

Section 2: The Barriers and Legal Foundations

1. What is an eGovernment barrier?

One of the project team's first tasks was to clarify the definition of an eGovernment barrier which was more precise than an everyday understanding of a barrier as a physical obstruction. Although the kinds of barriers to eGovernment that were investigated do not usually have such physical manifestations, the team found an analogy between eGovernment barriers and blockages in water pipes valuable. This is relevant as the Internet can be viewed as a network of electronic 'information pipes', where clearing a blockage to ensure the free flow of digital information and ePublic Services is as critical as removing physical pipe blockages that prevent the availability of ample supplies of water.

Systems driving the flow of water are equivalent in eGovernment to the pressure applied by political and public administration leadership as well as by service providers and the private eMarketplace supplying ePublic Services. On the demand side, the needs of consumers of the water or of citizens, business and other eGovernment users are also vital factors. In some cases, sufficient pressure can itself dislodge a blockage. In other instances, specific action needs to be taken to remove whatever is stopping the flow. Preferably, the proper implementation of appropriate plans should prevent blockages from occurring or minimize their impact when they do happen (e.g. by incorporating appropriate filters in a water system or in eGovernment by developing a legal framework that facilitates rather than restricts re-use of public sector information and appropriate access to personal data in shared networked eServices).

This analogy helps understanding of how barriers are an aspect of a larger integrated system, just as clearing a water pipe blockage is only one element in providing such as vital utility. This is reflected in the project's aim of examining the separate but interrelated legal and organizational issues that underpin barriers to eGovernment. The pipeline metaphor also helped the team to clarify our categorization of barriers in a number of ways, for instance in highlighting the 'pinch points' where blockages are most likely to arise and where the damage to achieving desired eGovernment goals is most likely to be most acute. An important insight revealed by the water pipe analogy is that laws and regulations should best be viewed as 'requirements' for eGovernment services, in the same way that a pump is a requirement for a water distribution system.

Just as when a badly designed or otherwise inappropriate pipe blocks water flows, legislation that is inappropriate in particular contexts can create legal barriers, for example by data protection rules preventing access to personal information or Employment Law that constrains desirable e-enabled organizational and work restructuring. Nevertheless, data protection rules to prevent unauthorized access to personal information about citizens is an example of a core requirement for many eGovernment applications, such as doctor-patient communication. If they are designed and implemented in appropriate ways, such rules can therefore become an essential basis for gaining public trust in the eServices they underpin. However, costs, technical shortcomings or misunderstandings about their practical implications could still become eGovernment blockages. Similarly, a provision in an Employment Law could be smoothly accommodated in an eGovernment innovation within a public administration that has cordial labour relations, but be a focus of workplace resistance to an eGovernment initiative in an organization with poorer human relations management.

In developing a working definition of an eGovernment barrier for use throughout the project, the team identified a number of factors to be considered in investigating the

blockages to eGovernment progress. For instance, it is necessary to determine the degree to which perceptions of a potential barrier (e.g. IPR or data protection regulations) become manifest as real blockages. There are also differences between barriers to demand (e.g. lack of awareness of eGovernment benefits among citizens, business users and public administrators) and those inhibiting supply (e.g. encompassing public administrations and commercial ICT suppliers in public–private projects). In studying such aspects, we are taking into account the ways in which the convergence of various digital ICT applications and channels is undermining many traditional distinctions between supply and demand (e.g. where citizens can perform online many activities once handled by government employees).

We have defined an ‘eGovernment Barrier’ as:

Characteristics – either real or perceived – of legal, social, technological or institutional context which work against developing eGovernment, either: because they impede demand, by acting as a disincentive or obstacle for users to engage with eGovernment services; or because they impede supply, by acting as a disincentive or obstacle for public sector organizations to provide eGovernment services.

2. Overview of the Barrier categories

Initial detailed analysis of research and discussions with expert stakeholders led to the identification of numerous eGovernment barriers. Through an iterative process these have been assigned into seven ‘categories’ to provide a comprehensive and analytically useful grouping of the barriers to which cross-cutting themes can be anchored, as there are many issues that embrace different categories.

Developing these clear-cut Barrier categories was a complex but important process. For example, ‘lack of appropriate skills’ was initially considered as a category on its own, but further analysis revealed important distinctions between inadequate ICT skills among the general public (‘digital divides and choices’) and among those who design, develop, manage and deliver public services (‘workplace and organizational inflexibility’). Financial inhibitors is an issue that cuts across many categories (e.g. in addressing the needs of minority groups or improving trust by creating more secure systems), however it is such a fundamental issue that it was identified as one of the key categories (‘financial inhibitors’).

First barrier: Leadership failures

Advances towards wider eGovernment take-up can be limited by failures in political and management leadership (e.g. OECD 2003a, United Nations 2003). Examples of political leadership failures include political leaders favouring initiatives which are more likely to be successful in the short term due to the election cycle, a lack of understanding of what eGovernment is and can achieve or prioritizing more tangible public services (e.g. schools, hospitals etc). Leadership failures when managing eGovernment initiatives can occur as a result of poor resource planning, inability to manage complex ICT-based projects, inability to motivate and support sustained commitment to eGovernment within public administrations or putting initiatives in place that focus on the desires of government as opposed to the needs of citizens and businesses. Indeed, it is important to raise awareness amongst citizens of the potential benefits of eGovernment, in order to increase the take-up of eGovernment (see the next section on ‘digital divides and choices’).

Examples of barriers: lack of political will for eGovernment (considered an important or very important barrier by 68% of project survey participants¹); low prioritization of

¹ Breaking Barriers online survey at:

<http://www.egovbarriers.org/downloads/news/200612%20survey%20draft%20report%20.doc>

eGovernment in public policies and resource allocation; cycles of attention and inattention that lead to patchy, stop-go progress on eGovernment; poor senior management understanding of eGovernment; poor strategic vision and planning; a government-centric, as opposed to a citizen/business-centric focus, when developing and implementing eGovernment services; and inadequate marketing to reach and motivate target audiences in the general public and business.

Second barrier: Financial inhibitors

The costs of developing, implementing and maintaining eGovernment (such as, the costs of software, hardware and training for government officials) can all be barriers to eGovernment. Related to this issue are the difficulties of measuring the cost/benefits of eGovernment initiatives. Understanding the cost/benefits can help to inform eGovernment expenditure, yet such measurements are not straightforward. The tangible costs that most readily fit the metrics used in traditional cost/benefit analysis techniques include those related to investment in systems and equipment (e.g. ICT hardware, software licences, network infrastructures and special ICT centres) and people (e.g. the public administration and technical and consultancy staff needed to manage, design, develop, market, operate, support and enhance eGovernment systems). Although some benefits can be seen in clear measurable terms (e.g. staff numbers and reductions in cost overheads), many cannot be defined with confidence in a similar way as they are too qualitative, intangible or unpredictably set in the future (e.g. improved quality of service, new services, responsiveness to citizen needs or avoidance of costs that would have been incurred using non-digital channels).

Difficulties in calculating substantive tangible benefits to offset clear, often apparently high, costs can lead to the financial tap to eGovernment being tightened or turned off. This can severely hamper the speed and scope of eGovernment progress. Proposals for spending on eGovernment need to have a convincing business case in order to compete effectively with other critical demands on public resources (e.g. building roads or schools) and to overcome the way in which short-term costs are frequently perceived as being more politically relevant than long-term benefits.

The importance of these financial questions are reflected within the European Commission's i2010 eGovernment Action Plan, as well as other EC-funded initiatives (e.g. the PICTURE project, a web-based tool being developed to assist with assessments of cost/benefit analyses of eGovernment initiatives, and the EU Modinis eGovernment Economics Project (eGEP)).

Examples of barriers: difficulty in demonstrating the cost benefits of eGovernment initiatives (considered an important or very important barrier by 60% of project survey participants); cost of developing eGovernment services (considered an important or very important barrier by 53% of project survey participants); cost for government of providing services through multiple channels (e.g. over the counter, mail, digital, phone, SMS, email and Internet) (considered an important or very important barrier by 49% of project survey participants); increased costs for governments of meeting laws and regulations relating to eGovernment (e.g. freedom of information or data protection) (considered an important or very important barrier by 46% of project survey participants); short-term costs more politically relevant than long-term benefits; a lack of flexibility in exploring funding innovations (e.g. involving the private sector); and a lack of R & D and innovation funding.

Third barrier: Digital divides and choices

Social and economic divides – demarcated by wealth, age, gender, disability, language, culture, geographical location, size of business and other factors – can mean eGovernment resources are used in very different ways (or not used at all) by different individuals, groups and organizations. These divisions range from users at the ends of electronic 'pipelines' who may not know that there is a 'tap', where to find it or how to turn it on – to those with much expertise who are capable of interacting in sophisticated ways as providers as well as consumers of digital content.

Addressing the challenges of digital divides is highlighted as a key objective of the 2006 eGovernment Action plan in the goal: 'no citizen left behind' (European Commission 2006). It is important to address accessibility gaps both in terms of access to technology and in the levels of ICT skill; and ensure such networked services meet the greatly varying range of perceptions, knowledge and capacities among actual and potential users. Without a more nuanced understanding of user needs and choices, uptake of eGovernment will remain limited and the potential benefits (e.g. cost reductions or greater user satisfaction with the efficiency and convenience of an ePublic Service) will not be realized. Understanding citizens' needs across Europe is a particular challenge given the distant relationship between citizens and many government institutions, particularly at the European level. In addition, the multilingual, multicultural nature of the EU creates requirements that could cause problems in achieving inclusive and efficient eGovernment throughout Europe.

Relevant EC-funded studies in this area include eGovernment for Low Socio Economic Status groups (ELOST) that explores the needs of citizens on the 'other side' of the digital divide; the eUSER study and Organisational Change for Citizen Centric Government project that investigates citizen centric eGovernment services.

Examples of barriers: failure to develop and implement eGovernment services that meet citizen needs; a lack of strong motivation among citizens to use eGovernment services (considered an important or very important barrier by 61% of project survey participants); ICT skills among citizens (considered an important or very important barrier by 62% of project survey participants); a lack of affordable technological access to eGovernment systems for some social groups or geographical areas; low levels of Internet use amongst certain groups (considered an important or very important barrier by 69% of project survey participants); and making eGovernment services easily accessible to the visually impaired and others with disabilities (considered an important or very important barrier by 42% of project survey participants).

Fourth barrier: Poor coordination

Emerging forms of eGovernment service delivery and ways of working often cross traditional government jurisdictions and administrative and departmental boundaries, as well as having the potential to overcome geographic distance. Variations in legal, regulatory and administrative regimes on different sides of these boundaries can inhibit and block the flow of information and services through new networked governance channels at EU, Member State, regional and local levels (OECD 2003b). For instance, the diversity arising from the cumulative historical development of Administrative Law in different member States can require many locally specific solutions to support reforms promoted by the EC to stimulate wider eGovernment take-up.

Effective coordination across the EU is particularly important because responsibility for directing public administration activity is frequently fragmented and shared across multiple levels, although the legal mandate of the EC deals only with Member States. For instance, EU Directives can seek to introduce more harmonization but the diverse contexts affected mean that different interpretations and actions could create substantial and disruptive tensions between stakeholders, as well as in the ways in which services operate in different arenas. The distance between the EU and other stakeholders could also block effective European-wide eGovernment.

Valuable initiatives in this area includes the IDABC programme of interoperability and the Modinis study on Interoperability at Local and Regional Level.

Examples of barriers: a lack of coordination across central, regional and local levels of government (considered an important or very important barrier by 84% of project survey participants); differences in laws and regulations across the EU (considered an important or very important barrier by 61% of project survey participants); government departments failing to agree and implement common procedures and standards to provide shared networked eGovernment services; differences in administrative traditions and processes in

the EU (considered an important or very important barrier by 65% of project survey participants); and coordination between member states and the European Commission (considered an important or very important barrier by 58% of project survey participants).

Fifth barrier: Workplace and organizational inflexibility

Resistance to innovation by public administration management and staff can slow down, impair or prevent the necessary redesign of organizations and their processes required to deliver effective eGovernment. Such inflexibility can set up barriers to the creation and delivery of efficient and effective eGovernment services that could meet changing citizen and business needs (Margetts and Dunleavy 2002; Remmen 2006). However, prevailing practices can be difficult to change as they are designed to support certain patterns of communication and information exchange, while discouraging others. eGovernment initiatives often blur these boundaries and require appropriate changes to take account of the new methods of operating and managing public services.

Factors that contribute to workplace and organizational flexibility include inadequate staff skills; a lack of training and investment for staff both in terms of ICTs and change management competencies required for innovation in eGovernment; fear of change; risk aversion by government staff, which may be exacerbated by the frequent poor track record of eGovernment initiatives, including high-profile failed projects that cause significant problems for citizens and companies; fears of increased liability risks if sharing networked resources across different public services; and a limited sharing and learning of experiences and lessons from good practice.

One interesting EC-funded initiative to try to address these issues include the Good Practice Exchange (GPE) which provides the most complete information on eGovernment in Europe, as well as a broad range of exchange opportunities, both on and off line.

Examples of barriers: resistance to change by government officials (considered an important or very important barrier by 80% of project survey participants); inadequate ICT skills among government officials (considered an important or very important barrier by 61% of project survey participants); employment laws inhibiting flexibility in changing working practices or the deployment of staff; departmental 'turf wars' involving competition over who is responsible for what in a networked service; inadequate skills training and capacity building for management and staff; and failure to learn from good practice.

Sixth barrier: Lack of trust

Issues of trust, and the lack of it, have always been a strong ingredient in shaping the structures and practices of governance. It is therefore not surprising that a concern about 'cyber trust' in eGovernment is a crucial element in the take-up and effectiveness of eGovernment services. At the heart of these concerns is a 'trust tension' (Guerra et al 2003) between the need to collect data on individuals as the basis for providing services, such as health records and voter registration, and fears of data surveillance or the inappropriate secondary use of personal information in computer databases. Although increasing experience with the Internet and eCommerce in the private sector is establishing more general trust in the use of ICT-enabled networks (Dutton and Shepherd 2003), eGovernment raises particular trust concerns as a number of public services require the handling of personal information in digital forms. To help overcome trust concerns, mechanisms in which there is wide confidence need to be developed to protect citizens from the unauthorized electronic disclosure of personal information, including the transfer of such data between public bodies or between public and private organizations.

Trust can also be affected by general trends in perceptions of trust in government, such as those caused by the attitude of a public administration to transparency and openness issues. Open and transparent government is likely to lead to improved trust in government in general and in eServices.

Examples of barriers: the 'Big Brother' fear of unwarranted government intrusion into private lives and business operations through the growing use of networked or integrated digital databases; lack of secure electronic identification and authentication systems (considered an important or very important barrier by 64% of project survey participants); intrinsic 'cybertrust tensions' (Dutton et al 2005), as shown in the general desire for both privacy and security even though a degree of disclosure or loss of privacy is typically necessary (e.g. to identify the user of an online tax or welfare service); public concerns over the potential for online theft and fraud (considered an important or very important barrier by 62% of project survey participants); public perceptions over the risk to privacy and civil liberties (considered an important or very important barrier by 58% of project survey participants); and public administration anxieties over liability for online content.

Seventh barrier: Poor technical design

eGovernment systems and services frequently fail or perform poorly because of inadequate design and poor technical interoperability.

Difficulties caused by inappropriate user interfaces to eGovernment systems can seriously hamper relations between public agencies and citizens and businesses. Such usability can sabotage even potentially successful services and discourage those experiencing them from trying other eGovernment opportunities. See, for example, the European Information Directorate General (2006) report on the Your Voice on eGovernment 2010 Online Public Consultation, the EU's eUSER research project; and the European Commission's (2005) Communication on eAccessibility that defined specifically the technical barriers and difficulties that people with disabilities and others experience when trying to participate on equal terms in the Information Society.

As noted above, interoperability issues, including technical interoperability are of key importance to the European Commission. Incompatibilities in hardware, software or networking infrastructures within and between public agencies can cause significant problems, particularly in terms of providing pan-European services (European Communication 2006b). Indeed, many eGovernment services are based on the evolution of earlier public administration systems and ICT network infrastructures, which can create technical incompatibilities between systems within administration (e.g. between back-office and citizen-facing networked services) or between systems from different Member States and those at European levels.

Examples of barriers: lack of interoperability between IT systems (considered an important or very important barrier by 79% of project survey participants); a lack of standards for electronic identification across the EU (considered an important or very important barrier by 68% of project survey participants); eGovernment applications are difficult to use (considered an important or very important barrier by 50% of project survey participants); incompatibilities between newer eGovernment systems and older 'legacy' systems; inability to employ eGovernment services using devices (e.g. mobile phones or old personal computers) most easily accessible by particular users; and government technologies lagging behind societal use of the Internet and related technologies.

3. Overview of the main legal issues

This section provides an overview of the eight key legal issues associated with overcoming barriers to eGovernment: Authentication and Identification, Intellectual Property Rights, Liability, Privacy and Data Protection, Public Administration Transparency, Relationships between Public Administrations, Citizens and other ICT actors, and Re-use of Public Sector Information. These legal areas were selected after a careful review of the relevant literature and by drawing on the knowledge of the legal partners and the expert group. For further details about the selection criteria of the eight legal areas and the methodology utilized see section on Legal Foundations.

First legal issue: Administrative law

Although initiatives promoted by EU Member States to develop the use of ICT in the public sector have generally sought to adapt their legal frameworks to meet the new public administration challenges, some essential Administrative Law reforms are still necessary to address barriers imposed by certain regulations within this legal model. For instance, when 'traditional' Administrative Law rules are not adapted sufficiently to specific requirements regarding ICT capabilities, a serious obstacle to the implementation of electronic public services may be created.

The potentially most significant barrier category relating to Administrative Law is in workplace and organizational flexibility, as one of the most important challenges to introducing ICT in this field is to apply the technology as effectively as possible in operational contexts. Opportunities for productive eGovernment innovations could be blocked if insufficient attention is paid to adapting Administrative Law when moving from traditional procedures using paper-based documents to those undertaken using electronic media. Such adaptations could also require a high investment in the electronic media employed, which could become a financial inhibitor. Strong leadership in prioritizing relevant Administrative law dimensions in the transition to eGovernment services is therefore important.

Administrative Law usually requires effective coordination among all public administrations concerned. In addition, trust can be significantly affected by an inadequate adaptation of traditional regulations relating to personal and direct contact between citizens, businesses and public bodies. For instance, if too low a level of guarantee is offered to private individuals and companies in these relationships, they may lose trust as users of eGovernment services because they seem to offer too low a degree of legal security (e.g. if decisions are automated).

Remaining Barriers: constraints imposed by the requirements of administrative procedures; inadequate adaptation of administrative decisions with respect to ICT regulations; failure to reduce the administrative burdens relating to the conditions of administrative documents; lack of adaptation to technological regulations to the singularities of Administrative Law; failure to preserve guarantees to citizens when moving to the use of electronic media to deliver public services.

Second legal issue: Authentication and identification

When moving to the use of ICT for government-related transactions, an electronic equivalent is needed to a signature, as used in paper-based systems to verify receipt of a welfare payment or to sign a cheque. This process should ensure: the authenticity of each party involved; the integrity of the contents of the communication; and the provision of confirmation about the communication if there is a dispute. Meeting these obligations can be technically complex (e.g. often relying on a third party 'certification authority' to guarantee the process, when the impartiality and trustworthiness of the third party also becomes an important issue). EU Directive 1999/93/EC sets standards on devices used to create eSignatures that also need to be considered.

Lack of coordination is a key potential barrier in authentication and identification activities (e.g. Directive 1999/93/EC seeks to harmonize a framework for the use of eSignatures in the EU but significant differences remain in relevant Member State legal rules). The significance of trust in any online transaction is highlighted by the way identity theft, fraud and errors were among the main barriers that had to be addressed in eCommerce before commercial online services were able to grow. This is equally important in eGovernment.

Poor interoperability between eGovernment systems because of a lack of standardization in electronic identification and authentication technologies could be a major blockage to many eGovernment applications. The ICT expertise and facilities required to develop, implement and operate a secure feature like eSignatures can also be rather expensive and therefore act as a financial inhibitor. To avoid digital divides leading to the exclusion of

certain groups from engaging in some eGovernment transactions, authentication and identification processes should be easy to use and reasonably priced, or free in some contexts. When authentication and identification processes are introduced in an organization, care should be taken in understanding and addressing the reasons why some management and staff could resist such innovations, perhaps in ways legitimized by laws (e.g. if security checks involve the processing of personal data from employees).

Strong leadership is therefore important to address these potential barriers, in order to avoid the slow or troubled introduction of authentication and identification processes whose satisfactory implementation could facilitate wider eGovernment take-up.

Remaining Barriers: unavailability of a secure authentication process; governmental uncertainty about identity management systems; identity theft; citizen uncertainty about identity management systems.

Third legal issue: Intellectual Property Rights

The implications of IPR issues on specific forms of eGovernment communication and service delivery are of great importance for public administrations in terms of protecting its own rights and in avoiding liability for a breach of IPR when disseminating the creations of others (e.g. when publications are made by private parties on the order of a public authority). There are numerous types of electronic content that could be subject to IPR, copyright, patent and similar legal protection mechanisms (e.g. architectural drawings in planning department archives; databases; software; or patents on technological components in an electronic network). In general, if such rights and protection are too strong, then they could seriously impair the development and use of ePublic Services; but if they are too weak, the lack of security for content providers could equally significantly lead to barriers to the availability of key information and services that could be of much benefit to citizens and businesses.

Management leadership is therefore important to ensure attention is given to maintaining an appropriate balance in meeting IPR requirements. These have financial consequences that could become a serious barrier to eGovernment, for instance in relation to costs of accessing protected information and for software licences. The ways such costs could lead to the exclusion from certain services of citizens on the disadvantaged sides of certain digital divides has been a stimulus to explorations of the use of free and open source software.

Coordination and harmonization are important issues along this legal barrier dimension as there are various provisions relating to IPR, copyright and related issues in EC Directives such as 2001/29/EC on copyright harmonization, 96/9/EC on databases and 2003/98/EC on the re-use of public sector information. IPR controls could restrict sharing information in flexible ways, which could affect the need to support new forms of workplaces and organizational processes and structures in order to make optimum use of ICT-enabled networking capabilities.

A lack of trust in eGovernment could be addressed successfully through the development and monitoring of effective legal IPR requirements, both for those creating and supplying the content of eGovernment information services and for users relying on the quality and legality on the services they receive. However, copyright protection on proprietary software can lead to significant interoperability problems, which has been another impetus to examining the wider use of open source software licences that are less restrictive than those for copyrighted proprietary software products.

Remaining Barriers: infringements of IPR by governments; uncertainty about open standards and open source software; interoperability of technical systems; infringements of intellectual property rights by governments.

Fourth legal issue: Liability

There may be a higher risk of a malfunction leading to greater damages in electronic communication than when using non-electronic channels. It might also be harder to ascertain and prove where responsibility for an electronic malfunction lies, or to trace a malignant third party interfering with an eGovernment process. Different legal approaches within the EU regarding contractual and non-contractual liability can become a particularly serious barrier in eGovernment because the circle of parties involved frequently is generally much larger than those engaged in a non-electronic communication. The aggregation and integration of information into electronic databases can also lead to severe privacy and data protection liability risks. And Pan-European services might increase liability fears if complicated technical infrastructures and a lack of legal uniformity make liability assessment difficult.

All these circumstances could inhibit moves to change from non-electronic to electronic means of communication and service delivery, as well as to the development of new electronic services. On the other hand, appropriately designed ICT capabilities can help to detect and prevent inaccuracies and other causes of liability actions.

Financial inhibitors and lack of trust are likely to be the barrier categories most closely related to liability. The introduction of eGovernment innovations can lead to substantial financial provisions being factored into cost/benefit analyses of these developments, as well as concerns being raised about the degree to which an individual or unit might face new, difficult-to-anticipate liability risks.

Poor coordination in relation to legislation is tightly connected to liability, both in terms of broad aspects (e.g. differences in related legal provisions across the EU) and in liability assessment within an organization (e.g. when difficulties in identifying responsibility for liability arise when many stakeholders share networked resources). Coordination can be improved if there is close cooperation between experts from different scientific disciplines and relevant government actors. Interpretations of the impact of potential liability damages in cost/benefit analysis can also be closely related to workplace and organizational inflexibility. Given the range of potential barriers arising from liability, including possible substantial legal penalties, leadership in addressing this legal dimension is again clearly important.

Remaining Barriers: difficulty in predicting risks; lack of clarity regarding liability law.

Fifth legal issue: Privacy and data protection

Privacy and data protection legislation, regulation and guidance are relevant to all of our seven barrier categories because they are fundamental to most ePublic Services (e.g. those requiring access to public documents containing personal data and the sharing and re-use of public sector information). Rules protecting personal data can become barriers if they prevent or constrain some activities, such as in the processing of information about individuals or the transfer of data between public bodies and other entities. This could hinder, for example, the development of businesses offering information services or information products incorporating personal data if data protection obligations become, or appear to become, too burdensome on the controller of the collection and use of that information.

Coordination is one of the most potentially significant legal blockages along this legal dimension. For instance, clear guidance is needed to assist in assigning responsibility when data is mishandled or errors are created in shared networked services. At an EU level, improved coordination is vital because legislative approaches and solutions developed by various Data Protection Authorities are sometimes very different or even conflicting, which can create significant blockages to the development and use of some eGovernment systems. A number of initiatives have been established at a European level, such as the European Data Protection Supervisor, to help improve such coordination.

Despite these potential problems, the protection of personal data could be compatible with the development of eGovernment applications, provided an appropriate balance is maintained between a public administration's requirement to improve the efficiency and quality of its services and the need to protect individuals' personal details from unwarranted intrusion.

Remaining Barriers: effective protection of personal data in a networked administration; interoperability and data protection rules; introduction and use of PINs.

Sixth legal issue: Public administration transparency

As Freedom of Information (FOI) Acts are the key legal vehicle for promoting public administration transparency through eGovernment, an important indication of the barriers to such transparency is highlighted by the exceptions to transparency contained in different FOI Acts. These exceptions vary greatly according to the different legal, historical, political traditions in Member States. A frequent lack of public awareness of the availability of a vast range of information, difficulties in locating information, inadequate access to appropriate technological tools or lack of user skills in electronic media are further constraints on the achievement of the kind of transparency envisaged by many who support FOI and related legislation. Traditional FOI Acts are also mainly focused on transparency provisions that are 'passive' (requested by a citizen) as opposed to 'active' (spontaneously made available by government), although there is a trend towards promoting a more active approach.

One of the barrier categories most relevant to this area is the digital divides represented by the way knowledge and skills are distributed among users who wish to gain access to electronic networks, for example in the extent to which easy-to-understand 'meta-data' guides are provided to help find what information is available. In certain countries, fees perceived as being too high are charged for access, thereby discouraging requests for information. Language can be an important barrier, even when transparency is legally guaranteed in a Member State.

At the EU level, there is general lack of coordination with regard to access to public sector information, except for that on the environment. Structural barriers add to the coordination difficulty (e.g. the federal structures of some States that accentuate the disparity of access policies), as well as significant differences between Member States or regional levels (e.g. in provisions for active transparency and restrictions on access). Transparency is now generally seen to be a fundamental condition for public trust in government activities, including eGovernment services. In the many Member States where there is a lack of tradition for openness, a change in public administration culture is needed to help build trust in eGovernment. This could be supported by more emphasis on active transparency.

Remaining Barriers: restrictions on persons authorized to access public sector documents; practical difficulties of access; structural barriers; need for changes of government culture; insufficient information made publicly available because of legal restrictions of access to official documents; insufficient and divergent legal duties of active transparency.

Seventh legal issue: Relationships between public administrations, citizens and other ICT actors

Without a general right to use online services in all their relationships with a public administration, citizens may lose confidence in eGovernment. This could hinder the demand for, and establishment, of new eGovernment services (e.g. when an ePublic Service allows only for a narrow range of applications that have been previously and expressly sanctioned by the administration concerned – but which may not be those citizens and businesses consider to of most value to them). In relationships between public administrations and ICT companies, it is important to avoid any bias toward a particular firm or technology that could be contrary to the rules on free competition guaranteed at a European level and by Member States' regulations on public contracts.

Poor coordination and inadequate technical design are the two main barrier categories affecting this legal dimension. Coordination is one of the most essential factors in implementing networked electronic public services and in the more general exchange of information between public administrations and other stakeholders. Effective coordination is a critical requirement in the provision of high quality public services when a public organization decides it should be based on a decentralized model that best supports a networked eGovernment model. Technical incompatibilities and poor design can also become substantial operational blocks to effective relationships between public administrations, citizens and other actors, even within a framework that could otherwise support effective relationships.

The focus on supporting relevant needs of citizens and companies that can be brought by strong leadership can obviously assist in developing eGovernment relationships. The most notable financial inhibitor could be the potentially high cost of implementing multiple channel systems to support a wider range of relationships between multiple stakeholders. Digital divides can also be affected when eGovernment services are designed mainly to solve internal administrative problems rather than focusing on the needs of other stakeholders. Prioritizing a wider perspective than that which focuses on an internal government perspective can assist to meet eGovernment challenges requiring much workplace and organizational flexibility to resolve. The absence of a wide recognition of citizens' right to contact public administrations through electronic means may cause a lack of trust in eGovernment services, specially when citizens and businesses compare ePublic Services with eCommerce offered by private companies.

Remaining Barriers: absence of legal obligations to provide electronic public services; interoperability problems; absence of a general right for citizens and companies to use ICTs; compulsory use of ICT and access to public services; absence of legal obligations to make eGovernment services available; restrictions on multi-channel access to eGovernment services.

Eighth legal issue: Re-use of public sector information

Directive 2003/98/EC on the re-use of Public Sector Information (PSI) defines 're-use' as the use by persons or legal entities of documents held by public sector bodies for commercial or non-commercial purposes other than the initial purpose related to the public task for which the documents were produced. This 'PSI Directive' is important because many eGovernment services depend on such re-use, but it does not eliminate all obstacles to the desirable re-use of PSI and the establishment of a Pan-European public information market. For example, Member States and their public bodies are left to decide whether or not to allow such re-use in particular circumstances. As PSI re-use system also depend on the access regimes of the Member States, their implementation varies between Member States as well as sometimes between different governance levels within a nation.

A number of practical issues mean that provisions for PSI re-use can benefit or disadvantage different sections of society, thereby bridging or exacerbating digital divides. For instance, the PSI Directive has an imprecise reference to 'a reasonable return of investment' when fixing charges for the re-use of public documents, which could lead to differences in the costs for citizens and business in different contexts. The formats in which documents are provided can also be more difficult or easier to handle by different users depending on the resources and skills at their disposal. Availability in appropriate languages and the ease of finding documents are other significant digital divides aspects of this potential legal barrier.

The way the PSI Directive leaves detailed regulation on re-use to Member States and their public bodies makes it limited as a tool for coordinating regulation in this area, including no clear elucidations on the principle of whether re-use itself should be allowed. The lack of a PSI re-use culture in most Member States can lead to blockages in workplace and organizational processes and structures when they need to be adapting to take account of eGovernment initiatives. For example, in the relatively underdeveloped market of environmental information, obstacles are often caused by public administrations who are

not accustomed to locating appropriate information or negotiating with the private sector. Some public sector documents are excluded from the scope of the PSI Directive, such as those for which third parties hold the IPR. More generally, the Directive has not solved the problem of divergences of national legal regimes regarding IPR or data protection. Contentions about competition between public and private interests regarding electronic data also need to be resolved, for instance when a government department is tempted to exploit its information to increase its revenue.

Remaining Barriers: lack of a European Culture of PSI re-use; exclusion of some documents; obstacles related to IPR; Data Protection requirements; competition between private and public interests; charges for re-use; identifying the availability of documents; language diversity; common standards for storing public sector information.

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- eGovernment Good Practice Exchange, merges the eGovernment Observatory, the Good Practice Framework and the European eGovernment Awards to serve the eGovernment community with a single face. The portal aims to provide the most complete information on eGovernment in Europe, as well as a broad range of exchange opportunities, both on- and off-line (<http://www.ePractice.eu>).
- European Transparency Initiative, seeks to increase the openness and accessibility of EU institutions, raise awareness over the use of the EU budget and make the Union's institutions more accountable to the public (http://ec.europa.eu/commission_barroso/kallas/transparency_en.htm).
- IDABC Interoperability activities, produce guidelines and planning and implement infrastructures to support interoperability (<http://ec.europa.eu/idabc/en/chapter/5883>).

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- eGEP, eGovernment Economics Project, part of the Modinis programme aiming to produce a measurement framework for the evaluation of e-government impacts, (http://217.59.60.50/eGEP/Static/E_Description.asp).
- ELOST a European Commission project exploring the eGovernment needs of elderly people, disabled people and low socioeconomic status-groups (LSGs) (<http://www.elost.org/>).
- Free/Libre/Open Source Software (FLOSS) worldwide impact study (<http://www.flossworld.org>).
- Organisational Change for Citizen Centric Government, a European Commission project focusing on user requirements within the changing environment brought about by the modernizing government agenda and policy drivers designed to improve public service delivery through greater use of ICT (<http://www.ccegov.eu/>).

PICTURE, a European Commission STREP (Specific Targeted Research Projects) investigation to develop a web-based tool that supports successful ICT investment strategies for European Public Administrations (<http://www.picture-eu.org>)

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