation in which information is found in the departments does not allow one to consider even actions of this scope: “we are not even trying, for the moment, to integrate the databases and connect them. The current priority is to normalise them, for example, establishing formats and applications, types of common data, etc.” (P60). We will come back to this question later on.

The situation outlined above presents, then, a substantial change as far as the structure of function and access, and the treatment of information is concerned. It is not simply a case of the transfer of areas of responsibility between units. Rather what we observe is a tendency towards cooperative working, but marked by greater control based on the centralisation of decision-making in specific units. The horizontalisation that in this sense we have observed in other spheres, does not, then, take place.

5.6. Visibility and Ownership

There are, through the empirical material analysed, various factors that would explain the tension between compartmentalisation and efforts towards cooperation. One of these factors touches on the external visibility of the different administrative units (and the political institutions if the case arises) and their “identity” maintenance strategies.

This element, which has been very clearly observed in the relationships between public administrations (Aibar and Urgell, 2003), has also been observed by us with respect to units within the same administration. An interviewee summed up the situation: “just as happened with the telephone in its day, when the Internet appeared every department wanted to have its own website” (P15). It is an element of widespread fact, “since all the units consider themselves different from each other, with an individuality to preserve” (P63).

The difficulties arising from this situation go beyond compartmentalisation, since linked to this situation, information often also appears to be the property of the departments or units that generated or compiled it: “it’s their information” (P25). Thus, opening databases to other units is often seen as a loss of power or influence. In the first years of the SAC’s development, for example, apart from information about the organization structure and services, information about the regulations governing public services was also to be added (P70). When an attempt was made to give the Citizen Information Department direct access to this information, difficulties were encountered on the part of the unit managing it “because it was their business and they’d rather it didn’t appear in the newspapers” (P70).

However, beyond the manner in which the information is presented to citizens (with varying degrees of unification and coherence); the bureaucratic control of information also derives from difficulties with the tasks of the Administration’s workers. This, then, might be one of the reasons that would explain “why information is duplicated. It is duplicated because of an organisational problem and because of a problem of control” (P25).

5.7. Internal Communication

An indirect way of observing the hierarchy and compartmentalisation within an organisation is through its mechanisms for communicating internal information. In other words, who communicates relevant information to whom. In this sense, our initial hypothesis indicated that Network Administration forms a system of more transversal relationships that increases the number of relationships between units of different levels in order to communicate information and avoids stages that block, distort and/or simply delay the transfer of information. The data observed allows us to talk of substantial transformations towards an increase of transversality with respect to internal communication.

Both in the project to reform the SAC and Gencat we have observed transformations in this direction. Thus, one of the interviewees indicated that, with respect to the reform of the SAC, he had noticed a change in internal communication, since it had been “taking into better consideration the lower layers of the administration” (P65). In fact this opinion is quite generally shared across all the interviews carried out. Even so, the changes have not been radical. One interviewee complained about this way of running one project we analysed: “not all the departments took part with equal intensity or will” (P8), at the same time they took “false measures so as not to be able to speak with some people in time” (P28). This factor contributed to rethinking the initial result of this project.

The new concept for the Gencat portal began with an initial evaluation phase using online questionnaires from those with overall responsibility for the Generalitat's websites in order to discern the different, existing levels of development. Once this exploratory phase was completed, the Citizen Information Department conducted interviews with the people in charge of the main websites (which included departmental websites, the sites of agencies and different departments, etc.) in which the corporate project was outlined, at the same time as collating each unit's specific demands. Independently, then, of whether the specific lines of the projects reached the control points or not, it highlights the fact that these projects were communicated to the layers charged with putting the changes into practice. In short, the strategy adopted has consisted in “improving communication, in making people feel they are taking part”, a way of combating “a structure that does not give incentives” (P9).

5.8. Inscription Processes: Hierarchy in Information Systems

Information systems based on ICTs allow the incorporation of aspects characteristic of bureaucratic organisation; to put it another way, certain elements in the design of these systems are tools for reproducing the hierarchical structure in the area of information flows. We are referring, for example, to access permissions, the introduction or modification of data and validation; and to user profiles - which give access to different functionalities or possibilities.

In order to analyse this question, we have retrieved an earlier piece of empirical work on the SAC system. When it was designed (in 1996), each department's SAC team consisted of one operator (in charge of detecting and introducing information into the database), a coordinator (a person with wider range within the department and in charge of validating information) and the manager (in charge of secondary validation of the information before sending it for publication). The process finished in the Citizen Information Department, where information was sent that needed to be taken out of the system and, after editing, finally published on the Internet.

In order to introduce and validate information, the system used (and still uses) a specific application. The organisational and functional structure we have presented translates directly into the application of the system's management. The system foresaw, then, three different user profiles with specific areas of responsibility. However, in practice this division made this a difficult task for the operator, to whom the manager and coordinator habitually delegated their tasks. In order to complete the process, it was necessary for operators to enter and leave the system using different profiles and passwords. Despite this, the hierarchical system of profiles was maintained in the management application. With the process of global reform of the system, user profiles have been done away with. "It's no longer necessary for managers to enter using different profiles and validation can be done directly from the departments" one interviewee commented to us (P69).

With this example distinct elements are observable. Firstly, in contrast to commonly held beliefs, technology does not only not necessarily lead to the streamlining of workers' tasks and to an improvement in their working conditions; in fact, it can result in complicating them further (as can be seen in the first part of the example). Secondly, the example shown also allows us to observe how the hierarchy inscribes itself in an information system and how to go about uninscribing it. In the first instance, it is decided that the hierarchy of each department has to be present in the information system (SAC), assuring final quality control and the coherence of the information. With time, because of the obligation to go through the different validation phases and because of the fact that different people are

involved, the process becomes very inefficient. The situation does not, at the present time, change the hierarchical system; rather it opts to maintain it seeking an informal solution – which complicates the process in order to save the technical system.

Thus we see how technological innovation projects do not necessarily lead to a breakdown of the hierarchical structures of the bureaucratic Administration; rather, they can become a perpetuating element. Along these lines, a theoretically interesting question is posed with respect to the role of hierarchy and technology. From a certain point of view we might consider that technology acts as a mere vehicle (or a neutral instrument) of earlier organisational directives. Technology would thus be no more than a mirror that reproduces a pre-existent reality (social, political, or organisational). And the hierarchy, as a central characteristic of the bureaucratic system would also be seen to be reflected in the information systems. From this viewpoint, currently, the bureaucratic system, with respect to the functioning of its inferior structures, would be turning itself into a more horizontal system. The reform of the SAC would also be shaping, at a technological level, this transformation, eliminating the pre-existing system of users. In short, the technology would permit, at one and the same time, the transformation or maintenance of the status quo, since its configuration in fact depends on the context of use, power relations, etc.

Another way to interpret the example is to consider that the hierarchy is not anything in the strict sense; that it is not “something” that pre-exists in the ways it is exercised or in the mechanisms that are used to reproduce it. Information systems are an essential component of the hierarchy (with other elements retained from the past: decision-making mechanisms, salaries, discretion, access or distribution of resources, etc.). In this sense technology is not merely a neutral element but is something that enters onto the field of play also modifying (to a greater or lesser degree) the situation (which is the hierarchy itself). In this situation, hierarchy becomes an element that has to be understood basically in organisational terms as a partly (and increasingly) technological element in which new actors intervene (computer scientists, designers, databases, etc.).

Chapter 6

Managing Technological Innovation

6.1. Introduction

In this section we will analyse the management of innovation adopted with the aim of promoting and developing electronic government in Catalonia, taking into consideration in particular: a) the planned strategy and, in strict relation to this, the trends and evolution of that strategy in recent years; b) the practices and processes that are carried out, taking into consideration the problems that confront the administrations; and finally, c) the relation that they have to the private sector, which increasingly participates in the design and co-management of innovation initiatives.

6.2. Electronic Government Promotion Strategies

The Catalan Administration's current technological innovation and administrative change strategy appears to be aimed, above all, at putting in order the existing high degree of dispersion in the Generalitat's information systems. A planned, parallel objective is for savings in resources and/or their optimal utilisation. In this sense, there seems to have been a development from a strategy more orientated to developing exemplary and highly visible projects towards the putting into place of more delimited initiatives with greater short-term impact.

6.2.1. Rationalisation of Resources

As we mentioned, the Generalitat of Catalonia's current strategy has as one of its principal axes the rationalisation of the functioning of the organisation and in particular of the Administration's information systems, for example, by unifying databases and improving the way they work. Thus, it highlights the objective of increasing efficiency and the strong activity that has been developed in order to make a diagnosis of the state of the situation.

Thus, for example, in the analysis of projects highlighted by the departments of the Generalitat we have found that amongst the objectives most frequently mentioned were the reduction of time spent on red tape and an increase in the efficiency of processes (digitisation, simplification and automation of processes would be ways of achieving it). In addition, the great majority of projects have an internal orientation that directly affects aspects of the back-office and organisation. This shows differences with the earlier stage in the development of e-government, where the priority appeared to be the impact on citizens. In fact, now it is stated that between departments, internal orientation carries slightly more weight than the orientation to the user: there is a clear perception that in order to achieve an improvement in the service provided to the end user, it is first necessary to improve the internal situation of the Administration itself (77% of projects aim to do this). On the other hand, savings and homogenisation appear as objectives to be achieved by the mechanisms themselves: the unification of databases, the use of common tools, etc. "it's about putting on the table the idea that it's not necessary for each administrative unit and sub-unit to have its own website; what is needed is to avoid information being hidden away" (P77). In other words, it is about rationalising both economic resources and the information itself, rendering it more accessible.

6.2.2. Self-knowledge for Change

The efforts made to increase understanding of the Administration itself as a first step in developing initiatives is also a relevant fact. Doing inventories of projects and initiatives is highlighted as an important activity in at least five departments. In addition, the projects we followed up and observed in more depth showed us the importance given to self-knowledge. This is especially evident in the processes of change to the Gencat portal and in the unification of the 012 and 902 telephone services (of the AOC).

One of the explicit objectives in redefining the Gencat portal, in the words of an interviewee, was “to rationalise resources”, and to do this, they added, “an analysis was done in order to decide which websites to keep and which not to keep” (P77). In other words, before that moment there was no register of the number of websites developed within the Generalitat.

In order to do the new design for the Gencat portal, studies were carried out aimed at a diagnosis of the portal itself, of associated websites and the world of the Generalitat's websites in general, and of the users. They included a positioning study; a test of the portal's usability; a questionnaire for the people in charge of the Internet in each department and of each of the associated websites; a study of the associated websites and a study of trends in governmental websites both amongst the autonomous governments in Spain and in the international context. It also turned to an analysis of users: a *focus group* was formed and a survey of users done. The efforts made to analyse its own situation were, clearly, exhaustive and without precedent.

6.2.3. Continuity of Ideas and Problems

Another element to stress is that at the same time lines of action were maintained that had already been planned a decade before while changing important elements about how to move them forward. Thus the 1996 Citizen Information Systems Master Plan (Pla director dels sistemes d'informació al ciutadà, PDSIC) already mentioned approaching citizens and unification of the corporate image as basic objectives. Planning for this, then, began in the 1990s and is still being planned today, a fact that does not imply that many changes have not taken place, but shows the slow pace and difficulties encountered in moving the plan forward.

In the case of Gencat, references to the necessity and advantages of unifying the “brand” image were a constant. Even for face-to-face contacts generic offices are planned (taking advantage of the deployment of existing offices), with information organised not according

to whether or not it is relevant to one or another department, but thought about from the perspective of the citizen; an idea already put forward in documents dating from 1995 and 1996.

In other words, when we analyse the following processes chronologically, we find that on the one hand, there is a line of development that planned the need to rationalise resources, reorganise information and improve access to it (for example with the single telephone number) very early on and, on the other hand, some processes not always consistent with the planned aims. This happened with the setting up of the CAT365 portal in 2002, which was responsible for the provision of the Generalitat's services. CAT365 would be aimed principally at the provision of electronic services for citizens and companies with a design organised around thematic criteria and by profiles, and Gencat would be converted into the institutional face of the Generalitat on the web, bringing together corporate and national information. The justification for this division was to create a single portal for the Catalan administration; however the most obvious result – given that in the end the aim mentioned was not achieved – was an increase in dispersion.

In a similar way, the 012 number continues to incorporate new telephone numbers and the process of unification has still not been completed. It was decided that some of the telephone numbers in operation would be free of charge, like the emergency telephone numbers for example; others are products of the still persisting dispersion. An interviewee explained this situation: “in some cases the telephone numbers were maintained because they wanted to preserve their areas of responsibility and, even when they could get a good economic return (passing their advice lines over to 012 costs the departments nothing), they didn't want it to happen. This can be put down to the desire to maintain their power bases and areas of responsibility” (P121). The examples of the development of the telephone service and the Generalitat's web system show, then, how at the same time that a unification strategy is planned, greater dispersion continues to be created.

6.3. Developed Processes and Mechanisms

Despite the fact that in the discourse that promotes innovation contains many references to the need to simplify procedures, save resources, create shared databases, reduce compartmentalisation, etc., we find that even in concrete plans measuring results is made difficult and that many obstacles to the changes remain. Thus, at times, the changes have been made without the necessary forecasts; with the result that e-government has often been turned into a promoter of greater bureaucratic complexity and more information dispersal. For example, the change of domain name (from Gencat.es to Gencat.net) was done without a policy for the migration of contents, which resulted in confusion for users, who were even able to encounter contradictory information on the same subject.

6.3.1. Resistance to Losing Power

The difficulties raised by the interviewees show a certain consistency with what is said in the literature about organisational change and technological innovation: the problem is not the technology but power relations. "Change management is very complex. On the one hand because of the reaction from users (departments, civil servants), who are afraid of losing responsibilities. Departments that don't work well, with static websites, see it as a solution. Those that have more communication with citizens are very 'proprietary' (P72). It's very hard to achieve closure with the projects aims. Strong leadership is needed" (P11).

Losing power, but also procedural changes and a certain lack of trust or bad feeling towards a job, the benefits of which are not very clear, are generators of obstacles to change. As one manager pointed out, "there's been a certain difficulty with all the recent changes. On the one hand there's the fact that the Citizen Information Department has undergone a substantial restructuring of people and responsibilities. But the work still has to be done, in such a way that experienced workers have had to take on the role of technical support, psychologists, etc., because people are not clear about how the new system works. The SAC bosses watched the situation with a certain mistrust, so that when they saw that it had had certain problems and that everything was not working as they'd hoped, they went back to strengthening their own websites. This complicated things for citizens, but also internally, since it was not desirable for 012 operators to look for information outside the SAC. From here the only way to go is to put in hyperlinks" (P83).

In this way, internal communication appears to work. The redesign of the portal was begun with a proposal of consensus about a common information policy strategy between the departments, making them participate in the whole process, with a clear idea to ra-

tionalise resources – “close costly websites with few users” (P76) – and put at the disposal of the entire Generalitat technological tools that would facilitate the control of information published on the Internet.

6.3.2. Incentives for Change

One of the incentives to overcome administrative compartmentalisation and get the departments to accept the transfer of their telephone numbers centred on the costs of the service. Government agreements for 2002 promoted the incorporation of telephone numbers into the 012 number stating that: “in the cases of departmental telephone numbers that cease to be operational by virtue of the present government agreement, the Department for Economy and Finance is authorised to carry out the corresponding transfer of credits to the Presidential Department”. This agreement also foresaw the destiny of the civil servants working the lines that would be incorporated in the 012 number: “In the case of departmental telephone numbers that cease to be operational by virtue of this government agreement, and which are manned by their own staff, government or outside staff, these personnel will be transferred to the Presidential Department for incorporation under 012 management”. However, neither of these two factors proceeded clearly since – as one civil servant recalled – “as the departments continued to be information providers at a secondary level they opposed the loss of their staff – who at the same time also did other tasks – and the corresponding resources” (P73).

For the Citizen Information Department, in particular, the defined strategy “is about, at heart, becoming a lender of front office services”. In fact this line is important because it is a way of getting all the departments to converge and putting an end to fragmentation: “to make life simpler. Instead, the government's agreements and similar actions didn't achieve anything and made people work on their own account just the same” (P17).

6.4. Private Sector Involvement

Greater participation by the private sector has also been evident in the cases analysed. This shows that carrying out public policies, especially in the area of technological innovation, requires the effective participation of numerous actors external to the Administration itself (private, public and mixed).

Workers in medium or high positions have a more or less common opinion concerning the need to incorporate working methods from the private sector and with respect to a negative opinion of the way civil servants work in the public sector. "Civil servants can decide to 'do nothing' and therefore boycott any project whatsoever. For this reason layers of non-civil servant labour contracts were created which allow planned projects to be carried out." (P2) "The way the public sector functions has built-in delays. There's a shortage of human resources to carry out the most important changes" (P60). It is also increasingly common to find contracted staff who first worked for the Administration from within the private sector, and even people from the public sector who have moved to private companies.

6.4.1. Towards More Control from the Public Sector

Regarding relationships with the private sector, on the one hand the strong presence of these companies in technological innovation processes is clear, but there is also a noticeable tendency to increase the public sector's decision capacity in project design, that no longer work "to order", but which are the result of joint working process based on demands made by the politicians in charge. On the other hand, in the same way that it is not clear that hierarchical functioning of the public sector has been changed radically, neither does the formation of networks of public and private actors necessarily lead to better results in the actions carried out (Mayntz 2001). In particular, it is notable that the networks between public and private actors have not achieved hoped-for levels of efficiency and, in some cases, have led to higher Government spending and a large loss of knowledge and control, which remains in the hands of the private sector (Dunleavy and Margetts, 2000; Urgell et al., 2005). Political leadership seems to be the most important variable for changes in processes and the redefinition of the different actors' roles.

The Generalitat's IT management could be interpreted based on three moments that are representative of the evolution of the relationship between the public and private sector. The first moment is when the public sector was in charge of services. The efficiency problems that arose at this stage led to a process of privatisation. As one interviewee who experienced the process said: "a moment came when it cost the departments less to buy from the private

sector than from the Telecommunications and Information Technology Centre. Telecommunications and Information Technology Centre. In other words many departments began to take over the management of their own systems" (P9). "In any case, everything comes down to fashions in the market, from 1995 to 2000 the fashion was for outsourcing and now it's going in the opposite direction. Each provider has its strong points and one has to take advantage of them. These days, IT is a tool for business transformation" (P24).

However, the benefits of outsourcing were not clear: "The structure of T-Systems ended up with invoicing by hours to different profiles that was atrocious [...] Now T-Systems brings corporate support (mail, etc), and something of development. There's a certain immobility whilst waiting to see what happens" (P9). For this reason, in the end, it involved a rethinking of the model: "the relationship with the private sector? Before it was a relationship of convenience with no planning. Now there is a long-term planned relationship. It is strengthening the production of contents. A basis of internal production has been abandoned. On the other hand, now the Administration is more involved in decision-making despite the fact that the volume of outsourcing has increased" (P28). From the private sector there is recognition of this change: "It has become total control – there wasn't any before – it's very exhaustive, from the tools to the whole process. This control is good for comparing ideas, despite the fact that a lot of time is taken up on useless reports and explanations that go nowhere..." (P33).

6.4.2. The Know How

An element strongly linked to outsourcing was the loss of knowledge within the Administration: "in reality T-Systems did more of those things than they said. There was a certain caution about this: some development was requested. Once they had done something, it's possible that the same thing was requested again and they replicated it for another unit or department. [...] The problem in this sense was the ownership of knowledge and a certain carelessness on the part of the Generalitat regarding how to take care of it" (P63).

Now there is a better understanding about what has to be done. In the words of one civil servant: If you know what you want to do, you can't outsource the brain only the 'hands' (P2). "It's also important that this knowledge is, and remains, within the Administration. The situation has also changed because earlier the companies were the ones who knew how to do something, whereas now there is widespread uncertainty" (P7).

6.4.3. The Current Situation

The analysis of the projects we have followed shows that in many cases a factor impelling initiatives is the perception of a particular service, procedure or unit being close to collapse and that there is a crisis that is manifested in difficulties in developing the service, to meet the volume of requests, etc. The interviewees placed a lot of emphasis on the question of putting “the databases, which they found to be in a terrible state, in order” (P27). In the words of one of them: “At the moment they are not even planning to integrate or connect them. The current priority is to normalise them, for example, establishing formats and applications, types of common data, etc.” (P60).

At the same time, this explains the perception that the managers themselves have of the changes that are being produced: “Until now, from the outside, it might seem that nothing has been done, but in fact the problem is that we aren't starting from zero but from way below zero”. At the same time, a certain pessimistic perception lives with the idea that the changes are vertiginous, although the proposal of one interviewee suggests moving towards a Kleenex-style IT: it has to be suddenly ready for change, because the technology changes constantly. This is very different from the type of technology it started with, the mainframe type, which was characterised by being more robust and barely changing” (P2).

Chapter 7

Relationship with Citizens

7.1. Public Perception of the Administration

We have already indicated in the chapters dedicated to the theoretical framework that the current crisis of legitimacy faced by political institutions – a global phenomenon with a tendency to worsen in recent years – is especially obvious in the negative perception citizens have of them, of the way they operate and their members. We have also emphasised that this negative perception on the part of citizens does not exclusively affect the mechanisms of political representation and participation and its constituent parts (elections, political parties, parliaments, etc.), or the ways in which decisions are taken and the carrying out of public policies. The Public Administration too, in its organisational and institutional role as a provider of services, is also affected by this crisis (Gibson et al., 2003).

In general, citizens show great distrust towards the bureaucratic structures of the State and it has become commonplace to characterise them as obsolete, antiquated, over-complex and over-expensive organisations: in short, a slow, opaque, overly rigid and inefficient system of public Administration. In fact, some recent studies have shown a clear association between dissatisfaction with specific public services (including a deficiency in Citizen Information services on the part of the Administrations) and a low level of confidence in governments (Spears, Seydegart and Schmidt, 2003). In particular, it is calculated that some 2/3 of the variability in citizens' confidence in governments and Administration is due to their satisfaction regarding the kind of 'customer' care they get from public services.

Public administrations have been perfectly aware of this situation for quite some time. In our study it has been a constant, for example, on the part of many of the Administration's workers, to comment on the "distance" that exists between citizens and the Administration. This metaphor is confirmed in many instances when the need for the Administration to "approach" citizens is formulated as a priority objective of e-governance initiatives.

In part this is about, more or less, euphemistic formulations in order to characterise the widespread lack of trust citizens have in the Administration and the negative perception of the way it operates. A perception that has already become a common view of state bureaucracy and in the specialised criticisms of web-based bureaucracy that we set forth in the theoretical framework (Jain, 2004).

On the other hand, in the same way that confidence levels regarding public administrations are low, there is also empirical evidence (Spears, Seydegart and Schmidt, 2003) that there has been an increase in the level of expectations citizens have of services and the 'customer' care that they should be getting from the Administration. Citizens appear to be demanding more and better services – in other words, a more far-reaching welfare state – however

at the same time they want these benefits to be provided without tax increases, which is to say, by improving the efficiency of the bureaucratic apparatus and, consequently, productivity in general in the public sector. At the same time, they are demanding an increase in the transparency of administrative actions and a more fluid and flexible interaction with the administration.

One of the results of this crisis situation is that many public administrations are investing great efforts in the modernisation of their organisational apparatus, precisely in order to improve their public image. And one of the ways they consider most appropriate to achieve this generic objective is improving the relationship interfaces with citizens, at the exact point where the majority of interactions with users takes place. It is for this reason that a considerable part of e-governance efforts have seen the incorporation of innovative technologies of different types into citizen information channels. And, in fact, an important part of the publicity that the Administration itself does about its services is destined, nowadays, at raising awareness of and increasing the use of these improved channels – fundamentally the telephone and the Web.

The Generalitat of Catalonia is a clear case in point. The (restored) Generalitat believed, precisely as one of its principal axes, in the improvement of the relationship between citizens and the Administration in order to obtain an increase in transparency, the simplification of paperwork, greater agility, etc. Even so, the Generalitat's structure mimics the model of the central Spanish state's administration: a model in which these international tendencies are not reflected (Fernández et al., 2003).

In fact, the interdepartmental structure itself does not correspond to clear criteria of either transversality or corporate integration. The necessary interconnection between departmental databases in order to integrate citizen information services for the public has not been at all favoured by this schema. The result has been a great proliferation, in the last two decades, of services, telephone lines, websites and citizen information offices that in the majority of cases do not share information with each other.

7.2. Integration and Personalisation

In recent years, by contrast, this situation appears to have changed thanks to the incorporation of various innovative technologies in channels related to citizens. Although not in all cases, it is possible to find, globally, two parallel processes that constitute, in large part, our response to the question with which we began this study: what changes and transformations in the relationship between citizens and the Administration are associated with technological innovation projects in the context of e-governance?

On the one hand we found a clear tendency towards unification, standardisation and integration of citizen related channels related to citizens. From a diversity of Citizen Information telephone lines steps have been taken towards a single, generic telephone line (012) with the capacity to attend to the largest number of queries possible, but also with the capacity to divert calls to more specialised services. From the diversity of websites to a single, integrated portal (single, virtual window) where it is possible to easily locate any kind of information and where its websites correspond to common and standardised criteria. From a diversity of information and registration points to a growing but reduced number of generic Citizen Information offices (with a capacity to attend to all kinds of queries). Although this tendency shows, from one channel to another, divergent velocities and difficulties (the integration of telephone lines is quicker than that of the portals); it appears to be a characteristic general to the majority of e-governance projects.

On the other hand, this tendency to integrate the channels – that in strict terms we should call the integration of Citizen Information points in each one of the channels – is also accompanied by a tendency towards the integration of contents. In other words, that a basic objective is, simultaneously, the regrouping of the information present in these different channels. This is not only about simplifying access and manning the information points more flexibly, but it is also about seeking coherence and consistency in the information supplied – not only in the various access points to each channel, but rather between the different channels themselves.

This tendency towards the integration of channels and contents exists side by side with a second tendency, of a different nature, towards the provision of ever more specialised and personalised services and information. This is to say that the Administration is increasingly thinking about its relationship with its users, not according to generic categories, but on the basis of specific population sectors and profiles. This tendency is in a patently more evident form in the Internet portals where, on the one hand, spaces aimed at specific user profiles have been created (young people, the elderly, tourists, etc.) and, on the other hand, applications have been designed for citizens to be able to personalise the page where they interact with the administration.

In short, we are observing a double process of unification and integration of the channels and diversification and personalisation of contents. The traditional provision of universal services on the part of the Administration in the welfare state appears to be adapting itself to new market tendencies that have made customisation a priority strategy for many firms.

In this situation techniques and mechanisms to identify profiles or concrete groups of citizens with specific needs are becoming increasingly important. This is to say that the task of constructing and configuring the user is systematic and ever more crucial. The use of techniques aimed at determining and configuring the end user – an enterprise in which the Administration takes a more active role – is clearly increasing.

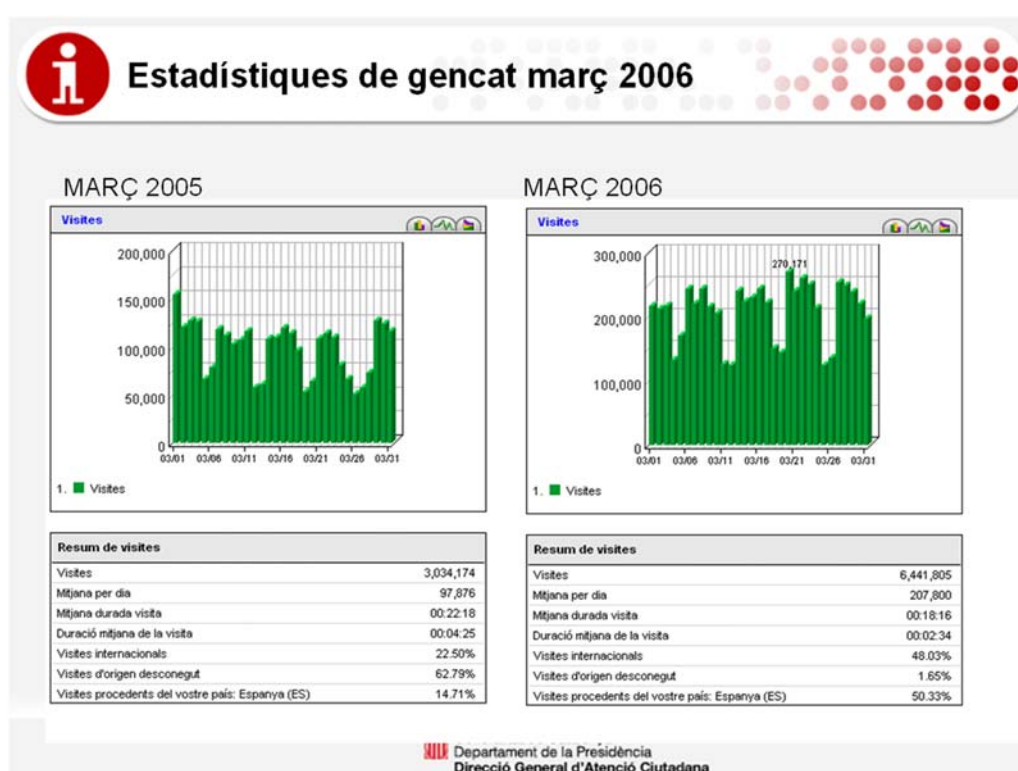
To this end, there has been a proliferation of questionnaires about the use of the relationship channels and about the satisfaction levels perceived by users. In contrast to the original phase of electronic administration where design was determined top-down, in other words, based on the services offered and according to their own conditions (suitability of services, the condition of the databases, media impact, etc.), in the current phase data about use and analyses of (actual and potential) user behaviour seems to be pre-eminent. Various periodic studies along these lines, to study the queries received (using log files, calls, visits, etc.) have been carried out; usability studies have been done before bringing a new portal online; *focus group* studies have been designed to follow the behaviour of users, etc.

The user is beginning to acquire a more important role in e-governance. As a minimum there seems to have been a movement from a period where the user has been present above all in the rhetoric of transformation, to another where specific actions have been taken directed at determining – with a certain basis and support in specific data – their needs.

7.3. Demand as a Motor for Change

Analysis of use of the Generalitat's portal shows a spectacular increase in visits in the course of a single year. Comparing data from March 2005 with March 2006, the number of visits in a month has grown from 3 million to almost 6.5 million. Globally, this represents more than 100% growth and, we emphasise, this was in the space of just one year. The majority of these visits are requests for information, in other words, the user is looking for specific information about a service, regulation or procedure.

Figure 1. Development of Gencat Users between March 2005 and March 2006³⁰



Another fact to emphasise is that the use of administrative portals appears highly instrumental, in other words, users are connected according to their needs at that moment. Analysing the data for the Gencat portal it can clearly be seen that there are clear rises in the number of visits occurring during those periods coinciding with the publication of data of especial in-

30. RESUM DE VISITES: Summary of visits; VISITES: Visits; MITJANA PER DIA: Average per day; MITJANA DURADA VISITA: Average during visit; DURACIÓ MITJANA DE LA VISITA: Average duration of visit; VISITES INTERNACIONALS: International visits; VISITES D'ORIGEN DESCONEGUT: Visits – origin unknown; VISITES PROCEDENTS DEL VOSTRE PAÍS: ESPANYA (ES): Visits from within this country: Spain (SP).

terest for a specific community (publication of Selectivitat exam grades, for example) or with some extraordinary event or another (like the accident in the Carmel district).

With respect to the 012 telephone service development in its use can be appreciated in this table:

Table 1. Development of 012 Calls (1999-2005)

Period	1999	2000	2001	2002	2003	2004	2005
January	88,354	49,318	89,727	120,394	189,031	175,372	216,681
June	60,040	69,459	79,217	148,784	194,379	210,198	261,682
Annual average	66,728	62,515	91,038	146,467	208,478	183,802	233,347
Total	800,731	750,183	1,092,457	1,757,600	2,501,734	2,205,620	2,800,168

Source: ACD telephone platform 1999-2005. Citizen Information Department

Although its development in the last year is not as spectacular as the Internet, use of the telephone has almost quadrupled between 1999 and 2005, taking into account the absolute volume of calls: use has grown from 800,731 to 2,800,168. Just as with the portal the main use of the 012 service is also, principally, instrumental: the majority of calls (62%) were made in order to request specific information – in many cases about subjects related to one or another department, but also to make queries about questions, strictly speaking, beyond the Generalitat's areas of responsibility.

This increase in telephone calls and visits to the website has been seen to be accompanied by a clear improvement in the quality of both these information channels. Despite that fact that in this report we have dealt with different aspects of this process of improvement, we have created our own indicator based on the response time for an email sent to the Administration.

In order to measure the actual functioning of contact with the Administration through email and based on an experiment by D. West (2002) during our first study, we carried out a test by sending an email using the enquiries mailboxes located on the home pages of the departmental websites and the Gencat homepage. For this test we tried not only to find out in which departments the mailboxes were actually operational but also to measure the response time for a citizen's enquiry. The test was performed on 18 October 2002 and the query requested the timetable and location for face to face enquiries at the department's main information office. Three years later we conducted the same test. The comparison between the two tests is presented in the table below:

Table 2. Table of Comparative Response Times by Percentage 2002/2006

Response Time	Year 2002	Year 2006
Less than 24 hours	43,75%	76,47%
Less than 48 hours	12,50%	5,88%
Less than 72 hours	6,30%	0,00%
More than 72 hours	6,30%	11,76%
No response	31,20%	5,88%

Source: in-house production

As can be seen, the improvement is substantial. On the one hand while in 2002, 6 of the 16 contact mailboxes contacted did not respond to the request for information at all, in 2006 only one of the emails went unanswered. While in 2002 the number of departments that responded within 24 hours did not reach 50%, in 2006 this proportion rose to 76.47%; in other words, the great majority of emails were attended to in a relatively short time. In fact, only three emails took more than 24 hours to get a response.

This data shows an increase, not only in the response index for emails, but also in the speed with which they were dealt with by the Administration.

In fact, the increase in demand is one of the motors, or most important causes, of the processes of transformation that we are analysing. Despite the fact that it is not always like this, an important incentive factor for change is, in many cases, citizen pressure or pressure exerted by the Administration's users. When this pressure, understood as the accumulation of requests for information or demand for a service, creates a critical, even chaotic, situation or collapses the service, then the need to improve the service and change procedures becomes apparent, normally through the incorporation of ICTs, the design of a new information system, etc.

In some ways it is as if the Administration only changes when it has no option but to do so. In this sense it is very illustrative that the origin of the most important transversal information system in the Generalitat, the SAC, came in good part from information pressure exerted by citizens on Welfare offices – with a high level of presence in the territory – where they went to demand information about services and units about other departments.

The pressure of demand, however, can take two different forms, depending on the role developed by the administration. On the one hand, when there is clearly a collapse in particular information channels (because of the number of calls left unattended, replies taking an unreasonable amount of time, queues, etc.) the Administration acts reactively to solve the current crisis – then it tends to improvise and construct ad hoc solutions. A second possibility

occurs when the Administration proceeds proactively, making periodic analyses of the use data from a specific channel, collecting and dealing systematically with complaints and carrying out regular surveys of user satisfaction; a process we could conceive as the construction of demand – placing the emphasis on the active character of the Administration's role.

Finally, an important question about electronic services has to be answered in this section – we recall that over recent years electronic services have become a fundamental axis for many administrations, to the extent of transforming some projects into a frantic race to get eServices onto their portals. The fact that use data has begun to be handled systematically in order to evaluate the electronic services not according to supply but to demand, has shown that a significant number of the innovation projects carried out until now have been aimed at a very specific user profile: mainly young users very familiar with the technology and with a high level of education. Thus, the short term benefits of many e-government projects have been restricted to a fairly reduced sector of the population.

Moreover, some administrations have taken into account that the use of online services, despite their enormous cost, is relatively low (very low if we compare take-up with initial expectations) and that many of the users are, rather than citizens, intermediary entities (agents, for example, in the case of the online income tax return service). In the end, this has made many administrations rethink their compulsive production of eServices and now they are looking to impact on the citizen indirectly, putting their back-office and information systems in order – not that these are, however, the only causes.

Nevertheless, although the emphasis on electronic services has diminished in recent years as a result of all these factors, this extreme does not signify a loss of the central position of the Internet channel in innovation projects, with respect to the telephone and face to face channels. Rather the contrary, the current improvements both in the telephone and face to face channels, are increasingly supported by the establishment of transversal information services online that feed the Citizen Information operatives with information. The integration of channels is feasible principally through shared information systems, but with interfaces adapted to the needs of the end user – depending on whether it is a citizen connected to the Internet, a telephone service operative or a civil servant working face to face with citizens (since these last two work with a computer monitor connected to the Internet).

7.4. Citizens as Co-managers of Services

As we have seen in the chapter on the theoretical framework, one of the most controversial points when dealing with the area of e-governance is the role accorded to citizens. In great part the literature on this issue is polarised into two basic positions: on the one hand the citizen can be understood as a client of the Administration – a consumer of public services – and on the other as a political subject – in other words, as an agent capable of participating, to a greater or lesser extent, in the decision making process.

In our study, however, another way of understanding the role of the citizen in the ambit of e-governance emerges – a way that is distinct from the two previous options because it is drawn up along another conceptual axis. We refer to the citizen as co-manager, jointly in charge of public services.

Effectively, in many of the projects and initiatives analysed a citizen figure emerges who has to be competent in managing the information resources (ever more abundant and complex) that the Administration places within their reach, and in handling the paperwork and procedures that the new channels put at their disposal. We have seen, for example, how in the case of Quebec the new system for managing pensions online was deliberately conceived as an attempt to reduce the bureaucratic apparatus of the State, transferring part of what had been, until then, the State's tasks (suitably simplified and adapted) to the personal management of the service's users. The Administration placed the necessary tools – using sophisticated information, comparative systems and tutorials of all types – within citizens' reach so they themselves would be able to manage and plan the future of their own pensions.

This incipient tendency fits together perfectly with another distinct aspect of e-governance. A great part of the efforts to improve current systems of relationships are directed towards facilitating the navigation and orientation of the citizen amidst the abundance of data and information that the Administration makes public through its portals. There is, in this sense, an explicit will to actively involve citizens in the organisation of information they might need: it is about giving them tools to organise information in accordance with their interests and individual needs.

Even though our investigation still does not allow us to draw firm conclusions with respect to this tendency, it is possible to put forward the hypothesis that e-governance seems to be directed at transferring a part of the responsibility for the management of public services to citizens themselves, who in the final analysis end up being the ones who have to take certain decisions in accordance with information that the Administration itself provides. ICTs are a

central element in this new form of e-governance where the individual assumes part of the role that previously belonged to the State. In fact, in global terms we could argue that it produces an individualisation in the relationship between the citizen and the Administration: as much in the personalisation of services as in the co-management we have discussed, aiming at a situation where the citizens connect individually and independently.

In connection with the polarisation we have identified in the literature, we can state that neither participation, in the sense of intervention in shaping policies (or, rather, in decision-making), nor involvement in management is increased. Citizens become active consumers of information and manager of their small parcel of services. The current empirical evidence reinforces the thesis that e-governance is more orientated in this direction than to a deepening of democracy or participation in the classic political science sense of the word. The will to use new technologies in order to provide more and better information to citizens is not really aimed at strengthening their capacity to intervene politically nor at the transparency of government actions, in other words to empowering participation in the decision-making process, but at improving their capacity in co-management.

7.5. The Public/Private Relationship in Citizen Information Channels

One clear effect of the processes of outsourcing linked to communication channels with citizens is that contact between citizens and the Public Administration is often mediated by private companies – a factor that is usually justified by the impossibility of providing 24-hour Citizen Information services. When citizens call one of the Administration's Citizen Information lines, they are in fact speaking to an employee of a private company that is in charge of call management, according to a contract drawn up with the administration. This situation, common in other public services (grant-maintained schools, hospitals, etc.) was not, until recently, common in the area of Citizen Information channels.

Considering the types of contracts that these companies have with the administration, the index of queries attended is one of the principal evaluation axes for these services – and the economic compensation they receive. Since this index is also often used by the administrations as a parameter to determine the quality of their channels, the result is a tendency to increase the number of queries carried out.

Even so, the fact that for certain services the number of queries (by telephone, online visits or face to face consultations) is not necessarily a reliable indicator of success, still less when it is increasingly obvious that good work done in the integration of the back office and simplifying procedures can lead to a reduction in the number of queries, often comes under discussion. It is, in this way, ever more important to establish indicators and evaluation systems better suited to measuring the quality of Citizen Information services.

Another notable phenomenon is the tendency to increase the range of information the administration provides. Increasingly, administrations – and this is clearly the case with the Generalitat – show an inclination to give information about services and areas that are not directly related to the Administration and its areas of responsibility (leisure, the services of other administrations, etc.). In other words, that the volume of information supplied by the Administration through its channels has not grown only because of the possibility of opening internal databases to the outside (a theme clearly highlighted by the literature), but also due to the tendency to include information which is traditionally the scope of other agencies. This fact occurs because of the explicit will to respond to the majority of queries received (and citizens often make no distinction between those aspects that fall strictly within the scope of the Administration and those that do not) and for the associated need to improve the external image of the Administration by emphasising its vocation to serve the public effectively.

The problem is that it produces a bit of a vicious circle: if the range of information is broadened, the number of queries increases too, efficiency suffers (and the efficiency of Citizen

Information services) and it is necessary to increase the structural volume of the channels in order to answer queries with the same quality. Although the incorporation of sophisticated information systems can alleviate this process and so avoid collapse, it is not clear what the most sustainable strategy for the future should be.

In fact, this process poses another question with respect to the relationship between the public and private sector. In the area of information services, the Public Administration is sometimes in competition with private companies that offer a similar information service; a certain overlapping of fields of activity takes place that at an earlier stage were more clearly demarcated. The information supplied, for instance by the 012 service, could compete directly with some private services offered by telephone operators, street finders, services about leisure and cultural activities. At the present time, this incipient tension does not have a foreseeable short-term solution either.

7.6. The Central Position of the User

Despite the fact that one of the most common leitmotifs in the field of programming for electronic Administration, since its very beginnings, has been the central position of the citizen, it is only in recent years that this expression has ceased to have more than a fundamentally rhetorical role. Increasingly, administrations take considered actions in order to analyse demand, the profiles of users or their behaviour in relation to the Citizen Information channels, as a basis for the redesign of their services. In the same way, the data related to use is beginning to have a vital role in the evaluation of these services and the identification of good practices.

Despite this, we should not forget that the current offering is still marked by conditions outside the scope of this tendency. The menu of online paperwork from many administrations continues to be determined by criteria that are not in line with this logic (according to their level of demand, for example), but rather to internal considerations of various kinds (technological suitability, media impact, political opportunity, etc.).

Our study permits us to identify, with an eye to the future, the most important lines of action. On the one hand, there is still a long way to go in establishing procedures to incorporate feedback from the users in the reconfiguration and improvement of services. While on the other hand there is a certain consensus in the literature that electronic services for companies have acquired a level of sophistication and accessibility greater than those oriented towards citizens. A clear result of the fact that the task of identifying demand with greater precision in this context (more difficult than in the case of companies) will be further developed in coming years. The current tendency seems to aim at putting more emphasis on the added value that e-services could have for citizens, instead of establishing systematic, generalised processes for the digitisation of services.

A final axis of development could be improvements in the evaluation systems of these initiatives – which are currently still found at a very primitive stage. Despite the difficulty in establishing objective measures of the efficiency and productivity of public services, it is increasingly clear that e-governance cannot be measured simply by the increase in contacts between citizens and the administration, by the number of visits to a website or by the number of forms downloaded – since in many cases an appropriate measure of success is precisely the opposite; a reduction in those contacts.

To finish by picking up again the metaphor with which we began this section – the necessity for the Administration to achieve “proximity” to citizens – we would like to point out a fact that might appear paradoxical. In order to achieve this “proximity”, administrations are not reducing

the quantity of mediations between them and the users/citizens. Quite the contrary, as is happening in fact in any other social ambit – and contrary to what common sense tells us, achieving this proximity, this deepening of interaction, does not lead to the elimination of elements that interpose themselves between the relating agents, but rather is introducing more mediations and agents that could direct the transactions more fluidly (Latour, 2005). This is the true role of the ICT in the construction of more intense social links.

In the case of citizens and administrations, e-governance could be understood precisely as a process of introducing ever more sophisticated and numerous mediations – in the shape of information systems, contents managers, common modules, telephone operators, computer interfaces, databases, private companies, consultants, etc. –, which, linked in networks, permit a more flexible and rapid circulation of data and information between the two poles of the communication act. We are not moving from a personal to a virtual relationship, rather from an unstable and volatile one to another material and solidified one through various technical systems.

Chapter 8

Catalonia in the International Context: a Comparative Analysis of Scotland, Emilia-Romagna and Quebec

8.1. Introduction

The process of political decentralisation and in particular the creation and/or strengthening of regional governments with powers to define and manage public policies within their territory, has been one of the key variables in political institutional change in recent decades.³¹ This process is the result of various variables that range from the desire for self-government on the part of territories with long traditions of autonomous management of public affairs (Catalonia and the Basque Country in Spain), to the promotion of political decentralisation as a mechanism for improving economic efficiency, in particular in peripheral zones, offering them increased possibilities to manage their resources (like the regions of ordinary statute in Italy) (Keating 1996, Rhodes 1995).

Further to this, the EU Committee of the Regions (COR) established the principle of subsidiarity, which stated that “decisions should be taken in the most open way and as close to the citizens as possible”, and it combines the emphasis on proximity to the citizen with expectations of efficiency: “only greater efficiency can justify the transfer of decision making processes to a higher level, beyond the citizen's control” (EU, 2004, Pg 5). The changes did not just seek greater democratisation and transparency but also posited a widening of the network of actors who participate in decision making. The COR explained it in the following way: The ascending (bottom-up) development of policies emerges ahead of the failure of over-weak approaches based on a closed circuit of social interlocutors. The complexity of the policies, the large number of interested parties, public as well as private, the broad spectrum of powers, the lack of resources and the tough competition to get hold of them, make cooperation between juxtaposed subjects (those who operate in the same territory, for example) a fundamental fact in achieving maximum efficiency in the decision making process. Public institutions, therefore, by election and by necessity, delegate part of their own powers in mixed public and private networks” (EU, 2004, Pg 6).

In this context of the areas of management that pass to sublevels of government they emphasise health and education, but also the widening of the fiscal capacities that could sustain the development of these areas of responsibility. And in parallel with this process the evolution of the information society (IS), and electronic government in particular, have become key performance areas for all governments, under the explicit objectives of increasing

31. As the report of the EU Committee of the Regions (2004) states, in the 1980s Germany was the only EU member state with a federal government whose powers, including legislative powers, were considerably decentralised through sub-national organisations and enjoyed democratic legitimacy. At the end of that decade Belgium approved a federal constitution, the Federal Republic of Austria joined the EU and various countries, among them Italy, Spain and the UK, introduced decentralising reforms.

proximity to the citizenry and improving management efficiency. Thus, in recent years a diverse and large number of policies have been enacted in this area (Jordana et al, 2003). The fact that ICTs do not require specific powers – with the exception of policies regulating the telecommunications market – has justified part of this spread of public policies, which at the same time have been linked to proposals for administrative reform.

Parallel with these actions, a debate about the causes and results of the spread of technology is emerging. Based on empirical evidence, many authors point out that the degree of economic development of the territories conditions the spread of ICTs; in other words, the wealthiest territories show a greater penetration of new technologies. However, should also be said that the spread of technology is not linear and homogenous but that each case – or groups of cases with common characteristics – show different results (Guillén and Suárez, 2001; Welp, 2004; Milner, 2002; Castells and Himanen, 2002). Public policies do not have a linear effect either – an aim is planned and the expected result is obtained – but other variables exist (the users, the contexts, the actors intervening in the definition of the initiatives) that influence the end result. For example, the gap that can – and often does – open up between the availability of infrastructure and technology and its effective use, and even between its use and the obtaining of the greatest efficiency (Fernández and Welp, 2003).

In the context of increasing globalisation, there is a debate about the tendency of political systems to follow a pattern that leads to differences being increasingly less important. Whilst the supporters of the theories of divergence state that various institutional contexts produce diverging results, the supporters of convergence state that political systems tend to be increasingly similar. The divergence theorists suppose that public policies tend to reinforce and reproduce a pattern of effective performance or path dependence (Pierson, 1995 and 2002; Hall, 1993). Meanwhile, the convergence theorists, for their part, state that the globalisation of markets, in general, and the existence of supranational areas, like the EU, in particular, stimulate convergence in the design of public policies and in their results (Thatcher, 2000).

In the specific field of the promotion of ICTs in public Administration, a third group of authors states that the adoption of technology, for example in the development of governmental portals, has become a global tendency. However, it is also stated that very often these policies only reinforce the pattern of already existing actions. In brief, for these authors a process of convergence has taken place in practice but not in the results, which are conditioned by the institutional context and, specifically, by the degree of autonomy of their bureaucracies (Wong and Welch, 2004). With all these elements – global changes that redefine the role of governments and the introduction of new technologies and administrative reforms that appeal to the change of Public Administration – a transformation is beginning towards what we have called Network Administration.

In this situation, we propose to analyse e-governance in the international context. We shall present “the state of play” in three regional governments: Scotland, Emilia-Romagna and Quebec. We shall carry out the analysis comparing them with the Catalan case – analysed in the first part of this report – in order, ultimately, to derive some conclusions. To summarise, with the comparative study we are seeking to identify:

a) whether or not there is a global tendency towards convergence in processes of technological innovation and administrative change; and within this, b) to what extent a transition towards a new form of Network Administration, which between the different case studies could have differential characteristics, is detectable. We shall consider, as we have done in the case of Catalonia: the structure and function of public Administration; the innovation and intervention strategies of the private sector in the co-management of public policies in this area, and the relationship with the citizen that is established through these processes.

The comparison will be carried out following the axes previously proposed and taking into account the peculiarities of each region, such as the degree of power they have, the specific characteristics of their bureaucracies and the ideological orientation of their governments, in order to analyse in an exploratory manner the possible influence of some of these elements on the configuration of different “models” for the development of electronic governance.

The regions chosen present similarities – in terms of their level of development and powers – and differences – in relation to history, political and institutional contexts and the distribution of powers between the regional and local government level – that allow us to contrast the cases. Structurally they are similar territories in terms of population (Scotland and Emilia-Romagna have close to 4.5 million inhabitants, and Catalonia and Quebec around 7 million) and all are located in developed regions. The cases diverge in terms of the processes by which they have acquired their powers and also in respect to the distribution of these between the regional and local government levels. In Emilia-Romagna and Scotland the local level has greater weight than in Quebec and Catalonia, where the regional governments are stronger (an aspect evidenced in the size of their public administrations). The political parties in power and the recent history of changes of political party in government also allow us to derive conclusions about the influence (or not) of the ideological orientation and political change in the maintenance or modification of strategies for administrative reform and technological innovation. Another variable to consider is the possible influence of identity components in the strategy of relationships with citizens.

Based on the research of Esping Andersen (1993, 2000) we can group these regions according to the development of different welfare states, in accordance with the combined character-

istics of the market, state and family in the social organisation. In the “liberal” welfare state, for example, social assistance is aimed at those who are proven not to have the means to provide for themselves, the state has restricted functions and the market is the principal mechanism of distribution (this system is characteristic principally of the Anglo-Saxon countries and amongst them the UK and Canada). In the conservative or corporatist model, rights are acquired according to status – as a worker – and social class (this is the case in countries like Italy and, in part, Spain), through which the family acquires a central role organising the structure of redistribution around the principal wage earner.

In the social democratic model the rights are universal and based on an elevated decommodification. These relationships have consequences on the type and status of bureaucracy, with very rigid models, that correspond to the conservative regime and more flexible models, which correspond to the liberal state (Salvador, 2003). Drawing out the consequences of this organisation it is possible to expect the liberal states to be shaping ICT promotion policies in various ambits – from e-government to digital literacy – especially market regulators, since it is to be expected that the private sector would be the principal actor in the diffusion. The conservative regime will be more active but basing its protection on the status (of the working class). From the social democratic model universal policies promoting access aimed at all their citizens can be expected (Welp, 2004).

The selection of cases we have made allows us to view the influence of these contexts in two models, and to analyse at the same time to what extent the central states and the regions coincide in their development. In other words, we shall see to what extent Scotland and Quebec (that fall into the category of liberal welfare states) and Catalonia and Emilia-Romagna (within the category of conservative welfare states)³² respond to the same tendency, or if there are other variables that explain the strategies pursued by each government.

32. Although Esping Andersen has proposed a fourth model, the “Southern European” model, which combines high family protection over decommodification and a hybrid state between an elevated protectionism according to status and a residual universalism, we take his first way of grouping countries owing to our interest in evaluating the current development of public administrations (rather than the development of the Welfare State).

8.2. Structure and Function of Public Administration

8.2.1. The Structure of the Public Administration

The administrations analysed vary in their volume and, related to this, in the distribution of their powers. Thus, whilst Quebec and Catalonia have a more populous civil service structure, Scotland and Emilia-Romagna have local governments with greater capacity for action than those of the other two regions mentioned and with smaller regional administrations.

The organization charts are in general very similar, organised by departments and with few institutions with transversal areas of responsibility. One of the first elements to emphasise concerning the public administrations under analysis is their tendency to reproduce management models similar to those of the central states. Thus, although in Spain the statutes of the autonomous communities allow a wide margin for each regional government to design its own organic structure and a certain amount of room to manoeuvre in the configuration of its system of public functions, the majority of autonomous administrations have reproduced the general Administrative model of the state (Ramió and Salvador, 2002). This new level of Administration, which is based, initially, on the functions and resources (human and material) transferred from the state's general Administration, soon generates its own growth dynamic to the extent that it consolidates its areas of activity and gains its own space in the new administrative map (Salvador, 2003).

In other words, a tendency remains to reproduce the Public Administration's Weberian structure, which, albeit with some differences, is preserved in all the cases analysed. This is especially interesting if we consider that some regional governments have come in to being very recently, as is the case with Scotland.

8.2.2. The Recruitment of Civil Servants and the Administration's Workers

One of the central points in the discourse that drives administrative reform is flexibility. In all of the cases analysed the interviewees raised the issue. Even so, the ways of achieving less rigidity, more efficiency, etc. are very different. For example in the Scottish case despite being aware of the expenditure generated by the administration, the planned aim is not to reduce Public Administration but to redirect resources to social policies. At the other extreme is Quebec, where the government has established the "2x1 law", which requires that only one person is hired for every two that retire. This will lead to a great change in the structure of the government, a change that is expected to be supported by technological innovation.

Concerning working practices within Public Administration we find that in the ambit analysed the panorama has changed a lot over the past decades, although this change does not come from its public functions operating in a new way but from the *ad hoc* creation of a parallel structure of contracted workers. Beyond this, we observe in all the cases analysed that, whether or not traditional civil service staff are reduced, the private sector is a growing presence within the Administration. This new practice of hiring for highly defined, temporary periods, and in many cases assigned to very specific initiatives, has its detractors and defenders.

8.2.3. The Organisation of the Principal Citizen Information Channels

One of the questions with which we began our research work was meant to answer where on the bureaucratic administration-web administration continuum the analysed cases were located. The analysis of the cases shows that in the ambit of Citizen Information the public administrations we analysed are found closer to traditional hierarchical administration than Network Administration, by virtue of the fact that the organisation of the Citizen Information channels shows a high degree of compartmentalisation. An aspect that is applicable to the majority of departmental structures into which the public sector is organised.

Even so, we have also found notable differences between the cases analysed. These differences relate, at a primary level, to the diversity of powers possessed by the regions analysed. With respect to face-to-face contact, Quebec and Catalonia have a large quantity and diversity of offices, whilst at the other extreme Emilia-Romagna has only one regional office for face-to-face contact. In both Quebec and Catalonia there are projects, still at an extremely embryonic stage, to create an integrated system of offices whose development is blocked principally by difficulties in producing mechanisms to give an incentive towards interdepartmental cooperation.

Telephone access shows Catalonia to be a special case, in that it has, with few exceptions, a unified telephone information service managed by a private company, which has allowed it to expand the service's hours (24 hours a day, 7 days a week) and the information that it can provide. While in Quebec a project is being designed along these lines, in Scotland and Emilia-Romagna the telephone is considered a priority. In the case of Catalonia the strategy appears to answer a concrete analysis of the situation: "a high percentage of the population is elderly and does not have access to new technologies – either because they do not have a computer or are not interested in having one – and for this reason we have strengthened the telephone service, although the portal is also planned as a priority" (P77).

Finally, the web presence of the four regional administrations analysed shows a similar starting point, with certain common elements in the design of their websites (in general design elements, the logo, etcetera) and a great diversity in the contents and organisation of information. In Quebec there is the initiative to create a single portal, Services Québec. In Scotland the creation of inter-administrative information systems (with an emphasis on developing back offices) is being worked on. In Emilia-Romagna the development of services on the existing platform is planned and in Catalonia a similar strategy developed some years earlier CAT365).

8.3. Management of Innovation

8.3.1. Promotion and Strategy Organisms

Along the same lines, in the development of telecommunication infrastructures, we have observed the tendency to form partnerships between regional and local Governments – Local-ret in Catalonia, Customer First in Scotland, etc. However, recently the regional governments with fewer direct powers in relation to the citizen (Scotland and Emilia-Romagna) are the ones who are strengthening their coordination and decision-making role.

As far as the evolution of e-government strategy is concerned, we could consider that the initial stage placed an emphasis on the digitisation of services and the promotion of websites. A cost-benefit analysis of this has followed that is in turn leading to a rethink of the strategy. It could also be said that in those first years of development the incorporation of ICTs was characterised by large concentrations of investments, by the entry of the private sector in the design and implementation of projects and by a certain fascination with the transforming power of technology. Currently, there seems to be a tendency to change to projects which are less ambitious in terms of resources and “innovative” aims, and more oriented to the better management of information and existing resources.

In summary, there seems to be an effort – in some cases more clearly than in others – to rationalise resources (money, information, and personnel) and obtain tangible results in terms of improvements to services. The justification for this strategy could come from:

- a) The relative failure of new services in terms of users: infrequent use of the administrative portals by users that leads to a rethink of strategy.
- b) The need to rationalise economic resources: along the same lines as the previous point, the need to reformulate a strategy that had been aimed at constructing a new relation window, into another approach aimed at developing a global transformation strategy that does not just affect the administration's most visible face, but modifies its own organisational structure.
- c) The need to have information: the diagnosis shows that the quantity of information is not the problem; the problem is finding it and having guarantees that it is up to date. This creates difficulties for citizens and civil servants alike, since rationalisation would aim in this case to have shared databases, automatic update procedures (for example, automatically shutting

down sites for applications whose deadline has passed) and also organising information around simple and comprehensive criteria.

d) The perception of the advantages of having short- and medium-term projects: the perception that the world of technology is very dynamic and that the “ultimate project” is costly and inefficient. Thus it is seen as more productive to develop short- and medium-term projects, with lower costs and with possibilities to reconvert the information used when the decision is taken to transform the system again.

Also we find differences in the way that the different administrations exert their influence on the evolution of electronic government policies. Amongst them we can highlight the combination between political change and the burden of bureaucracy. Putting it broadly, there do not appear to have been differences in the plans that would be explicable by reference to the ideological leanings of the political party in power, even though these did allow an understanding of some of the differences between current strategy in Quebec (Liberal Party) and Scotland (Labour Party).

Changes in political parties in the government did, to a great extent, explain strategic changes in cases such as Catalonia. Even so, the type of study carried out does not allow a validation of this hypothesis in the other cases; change of government in Quebec, for example, seems to have accentuated certain policy tendencies, but not a change of strategy, in part because of the nature of its bureaucracy – closer to the Anglo-Saxon model – which has more power than the bureaucracy in Catalonia. On the other hand, Emilia-Romagna and Scotland show similarities in their strategies that could be conditioned by their inter-administrative relationships: both regional governments, compared to Catalonia and Quebec, have few powers and so they appear to place more emphasis on the development of inter-administrative relationships.

8.3.2. The Networks of Public and Private Actors

As far as this dimension is concerned, we could suggest, on the one hand, that the participation of the private sector is a constant in all the cases, and, on the other, that the greatest change appears to have taken place in Catalonia. In other words, although in all the cases the participation of the private sector has grown, in Scotland, Quebec and Emilia-Romagna there is, from the outset, a greater control and diversity in the participation of outside companies. In Catalonia there has been, in contrast, a great concentration of initiatives in a single company and the strategy has recently been redefined, as we saw earlier.

8.4. Relationship between the Administration and Citizens

8.4.1. Prominent Technological Innovation Projects

The projects we have highlighted show common elements – above all in the emphasis on the creation of shared databases and in the orientation towards ordering the back-office. In Emilia-Romagna infrastructure and, training and citizen participation projects carry more weight. In Scotland the core of the strategy is oriented to the organisation of the back offices, whilst in Quebec and Catalonia there are projects that seek to use stored information in order to offer the citizen services with added value.

8.4.2. Evaluation of the Operation and Use of Citizen Information Channels

In Catalonia, despite the fact that the metaphor of customer information has been abandoned, the vision of citizens as users has been strengthened. In this way, we observe an emphasis on evaluating not only the number of users of each information channel, but also their preferences and wishes. Another indicator is that the primacy of websites has been abandoned in order to strengthen all the Citizen Information channels, with a plan to restructure face-to-face contact, the idea of which – still unfinished and not put into action – is to integrate offices and give general information to civil servants in order that they can attend to different requests and not exclusively those related to their department, strengthening telephone services – which has produced very good results – and trying to improve website use indicators.

In parallel with this interest, a tendency has been observed to develop similar processes in the first years of e-government implementation. Basically, in all the cases analysed the interviewees mentioned an initial emphasis on the development of websites and on the digitisation of services. This initial stage seems to have been followed by a stage of uncertainty or disenchantment that led some to reformulate the strategy which saw the principal aim of technological innovation as saving resources which could then be reoriented to other sectors (to increase social policies in Scotland, to raise the quality of services in general in Emilia-Romagna and simply to reduce administrative costs in Quebec).

Finally, we can state that some variables that could explain this process are political change and the type of bureaucracy, and that these operate as explanatory variables when analysing strategic consistency or change. Thus whilst in Catalonia a change of government had a strong impact on the strategy followed till that point, in Quebec the change of government only increased the emphasis on promoting e-government. In accordance with this, in Emilia-

Romagna and Scotland, with governments that show a great interest in promoting social policies and the struggle against inequality, a lower number of initiatives linked to the digitisation of services and a greater emphasis on infrastructure is observed.

Chapter 9

Conclusions

The three previous chapters have tried to answer, in each one of the three ambits identified by our analysis, our initial research question about the characteristics of the current transformations in the Administration – and its relationships with citizens and other external agents – associated with the incorporation of innovative technologies within the framework of processes concerned with citizen information. Even so, we should remember that this question got, in principle, a tentative answer, in the form of the study's basic hypothesis, proposing a transition between a traditional bureaucratic model of Administration and a new model that we called Network Administration.

After having carried out the empirical work, which we have presented and analysed in the preceding chapters, we are now in a position to answer this question in a generic form, evaluating to what extent our hypothesis has been corroborated or falsified by the empirical evidence. This shall be our task in this final section of conclusions, where more than presenting a systematic summary of the different analytical contributions that have been done at length in preceding chapters, we have made a selection of those we consider the most important in answering the initial hypothesis. We shall also present, as a by-product of our project, what we have called a model of the transition between two different phases in the rolling out of electronic Administration.

Was the current Public Administration found to be in transition towards a network-based model? Our answer to this question is positive, but with some important reservations. Although in the three proposed analytical dimensions we found clear indications of this transition process, there are also elements and factors that are impeding this change and making it, all in all, slower than hoped – slower, at least, than has been documented in other organisational ambits. Even though Public Administration has been characterised for a long time as an environment particularly unsuited to change and mutation, the fact that the thematic axis of our analysis – the incorporation of innovative technologies in the ambit of ICTs – affects its nucleus of core activities (i.e. the capture and treatment of huge quantities of information with a highly heterogeneous content) aggravates still further the difficulties of transition towards a new working model.

Two main facts clearly sum up the basic difficulties of this transforming process. On the one hand, the oppressive subsistence of strongly hierarchical decision and supervision structures that condition information flows – flows which, in turn, are supported by technical systems that have mostly been designed in the past, implicitly or explicitly, in order to favour these vertical control and decision making structures (in our study we have been able to analyse the way in which the hierarchy imprints itself on the design of information systems). On the other hand, the subsistence, no less flagrant, of a regulatory and legal framework

that also makes the redesign of processes and procedures difficult in an environment increasingly dominated by digital transactions and communications.

The result is a complex situation in which procedures, projects and structures belonging to the two models coexist in a more or less tense fashion. This often creates a climate of disorientation and lack of references at the heart of the Administration itself. A problem that makes the internal communication processes we have been talking about all the more necessary. This state of uncertainty is, moreover, aggravated by a recent past full of not very successful grand projects, seriously hampered, deliberately abandoned or simply starved to death. Electronic Administration projects are often born – despite the enthusiasm or strong leadership that accompany them – under suspicion: so far initial expectations have rarely been met. A situation that is corroborated on the international scene.

A positive consequence of this stormy past is, however, that the Administration – and also the specialists and scientists analysing it – are starting to gain a certain experience, based on which they can take better decisions or carry out more appropriate evaluations of new projects. As a result of this process of knowledge acquisition – almost by trial and error – it is possible to see a change in the types of aims, designs and actions that in recent years have marked, in our opinion, a new stage in the development of electronic Administration – a question that we will deal with later on.

In any case, more important than giving a generic, more or less positive, response to our basic question, is to explain in a more detailed way the elements that, according to our analysis, allow us to clarify and characterise this process of transformation in more depth.

The first point to emphasise is the absence of significant structural changes in the Public Administration – an extreme that is also supported in our international comparative study. In other words, that despite the fact that the need to link the incorporation of ICTs to a profound restructuring of the organisations has often been insisted upon in order to achieve clear gains in effectiveness and efficiency in the context of the Administration, administrative reforms in the strict and general sense are not being carried out.

Nonetheless, changes are happening at the margin of the immovability of the existing legal and organisational framework, which are worth emphasising. On the one hand, part of the spaces and mechanisms of cooperation and transversal collaboration are getting smaller, in the heart of an administration itself, with respect to the high positions. At the same time, however, the spaces of interdepartmental cooperation that exist are more efficient and operative in terms of collaboration since more actors are participating. In other words, we find ourselves in a situation where more actors can be found with whom to cooperate, but the

spaces where they are found are smaller. Moreover, in terms of cooperation, a certain process of homogenisation has been taking place between the actors. This means that less difference exists between the extremes: there is not as great a distance between those participating more and those participating less as there was before.

On the other hand, and also with respect to the general structure of the Administration, the relationships are more hierarchical: the departments that we might consider to be at the nucleus of the Generalitat (the Presidential Department, the departments of the Economy and Finance, and Governance) carry more weight than before in the network of links. In other words, that their protagonism and their relative power is emphasised.

In parallel with this, the area related to ICTs and information society policies are gaining a more central role, with greater proximity to the three core areas – it is worth recalling that in the last government reorganisation, the Department for the Information Society moved to the Presidential Department. This supposes a recognition of the transversality of the areas over which it has responsibility and, at the same time, a possibility for more effective actions.

At the intermediate and lower levels of the Administration the situation is less equal with respect to the level of horizontal integration. The current variations are explained, fundamentally, by reference to the Citizen Information channels. With regard to face-to-face Citizen Information it is still possible to talk of strongly bureaucratised structures, where the organisational dispersion is mirrored in the territorial distribution of the offices and in the lack of results-evaluation processes. With the Internet channel, despite an initial situation in which there was great dispersal and diversification between websites, there is a highly transformational plan on the table – even though its implementation to date has been quite patchy. In a way, we have seen a transition from a very ambitious initial plan to a more realistic and not so radical one. By contrast, the telephone channel represents the clearest example of transformation towards an integrated and unified model – a process strongly supported with Web-based information systems. Within the international comparative study there was not, however, as we have explained, a similar situation between the different channels with respect to the four administrations analysed. In particular, the case of the telephone channel constitutes a priority focus for attention and innovation only in Catalonia.

Regarding decision-making, we have observed an increase of mechanisms and control and their centralisation in coordinating organisms. At the same time, however, there has been a rise in the level of interdepartmental internal communication. This has led to a growth in the knowledge level of the actors involved in projects and, consequently, in their desire to cooperate.

The question of visibility continues to be an important obstacle to processes of integration and coordination – not only the visibility of the administrations, but also of the internal administrative units that insist on putting their stamp of authority on the projects that they start or on others that they take part in. It is not enough that a project is done; the user should also know who has done it. To this element is added the persistent feeling of ownership with respect to the data and information possessed by each unit. Despite this obstructing factor some of the most noteworthy projects in the ambit of our international study are aimed at trying to overcome the Administration's bureaucratic structure in channels concerned with the citizen, by creating, for example, single, virtual portals.

Another tendency we have seen is the planning of global strategies aimed at rationalising existing information (and putting the back offices in order) and at the same time optimising spending and resources invested in the past. Proportionally more efforts are dedicated to tidying up existing contents than generating new ones.

These strategies take “self-knowledge” and “introspection” as basic points of departure. A large number of the projects and initiatives begin with inventories to clearly establish the starting point (with respect to the number of databases, websites, contents managers, telephones, etc.). Contrary to appearances, this collected data is in many cases very difficult to obtain.

Generally, then, a transition is seen from one phase characterised by the rolling out of large scale, model projects to another where the projects designed are more limited in scope (as much in their implementation timeframes as in their objectives and predicted impact). Despite this change of orientation in the scope of the projects, some of the central ideas remain very similar. And, with regard to the obstacles that are encountered when rolling them out, very similar elements are also to be found (compartmentalisation, technological dispersion, lack of coordination, etc.).

In this sense, the increasing interaction with the private sector due to the make up of company networks for designing and carrying out innovation projects and their increasingly strong participation in Citizen Information procedures, creates new problems – or, in other cases, aggravates old ones. The proximity of the two cultures (public and private) means that certain traditional deficiencies with the bureaucratic system when rolling out transformation processes become more apparent: for example, a lack of clear planning and the absence of pre-established evaluation mechanisms that guarantee penalties in cases where the project's deadline is missed or backward steps are taken (a common problem in the ambit of Administration).

It is precisely in the ambit of the relationship between the private and public sector concerning electronic Administration projects that we find some of the most significant transformations. A general change has occurred in the way private companies participate in these projects. The Administration seems to tend to exercise greater control over the responsibilities carried out by private providers. This greater control ensures, moreover, that, in the process of subcontracting, the Administration does not lose knowledge. For the other administrations analysed in the international study, monopolistic tendencies in outsourcing processes do not seem to have occurred particularly. One common aspect, however, is the tendency to bring in more private agents and with greater diversity of functions (managers, designers, providers, etc.).

On the other hand, the portfolio of providers has been diversified: projects are not subcontracted in their entirety or in large portions, but the tasks are separated between different companies and competitive relationships are even encouraged between them throughout the execution of the projects.

Despite the fact that, as we have stated above, the administrative structure has not changed significantly, there have indeed been functional changes, in the more limited scope, for example, of the work teams. In order to overcome excessive rigidity in the administration's labour framework, the contracting of personnel with a certain level of training and experience has been strengthened. In this way distinct groups of public workers have often been created – contracted and civil service workers – with some tensions between them (revolving around questions of salary, commitment etc.).

With regard to Citizen Information mechanisms, the most notable tendency we have identified is aimed at the unification and integration of the channels. This process, however, is still a long way from being completed. The effects of organisational compartmentalisation and the relative autonomy of the units continue to present important obstacles and, in fact, much recent effort has been directed at building centralised coordination – as much technological as political and organisational.

The role of the users in the design of Citizen Information procedures has also undergone important changes. We have observed, on the one hand, an increase in actions aimed at identifying the user's needs and interests with respect to services and public information. This preoccupation is even translated, in some cases, into specific directives in the initial levels of digitisation of information systems. In our fieldwork, for example, we have observed a systematic effort to construct tags, key words and information taxonomies that correspond not to the hierarchical structure of the contents or the administration's language, but in accordance with subjects closer to the language of citizens.

We have also identified, in this area, an incipient tendency towards the personalisation or customisation of services, in other words, towards considering the users, not only as citizens in the generic sense but as members of communities or segments of the population with specific needs (parents, tourists, immigrants, students, professionals, etc.). The demarcation of specific profiles is one consequence of the above tendency.

Generally, the rhetoric of the centrality of the citizen appears to be starting to translate into effective actions to capture the real and potential details of the demand, going beyond a simple generic strategy. The Administration even seems, as we have already seen, to be involved in a process that we could call a proactive construction of demand.

The role of the citizen has also been strengthened, not so much along the lines of the traditional dichotomy spoken of in the literature of the client of public services or a political subject, but rather as a co-manager of public services. Citizens are becoming co-responsible for their own services and the Administration is trying to provide them with the tools and information necessary for this new task in which, moreover, citizens are entering into an increasingly individual relationship with the State.

In a more political arena, the Administration seems increasingly conscious that improvements in Citizen Information channels are a good instrument for improving its public image and combating negative perceptions of the way it operates amongst its users. Electronic Administration is acquiring an increasingly stronger component of indirect political benefit.

Generally, the panorama of e-governance that we have presented shows a situation where the processes and services of the State are being carried out through networks in which increasing numbers of elements and actors are being incorporated and in which the State itself has a more central role in the control and coordination than in the construction and maintenance of services. In the case of the Citizen Information channels these new elements are being incorporated as mediators (institutional, technological, and even linguistic) between citizens and the Administration, in order to facilitate more fluid interactions and transactions in real time. Simplification of the transactions does not imply a reduction in the agents who take part but rather their proliferation – structured, however, in ever more complex networks in which the relationships between the elements are expressed and formalised through technological systems and not simply using informal links.

Finally, we present, as an indirect result of our study, a model of transition between what we consider to be two distinct phases or stages in the design and rolling out of electronic Administration. We have called the first of these phases e-government and the second e-governance, using the distinction between the two terms we have laid out in the the-

oretical framework. It is obviously an attempt to simplify what in reality are often complex aspects and inter-relationships of the same phenomenon. It is necessary however, to make some subtle distinctions between the sense that we have given to each phase.

Firstly, they constitute abstractions that lump together in a very synthetic way a large range of elements gathered throughout our empirical studies of the Generalitat of Catalonia, our international comparative studies and from other international studies that can be found in the specialised literature. For the majority of the parameters that we highlight, we have observed a certain agreement in the international scene, but in some cases – particularly with regard to outsourcing – the evidence we have is not as conclusive (perhaps because in this arena there are highly idiosyncratic conditions that apply to each Administration and to the political orientation of their governments).

Secondly, they do not describe two generalised stages of the current situation for all the administrations; currently many administrations still find themselves immersed in the design or implementation of projects and initiatives that come under what we call Phase 1. Our thesis is that there is a clear tendency towards the characteristics of what we have termed Phase 2 and that, in great part, the new projects and new strategies are moving closer to this new situation.

Neither do we want to establish a causal diachronic relationship between the two phases, in other words, they do not necessarily have to be understood as consecutive phases which must be passed through sequentially by any administration. Finally, as well as the aseptic notions of Phase 1 and Phase 2 we add, in parentheses the terms e-government and e-governance. The reason for these parentheses is that we do not want to suggest that either concept remains clear or exhaustively characterised by the elements we have associated with them. We do state that, in accordance with the characterisations that we have done in our theoretical framework, the type of aspects and projects of each phase are in good part examples of what each concept contains.

Phase 1 (e-government)	Phase 2 (e-governance)
Strategy	
Long term projects	Short- and medium-term projects
Wide-ranging projects	Focused projects
Large investments	Rationalisation of resources
Aims	
Content production	Information management
Online services	Transversal information systems
Distribution	Access

Phase 1 (e-government)	Phase 2 (e-governance)
Orientation	
User-centred (rhetoric)	User-centred (profiles, satisfaction levels)
Duplicating structure	Considering the needs of the user
Evaluation according to offer	Evaluation according to demand and use
The role of technology	
Technology design	The uses of technology
Determinist technology	Instrumental technology
Active fronts	
Front office	Back office (also)
Overcoming/overlapping	System integration
Prioritising the Internet	Integration of Channels
Outsourcing	
Monopolistic outsourcing	Fragmented outsourcing
Generic responsibilities	Demarcated responsibilities
Subcontracting knowledge	Retaining know-how
Follow-Up	Control

With respect to global strategy and project scope, we have seen a tendency towards the design of less spectacular and all-embracing initiatives. With more specific and demarcated objectives, in both the content and in the timescale for carrying them out. Even so, the projects are not necessarily less ambitious; indeed it could be said that they have been conceived with a better appraisal of the starting points and, therefore, with a more realistic vision of their possibilities and the obstacles to overcome.

The reduced scope of these projects is related to another important characteristic of both phases. Whilst in the first phase large scale projects – often presented with a big media impact – with big public investment have been common, Phase 2 projects have as one of their basic aims the rationalisation and re-utilisation of resources consumed in earlier phases. They are projects that start out from the present situation in order to achieve incremental improvements, instead of setting out to build structures to be added to the existing ones.

Closely connected with this tendency, but making reference to more specific objectives, the Phase 1 projects have often been directed at generating new contents – information, e-services, etc. – principally through the construction of new portals. In the second phase, by contrast, the emphasis is placed on the management and improvement of existing contents (reclassifying, reorganising, systematising them) and in throwing internal information systems open to the outside. In parallel to this, the emphasis on electronic services is losing

ground as an end in itself, and not so much the distribution of new services as access to existing services and information is being prioritised.

In addition, we move from a fairly rhetorical use of citizens' centrality to the rolling out of a whole series of mechanisms – which we have presented in earlier chapters – to obtain data about their needs, interests and profiles. The user, and the analysis and configuration of the user is becoming an important axis in the majority of projects, and, at the same time, evaluation procedures take results, in other words the use in quantitative and qualitative terms, as a basic parameter.

In parallel to this, the conception of the Web as a virtual reflection of the administrative structure – which replicates its language and its power divisions – is being gradually diluted in formats constructed from predicted uses and on the basis of grouping together themes outside the bureaucratic order. Generally, technological decisions tend to be taken according to predicted utility or wants and not the other way around.

Although a certain rhetorical idea of technology as the agent of modernisation persists, there is a growing awareness that the incorporation of technology alone does not necessarily and automatically mean the attainment of positive transformations in terms of service efficiency and quality. The most important thing turns out to be the way in which technology is embedded in the organisation and the fundamental concern is for planning hybrid change strategies – both in the technical systems and the linked administrative procedures and decision-making processes.

If many older projects had as a basic aim the direct transformation of the relationship interfaces with citizens – the front office – the emphasis in Phase 2 shifts to how, in parallel, these changes are linked to other innovations in information systems and internal databases – the back office. Instead of designing new structures to overlap with the existing ones – which would become a class of e-bureaucracy with different units, procedures and even channels of relationship – efforts are now being put into tidying up the internal situation, strengthening integration between systems and interoperability between databases.

To this end, the emphasis on the Internet as a relationship channel of priority development gives way to the need for integration between the different relationship channels – especially the telephone and face-to-face contact – in which, it is precisely the Internet that acts as the backbone for all this information.

Finally, in the area of outsourcing and the participation of external providers, there has been a diversification in the portfolio of companies being worked with in terms of content and ex-

pansion, thus avoiding a monopoly over technological innovation projects and encouraging more demarcation of responsibilities. External companies are being commissioned for very specific and segmented projects and highly defined and detailed control mechanisms are being put in place. The objective is, in Phase 2, to retain an important level of control over projects and create conditions in which the Public Administration gradually acquires a certain degree of experience that could ensure a higher level of autonomy in the future.

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List of abbreviations

012	Unified telephone information line for the Generalitat
902	CAT365 telephone information line
AGAUR	Agency for the Management of University and Research Aid
AOC	Open Administration of Catalonia
AQU	Catalan University System Quality Agency
ARPANET	Advanced Research Projects Agency Network
CAT365	Portal www.cat365.net
CATCERT	Portal of the Catalan Certification Agency
CCAC	Control Centre for Citizen Information
CDR	Committee for the Regions
CEGISA	Computer Centre of the Generalitat of Catalonia, SA
CIO	Chief Information Officer
CNIPA	Centro Nazionale per l'Informatica nella Pubblica Amministrazione (National Public Administration Computer centre)
COSLA	Convention of Scottish Local Authorities
CRC	Centro Regionale di Competenza per l'e-government e la società dell'informazione (E-government and information society Regional Control Centre)
CRM	<i>Customer relationship management</i>
CTTI	Telecommunications and Information Technology Centre
D22	Department for the Organisation of Information and Telematic systems.
DARP	Department for Agriculture, Food and Rural Action
DGAC	Department for Citizens' Information
DGIOA	Department of Innovation and Administrative Organisation
DOGC	The Official Bulletin of the Generalitat of Catalonia
DTI	Department of Employment and Industry
DURSI	Department of Education and Universities (previously: Department of Universities, Research and the Information Society)
Eacat	System for electronic connection between Catalan administrations
ER	Emilia-Romagna
Gecat	Transversal project - based on the SAP system - for economic financial management
Gencat	The Generalitat of Catalonia's Internet portal www.gencat.cat

ICS	Catalan Institute of Health
IDEC	Catalan Spatial Data Infrastructure
ISO	International Organisation for Standardisation
ITCAT	Project for the rolling out of the infrastructure necessary for broadband Internet access to reach every town in Catalonia
Lexnet	Project to develop an information exchange platform with the Ministry of Justice
NGP	New public management
NSF	US National Science Foundation
NSFNET	National Science Foundation's Network
OECD	Organisation for Economic Co-operation and Development
OGE	Educational Organisation and Management
PADI	Ministry of Home Affairs Action Plan
PCI	Italian Communist Party
PDSIC	Citizen Information Systems Master Plan
PRI	Research and Innovation Plan
PTOP	Department of Town and Country Planning and Public Works
RRII	Department of Institutional Relationships and Participation
UK	United Kingdom
RUPA	Rete Unitaria per la Pubblica Amministrazione (Unified Public Administration Network)
SAC	Citizen Information System
SCT	Secretary of Communications and Transport
SE	Scottish Executive
SIC	Citizen Information Service
SICO	Complementary Information System
SIT-CAT	Territorial Information System for Catalonia
SOLACE	Society of Local Authority Chief Executives & Senior Managers (Scotland)
SPE	Electronic Public Services, SA
DTT	Digital Terrestrial Television
ICT	Information and Communication Technologies
URP	Office of Public Relations (Emilia-Romagna)



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