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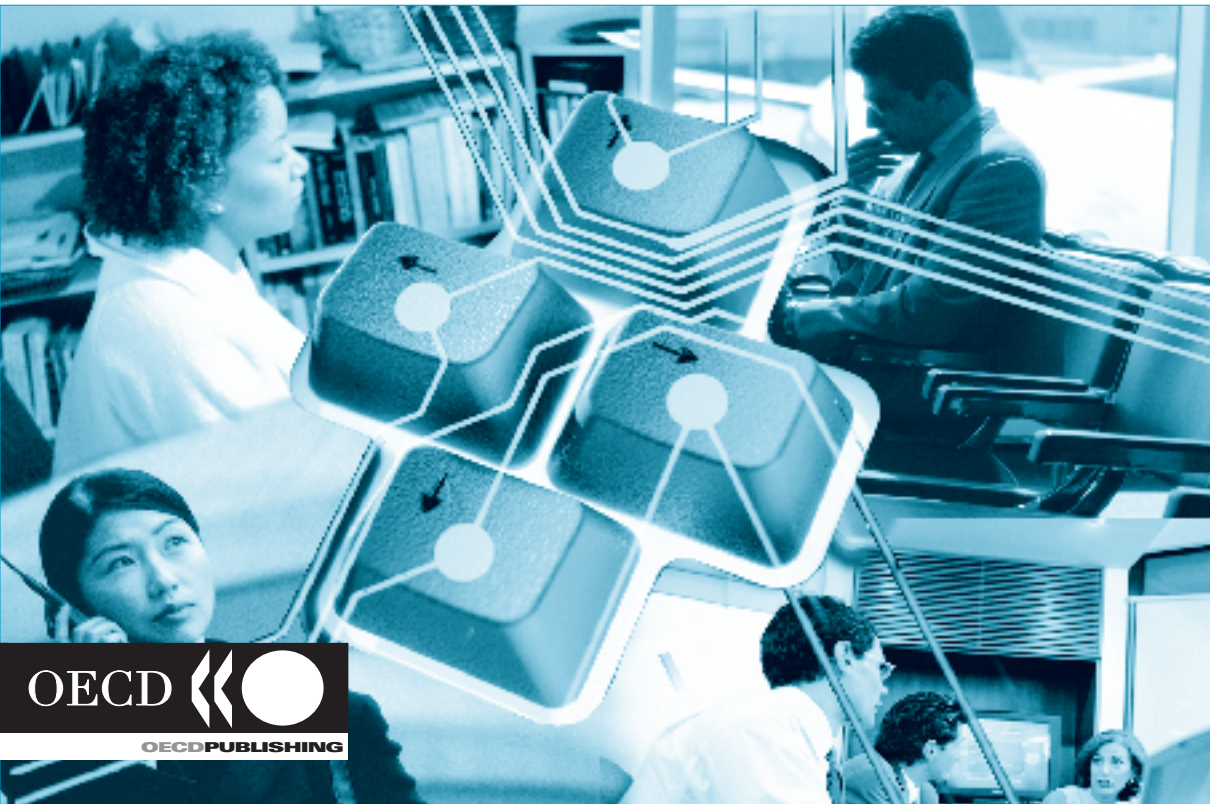

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Foreword

E-government is more about government than about "e", but how can ICTs be better integrated in order to help governments do their job better? This report is one in a series of country reviews undertaken by the OECD to analyse the successes and challenges of e-government in a national context, and to make proposals for action to countries in order to improve their e-government efforts. By placing e-government in the context of national public management reform and good governance initiatives, these country reviews help countries better identify how e-government can better support overall government objectives.

With backing from the Mexican Government (Ministry of Public Administration), the OECD E-Government Project has conducted this country study of e-government to assess how Mexico's e-government strategies and solutions contribute, and could contribute in the future, to good governance objectives in the information age.

The report was completed in January 2005. It draws on a survey of Mexican ministries and agencies administered in February 2004 and on a set of interviews with Mexican officials during two exploratory missions on November 2003 and March 2004. The report was drafted with the participation of peer reviewers from Canada, Finland and Korea. These e-government practitioners provided invaluable help by participating in interviews and commenting on the drafts of the report.

This report is based on the OECD synthesis reports, The E-Government Imperative (2003) and E-Government for Better Government (2005). These reports provide the OECD with an analytical framework for in-depth analysis and comparisons with other countries. The report was carried out under the auspices of the OECD Network of Senior E-Government Officials as part of the work programme of the Public Governance and Territorial Development Directorate (GOV).

The report was written by Elizabeth Muller and Mariano Gutiérrez under the direction of Edwin Lau and Christian Vergez.

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Assessment and Proposals for Action

By the end of the 1990s, the Mexican government made widespread use of ICT, but it did not have an overarching e-government strategy for the central government until 2001. In spring 2001, the President's Office for Government Innovation officially introduced e-government as a public policy initiative to digitalise and modernise government. E-Mexico, a related public policy initiative focusing on connectivity and electronic access, was also prepared in 2000 and launched in summer 2002. E-Government became one of the six pillars of the Presidential Agenda for Good Government in late 2002, thus consolidating it as a central strategy of the Mexican government. As part of the Mexican Good Government Agenda, e-government in Mexico is a tool to improve the transparency, quality and efficiency of government. The main objective of the e-government strategy is to use ICT to continually innovate and improve government so as to best meet citizens' needs.

To date, the Mexican E-Government Strategy has greatly extended the number of online services available to citizens (from 170 in 2001 to 922 in 2004). Additionally, the creation of a single government portal has been one of its most salient successes and was recently recognised with an international award. However, because of low levels of citizen access to the Internet in Mexico, the importance of using ICT to improve the back office and the quality of all services (whether they be delivered online or offline) cannot be ignored. Many individual services such as pensions, taxes, permits, inquiries, transactions, and procurement services are continuously being improved through the use of ICT in the back office. It is service to businesses (who have higher rates of access to the Internet) that has been the justification for some of the more advanced online services.

This publication covers **the case for e-government**, **barriers to implementation**, **leadership, organisational change, collaboration, customer focus** and **monitoring and evaluation**. It also provides proposals for future action. The publication analyses e-government in Mexico at a national and federal level only: state and local governments have not been analysed in the report. A case study refers to these levels of e-government at the end of the review.

The case for e-government

The single most important driver for e-government among organisations surveyed by the OECD is the national e-government agenda. This top-down "push" for e-government is largely driven by the current priorities of the current administration, including the goal of government reform. E-Government is part of the national Good Government Agenda, and is seen as a tool to help reform public management, improve the back office, improve trust in government, enable citizens to access the information society, create additional channels for citizens to access government services, and provide efficient and integrated services oriented to citizens' needs.

In addition to the Good Government Agenda, many organisations cited internal drivers as a primary reason for the implementation of e-government. In particular, the three principal internal drivers were: 1) transparency and accountability; 2) efficiency and 3) citizen engagement.

Barriers to e-government

The OECD has previously identified the major external obstacles to e-government, which include: 1) budgetary barriers; 2) legislative and regulatory barriers and 3) the digital divide (OECD, *The E-Government Imperative,* 2003). Mexico has overcome some of these barriers, but obstacles and challenges still remain.

Like other OECD countries, Mexico has a budgetary framework that provides financing mostly for individual projects, but it does little to account for the shared responsibility inherent in many e-government projects. **Budgetary barriers** include inflexible budget arrangements, uncertain future funds, and limited funding. The budgetary context is characterised by the combination of a centralised spending authority and divided oversight responsibilities of e-government and public administration reform, which requires a strategic and sustainable allocation of e-government funding. Additionally, the limited use of e-government business cases and the lack of understanding among government officials as to how IT can improve government contribute to making the appropriation of funds for e-government more challenging. The annual budget cycle and the lack of long-term budgeting horizons for multi-year investments makes future funding for IT uncertain, and the rigidity of funding mechanisms means that it can be difficult to reallocate resources to high priority areas or to share resources across ministries and agencies.

The Government has improved the regulatory framework, but efforts have focused almost exclusively on external regulations and little has been done to simplify internal government regulations. Nearly two-thirds of

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Mexican government organisations surveyed by the OECD reported that complexity of regulations, lack of recognition of e-government processes, and the lack of regulatory flexibility were the main **regulatory barriers** to e-government. Interviews revealed that most agencies implementing e-government would welcome less and more flexible internal government rules and regulation. In practice, there is a lack of transparency and inconsistency in organisations' approaches, for example regarding IT procurement, or meeting multi-year ICT investment needs. Some pragmatic solutions have been effective, but they have reinforced *ad hoc* problem solving, rather than focusing on finding the broad-based solutions that are needed to maximise the benefits of e-government for all. Finally, the Government provides legal guidance on privacy, consumer protection and security, although privacy and security policies are less advanced than consumer protection laws and regulations.

The **digital divide** sets the parameters for the impact of e-government in Mexico, and the e-Mexico initiative is helping to improve access to ICT, especially in remote and rural areas. Mexico has levels of Internet penetration significantly lower than the OECD country average. With this in mind, the government is making a considerable effort to target the digital divide by creating additional Digital Community Centres across the country: in 2003, there were 3 200 such centres and the government plans to have ten thousand of them by 2006. As familiarity with IT grows, it will be important for these centres to promote the use of on line government information and services as part of overall Internet use. Many of Mexico's e-government official targets have focused on the development of online services, despite low levels of access to the Internet. While a focus on online services has been useful to channel efforts and provide visible achievements over the past few years, some agencies have moved beyond this approach to look at how implementing e-government can best serve the needs of all citizens, whether or not they have access to the Internet. For example, faster and more effective communications could reduce the frequency and number of trips that a person has to make to government offices. Similarly, through the use of intermediaries, one-stop-shops and kiosks, digitised information and services can benefit the offline as well as online public by making better, more seamless information available.

Leadership and institutionalisation

The OECD E-Government Project has shown that national e-government initiatives advance in several phases, and while strong leadership is essential during the introduction of e-government initiatives, to be most effective this period must be followed by one of broadening and institutionalising support for the projects. In Mexico, the President's Office strong leadership has been a key driver for implementing e-government at the early stage. For example,

ministers and high level officials have personally negotiated e-government targets directly with the President's Office. Nevertheless, this strong leadership from the top and personal interaction between high level officials does not necessarily mean that high level officials are actively involved in planning and setting e-government targets and goals. E-Government leaders at the ministry and agency level need to ensure that e-government is integrated into broader issues of reform and modernisation of the public sector in Mexico.

The Mexican government now recognises the need for greater institutionalisation of e-government in Mexico, and is taking steps in pursuit of this goal. Moving the e-government unit from the President's Office to the Ministry of Public Administration was the first step of this process, and the proposed IT Governance and Regulatory Framework Strategy for the Federal Public Administration would further help formalise e-government actors and processes. At the same time, it is essential that the institutionalisation process provide clear rules with regard to organisational accountability, and improved co-ordination should not add an additional layer to government.

Organisational challenges

While leadership has helped spread the message that e-government can spur reform and organisational change, the message has not yet reached all officials across the Mexican government: senior officials, civil servants, and the unions that represent them have all been just as hard to convince about the benefits of e-government. There has been considerable resistance to change in the Mexican government, and almost half of the agencies surveyed by the OECD considered organisational change an important challenge. Government organisations have found that explaining the benefits of e-government to staff can assist the change process, in particular when there are training programmes to accompany difficult organisational changes. Technology is now changing organisational processes so rapidly that constant re-skilling is needed to take full advantage of changing possibilities. The impact of e-government on the professionalisation of the civil service is not always made explicit, and the Professional Government strategy of the Mexican Good Government Agenda could be better linked to the e-government strategy.

Bringing in talent from the private sector and providing training for in-house staff has helped change the government culture, yet many organisations in Mexico feel that there is also a need to update management skills to take into account the new range of possibilities that stem from the use of e-government. E-government requires moving beyond the good management of current operations to reengineering existing processes, thus requiring a new set of competencies. In some of the most advanced e-government organisations in

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Mexico, managers understand the benefits of using of ICT to transform government structures and processes; yet other managers still think of e-government as an issue of computerising and digitalising existing processes.

The need for more collaboration

Collaboration among ministries and agencies on e-government is still in its infancy in Mexico, and there is duplication and repetition among e-government initiatives, services, and registries. Ministries and agencies in Mexico are working to align IT systems among different departments, and this is in line with the general argument that a certain level of online service delivery and network infrastructure must be achieved before collaboration among ministries should be attempted. Nevertheless, building in a certain level of collaboration from the start can be useful in order to avoid duplication. The Ministry of Public Administration and the President's Office are working to minimise duplication among ministries, but much remains to be done. For example, the Ministry of Agriculture's smart cards have created more efficient online and offline services in rural areas, but they are still a duplicated effort among several different government organisations that also issue smart cards.

One of the principal roles of the Mexican E-Government Network is to share best practice and promote e-government collaboration across ministries and agencies and this has been helpful in ensuring that ideas are shared and in allowing agencies and ministries to learn from one another's experiences. However there are insufficient incentives for collaboration among ministries and insufficient mechanisms and platforms for doing so (*e.g.* framework agreements, pilot projects, G2G information systems, etc.).

Improving transparency and service quality

There is strong demand from citizens and businesses for the Mexican government to improve transparency and anti-corruption efforts, and many leaders believe that e-government provides a means of doing so. In fact, nearly three quarters of the organisations surveyed by the OECD believe that the implementation of e-government has already helped improve transparency in their organisation. Yet making information available on line is only the first step toward transparent government, and there is now a need to make the information more accessible and easy to use. The Federal Law on Transparency and Access to Information, in combination with the use of ICT, has greatly extended the chances for individuals to interact directly with government.

E-government has helped improve the quality of government services in Mexico, with 84% of government respondents to the OECD survey reporting a

positive impact on quality. For example, the citizen's portal puts all Mexican government information and services in a single place, and tailors the information provided to different groups (*e.g.* for students, the elderly, children, businesses, etc.). Nevertheless, little has been done to re-organise service delivery to put the citizen at the centre. The agencies that have been the most successful with regard to citizen focus have been those that provide services to businesses, which tend to have higher rates of Internet access than do individuals and a clearer benefit from online services. For example, the Mexican Development Banking institution for small and medium sized enterprises (NAFINSA) has dealt with almost two million consulting and advice cases using an online system. Co-operation between organisations providing services to citizens and the e-Mexico initiative is key in ensuring broader access to on line government services.

Monitoring and evaluation

Mexican organisations undergo very frequent monitoring and evaluation exercises, due in part to annual budget cycles and annual target negotiation exercises between ministers and the President's Office. However, agencies only monitor e-government by comparing project outcomes to predetermined targets. These goal-oriented evaluations have made government agencies focus solely on meeting specific targets previously negotiated at a high political level, and the strong emphasis on monitoring effectiveness is not evaluating performance, unexpected outcomes, or final results of ongoing projects. These evaluations push ministries and agencies to deliver strategic goals, but current monitoring and evaluation exercises in Mexico are unable to assess the impact, quality, and efficiency of the implementation of negotiated goals. Instead, e-government monitors user satisfaction, number of online services provided, and contribution to Good Government Agenda goals. Finally, the evaluation process is relatively transparent as there are many actors involved, but evaluation results are not always readily available to other organisations and the general public.

While some e-government projects undergo cost/benefit analysis, they are generally done on an *ad hoc* basis and are not uniformly analysed from one organisation to another. Additionally, many cost/benefit studies tend to take into account only financial benefits of e-government and do not include social benefits (which can be much more difficult to measure). E-Government is usually justified on the assumption that ICT leads to gains in efficiency and service quality without actually demonstrating those benefits. Given scarce resources, cost/benefit analysis could help to prioritise project development in order to maximise e-government benefits.

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Proposals for action

1. In order to **promote innovation and transformation through e-government**, the Government may wish to enable additional change by strengthening leadership and enhancing communication with key stakeholders.
   - The Government may wish to put in place an appropriate institutional setup that reinforces core organisations' capacities in key areas to enable e-government leaders to be agents of innovation and change by effectively challenging existing ways of working in order to exploit the potential of e-government.
   - The Government may wish to take steps to minimise layers of e-government decision making in order to improve the quality and efficiency of internal communications. For example, members of the E-Government Network should have a direct relationship with the head of their organisation.
   - The Government may wish to help e-government leaders promote, identify and share good practice within the administration that could usefully be applied from one organisation to the next, **for example by putting in place a communications strategy within government that focuses on the reuse of solutions**.
2. The Good Government Agenda recognises that e-government is a tool that can help achieve other objectives of the Agenda, such as: government that costs less, quality government, professional government, and honest and transparent government. Nevertheless, in practice, there is little collaboration or co-ordination among the organisations leading the different strategies of the reform agenda. In order to **better integrate the horizontal components of e-government across the Good Government Agenda**, the organisations leading the different strategies of the reform agenda could identify horizontal areas of co-operation and commit to shared responsibility for achieving outcomes in those areas.
3. In order to **simplify guidance and reduce regulatory barriers inside government**, The Government may wish to improve the overall clarity of its emerging regulatory framework for e-government.
   - The Government may wish to clarify the current e-government legal situation by creating an inventory of all existing legislation and regulation, evaluating it for its compatibility with digital technologies and then taking steps to simplify it so that it better accounts for the needs of citizens, businesses and government organisations.
   - In developing a comprehensive regulatory framework for e-government, the Government may wish to take steps to further reduce the burden of internal government regulations. In particular, the Government may wish

to examine how the goals of transparency and anti-corruption can be aligned with the goal of greater efficiency in the context of e-government (*e.g.* by streamlining IT procurement regulations).

4. In order to **promote transparent, efficient and flexible IT investments**, the Government may wish to take steps to improve the justification of e-government projects and increase the flexibility of funding arrangements.
   - In order to make more efficient use of e-government funding, it is essential that officials work towards developing and using consistent methodologies to **develop strong business cases** for e-government, and that those business cases identify the costs and benefits of IT investments to other areas of the organisation and demonstrate that they strengthen the return of IT investments.
   - Government agencies could benefit from the *simplification of the formal request process* for multi-year budgeting and by allowing the *limited carry-over* of unspent funds for IT systems development**.** Simplifying the process for approving multi-annual IT budgets could increase the feasibility of longer-term e-government investment schemes. The current e-government pool of carry-over funds managed by e-Mexico is a simple solution to budget inflexibility, but it does not provide enough *accountability, transparency or capacity* for the entire administration's e-government projects.
   - The Government may wish to consider simplifying mechanisms for the *transfer of funds* among budgetary lines and among units and agencies in order to increase budget flexibility, while maintaining accountability for agency expenditures, outputs and overall outcomes.
5. The current "traffic light" system of e-government monitoring provides a useful base for monitoring pre-negotiated goals and evaluating progress, but it may lead organisations to overly focus on digitalising services rather than increasing value for government and users. The Government may wish to consider further developing the existing system in order to:
   - Hold organisations accountable for the *ex ante* benefits that they have identified as part of the business cases for individual projects.
   - Broaden the focus to encompass government-wide impacts, including the value of collaborative e-government initiatives, by developing government-wide outcome measures that can be incorporated into individual agency goals and targets negotiated by each Minister with the President's Office.
6. Government co-ordination efforts have generated efficiencies, reduced risk and facilitated a faster and broader rollout of e-government initiatives. However, the Government may wish to analyse what are the right level of

co-ordination and the right lines of responsibility that are needed to **reinforce national co-ordination** efforts in the following areas:

- Make agencies share information on service delivery policies, IT infrastructure, common portals, market research, technical standards and e-government strategies.
- Improve links between current e-government programmes in order to promote seamless access.
- Prepare national e-government policies and practices for the next step of integration at the state and local level.

7. In order to **promote efficient and effective collaboration** among agencies (for example in the development of shared e-government services and solutions and in the reuse of existing ICT government investments) the Government may wish to provide clear enabling frameworks and tools to support agencies to take action and collaborate.
   - As a fundamental framework for e-government collaboration, the Government could work towards an all-of-government "*enterprise architecture*" to fully exploit the potential of e-government for transforming government services and business processes, supported by a framework of *e-government interoperability policies and standards*.
   - The Government could centrally provide *practical support and assistance* to agencies in adopting an enterprise architecture and interoperability framework, as well as in other aspects of horizontal planning, development and implementation of inter-agency collaboration initiatives.
   - The Government could consider providing *incentives and sanctions* to encourage collaboration that results in clear benefits and to promote the reuse of existing solutions and good practices.
   - The Government could also *re-examine how budget structures and processes can better enable collaboration* by allowing and promoting cross-agency financing for joined-up e-government initiatives that would improve both the quality of services and the efficiency of government's use of public resources.
8. The e-Mexico strategy is addressing the issue of the digital divide in Mexico, and this work should continue. However, in light of current low levels of citizen access to the Internet among Mexican households, the Mexican e-government strategy may benefit from a greater focus on using ICT to **improve service quality regardless of its delivery channel**. In the longer term, the Mexican E-Government initiative may wish to include a **multi-channel service delivery strategy** in order to deliver high-quality services over a variety of both on line and off line channels.

9. Much of the e-government training that has taken place to-date has focussed on IT training for managers. However, in order to **ensure the skills needed to work in an IT-enabled administration**, the Government may wish to extend IT training for all public servants over the longer term and provide updated business skills for managers.
   - E-Government leads to a new understanding of how to achieve better government, which could be better integrated into the emerging civil service culture in Mexico. Improving links between the Professional Government and the E-Government strategies of the Good Government Agenda could help develop a better understanding of the management skills needed for successful e-government management.
10. The Government has taken the first steps to develop user-focussed e-government at the organisational level, but ministries and agencies need to work together around shared customer groupings in order to **promote seamless service delivery**. E-Government leaders may wish to facilitate this goal by identifying service clusters and shared customer groups and developing integrated service solutions to support them.
11. As the information society in Mexico continues to develop, the Government may wish to more actively **engage citizens on line for policy making**. In particular, the Government should better ensure that people are informed of how the results of their involvement affects the decision-making process.
12. A single citizen registry with unique citizen identities could **enhance the development of both front and back office electronic services**. While the first step towards such a registry is merging existing databases (as already proposed), not all citizens are covered in the existing databases, and in the longer-term, to ensure both equity and efficiency goals can be met, the Government will need to ensure that all citizens are part of that registry.
13. In order to **improve access to local government services and to promote the development of e-government at the local level**, the Government may wish to further reinforce its efforts to assist local and state governments with the development of their e-government initiatives, in particular by providing technical guidance to address the most salient issues with local governments (*e.g.* technical co-operation, setting of standards, establishment of databases, cadastral and population registries).

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Chapter 1

E-Government Structure and Context

The Mexican government was already making widespread use of ICT by the 1990s, but it did not have an overarching e-government strategy for the central government until 2001. In spring 2001, the President's Office for Government Innovation officially introduced the e-government initiative, which became one of the six pillars of the Presidential Agenda for Good Government in late 2002. E-Mexico, a related initiative focusing on electronic connectivity and access, was also prepared during this time. The main objective of the current e-government strategy is to use ICT to continually innovate and improve government. In 2003 responsibility for e-government was transferred to the newly created Ministry of Public Administration.

1.1. Introduction

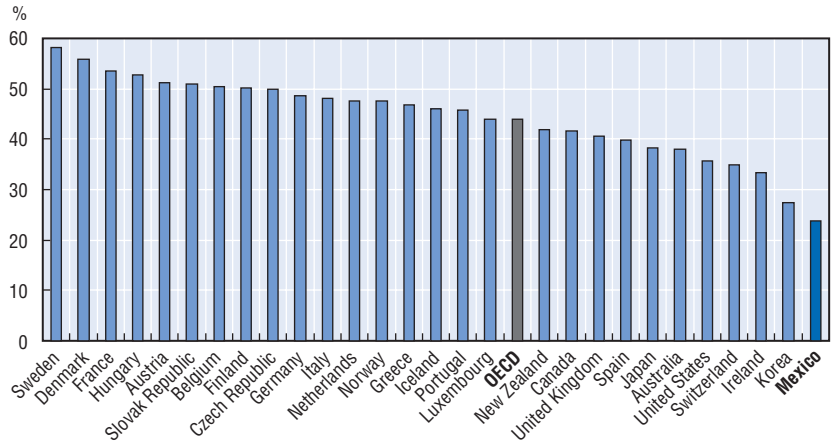
A clear understanding of the administrative structure, the key players, and the context of e-government is essential to present a comprehensive referential framework and to find successful solutions for the main challenges. The first section of this chapter analyses the broader context of e-government and it will show how Mexico understands e-government as a tool of reform. The second section analyzes the structure and main actors of e-government.

1.2. E-Government context

Mexico in figures

With an area of almost two million square kilometres and 97.5 million inhabitants (2000 census), Mexico is the most populous Spanish-speaking country in the world and the second most populous country in Latin America after Brazil. The total expenditure of the Mexican public sector is 23.7 per cent of a GDP of 935.3 US$ billion (see Figure 1.1 below). The public sector employs

Figure 1.1. **OECD: Total government expenditure as a percentage of GDP (2002)**



Note: Poland and Turkey data not available. Canada, Korea and Switzerland are 2001 figures; New Zealand is 1997.

Source: OECD, *Mexico Economic Survey*, 2004, and *OECD in Figures, Statistics on the Member Countries*, 2004.

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4 808 210 people,[1] 13 per cent of which (*e.g.* 601 968) work for the central administration of the federal government.[2]

Mexico's political system

Mexico is a federal republic with a democratic representative government. Constitutionally, power is divided between the executive, legislative, and judicial branches. Although the President has been historically the most dominant political player in Mexico, Congress and the Supreme Court have played an increasingly active role in politics in recent years. The bicameral Congress[3] has become a major political actor since 1997, when opposition parties formed a majority for the first time. The Supreme Court and all other courts from Mexico's 23 judicial circuits (a total of 347 courts and 571 judges) have also made significant advances in independence as a result of recent actions to insulate judges from political pressure. Nevertheless, the executive branch retains a considerable concentration of power, both constitutionally and politically.

The Mexican Constitution divides power between three territorial levels of government: federal, state, and municipal. The federation is thus divided in 32 federal entities (31 states and one Federal District), and close to 2 500 municipalities. After many years of a situation where the President dominated the political authorities at the federal, state, and local levels, there has been a substantial redistribution of decision-making across the three levels of government, and a real system of co-governance is beginning to appear.[4] However, in spite of substantial advancements in decentralisation, the autonomy of municipal government is still limited. Mexico is moving from a highly centralised government to an authentic federalist arrangement, but still requires further institution building, intergovernmental co-ordination and improvement of accountability.

Recent developments

After the 2000 presidential elections, Vicente Fox became the first Mexican president in 70 years who did not come from the Institutional Revolutionary Party (PRI). In 2003, congressional elections favoured the opposition, giving the PRI and the Party of the Democratic Revolution (PRD) an increased majority over President Fox's National Action Party (PAN), whose congressional strength was significantly diminished. Both elections confirmed the competitiveness of Mexico's political system, but they also highlighted a situation that renders policy-making more challenging: presidential initiatives and reforms have been resisted by the opposition and sometimes even the PAN.

The present administration has implemented change in some important public policy and economic areas: the enactment of the Law of Transparency and Access to Information (*Ley de Transparencia y Acceso a la Información Pública Gubernamental*) in 2002 has helped foster scrutiny over public administration; successful anti-poverty programmes from the previous administration have been preserved and new micro-region programmes of development have been created; health care and pension-system reforms have been passed; and macroeconomic stability has been maintained. However, some major political and economic setbacks still remain: the major reforms have not been approved in Congress; the tax base has not increased; the Chiapas conflict has not been solved; and the educational system has not been overhauled. In general, a slow Mexican economy has made public impressions of the government's performance suffer.

The Good Government Agenda

The administration set out six strategies for political reform in its Good Government Agenda in November 2002. The main objective of the Agenda is to create a receptive, honest, up-to-date, and improved government in tune with the demand of consolidating democratic governance. It also manifests the administration's goal of overcoming the main challenges Mexico faces.

In Mexico, e-government is part of the reform agenda and the objective of improving government. The agenda defines e-government as a potential tool to improve the quality, transparency, and efficacy of government and public services. It also defines e-government as an enabler for the transformation of public management and not as an end unto itself: it is to be integrated in the broader goals of service delivery, public administration reform, and civil society.

The Good Government Agenda and its six strategies were launched during the 2nd Forum for Public Administration Innovation and Quality in November 2002. Since its creation in December 2000, the President's Office for Government Innovation organizes the National Week for Innovation and Quality (*Semana Nacional de Innovación y Calidad*), an event where all levels of government get together with the business and academic sectors to discuss, debate, and diffuse the best practices for building a solid public administration for Mexico. These events are the result of the ongoing Program for Innovation and Quality in Government led by the President's Office for Government Innovation to produce a world-class federal government. This is revealing of the close association made in Mexico between public reform and innovation and quality. While reform efforts are often reduced to the improvement of existing procedures and systems, Mexico has stressed the importance of innovation in the creation of reform strategies.

In this sense, e-government in Mexico is a high priority in the reform agenda, all the more so because it is thought of as a tool providing high quality

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Box 1.1. **The Good Government Agenda**

The current administration in Mexico has put together an ambitious Good Government Agenda comprised of six points:

1. Government that costs less: Reduce expenditures (in particular those linked to bureaucracy) to offer greater value for money and improved benefits to society.
2. Quality Government: Meet or exceed citizen expectations for the services provided to them.
3. Professional Government: Attract, motivate and keep the best people in the public service. Ensure that the public service is highly motivated, dedicated and non-partisan to help ensure the country's competitiveness.
4. *E-Government: Facilitate access to information and services for the public; for example, allowing citizens to obtain government information and access to its services from their homes and offices. Additionally, this objective facilitates and supports the other 5 initiatives to achieve Good Government.*
5. Government with Improved Regulation: Guarantee that citizens, businesses and public servants carry out transactions with government easily, safely, and quickly.
6. Honest and Transparent Government: Ensure that society has trust in its government.

Source: Presidential Good Government Agenda, President's Office, Mexico, 2002.

and innovative solutions for reform. The fact that both the Good Government Agenda and the e-government strategy originated at the President's Office for Innovation is also revealing of the close association between e-government, reform, and innovation made in Mexico.

E-government in Mexico: Background

While the Mexican government was already making widespread use of ICT by the end of the 1990s, there was no overarching e-government strategy for the federal government until 2001. Rather, the Institute for Statistics, Geography, and Informatics (*Instituto Nacional de Estadística, Geografía, e Informática* – INEGI) was in charge of the federal government's IT policy. The passing of the 1995 Telecommunications Law and the 1998 Electronic Declarations Legislation Package and the launching of some projects, like the e-procurement tool Compranet in 1996, reflected the growing interest of government to exploit the potential of ICT.

In Spring 2001, the President's Office for Government Innovation officially introduced e-government as an initiative to digitalise and modernise

government. E-Mexico, a related initiative focussing on connectivity and electronic access, was also prepared in 2000 and launched in 2002. E-Government became one of the six pillars of the Good Government Agenda in late 2002, thus consolidating it as a central strategy of the Mexican government.

Key point 1.1. E-Government and the Good Government Agenda

As part of the Good Government Agenda, e-government in Mexico is a tool to improve the transparency, quality and efficiency of government. The main objective of the e-government strategy is to use ICT to continually innovate and improve government so as to best meet citizen's needs.

To date, the Mexican e-government strategy has greatly extended the number of online services available to citizens (from 170 in 2001 to 922 in 2004). Additionally, the creation of a single government portal has been one of its most salient successes and was recently recognised with an international award.[5] Finally, many individual services such as pensions, taxes, permits, inquiries, transactions and procurement services are continuously being improved through the use of ICT.

Public administration reform is sought through the Good Government Agenda and its six strategies. In this sense, e-government in Mexico is understood as a means of changing and improving government rather than a technological solution to government needs and problems. A clear example of this new understanding of the potential use of ICT for government can be seen in the formal transfer of e-government authority from INEGI to the President's Office in 2000 and subsequently to the Ministry of Public Administration in April 2003 (see timeline below). Whereas before, a research institute for statistics, geography and informatics took care of the government's IT policy, now a ministry transformed from a comptrollership to a ministry of public administration reform leads e-government.

While it is true that efficiency and customer focus of online citizen services are important for e-government in Mexico, the e-government strategy as a whole is more oriented towards changing the administration through horizontal coordination efforts under a reform agenda. Public administration reform is a government-wide effort aimed at creating an efficient, transparent government that costs less in order to re-establish citizen trust, and the Good Government Agenda is the tool to ensure co-operation with the e-government strategy.

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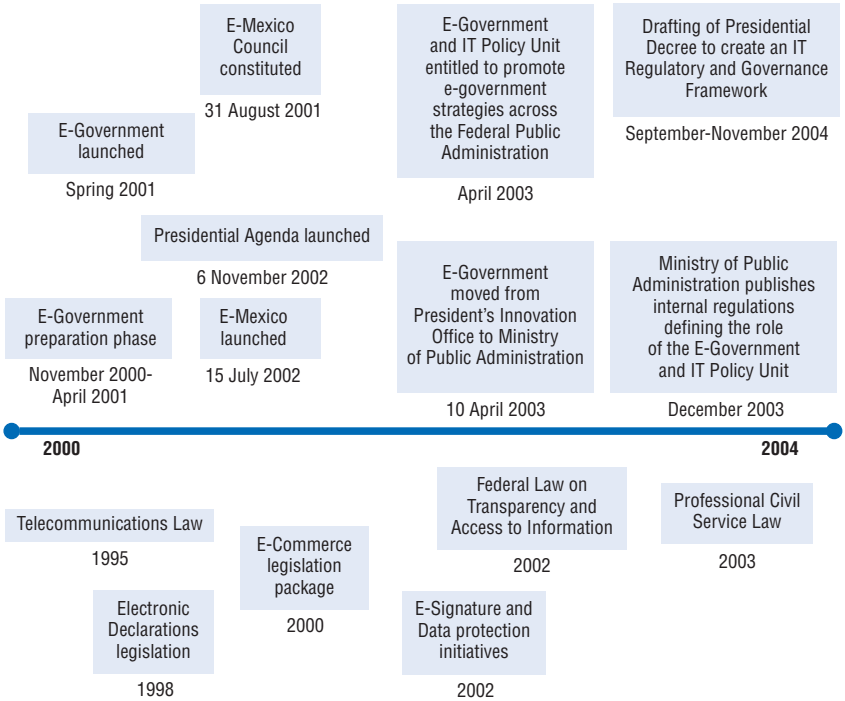
Figure 1.2. **E-Government in Mexico: timeline**



Setting up the e-government regulatory framework

In Mexico, the Congress sets the regulatory framework for e-government. Since 2000, a series of legislative reforms have taken the first steps toward the constitution of a regulatory framework for e-government. Such is the case of digital transaction legislation with the introduction of a package of e-commerce oriented reforms in 2000, and various other enactments related to specific

Key point 1.2. Regulatory framework for e-government

Mexico has already taken the first steps towards the constitution of a regulatory framework for e-government. However, the emerging framework is more the result of multiple initiatives than the passing of a comprehensive e-government legal package closely coordinated by the different relevant actors across the federal government. This has led to a series of legal patchworks and loopholes that make the legal situation of e-government in Mexico unclear.

e-government issues such as data message archiving standards and requirements.

However, Mexico's legal formalism and the lack of federal government legislative coordination regarding e-government have left a series of legal patchworks and loopholes that make the legal situation of e-government unclear. E-Government related legislation in Mexico either dates from the previous administration – like the telecommunications and electronic declarations laws cited above- or is pending – like the 2002 e-signature initiative or the 2002 data protection initiative.

The passing and implementation of the Transparency Law in 2002 is a sign that an e-government regulatory framework is emerging (see timeline in Figure 1.2 above). The direct result of this law was the creation of the Federal Institute for Access to Public Information (*Instituto Federal de Acceso a la Información Pública* – IFAI), whose mission is to provide citizens with any information they request from government, and one vehicle to gain access to public information is through an online information request and referral system. However, e-government's regulatory framework is coming to being only indirectly through different initiatives and laws and not as a package by itself. Yet the biggest challenge is establishing the framework in the context of a strained relationship between the executive and the legislative branches, especially after the 2003 legislative election results that gave the opposition majority over Congress.

1.3. E-government structure

The main e-government actors in Mexico are the President's Office and the Ministry of Public Administration. Other key players include the Ministry of Communications and Transportation and the E-Government Network (*Red E-Gobierno*). INFOTEC, a privately managed government organisation under the authority of the National Council of Science and Technology (*Consejo Nacional de Ciencia y Tecnología* – CONACYT), provides e-government advice upon request.

Guidance

The President's Office sets the main guidelines for e-government and the Ministry of Public Administration transforms these guidelines into specific strategic policy for e-government. The President's Office for Government Innovation sets the direction for e-government as a whole and co-ordinates e-government within the framework of the Good Government Agenda. For example, the President's Office ensures co-ordination among the 6 elements of the Good Government Agenda on specific areas of work, such as for the provision of a government wide portal for the government hiring process that

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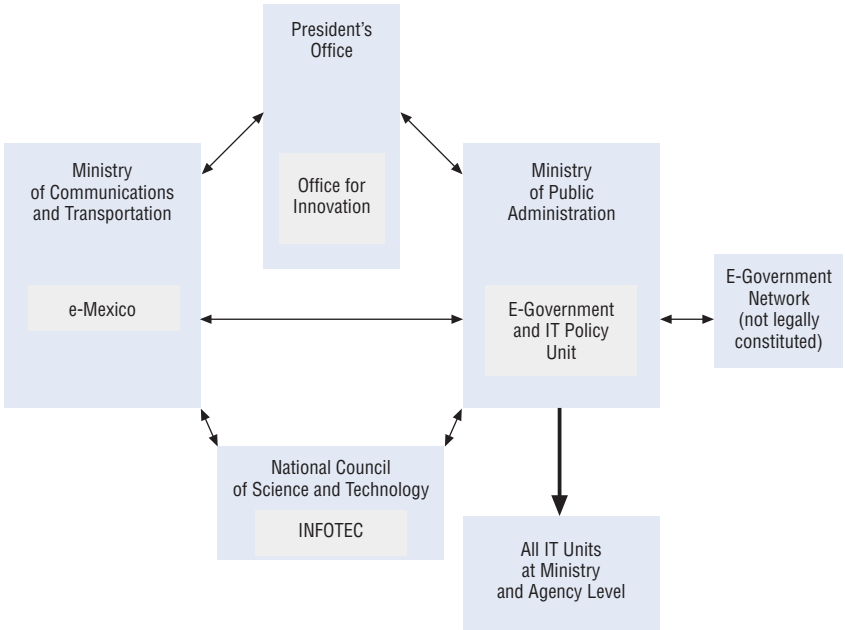
Figure 1.3. **E-Government in Mexico: Key players**



involved both the e-government strategy and the professional government strategy.

The President's Office ensures compliance with its guidance on e-government by providing a framework for e-government accountability. The heads of agencies negotiate measurable targets and goals with the President's Office on a yearly basis for each strategic line of the Good Government Agenda (see Box 8.1 on Chapter 8). For example, the President's Office ensured compliance with its guidance to provide services online by negotiating with agencies for the provision of a number of online services in the Citizen Portal of the Federal Government (*www.gob.mx*). Other examples of negotiations include the adoption of Enterprise Resource Planning systems or the automation of certain critical processes. Finally, the President's Office provides political support and leadership to e-government in support of its overall guidance. For example, it was the President's Office that provided the political support for the constitution of the e-government network, thus ensuring broad participation across ministries and agencies.

The Ministry of Public Administration translates the broad e-government agenda into specific initiatives. The E-Government and IT Policy Unit in the Ministry of Public Administration leads the strategic line of e-government in the entire Federal Public Administration in Mexico. Its mandate is formalised in the internal legal framework of the Ministry of Public Administration.

Even though the mandate of the Ministry of Public Administration's e-government unit is clear across the federal government, Mexico still lacks an e-government and IT governance framework. The President's Office is currently revising an agreement that will clarify this framework and ensure the institutionalisation of e-government. In Mexico, bringing about change in e-government has relied upon the legal and institutional frameworks that allow for central coordination of e-government and IT policy from the Ministry of Public Administration. However, Mexico has yet to fully stipulate in legal detail who does what regarding e-government. The draft agreement under revision will propose the institutionalisation of a governance framework and the creation of a high-level council, a Chief Information Officer (CIO) office, a CIO council, and specialised committees (see Box 4.4 on Chapter 4).

E-government co-ordination

The E-Government and IT Policy Unit within the Ministry of Public Administration plays the most important horizontal co-ordination role of e-government across the federal administration: it makes policy, sets strategies and guidelines, and harmonises practices and standards. The E-Government Unit also coordinates the E-Government Network. Both work closely with the President's Office to perform goal-setting, monitoring, and evaluation exercises at the federal government level. However, the Ministry of Public Administration does not allocate IT funds. The Ministry of Finance allocates funds to individual IT units across ministries and agencies in the government through annual budgetary cycles.

The Ministry of Communications and Transportation houses the e-Mexico initiative, which targets citizen integration into the information society. Due to the broader scope of its mission statement (encompassing e-health, e-education, e-commerce and e-government) and an effective communications strategy, e-Mexico is the most well-known e-initiative in Mexico. Nevertheless, the Ministry of Public Administration coordinates e-government content within e-Mexico.

Networking and best practice exchange

The E-Government Network groups e-government officials across ministries and agencies at the federal level, and it is coordinated by the Ministry of Public Administration. The Network serves as a forum for officials to consult, discuss, and determine e-government goals and strategies. The Network also acts as an informal workshop for ministries and agencies to share best practices and find common solutions to e-government challenges. Once e-government goals are negotiated, they are formally agreed upon with the President's Office and the Ministry of Public Administration. However, the

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Network seldom follows-up on this work. Rather, individual agencies deal with these targets.

Mexico's e-government strategy makes extensive use of the contacts developed in the E-Government Network. While it is not legally constituted as an official group or an administrative body, it is explicitly recognised by the President's Office and by the federal public administration. If the draft agreement for the creation of an e-government and IT governance framework is approved, the Network will become a CIO council with specialised committees (see Box 4.4 on Chapter 4).

Information society policy

The Ministry of Communications and Transportation has broad responsibility for information society policy through the e-Mexico initiative. E-Mexico coordinates overall information society policy both horizontally at the federal government level and vertically at the federal, state, and municipal level. E-Mexico obtains guidance from the e-Mexico National System Council, which includes representatives from the President's Office and the seven ministries that are most involved in the provision of information through the e-Mexico portal. Previously, the E-Government unit was represented in the Council as part of the President's Office, but now that responsibility for e-government has been transferred to the Ministry of Public Administration the E-Government Unit has a less visible role in the co-ordination of the portal.

In terms of the information society, e-Mexico was launched to improve connectivity and electronic access and to reduce the digital divide (see Box 1.2, below). E-Mexico was framed in the context of the Mexican digital divide, and is the main government initiative to establish and develop the information society. Government use of ICT is perceived as an instrument to eliminate this breach, support equality, promote connectivity, provide access, and offer government services online in order to create a more efficient and transparent government. As part of its goal of reducing the digital divide, e-Mexico is driven to expand coverage of all types of services, such as education, health, commerce and government services.

To provide electronic access for all citizens, e-Mexico has created a network of Digital Community Centres (*Centros Comunitarios Digitales*) to connect rural populations and families that do not have access to telecommunications infrastructure. Digital Community Centres are local spaces equipped with computers and Internet access where citizens can make use of the contents and services provided by the e-Mexico portal and the Internet. The e-Mexico portal connects the entire range of government services with the rest of e-government initiatives, services and solutions in the Mexican government. The portal also includes content of public interest

regardless of its source, with many different contents from the public, private, and social sectors. Digital Community Centres are adapted to the general specifications of community needs and they are located in public schools and libraries, hospitals, health centres, and post offices. The establishment of these centres is the concrete transformation of e-Mexico's goal of creating an integrated and inter-communicated society that offers equal opportunities to all.

The case for e-government as set out by e-Mexico is to connect communities with those government agencies that can meet their needs. E-Mexico, for example, links indigenous communities with both the President's Office for the Representation of the Indigenous Population (*Oficina de la Presidencia para la Representación de los Pueblos Indígenas*) and the Indigenous National Institute (*Instituto Nacional Indigenista*). Another example of the connectivity driver is the e-Migrants portal, which connects the migrant community with the Mexican Abroad Institute (*Instituto de los Mexicanos en el Exterior*), the Ministry of Foreign Affairs, and several other government institutes. E-Mexico also responds to the drive for expanding the country's communication infrastructure and bringing government services to all citizens, especially in remote and rural areas. Other specific e-government

Box 1.2. **E-Mexico and Information Society Policy**

The e-Mexico National System was created for the advancement of Mexican Information Society. It envisions social integration, intercommunication and equal opportunities for all. Its mission is to be an agent of change by integrating efforts from the public and private sectors to eliminate the digital divide through a system offering basic services such as learning, health, commerce and government transactions online. At the same time, it seeks to push the technological development of Mexico.

The e-Mexico initiative was launched in 2001 with the primary goal of eliminating Mexico's digital divide. The initiative focuses on expanding the country's communication infrastructure and bringing government services to rural and remote communities and all citizens alike. The main actions of this project are:

1. Establish adequate regulatory frameworks for electronic media and e-commerce.
2. Digitalize government services.
3. Develop e-learning applications.
4. Implement a nationwide e-health system.

Source: www.e-mexico.gob.mx.

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drivers from the e-Mexico initiative are the digitalization of government services and the transformation of digital processes in government agencies.

Expert advice

INFOTEC does not play an explicit policy role, but it does provide advice on e-government to the Ministry of Public Administration and the E-Government Network upon request. This privately managed government organisation is more concerned with e-government strategy and implementation when it is contracted by government IT departments to help with network services and applications provision. Nevertheless, the volume of projects it undertakes and its public sector know-how makes the organisation a relevant e-government player in Mexico.

E-government implementation at the agency level

Individual IT units have a great deal of responsibility with regard to e-government implementation, and they do not yet receive guidance from the e-government unit of the Ministry of Public Administration. However, different possibilities exist for the implementation of e-government. A Ministry may negotiate targets with the President's Office, but come up with its own strategic plan on how to reach those targets independently. It could then discuss standards for implementation with the E-Government Network, and hire a contractor to build the necessary infrastructure (such as a portal).

Notes

1. INEGI, *Sistema de Cuentas Nacionales de México. Indicadores Macroeconómicos del Sector Público*, 1996-2001, 2003, Box 1.2.1.
2. The central administration of the Mexican federal government includes 18 ministries, the President's Office, and the General Attorney's Office. Source: SHCP, Cuenta de la Hacienda Pública Federal, varios años, in INEGI, Sistema de Cuentas Nacionales de México.
3. Congress in Mexico is divided in two Chambers: The Chamber of Deputies and the Senate. The Chamber of Deputies represents citizens and is composed of 500 deputies: 300 of them are elected according to the principle of relative majority for each electoral district and 200 are elected according to the principle of proportional representation through regional lists for five different circumscriptions in the country. Deputies hold office for three years and cannot be re-elected for contiguous congressional periods. Besides legislating, the Chamber of Deputies deals mainly with the yearly approval of the government's budget. The Senate is composed of 128 senators representing the 31 states and the Federal District. Each state has three senators: two elected according to the principle of relative majority and a third seat given to the first minority of the state's elections. The thirty two remaining senators are elected according to the principle of proportional representation through a list representing a single national circumscription. Senators hold office for six years and cannot be re-elected for

contiguous congressional periods. The Senate deals mostly with foreign policy and the approval of high-level presidential nominations, such as judges and ambassadors.

4. OECD, *OECD Territorial Reviews: Mexico*, 2002, p. 96.

5. The Citizen Portal of the Federal Government won the 2003/2004 Stockholm Challenge Award for E-Government, an international award given to projects that find innovative ways to use IT, particularly those that bring benefits to users and society. The Citizen Portal is a citizen-focussed single access point to all levels of government services created by the Ministry of Public Administration. The award's organizers received 900 entries from 107 countries, and an international jury composed of 27 experts from academia, business, and the public sector selected ten winners from the 103 finalists. The e-Mexico portal was also a finalist, but it did not win the award. However, the e-Mexico portal was recognised by the Intelligent Community Forum and the New York City Government as the "Visionary Idea of 2003" at the Intelligent Community Conference and Awards 2004.

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Chapter 2

The Case for E-Government

Mexican government organisations are implementing e-government both in response to a top-down push for e-government (through the Good Government Agenda) and through an internal understanding of how e-government can improve transparency, efficiency and citizen engagement. The top-down approach is driven largely by the priorities of the current administration, in particular the goal of government reform. The individual drive from within organisations is based largely on a desire to improve trust in government (through increased transparency and citizen engagement), and a recognition of financial limitations that require increased efficiency.

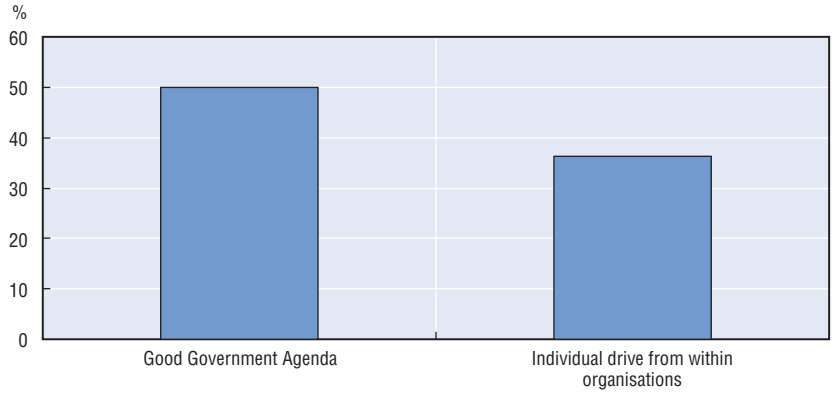
2.1. Introduction

This chapter presents the two major drivers of e-government in Mexico: the Good Government Agenda and the individual drive from within organisations. In both cases, the case for e-government is viewed in the context of broader government reform. To date, Mexico has been using a top-down approach to e-government. However, this is slowly beginning to change as e-government moves into an institutionalisation phase.

2.2. E-government drivers in Mexico

The idea that strong support from the executive office is the main driver of e-government is an idea shared by many ministries and agencies in the Mexican government: half of the respondents to the OECD survey of e-government in Mexico considered the Good Government Agenda the main driver for e-government. The current administration prioritised economic growth, poverty reduction and government reform when it came to power in December 2000. The administration also explicitly recognised the importance of IT as a tool for improving efficiency and quality of service. When the Good Government Agenda was presented in 2002, it provided a vehicle for the administration to push e-government as a tool for reform. Nevertheless, this top-down push for e-government is not the only driver for e-government in

Figure 2.1. **The greatest drivers for e-government in Mexican organisations**



Source: OECD E-Government Survey: Mexico, question 1.1.

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Mexico. Many organisations have an independent understanding of the benefits of e-government to their organisation (*e.g.* in terms of transparency, efficiency, citizen engagement and trust), and over one-third of agencies surveyed by the OECD reported that the greatest driver for e-government came from within the organisation.

2.3. The Good Government Agenda – a top down approach

E-Government has been implemented from the top down in Mexico: the President's Office has been the driving political force behind the Good Government Agenda's support of e-government as a tool of reform. The Good Government Agenda has pushed for e-government using a top-down implementation approach: political pressure from the President's Office to implement e-government solutions, monitoring and evaluation of pre-determined targets negotiated with the President's Office, and the public recognition of best practice with innovation awards have all created a political climate in which organisations have been pushed to implement and adopt e-government objectives.

E-Government has a prominent place in the Good Government Agenda, and this reflects the government's belief that technology can help spur government reform. The agenda has been diffused widely, and it has also raised the visibility of e-government projects and created networks for the exchange of best practice. The Good Government Agenda states the case for e-government along six main lines, detailed in Box 2.1 below.

The Good Government Agenda creates a political incentive for ministries and agencies to pursue e-government initiatives, even if many of the means used to ensure participation remain informal (*e.g.* participation in the E-Government Network is encouraged, but not strictly enforced). However, the prominence of the Agenda does not translate directly to concrete and measurable reform objectives, and evaluation is mainly conducted on the basis of target compliance and accomplishment. For example, the goals of increasing the number of services online or the development of infrastructure are not necessarily linked to the broader goal of government reform. Furthermore, these goals can differ significantly from the areas in which a specific ministry or agency might believe it can get the best value out of its IT investment. For example, the Ministry of the Interior responded to pressure from the President's Office to put a certain number of services online as part of the Good Government Agenda goals despite uncertainty as to whether online services were actually the best use for the ministry's resources. The links between e-government and broader reform are not always as clear in practice as they are in theory.

Box 2.1. **The case for e-government in Mexico according to the Good Government Agenda**

To reform public management: The ICT revolution has given way to a society that works in networks, transforming its institutions and all sectors of its economy. These changes will produce a way of communicating and collaborating horizontally through these networks: they will increase mobility, and allow for services and technologies to converge and be integrated. Although e-government makes use of ICT to transform public administration and to offer online services to citizens, it is not an end with and of itself: it is an enabler. This is why e-government should be integrated in the broader goals of public administration reform and the information society.

To improve the back office: Governments are obliged to act to improve service delivery. ICT will continue to enable improvements in the massive processing of tasks and in operating public administration. Internet based applications can create savings in data gathering and transmission with public service end users. Considerable improvements in government efficiency could be perceived as a result of the integration of systems that allow better and easier sharing of information between different government institutions.

To create trust between citizens and government: Creating trust between citizens and governments is essential for government efficiency. ICT contributes to create trust because they integrate citizens to public administration processes and contribute directly to the creation of an honest and transparent government. This in turn helps to construct more effective channels for government operations, thus reducing discretion, inhibiting dishonest practices and allowing a strict and transparent government administration.

To enable citizens to access the information society: Facilitating access to the information society to citizens not only optimises the availability and quality of services, but also adds value to them. However, many advantages of e-government cannot be reproduced offline, which means that citizens without access to the digital world will be excluded from these benefits unless the necessary measures are taken to deal with this situation. In Mexico's case, this is where e-Mexico's connectivity strategy kicks in.

To create additional channels for citizens to access government services: Traditional channels for delivering government services are now insufficient: citizens wish to have online services and transactions with governments in the place and time of their convenience, whether through an Internet portal, interactive kiosks, call centres, cellular phones, or mobile devices. Demand for "anytime, anywhere, any-channel" services is increasingly becoming a value added for government administration.

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Box 2.1. **The case for e-government in Mexico according to the Good Government Agenda** *(cont.)*

To provide efficient and integrated services oriented to citizens' needs: The time needed for using online government services and the lack of their integration is a factor that negatively impacts the response capacity of government to citizens' needs. This is why, in order to provide government services, the government will need to adapt to the new forms of public participation and have the necessary channels readily available.

Source: Presidential Good Government Agenda, President's Office, Mexico, 2002.

Finally, the policy links between the Good Government Agenda's objectives are not clear. These links at the policy-setting level are not clear in spite of the fact that the six objectives of the agenda are all supporting the same broad goal of government reform in principle. In the case of e-government, the e-government initiative of the agenda has the goal of facilitating and supporting the other five objectives of the agenda, but in practice these links are not clear. For example, e-government and the professional government initiative would supposedly work closely together to develop IT skills and training for government officials or for developing human resources management solutions, but the links at the policy level do not exist, at least not explicitly. In sum, while the President's Office and the Good Government Agenda link the political actors responsible for each initiative at the top, there are fewer explicit links made at the policy level.

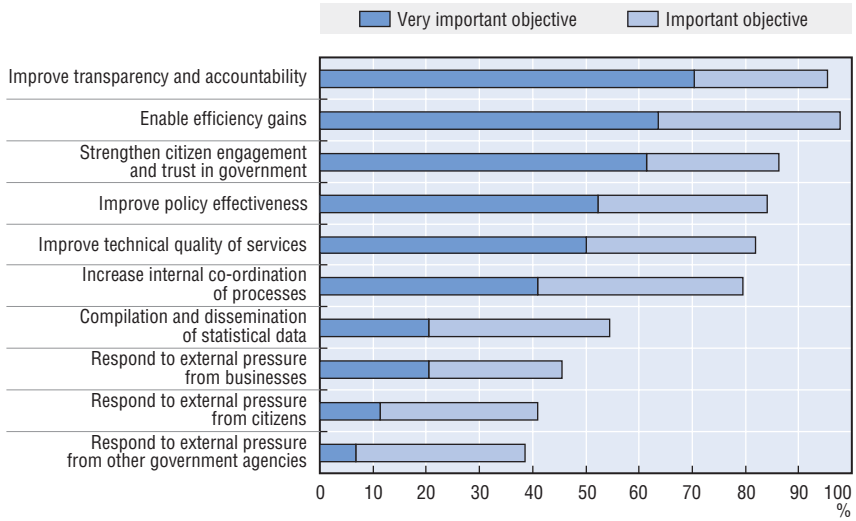
2.4. Individual drive from within organisations

The second greatest driver for e-government in Mexico comes from within individual organisations, with the three most important internal objectives being transparency, efficiency and strengthening citizen engagement (see Figure 2.2, below). In the Mexican context, transparency, accountability and citizen engagement are linked to the broad goal of improving trust in government while efficiency gains are frequently linked to budgetary barriers.

Trust in government

Building trust in government is a major priority of the current administration, as demonstrated by the honest and transparent government objective in the Good Government Agenda. The salience of growing corruption scandals involving major political actors in 2004 has emphasised the high political stakes of transparency, honesty, and rule of law in the Mexican political context. The eradication of corruption and the creation of citizens'

Figure 2.2. **Government organisations' internal objectives for implementing e-government**



Source: OECD E-Government Survey: Mexico, question 2.1.

trust in government have reinforced the need for government agencies to improve trust among their own client base. In Mexico, agencies are adopting e-government to improve trust in government, to improve transparency and accountability, and to strengthen citizen engagement in government.

Transparency and accountability

The current administration has given high political priority to the fight against corruption, and transparency is a primary objective of the government's goal of becoming a "crystal box". The growing interest in transparency responds to strong citizen demand for having an honest and open government. Individual organisations recognise the need for increased transparency and accountability within their own organisations, and have prioritised e-government as a tool to help them achieve this goal.

Ninety six per cent of agencies surveyed by the OECD considered transparency an important or very important objective for implementing e-government (see Figure B.1 in Annex B). In fact, no agencies surveyed overlooked transparency when developing their case for e-government: while other objectives (*e.g.* economic factors, improving the quality of statistics, and responding to business or government demand) were not always considered by agencies, transparency was always taken into account for implementing e-government. Government officials interviewed by the OECD confirmed this

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finding by stating that improving transparency was the fundamental goal behind the implementation of e-government in their organisation.

One example of transparency driving e-government implementation is Compranet, an Internet-based government procurement system introduced in 1996 by the General Comptroller (*Secretaría de la Contraloría y Desarrollo Administrativo – SECODAM,* the actual Ministry of Public Administration). This system contains the legal framework, bidding opportunities, statistics, notifications and all other relevant information for government procurement activities. Its introduction greatly enhanced transparency in public procurement procedures and it increased communication between government and citizens (*OECD Reviews of Regulatory Reform: Mexico*, 1999). Compranet is one of the better known e-government services in Mexico, and two allegedly corruption scandals that were unmasked through Compranet (in 2001 and 2003) contributed to the general understanding of how e-government can improve transparency and accountability in Mexico. However, in spite of its initial popularity and advances, some businesses argue that the current regulatory framework of public sector leasing and public works services still leaves room for government officials' discretionary and interpretative powers. Compranet was a very early e-government initiative in Mexico and it is currently undergoing a revision process to be improved and modernised.

A second, more recent, case demonstrating the importance of transparency in e-government in Mexico is the Social Security Institute's (*Instituto Mexicano del Seguro Social* – IMSS) purchase and expenditures portal. IMSS is one of the most important government organisations making purchases in the Mexican government: it acquires over three billion dollars worth of goods and services each year. In 2004, IMSS released its "*IMSS va a comprar, IMSS compró*" portal ("IMSS will buy, IMSS has bought"), by which a list of all prospective purchases that IMSS will carry out during the year is published, as well as the terms and conditions under which all purchases were made. This practice not only opens the market to a substantial set of competitors, but also allows to reduce corruption and in the end to save taxpayers' money. To increase information available to the public, IMSS' accounting information – generated by the Government Resource Planning Initiative (PREI) – will also be readily available to the public online in order to enable public scrutiny of the IMSS' spending.

The examples of Compranet and IMSS show the extent to which the fight against corruption has and will continue to have a strong impact on the implementation of e-government in individual organisations in Mexico. Nevertheless, there are many other examples where the fight against corruption has driven e-government. The potential of ICT-based approaches for improving transparency has been realised in areas such as electronic data

filing for Regulatory Impact Assessment (RIA), one-stop shops for opening businesses quickly (*Sistema de Apertura Rápida de Empresas* – SARE), paperless customs orders using client/server (CS) technology with a system called SAAI M3-CS, or administrative simplification through TRAMITANET, a government web site that groups all paper and online government administrative procedures (*trámites*), and NORMATECA, another web site publishing all government rules, regulations, and federal law. This trend will be reinforced in the coming years, especially with the enhanced role of the Ministry of Public Administration and the President's Office in e-government, but progress still needs to be made for this potential to be fully exploited (OECD, *Mexico: Progress in Implementing Regulatory Reform*, 2004).

Key point 2.1. The importance of transparency and accountability in e-government

Transparency and accountability are top political priorities in Mexico, and e-government has been repeatedly used as a tool for the fight against corruption. Transparency and accountability are practically universal objectives behind e-government in Mexico, with 96% of organisations considering it a "very important" or "important" objective.

Citizen engagement

Citizens play a minor role in the policy and decision making process in Mexico and the potential for using e-government for engaging citizens is beginning to be explored. Traditional advocacy tools used in Mexico (*e.g.* letter writing, signature of petitions and formal presentation of complaints to authorities) are amenable to ICT, and in many cases they have been transformed to online services for citizens to participate. Government organisations in Mexico recognise the potential of e-government to strengthen citizen engagement, and cited this as the third most important internal driver for e-government in Mexico. The OECD survey on e-government saw the majority of agencies responding positively to the objective of engaging with citizens in order to create trust in government (see Figure B.2 in Annex B).

One example of an organisation using e-government to improve citizen participation is Citizen Attention (*Atención Ciudadana*), an online service that receives petitions, complaints, suggestions and letters addressed to the President. Because the online service greatly increases the capacity to respond to citizens, it has the potential of greatly increasing citizen participation. However in its current form Citizen Attention only allows for a basic type of civic involvement, and it is

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not clear how citizen proposals and submissions are evaluated or used in the policy-making process. E-Mexico and the congress also provide online forums where citizens can discuss issues, provide feedback and state their opinions. However, similar to *Atención Ciudadana* it is not clear how the information gained by e-Mexico from citizens is used in the policy making process.

Thus, in spite of a seeming prioritisation of citizen engagement, the potential for e-government to strengthen citizen engagement is still in its early phases in Mexico. In fact, specific examples of tools to improve citizen engagement and trust in government were rarely mentioned in OECD interviews. It seems as if many e-government officials in Mexico hope to use e-government to involve citizens more, but are unsure as to how this would work in practice. The bottom line is that the introduction of online services geared toward citizen participation has not yet strengthened the capacity of Mexican citizens to perceive the connection between, input and impact.

Key point 2.2. Citizen engagement: the need to go beyond the digitalisation of traditional advocacy tools

The potential for e-government to strengthen citizen engagement is still in its early phases in Mexico. The government has only begun to explore the potential of e-government for engaging citizens, but it still needs to strongly emphasise the need for real and effective citizen engagement. Current practices for engaging citizens through the use of online services allow only for a basic type of civic involvement, and it is not clear how citizen proposals and submissions are evaluated or used in the policy and decision-making process. The OECD found that most agencies surveyed had the objective of engaging citizens to create trust in government, but in the end, e-government in Mexico has only digitalised traditional advocacy tools (e.g. letter writing, petition signing, etc.), and Mexican citizens continue to play a minor role in the policy and decision-making process.

Efficiency gains

In the context of low levels of tax collection (see Chapter 1) and tight IT budgets (see Chapter 3), efficiency is a key driver for e-government within Mexican government organisations. Organisations stressed that many of their projects to increase efficiency were self-driven rather than coming from an external "push". In the interviews the OECD undertook with government officials, several noted that the drive for efficiency was a direct result of budgetary barriers.

Efficiency gains are the second most cited objective in the implementation of e-government, with 98% of organisations considering efficiency gains to be a

"very important" or an "important" objective. Like transparency, efficiency gains were not overlooked by any organisation surveyed, and only 2% said it was "not an important objective" (see Figure B.3 in Annex B).

Agencies across the Mexican government are seeking efficiency gains in various different ways: some hope to obtain greater efficiency through process automation, others through the provision of information online, and yet others through increased speed of service delivery. For example, as part of a drive to reduce costs, the Ministry of the Environment has implemented an electronic system to automate the process of tracking documents. The Institute of the National Fund for Workers' Housing (*Instituto del Fondo Nacional de la Vivienda para los Trabajadores* – INFONAVIT), has increased efficiency by providing information online, and thus reducing the volume of information requests to its call centre. The President's Office now takes only 20 days to respond to requests from citizens, as opposed to the previous 200 days. Such varied responses to budgetary difficulties represent innovative uses of e-government to meet the needs of individual organisations, and should be encouraged. However, it would also be helpful if the government provided more tools for the replication of existing solutions from one organisation to the next (see Chapter 3).

Key point 2.3. Budget constraints and efficiency gains

Budget constraints and efficiency gains are closely related factors that drive e-government in Mexico. In many cases, agencies with budget constraints have been pushed to drive for efficiency gains with creative and innovative solutions.

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Box 2.2. **International drivers for e-government in Mexico**

Agencies are not always aware of other e-government initiatives taking place within their own country, let alone international initiatives and experiences. In Mexico, there is little exposure to international good practice, though the hosting of the 5th Global Forum contributed to exposing a cross section of government officials to a wide variety of e-government initiatives in other countries, and hopefully this has stimulated some new and innovative thinking and solutions (see Box 4.3 in Chapter 4).

Nevertheless, a handful of ministries and agencies are very aware of e-government experiences at the international level, and they have been working to learn from good practice in other countries. For example, the Social Security Institute (IMSS) has copied e-government best practices from the most advanced countries. IMSS has sent officials on missions to visit other social security institutes abroad and to study good practice, and they have found that some countries are very willing to share their successes. IMSS implemented and adapted the most relevant best practices into its own systems. With this strategy, IMSS went straight to the best system, and it was often easier for the institute to implement the best new system that had already been tried and tested than what it was for the advanced countries that ran trial versions. IMSS has adopted elements of systems from the United States, Canada, the United Kingdom and Brazil. The Ministry of Defence also looks to other countries for examples of good practice, for example regarding simulations, hospital systems, and the use of open source software. Most frequently, Defence looks to Anglo Saxon countries for good practice examples.

There are also a few organisations that are working with international organisations for the implementation of e-government. For example, e-Mexico received a grant of 100 million USD from the World Bank to create a unique e-commerce marketplace for small and medium sized enterprises (SMEs) in Mexico. Similarly, the National Council for Arts and Culture is working with e-Mexico and the Bill and Melinda Gates Foundation to provide access to digital services in municipal libraries and provide electronic encyclopaedias to the handicapped.

Some government agencies have seen very positive results from collaborating with international actors and foreign government organisations and learning from their best practices and past experiences. These agencies found that more often than expected, similar institutions across the world are willing to collaborate on different areas such as e-government with their foreign counterparts. The exposure to international ideas through conferences and forums also contributed to sharing international activities and experiences to government officials that usually had little or no exposure to such ideas.

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Chapter 3

External Barriers to E-Government

According to the OECD Survey of E-Government in Mexico, external barriers are the single biggest challenge for implementing e-government. The most important budgetary barriers include lack of funding, uncertain future funds and inflexible funding arrangements. Complexity of regulation and a lack of recognition of e-government processes (e.g. online signatures and electronic processes) represent common regulatory barriers. A third external barrier, the digital divide, sets the parameters for the impact of online government services in Mexico. Official statistics show that Mexico has levels of Internet penetration significantly lower than the OECD country average, and the e-Mexico initiative is helping to improve access to ICT (in particular in remote and rural areas) by creating Digital Community Centres across the country.

3.1. Introduction

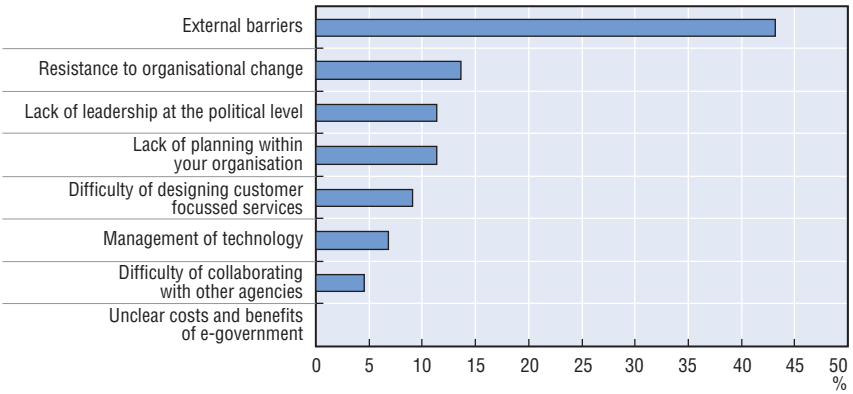
Chapter 3 analyses external barriers to e-government in Mexico. As defined in *The e-Government Imperative* (OECD, 2003), "external barriers" to e-government constitute those elements that are outside the control of those people implementing e-government at an organisational level. The three main types of external barriers identified by the e-Government Imperative include:

- Budgetary barriers (*e.g.* lack of funding, uncertain future funds, inflexible funding, etc.).
- Regulatory barriers (*e.g.* regulation that hinders implementation of e-government).
- The digital divide (*e.g.* lack of access to the Internet and online services).

3.2. The biggest challenge to e-government implementation in Mexico

Among the various types of challenges referred to in the OECD survey on e-government, Mexican officials considered that external barriers are by far the most important challenge. Forty three per cent of respondents think that external barriers are a "very important" challenge, compared to 14% for resistance to

Figure 3.1. **External barriers as the biggest challenge for implementing e-government in Mexico**



Source: OECD E-Government Survey: Mexico, question 1.4.

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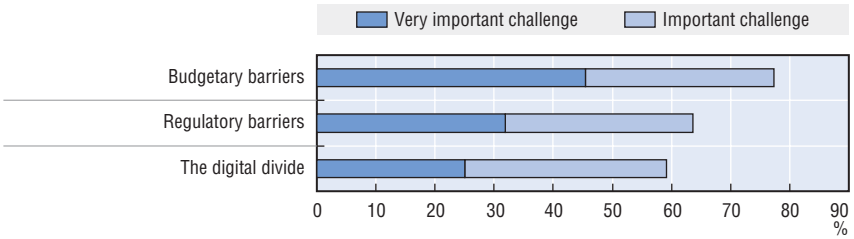
organisational change, 11% for lack of leadership and lack of planning, and 9% for difficulty of designing customer focused services.

In terms of the relative importance of external barriers, most respondents said that budgetary barriers pose the most important challenge, with 45% saying that budgetary barriers are a "very important" challenge, and another 32% saying they are an "important" challenge. Nearly one third of respondents said that legislative and regulatory barriers are a very important challenge, and one fourth of respondents said that the digital divide is a very important challenge. The fact that the digital divide represents the least important of the three external barriers reflects an emphasis on e-government for improving the back-office, and not just the provision of online services.

Key point 3.1. External barriers and the digital divide

Despite relatively low levels of access to the Internet in Mexico, most government officials working on e-government consider budgetary and regulatory barriers to be more important challenges to the implementation of e-government than the digital divide.

Figure 3.2. **External barriers to e-government**



Source: OECD E-Government Survey: Mexico, question 3.1.

Because external barriers to e-government are (by definition) outside of the control of those people implementing e-government at an organisational level, it is no surprise that most government officials in Mexico believe that it is an important role of e-government leaders in Mexico to identify and overcome external barriers to e-government. As discussed in "Checklist for E-Government Leaders" (*OECD Policy Brief*, 2003), leaders have a bigger picture view and the levers needed to effect systematic change. In Mexico, 49% of respondents said that overcoming external barriers is a "very important" role of the e-government leader, while another 44% said it is an "important" role, and the rest saying that it is a "somewhat important" role. Not a single

respondent said that this was "not an important" role or "not a role" of the e-government leader (see Figure B.4 in Annex B).

Leadership regarding external barriers to e-government comes primarily from the Ministry of Public Administration, though its role is one of co-ordination rather than a direct ability to implement change. The Ministry proposes administrative specifications that individual ministries and agencies should adopt when defining an e-government strategy or policy. In Addition to the Ministry of Public Administration, the Ministry of Communications and Transportation has the primary role for co-ordinating policy on the digital divide, the Federal Regulatory Improvement Commission (*Comisión Federal de Mejora Regulatoria* – COFEMER) is in charge of developing efficient and coherent regulation, and the Ministry of Finance has an important role with regard to budgetary barriers. As it was only recently that the Ministry of Public Administration acquired its co-ordination functions regarding barriers to e-government, it is not yet clear as to the extent to which its co-ordination approach will be effective in identifying and overcoming external barriers.

3.3. Budgetary barriers

Like other OECD countries, Mexico has a budgetary framework that provides financing mostly for individual projects, but it does little to account for the shared responsibility inherent in many e-government projects. The E-Government Imperative (OECD, 2003) argued that a number of features of current budgetary arrangements in OECD countries work against efficient implementation of e-government: budget time horizons of e-government projects require commitments over long periods and countries focus on single year expenditures, budgetary rigidities prevent shared funding arrangements, a lack of framework for profit sharing does not eliminate redundant systems in agencies, and the difficulty of measuring costs and potential benefits for e-government projects makes it hard to develop funding cases. The considerations of budgetary barriers focus on the ability to use the public budget to allocate and control resources to make intelligent, flexible, and accountable investment decisions.

Budgeting in Mexico is very inflexible compared to other OECD countries. Seventy five per cent of OECD countries use a medium term expenditure framework, but not Mexico, and eighty per cent of OECD countries give spending departments at least some ability to carry over some amounts of funds, but not Mexico.[1] As noted in Chapter 2, public administration reform and the State budget are responsibilities of different ministries in Mexico. The combination of a centralised spending authority and divided oversight responsibilities of e-government and reform will require a strategic and sustainable allocation of e-government funding.

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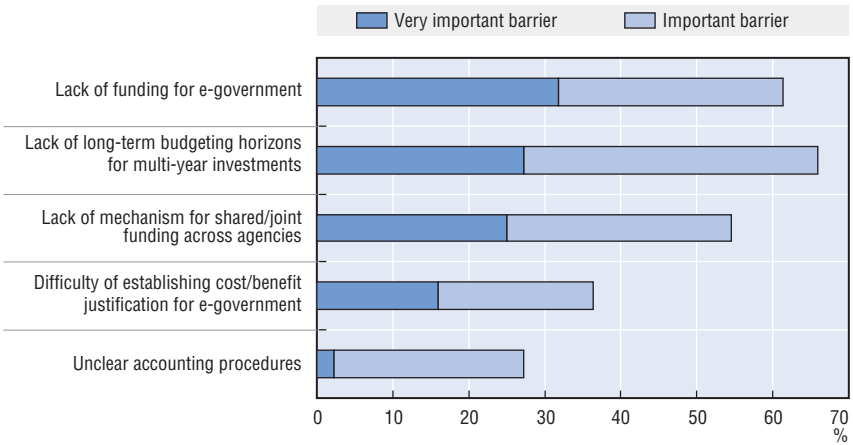
Agencies surveyed by the OECD reported that 32% of agencies considered the lack of funding a "very important" barrier to e-government projects, and another 30% consider it an "important" barrier. This finding is perhaps not surprising, since most IT departments in OECD countries would prefer more funds for ICT investment. Yet interestingly, almost the same numbers of agencies reported two other areas as important barriers – the lack of long-term budgeting horizons for multi-year investments, and the lack of mechanisms for shared funding across agencies. The two other budgetary barriers mentioned in the OECD survey, difficulty of cost/benefit justification for e-government projects and unclear accounting procedures for e-government expenditures, were considerably less important and will not be covered in this section.

Figure 3.3. **Budgetary barriers to e-government**



Source: OECD E-Government Survey: Mexico, question 3.3.

Lack of funding

In Mexico, as in other OECD countries, the people responsible for implementing e-government reported that they did not have enough funds for ICT investment. While lack of funding is a universal problem, it should be noted that the tax/GDP ratio in Mexico is the lowest in the OECD and it is also one of the lowest in Latin America. Including Social Security contributions and all payments by PEMEX to the government, tax revenue amounts to 18.5 per cent of GDP, half the OECD average. Excluding oil-related revenue, the ratio drops to 15 per cent. However, such ratios are not fully comparable across countries, as countries use the tax and transfer system differently.[2] It is thus important to consider the "difficulty of finding funding" in this context, and to recognise that the underfunding is a universal complaint biased towards the

proposition that e-government spending is always good and that agencies or governments tend to underinvest.

Lack of funding for e-government at times results from a prioritisation exercise concluding that IT expenditure is not the most cost-effective way to reach the organisation's goals. For example, government organisations may decide that online service delivery is not the most cost-effective solution because the digital divide limits uptake of online services. The Ministry of the Interior saw this happen when it made online payments available to citizens: officials soon reported that some people preferred to print an online pay form and go to the bank themselves as opposed to paying directly online. The ministry came to the decision that putting services online was not a good stand-alone solution, and it was more useful to link traditional services with online services using intermediary technologies. The lesson learned by the Ministry of the Interior was that they needed to understand how to migrate services online with transitional steps.

While low funding or no funding for IT can therefore be the result of a sound business decision, the limited use of advanced e-government business cases in Mexico (see Chapter 8) suggests that a lack of funding for IT most frequently does not come from the result of a sound business case. The difficulty of appropriating funds to e-government in Mexico is amplified, in certain circumstances, by a lack of understanding among non e-government officials as to how IT can improve government. Many people with responsibility for allocating funds believe that IT investment is a stand-alone issue, and do not understand how such investments could improve the efficiency, quality, and the transformation of government. The development of more advanced business cases for e-government investment (*e.g.* that consider benefits across the organisation) would help spread the understanding that IT investment is not an independent investment, and might help increase funding for e-government initiatives.

Key point 3.2. IT funding and business case

Because of the difficulty of obtaining IT funding in Mexico, it is essential that e-government officials develop strong business cases for e-government that demonstrate the benefits of IT investments to other areas of the organisation. Nevertheless, it is also important that non e-government officials understand how IT can improve and transform government in order to lessen the difficulty of appropriating funds to e-government in Mexico.

Funding is limited, regardless of the revenue base. However, limited IT funding can also yield positive results: in certain cases it can lead to more

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innovative IT use. For example, when the Ministry of the Environment had no funds for IT purchasing, the ministry decided to rent computers instead of buying them. In hindsight, the ministry considers this to have been the right decision regarding technology purchases, but it is one they might not have thought of if they had had more funding. Similarly, the Ministry of Labour has limited funding for e-government, which spurred it to look for cost-effective means to implement its ERP system. By looking outside the organisation to other examples of best practice, the Ministry of Labour managed to create its ERP system in 6 months and with only 100 000 USD (compared to the Ministry of Defence which had greater resources, and finished the first phase of its ERP application with a budget of 3 million USD). Nevertheless, both the Ministry of the Environment and the Ministry of Labour noted that such innovative solutions would not have been possible without the skills and incentives that each ministry already had in its IT Unit (see Chapter 5).

The difficulty of finding funds for e-government projects reinforces a need to re-use existing solutions and share examples of good practice. The E-Government Network assists in this process by bringing e-government leaders together to share experiences, however most people interviewed by the OECD felt that it would be useful to have a stronger mechanism for sharing the solutions that have been identified by other government organisations. For example, while the government of Mexico recognises the development of innovative solutions with the Innova awards (see Box 4.2 on Chapter 4), there is less recognition for agencies that copy pre-existing solutions. Although lack of funding for e-government projects was reported as the most important barrier for e-government among organisations surveyed by the OECD, the bigger barrier is the lack of a longer term focus in the budget and the inflexibility.

Key point 3.3. IT funding and innovation

Given the proper incentives and skills, limited funding can, in certain circumstances, help spur innovative use of existing funds. While the Innova awards provide a useful incentive for innovation in government, it might be useful for the Mexican government to consider incentives for agencies to copy pre-existing solutions (a "copy cat" award?).

Uncertain future funds

Mexico's annual budgeting cycle makes future funding for IT uncertain, and large IT projects are generally built over several years and usually require multi-year budgeting. Furthermore, Congress narrowed the spending window

by running tight spending and budgeting schedules on a yearly basis, although over the past two years fiscal exercises have been timely. Nevertheless, government organisations like the Institute of the National Fund for Workers' Housing (*Instituto del Fondo Nacional de la Vivienda para los Trabajadores* – INFONAVIT), for example, have deadlocked budget cycles: the budget is approved in March, projects are launched in June, and resources are fully allocated only by the end of the year. The politicisation of the budget process also makes funding more uncertain, as budgets can be cut during the year to fund new high-priority projects. The Ministry of Economy told the OECD that the risk of budget cuts within the cycle has exacerbated other budget difficulties by further increasing IT budget uncertainty.

Box 3.1. **Multi-year budgeting in OECD countries**

Multi-year budgeting is a challenge in most OECD countries, especially in those with a one-year budgeting cycle. Some countries can carry over funds from one budgeting year to the next, and in some have the ability to guarantee funds for multi-year projects when the projects are specifically approved in advance.

Finland typically has a one-year budgeting cycle, but in 1999 as a one-time deal Parliament approved EUR 37 million in "future funds" to promote the information society. These funds were useable over 3-4 years, and were used to support infrastructure projects and cross-agency initiatives that might not have otherwise been possible.

Source: OECD Budget Database and "OECD E-Government Studies: Finland" (OECD 2003).

Largely as a result of this process, two thirds of organisations surveyed thought that the lack of long-term budgeting horizons for multi-year investments was an "important" or "very important" barrier to e-government (see Figure 3.3 above). E-Government leaders (including those in the Ministry of Public Administration, the Ministry of Finance and the Ministry of Communications and Transport) have recognised the need to create mechanisms for longer term IT budgets, and have created two mechanisms to help overcome this barrier. The first solution involves approval of 5 year budgets in certain circumstances, and the second involves using the e-Mexico trust fund.

In order to provide a solution for investments in multi-year IT projects, there is now a system in which longer term, multi-year IT budgets have been approved for specific e-government projects, with three years as the most common period. Multi-year budget approval involves the Ministry of Finance,

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a congressional sub-committee, and the ministry responsible for the project. The Ministry of Labour, for example, has used this system to obtain a 5 year budget for the creation of its virtual private network (VPN), and the Ministry of the Marines obtained 5 year funding for a project to modernise its information networks that connect ships with land units. However, the process for approval for multi-year IT budgets is time consuming, and the number of applicants approved remains low. The majority of government organisations are still struggling to find longer-term budgeting solutions. The Mexican government would benefit from considering a way to simplify the process for approval of multi-year budgets and increasing availability.

The second method used to extend the IT budget cycle is the e-Mexico trust fund. Using this method, ministries and agencies can deposit leftover IT funds in a trust fund managed by e-Mexico that can then be returned and used for e-government during the following fiscal year. While this throughway provides greater budgetary flexibility for the ministries and agencies involved, it is an *ad hoc* solution that does not address the problem of IT funding directly. A better solution might be giving agencies the ability to carry over a limited percentage of their IT budgets from year to year. This would provide the same flexibility than the e-Mexico trust fund but in a more accountable, transparent, and independent fashion.

Key point 3.4. Pragmatic approaches to uncertain future funding

While methods currently exist to extend budgets beyond the one-year cycle, it remains difficult to commit to and plan large IT projects. Because the process remains difficult, ministries and agencies use other, more pragmatic approaches around budgetary barriers such as the e-Mexico trust fund. Using the e-Mexico trust fund provides a transient solution, but does not help with the process of institutionalisation of e-government in Mexico. The Mexican e-government initiative would benefit from the identification of direct and systematic solutions for current budgetary difficulties, rather than using *ad hoc* solutions to get around current difficulties. The government should consider simplifying the process for approving 5 year IT budgets, and increasing the availability of the process.

Inflexible funding

The lack of mechanisms for shared funding across ministries and agencies was cited as the third most important budgetary barrier to e-government, and OECD interviews with government officials suggested that this issue is part of the bigger problem of inflexible funding. Due to the fact

Box 3.2. **E-government: Expenditure or investment?**

Mexican government organisations carry out annual budget exercises in order to fund their e-government programs and initiatives. In some cases, organisations that propose a multi-annual investment project to the Ministry of Finance and Congress get approval and go ahead with 3 or 5 year investment plans. In other cases, government organisations budget e-government as an expenditure allocated annually to their IT departments. However, multi-annual investment programs are only approved on a case by case basis, and organisations who budget e-government as an annual expenditure constantly find themselves struggling with the Ministry of Finance for more and more funds to stay up to date in technology. Both options exemplify the limited flexibility of budgeting exercises in Mexico: government bodies choose either investment or expenditure and negotiate fiercely with the Ministry of Finance to obtain the necessary funds for their e-government programs.

The Ministry of Labour was among the first government bodies to find an innovative solution to this binary budget situation. Without asking for additional funds to the Ministry of Finance, Labour calculated the annual amount it could invest in its IT infrastructure renewal program, and publicly bid a contract for its telecommunications network. In this contract, Labour conditioned the entire network to be rented for a period of five years instead of acquiring it. This way, the ministry would be using the most up-to-date equipment while the service provider would be in charge of operation, maintenance, and updating costs for the duration of the contract. In the end, Labour would be paying for its e-government infrastructure program with annually allocated funds reported as expenditure, but what it would actually be doing would be a multi-annual investment of its telecommunications infrastructure. The Ministry of Labour successfully negotiated the contract with a private sector company, and immediate results were seen in staff reallocation and operating costs (with considerable reduction in long distance communications and voice data transmission).

This hybrid budget arrangement is very common nowadays, and the case of Labour is not unique. Instead of bidding IT contracts annually, ministries can allocate their annual IT expenditure to a fee in order to finance a multi-annual investment scheme. This way, the ministry reduces administrative and operation costs. However, this arrangement is still constrained by the limited flexibility of budget negotiations with the Ministry of Finance, and the entire investment scheme could be affected if IT allocations to the affected ministry change.

Source: Ministry of Labour and *Política Digital*.

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that there is relatively little collaboration on e-government among ministries (see Chapter 6), bigger funding problems exist regarding the rigidity of funding *within* a ministry or agency.

For example, the rigidity of current funding mechanisms means it can be difficult to reallocate resources to high priority areas or high-impact services. Leftover funds not used for an initiative can only be used within the same budgetary line (*e.g.* unless they were specified for IT investment they cannot be used for this purpose). Additionally, leftover funds in one unit cannot be transferred to another unit, let alone to another agency. Nevertheless, some deconcentrated, financially independent agencies can make discretional use of revenues, savings, and projects' return on investment, and they can also participate more actively in cross agency funding projects. Such is the case of the Social Security Institute (*Instituto Mexicano del Seguro Social* – IMSS), which participates in several cross agency projects (see Box 6.2 in Chapter 6). However, IMSS is an exception in the Mexican public administration, and most agencies do not have access to flexible funding arrangements and face the issue of budgeting for e-government as a two-level choice of expenditure or investment.

Most agencies surveyed by the OECD reported budgeting ICT as a mixture of expenditure and investment, but some officials interviewed also emphasised the need to budget ICT as an investment. Several e-government officials also mentioned that it would be useful to have IT resources allocated in a separate, individual budget line, but this only reflects poor knowledge of fiscal regulations: IT spending is always classified as a separate budget line. Officials were probably expressing the wish to conduct separate negotiations for IT budget that would not get lost as single items in bulkier negotiations. Nonetheless, IT human resources are still classified under a single budget line that lumps administrative staff and personnel.

Key point 3.5. Inflexible funding

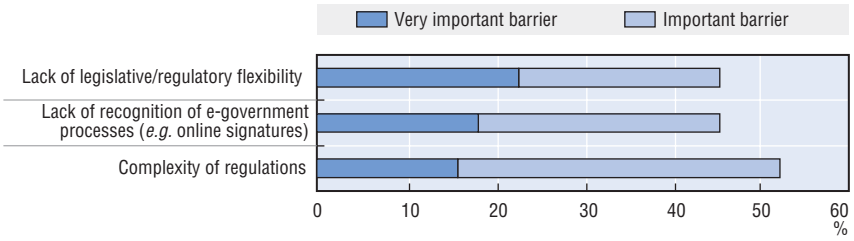
1) ***The government should consider creating mechanisms for increasing the flexibility of funding for e-government projects. This could include the transfer of funds among budgetary lines and among units and agencies.***
2) ***Certain organisations may wish to treat e-government spending as an investment rather than expenditure and classify items on their IT budget line according to their needs. However, they could also consider hybrid budget arrangements that budget multi-annual investment schemes as expenditures.***

Regulatory barriers

The OECD has argued before that the success of e-government initiatives and processes is highly dependent on government's role in ensuring a proper legal framework for their operation (OECD, *The E-Government Imperative*, 2003). Furthermore, in order to gain widespread acceptance, electronic services must first have legal recognition and electronic equivalents to paper processes. In Mexico, rules and regulation around ICT use have been issued by a number of agencies and regulatory bodies, and redundant and overlapping regulations add up to the challenge of providing clear requirements to risk-adverse agencies who may embark on e-government projects with the wrong security or technical standards.

Agencies surveyed by the OECD considered regulatory barriers somewhat less important than budgetary barriers, but they were still considered a "very important" or "important" challenge to the implementation of e-government by 64% of respondents (see Figure 3.2 above). Agencies reported that the most important regulatory barriers were the lack of legislative and regulatory flexibility, the lack of recognition of e-government processes, and the complexity of regulations. In order to analyse the impact of government rules and regulations on e-government, this section will first provide a brief background of regulatory reform in Mexico and then discuss the complexity and inflexibility of regulations, followed by a discussion on the lack of recognition of e-government processes. Privacy, consumer protection and security-related regulation will also be discussed in this section.

Figure 3.4. **Regulatory barriers to e-government**



Source: OECD E-Government Survey: Mexico, question 3.2.

Background: regulatory reform in Mexico

In the past few years, Mexico has improved its regulatory framework, reforming public institutions and modifying legal and policy instruments. Regulatory policy has been strengthened to increase the flexibility of the national economy, to improve the regulatory environment for domestic and foreign businesses, and to enhance the competitiveness of the Mexican

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economy in the global market (OECD, *Mexico: Progress in Implementing Regulatory Reform*, 2004). However, efforts at regulatory reform have focussed almost exclusively on external regulations (*e.g.* those impacting citizens and businesses) and there has been little done to simplify internal regulations (*e.g.* those impacting government organisations). The main actors with regard to e-government regulation are described in Box 3.3 below.

Box 3.3. **E-government regulation in Mexico: Key players**

The current framework for regulation of e-government in Mexico involves a number of actors:

COFEMER: The Federal Regulatory Improvement Commission (*Comisión Federal de Mejora Regulatoria* – COFEMER) is a technically and administratively independent body of the Ministry of Economy. It oversees the process for preparing federal regulations and promotes and develops cost effective regulations that produce net benefit for citizens and businesses. COFEMER is empowered by law to conduct a consistent regulatory reform through the prevention of duplication of procedures among public entities, the reduction of poor quality regulatory practice, and the provision of training and guidance. By law, no ministry or regulatory agency can publish a regulation in the Official Gazette without COFEMER's final approval.

The Ministry of Public Administration: The former comptroller general – the Ministry of Public Administration – is responsible for internal administrative simplification as well as for coordinating the implementation of a series of initiatives called "Tools for Regulatory Simplification". These initiatives do not bind public servants to comply with administrative simplification, but signal a commitment to introduce more transparent rules to the internal administration. The E-Government and IT Policy Unit in the Ministry of Public Administration also drafts internal regulation for e-government across ministries in government.

The President's Office: The President, through its Legal Counsel, enacts the most important secondary regulations, such as rulings (*reglamentos*), laws, decrees and agreements (*acuerdos*). Guidelines and laws are published on the Official Gazette.

Congress: Congress approves, discusses, modifies, and enacts federal laws.

The Ministry of Finance: The Ministry of Finance's guidelines and budgetary provisions have a considerable regulatory impact on e-government, although mostly on financial issues.

Source: Ministry of Public Administration and OECD, *Mexico: Progress in Implementing Regulatory Reform*, 2004.

Key point 3.6. Internal and external regulatory reform

It could be greatly beneficial to the efficiency and quality of government if the government were to approach the reform of internal regulations with the same zeal it has for external regulations.

Complex and inflexible regulation

In spite of recent and ongoing improvements, internal government regulation in Mexico can be overly complex and inflexible. Many government organisations interviewed and surveyed by the OECD cited overall regulatory burden as an important barrier to e-government. Confusion about legal requirements and the provisions of different government regulations were also mentioned in interviews.

In addition to general problems of legal complexity and lack of regulatory flexibility, many government officials interviewed by the OECD cited recent government anti-corruption efforts as one of the origins of additional legal complexity. In an effort to reduce corruption, the government created additional controls and audits to monitor the actions of government organisations. However, in some cases the result has been the creation of additional layers that make it harder to instigate new initiatives. While transparency, accountability and anti-corruption are essential policy objectives, equilibrium needs to be found that balances these objectives without creating a supplementary regulatory burden.

The Law on Acquisitions, Leasing, and Services of the Public Sector (*Ley de Adquisiciones, Arrendamientos y Servicios del Sector Público, or LAASSP*) was the result of the revision of previous and stringent procurement laws and it came into effect in May 2000. The law made the government's procurement regime more transparent by separating purchases, leasing, and services from public works. The law was created to reduce corruption in government procurement, and it includes that, in general, the provision that government organisations must make an open bid for suppliers. However, the new law did not simplify government procurement: an unintended consequence of the law is that the LAASSP typically adds 2-6 months to the procurement process, creating a heavy burden for e-government initiatives, which are frequently time sensitive (especially in the context of a one-year budgeting cycle).

To overcome the barrier created by LAASSP, in particular for IT related projects, many government agencies choose to work with INFOTEC, a privately managed government organisation that can act as a supplier to government without going through the open bid process. INFOTEC provides many of the

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Box 3.4. **Complex and inflexible regulation as a barrier to e-government**

INFONAVIT, an institute that provides low-cost housing and house credits, began a project to create an online loan system for low-cost housing for workers. In order develop the loan system, external and internal legal provisions needed to be changed. While it was challenging to change internal regulation, it was the external regulation that stalled the project: it took INFONAVIT two years to get the changes approved. INFONAVIT notes that in that time, 600 000 loans could have been approved each year using the new online system in a quick and efficient way as opposed to the 200 000 applications that were actually processed.

In Mexico, customs involves different government agencies and there is no system grouping these administrations to share data and processes. Additionally, many of the internal IT systems overlap considerably. The Ministry of Communications and Transportation is trying to integrate the systems, but doing so requires changing 6 federal laws. The Ministry of Communications and Transportation has ongoing talks with the agencies involved (including the Ministry of Public Administration's Regulatory Reform Unit and the President's Office for Innovation), but so far little progress has been recorded and many officials believe the process is stalled.

same services as private companies, but with the advantage of fewer regulatory requirements. While INFOTEC thus provides a practical solution to regulatory complexities, some government officials have argued that the use of INFOTEC as an IT supplier to government is discouraging the use of the Mexican private sector.

Box 3.5. **Public procurement regulations: unintended consequences of increasing transparency**

The Law on Acquisitions, Leasing and Services of the Public Sector (LAASSP) can present a regulatory barrier to the timely development of IT systems and solutions for Mexican government organisations who wish to outsource IT solutions and services to the private sector. This law is positive in the sense that it requires organisations to make open and public bids for suppliers. However, the law has negative side effects because the bidding and procurement process is lengthy and time-consuming. This process is particularly impractical for outsourcing fast-moving IT projects.

Box 3.5. **Public procurement regulations: unintended consequences of increasing transparency** *(cont.)*

INFOTEC, a self-financed government trust fund that delivers strategic and infrastructure IT services, is not classified as a private company by the LAASSP law and is thus exempt from the public bidding process. Because working with INFOTEC is therefore easier than working with a private company, many government organisations have chosen to work with INFOTEC for a quicker solution to reach their IT goals. INFOTEC does provide high-quality services at competitive prices, but it is clear that its ability to skip the bidding process and provide a quick response to government organisations' IT initiatives is a major competitive advantage.

While INFOTEC therefore responds to the demand for the quick provision of quality IT services, not all government organisations are satisfied with the current state of affairs. The Ministry of Economy, for instance, argues that INFOTEC has an unfair advantage that discourages the government from working with the private sector, which in turn discourages the development of the Mexican IT industry. Nevertheless, the Ministry of Economy itself does many projects with INFOTEC, although it encourages other ministries to contract directly with the private sector.

However, other government organisations believe that INFOTEC brings the best of both worlds. The Ministry of Communications and Transportation argues that the private sector sees government as a huge client with a big wish list. This ministry says that the private sector does not understand that government needs solutions, and that the government does not outsource just to "buy things". To some agencies, INFOTEC's close relationship with government and its knowledge of government regulation, culture, and practices makes it a more interesting provider than a private company with rock-bottom prices.

As long as the regulatory barriers to IT procurement remain, government agencies will go to INFOTEC for the majority of their IT solutions and services. Ideally, the best solution for all actors would be to address the problem face on and reform the LAASSP law to include INFOTEC as part of the bidding process. However, a more realistic assessment would point towards first carrying out an extensive revision of the public bidding process and making it more efficient and shorten it to the extent possible before adding INFOTEC as yet another provider in a process that although transparent, is lengthy, time-consuming and inefficient.

Source: Ministry of Economy, Ministry of Public Administration, and INFOTEC.

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Key point 3.7. Aligning the goals of anti-corruption and efficiency

While transparency, accountability and anti-corruption efforts remain essential policy objectives, current regulation on transparency creates a difficult regulatory burden that hinders the implementation of effective e-government solutions. INFOTEC's legal status currently provides a quick solution around the barriers created by the Law on Acquisitions, Leasing and Services of the Public Sector (LAASSP), but a better solution might be to address the problem directly and reform the LAASSP law to make the bidding process quicker and more efficient.

Lack of recognition of e-government processes

Even as e-government creates a need for regulatory reform in some areas, it requires regulation to address other issues. For example, one regulatory barrier to the implementation of e-government in Mexico is a lack of recognition of e-government processes. Some of the most frequently cited barriers had to do with e-signature regulations and a requirement for paper trails.

Electronic signatures

Mexico recently reformed its Commercial Code (*Código de Comercio*) to recognise digital signatures having equal juridical recognition as an autographed signature in August 2003.[3] The law recognises that digital signatures are valid for government forms and processes requiring a signature if the government organisation is able to certify a valid digital signature under the legal provisions of the law. The Commercial Code stipulates the legal requirements that need to be met in order for public (or private) organisations to become digital signature certification service providers, that is, the requirements needed to recognise digital signatures legally. The Ministry of Economy is the agency in charge of registering new digital signature service providers.

So far, the Administrative Tax System (*Sistema de Administración Tributaria* – SAT), the Social Security Institute, and the Ministry of Public Administration have been able to become certified digital signature service providers at the federal public administration level. SAT uses electronic signatures for advanced e-government services such as tax filings and declarations, the Ministry of Public Administration publishes middle and high level public servants' income and property with digital signatures through an online system called DECLARANET, and Social Security registers private sector

employees with e-signatures. However, other Mexican government organisations do not have digital signature certification. These agencies have not been able to meet the necessary requirements to the Ministry of Economy and therefore can not provide digital signatures for online services. In some cases, like in the Ministry of Social Development, ministries have the necessary technology to use digital signatures, but are not able to use e-signatures because they don't fulfil the legal requirements for them.

The main regulatory prerequisites related to the use of e-signatures are the requirements to ensure the privacy, security, and accurate identity of the users of digital signatures in order to create legal certificates for citizens. Articles 101 and 104 of the Commercial Code establish that government agencies wishing to become certification services providers with e-signatures must verify the identity of users and their links with the means of electronic

Box 3.6. **Digital signatures and citizen identity uniqueness**

Mexico has not ensured citizen identity uniqueness yet, and until it does, it will not be able to fully take advantage of its recently reformed Commercial Code, which recognises digital signatures as a legal way of signing documents and validating legal transactions. Mexico has the law and the technology to use e-signatures across government, but without assigning unique identities to all citizens, user overlap and user duplication could seriously disrupt e-government services. In the past, the Ministry of the Interior attempted to identify all citizens with a unique registration key (CURP – *Clave Única de Registro de Población*), but overlap and duplication problems arose. These shortcomings notwithstanding, some government agencies like SAT and IMSS do provide electronic signatures to their users for different applications and services. The e-signature law establishes that an agency must ensure the privacy, security, and identity uniqueness of every user in order to be able to make transactions with digital signatures. SAT and IMSS are strong and semi-autonomous deconcentrated bodies of the Mexican Public Administration with extensive records of their users because of the nature of their services (tax filing and social security, respectively) and can thus provide electronic signatures. However, the lack of a single citizen registry with identity uniqueness will continue to be a barrier for e-signatures to develop in Mexico, even if the technology is readily available. Merging IMSS and SAT's registries, as proposed by the Ministry of the Economy, is an important first step to create a comprehensive citizen registry that guarantees citizen identity uniqueness. However, given the important number of Mexican citizens who do not pay taxes or do not have social security, this step will not be enough.

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identification, prove the integrity and sufficiency of the data exchanged, verify the electronic signature, and register identification elements for all users. They also have to provide users with the technology and means to create a digital signature, inform users of the precise conditions under which their signature will be used, maintain the privacy and confidentiality of users' data, and ensure that digital signatures are not forged or modified illegally. The international dimension of electronic signatures, that is, the signing of digital signatures abroad and the recognition of foreign digital signatures, are also stipulated in the Commercial Code.

Financially independent and semi-autonomous government bodies such as SAT and IMSS, and key e-government players like the Ministry of Public Administration have been able to fulfil the requirements needed to become digital signature providers. In this sense, a robust legal framework for a secure, private, and certified digital signature is a positive development for e-government in Mexico. However, other government agencies also need to become digital signature providers, and the progress made by advanced agencies should be considered for replicating existing digital signatures across the federal government. The Ministry of Finance has proposed an initiative to create single registry for electronic signature certificates. The goal of the initiative is to have a single source and registry for electronic signatures.

Key point 3.8. E-signatures and citizen identity uniqueness registries

The efficiency of e-government in Mexico is limited by the lack of a single citizen registry with identity uniqueness. Many government organisations can not use e-signatures because they can not demonstrate unique identities. While the first step towards a single citizen registry is merging existing databases (as already proposed), in the longer-term the government will need to ensure that all citizens are covered, even those who are not in the existing databases.

Requirement for paper trails

With the increasing use of ICT by ministries and agencies in Mexico, many organisations are transferring traditional paper processes to electronic processes as part of the drive to improve efficiency. While this has been successful in many cases, in others, some government organisations are still required to keep a paper trail, and are thus not able to take full advantage of the gains that would come from moving to entirely electronic processes. For example, the Ministry of Social Development is required to keep all

documentation on purchases on paper for one year, until the Ministry is audited by the Ministry of Public Administration. Similarly, many ministries, like the Ministry of Energy, are required to keep copies of paper invoices so that they can be checked at a later date. The new electronic invoice law (*factura electrónica*) will allow to do without paper invoices, but for the time being paper invoices will need to be kept.

E-government and privacy, consumer protection and security

With the introduction of information technology into various areas of economic and social life, the importance of protection and transborder flows of personal data has raised concerns of privacy, consumer protection and security both inside government and among society. Governments around the world have been focusing on how to ensure respect of privacy and protection of personal data on line in this global network.

The difficulty of protecting privacy, providing consumer protection and ensuring security can be important barriers to e-government implementation. Coordinators and leaders of the e-government strategy consider that is crucial to find the best approach to respect and protect users while allowing the benefits of Internet involving data sharing among agencies. Government as a user of IT has a responsibility to demonstrate its interest in creating a culture of privacy and security through the development of public policy and legislation in those areas. The e-government strategy can be successful only by focusing on security in the development of information systems and networks and adopting new ways of thinking and behaving for all participants when using information systems and communicating or transacting across networks (OECD, The e-Government Imperative, 2003, and OECD, OECD Guidelines on the Protection of Privacy and Transborder Flows of Personal Data, 2002).

In Mexico, e-government consumer protection is the most advanced of the three areas mentioned above, with guidance coming from the Consumer Protection Federal law. Privacy policy is also relatively advanced, though much of the emphasis has been on the public sector and commercial transactions are not always covered. Security is perhaps the least advanced, and there is currently no government-wide policy on e-government and online security (see Box 3.7 below). The importance of these issues is likely to grow as more Mexicans gain access to the Internet and as e-government advances.

Federal law is an important source of guidance on privacy, consumer protection and security, and most ministries and organisations from the central public administration follow these guidelines and act under these provisions. However, individual organisations also decree internal rules and regulations derived from central provisions. In such a way, not all government

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Box 3.7. **Sources of central guidance on privacy, consumer protection and security in Mexico**

Privacy: The Constitution provides the legal framework for privacy in Mexico. Article 16 guarantees the inviolability of private communications and penalises criminal acts that violate privacy. In the public sector, federal law is the main source for government regulation on privacy. The recently adopted Transparency Law and the Federal Institute for Access to Information (*Instituto Federal de Acceso a la Información Pública* – IFAI) that oversees its enforcement in the public sector provide central guidance on access to information and privacy in the public sector. IFAI guarantees the effectiveness of both the right to access public information and the right to privacy and promotes transparency and public sector accountability. However, in the private sector, there is no omnibus privacy law in Mexico, although sectional legislation exists (*e.g.* the E-Commerce Act of 2001). In the public sector, citizens' privacy is partially protected by isolated privacy regulations, but not under a comprehensive and broad privacy legal framework. An example of this is the Mexico City Criminal Code (*Código Penal del Distrito Federal*), which penalises public servants' privacy breaches of personal information collected and maintained by public authorities. However, there is no federal law on privacy.

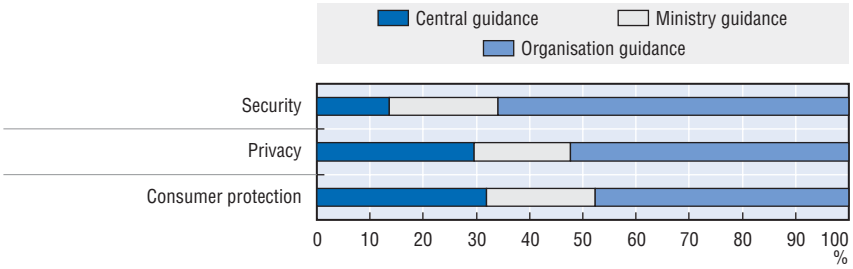
Consumer Protection: Regulatory guidance on consumer protection comes from the Consumer Protection Federal Law and from the Consumer Federal Agency (*Procuraduría Federal del Consumidor* – PROFECO). PROFECO enforces and monitors the consumer protection law and regulations, and it mediates disputes, investigates consumer complaints, orders hearings, levies fines, inspects prices, and protects consumers online. The Consumer Protection Federal Law (*Ley Federal de Protección al Consumidor*) was amended to include electronic commerce and online consumer protection in 2000. Mexico has adopted the OECD Guidelines for Protecting Consumers from Fraudulent and Deceptive Commercial Practices across Borders in its Consumer Protection Federal Law (Article 76 bis).

Security: Mexico has adopted the OECD Guidelines for the Security of Information Systems and Networks, but it has not yet finalized a national policy on information security. The National Institute for Statistics, Geography, and Informatics (INEGI) was previously in charge of information security policy, but this responsibility has recently been transferred to the Ministry of Public Administration. The recently created Cybercrime Unit (*Delitos Cibernéticos México* – DC-México) from the Ministry of Public Security is a multidisciplinary task force that prevents and combats cybercrime in Mexico. However, DC-México does not have legislative measures to preserve traffic data to support law enforcement. Finally, Mexico does not have a government wide policy on security management for its own systems and networks, but it is in the process of developing it.

Source: PROFECO; OECD *Mexico: Progress in Implementing Regulatory Reform*, 2004; OECD Survey on the Implementation of the OECD Guidelines for the Security of Information Systems and Networks: Towards a Culture of Security, 2003.

regulations on privacy, consumer protection and security are coordinated across ministries and organisations. As shown in Figure 3.5 below, most agencies surveyed by the OECD reported that they received guidance on privacy, consumer protection and security from their own organisations and not from central government.

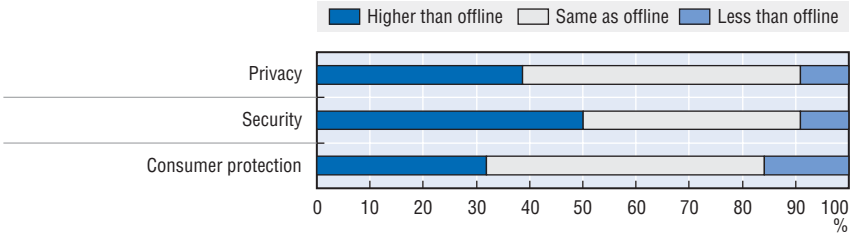
Figure 3.5. **Guidance on privacy, consumer protection and security in Mexico**



Source: OECD E-Government Survey: Mexico, question 3.4.

An important measure of progress with regard to e-government transactions is the relative protection of online compared to offline processes. Mexico does quite well according to this measure, with most organisations surveyed by the OECD reporting that their online processes have equivalent or higher levels of protection for privacy, consumer protection and security compared to the corresponding offline processes. Only a small percentage of agencies responded that the protection of online processes is less than for offline processes (see Figure 3.6 below).

Figure 3.6. **Online protection level compared to offline processes**



Source: OECD E-Government Survey: Mexico, question 3.5.

3.4. The digital divide

The term "digital divide" is frequently used to describe the gap between individuals, households, businesses and geographical areas at different socio-

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economic levels, with regard to their opportunities to access and use ICT such as computers and the Internet. This gap varies significantly between advanced and developing economies, but also across the OECD area and within OECD countries (*OECD Information Technology Outlook 2002*).

The digital divide sets the parameters for the impact of online services in Mexico. When only approximately 10% of the population has access to the Internet, the impact of the provision of services via the Internet is clearly limited.[4] The Mexican government is working to reduce the digital divide, and the e-Mexico initiative is leading this work in close collaboration with the e-government unit of the Ministry of Public Administration and the President's Office. The collaboration among various organisations to reduce the digital divide demonstrates an understanding within the Mexican Government of the dynamic relation between supply and demand: e-government can be a factor (albeit limited) in driving demand for online access, as well as benefiting from it.

This section will begin with a discussion of various measures of the digital divide (including telecommunications infrastructure and PC and Internet connections) that can be used to compare Mexico ICT access in Mexico to other OECD countries and countries in Latin America. It will then discuss the digital divide within Mexico (including differences by age, gender and business size). The section will conclude with a discussion of how the Mexican government is responding to the issue of the digital divide.

Mexico compared to other countries

By most measures of the ICT access and infrastructure, Mexico is considerably behind other OECD countries. It is more advanced with regard to Latin America, but should not be considered a "leader" even in the Latin American context. The measures discussed in this section include telecommunications infrastructure and PC and Internet connections.

Telecommunications infrastructure

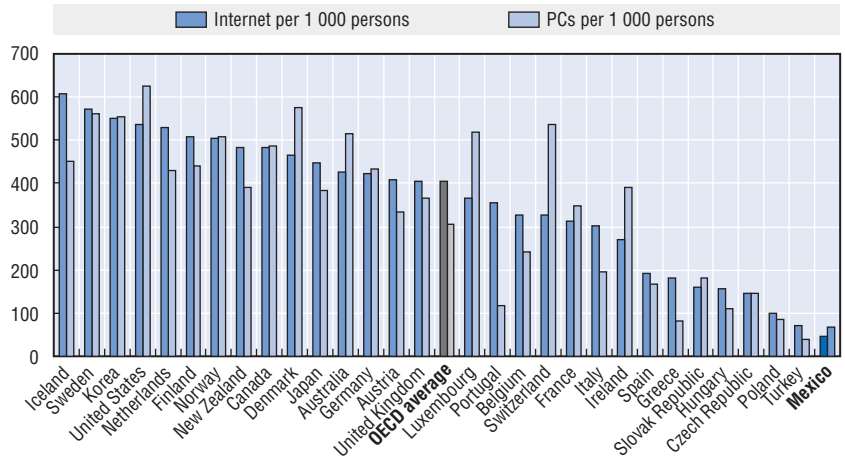
Indicators on telecommunications infrastructure provide a comparable measure of ICT development from one country to the next. These measures have the advantage of being relatively easier to measure than PCs and Internet users, and so provide more up-to-date data. Web servers are computers that host World Wide Web content (*i.e.* Web sites). The measure of Web servers per 1 000 inhabitants can be used to estimate the level of Web content development in each country. Secure servers are used to provide a secure end-to-end link for Internet transactions, and thus provide a proxy for the development of e-commerce in a country. Common uses for secure servers include encrypted credit-card transactions and restricted access to privileged information both within and between organisations.

According to both indicators, Mexico has the lowest per-capita level of telecommunications infrastructure among OECD countries, with rates similar to Turkey and Greece in Web sites (see Figure B.5 in Annex B) and Turkey and the Slovak Republic in secure servers (see Figure B.6 in Annex B). In terms of growth rates, Mexico is above the OECD average, though its growth rate is not as high as for some other countries with similarly low base levels (such as Turkey and Greece). Low levels of telecommunications infrastructure will continue to hinder e-government implementation in Mexico.

PC and Internet connections

Citizens are fundamental users of government, and one of the primary targets of e-government services. Yet ICT access levels for citizens in Mexico is still very low – many analysts speak of 10% of the population using the Internet in Mexico (though the exact numbers vary from one study to another). In terms of PCs and Internet per 1 000 population, Mexico is significantly below the OECD average. While all OECD countries are currently working to reduce the digital divide, Mexico is among the OECD countries with the most to be done in this area.

Figure 3.7. **OECD: Internet and PCs per 1 000 persons (2001)**



Source: OECD based on ITU data.

When compared to other countries in Latin America, Mexico does significantly better, though it is still significantly behind countries like Argentina, Belize, Chile and Uruguay. In 2001, Mexico was better than the Latin American average with regard to PCs per 1 000 persons, and only slightly below average with regard to Internet access. Levels of access have increased

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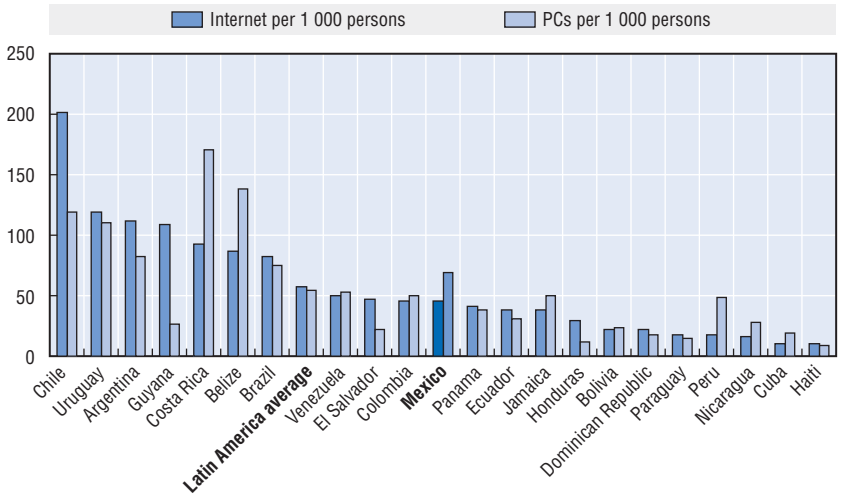
significantly since 2001, though there is not enough data available to make more recent comparisons across the region.

Figure 3.8. **Latin America: Internet and PCs per 1 000 persons (2001)**



Source: OECD based on ITU data.

The digital divide within Mexico

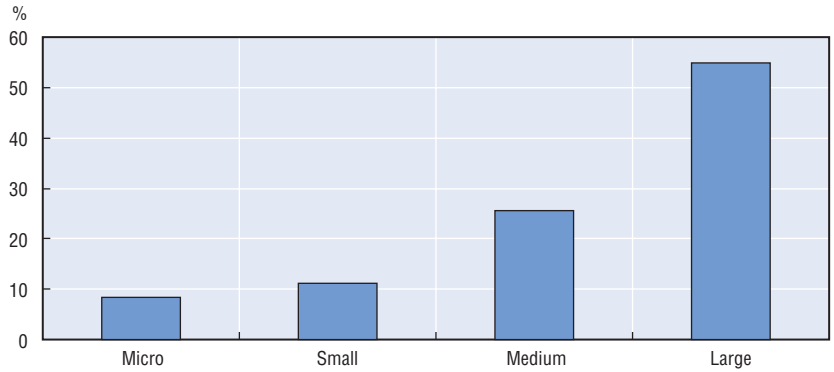
There is also a substantial digital divide within Mexico, with certain groups of people having higher rates of Internet access than others. For example, the elderly have far lower rates of access than the young, women have lower access rates than men, and small businesses are much less likely to have an Internet connection than large businesses.

Out of the total population of Internet users, only 11% are over the age of 45 (see Figure B.7 in Annex B). The largest fraction of Internet users come from the 13-24 year age group – the group that is also likely to have the least interaction with government. However, some government organisations are able to take advantage of high access rates among the young, in particular for educational services. High usage patterns among the young also suggest that the percentage of total access to the Internet could rise significantly as the population ages.

In Mexico, as in many OECD countries, women have lower rates of access to the Internet than men. However the difference in Mexico is not as significant as it is in certain other countries (*OECD IT Outlook 2002*). In Mexico, 53% of the total Internet population is made up by men, while 47% are women (see Figure B.8 in Annex B).

Many government organisations specialise in providing e-government services to businesses, which have higher rates of Internet access than do individuals. In fact, according to the OECD e-government survey, approximately the same number of government organisations target online services to businesses as to citizens. However, over half of the business population of Internet users is made up of large enterprises, which constitute a relatively small number of the total population (see Figure 3.9, below). Even small and medium sized businesses have low rates of access to the Internet, while micro enterprises have access rates that are even lower.

Figure 3.9. **Mexico: access to Internet by business size**
As a percentage of total Internet user population



Source: Select/Amipci, September 2004.

Responding to the digital divide

The Mexican government is responding to the digital divide both by working within its limitations (*e.g.* at the individual organisational level) and by pursing a policy to increase access to ICT (at the whole-of-government level).

Responses within individual organisations

Surprisingly, despite low levels of access to ICT in Mexico, ministries and agencies surveyed by the OECD did not consider the digital divide a major barrier to the implementation of e-government in Mexico (only 25% of respondents called the digital divide a "very important" barrier, compared to 32% for regulatory barriers and 45% for budgetary barriers). In addition to a lack of access, a lack of awareness of online service availability and inexperience using online services were also considered important aspects of the digital divide.

The relatively low number of ministries and agencies citing the digital divide as an important barrier may, in part, reflect a focus in Mexico on using

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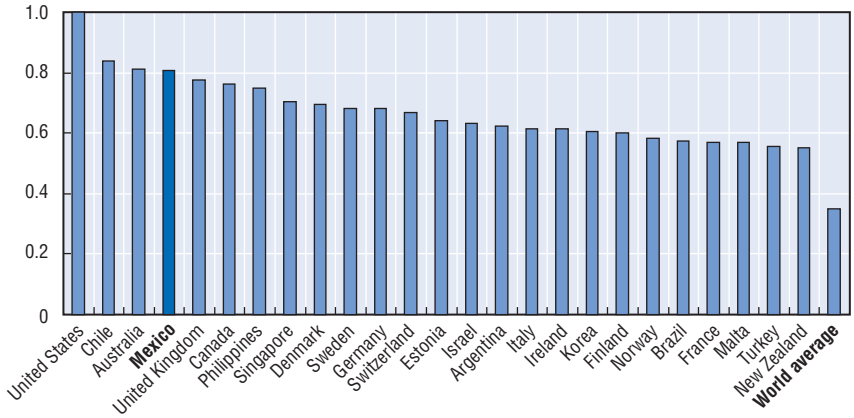
e-government to improve the back office, thus improving the quality of services to citizens through off line (as well as online) channels. For example, faster and more effective communications could reduce the frequency and number of trips that a person has to make to government offices. Similarly, through the use of intermediaries, one-stop-shops and kiosks, digitised information and services can benefit the offline as well as online public by making better, more seamless information available. A focus on improving the back-office provides a means of concentrating scarce resources on areas where they will have the most impact.

Most of the officials interviewed by the OECD seemed to accept that the digital divide was a problem, and that their job was to find ways to use e-government to improve services despite the digital divide. However, while back office reform is an essential component of e-government, it is necessary but not sufficient to maximise the benefits of ICT use. As e-government in Mexico advances, it can be expected that the digital divide will become more of a problem.

Despite the recognition of agencies and ministries of the limitations of online services and the need to find other channels for the provision of improved services, many people interviewed by the OECD feel that the Mexican E-Government initiative does not yet fully recognise the importance of using ICT to improve the back office. Indeed, many of Mexico's official e-government targets have focussed on the development of online services, and Mexico has been very successful at making government services available online. According to a recent UN study, Mexico is the fourth best provider of Web-based government services in the world (see Figure 3.10, below). While a

Figure 3.10. **UN Web measure index: Top 25 countries**

UN Score



Source: UN World Public Sector Report 2003: E-Government at the Crossroads.

focus on online services has been useful to channel efforts and provide visible achievements over the past few years, certain officials feel that it would be helpful to them if the E-Government initiative emphasised the many other benefits of ICT use (including how implementing e-government can best serve the needs of all citizens, whether or not they have access to the Internet) in complement to the provision of services online.

Key point 3.9. E-Government through traditional channels

While a focus on putting services online has been useful to channel efforts and provide visible achievements, it would be useful to ministries and agencies if the Mexican E-Government Initiative would acknowledge the importance of using ICT to improve the provision of government services through traditional, as well as online, channels. The E-Government Initiative could help agencies develop strategies and measures for multi-channel service delivery, and help them share experiences and good practice. In the longer term, the Mexican E-Government Initiative may wish to include a multi-channel service delivery strategy.

Whole-of-government approaches to reducing the digital divide

Low levels of access combined with low rates of growth suggest that, without action, the digital divide will persist in Mexico for quite some time. The Mexican government clearly recognises the importance of a policy to reduce the digital divide, and the e-Mexico initiative is helping to improve access to ICT. The government is making a considerable effort to target the digital divide by creating additional Digital Community Centres across the country, particularly in remote and rural areas. These Digital Community Centres are targeted towards people who do not have access to ICT, and they provide assisted access to the Internet as well as information on education, health, economy and government at all levels. The fact that these Community Centres are facilitated is important, as it allows people to use the Internet regardless of their education level and local language. The e-Mexico initiative provides a large number of digital community centres, and there were 3 200 such centres in 2003, 7 200 in 2004, and the government hopes to have 10 000 of them by 2006.

Among the services available at the Centres are information about governmental transactions, job vacancies and general information from federal agencies. In addition to the facilitated provision of services, one of the stated goals of these Centres is to "empower entire communities through the use of ICT". Users can also interact directly with one another, trading and

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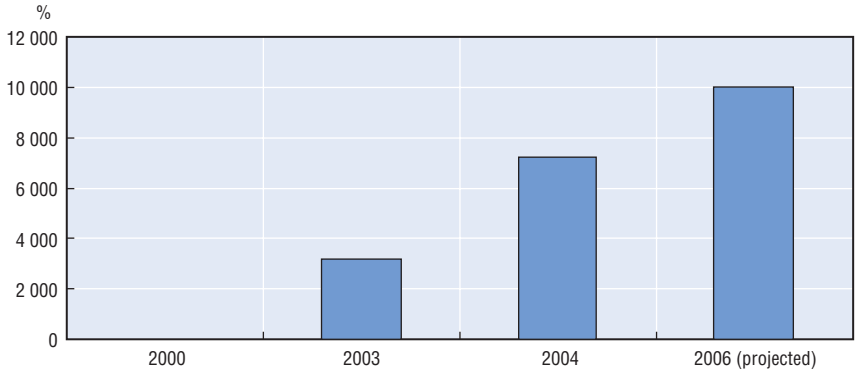
sharing experiences and solutions to problems through the formation of citizens' networks without government mediation.

Figure 3.11. **Number of digital community centres in Mexico**



Source: E-Mexico.

Key point 3.10. The digital divide

- ***Access to ICT, and, in particular, the Internet remains a major barrier to e-government in Mexico. In order to take full advantage of the benefits of ICT use, the government will need to continue to pursue strategies to reduce the digital divide. However, this is not enough. The OECD has found that those least likely to have access to electronic services may, in fact, stand to benefit the most from e-government. Reducing the digital divide is not only an information society and development concern as e-Mexico has framed the problem: bridging the digital divide is also an important consideration in an overall policy strategy for service delivery and citizen engagement.***
- ***Mexico's digital divide policy has focused on improving access and take-up of electronic services, with a strong emphasis of increasing the number of public access Internet terminals in Digital Community Centres. However, the government should also consider alternative Internet access channels: as advanced technologies become available to the public (mobile phones, SMS messages, WAP services), acceptability of these services will most likely increase, and Mexico needs to be ready for this development.***
- ***Finally, the government should reinforce not only access and take-up, but also develop IT knowledge and experience in remote Mexican regions. As ICT penetrates Mexican society, additional new opportunities will present opportunities to serve citizens and businesses through new channels.***

Notes

1. *Source:* Question 2.2.a and 3.2.b.1 of the OECD-World Bank Budget Survey.
2. Mexico, for instance, uses tax credits instead of social transfers to compensate low-income wage earners in the formal sector, implying (all else being equal) a somewhat lower level of taxes or spending than in countries where transfers are used to compensate individuals. See OECD, *OECD Economic Surveys: Mexico*, OECD, 2004, p. 57.
3. The Ministry of Economy published a decree that reformed the Commerce Code in terms of digital signatures in the Official Gazette on August 29, 2003. *Decreto por el que se reforman y adicionan diversas disposiciones del Código de Comercio en Materia de Firma Electrónica, Diario Oficial de la Federación, 29 de agosto de 2003*.
4. Many analysts speak of 10% of the population using the Internet in Mexico, though the exact numbers vary from one study to another.

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Chapter 4

Planning and Leadership

Strong e-government leadership in Mexico has been one of the key factors in the diffusion of the Mexican e-government strategy to date. High levels of political involvement have increased awareness and visibility of e-government. However, Mexico is now working to institutionalise its e-government strategy, and one of the goals of this process is to promote an awareness of e-government that extends throughout the government. Moving the e-government unit from the President's Office to the Ministry of Public Function was the first step of this process, and the forthcoming IT Governance and Regulatory Framework Strategy will further institutionalise e-government in Mexico. At the same time, it is essential that the process provides clear rules with regard to institutional accountability, and improved co-ordination should not add an additional layer to government. At the individual organisational level, e-government planning is an important leadership responsibility, though it is not considered one of the major challenges to the implementation of e-government.

4.1. Introduction

This chapter examines the components of Mexico's political e-government leadership, the challenges, and the drive for greater institutionalisation. It also examines the role of leaders at the organisational level and the e-government planning process.

4.2. Political leadership

Much e-government leadership in Mexico has come from the top – from the Presidential Good Government Agenda to the negotiation of targets with the highest officials in the President's office. This approach has been successful in raising the visibility of the e-government strategy in Mexico, and helping initiate change.

As discussed in Chapter 2, strong leadership from the highest levels of government has been one of the primary drivers for e-government in Mexico. Involvement from the President's Office (and the President himself) has been helpful for organisational leaders implementing their e-government strategies. For example, the President's presence in e-government target negotiations contributes to ensuring that Ministers deliver negotiated targets. In fact, many people cited the personal involvement of the President as a key factor helping them implement difficult changes.

Another key lever that the President's Office uses to stress the importance of e-government within organisations is the negotiation of e-government targets directly with the highest levels of the President's Office. Each year, the President negotiates specific performance targets with the head of every ministry and agency. These specific targets include e-government objectives, as well as the effect of e-government on savings, quality, innovation and transparency (see box 4.1, below), and ministries and agencies negotiate each on a case-by-case basis. High-level political involvement has led to the ability for ministries and agencies to mobilise greater resources for high-priority projects. For example, the Ministry of Tourism told the OECD that having the President himself sign off on objectives ensures that they are given greater priority and more resources are mobilised.

Another political push for e-government comes from the annual National Week for Innovation and Quality (*Semana Nacional de Innovación y Calidad*). The President's Office for Government Innovation organises this event to

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Box 4.1. **Negotiation of targets with the President's Office**

The President's Office negotiates individual performance targets with all ministries and agencies in the central public administration and reviews performance against these targets once a year. There are 3 categories of goals:

- **Operational goals** (*Metas de Operación*): Goals related to the organisation's core work.
- **Customer evaluation** (*Evaluación del Cliente*): Goals related to the survey of external and internal clients. External clients include business, organisations, and citizens, and internal clients are civil servants.
- **Good Government** (*Buen Gobierno*): In this category, goals are related to the 6 strategies of the Good Government Agenda, including e-government.

In the last target negotiation exercise, the President's Office focused mostly on efficiency and better regulation and only required 2 to 3 good government goals for each of the 6 strategies (including e-government). The President's Office also sets horizontal e-government goals for all ministries and agencies. In 2004 the horizontal e-government goal was transparency and the fight against corruption.

While prior to 2004 goals and targets were negotiated directly between the Ministry of Agency Head and the President, they are now negotiated at two levels:

- At the first level, goals are negotiated directly between the Minister or Head of Agency and the President.
- At the second level, goals are negotiated between the sub-Minister or General Administrator (*Oficiales Mayores*) with the President's Office for Innovation.

Source: E-Government and IT Policy Unit, Ministry of Public Administration, Mexico.

demonstrate its commitment to innovation, and each year the opening remarks are given by the President himself. As part of innovation week, "Innova" awards are distributed to recognise innovation in government, and include e-government initiatives (see Box 4.2).

Additionally, the government organises several national and international events for the dissemination of e-government. In November 2003, Mexico hosted the 5th Global Forum on Reinventing E-Government during the national innovation week, raising the national and international visibility of the country's e-government initiatives. Similarly, the government holds a national E-Government Forum (*Foro de Gobierno Digital*) every year. Mexico has also organised other international e-government events partnering with different international organisations: APEC, OECD, GOL, and ICA (2006). These public

events have helped spread the message of e-government not only to Ministers, agency heads and e-government leaders, but also to the civil servants across the Mexican government and the broader public that attends the events.

Box 4.2. **The Innova Awards**

The distribution of the "Innova Awards" each year provides a public opportunity for the President's Office to demonstrate the political importance of government innovation. The highly publicised event brings together civil servants from across all of government. As part of the drive to demonstrate political commitment for innovation, the awards are distributed by both the President and the Head of the President's Office for Government Innovation.

The Innova Awards reward institutions that develop innovative services that benefit society. The awards are intended to encourage better performance for all institutions and are given by the Office for National Awards (*Oficina de Premios Nacionales)*, which also organizes quality, science and technology, and exports awards.

Source: Presidential Office for Government Innovation.

Box 4.3. **The 5th Global Forum on Reinventing Government**

The hosting of the 5th Global Forum on Reinventing Government by the Mexican government demonstrated a strong political will in Mexico to participate in the global debate and diffuse the 6 strategies of the Good Government Agenda, both nationally and internationally. The opening remarks, given by the President of Mexico, helped build support among stakeholders at all levels for the changes currently underway.

The Forum was held on 3-7 November 2003 in Mexico City with the main theme of "Innovation and Quality in the Government of the 21st Century" – a theme that reinforced the 6 strategies of the Good Government Agenda. The meeting brought together over 8 500 civil servants, researchers and private sector representatives from around the world, and approximately half of the participants were Mexican.

The Fifth Global Forum included seven parallel capacity development workshops: Public Sector Capacity for Good Government; Innovations and Quality in Government; Access to Services for Poverty Reduction; Decentralization and Local Governance; Accountability and Transparency of Government; Fiscal Transparency; and E-Government. The session on e-government discussed a policy framework for e-government including: the

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Box 4.3. **The 5th Global Forum on Reinventing Government** *(cont.)*

creation of new policies and legislation and the inclusion of more actors; organisational arrangements and national and local e-government readiness; e-government and service delivery and access; the role of e-government in enhancing participatory democracy ; e-administration and back office components including transitioning to electronic delivery of services and quantifying cost effectiveness of electronic service delivery; e-learning to build talent and improve performance; good practices and lessons learned.

The Final Declaration of the Forum looks to innovation, accountability, government partnerships with civil society and business, and the rapidly evolving tool of e-government to contend with twenty-first century challenges. The Declaration preamble recognizes globalization as a dominant force of the new century, and states that "improved governance and public administration are necessary preconditions for sustainable development". Also stressed in the Declaration are the importance of decentralizing all aspects of governance, fiscal transparency and sound fiscal management and anti-corruption measures. The declaration also states that the discussion benefited from the input of the Mexican Presidential Good Government Agenda.

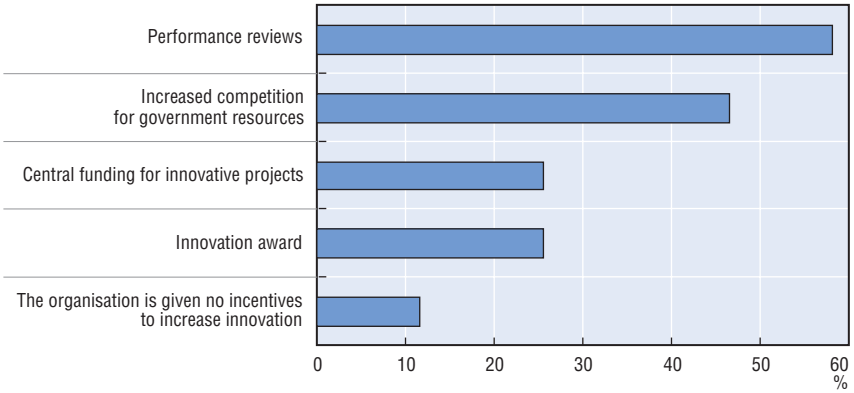
The hosting of the 5th Global Forum publicly demonstrated the political will of the current administration to improve government, and helped raise the visibility of e-government among the Mexican civil service and public at large.

Source: The 5th Global Forum Final Declaration, UNPAN.

The provision of incentives can act as a means of ensuring buy-in to a top-down vision. The President's Office provides some incentives for the implementation of e-government, including the aforementioned performance reviews and Innova awards (see Figure 4.1). However, financial incentives are considerably less common (see also Chapter 3) and more than one fourth of respondents to the OECD survey stated that their organisation is given no incentives to increase innovation. Even when they do exist, incentives have done little to encourage broader goals such as organisational change, collaboration and customer focus (see Chapters 5, 6 and 7).

Figure 4.1. **Incentives for innovation in the Mexican Government**

Percentage of government agencies using the following incentives for innovation:



Source: OECD E-Government Survey: Mexico, question 5.5.

Key point 4.1. Leadership and incentives

The involvement of high-level leadership in e-government has helped push the implementation of e-government, however there is a need for more incentives to encourage agencies to work together on shared initiatives.

4.3. Institutional leadership

While political leadership has helped diffuse the e-government agenda and push for new initiatives, long-term change requires institutional leadership to accompany the political vision. Mexico's leaders recognise this need, and the e-government strategy is currently undergoing a process of institutionalisation to ensure that the strategy coming from the top is understood, accepted and shared by all.

Despite the number of institutional actors involved in e-government in Mexico (see Chapter 1), most organisations in Mexico considered that institutional responsibilities on e-government are relatively clear and there is little duplication. Only slightly over a quarter of them considering unclear definition of institutional responsibilities to be a very important or important challenge, and even fewer though duplication of actors of actors was a problem (see Figure 4.2). When confusion existed, it was frequently over the relative responsibilities of the E-Government Unit and e-Mexico. However, this confusion stemmed more from a lack of understanding of the relative responsibilities of the two actors than from an actual duplication of

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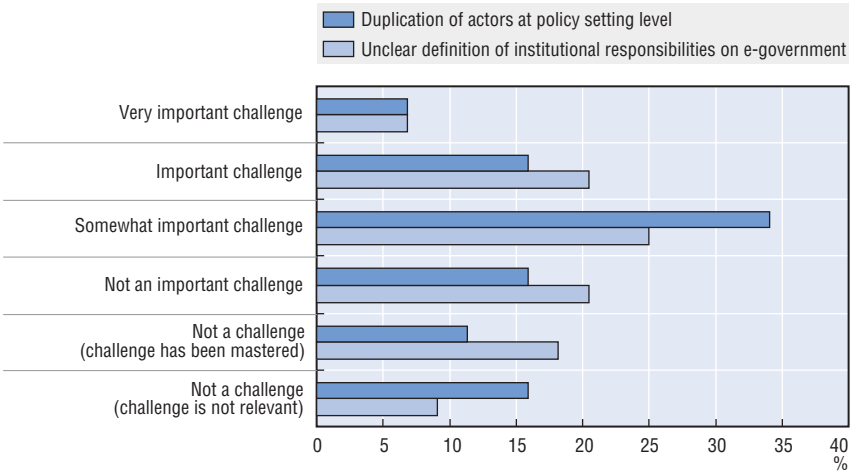
Figure 4.2. **Unclear definition of institutional responsibilities on e-government and duplication of actors at e-government policy-setting level**



Source: OECD E-Government Survey: Mexico, question 1.5.

responsibilities. Furthermore, it had very little impact on the implementation of e-government in the organisations that cited the confusion.

As a first step towards the institutionalisation of e-government in Mexico, the e-government portfolio was transferred from the President's Office to the newly created Ministry of Public Administration in early 2003. The Ministry of Public Administration is currently in the process of approving an IT Governance and Regulatory Framework Strategy for the Federal Public Administration that will formalise existing e-government bodies and create additional committees (see Box 4.4, below).

Key point 4.2. Relationship between E-Government Unit and e-Mexico

While there is little actual duplication between the E-Government Unit and e-Mexico, the relationship between the two is not always clear and more could be done to help clarify the different roles. Nevertheless, a lack of clarity (when it exists) has had little impact on the effective implementation of e-government at the organisational level.

Box 4.4. **Governance and Regulatory Framework Strategy for the Federal Public Administration**

To identify a good IT and e-government governance structure for Mexico, the Ministry of Public Administration and INFOTEC analysed the e-government structure of Canada, United States, France, UK, Portugal, Singapore, Chile, Colombia and Brazil. The main conclusion of the study was that the best governance structure for Mexico would include five main bodies:

1. **Strategic Council:** Constituted by all Ministers from the Federal Government. The ICT Coordinator General for the Federal Government would be the Executive Secretary of this Council.
2. **ICT Co-ordinator General for the Federal Government:** The E-Government and IT Policy Unit at the Ministry of Public Administration already plays this role and under this scheme it would continue to do so. The ICT Co-ordinator General will also have the role of chairing both the Strategic Council and the Executive Council so as to ensure smooth communications between the two groups.
3. **Executive Council:** Constituted by ICT and e-government officials in government agencies. The ICT Coordinator General for the Federal Government would be responsible for this council.
4. **Consultation Group:** Constituted by representatives of different social sectors, like businesses, universities, and citizens. The Consultation Group will report directly to the Executive Council.
5. **Specialised Technical Committees on specific issues from the government's ICT agenda:** Constituted by ICT and e-government officials in government agencies and experts on the subject. The Specialised Technical Committees will report directly to the Executive Council.

If approved by the Ministry of Public Administration, the framework will be agreed by law and become effective after official publication.

Source: Ministry of Public Administration and INFOTEC.

The new IT Governance and Regulatory Framework Strategy will help institutionalise e-government in part by formalising existing structures. For example, the head of the E-Government and IT Policy Unit will become the more formal ICT Co-ordinator General for the Federal Government, the E-Government Network will become the Executive Council, and informal groups of people interested in specific themes on e-government will be formalised as Specialised Technical Committees.

Additionally, the IT Governance and Regulatory Framework Strategy will create new structures that will help broaden responsibility and ownership of

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e-government. For example, the Strategic Council will bring all Ministers from the Federal Government into the e-government decision-making process and help ensure ownership of e-government initiatives at the top of organisations. The consultation groups will help ensure that top-down leadership is met by a bottom-up understanding of the demands of citizens and businesses.

While the IT Governance and Regulatory Framework Strategy will contribute to the institutionalisation of e-government, there are nevertheless a number of elements that have not yet been fully resolved. One of the most important ones is the lack of incentives for ministries and agencies to develop shared projects under this new framework (see Chapter 6 for more on collaboration). Another question yet to be resolved is the constitution of the Executive Council. Under the new IT Governance and Regulatory Framework Strategy, Ministers will be directly involved in e-government through the Strategic Council, and ICT and e-government officials will be involved through the Executive Council (see Box 4.4 above). A discussion is now underway as to whether the new IT Executive Council will be made up of heads of IT Units, Head Administrators from Ministries and agencies (*Oficiales Mayores*), or a newly created position of Chief Information Officer at the agency level (see next section). In order to ensure the quality and efficiency of communications, whoever participates in the Executive Council should have a close and direct relationship with the head of their organisation represented in the Strategic Council.

Key point 4.3. Participation in the IT Executive Council

- ***Whichever strategy the Mexican Government decides to pursue regarding participation in the Executive Council, it might be useful to put a communications strategy in place to ensure that all key stakeholders have the same understanding of e-government.***
- ***Additionally, in order to simplify the communications strategy and improve efficiency, the Mexican Government should take steps to minimise layers of e-government decision making. For this reason, whoever sits on the Executive Council should have direct access to the head of their organisation head represented in the Strategic Council.***

The role of CIOs in Mexico

The Mexican Government does not have the position of national or agency level Chief Information Officer (CIOs), although different officials currently assume aspects of this role. There is an ongoing debate on how this situation should be solved, who should become the national CIO, whether an

existing post should assume the role of an agency level CIO or if a new post should be created, and what responsibilities the national and agency level CIO should hold. The government will be taking decisions shortly on whether or not to create the CIO positions at the national and agency levels. The issues are as follows.

National level CIO

In practice, the Director of the E-Government and IT Policy Unit at the Ministry of Public Administration holds the equivalent post of a national CIO that co-ordinates e-government policy at the federal level. If the IT Governance and Regulatory Framework Strategy is approved by the Ministry of Public Administration and published as law or presidential decree, the head of the E-Government Unit will officially become the ICT Co-ordinator General for the Federal Government and have a clear legal mandate to co-ordinate e-government between different Ministries and agencies at the federal level. The goal behind the creation of a national CIO figure is to provide the central co-ordination of e-government policy with agents of innovation and change at the agency level. Although most organisations already recognise the mandate of the E-Government and IT Policy Unit at the Ministry of Public Administration to co-ordinate the government's use of ICTs under the current administration, Mexico's e-government strategy has identified the need to institutionalise this leadership role in order to push for change in the years to come.

A number of OECD countries have national level CIOs or Co-ordinators General occupying a high level post in the central government. For example, in North America, both Canada (within the Treasury Board Secretariat) and the United States (within the Office of Management and Budget) have national CIO positions. The Mexican Government has considered the creation of a national level CIO since at least mid-2004, and it has compared and contrasted the advantages of this arrangement to its own policy-making context. The current administration has shown a clear preference for a top-down approach of e-government co-ordination, and it is highly likely that if the position is created, the National level CIO will have a close relationship with Ministers and heads of federal agencies and provide advice on e-government solutions horizontally across different organisations. Should the Mexican Government create a national CIO position, the new CIO should have a clear authority and the necessary resources to develop whole-of-government solutions wherever there is an agreed-upon need. The National level CIO should be able to translate high-level political consensuses into ICT and e-government policy at the federal level and at the same time, hold a position with the administrative and operational capacity to implement these policies. Additionally, while the National level CIO could co-ordinate and execute broad e-government

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programmes, it should not diminish the participation of individual agencies' initiatives for federal-level solutions.

Agency level CIOs

At the agency level, *Oficiales Mayores* (head administrators of a ministry or agency) and heads of IT units (generally under the authority of *Oficiales Mayores*) have taken up the responsibilities of a CIO depending on the role of their individual unit in promoting e-government inside a Ministry or a government agency. This has led to a situation where *ad hoc* agency level CIOs across the government hold different posts with different responsibilities, reach, influence and political leverage. For example, on the one hand, an *Oficial Mayor* CIO taking the lead on e-government also has many other responsibilities besides e-government, but he also has strong political leverage to implement changes and innovative solutions. A head of IT unit CIO, on the other hand, is generally more technology-savvy and more aware of the practical side of providing solutions, but his decisions do not have much reach beyond his unit, and most of the time he has little influence over the major actors inside an organisation.

The Mexican Government reported to the OECD that the legal and organisational arrangements to establish the figure of the agency level CIO were underway in mid-2004. These arrangements seek to make heads of IT units in agencies report directly to minister-level leaders and to get them involved in the strategic agenda of the agency. The government has provided government-wide training projects for agency level CIOs intended to create a base of knowledge and support for the e-government strategy. Additionally, the new laws and programmes for the establishment of a professional civil service are developing specific career tracks for agency level CIOs and technical specialists.

Mexico is developing an e-government and IT regulatory framework to create one national and several agency level CIOs, but it is not yet clear which agents will take the role of agency level CIO and what impact this decision will have on e-government leadership and organisational change. Whether *Oficiales Mayores* or heads of IT units take the role, CIOs will need to have clear responsibilities on e-government. A minimum level of IT and management skills will be important, but CIOs will also need to have a clear understanding of the horizontal nature of e-government and of how e-government can help improve government as a whole. CIOs should have a strong understanding of an organisation's needs, goals, programme rules, and culture, and an ability to think "outside the box" in terms of how services could be delivered in more efficient and collaborative ways, enabled by ICT, and good relations with programme offices and with other agencies in order to push changes through. Additionally, CIOs will need an understanding of the political system and

control of leverage points to make things work, but this control can sometimes lead to bottlenecks or the politicisation of e-government challenges and objectives. Finally, CIOs in Mexico will face the challenge of delivering politically negotiated e-government goals with the President's Office and dealing with frequent monitoring and evaluation exercises without financial incentives to collaborate with other agencies.

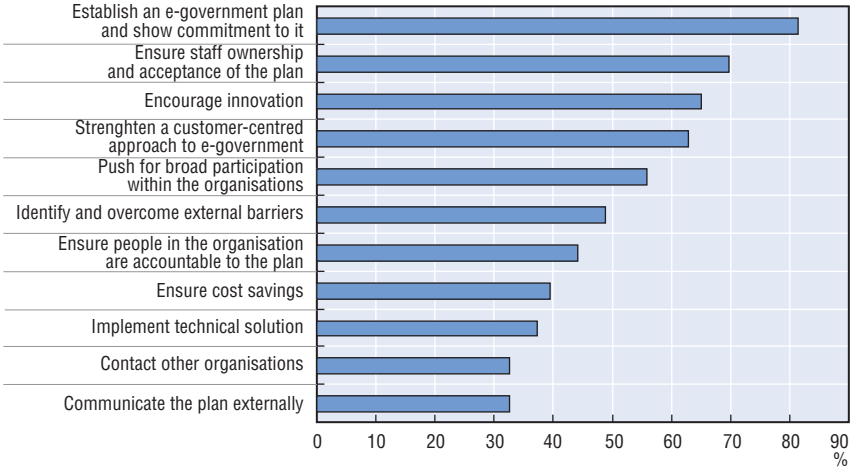
Key point 4.4. CIOs and the institutionalisation of e-government leadership

A major challenge for the institutionalisation of e-government leadership in Mexico will be the role of CIOs in government, and it is not yet clear which agents will take this role and what impact this decision will have on e-government leadership and organisational change. CIOs will need to have clear responsibilities and a clear understanding of the horizontal nature of e-government, as well as an understanding of the political system and a strong understanding of the organisation's needs, goals, and culture.

4.4. E-government planning

In terms of leading the organisational implementation of e-government, survey respondents stated that the most important roles of the e-government leader had to do with planning. Leaders have the role of both establishing the e-government plan and helping ensure ownership of it (see Figure 4.3).

Figure 4.3. **The main role of the e-government leader within an organisation**



Source: OECD E-Government Survey: Mexico, question 4.5.

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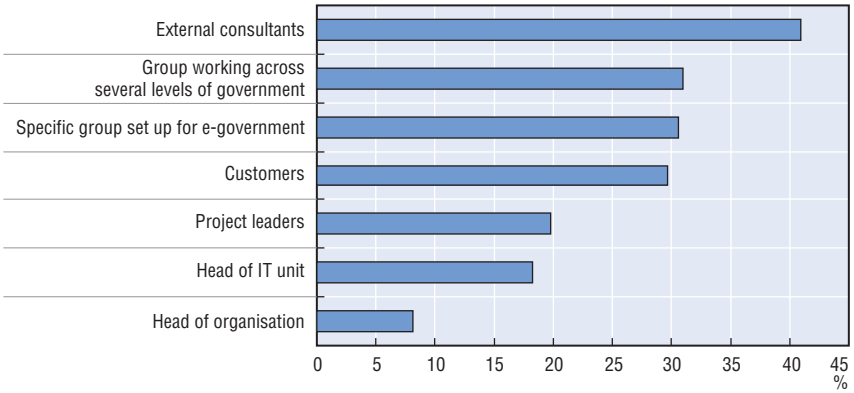
Until 2003, ICT planning was co-ordinated by the Institute for Statistics, Geography, and Informatics (*Instituto Nacional de Estadística, Geografía, e Informática* – INEGI), which used a common model and IT system. However, as of 2004 there is no centralised planning exercise, and planning for e-government is done independently by the organisations involved. However ICT planning is one of the ten main topics laid out within a more general regulatory framework on planning, and nearly two thirds of organisations responding to the OECD survey believed that e-government planning is not a significant challenge (see Figure B.9 in Annex B).

While planning for e-government was not considered one of the most important challenges in Mexico, it is given high priority, and takes place at many levels. Planning commonly involves not only the head of the organisation and the IT unit head, but also external consultants, specific groups working on e-government both horizontally and vertically and even customers. For example, it is external consultants who are most commonly involved in the design of e-government plans, along with groups working across several layers of government, specific groups set up for e-government and even customers (see Figure 4.4).

Figure 4.4. **Who designs e-government plans in Mexican organisations?**

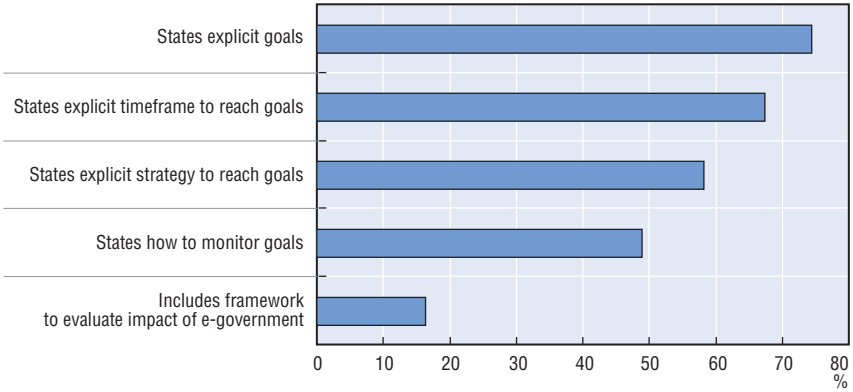


Source: OECD E-Government Survey: Mexico, question 4.3.

Most organisations surveyed by the OECD have an e-government plan that states explicit goals along with a timeframe of when to reach goals. Most organisations also state an explicit strategy of how to reach goals. However, less than half of the organisations surveyed have e-government plans that state how to monitor the accomplishment of goals, and only one out of six includes a framework to evaluate the impact of e-government (see Figure 4.5). Additionally, the majority of organisations have strategies to communication

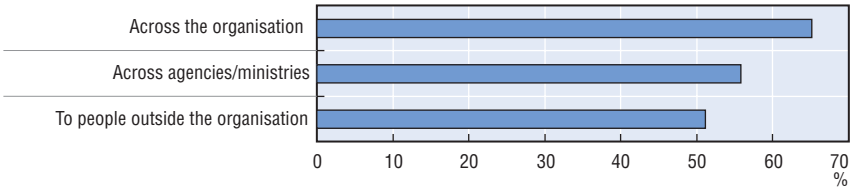
the organisational e-government plan across their organisation, across agencies and ministries, and to people outside the organisation (see Figure 4.6).

Figure 4.5. **Percentage of organisations whose e-government plan**



Source: OECD E-Government Survey: Mexico, question 4.1.

Figure 4.6. **Percentage of organisations communicating their e-government strategies**



Source: OECD E-Government Survey: Mexico, question 4.4.

Key point 4.5. E-Government planning

E-Government planning is conducted with considerable independence from one organisation to the next. Nevertheless, it is not considered one of the more important leadership challenges in Mexico, and could be considered one of the success factors for e-government in Mexico.

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Chapter 5

Organisational Change

While the current strategy has helped spread the message as to the importance of e-government for reform, the message has not yet spread fully to individual civil servants and the unions that represent them. Ministries have found that explaining the benefits of e-government to staff can assist the change process, in particular when there are training programmes to accompany organisational changes. However there has been much resistance to change in the Mexican government and it can be difficult to move quickly. Bringing in talent from the private sector, outsourcing and providing training for in-house staff has helped change the government culture, yet many organisations in Mexico feel that there is also a need to update management skills. The levers needed to institute change (including budget, human resources and IT) were given to the position of "Oficiales Mayores", however e-government requires moving beyond the good management of current operations to reengineering existing processes. Finally, the link between e-government and the development of a more professional civil service could be more developed.

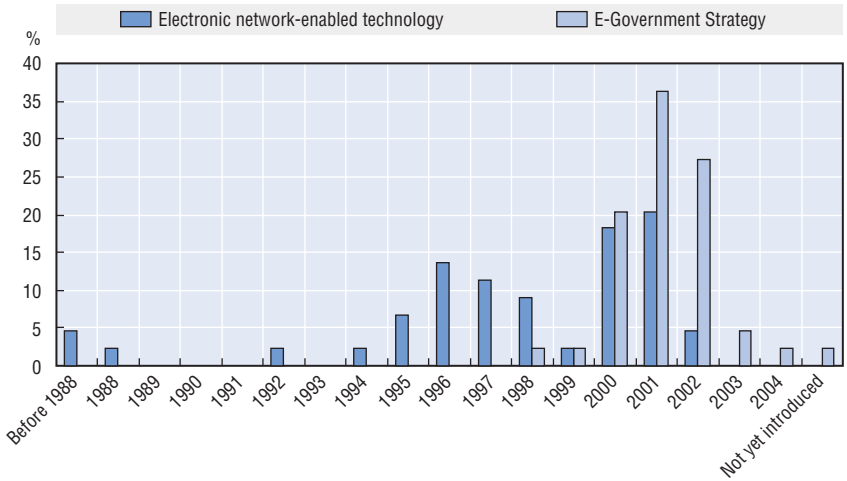
5.1. Introduction

E-government both necessitates and facilitates organisational change. This chapter examines the timeframe for the introduction of e-government in Mexican government organisations, and then analyses the impact of e-government on structures, processes and employees. It also analyses strategies for implementing organisational change in Mexico.

5.2. The development of e-government in Mexican government organisations

The use of ICT in government is a recent development in Mexico. Only 9% of responding government organisations used electronic network-enabled technology (*e.g.* email, intranet, Internet, etc.) prior to 1994, 45% introduced it between 1994 and 1999, and another 43% introduced it between 2000 and 2003. However, the introduction of ICT does not necessarily coincide with the introduction of an explicit strategy for ICT use in government, as an e-government strategy tends to lag several years behind. Only 5% of government organisations had an explicit e-government strategy prior to

Figure 5.1. **Year of introduction of electronic network-enabled technology in Mexican organisations**



Source: OECD E-Government Survey: Mexico, question 1.2.

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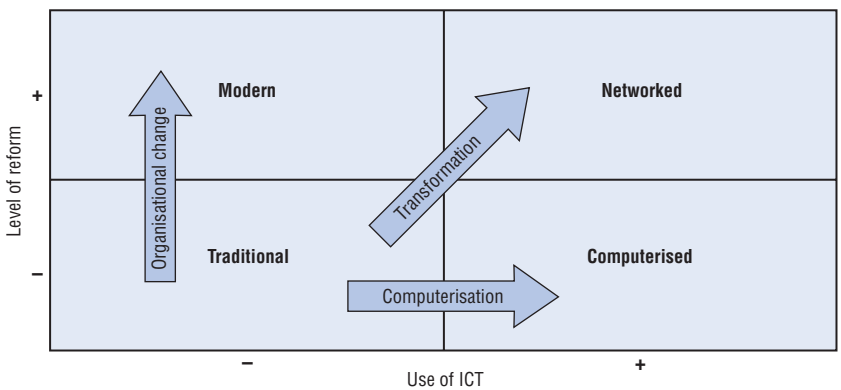
2000, with 94% introducing an explicit strategy between 2000 and 2004. OECD interviews suggested that many government officials were not easily convinced regarding the benefits of e-government, and so widespread adoption of e-government took some time.

Because ICT and e-government are relatively recent developments in Mexico, many e-government initiatives have focussed on the provision of information online. More advanced initiatives provide opportunities for interaction and transaction, and there are even a few projects that lean towards transformation at the organisational level (see case studies on SAT and IMSS, Annex A). Nevertheless, in certain cases transformation is being hindered by different understandings of the goal of e-government: improvement of current operations through computerisation as opposed to transformation of structures and processes (see Figure 5.2).

Figure 5.2. **E-government and computerisation, organisational change, and transformation**



Through participation in the E-Government Network, e-government leaders share the broader vision of e-government as a tool for reform, organisational change and transformation. However, some of the e-government leaders who have not participated in the Network (such as certain Ministers, heads of organisations and officiales mayors) have a different understanding of e-government and see it as concerning the computerisation of existing processes. Computerising existing processes however, does not automatically lead to greater efficiency, transparency and improves service quality. Rather, changes to organisational structures and processes are required in order to take full advantage of e-government potential. It can be hoped that the new IT Governance and Regulatory Framework Strategy will improve communication and help develop a shared understanding of e-government among the stakeholders involved (see Chapter 4).

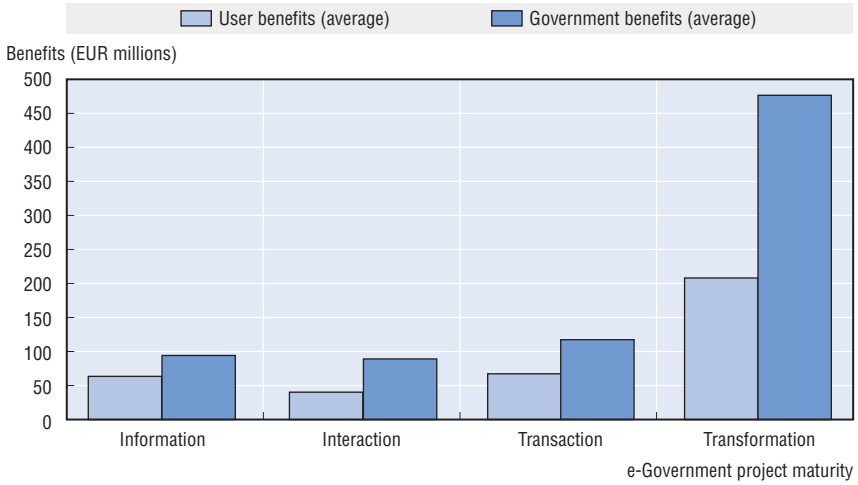
Box 5.1. **Organisational change in the Ministry of Energy**

The Ministry of Energy is another organisation that is combining ICT use and reform. The Ministry told the OECD that it prefers global solutions, which may require more organisational change, but also lead to greater benefits. The ministry has seen good results due to process reengineering – for example, the hiring of new personnel traditionally took a long time and went through many processes, but process reengineering has reduced time and made the hiring process much more efficient. The Ministry of Energy believes that Government Resource Planning is a better solution than, for example, creating a new but isolated payroll system.

Source: Ministry of Energy.

The mix of understandings regarding e-government in Mexico has also hindered communication regarding the benefits of transformational projects. Where available, data on the relative benefits of the four stages of e-government demonstrates that average benefits are greater for transformational projects than for information, interaction and transaction (see Figure 5.3). While a few transformational projects exist within individual organisations, little has been done to implement transformational initiatives that span the whole of government.

Figure 5.3. **The distribution of benefits for users and government for e-government projects at different levels of sophistication**



Source: E-Government for Better Government (OECD, 2005).

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Key point 5.1. The introduction of e-government

The use of ICT will not automatically improve transparency, increase efficiency or enhance the quality of government services in Mexico. It is only when ICT use is combined with organisational change that transformation can be achieved, which leads to the greatest benefits for both government and users.

Box 5.2. **Technical challenges to e-government implementation**

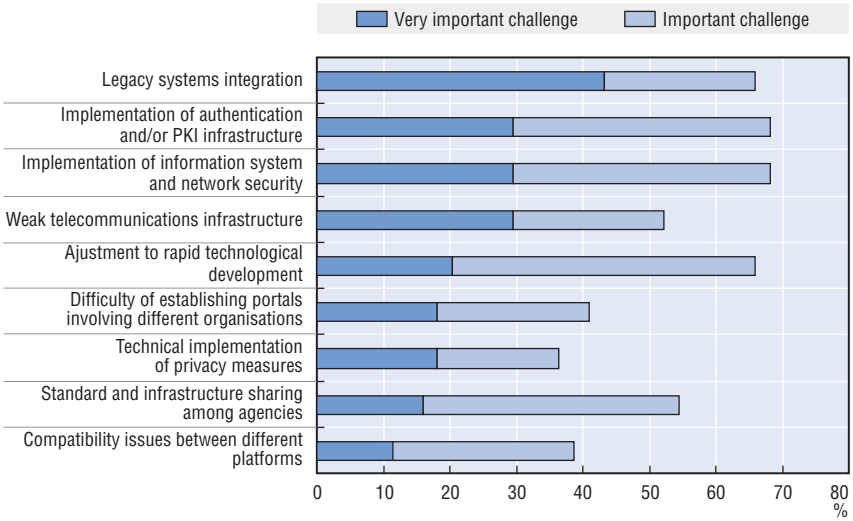
Most government organisations in Mexico are finding solutions to technical challenges on their own, and do not consider technical challenges to be one of the biggest difficulties to the implementation of e-government. In fact, in certain cases the recent introduction of ICT in Mexican government organisations has actually been beneficial to e-government implementation, as there may be fewer legacy systems to overcome. For example, the Social Security Institute has benefited from examining e-government systems in the most advanced health organisations in the world, and has been able to replicate these systems, even though it has had to face considerable legacy problems.

Nevertheless, difficulties remain and include legacy system integration (considered the biggest technological barrier), implement authentication and/or public key infrastructure (PKI), implement information security and network security, strengthen telecommunication infrastructure, and respond to rapid technological developments (see figure 5.4, below). One fourth of survey respondents told the OECD that one challenge that has already been mastered is that of telecommunications infrastructure. This demonstrates that the initial push for e-government infrastructure development has been successful in many ministries and agencies, though others are still challenged by this technological barrier.

5.3. Impact of e-government on organisational structures and processes

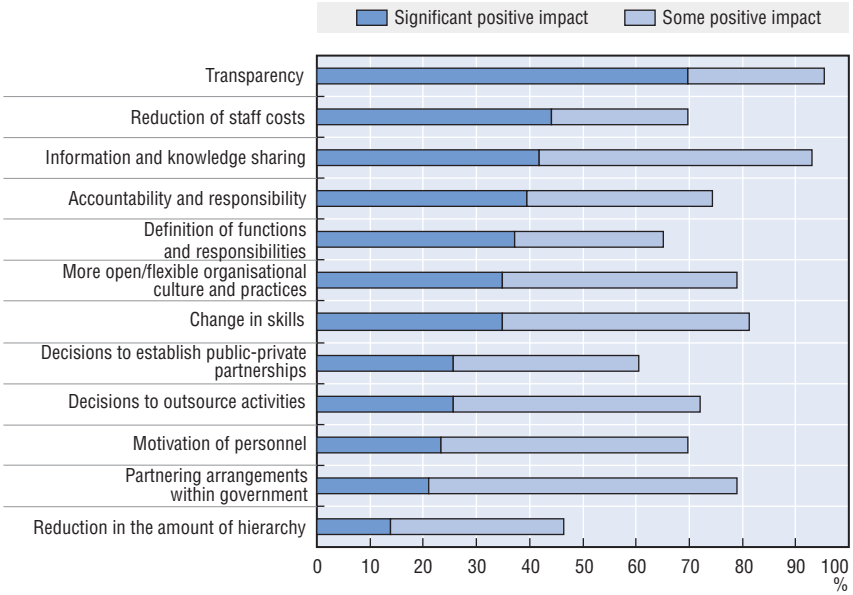
The application of ICT to existing structures and processes may create some savings, but it does not reflect the full potential of e-government to transform and improve government. As we have seen, it is only a combination of ICT use and reform that maximises the benefits of e-government. ICT both highlights the need for organisational change and assists with it. Most

Figure 5.4. **Technological barriers to the implementation of e-government in Mexico**



Source: OECD E-Government Survey: Mexico, question 8.1.

Figure 5.5. **Positive impact of e-government on organisational structures**



Source: OECD E-Government Survey: Mexico, question 5.1.

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organisations surveyed by the OECD noted a positive impact of e-government on organisational structures, though there was also some negative impact.

Ministries and agencies surveyed by the OECD considered that e-government has a particularly positive impact on transparency, and it also has a positive impact on information and knowledge sharing, skills, partnering arrangements within government, open and flexible organisational culture and practices and accountability and responsibility. Some respondents reported that e-government also had some negative impact on organisations, in particular regarding the motivation of personnel.

E-government improves transparency

Ninety five per cent of agencies surveyed by the OECD reported that e-government had a positive impact on transparency, and this finding was confirmed through interviews with government officials. The Foreign Commerce Bank (*Banco Mexicano del Comercio Exterior* – BANCOMEXT), for example, is developing an enterprise resource planning (ERP) system to reduce corruption in procurement. The National Council for Arts and Culture (*Consejo Nacional para la Cultura y las Artes* – CONACULTA) reported that e-government had a vital impact on transparency in the organisation: high surveillance costs within the agency had been slashed by e-government providing transparent information about the council's activities, projects, management, and finances to all levels of the organisation. Another clear example of the benefits of e-government across the federal government is the online publication of employee salaries from all ministries and agencies.

Nevertheless, more important examples of the impact of transparency in organisational change in Mexico are government procurement systems and information request systems (see Chapter 2 for Compranet and IMSS' transparency and procurement systems). The Federal Institute for Access to Public Information (*Instituto Federal de Acceso a la Información Pública* – IFAI) was created to process citizens' information requests to public information. To fulfil this goal in an efficient and cost-effective manner, IFAI and the Ministry of Public Administration developed SISI, an electronic system that manages citizens' information request processes. This online system processes citizens' information demands on a wide array of public information: from ministers' mobile phone expenditures and public purchases to budget accountings and organisations' investments. When SISI receives a request, the system chooses the most adequate agency and government official to provide the information requested, if it is a viable request.[1] Once the agency and the official are noticed of the information request, they are legally bound to reply to that request through the SISI system within a period of ten days if the information is public and twenty days if the information is not. SISI has proved to be a useful tool: in 2003, there were on average 43 000 information

requests, and in 2004, there were 850 requests on average per week. IFAI also handles information requests via telephone and post, but 93% of requests have been made through SISI.

Finally, other regulatory tools and procedures have also implemented strategic use of ICT and e-government solutions for transparency and predictability. Implementation and regulation procedures, including forward planning of regulatory actions, involves submissions to the Federal Regulatory Improvement Commission (*Comisión Federal de Mejora Regulatoria* – COFEMER) from the main regulatory agencies which are made online and posted on Web sites for public comments for a period of thirty days. Other regulatory procedures such as communication, compliance and enforcement of regulations are also available online, with most draft proposals' full texts and Regulatory Impact Assessments (RIAs) available on COFEMER's Web site (*www.cofemermir.org*). Additionally, the publication of legal information and the transparency of government procedures is done through government Web sites such as TRAMITANET and NORMATECA.

E-government reduces staff costs

As part of the drive for efficiency, many government organisations are finding that e-government can reduce staff costs. Nearly half of the organisations surveyed by the OECD thought that e-government had a significant impact on the reduction of staff costs, with another 25% noting some impact. However, in most cases the use of e-government to reduce staff costs comes in the form of personnel reductions, and this is therefore a very sensitive issue. While the Mexican government has prioritised "Government that costs less" as part of the Good Government Agenda, this strategy focuses on bureaucratic expenditures and does not mention staff cuts. Rather, the use of staff cuts as a tool for increased efficiency remains at the discretion of individual ministries and agencies, with the result that certain organisations have made much more significant changes than others (see also the section Working with unions below).

E-government improves knowledge sharing

By facilitating communication, e-government can have a positive impact on information management and the sharing of knowledge. Over 90% of respondents felt that e-government had a positive impact on knowledge sharing in Mexico, and over 40% thought that the positive impact was significant. E-Government has facilitated knowledge sharing by improving internal communication processes for the acquisition and sharing of knowledge. In some cases, the use of ICT for information sharing has broken down the physical barriers to working together, and now the remaining challenges are more sentimental than physical.

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Box 5.3. **Using ICT to reduce staff costs**

Mexico's Export Credit Bank (*Banco Mexicano del Comercio Exterior* – BANCOMEXT) is one example of an organisation that reduced the number of staff through the use of ICT –- reducing a total of 500 personnel ICT in 2002, 65% of which came from the lower ranks of the bank's staff. This is part of BANCOMEXT's goal of moving towards a process-based operational model, where processes are reengineered in co-operation between the IT unit and the bank. During the fiscal year of 2003, BANCOMEXT continued with the second phase of its Support Program for Post Termination and modified its organisational structure with the suppression of 270 more posts. These numbers are particularly significant in an organisation like BANCOMEXT, where roughly 1 500 people are employed.

The Ministry of Energy found that the implementation of Government Resource Planning (GRP) solutions led to substantial personnel reduction. Through the implementation of GRP, the Ministry found out that approximately 10 per cent of their staff (*e.g.* 100 people) had duplicated administrative tasks. This was in part due to the similarity of coordination tasks between all undersecretary units. Since the implementation of GRP, these undersecretary units have been fused into a single unit.

In contrast, the Ministry of Economy has a strong union that was against using ICT to reduce staff numbers. Because of the union, the Ministry of Economy has had minimal reduction of staff, and is rather focussing on retraining.

Source: BANCOMEXT, the Ministry of Energy and the Ministry of Economy.

E-government impacts motivation of personnel

E-government impacts the motivation of personnel, both positively and negatively. Seventy per cent of respondents thought that e-government had had a positive impact on staff motivation, due to a shift towards more enjoyable work. For example, staff tend to be happy with changes that reduce the risk of their making an error (such as in the Ministry of Foreign Affairs), or that allow them to spend their time on more meaningful tasks rather than dealing with paperwork (such as in the President's Office that responds to citizen requests for information).

However, 9% of government organisations noted that e-government actually had a negative impact on staff motivation. Interviews with government officials reinforced this finding, demonstrating that staff can be reluctant to implement changes that imply significant changes in their job descriptions and especially staff reductions. This finding will be discussed

more in the next section, the impact of e-government on government employees.

5.4. Impact of e-government on government employees

E-Government can facilitate new ways of working, change job descriptions, and even reduce the number of staff within an organisation. A number of government organisations in Mexico have not reduced staff levels, but rather retrained employees to focus on other areas of work. In particular, organisations that have strong government unions may have chosen this option. Other changes with regard to employees have included bringing in skilled workers from outside of government, and an increase in the use of outsourcing.

Re-training staff

It is not always easy to refocus staff on other areas of work, and in many cases requires a new set of skills. This section will discuss the types of skills that are needed and the training programmes that have been implemented in order to facilitate this change.

Types of e-government skills needed in Mexico

The E-Government Imperative (OECD, 2003) discussed the broad skill needs that accompany the implementation of e-government. Table 5.1, below, gives a broad overview of the types of skills needed by managers and specialists. While most employees need updates and training in new skill areas, managers require the greatest number of new skills.

In terms of the skills needed in the Mexican public administration, government organisations surveyed by the OECD reported that the most important e-government skills challenge is with regard to updating management skills for e-government, with over 50% considering this an important challenge, and 23% citing it as a "very important challenge". However this challenge has not yet been addressed by training programmes, and many managers may not even recognise the need for a new set of skills.

The lack of information management and information society skills were also considered important challenges, but fewer organisations considered the lack of information technology skills to be an important challenge (see Figure 5.6). The relative unimportance of IT skills may be, in part, due to the large amount of outsourcing of IT skills.

Until recently, a solid professional civil service framework did not exist in Mexico. In 2003 a new law of Professional Civil Service in the Public Administration was passed by Congress, integrating a career civil service for the core public administration which will be introduced in different stages by

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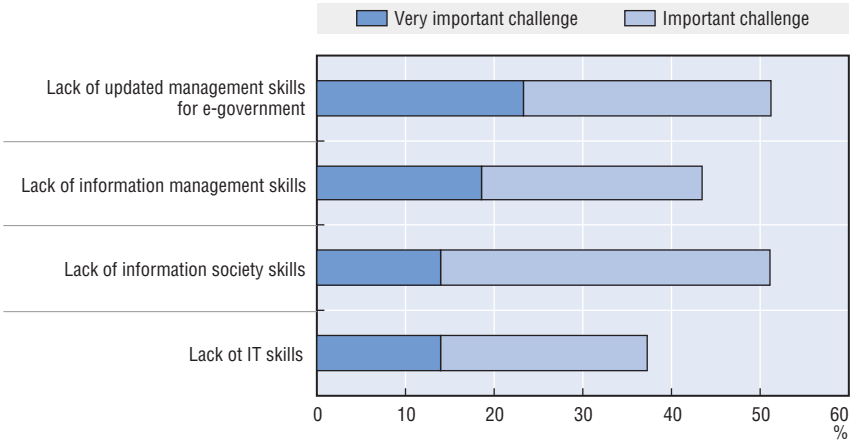
Table 5.1. **Summary of skills needed for e-government**

Skills	Needed by:
Information technology	
Basic IT literacy	All employees, managers
Specialist IT skills	All IT specialists
Information management	
Internal information management External information management Privacy protection Feedback mechanisms	Managers and IM specialists
Information society	
Understand capabilities of ICT Ability to evaluate trends Foresee ICT's impact on organisational culture Ability to se ICT strategy	Managers
Management/business	
Organisational change Risk management Accountability frameworks Financing arrangements Co-operation and collaboration Public-private partnerships	Managers

Source: The E-Government Imperative (OECD, 2003).

Figure 5.6. **The challenge of e-government skills in Mexico**



Source: OECD E-Government Survey: Mexico, question 5.3.

Key point 5.2. E-government skills

In Mexico, e-government requires a significant number of new skills, and of particular importance are updated business skills for managers. The first step towards the development of updated business skills for managers may be the recognition that new skill sets are needed.

the ministries (see Box 5.4 below). This law defines a general framework where public administrations will be allowed to open formal open competition for senior and middle upper ranks of the professional staff in the administration. In terms of the necessary skills for occupying a post, the government is only now defining competencies for civil servants. While these competencies include general skills, they may not necessarily have a good understanding of e-government management, information society and information management skills.

Box 5.4. **The Professional Civil Service Federal Law**

The Professional Civil Service Federal Law was approved in April 2003, and is intended to provide a framework for the evaluation of the performance of public officials and increase job mobility. This law sets the aim of establishing an efficient public administration founded on the principles of legality, impartiality, equity and merit competition.

The legislation establishes the rights and obligations of public officials, the constant evaluation of their professional performance, and encourages the good use of public funds. It is also intended to help reduce labour uncertainty due to political changes. The law encourages public servants to "professionalize themselves" in order to advance their careers, therefore, reducing the "*compadrazgo*" culture (a discretional selection process for public officials that has been seen as leading to corruption inside the public administration).

Source: Professional Civil Service Federal Law.

Training programmes at ministry level

To accompany the changes brought about through the use of e-government, many organisations in Mexico have implemented significant staff training programmes. Most respondents to the OECD survey believe that e-government has a positive impact on skills in their organisation (see Figure 5.5 above), which may in part be because of the training that accompanies the implementation of e-government.

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Training programmes vary widely in their focus, but most organisations with training programmes have training for managers (though the focus tends to be on IT skills rather than on updated management skills). In the Ministry of Defence, for example, it is currently only officers and military generals who receive IT training though there are plans to expand this to all employees. Improving the efficiency of management has been a challenge in Mexico, as many managers do not have even basic IT skills, and do not wish to use computers directly. Some managers, for example, request that their email messages are printed out and put on their desks. Many government organisations in Mexico feel that upper management in their organisations still do not have a clear understanding of the benefits of IT, let alone the more transformational benefits of e-government.

Training for all employees is considerably more costly, in particular in the largest ministries. For example, the Ministry of Agriculture has a total of 28 466 administrative personnel, 10 per cent of which do not have primary education. Staff development is currently an important goal in this organisation, but the challenge is far larger than just IT training, and it can be hard to find the financing to support such large-scale training programmes.

Most organisations that provide IT training do it on-site, though a few are also providing online and distance learning programmes. The Social Security Institute (*Instituto Mexicano del Seguro Social* – IMSS), for example, has an ambitious human capital programme in which 50 000 employees have been trained in the use of IT. Employees receive basic IT skills training (use of word processors and spreadsheets), and managers receive management training. IMSS noted, however, that it has too many employees to be able to provide them all with on-site training, so it is also using distance learning. There are currently services online for 9 million workers out of the 50 million workers for whom IMSS provides services.

Many workers in the Mexican Government may not understand the reasons behind the difficult changes that accompany e-government. Training programmes can help staff understand the reason behind such changes. More and more ministries and agencies now offer comprehensive staff training programmes. For example, the Institute of the National Fund for Workers' Housing (*Instituto del Fondo Nacional de la Vivienda para los Trabajadores* – INFONAVIT), found that a focus on retraining has been useful for the implementation of organisational change. The current goal of the organisation is to ensure that everyone will be able to find employment working for any private sector company, and this includes certifications to show that they can manage projects or build quality software. The organisation does a lot of in-house training, and the introduction to every course offered is dedicated to exploring e-mail and the Internet (even if the course is completely unrelated to technology). There are also other incentives

to use the Internet, such as "coffee with the director" meetings, to which all staff are invited, and at which the director commends those staff who have used IT. The results of such comprehensive training are already beginning to show – now almost everyone in the organisation uses email, which facilitates communication and information sharing in the organisation.

Training programmes at government-wide level

In addition to the training provided within individual government organisations, there has also been a focus on training programmes at the government-wide level. The President inaugurated an online training programme campus for civil servants in October 2004, "@ Campus". @ Campus is supported by the Ministry of Public Administration with the goal of supporting civil servants who wish to professionalise their careers and learn new skills. @ Campus is a government portal that applies the latest educational technologies and quality systems to facilitate servants' improvement of services to citizens. The portal puts at the hands of civil servants the necessary tools to have a learning experience in a flexible and creative way. However, as an electronic tool, @ Campus can only provide

Box 5.5. **@ Campus: Online training for civil servants**

@ Campus is an initiative from the President's Office with the vision of becoming an institutionalised model for the professionalizing of civil servants. Its mission is to forge professional civil servants using the most advanced educational techniques, including IT. By facilitating access to services, resources, and processes that will allow civil servants to develop the necessary capabilities, @ Campus will seek to apply learning, development, and evaluation strategies through an online Web portal. The portal has three goals:

- Exploit the potential of ICT for developing the abilities of civil servants through self-learning.
- Facilitate training and updating processes for civil servants while considering their time and geographical restrictions.
- Become a space for interaction where civil servants can obtain training, evaluation, and certifying processes and abilities.

The initial phase of the @ Campus programme targets only a slice of civil servants in the Mexican Federal Public Administration. During its launching phase, only director generals, deputy director generals, directors, sub-directors, chiefs of departments and attachés in the Central Public Administration will be concerned. The program will eventually cover all public servants in the Decentralised, Deconcentrated, Parastate (*Paraestatal*), State, and Municipal level Public Administrations at all levels, and in the future it will also target all public servants in Latin America who wish to join the programme.

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Box 5.5. @ Campus: Online training for civil servants *(cont.)*

For Mexican civil servants, @ Campus offers opportunities for them to enhance their knowledge and abilities. The program marks a step forward in the consolidation of Mexico's civil service. @ Campus offers online courses on integrity, honor, ethics, transparency, accountability, public goods, strategic vision, leadership, goal-orientation, teamwork, negotiation, and professional vision of the public administration. Access is free, and so far, @ Campus has 11 000 registered users in its first month of operation out of an initial target population of 47 000 public servants. All courses have curricular value and negotiations between @ Campus and different educational institutions will see that these courses are validated in the future to obtain joint degrees recognised by the educational system in Mexico. In addition to the portal, new norms have been created across the federal government to enforce two obligatory 20 hour sessions a year for civil servants in senior and middle upper ranks of the professional staff in the administration.

@ Campus resulted from an agreement between the Mexican and Canadian governments at the 2001 Summit of the Americas in Québec City. Mexican officials participating in the @ Campus project sought advice from the former Canadian Centre for Management Development (now the Canada School of Public Service). Teams from two countries identified the desired managerial and technical competencies of public servants, along with the best ways of cultivating those competencies. The initial capital for @ Campus was granted by the Institute for the Connectivity of the Americas (ICA).

opportunities for civil servants who already have the prerequisite IT skills to take advantage of the online opportunities, and it is still up to individual organisations to ensure the basic skills within their organisation.

Key point 5.3. Training programmes

- ***E-government training programmes can assist the process of organisational change in Mexico, by providing staff with an understanding of the broader goals of e-government and the skills needed to refocus their jobs. Initiatives like that of INFONAVIT, that actively encourage the use of the Internet at all levels have helped improve communications and facilitate a change in organisational culture. Other organisations may wish to implement similar initiatives.***
- ***Additionally, most existing training programmes to accompany the implementation of e-government focus on the development of basic IT skills. In order to best facilitate organisational change however, there is a recognised need for updated management skills, and the Mexican government may wish to encourage the development of new e-government skills for managers.***

Working with people from the private sector

In addition to training programmes which take time and provide more of a long-term solution, many Mexican government organisations also hire skilled staff from the private sector, thus supplying the needed skills immediately. In terms of IT skills for specific projects, a large fraction of organisations in Mexico outsource these jobs.

Hiring high quality staff

Mexico has a large pool of highly skilled human resources, many with top degrees from Mexican, but also US and EU universities. The country competes as a whole with the North American labour market for some of the best skilled resources (OECD, *Mexico: Progress in Implementing Regulatory Reform*, 2004). Obtaining high quality new staff can help bring in new ideas, and after the 2000 presidential elections many people previously working in the private sector became officials of the new administration, although the movement had begun earlier with the previous two presidential terms.

Hiring new and high-quality staff can help change the organisational culture, especially at the managerial level. In Mexico, many organisations have done exactly that, recruiting new managers from the private sector, universities, and even think tanks. Both e-government leaders and staff have expressed satisfaction with the quality of the new people brought in, and many believe this practice could be useful in a broader range of government organisations. One organisation that has gone farther than most with regard to bringing in managers from the private sector is INFONAVIT, where 98 per cent of manager-level positions in government are now occupied by staff that once worked for the private sector (compared to only 10% 5 years ago). Along with this change other organisational modifications became possible – for example senior managers no longer have personal assistants, and former assistants have been retrained to do other tasks, such as customer service at call centres.

Outsourcing skills

Once skill gaps have been identified, organisations need to decide whether such skills should be provided in-house or obtained from external providers. Many government organisations in Mexico have decided to outsource IT skills. In fact, 95% of responding organisations outsource at least part of their IT skills, and some agencies outsource the majority of their IT skills (see Figure 5.7, below). Several people interviewed by the OECD suggested that one of the main reasons behind outsourcing is the cheaper cost of using non-government employees.

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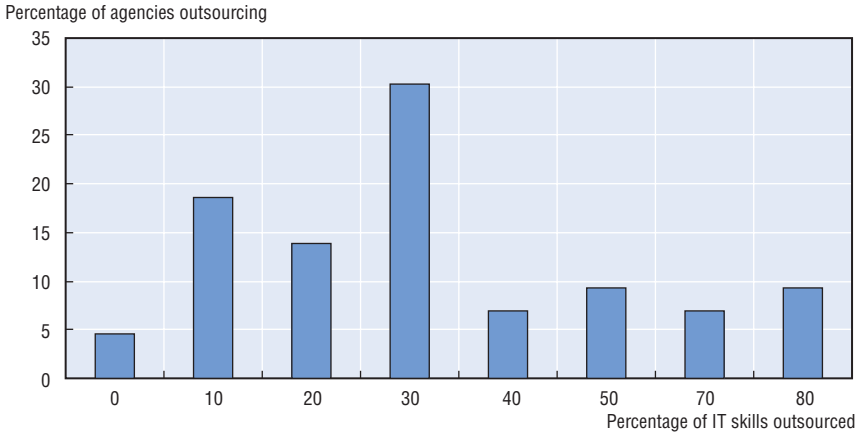
Figure 5.7. **Percentage of IT skills currently outsourced in Mexican organisations**



Source: OECD E-Government Survey: Mexico, question 5.4.

Mexico is not a country withextensive historical experience with outsourcing, but it has nonetheless used outsourcing effectively. For instance, the Institute for Health and Social Security for Government Workers (*Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado* – ISSSTE) outsourced the management of doctors' appointments at clinics and, as a result, was able to shorten the time from hours to minutes that the nation's 10 million government workers and their family members must wait to see a doctor when they go to the clinic.

Key point 5.4. Outsourcing

The vast majority of government organisations in Mexico outsource at least some of their IT skills. This has been an effective means of improving efficiency and quality, by allowing government organisations to focus on their core services.

Staff response to change

While many organisations have been able to use e-government to help staff do their jobs better, thus improving employee morale, others have met with strong resistance to change.

Positive responses

Instead of reducing staff numbers, certain government organisations have shifted personnel to other tasks that help raise productivity. For example, the Coordination Unit of the Federal Network of Citizen Service, based in the President's Office, has shifted staff to higher-value activities, and believes that this has increased the efficiency of responses, while also managing an increasing volume. Employees in the office are pleased with the changes because staff now have more time to devote to meeting citizen needs, and less time on administrative processing.

Similarly, the Ministry of Foreign Affairs has had positive staff reaction to the use of e-government, in particular because the use of electronic systems minimises the risk of a civil servant making a mistake and being penalised for their decision. Staff can now validate online whether an applicant has had previous problems with the authorities, and whether they already have similar documents. This has allowed staff to work more effectively and make better decisions, and staff are very happy with these changes.

Resistance to change

However, in other organisations it is not always possible to shift staff to more pleasant lines of work, and when it is not the case there can be considerable resistance to change. While resistance to organisational change was not cited as the most important challenge for the implementation of e-government in the OECD survey, 44% of respondents said that it was a "very important" or an "important" challenge (see Figure B.10 in Annex B). The challenge of staff resistance to organisational change was highlighted in the OECD interviews with Mexican officials. Because the implementation of e-government is so recent in Mexico, some people believe that moving slowly is the best way to change, as too many changes can create a powerful negative backlash.

Base staff and professional service staff have sometimes resisted to the change brought on by the use of ICT and e-government strategies. In BANCOMEXT, for example, staff disagreed with the suppression of almost 800 posts in two years after an austerity plan was undertaken with ICT-based solutions. The outcome of this disagreement was that the bank reduced a smaller number of posts than it had originally intended.

Collaboration is fundamental to the implementation of e-government, and yet there have been many obstacles preventing collaboration among government organisations in Mexico. A "habit of non-collaboration" and "internal resistance to change" were cited as two important obstacles to organisational change that prevent collaboration, both within an organisation and among organisations.

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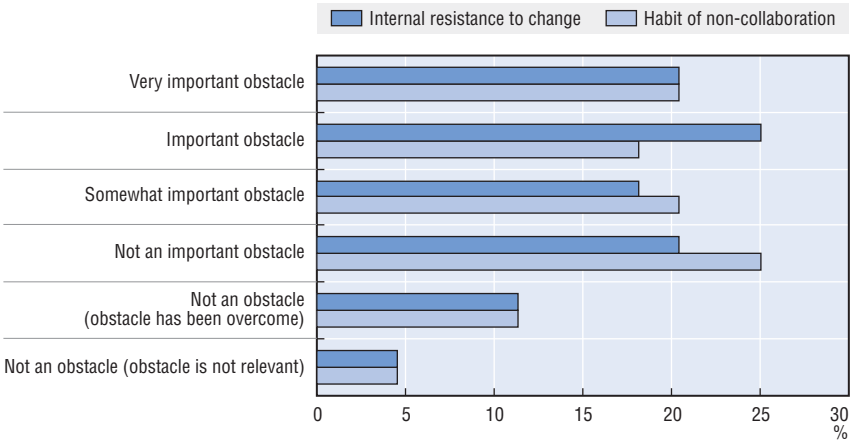
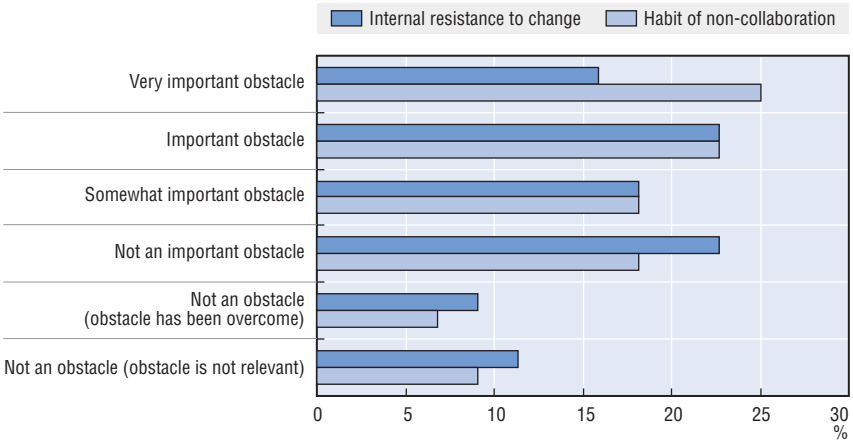
Figure 5.8. **Obstacles preventing deeper collaboration *within* Mexican organisations**



Source: OECD E-Government Survey: Mexico, question 6.3.

Figure 5.9. **Obstacles preventing deeper collaboration with *other* organisations in Mexico**



Source: OECD E-Government Survey: Mexico, question 6.3.

5.5. Implementing organisational change

While there may be many elements that can assist in the process of organisational change, most government organisations in Mexico agree that leadership is essential. While working with the government unions was not considered one of the biggest challenges to most government organisations, it

was considered the single biggest challenge to several of the most advanced organisations.

Leadership and organisational change

While organisations in Mexico have different techniques for implementing organisational change, most government officials interviewed by the OECD regarded leadership as an essential element to demonstrate the benefits of new technologies to staff. All organisations responding to the OECD survey said that a "very important" or "important" role of the e-government leader in an organisation was to ensure staff ownership and acceptance of the e-government plan (Figure B.11 in Annex B). In a similar fashion, 84% of organisations interviewed affirm that it is a "very important" or "important" role of the e-government leader to push for broad participation within the organisation for e-government implementation (see Figure B.12 in Annex B). The Ministry of the Economy has experienced the importance of leadership in demonstrating the value of new methods: in their view, leadership has been key to demonstrate this value.

Working with unions

Certain government organisations have very strong unions, and these unions are not always supportive of the organisational changes that accompany the implementation of e-government. However, government organisations are working closely with their unions when implementing these changes, and most organisations surveyed did not think that working with unions was a very important challenge. In fact, 39% of organisations surveyed reported that relations with unions was not a relevant challenge, and only 27% stated said that relations with unions are a "very important" or "important" challenge (see Figure B.13 in Annex B).

External change management theorists can also help manage organisational change. A bottom-up approach to dealing with change can help establish common interests and help ensure staff buy-in for e-government initiatives. For example, INFONAVIT brought in external change management theorists to work with the administration and the union with considerable success. Similarly, PEMEX (*Petróleos Mexicanos*) hired a consulting company to implement change management and reorganise the IT function. Initially there was strong opposition to implementing enterprise resource planning from the government unions, but now staff are familiarising themselves with the concept and opposition has been reduced.

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Box 5.6. **Examples of unions impacting e-government implementation**

The Social Security Institute (IMSS) has a very strong union, and there has been some friction regarding the implementation of certain e-government projects. For example, the union was skeptical of the benefits of the "Family Medicine Model" project, which required an electronic filing system for its patients, and the impact it would have on workers and patients alike. Because of the initial lack of support, negotiations to begin this project took 16 months. After the negotiations, the union became a fundamental pillar in making the project succeed, assisting its implementation in more than 400 medical units that potentially cover 20 million users. After this negotiation, IMSS constituted an interdisciplinary consultation group that includes its union, IMSS users, and the staff working on the technological side of the project, and new e-government initiatives are discussed using this group. Nevertheless, in some states e-government projects have suffered delays especially during the renegotiation of collective contracts between IMSS and its union or during the election of regional leaders.

The Ministry of Economy also has a strong union, and has minimised reduction of staff due to the union's importance. However, with the union's support there has been some shifting of jobs, and there is now IT training for all employees plus some more specific training for some staff.

Source: IMSS and the Ministry of Economy.

Note

1. Not all information requests can be satisfied. Citizens, however, can appeal to IFAI in case an information request is denied by the government agency possessing the information or in case the information is presented incomplete to the citizen. IFAI has the legal authority to determine whether the government agency must disclose the information, and appeals can de discarded as inadmissible or accepted by IFAI to be analysed. In case of analysis, both the citizen and the agency present their arguments before one of IFAI's commissioners, who presents a draft resolution to IFAI's Board. In 2004, almost 700 appeals were presented and 600 appeals were resolved. The resolutions have given citizens access to the requested information in 86% of the cases and has only confirmed non-access in 14% of cases. OECD, *Mexico: Progress in Implementing Regulatory Reform*, Paris, 2004, pp. 48-49.

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Chapter 6

E-Government Collaboration

Collaboration among ministries and agencies on e-government is still in its infancy in Mexico, and there is duplication and repetition among e-government initiatives, services, and registries. Ministries and agencies in Mexico are working to better align IT systems among different departments, and this is consistent with the general argument that a certain level of online service delivery and network infrastructure and standards must be developed before collaboration among ministries can be achieved. The Ministry of Public Administration and the President's Office are working to minimise duplication among ministries, but much remains to be done. One of the principal roles of the Mexican E-Government Network is to share best practice and promote e-government collaboration across ministries and agencies, and this has been helpful in ensuring that ideas are shared and in allowing agencies and ministries to learn from one another's experiences. However there are for the moment insufficient incentives for collaboration among ministries and insufficient mechanisms and platforms for doing so.

6.1. Introduction

This chapter examines the extent to which e-government has been accompanied by increased collaboration both within and across government organisations. The chapter begins with a discussion of the challenge of collaboration in the Mexican context, and where the government needs to go beyond co-ordination in order to promote collaboration. The chapter then analyses both co-ordination and collaboration of e-government across ministries and it also discusses collaboration with other actors at the local, state, cabinet, and private sector level. Finally, the chapter examines the main obstacles to collaboration and proposes some possible solutions to promote collaboration among ministries.

6.2. Collaboration and e-government

Collaboration is key to e-government because it contributes to the development of a customer focus for e-government services that is organised around user needs. Seamless service delivery is often a result of greater customer focus and collaboration is required to achieve seamlessness. Collaboration also reduces duplication and inconsistency of programme rules and levels of service. Traditionally, OECD governments have "stovepipe" or "silo" organisational units with exclusive areas of responsibility, control, and political accountability.

Mexico has attempted to bring together information and services from different government agencies through one-stop shops (*eSAT*), whole-of-government call centres (*chambatel*), information kiosks (*centros comunitarios digitales e-México*), and government portals (*portal ciudadano del gobierno federal*). However, few agencies in Mexico collaborate on the development of their online services, and they are not fully exploiting the use of ICTs for seamless service delivery. These pioneering services show that agencies have only begun to explore the major advantage of e-government and broad use of ICT across government: the capacity to offer integrated, seamless government services so users can interact with government as a single organisation.

In collecting data and experiences for this report, the OECD found little or no evidence of actual collaboration on e-government projects in Mexico. Often, agencies reported that collaboration was an important goal and that agencies had plans to integrate seamless services, share information, and develop joint projects. Nevertheless, the gap between stated goals and actual

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results on e-government collaboration in Mexico has yet to be bridged. To date, Mexico has focused on making agencies work together by ensuring central co-ordination, and has taken several successful steps in this area. While this is a necessary condition for improved inter-agency collaboration, however, Mexico has not yet moved from the central co-ordination of e-government to inter-agency collaboration. Instead, as in other OECD countries, a centrally developed e-government vision co-exists with agency-level project initiatives in Mexico.

6.3. Improving inter-agency collaboration through co-ordination

The OECD's *The E-Government Imperative* (2003) stresses the role of central co-ordination in facilitating collaboration for the development of joint projects. As in other OECD countries, the interaction between a centrally developed e-government vision and individual agency projects has led the Mexican government to focus on co-ordinating the implementation of e-government across the central government. This is a necessary step of e-government implementation, and it leads to the sharing of information and the creation of advanced co-ordination initiatives, such as government-wide portals.

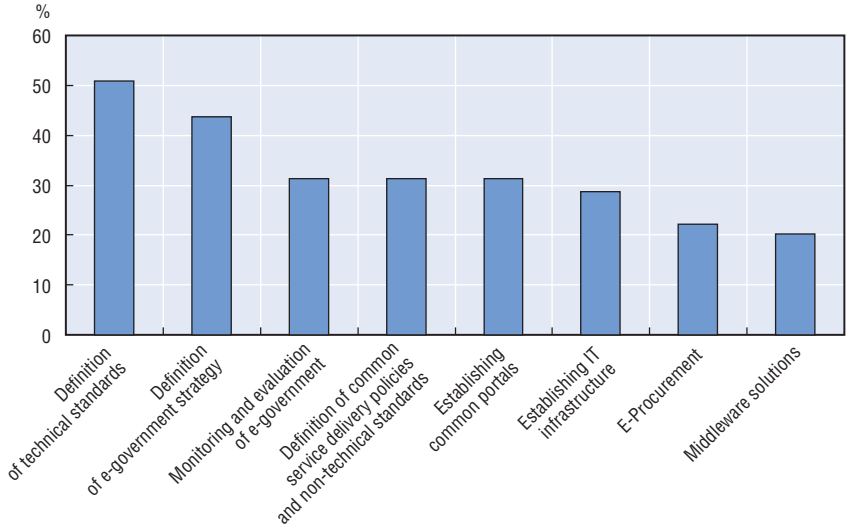
Co-ordination among agencies: the two main areas of co-ordination in Mexico

Agencies surveyed by the OECD reported that they worked together with other agencies concretely on information sharing and on the creation of portals. At the most basic level of co-ordination, agencies share information on technical standards, strategies, monitoring and evaluation, and service delivery policies. At a more advanced level of co-ordination, agencies can work together to make content and services available over a common government portal. However, unless agencies actually work in a joined-up fashion, these efforts do not actually reflect collaboration: when agencies share information, there are no stakes on joint responsibilities, shared risk, or reduced duplication and when agencies set up portals, they are putting services online at a same Web site for the convenience of users and have not yet necessarily achieved seamless service delivery.

Basic co-ordination: information sharing

Even in terms of the most basic kinds of co-ordination (*i.e.* sharing e-government plans and data standards), few agencies share information on their e-government initiatives. The most common topic where information is shared is the definition of technical standards, with more than half of the organisations surveyed by the OECD sharing information in this area. Forty per cent of organisations surveyed also share information on the definition of

Figure 6.1. **Per cent of government organisations sharing information on:**



Source: OECD E-Government Survey: Mexico, question 6.1.

their e-government strategy. Agencies are less likely to share information in other areas of e-government.

The Mexican E-Government Network was created to help promote the sharing of information among ministries and agencies of the central government, and the Network has had some success in doing so. E-Government Network members reported to the OECD that the Network has contributed to increasing interoperability and to facilitating the introduction of some technical standards such as the use of Public Key Infrastructure (PKI). Through the Network, members share experiences, discuss trends, share good practice, and discover redundancies and duplication with other peers. In the initial phase of setting up e-government, the Network was used as a forum for sharing both technical and strategic information.

As the Network and the e-government strategies have evolved, the technical details have been set aside for specific discussion groups and the Network has dealt more and more with the strategic side of e-government. The Ministry of Public Administration has recognised this trend, and it plans to create two levels of information sharing within its IT Governance and Regulatory Framework Strategy: a CIO council for strategic information and working groups for technical information (see Box 4.4 in Chapter 4). Nevertheless, it remains to be seen whether the institutionalisation of the current co-ordination channels and the fostering of more strategic information sharing in the Mexican government will lead agencies to work more closely together in a collaborative

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fashion. Mexico has yet to provide more concrete proposals for making agencies move beyond the co-ordination of information sharing towards e-government collaboration. The Network has been an important first step for sharing information and co-ordinating e-government, but the focus could shift to the provision of incentives for collaboration and the creation of projects with joint responsibilities.

Key point 6.1. Information sharing

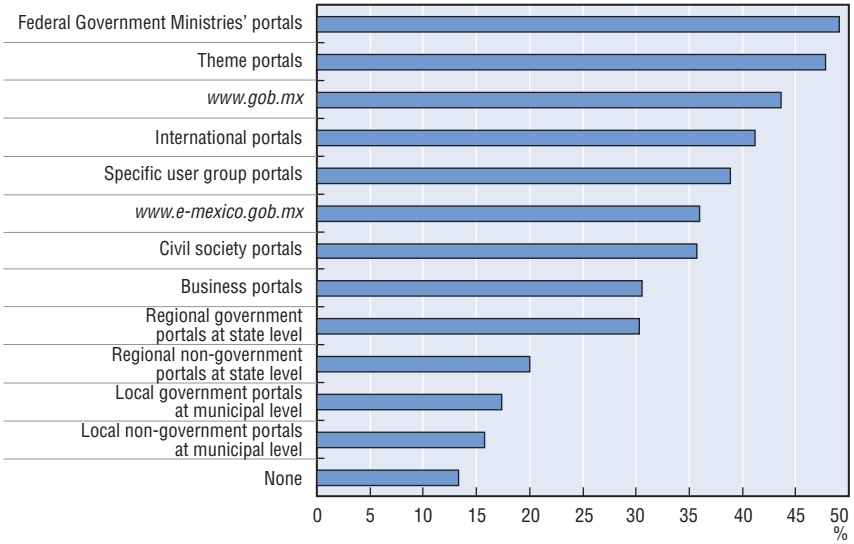
The Mexican E-Government Network has assisted the process of information sharing, but the only activity on which more than half of organisations are actively sharing information is that of technical standards. Less than one third of organisations are actively sharing information on service delivery policies, IT infrastructure, common portals, procurement, market research, research and development and monitoring and evaluation. Agencies could use the existing information sharing channels for other purposes beyond the sharing of technical information: Mexico has the channels for agencies to communicate at deeper levels, but officials are not using these channels in areas that could affect their own program sovereignty. The institutionalisation of e-government structures and processes (see Chapter 4) could be a tool to assist the sharing of information, but the establishment of incentives and clear performance targets based on collaboration are also necessary.

Advanced co-ordination: portal development

The number and variety of hypertext links between agencies' portals provides a proxy for observing levels of seamless access to information and services by users. The portals that receive the most links from organisations responding to the OECD survey were the portals of individual ministries, the national portal (*www.gob.mx*), and theme portals (*e.g.* environmental, education, etc.). While fewer organisations have links to the e-Mexico portal (*www.e-mexico.gob.mx*), the percentage is still significant. Very few organisations provide links to local portals at the municipal level, and not very many provide links to regional portals. Only five per cent of organisations do not link to any portals.

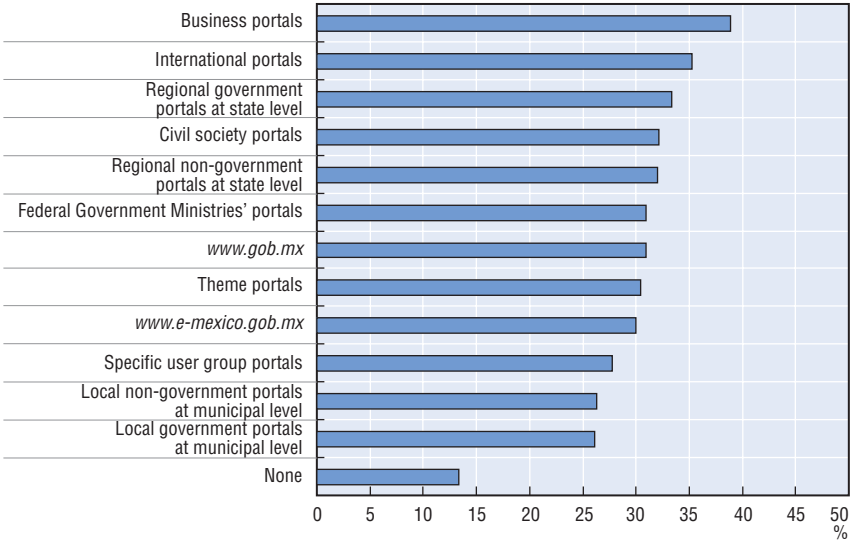
While agencies responding to the OECD survey reported having links in place to the major government portals, fewer reported that the major portals had links back to their own Web sites. The most common portals that link to individual organisations surveyed by the OECD are the national portal and Ministries' portals, with the e-Mexico portal ranking only slightly lower. One

Figure 6.2. **Per cent of organisations with links to the following Web sites**



Source: OECD E-Government Survey: Mexico, question 6.2.

Figure 6.3. **Per cent of organisations linked *from* the following government Web sites**



Source: OECD E-Government Survey: Mexico, question 6.2.

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Box 6.1. **The Mexican Citizen Portal and the Stockholm Challenge**

In 2004, the Mexican Citizen Portal of the Federal Government (*Portal Ciudadano del Gobierno Federal, www.gob.mx)* won the e-Government Award of the Stockholm Challenge. This initiative was established by Sweden to challenge other European cities in ten information society application areas during its accession period to the European Union in 1993. The goal of this challenge was to find each area's champion so everybody could learn from them. The continuing success of the exercise led it to include projects from across the world. The Stockholm Challenge received 900 entries from 107 countries in 2004, and an international jury composed of 27 experts from academia, business, and the public sector selected ten winners from the 103 finalists. The Citizen Portal of the Federal Government won the 2003/2004 Stockholm Challenge Award for E-Government, and the e-Mexico portal was also a finalist.

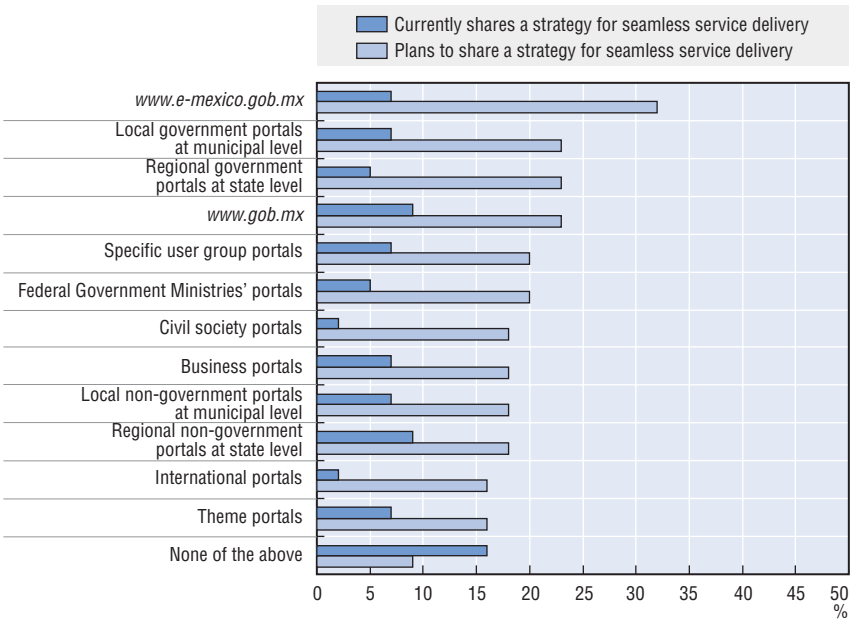
The Citizen Portal of the Federal Government is a government-wide portal that organizes information and services around citizens' needs in a thematic rather than institutional fashion. The portal concentrates more than 1 500 information and transaction sources from over one hundred government institutions "24 hours a day, 7 days a week, 365 days a year". The portal is the result of the digital government item in the Good Government Agenda, and it is also part of the e-Mexico system. The portal works as the single entry point for government services and also acts as a content supplier for the e-Mexico Portal. The Citizen portal uses a customer relationship management strategy to better present its content according to users' needs. Finally, the portal uses a technological platform that enables interoperability and standardisation across different government offices.

Source: Citizen Portal of the Federal Government (*www.gob.mx*), and the Stockholm Challenge (*www.stockholmchallenge.se*).

third of organisations are linked from theme portals and another third are linked from business portals. A greater number of organisations are linked from municipal and regional portals than are linked to these portals, but the levels are still quite low. While it may reflect the relative newness of many local Web sites, as well as issues of Web site quality and changes in Web site addresses, this lack of comprehensive links and the poor performance on links to local Web sites is an important weakness that should be addressed by national and federal portals. Although e-government has basically focused on the national and federal level in these last four years of e-government implementation, eventually state, and municipal level e-government services

Figure 6.4. **Sharing *vs.* planning seamless service delivery**

Percentage of Mexican government organisations surveyed by the OECD planning *vs.* percentage sharing seamless services with the following portals



Source: OECD E-Government Survey: Mexico, question 6.2.

will need to be acknowledged, incorporated, and available at national government portals, and Mexico should be prepared for this next step.

Fifteen per cent of the organisations surveyed responded that they do not currently share a strategy for seamless service delivery with any of the portals mentioned in the OECD survey. Those that do share a strategy for seamless service delivery do not have a clear preference for any one portal. Considerably higher numbers have plans to share a strategy for seamless service delivery with the above portals in the future. The most popular portal where organisations plan to share a strategy for seamless service delivery with is e-Mexico, with almost a third of organisations planning to share a strategy of seamless service delivery with them.

Mexico has many government portals and the fact that they are linked together to a certain extent shows that some e-government co-ordination exists. But as they multiply, portals lose their advantage in offering a single point of entry and the very multiplication of portals reveals a lack of collaboration. Services available through portals remain distinct with overlapping target populations and mandates and with inconsistent, and sometimes contradictory programme rules. In their current state, Mexican

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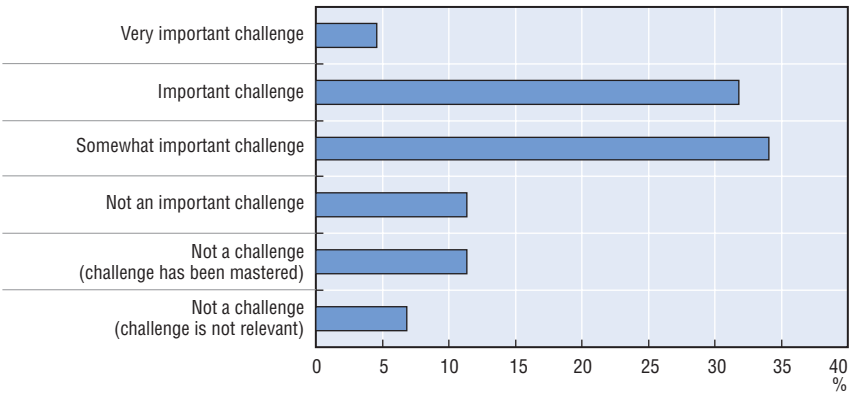
government portals take users from one site to another. While this simplifies transactions and groups services around target populations, individual agencies are still maintaining silo or stovepipe structures for their services. Unless government portals start offering joined-up services rather than simple links to disparate services, the objective of seamless and customer-focused services could actually become more difficult to achieve with the multiplication of portals.

6.4. The challenge of collaboration in Mexico: going beyond co-ordination

To make agencies work together on e-government, Mexico has focused on co-ordination, but it is still lagging behind on concrete collaboration initiatives. During the initial phase of setting up of e-government, Mexico focused on co-ordinating different e-government actors across the government in order to share information and create government-wide portals. The President's Office pushed for the institutionalisation of e-government and for the creation of an E-Government Unit in the Ministry of Public Administration that would be able to co-ordinate all e-government initiatives at the federal and national level. The President's Office also created an E-Government Network so e-government officials would share information and best practice, and agencies began communicating their projects to each other, and they also began co-ordinating their initiatives and individual actions. During this initial phase, Mexico was able to produce some concrete e-government results by creating government-wide portals that organised services around groups of users and connected citizens to different services across the Mexican government.

Figure 6.5. **Collaboration as a challenge for implementing e-government**



Source: OECD E-Government Survey: Mexico, question 1.4.

Box 6.2. **Cross-agency funding for e-government initiatives: providing social security services to low income and isolated populations and generating savings to be reinvested**

Limited joint funding is often cited as a barrier to collaboration. The Social Security Institute (IMSS) has developed a project financing system that allows the recycling of projects' return on investments. This financing system allows IMSS to use a percentage of the savings or increased income from projects to finance the reengineering or integration of new projects in its portfolio. The possibility of recycling funds in a more flexible way has permitted IMSS to fund joint projects with other ministries working with low income and isolated populations in Mexico, such as the Ministry of Social Development, the Ministry of Communications and Transportation, and the Ministry of Agriculture.

IMSS has participated in federal programs launched and financed through other government agencies in a multi-disciplinary range of projects. For example, in the *IMSS-Oportunidades* Program, IMSS and the Ministry of Social Development finance and operate more than 3 000 rural health units for the extremely poor. IMSS also collaborates with the Ministry of Communications and Transportation to provide computer and communications infrastructure to 400 medical units across the most isolated parts of Mexico. IMSS also collaborates with the Ministry of Agriculture to develop and finance a series of programs focused on bringing integral health services to agricultural producers and on keeping electronic records of all patients.

These three collaboration programs with cross-agency funding are examples of how the most poor and isolated populations can be better served through collaborative projects **and** the government can save more money that it can then reinvest on these same low income groups or on other projects.

Nevertheless, this project financing scheme is only possible for government organisations with more fiscal autonomy, such as IMSS. The Social Security Institute, as opposed to the rest of the Central Public Administration, can make a more flexible use of its revenues and savings to invest in longer term projects without having the constraint of the yearly budget exercise. Other government organisations, however, do not have the same institutional and budgetary advantages of IMSS.

However, this initial co-ordination phase has not moved up to the level of collaboration: Mexico still has very few seamless services and joint projects. Co-ordination has been key to setting up e-government, but collaboration will be necessary if Mexico wishes to provide concrete results of customer focused seamless services. One of the main challenges Mexico faces on e-government

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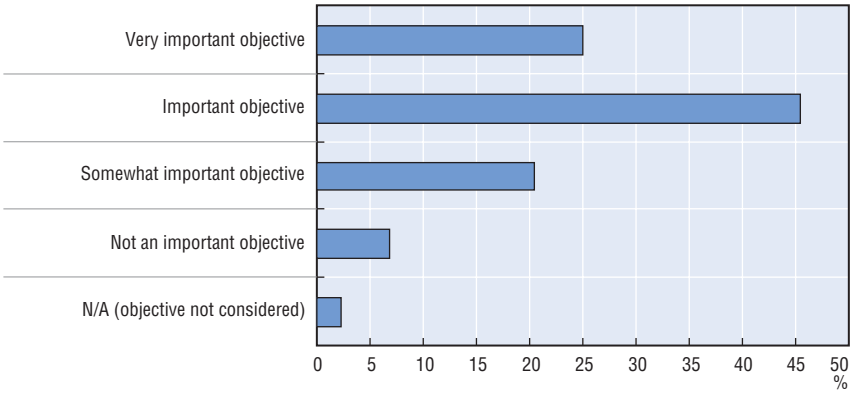
Figure 6.6. **The goal of increasing external co-ordination of processes**



Source: OECD E-Government Survey: Mexico, question 2.1.

is going beyond co-ordination to promote collaboration among different government actors and agencies so they can deliver e-government services to citizens based on citizens' needs. The Ministry of Public Administration has already targeted the creation of an IT and E-Government Governance Framework that will address the specific issue of collaboration on e-government in Mexico. However, as will be discussed below, it is not clear whether this further institutionalisation of the current co-ordination scheme of e-government in Mexico will contribute to make agencies collaborate more, and the government should be careful that institutionalisation does not lead to the ossification of structures.

The lack of synchronisation between co-ordination and collaboration was registered in the OECD survey of e-government in Mexico. Less than five per cent of agencies surveyed by the OECD stated that collaboration was a very important challenge, and more than half of them only considered collaboration a somewhat important or important challenge. This difference may be due to the fact that collaboration among ministries and agencies is in its early stages, and because officials are still implementing isolated e-government initiatives.

However, these results can also be explained by the fact that the lack of mechanisms for joint funding across organisations was considered an important or very important barrier by more than half of the agencies surveyed by the OECD (see Figure B.16 in Annex B). Although some agencies do participate in cross-funded e-government projects (see example in Box 6.2), most agencies have a hard time launching collaboration projects in part because of budgeting inflexibility in Mexico. The result of inflexible budgeting

and an early stage of implementing e-government with little or no collaboration have been repetition and duplication among agencies' initiatives and services.

Mexico's e-government strategy has placed more emphasis on co-ordination than on collaboration. This is reflected by comparing the priority given to co-ordination *versus* the priority given to collaboration by agencies surveyed by the OECD: while less than five per cent of agencies considered collaboration to be a very important challenge for implementing e-government (Figure 6.5 above), more than seventy per cent of agencies considered increasing the external co-ordination of processes to be an important or very important challenge.

Emphasising co-ordination over collaboration shows the extent to which Mexico is still in its early implementation phase of e-government. At best, agencies could argue that before venturing out to collaborate with other government organisations on horizontal projects, they would need to set their own house in order. This could explain why in an initial stage of e-government, the Mexican government has focused on co-ordinating challenges within agencies (*e.g.* rearranging different IT units across a Ministry under the roof of a single unit, a recurring example of internal co-ordination of processes and organisational change in Mexico) and on co-ordinating challenges between agencies (*e.g.* by institutionalising the co-ordination role of federal IT policy at the Ministry of Public Administration). Focusing on co-ordination has been important at the initial stages of e-government, but narrowing the broad horizontal nature of e-government to process co-ordination will eventually hinder the delivery of seamless services and the development of a customer-focused approach across the government. While co-ordination efforts need to keep going strong, Mexico's e-government strategy and leaders should not neglect collaboration, as this would only create more duplication, standardisation, and compatibility problems in the not so distant future.

Agencies do recognise the importance of collaboration to a certain, limited, extent, but the bottom line is that few government organisations have moved beyond internal or external co-ordination of processes into cross-agency collaboration projects. Even though most agencies in Mexico will recognise collaboration within their organisations and with other organisations as a goal of their e-government plans, a limited number of agencies collaborate on e-government and have focused instead on co-ordinating e-government initiatives. In the following sections, the differences between co-ordination and collaboration on e-government in Mexico are outlined with concrete examples.

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Key point 6.2. The challenge of collaboration in Mexico

- ***Few government agencies consider collaboration a very important challenge even though collaboration is key for e-government and for the provision of seamless services across government. While it is true that little collaboration may be explained by the fact that e-government is still in its initial and developmental stage in Mexico, more flexible budgeting for cross-funded e-government projects and the creation of collaboration mechanisms could contribute to eliminating duplication and repetition in e-government.***
- ***Mexico's e-government strategy should move beyond the co-ordination of processes and initiatives towards encouraging and ensuring collaboration across government agencies. Recognising the value and importance of collaboration is only the first step of cross-agency collaboration, and the government should move from stating collaboration as a key goal towards promoting concrete cases of e-government collaboration.***

Collaboration among agencies: the two main areas of collaboration in Mexico

Agencies collaborate mainly on two areas of e-government in Mexico: 1) the elimination of repetition and duplication, and 2) seamless service delivery. Agencies surveyed by the OECD reported that they planned to share a strategy for seamless service delivery on establishing IT infrastructure, middleware solutions and the establishment of common portals. However, the number of agencies reporting that they shared this seamless service delivery strategy was low: few organisations actually share a strategy for seamless service delivery with other agencies, and those who do tend to focus on the definition of their e-government strategy, IT infrastructure, and e-procurement. Collaboration on e-government is therefore more restricted to the elimination of repetition and duplication in Mexico.

Agencies surveyed by the OECD also reported that they worked together with other agencies for establishing IT infrastructure and for monitoring and evaluating e-government, but these findings should be put in the Mexican context of e-government: some agencies do co-ordinate their technical standards, service delivery policies, and e-government strategies for IT infrastructure to a certain extent, but this has not led to more inter-agency collaboration or to interoperability and reduced duplication (see Figure B.22 in Annex B).

Repetition and duplication

There is some overlap and repetition among Mexican e-government initiatives. For example, the Mexican government has many data centres that

could potentially be shared, but the Ministry of the Interior reported to the OECD during an interview that it used a private supplier because there are no structures to share facilities within government. The President's Office has created a small unit with the goal of integrating the databases from the ministries of Social Development, Agriculture, Social Security, Health and Education. The unit will also integrate the databases for the Ministries of Economy, the Ministry of the Environment and the Ministry of Labour. Currently, however, this database integration initiative is in its early stages, and organisations are collaborating with the unit without any incentives basically out of goodwill. Similarly, population statistics are collected separately by the Ministry of the Interior (RENAPO population registry), the Ministry of Finance (SAT database) and the National Institute for Statistics, Geography, and Informatics (INEGI census). The President's Office hopes to address this issue with a unit on the co-ordination of government databases, but for the time being the unit is also based on the goodwill of participants.

An example of an organisation that actively invests in initiatives done by other organisations is the Social Security Institute (*Instituto Mexicano del Seguro Social* – IMSS). IMSS invested in the national population registry (*Registro Nacional de Población* – RENAPO) for the development of a national ID card. IMSS is also promoting the use of the RUPA registry (see p. 129) so that businesses can send information only once to multiple government organisations. IMSS invested in this project because of the cost-effectiveness benefits of investing in a previously prepared project by another ministry instead of starting from scratch on their own.

Ministries and agencies in Mexico also collaborate in back office initiatives, for example by aligning systems among different departments of the same organisation. In many cases, such alignment takes place through the implementation of Government Resource Planning (GRP) systems, which may cover human resources, material resources, financial resources, etc. For example, the Ministry of Energy is starting to establish a common framework for operations, beginning by administering GRP in the ministry itself, and then passing it on to some minor agencies working under its coordination. Another example of a successful back office solution with a GRP system was in the authority for roads and federal bridges (*Caminos y Puentes Federales – CAPUFE*). Finally, PEMEX (*Petróleos Mexicanos*) and the Federal Electricity Commission (*Comisión Federal de Electricidad – CFE*) were among the first government organisations that implemented GRP systems many years ago.

Another example of repetition and duplication is the smartcard, an ID card with an intelligent chip recognising the user and providing access to services and payments. Smartcards are currently being developed by several different organisations in Mexico to deliver their own services. Presumably, each agency has developed the card individually to target their specific cluster of users

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(*e.g.* agriculture *vs.* medical services), but the agencies have each developed their smart cards in the hopes of being recognised as the most comprehensive smartcard service provider and thus eventually have their cards adopted at a national level by other government agencies. The end result is a large number of cards that duplicate the function of identifying users by registering them in different, overlapping, and incomplete databases. The President's Office has been working for the past two years to implement a unique card for all public services. However, the President's Office reported to the OECD during an interview that this process was not easy and that resources were scarce.

Duplicative e-government systems exist in Mexico because of a lack of e-government collaboration among government organisations. On the most basic level, the Mexican Government may wish to use the national e-government strategy to ensure that infrastructure, data collection and the provision of services identify and reduce duplication. At a more advanced level, the Mexican Government may wish to use the national e-government strategy (*i.e.* by providing a national enterprise architecture) as a vehicle to identify common business processes that could usefully be shared across organisations (*e.g.* human resources, payroll, financial management, recruitment).

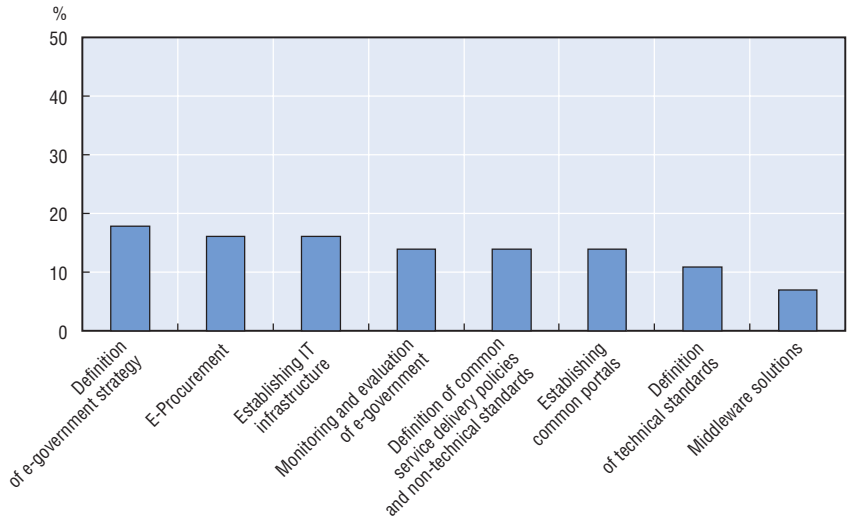
Key point 6.3. Duplication and repetition

A lack of e-government collaboration among government organisations has led to duplicative e-government systems in Mexico. The government's national strategy could reduce duplication by providing a national enterprise architecture to identify and share common business processes that could be shared across the administration.

Seamless service delivery

Few government organisations in Mexico share strategies for seamless service delivery. The most commonly shared areas are on the definition of e-government strategy, e-procurement and establishing IT infrastructure, but all represent well under twenty per cent of organisations (see Figure 6.7, below). Nevertheless, departments and agencies in the Mexican government do share clients, but the provision of multiple services at one-stop shops has still not been developed. One-stop shops like e-SAT, where all Mexican taxpayers can file taxes, print tax return forms and declare income, do provide multiple services. However, the Tax Administration Authority's (*Servicios de Administración Tributaria* – SAT) one-stop shop only provides fiscal services, and this shows a limited integration of services, since the agency is replicating

Figure 6.7. **Per cent of government organisations currently sharing a strategy for seamless service delivery on:**



Source: OECD E-Government Survey: Mexico, question 6.1.

its traditional business processes online. Furthermore, one-stop shops only allow a certain, limited integration, since services and processes continue to be constrained by disparate and complex programme rules: the level of assistance that a one-stop shop can provide reveals the limits of integration.

Somewhat higher numbers of organisations have plans to share a strategy for seamless service delivery in the future, but percentages on each specific area are still relatively low (see Figure 6.8, below). Plans to share a strategy for seamless service delivery through the establishment of middleware solutions, common portals, and the establishment of IT infrastructure were the most commonly reported. Nevertheless, there are some more advanced front-office seamless service initiatives currently underway in the Mexican government. Some agencies plan to collaborate on back-office initiatives through the use of Customer Relationship Management (CRM) systems. The President's Office, for example, had separate call centres and tracking programs for each internal department, and it is now consolidating them to have a single call centre for all departments and a single customer relationship management (CRM) system. Along similar lines, the Ministry of Social Development regulates its internal IT investment schemes to ensure that its departments and decentralised agencies have common and complementary IT investments. These initiatives show the importance of ministry-level leadership to push for seamless services within large government organisations.

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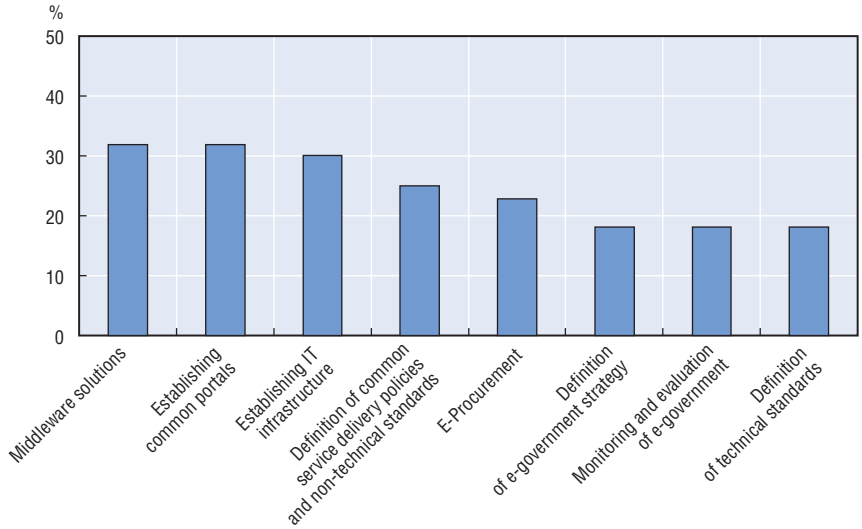
Figure 6.8. **Per cent of government organisations planning to share a strategy for seamless service delivery on:**



Source: OECD E-Government Survey: Mexico, question 6.1.

There are very few horizontally shared projects and initiatives in Mexico. Some government officials reported during OECD interviews that the lack of shared projects and initiatives stems from a general impression that collaboration is a zero-sum game which transfers resources away from one agency to the profit of another. The shared projects that were mentioned in OECD interviews tended to focus on the development of solutions for administrative simplification and efficiency gains. For example, the RUPA project (RUPA – *Registro Único de Personas Acreditadas*) is a project that created a single registry for businesses across government.[1] In the past, an enterprise had to go through a documentation process in order to make transactions and obtain permits from a government organisation. If the same enterprise wished to contact another government organisation, it had to go through the same process again. The RUPA project connects and systematizes all pre-existing registries to create a single registry. Whereas before, an enterprise was inscribed in at least 6 isolated registries with 6 different ID numbers, the RUPA unique registry will have a single file and inscription for every person. This project was originally conceived by the Ministry of Economy, and now the Ministry of Public Administration, the Ministry of Education, the Ministry of Energy, the Ministry of Health, the Ministry of Communications and Transportation and the Ministry of Finance have joined their registries. All ministries and decentralised agencies creating registries will eventually be incorporated in the RUPA registry.

Key point 6.4. Collaboration on shared projects and initiatives for seamless services

The RUPA Project is an example of collaboration on shared projects and initiatives for seamless services showing that collaboration takes place where there are both concrete initiatives (such as cost efficiency savings) and contacts and networks to breed ideas.

6.5. Collaboration with other actors

Until now, this chapter has dealt with how agencies collaborate with other agencies on e-government at the federal and national level. However, some government organisations also collaborate with regional and local governments. Additionally, some agencies are encouraged by the President's Office to collaborate in the context of broader goals and issues addressed at the ministerial and cabinet level. Finally, some of these agencies also collaborate with the private sector on a limited number of projects.

Collaboration at the regional and local government level

Federal agencies seldom collaborate with regional and local governments because local governments are in charge of implementing e-government at the local level. Nevertheless, agencies with local branches and regional offices also face the challenge of collaborating on e-government projects. Collaborating at this level presents a number of challenges as decentralised implementation means that regional and local government actors may use completely different systems from central government organisations. Because of these differences, the Social Security Institute reported to the OECD "it can be very difficult to standardise with state offices". Similarly, the Ministry of Social Development reported that collaboration across federal, state and municipal levels is a major challenge. The Ministry's information system is used at the national level, but not at the state and municipal level. Social Development would like to have the system used at the other levels too, as this would reduce paper and irrelevant information.

The Ministry of the Interior is working toward internal document sharing, but notes that it can be hard to share documents with state offices, as different states are at different levels of e-government development. For example, birth certificates are done by local level civil registry offices, and so the Ministry cannot make the decisions as to whether to make this service available online. Similarly, the agency for statistical information on agriculture and fishing (*Servicio de Información y Estadística Agroalimentaria y Pesquera* – SIAP) has faced a

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major challenge in working homogeneously across all states. Finally, the Office of the President has the goal of developing an information system that will work seamlessly with state and local governments so that citizens will not need to understand the various levels of government, but this system is still in its early stages.

Nevertheless, the issue of collaboration between federal agencies and local governments goes well beyond the realm of technical challenges and the implementation of IT infrastructure, standards, or systems. Differences in political parties, resistance to change, lack of understanding about e-government benefits, protection of local interests, disagreements over policy issues, difficulty of ensuring equitable service across regions, and the relatively short term of municipal government administrations (three years without re-election), all add up to present a complex situation for joint initiatives and collaboration of e-government between federal and state agencies.

However, some federal agencies do provide leverage points to improve collaboration between the federal government and municipal administrations. As part of its efforts to assist municipal governments, the National Institute for Federalism and Municipal Development (*Instituto Nacional para el Federalismo y el Desarrollo Municipal* – INAFED) has given municipalities with low level of expertise on e-government the chance to replicate portals, Web sites, online forums, content, and online services through their e-local program. INAFED also provides training programs, legal advisory programs, technical assistance and many other programs for municipal governments on different themes, such as e-government. The Institute has partnerships with INEGI, the Ministry of the Interior, the National Population Commission (*Comisión Nacional de Población* – CONAPO), and e-Mexico. In particular, INAFED has also contributed financially to the provision of funds for computer equipment and digital community centres for exclusive use of municipalities. INAFED's program has provided local governments with the opportunity to match existing solutions, and this could reduce duplication across municipalities and local administrations. Furthermore, INAFED can put people in local administrations in touch to collaborate on e-government initiatives. However, INAFED's work must be put in perspective: e-local is a small, limited program, and Mexico has 2 435 municipalities. Additionally, INAFED has only begun to partner with e-Mexico on the first quarter of 2004, when e-Mexico's local content and online solutions for municipal governments were well underway. (For more information on e-government at the regional and local level, see Case Study 3 – Agencies outside the E-Government Network, Annex A.)

Key point 6.5. Collaboration at the regional and local government level

Collaboration across different levels of government is a complex challenge in Mexico because regional and local governments use different e-government systems than the federal government. However, the lower levels of technological and administrative advancement of many state and local governments, and especially rural municipalities, in e-government, is the biggest challenge for collaboration and the creation of seamless services not only across the federal level, but also between different levels of government from regional to national areas of competency.

Collaboration at the ministerial and cabinet level: the President's Office drive

The President's Office's working methods for making different agencies collaborate on government-wide solutions and services provides one possible approach for improving e-government collaboration. The President's Office has addressed specific cross-agency problems through meetings that bring decision-makers together (*e.g.* owners of processes, auditors, the Ministry of Finance, etc.). Problems, in particular relating to private sector demands, are discussed and decisions are taken regarding how to best resolve them. The President's Office facilitates this process, and the President's Office reported to the OECD that by bringing together all the actors to find a solution in a single one-day long meeting, the process saved months in terms of fewer calls and meetings to get things accomplished.

These single day meetings have taken place in *Los Pinos* (the President's official residence and office) at least three times a year since 2003 and have met many of their objectives of coming up with *ad hoc* solutions to many of the problems identified. These meetings address specific private sector demands and they are organised by the President's Office for Innovation, the Ministry of Public Administration, and the Federal Regulatory Improvement Commission (*Comisión Federal de Mejora Regulatoria* – COFEMER). The Ministry of Public Administration and COFEMER present specific procedures and requirements to be addressed, and the President's Office gets all the actors together to solve the problem. By framing questions around users' needs – in this case business leaders – the government is able to identify actions and cut through institutional obstacles to collaboration. This model could be generalised to improve services in an equitable manner to other groups, as well as to identify and overcome barriers to internal e-government collaboration.

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Additionally, collaboration also takes place at the broader cabinet level with the President's Office acting as a driver, and this is another level where a whole-of-government perspective could benefit e-government planning and implementation. The President's Office reorganised the cabinet of ministers at the beginning of the current term to encourage collaboration around three main themes: 1) human and social development, 2) quality growth, and 3) order and respect. Ministers working on any of these three broad policy goals get together during cabinet meetings to promote horizontal collaboration among the ministries. For example, to address the need for human and social development, the President develops projects and goals with the Social Cabinet. All the ministries in this cabinet (the Ministry of Social Development, the Ministry of Labour, the Ministry of the Environment, the Ministry of Agriculture, the Ministry of Education, etc.) work together to fine tune the policy goals of the broader government agenda. From 2000 to 2004, the Social Development cabinet created new institutions of rural assistance, of gender issues, of development for indigenous peoples, and even a rural development bank with financial services for the poorest. Similarly, the Economic Cabinet, which works for quality growth, comprises the Ministry of Foreign Affairs, the Ministry of Finance, the Ministry of the Economy, the President's Office for Public Policy, the Ministry of Communications and Transportation, the Ministry of Energy, the Ministry of Tourism, NAFINSA, and the Tourism National Fund. This cabinet also works on the broader goal of macroeconomic stability and market competitiveness. E-Government could be included in these broad policy dialogues with top-level actors that could discuss collaboration schemes or solutions for government-wide e-government issues.

Public-private partnerships

Public-private partnerships and collaboration schemes are rare in most OECD countries, Mexico included. Nevertheless, despite strong regulatory barriers for working with the private sector (see Chapter 3), most agencies in the Mexican government seem particularly open to learn from and/or collaborate with the private sector when possible, in part because some senior officials have come from the private sector and understand the areas where private sector experience can be beneficial.

Government agencies interviewed by the OECD reported public-private partnerships for a limited number of projects. The Ministry of Agriculture, for example, developed the *campo* card – a smart card project- in co-operation with a private bank. The card works for the distribution of government coupons, but it also works as a general debit card for access to subsidies and loans. The Ministry of Education also reported working with the private sector based on the belief that public-private sector partnerships constituted a best practice. For example, the Ministry is developing a corporate smart card

for procurement processes in the organisation in order to reduce the administrative cost of small purchases in the education sector.

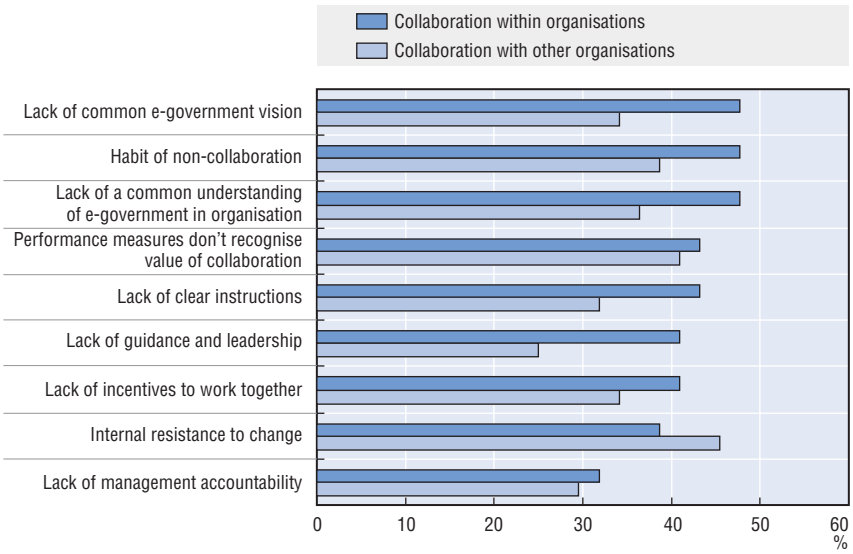
Nevertheless, none of the agencies interviewed by the OECD reported that costs and risks were shared in these so-called public-private partnerships. Outsourcing and the provision of technological solutions were often reported as collaboration projects with the private sector. It was not clear during interviews whether co-operation for the development of a smart card constituted an actual public-private partnership with shared risks and costs.

6.6. Obstacles to collaboration and possible solutions

After analysing the current situation of co-ordination *versus* collaboration in Mexico, and after developing the main areas and projects where agencies collaborate, this section will now look at the main obstacles to collaboration that agencies face to deepen collaboration. The OECD survey on e-government in Mexico divided the obstacles agencies face into two: obstacles for agencies to collaborate *within* their organisations (*e.g.* between different departments or units inside the same organisation) and obstacles for agencies or ministries to collaborate *with other* agencies. This division was made mainly because agencies face different challenges to deepen collaboration *within their*

Figure 6.9. **Obstacles preventing collaboration *with* other organisations and *within* organisations**

Per cent responding important or very important



Source: OECD E-Government Survey: Mexico, question 6.3 (b).

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organisations and to deepen collaboration *with other organisations* on e-government. The main results from the survey are reported below.

Obstacles to collaboration within individual ministries and government agencies

Government agencies surveyed by the OECD reported different obstacles for collaboration *within their organisations*. Almost half of the agencies stated that internal resistance to change was the single most important obstacle for collaboration. The oversimplified idea that e-government's efficiency gains lead immediately to post suppressions in public administrations has led many government officials to resist change and e-government. Additionally, government officials with little or no experience or training in e-government and ICTs resist changing or modifying the way they have worked for many years. Agencies could begin to address this challenge by delivering clear messages of the specific benefits and consequences of e-government to their particular organisations. Clear messages on the benefits of e-government can contribute to giving government officials a better idea of what benefits to expect from the changes related to e-government and the use of ICTs. A sound reception of these messages could also have spill-over effects on many of the other obstacles agencies face to deepen collaboration: if officials know what changes will take place and how, they can better prepare themselves for the next steps, and it can also ensure staff buy-in to the broader goals of collaboration in e-government.

However, in order for internal units or departments to collaborate more within individual organisations, a clear and honest communications strategy will not be sufficient. The second most cited obstacle to collaboration was that performance measures do not recognise the value of collaboration. Monitoring and evaluation exercises of e-government are still conducted in a silo or stovepipe fashion between agencies and the President's Office. Although they do set up broad e-government goals within the political agenda of the administration, this type of arrangement does not promote collaborative efforts as it judges each agency exclusively by its own achievements rather than how it contributes to global outcomes (see Chapter 8 for monitoring and evaluation). Other obstacles for collaboration *within organisations* were similar to obstacles for collaboration with other organisations, although the levels were reported to be lower.

In Mexico, e-government has been closely associated with innovation and leadership, two fields that could be associated with collaboration but that are more often than not associated with individual performance of agencies. The strong encouragement given to individual performance and innovation and the strategy of measuring performance through delivery of individual agency goals and targets negotiated by each ministry with the president has

left collaboration outside of the realm of performance measures and incentives. The government has publicly rewarded innovation through its Innova awards (see Box 4.2 on Chapter 4) with positive results, and it could probably consider rewarding collaboration in e-government between agencies and even within agencies. The government could also create incentives for collaboration by either including collaboration as an indicator for performance measures or by creating financial incentives for collaboration, such as the provision or access to special funds reserved for cross-agency projects.

Key point 6.6. Obstacles to collaboration

To make agencies collaborate more* within their organisations, *agencies must also deliver clear messages to their staff about the benefits and specific consequences of e-government in their particular organisations in order to fight internal resistance to change. At the organisational level, e-government leaders could help encourage internal collaboration by facilitating an organisational culture that recognises the importance of shared initiatives. Again, however, a communication strategy will not be enough. The government could make sure that performance measures recognise the value of collaboration and provide incentives for ministries and agencies to work together. Some possible solutions for this challenge could be the creation of rewards and public recognition of collaboration as an incentive for collaboration, and access to special funds reserved to cross-agency collaboration projects.

Obstacles to collaboration among different government agencies

Agencies surveyed by the OECD also reported that the main obstacles preventing deeper collaboration *with other agencies* were the habit of non-collaboration, the lack of a common e-government vision among agencies, and the lack of a common understanding of e-government. The lack of clear instructions and the lack of incentives to work together were also cited as significant obstacles.

To make organisations collaborate more *with each other*, the government could begin by communicating more clearly to agencies the importance of collaboration to fully exploit ICTs and to deliver a seamless, customer focused e-government to citizens. This could contribute to the creation of a common and concrete understanding of e-government across the entire government. Up until now, the government has very clearly communicated its e-government vision and mission, but the emphasis has been on one-way communication of goals and plans to an audience of agencies. To the extent that the government ensures that all agencies have a common understanding of e-government,

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collaboration could have fewer obstacles since all the actors involved will share common objectives across government. This, in turn, could contribute to overcoming the habit of non-collaboration and could also lead to the provision of more and more seamless services.

However, a clear, strong, and effective communications strategy alone is insufficient to make agencies collaborate more with each other. Resistance to collaboration among agencies is more passive in Mexico: e-government officials do not really know how to collaborate or what to do to collaborate since they have never been in a similar situation before. Government officials could probably benefit from collaboration road maps or models to take action and a good load of inspiration and leadership to get them started. Stronger inter-agency collaboration requires frameworks that allow them to share costs, responsibility, and benefits. Road maps in the form of reference models, non-mandatory guidance or technical assistance could also lay out cross-administration planning steps for the development of inter-agency collaboration initiatives.

Key point 6.7. Road maps and models for collaboration

In order to make agencies collaborate more among each other, a strong communications strategy of the benefits of e-government collaboration will be necessary, but it will not suffice. Mexico needs to provide clear road maps and models for collaboration to make agencies take action and collaboration. In this process, leadership and the provision of incentives will be important to drive agencies to collaborate.

As seen earlier in this report, the main role of the E-Government Network has been to share best practice and promote e-government collaboration across ministries and agencies. The Network has been helpful in ensuring that ideas are shared across organisations, and in allowing agencies and ministries to learn from one another's experiences. However, the E-Government Network does not provide sufficient incentives for collaboration in its current form.

Government officials interviewed by the OECD reported that the transfer of the E-Government Unit from the President's Office to the Ministry of Public Administration contributed to giving the work of the E-Government Network more institutional weight and a less political dimension. While the Network has been a successful means for sharing information, the question arises as to whether the current mandate is enough for in-depth collaboration, and whether there might be the need for regulations and/or legal changes. Collaboration today is very much based on personal interaction, and there are few financial or legal incentives to work together.

Organisations that are working together are frequently doing so to improve efficiency in their own organisation, and such collaboration is based on the individual initiative of the ministries involved. The E-Government Network can help facilitate the establishment of contacts, so that individuals know who to contact when they want to set up a collaborative project. In the view of some government officials, most collaborative projects are based on individual initiative and personal relations and interests, with the E-Government Network facilitating the establishment of contacts. An example of this is the Ministry of Labour and the Ministry of the Environment collaborating on a document-tracking system. As part of the drive to reduce costs, Labour is planning to adopt the other ministry's system for tracking documents, and the Ministry of the Environment has agreed to provide training for Labour officials.

The Ministry of Public Administration is currently drafting an IT and E-Government Governance Framework that will address the specific issue of collaboration in the E-Government Network. Under this new framework, instead of getting all e-government leaders together in a tight network, an executive council will be created. This council will be constituted by the CIOs of every ministry and agency in the federal government. However, Mexico does not have a CIO post in every ministry. *Ad hoc* CIOs have taken up the job either from the administrative part of an organisation (*e.g.* Oficiales Mayores and administrators) or from the technical or IT unit (*e.g.* Heads of IT units). The Ministry of Public Administration has yet to create the CIO post at the ministry and agency level. Furthermore, it is not clear whether the mere institutionalisation of the E-Government Network will improve the current collaboration scheme. As one of the objectives for e-government is to be able to respond to shifting needs and environments from a user-centred perspective, the government should be careful that institutionalisation does not lead to the ossification of structures.

Key point 6.8. Collaboration and the E-Government Network

The E-Government Network encourages collaboration but does not have the concrete tools needed to ensure that collaboration actually takes place in its current form. While the new IT Governance and Regulatory Framework Strategy could contribute to ensuring collaboration (see Chapter 4) by formalising existing structures and processes, it is nevertheless not yet clear the extent to which the new ICT Co-ordinator will "have teeth" to ensure compliance, or will have the means of providing incentives for shared projects.

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Key point 6.9. Obstacles to collaboration

- ***The four main obstacles to deepen e-government collaboration in Mexico are: the lack of a common vision and understanding of e-government across agencies, the habit of non-collaboration, internal resistance, and performance measures that do not recognise the value of collaboration.***
- ***To make agencies collaborate more with each other, the government could begin by communicating more clearly to agencies the importance of collaboration to fully exploit ICTs and to deliver a seamless, customer focused e-government to citizens. However, this communication strategy will not be enough. Although it is important to make all agencies have a concrete and common understanding of e-government and of collaboration, Mexico could drive agencies to collaborate more by providing road maps for collaboration, such as reference models, non-binding guidance and technical assistance, and by providing incentives to do so.***

Note

1. The Federal Law on Administrative procedures (article 69-B) defines the registry of accredited persons as the inscription that allows physical and moral persons to make transactions with government.

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Chapter 7

User-focussed E-Government

There is strong demand from citizens and businesses for the Mexican government to improve transparency and anti-corruption efforts, and many leaders believe that e-government provides a means of doing so. The Federal Law on Transparency and Access to Information, in combination with the use of ICT, has greatly extended the opportunities for individuals to interact directly with government. Yet making information available online is only the first step toward transparent government, and there is now a need to make the information more accessible and easy to use. E-government has helped improve the quality of government services in Mexico. For example, the citizen's portal puts all Mexican government information and services in a single place, and tailors the information provided to different groups (e.g. for students, the elderly, children, businesses, etc.). Nevertheless, there are many constraints on demand, and little has been done to re-organise service delivery to put the citizen and the user at the centre.

7.1. Introduction

Chapter 7 analyses the link between e-government and customer-focussed government in Mexico. It begins with an examination of the goal of making government more customer focussed, and then moves on to the impact of e-government on customer focus. It finishes with a discussion of user demand for e-government, and how the role of the leader can influence customer-focussed e-government.

7.2. The goal of customer-focussed government

Customer-focussed government as part of the Good Government Agenda

The Good Government Agenda emphasises putting citizens at the centre of government and providing services that are more customer-focused. Most agencies surveyed by the OECD agreed that delivering more customer-focused services is a high priority, and several people interviewed by the OECD saw their role as one of helping citizens better interact with government.

However, some agencies and officials are still not clear about the extent to which the current e-government strategy is really about improving customer service as opposed to the digitalisation of existing government-centric processes. Several government officials interviewed by the OECD mentioned that perhaps the Mexican E-Government Network is pushing online services too much – to the detriment of customer focus. For example, the Ministry of Foreign Affairs told the OECD that it might be more useful to also focus on how to best link new technology to traditional services and provide a range of choices for interaction with government so as to best improve the user experience – the basic idea behind a multi-channel service delivery strategy.

Specific objectives

One of the most important objectives for the implementation of e-government in Mexico is to strengthen citizen engagement and trust in government. Sixty-one per cent of agencies surveyed by the OECD reported that this was a "very important" objective, and another 25% reported that it was an "important" objective (see Figure 7.1, below). Responding to external pressure for e-government was also considered important, in particular responding to pressure from businesses.

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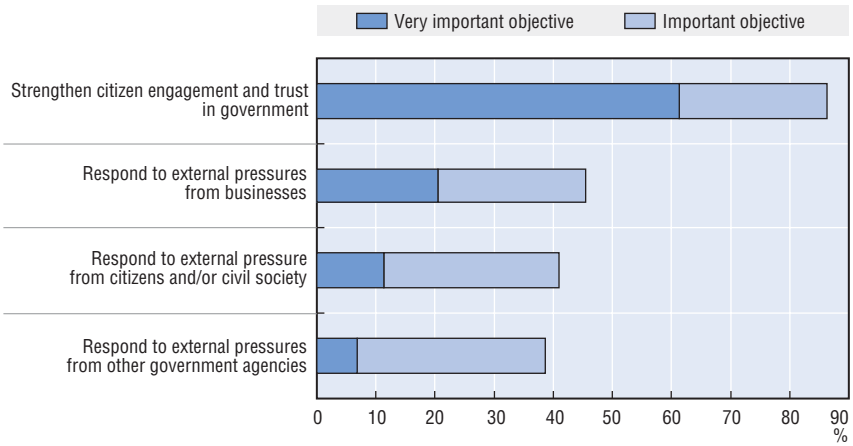
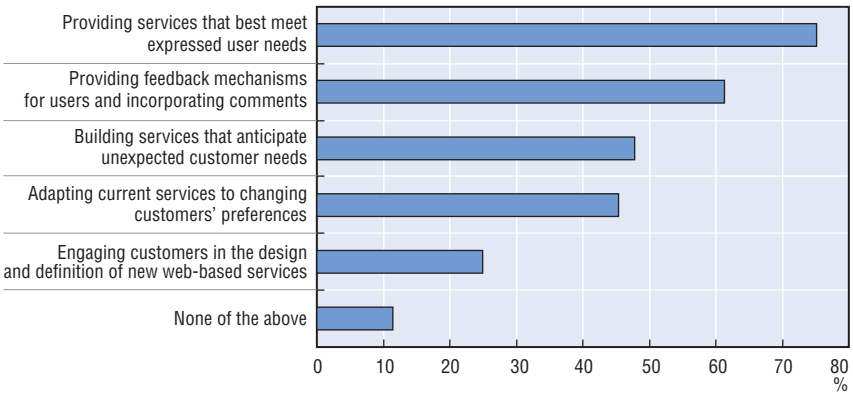
Figure 7.1. **E-government objectives in Mexico: Responsiveness and engagement**



Source: OECD E-Government Survey: Mexico, question 2.1.

Figure 7.2. **Elements included in strategies for citizen-focused e-government**



Source: OECD E-Government Survey: Mexico, question 7.2.

Elements of a customer-focussed e-government strategy

The vast majority of respondents to the OECD survey include a customer focus as part of their e-government strategy. Three quarters of respondents include "providing services that best meet expressed user needs" as part of their e-government strategy. Sixty-one per cent include providing feedback mechanisms for users and incorporating comments. Nearly half include anticipating future customer needs and adapting to changing user preference in their e-government strategies. Only 11% of respondents did not have a

documented focus on one of the areas on customer focus mentioned in the OECD survey.

7.3. Impact of e-government on openness, quality, and seamless service delivery

Three recurring elements of Mexican e-government strategies with regard to customer focus are increased openness in government, better quality services and seamless service delivery.

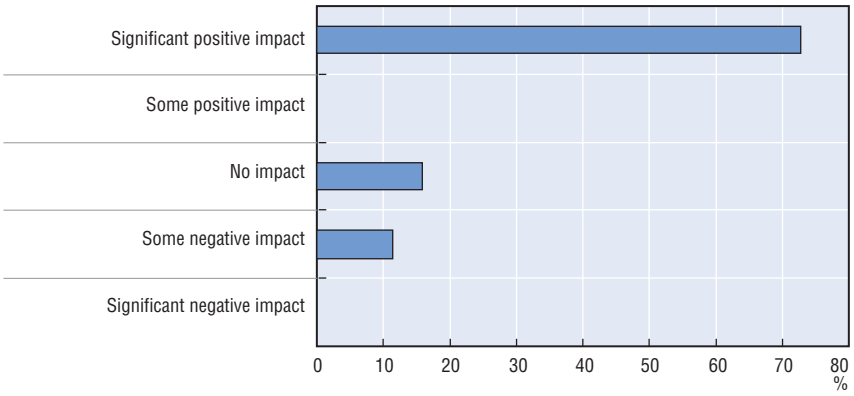
Open and transparent government

Customer focus is strongly associated with improving openness and trust in government in the Mexican political context. The Transparency Law and the Professional Civil Service Federal Law are two elements that have contributed to provide citizens with a clearer idea of what the government does and how it does it, and to a certain extent it could also be argued that these two elements have also contributed to improve the relationship between citizens and the government.

In terms of the impact of e-government, nearly three quarters of agencies surveyed by the OECD reported that e-government had a "significant positive impact" on transparency and accountability of the administration (see Figure 7.3, below). According to the OECD Survey of E-Government in Mexico, 73% of agencies interviewed stated that e-government had a significant positive impact on transparency and accountability in their organisation.

E-government has simplified citizens' requests for government information, and it has also made public information more accessible to

Figure 7.3. **Impact of e-government on transparency and accountability in the administration**



Source: OECD E-Government Survey: Mexico, question 10.1.

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citizens. This report has analysed some of the solutions that the Mexican government has implemented to provide a more responsive, transparent, and open government that engages citizens. The SISI electronic system of the Federal Institute for Access to Public Information manages citizens' information requests on a wide array of public information, and it has been widely adopted as the most used channel for citizens to make requests for public information (see Chapter 5). E-Procurement systems in the Ministry of Public Administration (*Compranet*) and the Social Security Institute (*IMSS va a comprar, IMSS compró*) have also provided examples of the positive impact of e-government on transparency in organisational change in Mexico. Finally, traditional tools for citizen engagement such as letter writing to the President – a constitutional right in Mexico – have expanded to include electronic channels to strengthen trust in government, providing and updated and convenient way for citizens to engage in a very basic type of civic involvement (see Chapter 2).

Quality services

E-government has been one of the ways which the Mexican government has sought to improve he quality of government services. Eighty four per cent of agencies surveyed by the OECD reported a positive impact of e-government on quality in their organisations (see Figure B.17 in Annex B). E-government can improve quality, among many ways, by making a service available at all times, by speeding processing time, and by bringing together information from multiple sources. An example of this is the Federal Government Citizen Portal (*www.gob.mx*), which offers information from many government organisations and their services in a single place. While the portal does not tailor services to specific citizens' needs, it does tailor the information provided to different groups (*e.g.* students, elders, children, businesses, etc.).

Mexican government organisations commonly evaluate the quality of their services through "ISO" certifications. The International Organisation for Standardisation evaluates the quality of businesses and governments with a reference framework that certifies the level of quality of an organisation's services and processes. The framework provides a common technological language between suppliers and their customers, which facilitates trade and the transfer of technology. Similarly, the certification makes it easier to evaluate quality from one organisation to the next. In Mexico, 1 453 government centres have an ISO 9000 quality certification, which together constitute 75.5% of government centres with high impact services to citizens.[1] The Ministry of Communications and Transportation, the Federal Electricity Commission, and NAFINSA are three examples of government organisations with ISO 9000 quality certification in 100% of their areas.[2]

Box 7.1. **E-government and High-Impact Services (HIS)**

High Impact Services (HIS) is a term used in Mexico to refer to the most important and demanded government transactions and services that citizens need in their daily life. The government seeks to provide assistance and personalized HIS to the majority of the Mexican population. HIS are classified by themes according to citizens' needs and selection is based on the 80/20 rule that establishes the criteria of identification: 20 per cent of the most relevant information which is most frequently looked up by 80 per cent of the users. HIS are then classified according to user profiles (citizens, companies, public servants, etc.) in order to increase the number and use of transactional services in a simple way. HIS are also classified to reinforce the customer relationship management and multi-channel strategy of organisations through technological convergence. This allows agencies to incorporate existing online services and generate new ones. Some examples of high-impact services are passport appointments, driver licences, job applications, health insurance, labour rights and provision of information on women's health.

Portals are also considered HIS because they organise information around citizen needs in a thematic manner, they promote access to other HIS from different government and private organisations, and they are available online at all times. The government's goal is to develop portals under a common architecture while inter-operability standards are adopted, but this goal has been achieved at a very slow pace. Users should be able to find high-impact services based on basic needs (topic dimension), functions and tools of the site and sectors participating (those who offer information and services). In some organisations, HIS have been identified as specific targets for online migration. For example, the Ministry of the Interior has 60 services in its process registry, and the 12 that were identified as high-impact services were put online.

Quality in government constitutes one of the items in the Good Government Agenda, and the Mexican government has introduced a quality policy and a quality model for the Federal Public Administration. The President's Office for Government Innovation has developed this quality policy and model with the goal of creating a world-class government delivering quality services through honest public servants and taking into account citizens' perception of government. The INTRAGOB Quality Model (*Modelo de Calidad INTRAGOB*) is oriented to satisfy the expectations and needs of citizens and clients on the products and services delivered by the Federal Public Administration.[3] The model is based on three indicators: performance, effectiveness, and efficiency, and it is a process-oriented evaluation of

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agencies' quality and service-delivery goals. E-government is tied to the INTRAGOB model in the broad horizontal goal of delivering timely and efficient responses to citizens' needs and requests. The model also outlines clear guidelines for ICT quality administration: agencies should identify technologies and experts and share innovations and lessons learned. The INTRAGOB model has evaluated the Federal Public Administration since 2001, and in 2004, the average score for the whole administration was 350, a 320% increase since the first annual evaluation.[4] Similarly, the President's Office awards an INTRAGOB award (similar to the INNOVA award, see Box 4.2 on Chapter 4).

In spite of these and other advances on the quality of government services, over one third of agencies surveyed by the OECD reported that e-government had a negative impact on citizen engagement. This finding could be explained by the fact that citizens are not taking up electronic services at the government's expected rate and, as a result, agencies report that e-government has had a low impact on engaging citizens in Mexico. However, no data exists on the level of citizen take-up compared to access to online services or to online service quality in Mexico. Citizen engagement is about the two-way relationship between citizens and government, and access to online information and online services would need to improve in order to have a more positive impact on citizen engagement. Nevertheless, citizen engagement also depends on a mix of delivery channels ranging from traditional channels, such as counter and telephone, to e-channels, such as the Internet, email, SMS-messaging, interactive voice response systems and digital television. Some elements of such an approach are starting to appear in Mexico, notably as a result of the HIS methodology, as part of deregulatory efforts, and as part of agency charters. Nonetheless, a multi-channel service delivery strategy in Mexico would help to spread this concept and could further strengthen the impact of e-government on citizen engagement by allowing citizens to deal with government through the channels most convenient for them, with e-government playing a complementary rather than exclusive role.

Many studies have shown that the use of ICT can raise expectations for the provision of services. For example, citizens may expect that inquiries sent by email are responded to within one week, while the expectation for responses by post may be one month. Government organisations in Mexico have also found this to be the case. For example, the Ministry of Defence told the OECD that it is a major challenge to adapt services to changing possibilities and changing customer demand. In order to adapt to this change, the Ministry believes that it needs additional capacity and training systems.

Some organisations in Mexico are responding to this changing demand head on by vastly improving their turnaround time for responses. For

example, historically the President's Office took on average 200 days to respond to a letter or request from citizens. Now, through the use of ICT, the response time is 20 days. Additionally, through the implementation of a new customer relationship management system, the Office hopes to shorten response time even further. The President's Office also hopes to develop the ability for citizens to track their submissions via the Internet, and this could increase citizen ownership of the services provided by giving them more of a sense of control. However, until there are higher levels of access to the Internet for the general population, much of this effort is geared towards the use of stand-alone kiosks.

However, citizens' expectations may also change in other ways in response to the development of e-government and the information society. In addition to faster turnaround time, expectations of the functionality of services and the way in which they are organised and presented are likely to change and it is not clear whether ministries such as Defence are employing surveys on citizen or user satisfaction to understand this changing demand from citizens and users (see next section).

Key point 7.1. Quality and user focused e-government

- ***Quality and citizen focus should be better integrated with e-government and not just with efficiency. Mexico's quality model is strongly oriented to process efficiency and process effectiveness more than to user and citizen focus. The INTRAGOB model could go beyond providing agencies with road maps for better performance, and it could provide a model to include user and citizen focus and quality as well as efficiency.***
- ***A multi-channel service delivery strategy could further strengthen the impact of e-government on citizen engagement i by allowing citizens to deal with government through the channels most convenient for them, with e-government playing a complementary rather than exclusive role. Citizen engagement is about the two-way relationship between citizens and government, and access to online information and online services would need to improve in order to have a more positive impact on citizen engagement.***
- ***Citizens' expectations may change in other ways in response to the development of e-government and the information society. In addition to faster turnaround time, expectations of the functionality of services and the way in which they are organised and presented are likely to change and it is not clear whether Mexican government agencies are employing surveys on citizen or user satisfaction to understand this changing demand from citizens and users.***

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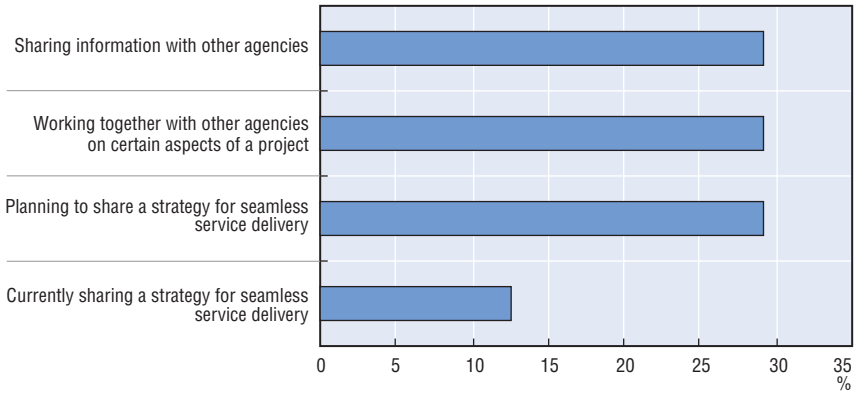
Seamless (or "joined-up") services

There has been some progress in unifying service delivery within individual Ministries in Mexico. For example, the Ministry of Labour now has only one database of companies for the whole administration – while in the past each directory had its own database of companies – and there were 80 databases in total. However, very few government organisations in Mexico currently offer joined up services with other organisations. Government officials interviewed by the OECD perceived an overlap of services along organisational lines, and, in their view, much would need to be done to reinvent government from the citizen's perspective. However, this is a very ambitious goal which cannot be achieved without additional collaboration. Only 13% of agencies surveyed by the OECD currently have strategies for seamless service delivery based on the delivery of services to common customer groups, though another 29% of agencies reported that they have plans to do this in the future (see Chapter 6 for more on seamless services).

Figure 7.4. **Working with other government agencies**



Source: OECD E-Government Survey: Mexico, question 6.1.

Key point 7.2. Collaboration and customer focus

Until ministries and agencies work together for the delivery of joined-up services, efforts at customer-focussed government will remain agency-based, and the full benefits of seamless service delivery will remain out of reach.

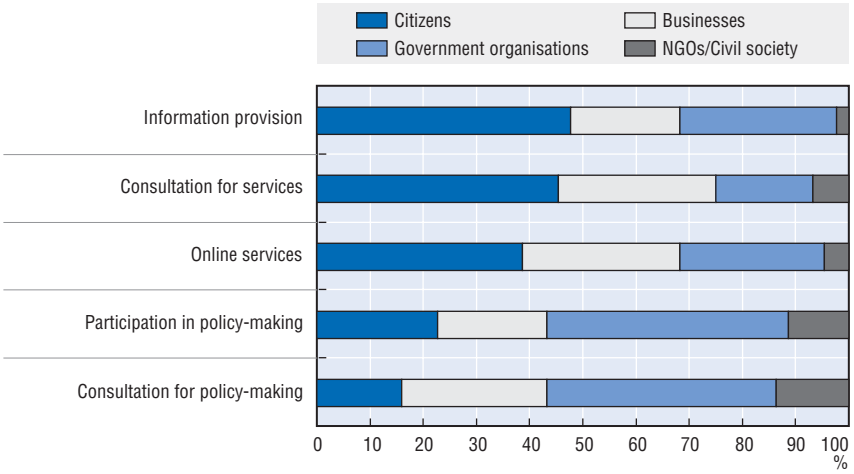
7.4. Demand for e-government

As we have seen, one of the objectives of customer-focussed e-government is to meet demand from businesses, citizens and other government agencies. But what e-government services are these people and organisations demanding? What are the constraints that limit such demand? How does the government determine which services are in demand? These issues are covered in this next section.

What demand exists for e-government?

Agencies surveyed by the OECD reported that the strongest demand for e-government came from citizens and government organisations. Citizens demanded information and consultation for services, and government organisations demanded participation and consultation in policy-making, and this may reflect a desire to work more closely together on the formulation of cross-cutting policies. Nevertheless, agencies surveyed by the OECD also reported that responding to pressure from citizens was not one of the most important objectives of implementing e-government in their organisations. This does not necessarily show a lack of user focus, but it does reflect the importance given to users in the creation and provision of online services. Agencies surveyed by the OECD also reported a considerable demand for online services from businesses, and government organisations have responded accordingly (see Box 7.2 below). Finally, low demand from civil society groups may also reflect a relatively weak civil society in Mexico.

Figure 7.5. **E-government demand in Mexico: where is it coming from?**



Source: OECD E-Government Survey: Mexico, question 7.3.

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E-Government demand reported by agencies surveyed by the OECD varied by service type, as depicted below.

Certain ministries have clear sets of clients for e-government services, which means it is easier for them to tailor specific services for those groups. For example, the Ministry of the Environment often receives information requests from PhD students conducting research for their theses, and many require large amounts of information. Meeting the needs of these well educated and Internet-savvy clients in a cost-effective manner drives customer focused e-government in the Ministry.

E-government can also help agencies serve more customers than they would otherwise be able to reach. For example, the Institute of the National Fund for Workers' Housing (*Instituto del Fondo Nacional de la Vivienda para los Trabajadores* – INFONAVIT), reported to the OECD during an interview that serving more customers was an immediate result of e-government. INFONAVIT was serving 300 000 in 2004 – compared to less than 200 000 customers annually in the past. Currently, the institute has a goal of serving 375 000 clients in 2005 with even less staff than what it uses now.

Box 7.2. **Customer focus: services to businesses**

Many of the most successful agencies with regard to achieving a customer focus are those that provide services to businesses. In part, this may be due to the fact that businesses tend to have higher rates of Internet access than individuals. Businesses also obtain a clearer benefit from online services because e-government services can impact their bottom line by reducing administrative costs and speeding up transaction times.

For example, NAFINSA – the Mexican Development Banking Institution – has handled 2 million consulting and advice cases through its online system. Similarly, SAT – the Administrative Tax System- has put some of its most important services to businesses online. One of these services is the registration of imported and exported goods in customs, which is done entirely online: brokers and importers can monitor the state of their merchandise via the system. Fifteen-hundred brokers use the system to monitor and register 7.5 million shipments every year, with 200 000 combinations of business processes and transactions online for the past 11 years.

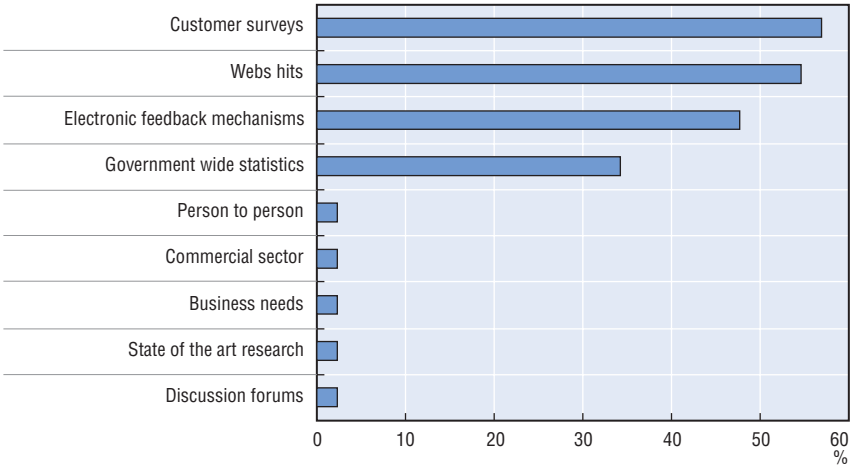
These examples demonstrate that many online government services are available to businesses and that initial take-up has been good. However, there has been little evaluation of service quality or to see whether these services have been designed according to business needs.

Source: NAFINSA and SAT.

Understanding customer needs

Several techniques are used in Mexico to better understand user needs, including customer surveys, Web statistics, feedback mechanisms and government-wide statistics (see Figure 7.6, below). Other techniques were considerably less popular.

Figure 7.6. **Sources for understanding e-government demand**



Source: OECD E-Government Survey: Mexico, question 7.5.

In the National Council for Arts and Culture (*Consejo Nacional para la Cultura y las Artes* – CONACULTA), demand is estimated by the administrative unit through the use of customer surveys and evaluations. Simple Web statistics are also useful to evaluate Web site and portal use. E-Mexico uses Web statistics for its portal, and these measures show that use is growing exponentially. The e-Mexico initiative also measures traffic in its digital community centres. Feedback mechanisms, such as forms on the Internet, are used by some organisations to evaluate quality and demand for services. The Ministry of Economy uses feedback mechanisms, and has received many congratulatory emails regarding the use of e-government.

However, awareness of e-government is low among citizens, and some ministries and agencies think that additional marketing would be useful. The Ministry of the Environment told the OECD that "there is a need for greater participation of the press, and a greater emphasis on public relations". In order to improve customer's understanding of e-government, just over half of respondents have a strategy to better communicate their e-government plan to citizens, businesses, NGOs and civil society.

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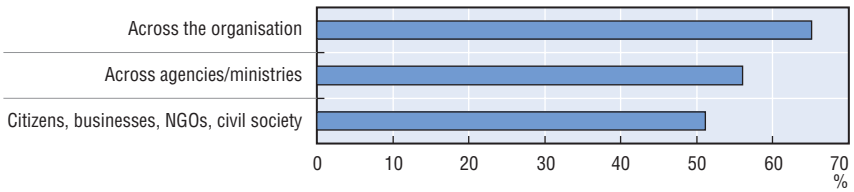
Figure 7.7. **Communicating the e-government implementation plan to different actors**



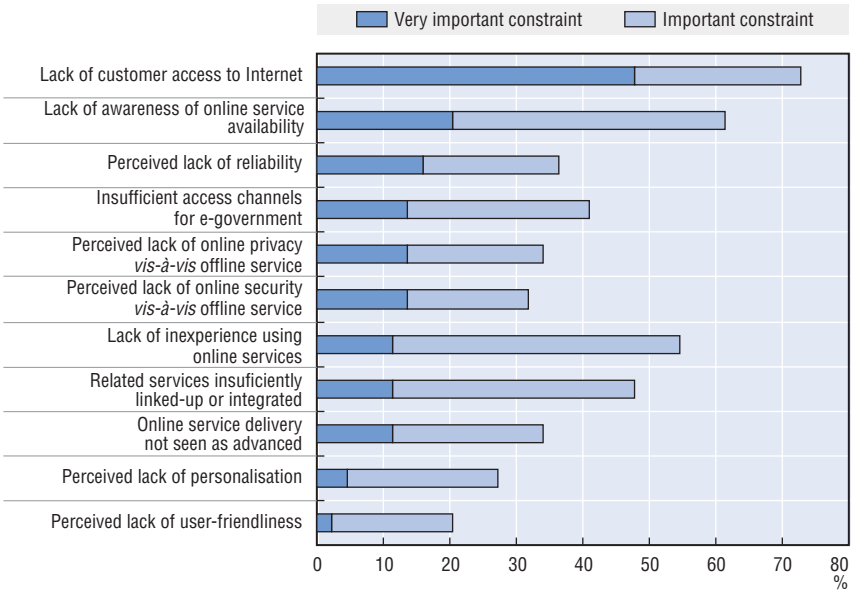
Source: OECD E-Government Survey: Mexico, question 7.5.

In terms of monitoring and evaluation, the most commonly used evaluation criteria for e-government projects is customer satisfaction (80%). Other criteria used that are related to customer focus include increased number of users (66%) and cost/benefit for users (55%) (see also Chapter 8 "Monitoring and Evaluation").

Constraints on demand

Many factors constrain customer demand for e-government in Mexico, but by far the strongest constraint is the lack of customer access to the Internet (see Chapter 3 for more information on the Digital Divide). Nearly half

Figure 7.8. **Customer demand constraints in Mexico**



Source: OECD E-Government Survey: Mexico, question 7.4.

of respondents said that the lack of access is a "very important" constraint to e-government, and another quarter said this is an "important" constraint. Some e-government officials in the Mexican government are pessimistic about the little impact that they perceive to have towards the digital divide and instead focus on the provision of online services for the early adopters of technology. Other ministries are responding to this lack of access through a focus on the back office and the use of facilitated Internet centres.

Other important constraints on demand are lack of awareness of online service availability, inexperience regarding the use of online services and/or a lack of the necessary skills and a belief that services that are insufficiently joined up.

A lack of personalisation, perceived lack of security, perceived lack of reliability and insufficient access channels were considered much less important, with many respondents considering these factors to be "not an important constraint" or "not a constraint".

7.5. The role of the leader

The majority of agencies surveyed by the OECD survey reported that e-government leaders have an important role to play in strengthening a customer-centred approach to e-government: 64% of respondents reported the role of the leader is "very important" and another 31% reported it as "important" (see Figure B.18 in Annex B). However, implementing a true customer focused approach in government can be very costly, and is not always feasible in ministries and agencies that are under considerable pressure to reduce the cost of government. It can be a great challenge for government organisations to achieve customer satisfaction while reducing the cost of services, and it is up to e-government leaders to find the appropriate balance.

In order to address this challenge, agencies need to recognise that user focus means changing organisational structures and processes and reallocating resources, and this requires leadership. Additionally, agencies need to realize that all countries are behind on user focused e-government, and this would be important for leaders to take on. Finally, agencies and their leaders can better respond to user needs by taking into account geographic differences and local particularities in users' needs.

Key point 7.3. Customer focus and cost

Customer-focussed e-government does not always go hand-in-hand with the drive to reduce cost, and it can be a great challenge for government organisations to achieve customer satisfaction while reducing costs.

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Notes

1. This figure was last updated in September 2004 by the Federal Government Quality Network (*Red de Calidad del Gobierno Federal*) in *¿Dónde estamos y a dónde vamos en nuestra Agenda de Buen Gobierno?* [Where are we and where are we going with our Good Government Agenda?], at *www.innova.presidencia.gob.mx/documentos/14*, visited on 23 February 2005.
2. As reported by the President's Office for Government Innovation Web site at *www.innova.gob.mx/archivos/4/5/4/files/archivos/sip-1723.pdf*, visited on 23 February 2005.
3. President's Office for Government Innovation, *Modelo de Calidad INTRAGOB* [INTRAGOB Quality Model], Revisión 1, Marzo de 2003. This document is available at the agency's Web site: *www.innova.gob.mx*, visited on 23 February 2005.
4. Ministry of the Economy, *¿Dónde estamos y a dónde vamos en nuestra Agenda de Buen Gobierno?* [Where are we and where are we going with our Good Government Agenda?], at *www.innova.presidencia.gob.mx/documentos/14*, visited on 23 February 2005.

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Chapter 8

Monitoring and Evaluation

Mexican organisations undertake frequent monitoring activities, due in part to an annual budget target negotiation exercises with the Ministry of Finance and the President's Office. E-government monitoring activities emphasise user satisfaction, contribution to public management reform, number of online services provided and efficiency gains. The evaluation process is relatively transparent, with results available not only to the President's Office and the Ministry of Public Administration, but also frequently being made available to other government organisations and the public at large. While there is some cost/benefit analysis taking place for e-government projects, it is generally done on an ad hoc *basis and is not uniform from one organisation to another. Additionally, many cost/benefit studies tend to take into account only financial benefits of e-government and do not include social benefits, which can be much more difficult to measure. Much justification for e-government is done on the assumption that ICT leads to gains in efficiency and service quality, without actually demonstrating those benefits.*

8.1. Introduction

This last chapter presents e-government monitoring and evaluation activities in Mexico. It begins with an analysis of the frequency of these activities, and then looks at what is measured and how. The chapter presents findings as to the difficulty of such evaluations in Mexico, and the transparency of the results.

8.2. The frequency of e-government monitoring and evaluation

Compared to other countries, the Mexican government undergoes very frequent monitoring and evaluation exercises. The frequency of monitoring and evaluation exercises is linked to the one-year budget cycle and the President's Office monthly monitoring of the Good Government Agenda goals, including e-government progress. E-Government monitoring and evaluation activities are generally part of broader monitoring activities, and are not specific to an evaluation of e-government *investment*.

In fact, 82% of organisations surveyed reported that they undertake monitoring and evaluation activities more than once a year at the project level. Eighty per cent undertake them more than once a year at the single activity level, 68% do them more than once a year at the organisational level, and 48% do them more than once a year as part of reviews done at the national level (see Figure B.19 in Annex B).

Key point 8.1. Frequent monitoring and evaluation

Mexico undergoes frequent monitoring and evaluation activities, due largely to the one year budgeting cycle and the annual negotiation of targets with the President's Office.

Additionally, over half of the organisations surveyed also take part in e-government evaluation exercises from external audits (see Figure B.20 in Annex B). These external evaluations can help ensure the neutrality of the findings. 18% of respondents said that they undergo e-government evaluation exercises from external audits more than once a year, and 27% responded that they have external audits for e-government every one to two years.

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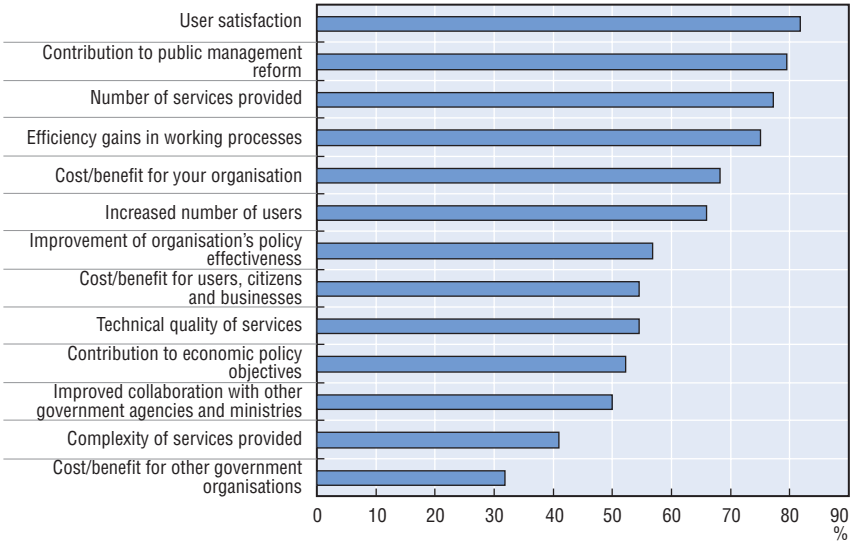
8.3. What is measured?

The Mexican government generally evaluates e-government by comparing project outcomes with their stated objectives. E-Government monitoring and evaluation activities are closely related to the most important e-government objectives in Mexico (transparency, efficiency gains, citizen engagement, and Good Government Agenda goals, see Chapter 2). Thus, criteria for assessing e-government reported in the OECD survey include user satisfaction (82%), contribution to reform (80%) and efficiency gains (75%). Additionally, a large number of organisations evaluate e-government based on the number of services provided (77%). Other commonly used criteria include organisation cost/benefit analysis and increased number of users (see Figure 8.1 below).

Figure 8.1. **E-government evaluation criteria in the Mexican government**



Source: OECD E-Government Survey: Mexico, question 9.2.

Key point 8.2. Objectives and monitoring and evaluation

Monitoring and evaluation activities are closely tied to the objectives that are negotiated each year with the President's Office.

The Mexican government strongly emphasises the evaluation of e-government projects' effectiveness in meeting their objectives. This focus is useful in the sense that it can contribute to argue the case for new projects and expenditure, to assess progress towards programme goals, and to justify

the continuation of an initiative. However, focusing on monitoring goals and evaluating progress does not always lead to understanding e-government demand and assessing users' benefits, nor does it necessarily need to measuring internal transformation benefits besides the benefits of end-users. OECD countries recognise that monitoring and evaluation of government programmes is often difficult: objectives are frequently unclear, and different stakeholders have competing views of progress and targets.

The Mexican government should continue to monitor and evaluate e-government goals, but it should also develop an effective evaluation framework with good metrics, regular monitoring and reporting, and the use of long-term evaluation practices. E-Government evaluations should be based on a mixture of qualitative and quantitative indicators. Nevertheless, qualitative indicators are difficult to use when comparing success, and quantitative indicators tend to be overvalued. This is why effective indicators for monitoring and evaluating e-government should be designed to reflect programme goals. Goal-oriented evaluations pose the risk of making Mexican government organisations focus solely on meeting specific targets that were negotiated at the highest level with the President's Office. While it is important to base indicators on stated targets, e-government evaluations should also be flexible enough to consider unexpected outcomes.

Key point 8.3. Goal-oriented e-government evaluations

The Mexican government emphasises the evaluation of e-government projects' effectiveness in meeting their objectives. However, focusing on monitoring goals and evaluating progress does not always lead to understanding e-government demand and assessing users' benefits, nor does it necessarily need to measuring internal transformation benefits besides the benefits of end-users. Goal-oriented evaluations pose the risk of making Mexican government organisations focus solely on meeting specific targets that were negotiated at the highest level with the President's Office.

8.4. How is it measured?

Several methods are used to evaluate e-government in Mexico, including the Presidential Target System and cost-benefit analysis. In general, however, a considerable amount of e-government officials interviewed by the OECD reported that they had no specific means for measuring e-government, but rather assumed that providing high impact online services (see Chapter 7) were beneficial. While benchmarking is not currently widespread, organisations such as the Ministry of Economy and the President's Office hope to engage in more benchmarking activities in the future.

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Non-measurement of e-government

In Mexico, as in other OECD countries, many e-government officials do not have specific means of measuring e-government projects. Instead, e-government evaluations are part of broader evaluations of projects within the organisation. In many cases, agency projects use ICT assuming that e-government provides general benefits and therefore lack specific measurements to demonstrate this assumption.

Several government officials argued that investing in e-government is an obvious need at the current early stage of e-government implementation in certain Mexican organisations, so time and resources should not be spent on evaluations. For example, the Ministry of Social Development (Secretaría de Desarrollo Social – SEDESOL) is currently investing in the replacement of computer equipment from the mid-1990s, and argues that the need for this investment is justified without any specific measures. While this approach is certainly the least resource intensive, it is less effective once e-government initiatives move beyond basic infrastructure investments and the justification for investment may not be obvious.

Key point 8.4. Obvious need for e-government

Many government organisations do not undertake e-government monitoring and evaluation activities as such, as they consider the need for their e-government initiatives to be "obvious". While this may be manageable in the early stages of e-government initiatives, more in-depth evaluation will be needed as e-government continues to advance.

Presidential Target System

The Presidential Target System is the most common e-government evaluation tool used in the Mexican government. This system compares outcomes to stated objectives, and is done at the highest level (see Chapter 4 for a more general description). All government agencies in the Central Public Administration are required to supply a series of evaluation documents (former evaluations, presidential priorities for their agency, and customer focused goals) to the President's Office for Innovation, which in turn drafts a proposal of goals to be negotiated between the President and the Ministers. Once the draft proposal of goals is finalised, the President directly negotiates the goals with the Minister, and one month later, the goals are agreed upon by a formal agreement between the two. These goal setting exercises take place at the beginning of the year, and the implementation of goals is monitored on a monthly basis, with one half-year and another end of year evaluation. This

goal setting exercise is done for all government objectives, not just for e-government objectives. The Ministry of Public Administration keeps track of ministries' progress through a "traffic light system" (see Box 8.1, below).

Box 8.1. **Traffic light system**

Every month, each agency sends a status report on the goals agreed between their Minister and the President's Office. If the ministry predicts that they will achieve the goal, it labels the goal "green", and if the ministry believes they will not achieve the goal, the goal is labelled "red". If there is a barrier that may prevent them from achieving the goal, the goal is labelled "yellow", and the President's Office looks into the elimination of the reported barriers so that the agency can achieve its goals. In June, the results are reviewed by the ministry's internal audit to confirm that the reports are correct. At the end of the year, the agency makes a final report, which may be revised and presented in final form in February of the following year in a meeting with the President's Office to present the results of the previous year and the goals of the following year. There is strong competition for achieving all goals between ministries.

Source: President's Office for Government Innovation.

Other organisations also use the traffic light system for their internal monitoring. For example, the Social Security Institute monitors all of its clinics and hospitals with a traffic light system. According to e-government officials in this agency, the system helps them plan better, and looks at their needs for the next 2-3 years. Suppliers can use the results to negotiate futures and options for some of the commodities, and it is also possible to see which states pay the lowest and highest prices. However, not every agency uses the traffic-light system: each agency chooses its own control and evaluation system.

The Presidential Target System and the traffic light system are useful in the sense that they push ministries and agencies to deliver strategic goals because of the high-level engagement between ministers and the president. The traffic light system, in particular, has the advantage of being straightforward and easy to monitor. However, the system merely records progress on stated objectives. The Presidential Target System is currently unable to assess the impact, quality, and efficiency of the implementation of negotiated goals. Furthermore, the monitoring traffic light system is a self-assessment method conducted by internal audits, which creates incentives for ministries to rank themselves positively even if the audit is independent. Additionally, appropriate measures for evaluating qualitative indicators within the traffic light system are difficult to develop (*e.g.* how to measure quality improvements). On its own, the traffic

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light system is not able to measure the full benefits of e-government: in many cases it must be accompanied by more concrete measures for the costs and benefits of e-government.

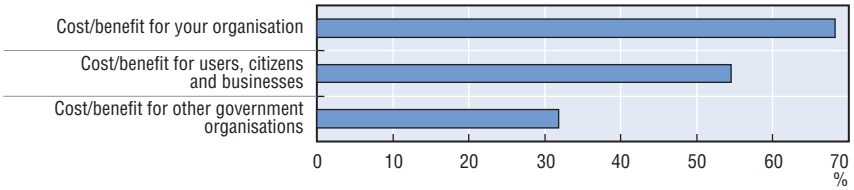
Key point 8.5. The traffic light system

While the traffic light system provides a useful base for monitoring and evaluation activities, it does not provide the in-depth framework that is needed for more advanced analysis of e-government initiatives.

Cost/benefit analysis

Many organisations also use cost/benefit analysis as a criteria for e-government evaluations. Over two thirds undertake cost/benefit analysis for their organisation, which is useful for all e-government projects. Over one half of organisations surveyed consider cost/benefit for users, citizens and businesses, a more complicated and in-depth analysis, but one that leads to more customer focussed government. Finally, almost one third consider the cost/benefit for other government organisations, which is particularly useful for joint or collaborative projects (see Figure 8.2, below).

Figure 8.2. **Cost/Benefit analyses as e-government evaluation criteria in Mexico**



Source: OECD E-Government Survey: Mexico, question 9.2.

For example, the Ministry of Education compares cost and use of traditional processes and electronic processes to measure efficiency per system user. The Ministry found that by using biometric cards, 46 000 people had easier access to bills and assistance, and the return on investment was made in 12 months time.

While cost/benefit analysis provides a useful measure regarding the business case for e-government investment, the cost benefit analysis carried out in Mexico is at an early stage. The most common measures include return of investment and cost/benefit analysis, but they generally do not take into account externalities (such as costs and benefits to other organisations) and

vary widely in the depth of their analysis from one organisation to another. Additionally, as there is little harmonisation from one organisation to the next, it can be difficult to compare e-government initiatives from different organisations. As the report was being prepared, the Ministry of Public Administration was developing standard criteria for the development of a cost/benefit analysis framework for the federal government. The Mexican government plans to have this framework ready for the first semester of 2005.

Key point 8.6. Cost/benefit analysis

While more and more government organisations in Mexico are now doing cost/benefit analysis, the measures that they are using are still relatively simple and would be improved by including externalities (such as costs and benefits to other organisations). Additionally, organisations would benefit from a more harmonised approach for cost/benefit analysis across the government.

8.5. Difficulty of evaluations

While several organisations remarked to the OECD that it can be hard to measure the impact of e-government on their core services (*e.g.* hard to measure the impact of e-government on criminality in the Ministry of Security), the vast majority of government organisations surveyed do not consider the difficulty of e-government measurement and assessment to be an important challenge (see Figure B.21 in Annex B). This may be, in part, due to the measures used in most cost/benefit studies in Mexico, which are mostly based on a comparison of invested costs and perceived benefits to end users and internal efficiency gains. The lack of a framework for cross agency comparisons may also explain this.

Other OECD countries use a wide range of methods for monitoring and evaluating the impact of e-government. Like Mexico, Austria, the Czech Republic, and the United Kingdom use benchmarking as their main non-economic assessment method. Similarly, Finland, Germany, the United States, and the United Kingdom also use cost/benefit analysis like Mexico. However, other OECD countries are also using other economic assessment methods such as Key Performance Indicators (KPI), Net Present Value, Return on Investment (ROI), Internal Rate of Return (IRR), and Value Assessment Methods (VA) (OECD, E-Government for Better Government, 2005).

Some government organisations in Mexico use advanced cost/benefit analyses and techniques, but this is not a wide-spread practice. Furthermore, there is no single standard government wide practice for evaluating

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e-government or for carrying out cost-benefit analyses. Officially, there is a universal monitoring and evaluation framework developed and overseen by the President's Office. However, this framework is more goal-oriented, and it is evaluating only the performance but not the projects themselves. The Ministry of Finance and NAFINSA (Development Banking Institution) use advanced cost/benefit analyses that include Return of Investment and projection of costs, but most government agencies continue to report the internal administrative efficiency gains and the savings in time as qualitative indicators of the benefits of e-government *versus* the initial investment made on a project. The majority of evaluations in Mexico are done at the project or activity level, but it was not clear whether they took into account accrued savings and benefits for the organisation or for the whole of government.

Key point 8.7. Challenge of cost/benefit analysis

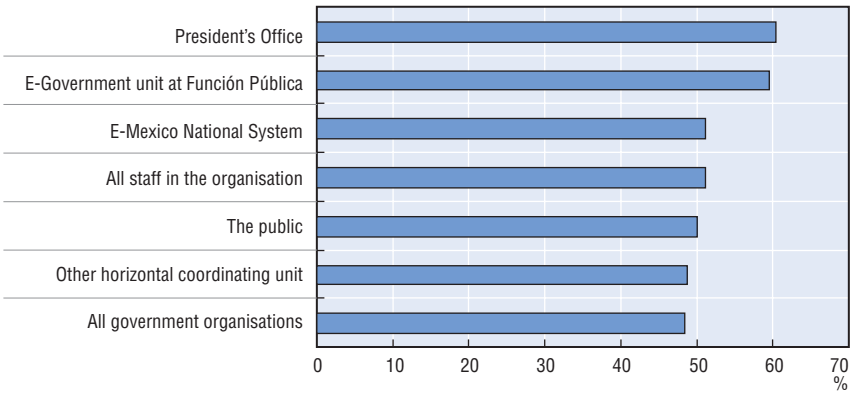
While most organisations do not consider cost/benefit analysis to be an important challenge in Mexico, this is because the cost/benefit analysis that is taking place is still in the very early stages. Some agencies are using advanced cost/benefit analyses, but this is not a widespread practice and evaluation techniques remain focused on qualitative approaches to efficiency gains in administrative procedures.

8.6. Who sees the results?

Sharing the results of monitoring and evaluation activities can help motivate agencies to do better. Two thirds of agencies responding to the OECD survey reported sharing the results of e-government monitoring and evaluation activities with the President's Office, which is not surprising given the nature of the process in the Mexican context. An almost equal number of respondents reported sharing the results of their e-government monitoring and evaluation activities with the E-Government Unit of the Ministry of Public Administration, which demonstrates the important role of the E-Government Unit in sharing experiences or both good and bad practice. Half of all respondents share their results with e-Mexico.

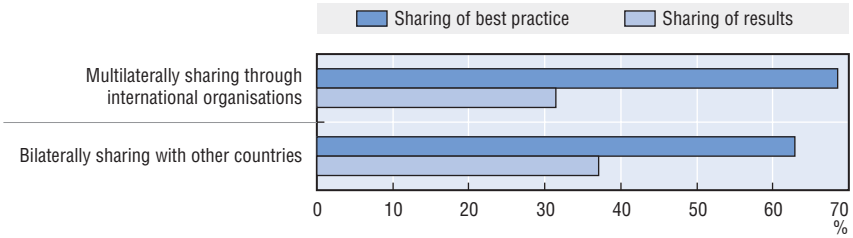
Monitoring and evaluation is also being used as a tool for transparency in Mexico, and half of organisations surveyed reported making the results of evaluation activities available to all staff in the organisation. Slightly over a third of organisations reported that they make results available to all government organisations and the general public. However, it is not clear whether the results of these evaluations were published in Web sites, annual reports, or if they were readily available upon citizen request.

Figure 8.3. **E-government evaluation results are shared with the following organisations**



Source: OECD E-Government Survey: Mexico, question 9.1.

Figure 8.4. **Sharing of results and best practice with other countries and international organisations**



Source: OECD E-Government Survey: Mexico, question 9.1.

Agencies surveyed by the OECD also reported sharing the results of e-government monitoring and evaluation activities with other countries and international organisations. However, these agencies are more likely to share examples of best practice than to provide all results of monitoring activities. While only 38% share all results on a bilateral basis with other countries and 31% share all results multilaterally through international organisations, 69% of respondents share best practice with international organisations, and 63% share best practice bilaterally with other countries.

As seen above, the Ministry of Finance works closely with all ministries and agencies during the negotiation of targets with the President's Office, but it is the Ministry of Public Administration that oversees the monitoring and evaluation of e-government projects across government. It was not clear whether results of monitoring and evaluation activities were also reported to

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the Ministry of Finance and whether there were any tie-ins between the traffic light system of the Presidential Target System and budget allocation and political support of e-government projects.

Key point 8.8. Sharing the results of monitoring and evaluation

Agencies do share results in a transparent fashion, but they do it mostly horizontally with superior agencies either auditing them or evaluating them (*e.g.****the President's Office, the Ministry of Public Administration, and the Ministry of Finance). It was not clear the extent to which agencies shared results between themselves and with the general public. Monitoring and evaluation in Mexico is above all a vertical exercise of goal achievement reporting, and besides the main agencies and key players involved, it takes place behind closed doors, even though information can be demanded by citizens afterwards.***

Next Steps

In June 2004, the OECD presented the main findings of the review of e-government in Mexico to the Mexican Government. In July 2004 the main findings were reviewed by all OECD countries at an E-Government Symposium for Senior E-Government Officials. The main findings were also presented at the 10th year anniversary of Mexico joining the OECD, 3-4 November 2004, and used in the Mexican Innovation Week, 2-5 November 2004.

The OECD reviewed the new Mexican e-government strategy during its drafting period in June 2004 with the Ministry of Public Administration and INFOTEC. The knowledge gained by the study of e-government in Mexico allowed the OECD to assess the Governance and Regulatory Framework Strategy for the Federal Public Administration (see Box 4.4, p. 84). This framework was officially presented to the Ministry of Public Administration in late 2004, and it will become effective as law if approved. The Mexican Government based its new e-government strategy on the OECD's findings and assessment of e-government in Mexico. The Mexican government included the OECD e-government review of Mexico as a key input of their plan for creating its new e-government strategy.

Over the next few years the Ministry of Public Administration intends to apply the findings of this report with regard to the central administration to advance its central e-government strategy and its plans to further institutionalise e-government.

The review of e-government in Mexico comprises the second in a series of national e-government reviews, following the review of e-government in Finland. Concurrently, the OECD is publishing a review of e-government in Norway, and it will shortly publish a review of Denmark. The OECD will continue to undertake reviews using its common analytical framework, which assists countries in evaluating their e-government policies, ensures international comparability of findings and systematically builds up a body of empirical evidence regarding good e-government practices. Other countries have recognised the importance of a review of e-government in Mexico, as Mexico has been able to implement change quickly and "leapfrog" some common technical challenges that other countries face due to their legacy systems. In particular, other countries in Latin America have expressed an

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interest in working with the OECD more closely in the future, based in part on the findings of the Mexico review.

The review of e-government in Mexico has been highly complementary to OECD work on e-government, and has provided numerous insights which fed into the OECD report "E-Government for Better Government" (OECD, 2005). By pursing other country reviews the OECD hopes to back up its core work with concrete examples of issues and problems, as well as possible solutions in OECD countries.

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ANNEX A

Case Studies

Case Study 1: E-Government in the Social Security Institute and the Ministry of Health

One of the most striking observations about e-government in Mexico is the contrast between highly successful organisations and those that are struggling to make even minor changes. One case study that effectively demonstrates this contrast is a comparison of e-government in the Social Security Institute (*Instituto Mexicano del Seguro Social* – IMSS) and the Ministry of Health (*Secretaría de Salud* – SALUD).

Background on health systems in Mexico

There are three different systems for health care in Mexico: universal health care; health care for workers; and health care for government employees. The Ministry of Health is responsible for universal health care, the Social Security Institute is responsible for health care for workers, and the Institute for Health and Social Security for Government Workers (*Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado* – ISSSTE) is responsible for the health care of government workers. IMSS and ISSSTE are not part of the Ministry of Health, they are deconcentrated administrative bodies.[1] This means that IMSS and ISSSTE are financially independent of SALUD and the Ministry of Finance, collecting their revenue directly through social security contributions. In practice it means that IMSS and ISSSTE have a high degree of independence from the Ministry of Health. However, as a part of their nature as health care providers, IMSS and ISSSTE follow public policies and standards developed by the Ministry of Health.

The Ministry of Health is thus the ruling body for healthcare providers, but it is not a massive healthcare provider, with the exception of the National Health Institutes (*Institutos Nacionales de Salud*). The Ministry of Health provides services through the State Health Institutes (*Institutos Estatales de Salud*) or IMSS-Oportunidades rural clinics, which are responsible for the

operation of all of the general hospitals, rural hospitals, and rural clinics. The Social Security Institute, in turn, provides health services to approximately 58 million people.[2] The Institute for Health and Social Security for Government Workers serves a smaller group of people (10 236 523 active and retired state workers, including their families),[3] and so will not be compared to the others in this case study. Finally, the Ministry of Defence and PEMEX cover 1.4 million users, and private providers serve 12 million people.

E-government in IMSS and SALUD

IMSS and SALUD have similar mission statements, and provide similar services to approximately the same number of people. While IMSS has a total budget that is approximately ten times that of SALUD and an IT budget that is eighty times larger, SALUD has higher rates of staff access to PCs and the Internet. Yet as demonstrated by their main accomplishments, goals, and means of evaluating progress, IMSS is much closer to e-government transformation, while SALUD is still largely in a computerisation phase of e-government. The two organisations are contrasted in Table A.1, below.

Analysis

The main differences affecting the success of e-government implementation in IMSS and SALUD comprise the following:

- Level of IT funding.
- Ability to re-invest savings due to e-government.
- Modernisation and reform to accompany ICT use.
- E-government evaluation methods.

Level of IT funding

Perhaps the most obvious difference between e-government in the Social Security Institute and the Ministry of Health is budget. The Social Security Institute has invested heavily in IT ($120 million – or 0.6% of its total budget), while the Ministry of Health has invested a much smaller amount ($120 000 – or 0.075% of its total budget). This doubtlessly accounts for some of the difference between the two organisations with regard to e-government, and is given much of the blame for more limited success at SALUD.

Nevertheless, many organisations with limited funding have made innovative use of e-government to transform government structures and processes and a lack of funding should not serve as an excuse for a lack of action. As we saw in Chapter 3 of this report, all government IT departments would like additional funding. Yet there are other, more profound, differences

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Table A.1. **E-government in the Social Security Institute and the Ministry of Health**

	Social Security Institute (IMSS)	Ministry of Health (SALUD)
Mission statement (regarding the provision of health services)	Provide disability and retirement pensions, day care centres, and collect tax in the form of social security contributions. IMSS is the largest healthcare provider in Mexico.	Contribute to a fair, just, including, and sustainable human development through the promotion of health as a shared social objective and the granting of universal access to high quality integral health services that satisfy the needs and expectations of citizens
Number of people receiving services	56 million (including IMSS-Oportunidades)	55 million
Number of hospitals	223 general hospitals 40 tertiary hospitals 1 200 family medical clinics 69 rural hospitals 3 540 rural clinics	268 general hospitals 64 integral hospitals 70 specialised hospitals 164 rural hospitals 7 696 rural clinics
Total budget	$20 billion	$2 billion
IT budget	$120 million	$1.5 million
Number of central government employees	403 000	20 000
IT staff	7 600: 400 IT professionals, 1 200 data entry, 6 000 IT related.	200: 120 IT related, 80 working for the Ministry's IT Unit
Percentage of employees with PCs	79% (IMSS operates more than 40 000 computers in two shifts with a 79% ratio calculated based on the total number of IMSS employees.)	45%
Percentage of employees with Internet access	79% (Computers in medical facilities are used at least in two shifts, see note above.)	40%
Most important dates with regard to e-government (along with main events)	1987: limited e-services to help employers record changes in affiliation data (IMSS for your company, or "IDSE"). 2001: Launching of IDSE based on Internet's application service providers; Social Security Law allows the utilisation of electronic signature, electronic patient record and electronic transactions. Utilisation of national identification code to replace social security number (December). 2002: Nation-wide initiative for electronic patient record. 2003: First 105 clinics running a family medical system and electronic patient record (covering 12 million patients). 2004: Launching of second generation of IDSE, allowing utilisation of Web services, electronic signature, electronic invoicing and online queries to databases; Launching of standardised hospital information system; 402 clinics running the family medical system and Electronic Patient Record (covering 25 million patients).	2004: Initiation of the Integral Administration System of the Ministry (1 January).

Table A.1. **E-government in the Social Security Institute and the Ministry of Health** *(cont.)*

	Social Security Institute (IMSS)	Ministry of Health (SALUD)
Main e-government accomplishments	Consolidation of systems and software; provision of services online for internal and external use; use of government resource planning (GRP) software; implementation of electronic patient record system (one of the most advanced in the world); electronic invoicing; e-transparency system (for government purchasing)	Portal receives 600 000 hits per day; implementation of electronic patient record system with 30 hospitals as best practice.
Main e-government priority (with regard to health provision)	Improve Patients experience in the interaction with Social Security Medical Services Organization (e-Health): Electronic Patient Record, Electronic Agenda and programmed appointments; Delivery accurate and on time o f medical goods.	Provision of all basic information in digital form; computerising all hospitals; automation of hospital and administrative systems.
Main e-government challenge	Harmonisation and collaboration with other ministries; working with the social security worker's union to involve them in proposed and implemented changes	Budgetary difficulties (many hospitals are very poor, providing medicines and other basics takes priority over installing Internet connections); allowing information to be shared among agencies (currently not possible); use of e-signatures (currently not possible)
Funding source	Social security taxes provided by Mexican employers and employees (can use the money they collect directly)	Mostly from the Ministry of Finance, though is moving toward a mandatory insurance system where people pay directly to the Ministry of Health for insurance.
Means of evaluating e-government investments (including success indicators)	*a)* Measuring savings and incremental revenue increases *b)* Measuring service level agreements to improve customer satisfaction such as: percentage of medical supplies in prescriptions delivered on time at 100%; wait time in visits and programmed surgeries *c)* Traffic light system of measuring success against stated targets negotiated with the President's Office.	Traffic light system of measuring success against stated targets negotiated with the President's Office
Estimated savings and/or incremental revenue due to e-government practices	$450 million in 2002, $350 million in 2003	n.a.
What is done with savings	Reinvested in Social Security Institute	n.a.

Source: OECD based on information provided from IMSS and SALUD.

in the way the two health organisations approach e-government that are just as important for the successful implementation of e-government.

Ability to re-invest savings

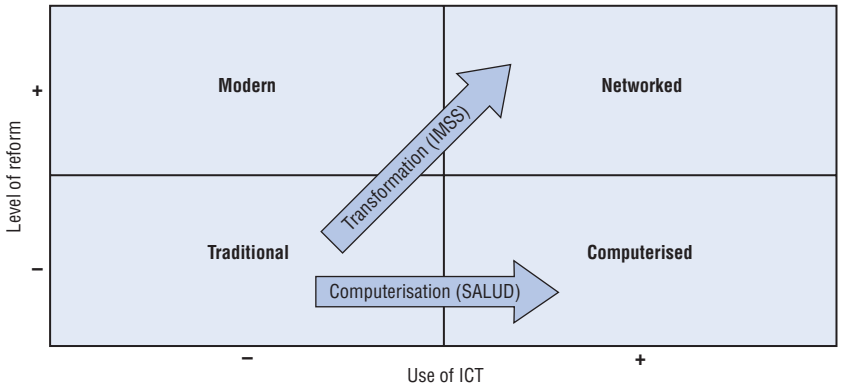
One factor that has helped spur transformation in IMSS is its ability to re-invest savings at its own discretion, which creates a strong incentive for the Institute to find savings. If SALUD had a better ability to re-invest its own savings, it could provide an additional lever for transformation. SALUD recognises this need, and is now in the process of moving toward a system of mandatory insurance. Nevertheless, more flexible budgeting arrangements with the Ministry of Finance would help those organisations that do not have their own funding sources use funding more effectively.

Modernisation and reform to accompany the use of ICT

While IMSS has many objectives with regard to e-government, a major driving force is a desire to increase efficiency and improve the quality of operations. There is a genuine understanding of how e-government can help transform and modernise the organisation, and this understanding has been translated into concrete actions. While computerisation and informatisation are seen as tools to help modernise, they are not considered main priorities in and of themselves. For example, unlike SALUD, IMSS has not prioritised access to PCs and Internet for employees. Instead, IMSS has prioritised transformation through initiatives that allow Mexican employers to manage all affiliation and collection transactions of their employees directly and online, provide electronic health records and decision support systems, and allow the integration of data and information from all operating units (among others). On Figure A.1, below, IMSS has followed the path for e-government that is represented by the diagonal arrow "transformation".

SALUD, on the other hand, has been focussing largely on the computerisation of government. Its main e-government priorities include providing information in digital form, computerising hospitals and automating existing administrative systems. While these are all key components of e-government, they represent movement along only one of the two axis towards effective e-government implementation. On Figure A.1, below, SALUD has followed the path for e-government that is represented by the horizontal arrow "computerisation". We have seen that SALUD has higher rates of access to PCs and the Internet than IMSS, and it has also made some progress with the digitalisation of existing processes (for example SALUD is promoting systems like Hospital Management System and Computerised Clinical Files that provide all the basic information in digital form); but IMSS has done far more to re-invent itself and transform its processes. In order to be

Figure A.1. **Successful e-government requires both ICT use and reform**



most successful, the use of ICT must be accompanied by reform of government structures and processes.

E-government evaluation methods

Without a measurable return on investment, it can be hard to encourage funding of e-government initiatives. The Social Security Institute has a relatively advanced method for evaluating its e-government projects, while the Ministry of Health is still at a more basic stage. IMSS understands the importance of demonstrating concrete benefits, and e-government evaluations comprise measures of efficiency gains and incremental revenue increases, not just measures of PCs numbers and services online. Using these methods the Social Security Institute can demonstrate that its annual IT investment of $120 million produced $350 million in savings in 2003 – a considerable return on investment.

The Ministry of Health, in contrast, measures the success of e-government by the more commonly used traffic light system of negotiation of objectives with the President's Office. While this is helpful in terms of working towards the specific goals of the Good Government Agenda, it is

Key point A.1. The Social Security Institute (IMSS) and the Ministry of Health (SALUD)

While there are numerous factors that affect the successful implementation of e-government, key differences between IMSS and SALUD that are frequently ignored include the ability to combine use of ICT with organisational reform, and the use of evaluation techniques that demonstrate a return on investment.

understandably much harder for the Ministry of Health to justify expenditure on IT, especially when there are so many other pressing uses for the funds (*e.g.* provision of basic services and medication). Were the Ministry of Health able to demonstrate a return on investment for IT use, it might have a better chance at enlarging its IT budget.

Case Study 2: The Mexican Ministry of Finance Smart Payment Card

The Mexican Ministry of Finance has developed a smart payment card for electronic payments. Planning began in 2001, and the card was implemented in January 2003. The Mexican smart payment card is a good example of a horizontal project. It involves not only the Ministry of Finance, the National Lottery and the Ministry of Agriculture, but also private banks, which paid for the developing and advertising costs for the card.

One million cards are now in circulation, and the cards are accepted by 18 000 ATMs, 180 000 payphones (including all new payphones), and 40% of Wal-Mart stores and gas stations. However, only 3% of businesses currently accept electronic payment of any kind. The Ministry of Finance is still working on building broader acceptance or the smart payment card. The smart payment card has been implemented with a strong strategy to build both supply and demand, in addition to the provision of the necessary infrastructure. As such, the smart payment card presents and excellent example of good practice, focussing on how e-government can best improve services rather than on what technology makes possible.

Benefits to users

Customer demand for smart payment card technology was estimated prior to the development of the smart payment card. The Ministry of Finance took part in focus groups, did market surveys, and undertook other research to determine demand. In order to encourage uptake of the smart payment card, it was decided to develop the card in partnership with the national lottery. When citizens use the smart payment card, they are automatically entered into a lottery to win cars, cash and other prices (if they win cash it is added directly as a credit to their smart payment card). Additionally, as with the lottery, a percentage of revenue is given to benefit social programmes. Users are required to pay a one-time fee for the smart payment card, but it is on par with that for private electronic payment cards.

As in many OECD countries, many Mexican citizens have expressed doubts regarding the collection of their personal data by the government. This has led to some resistance to the use of government smartcards in certain countries. In Mexico, the government worked with the private sector in order

to minimise this risk. By partnering with the private sector, many of the people who use the smart payment card see it as privately run, and thus trust it more than they would a purely government-run card.

The card is also useful for special social groups, such as farmers. The Ministry of Finance has been working with the Ministry of Agriculture to use the card for diesel subsidies to farmers. Farmers benefit because the card is easier to use than previous paper-based methods (in particular as not all farmers may be literate).

Benefits to businesses

While acceptance of the smart payment card among businesses is still low, now that demand among users is relatively strong, the Ministry of Finance plans to concentrate on increasing acceptance of the card among businesses. To begin with, the commission that businesses will have to pay when using the smart payment card is significantly lower than what they would pay for other electronic payment cards (*e.g.* 1.5% commission for the smart payment card compared to 2-6% for private cards). This difference is enough that businesses have demonstrated a willingness to pay for the smart payment card terminals.

However as acceptance of any electronic payment card is low in Mexico (only an estimated 3% of businesses accept electronic payment cards) the Ministry of Finance is also providing other incentives for business uptake. For example, similar to the system for citizens there is a lottery for businesses in order to encourage take up of the smart payment card.

Benefits to government

The government benefits from the use of smart payment cards on a number of levels. Perhaps the biggest benefit is that of minimising the black economy by encouraging the use of electronic payment systems more generally. Since electronic payments provide a record for the government, this can improve the financing of the Mexican government. This was also one of the main reasons for the implementation of the smart payment card project.

A second benefit is the reduction of costs on specific initiatives. For example, the use of smart payment cards in public telephones significantly reduced their cost. While the cost of a pay phone using coins is $400, the cost of a telephone using the smart payment card is only $80.

The Ministry of Finance views the smart payment card project as a self-financing one. Since private companies pay for development costs, the lottery and advertising, the government does not need to pay any money in for the smart payment card project. Similarly, the benefits are not to the Ministry of Finance directly, but rather through an improvement in government

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information. Other ministries, such as the Ministry of Agriculture, also benefit from improved information through the use of the smart payment card.

Other smartcard initiatives

The smart payment card project at the Ministry of Finance is not the only smartcard provided by the government. There are also initiatives for national identity smartcards, though there are plans eventually to merge them with the smart payment card. However this may take some time as there are several different national identity smartcards, and the two types of cards are currently used of different purposes.

Case Study 3: SAT

The Mexican Tax System and SAT

The tax system in Mexico is ruled by the National System of Fiscal Coordination (*Sistema Nacional de Coordinación Fiscal*), which allocates most of the taxes: income taxes, excise taxes and the VAT are exclusively federal; the main source of state revenue is the payroll tax; and municipalities have the property tax (*predial*) and some fees as their main source of revenues. The Ministry of Finance remains the depositary of charging taxes, but also of regulating tax collection.[4]

Increasing tax revenue is a core problem for Mexico. The tax system suffers many changes every year, often as a result of short-term political compromise during tax law revisions. The tax code and the tax system are complex, there are little incentives for compliance, tax declarations are duplicated, and there is poor co-ordination between collector's agencies. The federal taxpayers registry (*Registro Federal de Contribuyentes*) has an active population of 9 633 767 taxpayers.[5] In Mexico, almost 50% of the active labor force works in the informal sector and generates little or no tax revenue.[6]

The Administrative Tax System (*Sistema de Administración Tributaria* – SAT) was created in 1997 as a deconcentrated body[7] of the Ministry of Finance to impose fiscal regulations in the Mexican tax system. SAT's main tasks are tax collection, tax liquidation, tax compliance and the provision of execution rules. SAT has full fiscal authority and full technical autonomy for determining and collecting federal taxes. The Federal Law on Transparency and Access to Information exempts the set up, revision or diagnosis of fiscal regulations from the law, which makes SAT a legally strong and independent agency. SAT is the government's response to a growing demand to provide a modern, robust and efficient tax administration.

SAT's E-Government Strategy

SAT's main e-government goal is to simplify services to taxpayers through the use of ICT. SAT is an advanced e-government organisation. In terms of the OECD service maturity model, SAT's e-government services provide basic and interactive information, transactions and data sharing.[8]

- SAT publishes information on the Web.
- SAT users can access agency databases, and browse, explore, and interact with that data.
- SAT users can enter secure information and engage in transactions with the agency.
- SAT can share users' information with other government agencies through the RUPA project (*Registro Único de Población Activa* – RUPA).

SAT's main IT unit (*Administración General de Tecnologías de Información* – AGTI) chose three best practices to conduct the changes in the agency:

- ITIL (IT Infrastructure Library): ITIL is an approach to IT Service Management. ITIL consists of a series of books giving guidance on the provision of quality IT services. ITIL was developed in recognition of organisations' growing dependency on IT.
- CMMI (Capacity Maturity Model Integrated): CMMI is a derivative from CMM, (Capacity Maturity Model) which was developed by the Software Engineering Institute (SEI) at Carnegie Mellon University, the National Defence Industrial Association (NDIA) and the Science and Technology Undersecretary of Defence (USA). It is based on best practices for software development, considering it as an integrated model that is inclusive of systems architecture and hardware where it will be installed.
- PMI (Project Management Institute): The PMI has provided guidance to organisations that are concerned in implementing best practices for project management.

The standardization of SAT is already underway on the basis of ITIL and CMMI, and the agency considers these practices a must for any software development. SAT has set the goal of certifying CMM level III by the end of 2005 in order to guarantee first rate software. The agency also believes that only by reaching this certification it will be prepared to outsource additional development requirements to third parties while still keeping an integrated system model. These third parties should have at least CMM level V in order to guarantee a seamless operation, and very few public and private institutions have addressed this effort. Additionally, as of March 2005 more than 250 employees have already been certified on ITIL by a third party, and more than 5000 training modules have been introduce into the CIT workforce along with the new "collaboration model" based on ITIL, PMI and CMM processes.

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The goal of implementing the three best practices mentioned above is the full integration of all the agency's IT resources in a single group and standardizing the entire agency's operations. The IT unit is currently focusing on the strategic side of the agency while recurring to third party based operations at the same time. An example of these operations is the Virtual Private Network (VPN) SAT shares with the Ministry of Finance, currently on its second phase of integration.

In terms of e-government, SAT has developed online tax-related services through its eSAT solution. One of the most significant advances in this regard is the use of electronic signatures to taxpayers. Through the combination of a private key and a digital certificate, eSAT users are able to "sign" official tax documents and files, an important requisite for Mexico's legal formalism when dealing with government transactions. The electronic signature is an optional service for filing taxes electronically in 2004, but it will be mandatory for users to access eSAT services through its "Virtual Office" portal in 2005.

Some eSAT services are available with the digital signature: tax filings, provisional and annual declarations, refunds, electronic archives, online printing of fiscal bills, and *dictámenes*. So far, 2.1 million taxpayers have filed their taxes through eSAT in the first half of 2004, which represents a 100% increase of the amount reported one year before. From 2004, every entity has to make its declaration on an Internet format, except for very small businesses, and as of March 2005 the taxpayer can also review its general tax situation with a report that provides a clear understanding of its current state. Fiscal situation modifications are also available online, such as address change, obligation modifications and other information requests.

E-government collaboration between SAT and other government agencies

As of March 2005, the Ministry of the Interior, the Ministry of Public Administration, the Ministry of Finance, the Ministry of the Economy, the Central Bank and SAT will be in track to implement individual agency initiatives into complementary government solution where:

- The Ministry of the Interior will provide an electronic ID for citizens based on current technical implementation from SAT.
- PKI will be standardised at the national level to be consistent with the Central Bank's current definition and be used universally (this was originally accepted from SAT in order to be "bank" compliant for future services).
- SAT will follow the Ministry of Public Administration's Legal Representatives Initiatives for its own services such as electronic invoicing, customs, and external auditors.

- SAT's electronic signature (*firma electrónica avanzada*) will be accepted by the Ministry of Public Administration and the Ministry of the Economy for their current services.

The objective of this integration initiative is to allow the citizen to access a wide variety of new services with a single electronic ID from the federal government by the end of 2005. Technical implications aside, SAT believes that this initiative could potentially become one of the most relevant impacts of the current government and a stepping stone to develop an integrated e-government solution as opposed to individual initiatives that block a seamless solution of services.

SAT's budgetary and regulatory advantages for e-government

SAT follows the main guidelines of the Good Government Agenda for its e-government strategy.[9] However, unlike other agencies in the Mexican Government, it has a high level of resources and strong regulatory independence on fiscal regulations. Furthermore, SAT's status as a deconcentrated body gives the agency the ability to make changes inside the organisation autonomously.

SAT's e-government initiatives have been well addressed in financial terms. Additionally, SAT has flexible budgetary arrangements, unlike some ministries and agencies in the Government. Most agencies have a number of budgetary rigidities that prevent shared funding arrangements. The recently created e-Mexico trust fund and special Congress agreements with the Ministry of Finance have allowed some ministries and agencies to have multi-year investment schemes for e-government, but these solutions are *ad hoc* and do not address the problem of IT funding directly. SAT, however, has flexible budget arrangements because it develops its systems and solutions in-house and because it has complete technical autonomy for the implementation of its e-government programs.

Flexible budgetary arrangements have allowed SAT to focus on strategic business issues such as the outsourcing of many agency services. The agency began a large outsourcing project in 2004: SAT has already outsourced its Virtual Private Network, and it has also outsourced its central data centre. Other value added services will also be outsourced. Some of these services are backup and system monitoring, SAT's Technical Assistance Centre (*Centro de Asistencia Técnica* – CAT),[10] and SAT's service desk.[11] Finally, all infrastructure services (*e.g.* energy, air conditioning, and all building infrastructure), LAN-related services, and physical security access to LANs will also be outsourced. Vendors will manage employee positions, their profiles and standards will be defined in order to manage the new centralised arrangements, and providers will deal with such arrangements as they consider. All peripheral appliances

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for the Technical Assistance Centre are being outsourced: printing, imaging, faxing, photocopying, etc. According to a SAT official, "that should allow SAT focus on issues related to taxpayers and customs instead of worrying about the day to day operations". To assess its baseline needs, SAT checked the internal level of its services. The IT unit defined the internal service level by working with users in order to determine which services were critical. This was a key step to determine the requirements for outsourcing contracts. In order to guarantee service levels, every vendor will have to comply and work through ITIL best practices based on process improvement, reviewing and expecting incremental Service Level Agreements (SLAs) as the services evolve.

Regarding regulatory barriers, SAT's fiscal regulations and in-house development are independent of any other government body or ministry. This particular regulatory independence has given SAT the ability to quickly line up the entire agency according to new strategies and organisational changes. An example of this fact is the rearrangement of SAT's IT unit and resources. Originally, SAT had independent IT groups across the agency in a vertically "silo" oriented fashion. Changes in the agency's CEO and executive board reoriented SAT to focus on the optimization of processes and on efficiency for the benefit of taxpayers. SAT's main IT unit was reorganized to focus on process-based working methods to implement agency-wide applications with the goal of eventually having all of the agency's activities based on processes. The IT unit now serves all branches of SAT and develops systems based on each branch's needs. These changes eventually modified SAT's IT mandate: it now has a new mandate of pooling in all of the agency's resources in a single group and standardizing the entire agency's operations.

SAT's regulatory advantages have also allowed it to move fast to orient the agency towards process-based management. Since May 2003, the agency has physically centralised processes in order to migrate processes towards a single data centre. Tax collection and Customs processes, as well as Custom's Internet Data Centre, have been moved to a centralised data centre. SAT's IT unit is currently working on the migration of front end assistance services (*Administración de Asistencia al Contribuyente* – Taxpayers Assistance Administration) and lawsuits and legal requirements systems to this central database. This distribution scheme had been unsuccessfully sought for 8 years. Once IT made the implementation of these databases possible, it has become simpler for SAT to manage a single point of failure as opposed to hundreds of failure points. In the former distribution format, it was easier for people to make discretionary local arrangements (*e.g.* against the system or managing the system to their convenience), which constituted a major security issue.

Barriers to SAT's E-Government Strategy

SAT has budgetary and regulatory advantages for e-government, but it still operates within a digital divide that limits access to its services.[12] Budget wise, SAT has been able to respond to uncertain future funds and rigid budgetary arrangements with flexible in-house solutions and a strategic management of limited resources, but it still faces budgetary constraints, especially in horizontal projects across different agencies. In regulatory matters, SAT has a considerable advantage over many agencies. However, SAT is not completely independent from fiscal law and technical government platforms. The tax code, the tax system, and the government's budget are out of SAT's reach, and the implementation of some of their clauses has posed considerable challenges to SAT's e-government initiatives. One example of this is related to digital signatures, where SAT had to wait for Congress' approval of the Commercial and Fiscal Code by Congress in order to legalise electronic signatures for tax forms. Congress and people not working directly with IT solutions sometimes draft tax collection requirements that make SAT's e-government initiatives hinder. Another example of the limits of SAT's regulatory independence is related to single identity cards for citizens.

Challenges ahead

SAT has made important progress on e-government, but several challenges remain. The autonomous nature of the agency has given it considerable advantages over other players, and this has allowed SAT to deliver concrete results in a relatively short period of time. However, SAT still faces some challenges that it needs to face with the rest of the Government:

- SAT has still to develop a closer relationship with Congress in order to avoid the drafting of contradictory or inefficient fiscal regulation that can hinder the effective implementation of ICT solutions for the agency. Mexico's Customs Agency has a close relationship with Congress, and this has allowed key information for the implementation of electronic customs systems available to the congressmen modifying the customs law.
- SAT is ahead of many agencies in the Mexican government. This situation presents two challenges. The first is the importance of SAT to continue to work closely with the rest of the Mexican e-government officials in order to avoid a scenario where the integration of services becomes more difficult as SAT takes makes its own way in e-government. So far, many SAT initiatives have been replicated in other government agencies. However, SAT could collaborate more with other agencies for the provision of integrated or even joint services. SAT, for example, has many local offices with entry points to its online services, but no ministries locate their services in SAT offices. The second challenge is the diffusion of best practice. SAT has learned many

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lessons, both positive and negative. To the extent that it shares its expertise and its experience, SAT will be able to contribute to the bigger efforts of e-government in Mexico.

Case Study 4: E-Government impact on government organisations outside the E-Government Network

This case study analyses the impact of e-government in Mexican government agencies outside the E-Government Network. The E-Government Network is a network of e-government officials from leading policy agencies delivering high-impact services to citizens. However, smaller agencies delivering low impact services are not part of this Network. The leading agencies act as umbrellas for e-government policy, and small agencies were not included in the initial phase of setting up e-government and they were not involved in the development of the overarching e-government strategy. Nevertheless, these smaller agencies reacted to internal and external e-government demand and delivered solutions and services using e-government.

The analysis will focus on government agencies outside the E-Government Network at two levels: federal and state level. The case study is not representative of the entire universe of government agencies outside the E-Government Network. Twenty six federal agencies outside the Network were surveyed from a total of 200. The sample includes financial commissions, trust funds, research centres, education agencies, and decentralised bodies. At the state level, the OECD interviewed 4 state administrations (Chihuahua, Colima, Hidalgo, and Sinaloa states) and the IT Committee for State and Municipal Public Administrations (*Comité de Informática de la Administración Pública Estatal y Municipal* – CIAPEM).

The main finding of this case study is that the e-government vision shared by agencies outside the E-Government Network is different from the vision of agencies in the network. For agencies outside the network, e-government is a provision of online services rather than a tool for better government. Their lack of exposure to a broader strategy and to national and international best practices and ideas has led to unawareness of e-government's potential as a tool for change.

The purpose of this case study is to provide a more balanced picture of e-government in Mexico. The Mexican government focused on e-government at the federal level with an initial group of high-performance agencies. In the initial phase of e-government, this was a necessary first step. However, as Mexico's e-government strategy moves forward, the government must consider the challenges that smaller agencies face for delivering e-government services to citizens. This additional step will be necessary to provide seamless services across the public administration at all levels.

Agencies outside the network at the federal level

This section will analyse the results of an OECD survey of twenty six federal agencies outside the E-Government Network. In this section, the main differences between agencies in and outside the E-Government Network will be analysed in the following areas: the case for e-government, external barriers to e-government, leadership, organisational change, collaboration, customer focus, monitoring and evaluation, and impact of e-government.

Federal agencies outside the network have not benefited directly from the sharing of best practice and know how in the E-Government Network. The E-Government Network is not officially constituted, it does not group CIOs, and some critics believe that the network has lost its initial drive. However, it is a useful channel for sharing best practice, for learning how other agencies dealt with external barriers, and for having up to date information on the main e-government strategy of government. The main outcome of the network's meetings has been keeping officials well informed of what is going on in e-government: discussions have led to strategic decisions and the network is also the place where goals are prepared before being negotiated with the President's Office. Agencies that are not part of the network have not been able to actively participate in the discussions and to learn from the objectives negotiated and the experience of other agencies.

The E-Government Network also collaborates with the Ministry of Public Administration in the design of a service delivery platform. Creating this platform without taking into account or including agencies outside the network could complicate future e-government strategies and/or implementation in Mexico. Agencies without guidance or awareness of standards could begin delivering services on a different platform and this could delay the provision of seamless services across government. The risk of having a one-way, federal e-government strategy *vs.* several individual agencies' initiatives at different speeds could create more implementation and coordination challenges than those that the Mexican government already has to face.

The case for e-government

For agencies outside the E-Government Network surveyed by the OECD, the real force driving e-government is their own organisation and not the Good Government Agenda. As seen in Chapter 2 of this report, the Good Government Agenda is the main e-government driver for agencies in the network. As confirmed by the OECD survey on e-government in Mexico and OECD interviews with Mexican high-level officials, the agenda has driven e-government by providing guidance, leadership, and a case for using e-government as a tool for improving government. Agencies outside the

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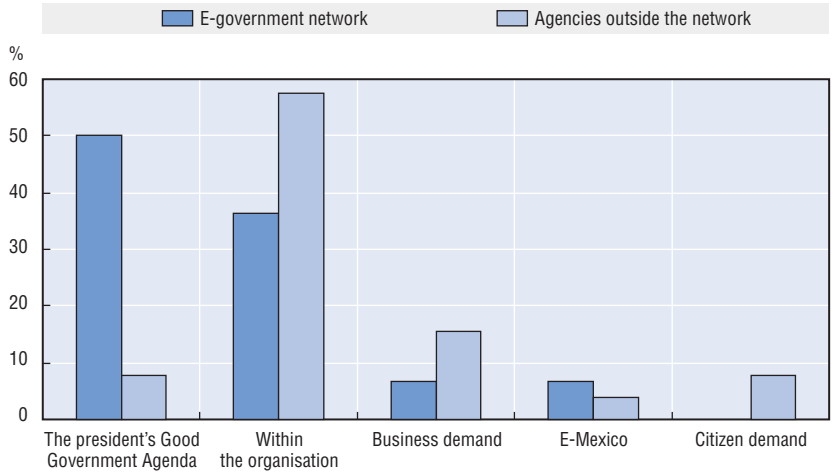
Figure A.2. **The greatest drive for e-government**



Source: OECD Survey on E-Government in Mexico, question 1.1.

network think otherwise: almost 60 per cent of the agencies surveyed consider that their individual organisation is the main driver.

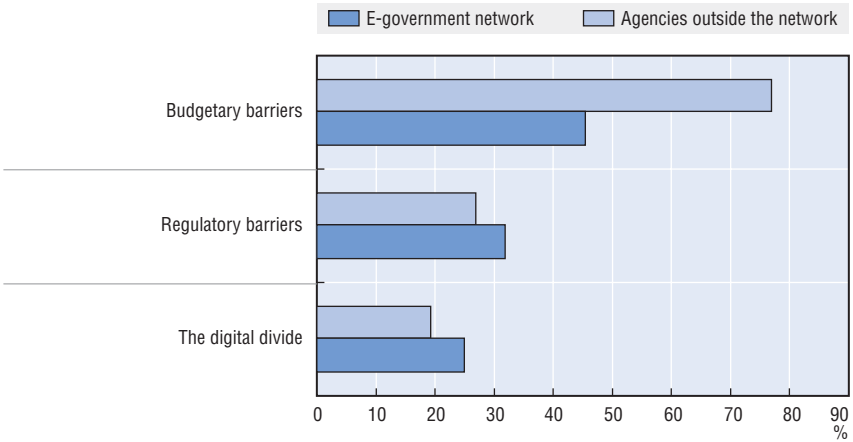
E-Government is driven from the top in Mexico, whether through the Good Government Agenda or through individual organisations. Business and citizen demand as a driver is almost nil,and the e-Mexico National System – a government-wide initiative- is not driving e-government either. Nevertheless, it is interesting to note that agencies outside the network seem to be more perceptive of external demand than agencies in the E-Government Network.

External barriers to e-government

Nearly 80 per cent of agencies outside the network surveyed by the OECD considered budgetary barriers to be a very important challenge to e-government. This differs strongly from the external barriers perceived by agencies in the E-Government Network. As seen in Chapter 3, agencies in the network have a somewhat equal distribution of e-government barriers: budgetary barriers, regulatory barriers, and the digital divide reported similar results. However, agencies outside the network reveal a different priority.

More than half of agencies outside the E-Government Network surveyed by the OECD considered lack of funding for e-government projects and lack of long term budgeting horizons for multi-year investments the most important budgetary barriers. Only a third of their counterparts inside the network thought the same. The scope of agencies outside the network is more focused on the immediate needs of the organisation – budget –, whereas agencies

Figure A.3. **External barriers**



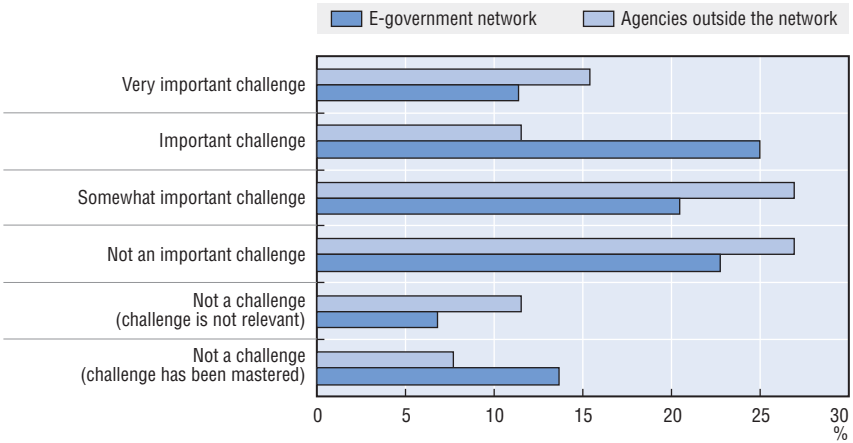
Source: OECD Survey on E-Government in Mexico, question 3.1.

inside the network appear to prioritise in a more or less equal fashion all external barriers.

Leadership

When it comes to leadership, results are mixed both for agencies inside and outside the E-Government Network. On one side, 36 per cent of agencies inside the network stated that the lack of political leadership is an important

Figure A.4. **Lack of political leadership**



Source: OECD Survey on E-Government in Mexico, question 1.4.

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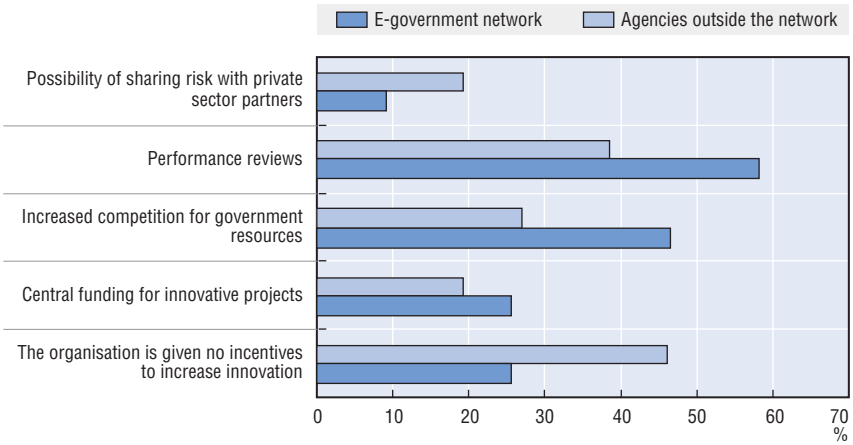
or very important challenge; on the other, only 27 per cent of agencies outside it thought the same.

Another important difference regarding the planning side of leadership lies in the possibility of sharing risk with private sector partners and incentives to increase innovation (see Figure A.5 below). Nearly 20 per cent of agencies outside the network surveyed by the OECD are potentially interested in private sector partnerships, while less than 10 per cent of agencies from the E-Government Network considered them to be incentives for innovation. Agencies in the network are aware of the overwhelming difficulty of undergoing public-private partnerships in Mexico and do not consider them to be an incentive. Once again, network membership is related with legal and pragmatic awareness of the feasibility of e-government projects.

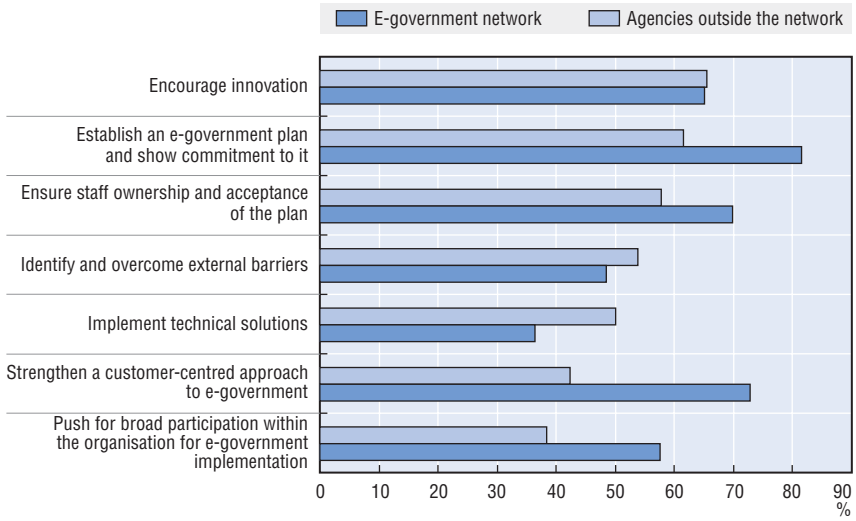
Figure A.5. **Incentives for innovation**



Source: OECD E-Government Survey on E-Government in Mexico, question 5.5.

Another issue related to information availability and network membership is the perception of incentives: almost half of the agencies outside the network surveyed consider that their organisations are given no incentives for innovation. This may explain why these agencies consider that the main role of an e-government leader is to search for incentives for innovation (see Figure A.6 below). Agencies from the E-Government Network are more aware of the incentives for innovation provided by the federal government (such as the Innova awards and the e-Mexico trust fund for recycling funds after fiscal-year exercises). The OECD survey revealed that agencies outside the E-Government network do not assign the same role to their e-government leaders as agencies in the Network do. Agencies outside the network surveyed by the OECD reported a strong emphasis on the

Figure A.6. **The main role of e-government leaders**

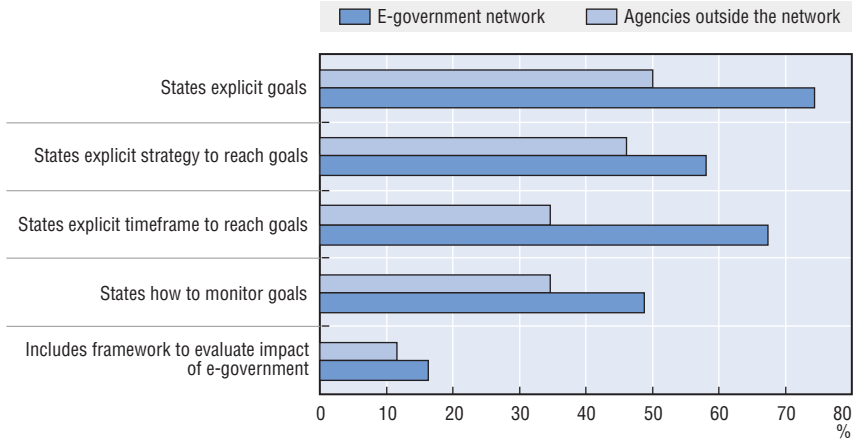


Source: OECD Survey on E-Government in Mexico, question 4.5.

encouragement of innovation, while agencies in the network emphasised the strategic side of the leader in establishing an e-government plan.

Finally, another finding from the OECD reveals that while agencies outside the network also have e-government plans with goals, strategies, and timeframes, they are less advanced. For example, less than half of agencies

Figure A.7. **E-government plans in Mexican government organisations**



Source: OECD E-Government Survey on Mexico, question 4.1.

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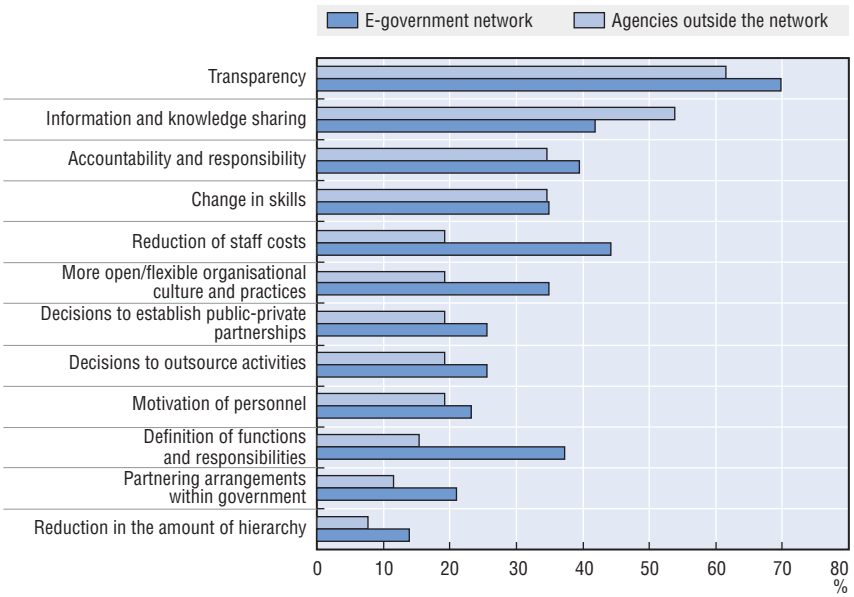
outside the network have an e-government plan that states explicit goals, strategies, timeframes, and a monitoring and evaluation framework. However, agencies in the E-Government Network also reported that e-government plans in the Mexican government lack a monitoring and evaluation framework. The Ministry of Public Administration is currently developing the framework, and its diffusion across government will be key for planning e-government in Mexico.

Organisational change

Transparency had a strong positive impact on organisational change in agencies outside the network surveyed by the OECD. In Mexico, e-government has played a very important role in opening up government by exposing it to public scrutiny,[13] making it accessible, and rendering it responsive to online citizen and business demand. Three other positive and proportional trends seen across agencies in the federal government are information sharing, accountability, and change in skills. Both samples of the OECD survey revealed that agencies registered a significant positive impact on their organisations in these three areas. Agencies outside the network found more impact on

Figure A.8. **Organisational change: the E-Government Network *vs.* agencies outside the network**

Percentage responding "significant positive impact"



Source: OECD Survey on E-Government in Mexico, question 5.1.

information sharing because the sample included research centres, and information is a priority for them.

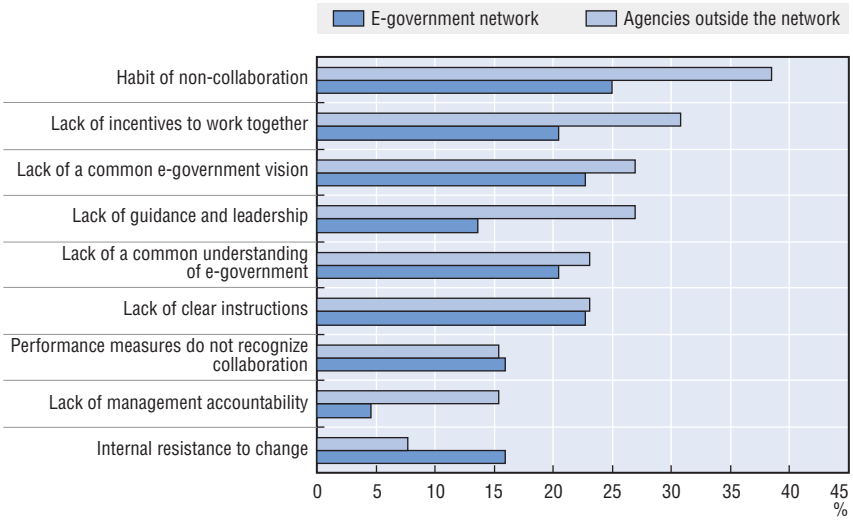
Some disparate impacts between both samples are those related to reduction of staff costs, definition of functions and responsibilities, and organisational openness and flexibility. Regarding costs reduction, all agencies outside the network have smaller budgets and staff than agencies in the network, which may help explain this difference. As to the definition of functions and responsibilities, e-government had a less significant positive impact on agencies outside the network, whereas almost 40 per cent of agencies in the network record a positive development.

Collaboration

Agencies outside the network found more obstacles to collaboration than agencies from the E-Government Network. Agencies outside the network not only have more habits of non-collaboration but also lack guidance, leadership, incentives to work together, and management accountability to a greater extent than agencies from the network (see Figure A.9 below). This is linked to the fact that these agencies are not part of the E-Government Network. After the habit of non-collaboration, agencies outside the network considered the lack of incentives to be the most important obstacle for collaborating on e-government. This confirms other findings from the OECD survey (see

Figure A.9. **Obstacles preventing collaboration with other agencies**

Percentage responding "very important" or "important" obstacle



Source: OECD Survey on E-Government in Mexico, question 6.3.

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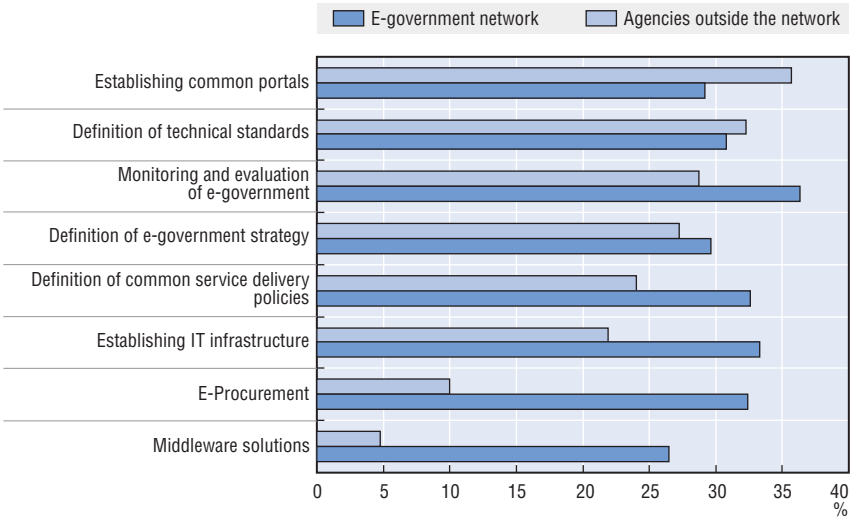
Figure A.5 and section on leadership above): agencies outside the network do not perceive any incentives to innovate or collaborate.

Another important obstacle for collaborating on e-government according to agencies surveyed is the lack of guidance and leadership. Forty seven per cent of agencies from outside the network did not consider leadership an important challenge or a challenge. However, these agencies considered the role of e-government leaders to be implementing technical solutions and to identify external barriers. Agencies outside the network understand leadership in terms of implementation rather than vision. This is perhaps one reason why guidance is more important to them and than to agencies from the E-Government Network, who already receive guidance not only from the network, but also from its coordinating and assisting bodies, such as the E-Government and IT Policy Unit in the Ministry of Public Administration.[14] Agencies outside the network do not benefit from the guidance shared there, and neither are they aware of the incentives for collaboration shared in the network.

Notwithstanding all these obstacles, agencies outside the network do collaborate and sometimes even with the E-Government Network. However, this collaboration is in its first steps and is mainly focussing on the establishment of common portals and the definition of technical standards more than on the definition of common service delivery policies or procurement (see Figure A.10 below).

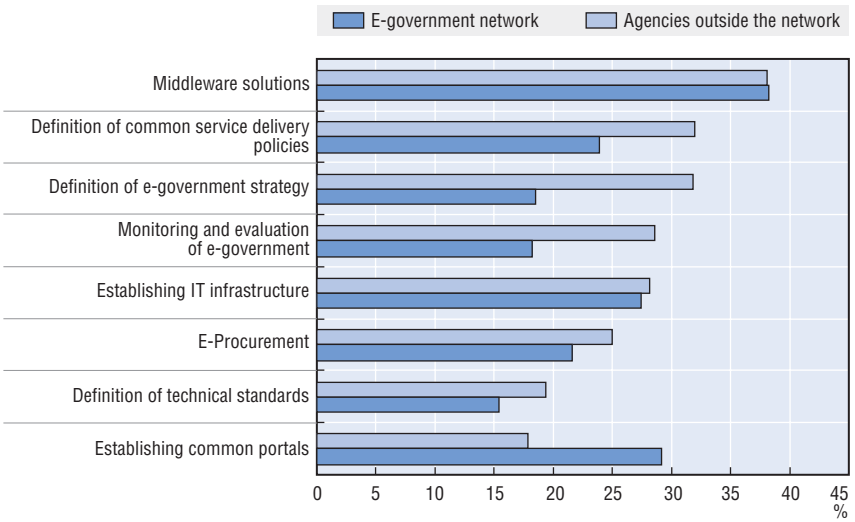
Figure A.10. **Collaboration: organisations working together on e-government projects**



Source: OECD Survey on E-Government in Mexico, question 6.1.

Furthermore, agencies outside the network surveyed by the OECD are on the planning stage of seamless service delivery (see Figure A.11 below). Their current focus is more on defining strategies and policies than on implementing solutions. Agencies in the network fall behind because they have gone beyond the planning phase and are already delivering integrating services with other agencies.

Figure A.11. **Collaboration for seamless service delivery**



Source: OECD Survey on E-Government in Mexico, question 6.1.

Customer focus

Agencies outside the network have e-government strategies with less customer focus than agencies in the network. Both samples include expected user needs in their strategies. However, less than 30 per cent of agencies outside the network surveyed by the OECD build online services that anticipate unexpected customer needs. Agencies outside the network also provide less feedback mechanisms for users than agencies in the network (see figure below).

Agencies outside the network surveyed by the OECD reported an important citizen demand for e-government, especially for the consultation of services and for information provision. However, demand for consultation and participation in policy-making was lower. Although they have strategies that are less advanced in customer focus, agencies outside the network reported more citizen demand than agencies in the network. Agencies in the E-Government Network reported receiving more demand from government.

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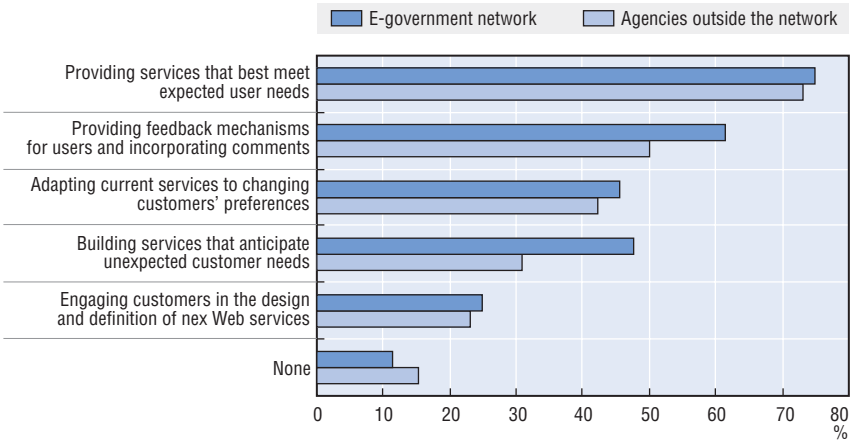
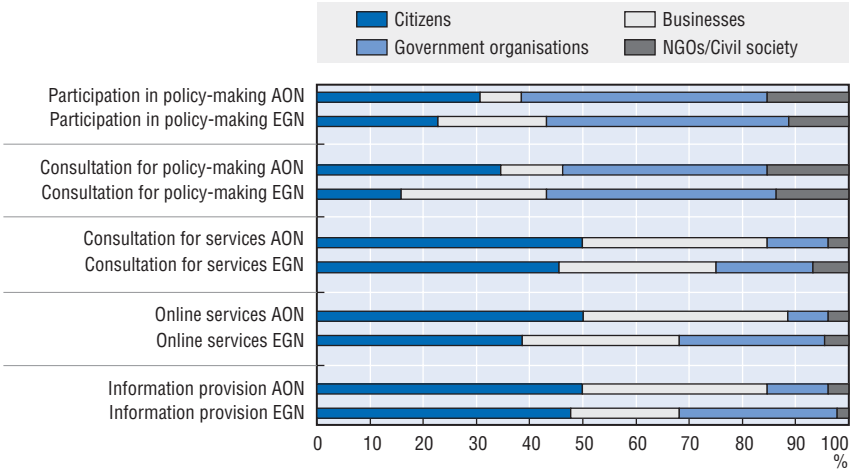
Figure A.12. **Customer Focus in agencies' e-government strategies**



Source: OECD Survey on E-Government in Mexico, question 7.2.

Figure A.13. **E-Government Demand**

AON = Agencies Outside the Network, EGN = E-Government Network



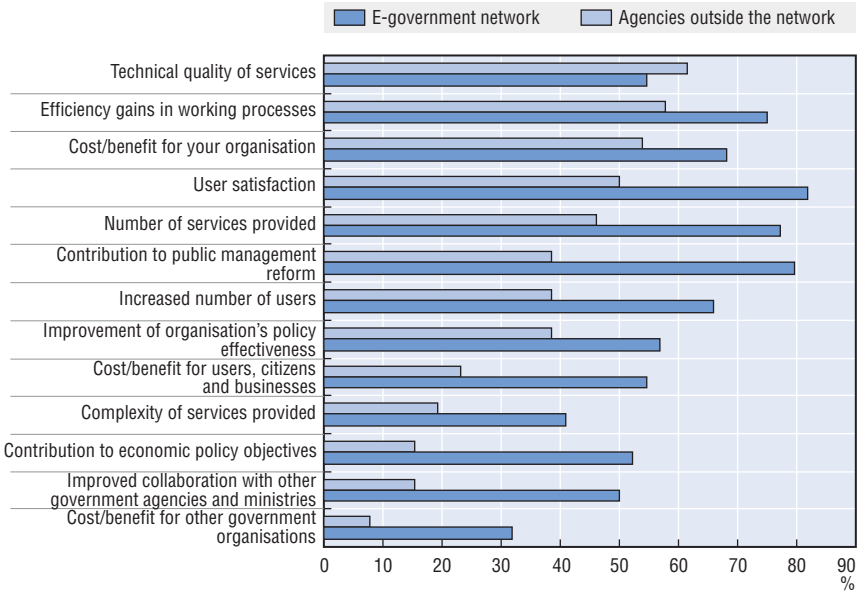
Source: OECD Survey on E-Government in Mexico, question 7.3.

Monitoring and evaluation

Agencies outside the network surveyed by the OECD are more focused on the technical side of monitoring and evaluation of e-government. They are also less advanced on monitoring and evaluation of e-government than agencies in the E-Government Network. Efficiency gains, cost/benefit analysis

Figure A.14. **Monitoring and evaluation**

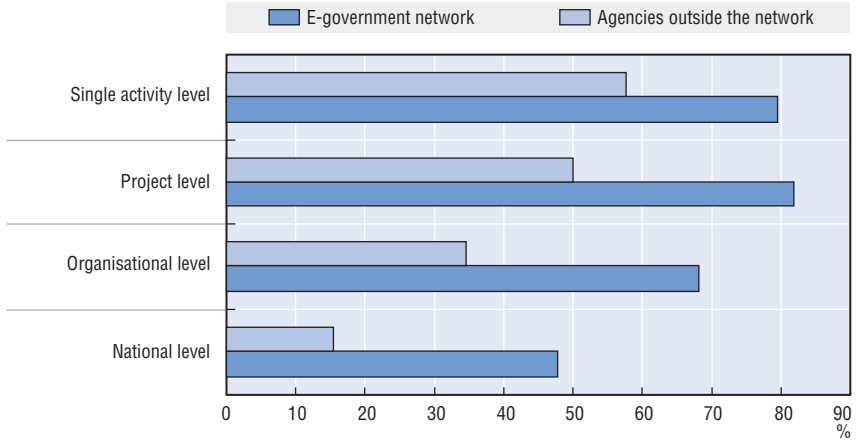
Percentage responding criteria included in monitoring and evaluation exercises



Source: OECD Survey on E-Government in Mexico, question 9.2.

Figure A.15. **Frequency of monitoring and evaluation exercises**

Percentage responding "more than once a year"



Source: OECD Survey on E-Government in Mexico, question 9.3.

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within the organisation, and user satisfaction were also reported as part of monitoring and evaluation criteria used in agencies' evaluation exercises.

Regarding the frequency of monitoring and evaluation exercises, agencies outside the network undergo less exercises than government agencies in the federal public administration. One of the main findings of the OECD E-Government Survey: Mexico is that Mexican government agencies undergo frequent monitoring and evaluation exercises. This is in line with the administration's current emphasis on quality and efficiency of services. Only one half of agencies outside the network surveyed by the OECD reported evaluation of e-government projects more than once a year.

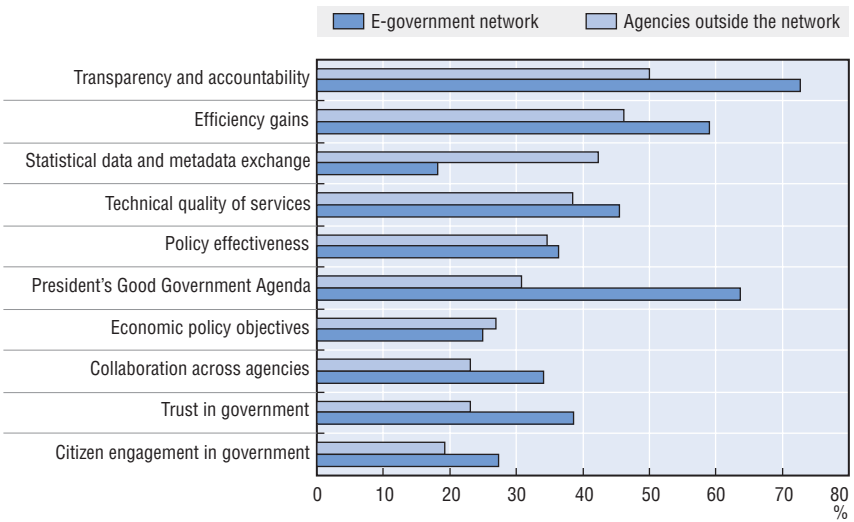
Agencies outside the network are not assessing results repeatedly over time. They are also focusing more on the quantitative rather than the qualitative side of monitoring e-government. Effective evaluation requires regular monitoring and reporting, and a robust evaluation framework. Mexico lacks an assessment framework, and agencies have been defining evaluation exercises individually. This situation could magnify problems of overlapping evaluation exercises if not addressed properly.

Impact of e-government

Agencies outside the network surveyed by the OECD reported low percentages of significant positive impact of e-government in their

Figure A.16. **E-government impact**

Percentage responding "significant positive impact"



Source: OECD E-Government Survey: Mexico, question 10.1.

organisations. Transparency and accountability saw the most important positive impact, and efficiency gains and statistical data and metadata exchange followed suit. Agencies outside the network reported low impact of e-government in citizen engagement and trust in government, but also low impact on collaboration.

Agencies outside the network at the state and municipal level

Mexico is divided into three territorial levels of government: federal, state, and municipal. After many years of strong political and administrative control from the centre, state and municipal authorities have been receiving more and more decision-making power. While the OECD recognises that a real system of co-governance is beginning to appear in Mexico, it also acknowledges that the autonomy of municipal governments is severely limited. It is in this ambiguous context of evolution from a highly centralised government to an authentic federalist arrangement that e-government has emerged at the state and municipal level. The most important challenge for e-government as perceived from the inside of state and municipal administrations in Mexico is coordination.

Towards the end of the 1990s, local governments began to develop e-government programs independently without any federal guidelines, standards, or objectives. States began integrating municipal government services at the state level through a bottom-up coordination structure. While this improved e-government services at the state level, the lack of coordination from one state to the next has made integration of services more difficult today. Additionally, it has created a situation where states are at different stages of e-government: some states diffuse best practice and others do not have e-government at all. Nevertheless, municipal, state, and federal e-government services are beginning to be integrated at the initiative of state governments and the State and Municipal Administration IT Committee (CIAPEM, *Comité de Informática de la Administración Pública Estatal y Municipal, A.C.)*.

After two years of driving e-government locally, states and municipalities are now coordinating with the Ministry of Public Administration the integration of online services and e-government structure and programs. They are doing this through a two step process:

1. First, states have reported to the federal government a list of the federal level services most demanded by citizens locally. CIAPEM, the Ministry of Public Administration and a group of the most advanced states worked closely together during the first and second quarter of 2004 on developing the list. The most demanded services are: registering new workers' social security, paying the electricity bill, requesting information on house credit, and obtaining a passport. Negotiations were being carried out between state

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governments and the related ministries for coordinating the integration of services as the report was being written.

2. After coordinating with the federal government, state authorities will go into the second step of the process: institutionalising e-government. In this stage, the resolution of the legal and fiscal situation of these coordination structures will be sought. The institutionalisation of the administrative structure of IT units at the municipal level, particularly struck by the change of municipal administrations every three years because of the no re-election constitutional principle, is also something that state governments will seek to resolve.

State and municipal authorities have formally demanded a national IT policy and a concrete e-government work plan for local government. E-Government officials at the state and municipal level are aware of the need to coordinate with the federal government in order to develop and establish federal e-government standards for online services, transactions, platforms and systems. At the same time, they are also well aware of the fact that they will not get all they are looking for from the federal government. This is why local governments have focussed on the development of local technical expertise and on local services with different solutions and results instead of focussing on the development of a federal e-government strategy. Local governments perceive technology as an issue they can deal with on their own. However, state governments interviewed by the OECD believe that the most important barriers for e-government are regulatory barriers and not technological.

The federal government has begun to participate more closely with local authorities to continue the coordination and institutionalisation efforts of e-government at the state level. The Ministry of Public Administration created a unit for the coordination of e-government with state and municipal authorities in July 2004. As the federal government gets more and more involved administratively and functionally in e-government at the local level, the bottom-up structure will evolve into a top-down coordination structure. State governments are aware of this possible evolution, and state officials interviewed by the OECD believe this will be a positive development. Under a new scheme, and given the improved conditions of federalism in the Mexican government, local e-government initiatives will be able to be integrated into wider e-government strategies and services.

Many state initiatives have been successful locally and to different extents: Chihuahua State has developed a networked system for administrating citizen interaction with government, currently delivers 24 services online, and is actually developing a Customer-Related-Management System (CRM) with a private sector partner; Morelos State is strongly pushing for more customer-focussed online transactions and works

closely with neighbouring states on security issues; Colima State developed the idea of offering citizens free local access to online services in every municipality through an e-government "kiosk" (a local network entry point) and continues to be a leader in e-government in Mexico; Sinaloa State has been among the first states to develop an integrated online service with a federal agency at the local level: citizens can now pay their electricity bill online using municipal kiosks.

However, it can be difficult to deliver federal services at the state level. Although some advances have been made on integrated services regarding security (an online system for reporting stolen vehicles is delivered at the federal level), database and registries (local statistical information and registries are now following the same standards and are currently being integrated), and selected online services (similar to the Sinaloa State example above), there is much more to be done. State and municipal authorities, together with CIAPEM, acknowledge that the federal government is more receptive regarding the local use of IT and e-government.

Challenges ahead

Agencies at the federal level

Federal agencies outside the network surveyed by the OECD have a different vision of e-government than agencies inside the E-Government Network. The OECD found that agencies outside the network think of e-government mostly as a channel for the provision of online services. These agencies are not exposed to the broader ideas behind Mexico's e-government strategy, and this is why they are unaware of the potential of e-government as a tool for changing government. Agencies outside the network have not yet gotten the message that e-government can be a tool for reform and change. This is in line with the OECD's vision of e-government being more about government than about "e".

Overall, agencies outside the government reported that e-government had a low impact in their organisations. The results of the OECD Survey of 26 government organisations at the federal level outside the network suggests that there are a number of reasons why these agencies reported e-government not having significant positive impact in their organisations.

Agencies outside the network collaborate less, and there is a strong link with non-membership in the network, habit of non-collaboration, and lack of incentives to explain this situation. Agencies outside the network have only begun to collaborate on the establishment of common portals, and their efforts should continue in this direction. However, collaboration should go beyond the establishment of technical standards and explore the waters of common service delivery policies or procurement.

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As we saw before, agencies outside the network surveyed by the OECD see e-government as a technical solution more than as a tool for reform. Their lack of exposure to national and international best practice has not allowed them to identify the most useful and up to date strategies to implement e-government. The fact that they are "out of the loop" of the network does not allow them to keep tabs on the latest modifications of the main guidelines for e-government in Mexico. In this sense, it is important for all actors to keep in mind that in order to deliver seamless services across the federal public administration, all actors should be taken into account when creating a government-wide platform for delivering services. There is a potential risk of having individual initiatives from smaller agencies hinder e-government collaboration at the federal or national level.

Agencies outside the network surveyed by the OECD reported budgetary barriers as the most important challenge for e-government in Mexico. Additionally, they reported no incentives for innovation. This points towards the need to develop clear and concrete incentives for agencies to innovate, but also the need for leadership in smaller, less central agencies to meet the challenges of implementing e-government. Agencies outside the network reported more drive coming from businesses and citizens, but they also reported less customer focus orientation in their e-government plans.

Regarding monitoring and evaluation exercises, agencies outside the network need to focus their shift from the technical side of e-government implementation towards the assessment of their organisation's efficiency, the contribution to policy objectives, and the contribution to public management reform. Agencies outside the network could also benefit from more frequent project and activity level evaluations. They should continue to fine tune their e-government plans to state explicit goals and an explicit strategy for reaching those goals within a specific timeframe and monitoring process. Finally, agencies outside the network surveyed by the OECD reported little organisational change stemming from e-government. This is in line with the main finding of this case study: agencies outside the main government channels need to understand the message that e-government leads to better government.

Agencies at the state and municipal level

The main lessons drawn from local e-government in Mexico can be briefly summarised in three points:

1. **Local initiatives have led to tailored and successful e-government results…**

Without the drive and initiative from state governments to develop and deliver state and municipal level online services locally, e-government in

Mexico would probably have taken longer to reach state and municipal administrations. Citizens would still benefit from federal e-government services directly and from back-office cost and efficiency savings indirectly, but the visible impact on citizen services would be lower, since most citizen-government interaction takes place at the local level. The success of local initiatives has been positive in spreading the message that e-government responds to citizens' needs and benefits both governments and citizens. Furthermore, state and municipal level e-government has a strong focus on users and citizens. Although the scope and reach of local services is considerably smaller than at the federal level, other agencies and ministries could learn from the strong orientation of local services to customer focus.

2. **... but the lack of a federal legal framework and a clearly defined set of standards has made the integration of services more difficult.**

State and municipal governments have launched different e-government programs locally, and individual achievements have not been able to fit together to deliver a seamless, whole-of-government success. Additionally, ministries from the federal government have provided e-government federal services locally without coordinating with state and municipal authorities, and this has not made the integration of services any easier. This is visible in digital kiosks (entry points for online services): various service providers from government have different "stand alone" kiosks at the local level. Instead of having a single stop shop, there are different kiosks that do not integrate local and federal services: there are separate kiosks for state government services, for paying taxes, for paying electricity bills, for federal level services, and yet many other kiosks furnished by different ministries, agencies, and sometimes even political parties, catering for different government services. While the kiosks contribute to provide online services to citizens without access in their homes or offices, a single, government kiosk providing all services is a better option. The same applies to online government services provided on different citizen portals in spite of the existence of the Citizen Portal of the Federal Government. Citizens need not understand the back office nor visit different kiosks or Web sites to get different services: it would be no different from going to different government offices or windows, if in a more efficient manner.

3. **The federal government needs to continue to work closely with state and municipal governments and CIAPEM in the development of federal guidelines and actions to promote coordination and collaboration on e-government in Mexico.**

In order to better integrate federal, state, and municipal government services online in a seamless fashion, the three authorities should continue to develop a coordination framework and to establish e-government standards and guidelines. As the report was being written, the Ministry of Public

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Administration was in the final stage of approving and decreeing a unique format for the development of IT policies in the federal government (late 2004). This effort, however, should also be accompanied by a clearly defined coordination scheme of online services, databases, registries, and information across the three levels of government. This would not only simplify the integration of services, but it would also promote an overall framework for launching, designing, developing, and creating e-government at all levels. It would also simplify the interaction between state and federal authorities. Furthermore, the institutionalisation efforts should continue in order to move from e-government strategies interrupted by short office terms in local governments to an e-government with longer term vision and reach. This is especially true of municipal governments, and state governments should respond accordingly.

Notes

1. In Mexico, there are a wide number of agencies considered as "deconcentrated or decentralised authorities" performing a wide range of functions in the financial, agricultural, economic, energy, education, health, communications and environment sectors. A deconcentrated body (*organismo desconcentrado*) is a decentralised administrative body.
2. There is some overlap among IMSS and the Ministry of Health, as some people who are temporarily out of work or out of work because of illness may be counted by the Social Security Institute despite the fact that they are temporarily being covered by the Ministry of Health.
3. Anuario Estadístico del ISSSTE, 2001.
4. OECD, *OECD Reviews of Regulatory Reform: Mexico*, 2004, ISBN 92-64-01750-X, p. 62.
5. SAT, 10.2004.
6. Daniel Flores Curiel y Jorge Noel Valero Gil, "Tamaño del sector informal y su potencial de recaudación en México", Mexico, UANL, p. 89, in International Tax Dialogue (ITD) Web, *www.itdweb.org*.
7. See note 1 above.
8. OECD, *The E-Government Imperative*, OECD, 2003, pp. 73-75.
9. For more information on the Good Government Agenda, see Chapter 1.
10. SAT's Technical Assistance Centre includes desktop and laptop applications, Local Area Networks (LANs), LAN routing and desktop applications administration (MS Office, commercial applications etc.).
11. SAT's Service Desk is oriented towards ETL procedures.
12. The E-Government Imperative identifies three main barriers to e-government: budgetary barriers, regulatory barriers and the digital divide. See OECD, *The E-Government Imperative*, OECD, 2003, Chapter 3: External Barriers to E-Government.

13. This is especially true in the sense that the Federal Law on Transparency and Access to Information has been rigorously applied since it was passed in 2002 by making extensive use of electronic services and systems and e-government strategies.

14. For more on the role of this government body, please refer to Chapter 1 of the report.

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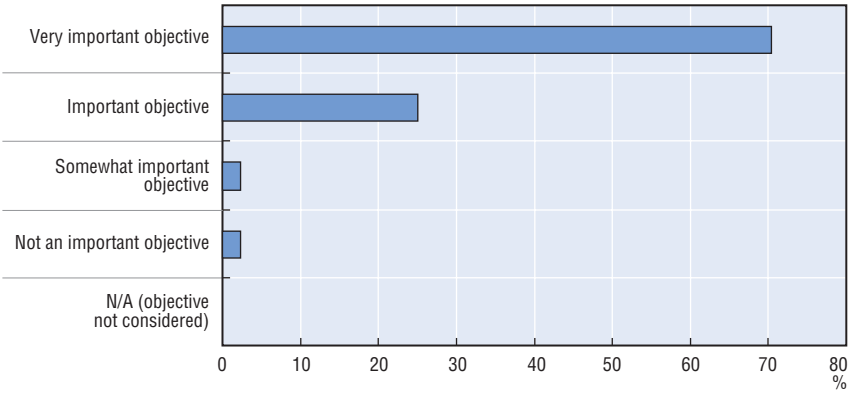
ANNEX B

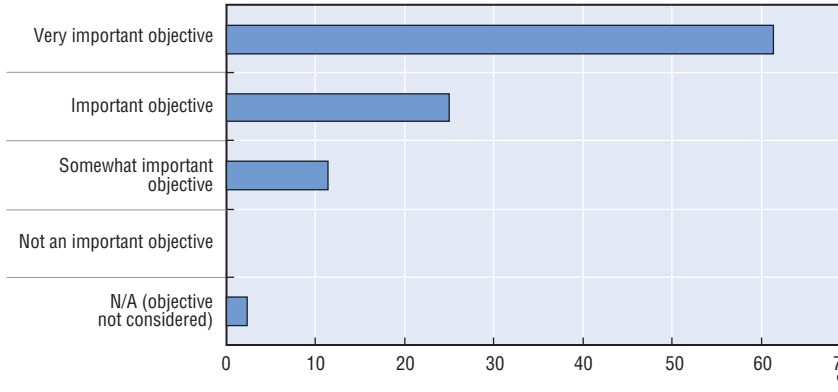
Statistical Annex

Figure B.1. **Improving transparency and accountability as an explicit objective**



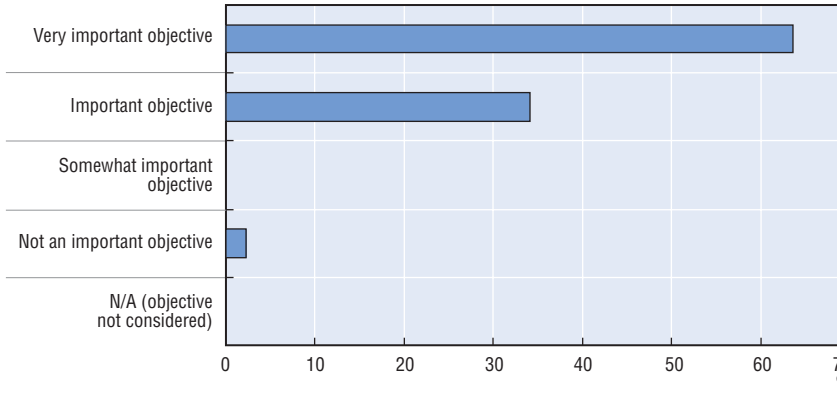
Source: OECD E-Government Survey: Mexico, question 2.1.

Figure B.2. **The objective of strengthening citizen engagement and trust in government**



Source: OECD E-Government Survey: Mexico, question 2.1.

Figure B.3. **Enabling efficiency gains as an explicit objective**



Source: OECD E-Government Survey: Mexico, question 2.1.

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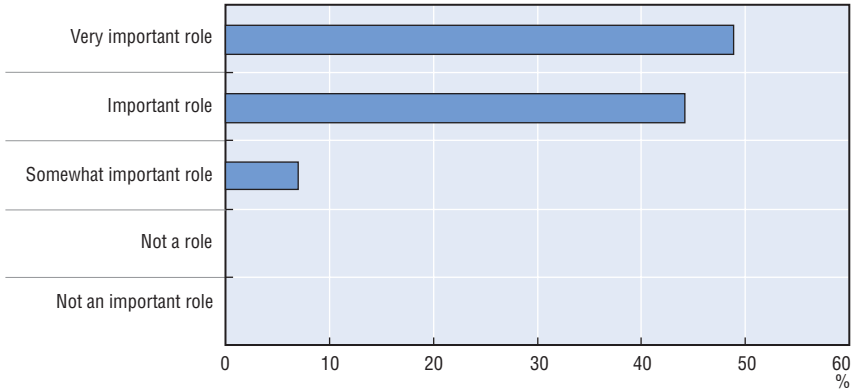
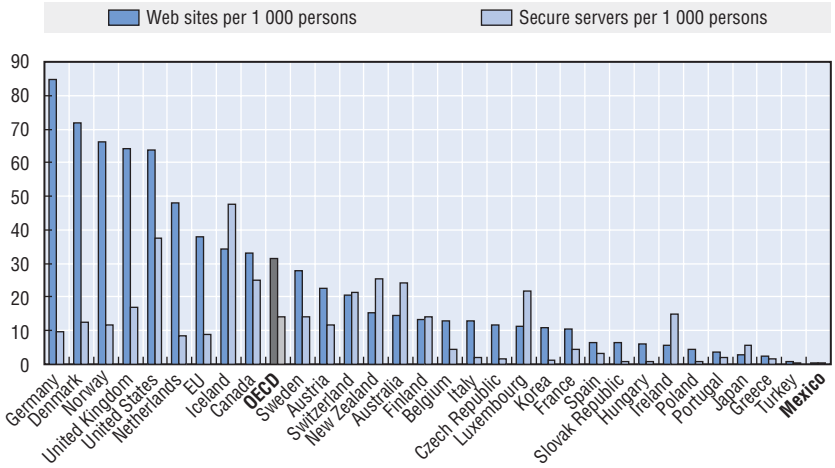
Figure B.4. **The role of e-government leaders in identifying and overcoming external barriers**



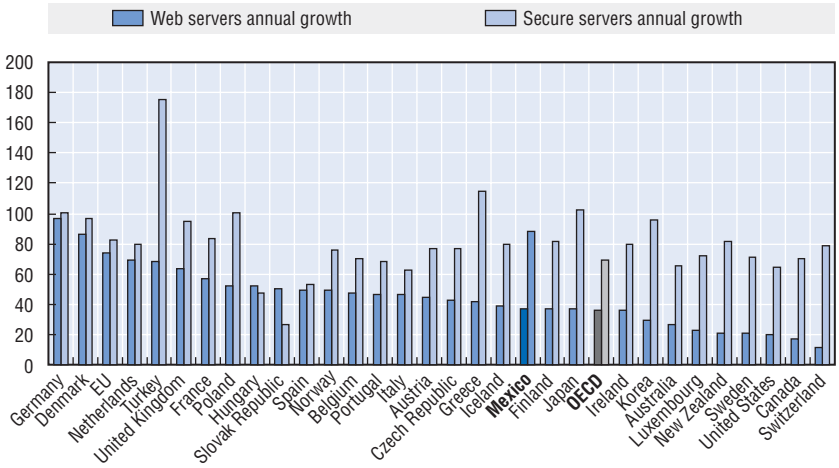
Source: OECD E-Government Survey: Mexico, question 4.5e.

Figure B.5. **Web sites and secure servers per 1 000 inhabitants (2002)**



Source: OECD Communications Outlook 2003.

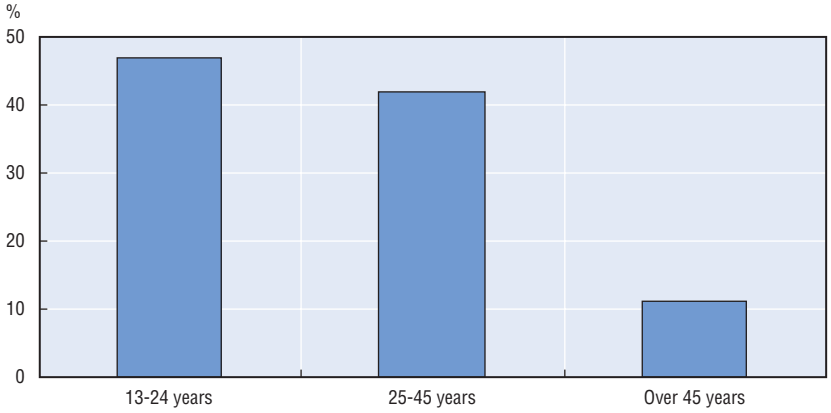
Figure B.6. **Annual growth of Web servers and secure servers (1998-2002)**



Source: *OECD Communications Outlook* 2003.

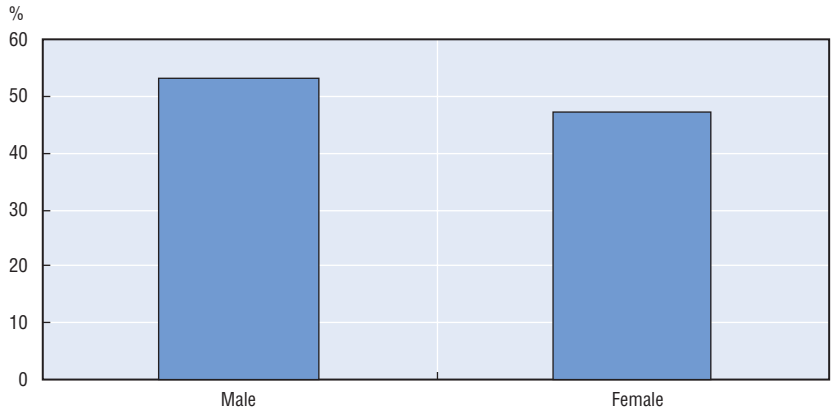
Figure B.7. **Mexico: access to Internet by age**

As a percentage of total Internet user population



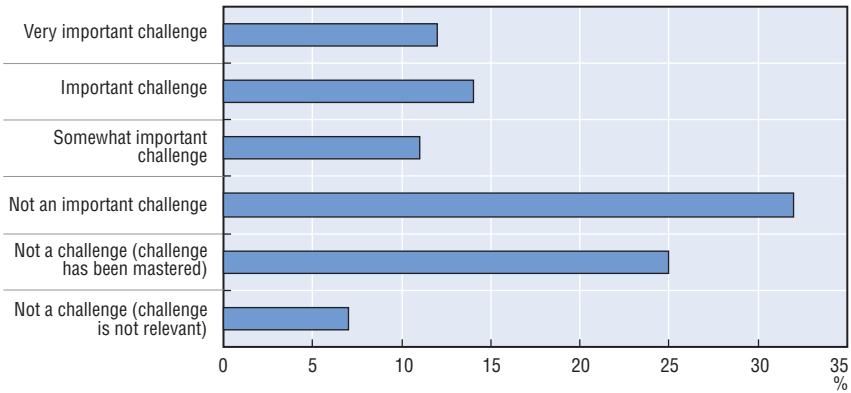
Source: Select/Amipci, September 2004.

Figure B.8. **Mexico: access to Internet by gender**
As a percentage of total Internet user population



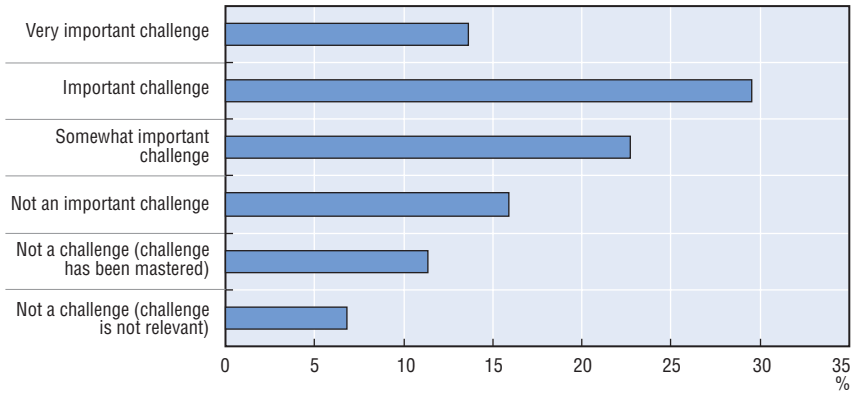
Source: Select/Amipci, September 2004.

Figure B.9. **Planning as a challenge to e-government implementation**



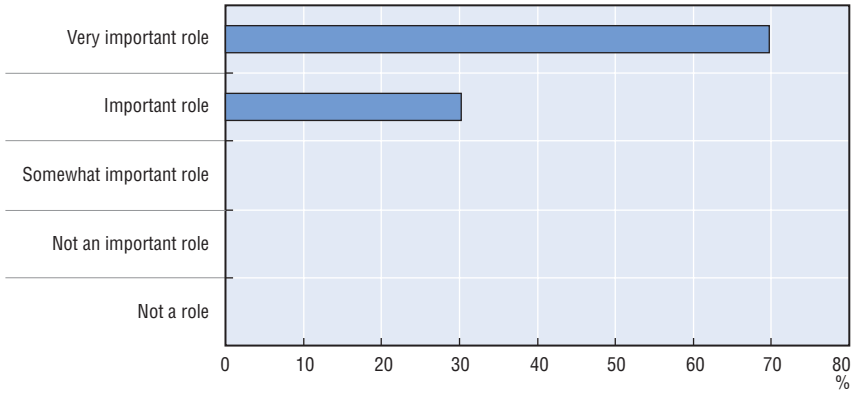
Source: OECD E-Government Survey: Mexico, question 1.4.

Figure B.10. **Resistance to organisational change**



Source: OECD E-Government Survey: Mexico, question 1.4.

Figure B.11. **The role of the leader in ensuring staff ownership and acceptance of the plan**



Source: OECD E-Government Survey: Mexico, question 4.5.

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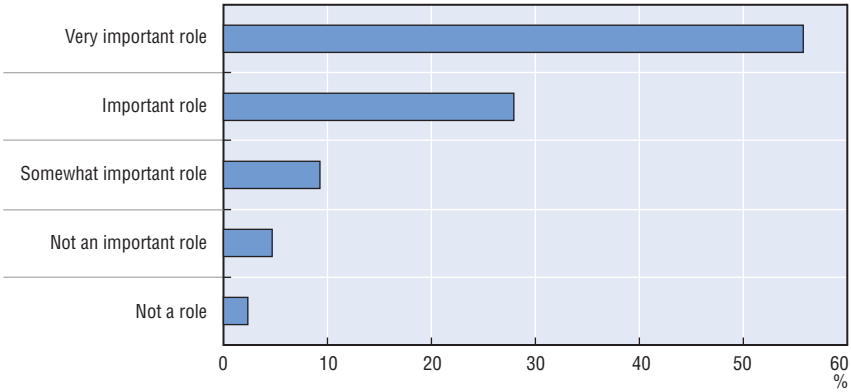
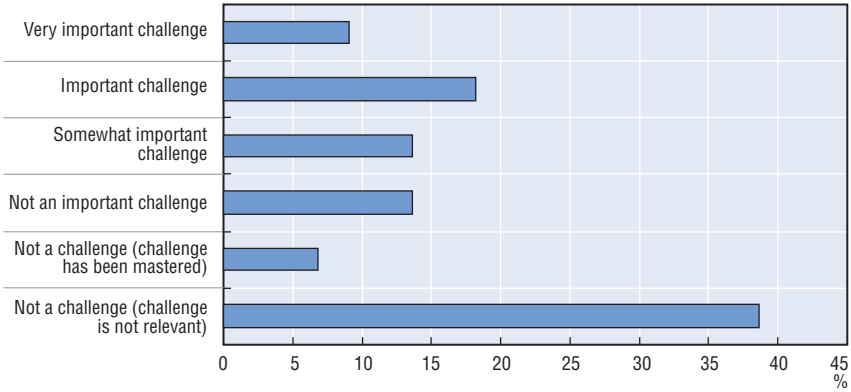
Figure B.12. **Push for broad participation within the organisation for e-government implementation**



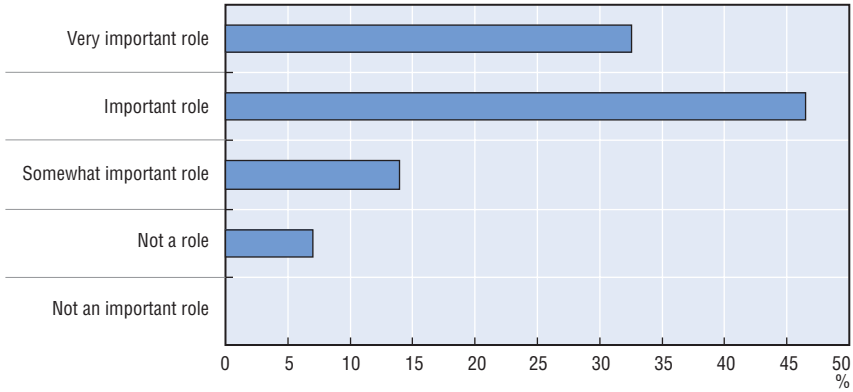
Source: OECD E-Government Survey: Mexico, question 4.5.

Figure B.13. **Relations with unions as e-government challenge**



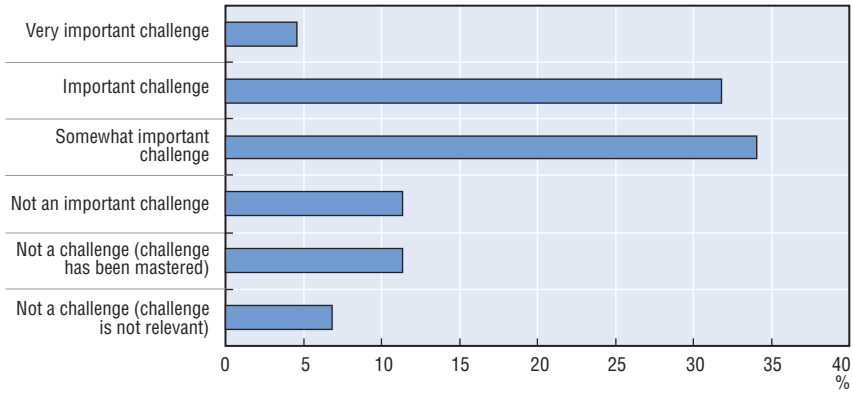
Source: OECD E-Government Survey: Mexico, question 1.5.

Figure B.14. **Should leaders contact and co-operate with other organisations?**



Source: OECD E-Government Survey: Mexico, question 4.5.

Figure B.15. **The challenge of collaborating in e-government in Mexico**



Source: OECD E-Government Survey: Mexico, question 1.4.

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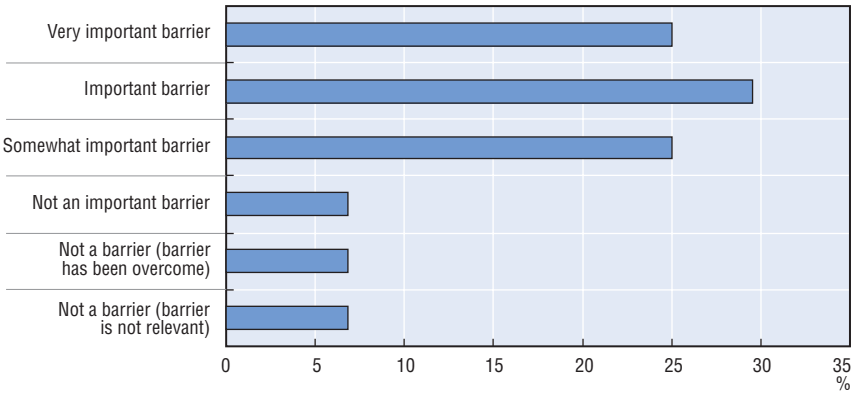
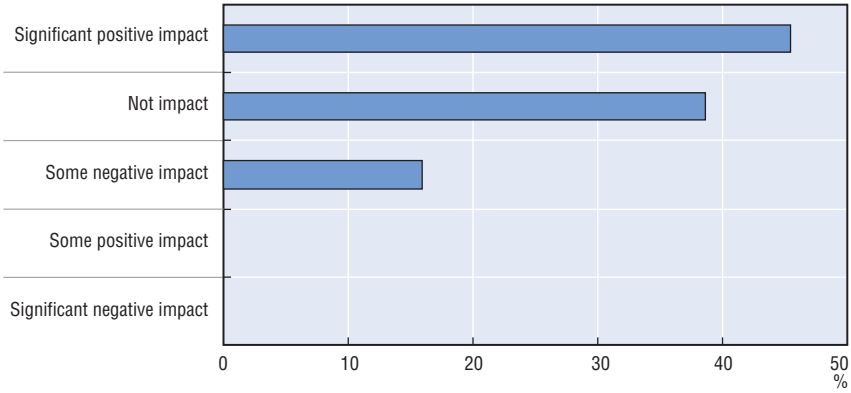
Figure B.16. **Lack of mechanisms for shared/joint funding across agencies**



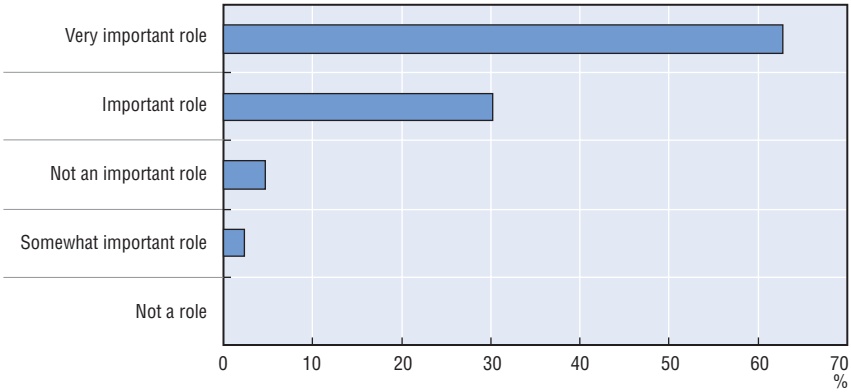
Source: OECD E-Government Survey: Mexico, question 3.3.

Figure B.17. **Impact of e-government on technical quality of services**



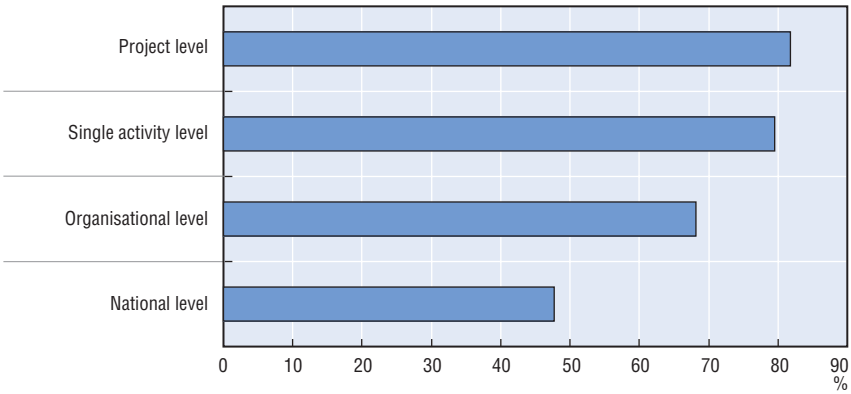
Source: OECD E-Government Survey: Mexico, question 10.1.

Figure B.18. **How important is the role of the e-government leader in strengthening customer focus?**



Source: OECD E-Government Survey: Mexico, question.5.

Figure B.19. **Percentage of organisations undergoing monitoring and evaluation more than once a year**



Source: OECD E-Government Survey: Mexico, question 9.3.

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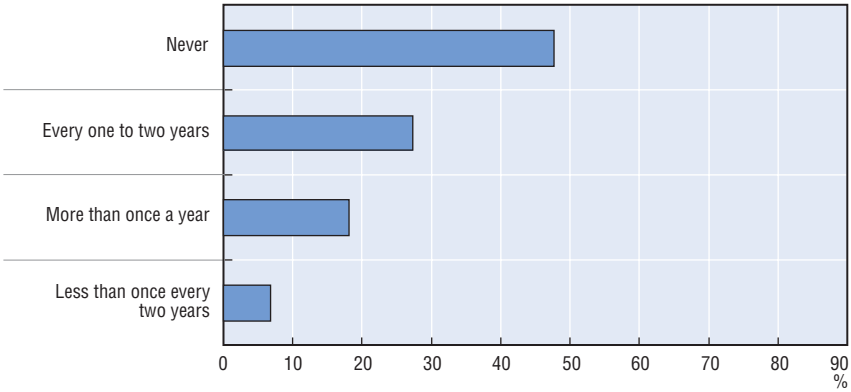
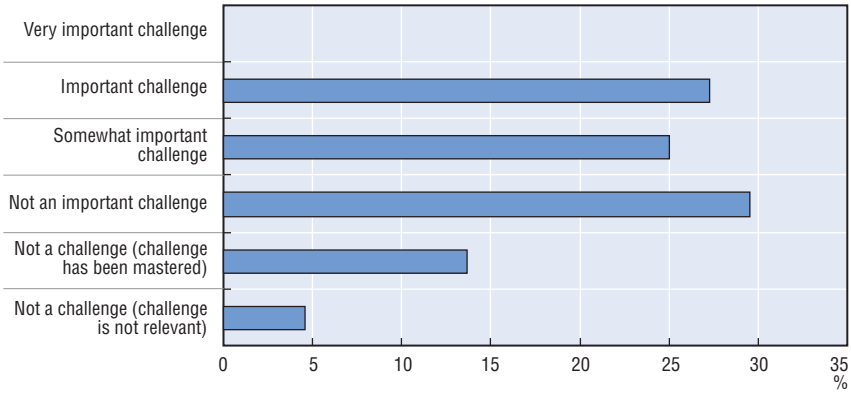
Figure B.20. **Frequency of e-government evaluation exercises from external audits**



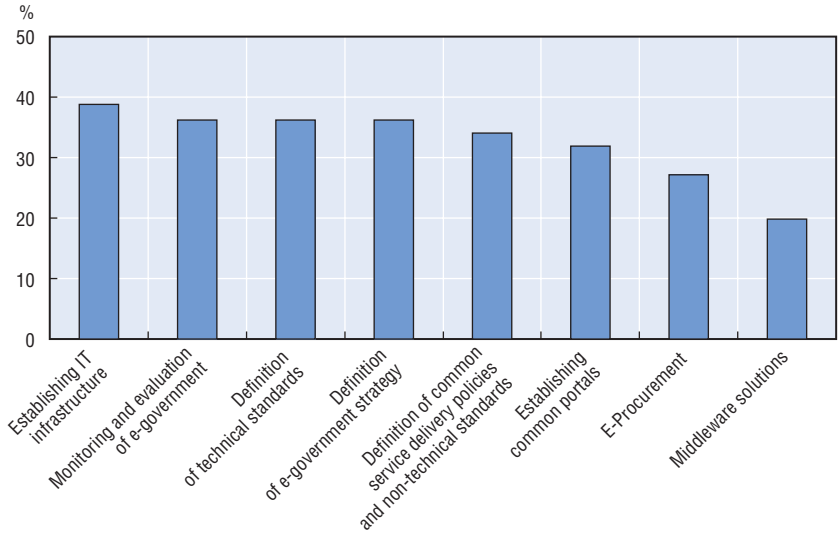
Source: OECD E-Government Survey: Mexico, question 9.4.

Figure B.21. **Cost/Benefit analyses as an e-government implementation challenge**



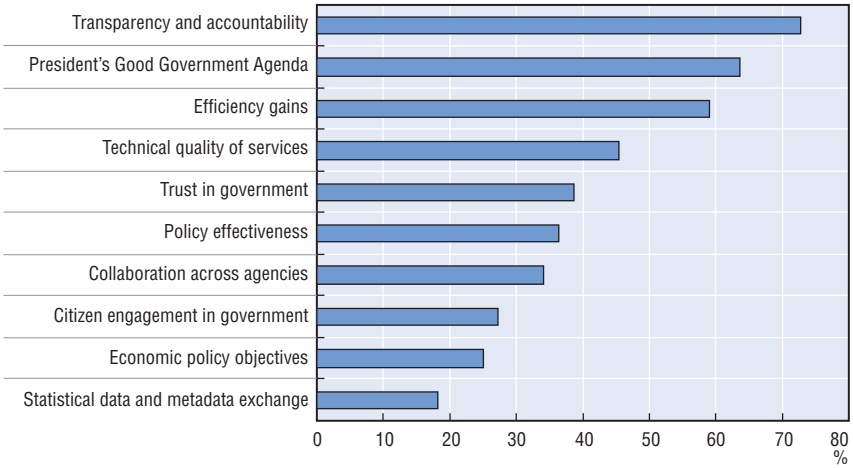
Source: OECD E-Government Survey: Mexico, question 1.4.

Figure B.22. **Per cent of government organisations working together on:**



Source: OECD E-Government Survey: Mexico, question 6.1.

Figure B.23. **Significant positive impact of e-government in Mexico**



Source: OECD E-Government Survey: Mexico, question 10.1.

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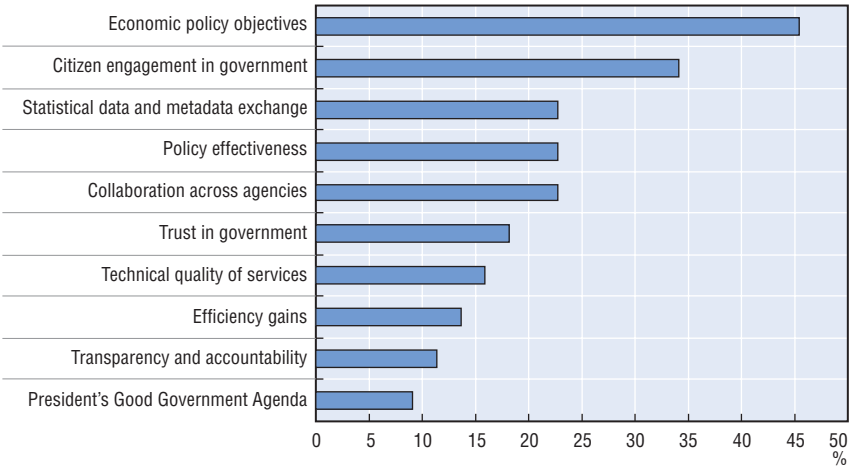
Figure B.24. **Negative impact of e-government in Mexico**

Percentage responding "some negative impact"



Source: OECD E-Government Survey: Mexico, question 10.1.

ANNEX C

Methodology

Definition of analytical framework

The Mexico peer review methodology was developed by the OECD over the period from 2002 to 2004. The methodology takes into account the OECD framework for examining e-government that was developed in "The e-Government Imperative" (OECD 2003), and the work that went into the OECD publication "E-Government for Better Government" (OECD 2005). The methodology was tested through a pilot review of e-government in Finland, which led to the publication of the report: "OECD e-Government Studies: Finland" (OECD 2003). In 2004, the OECD E-Government Project adopted the OECD methodology for peer reviews, as laid out in "Peer Review: An OECD Tool for Co-operation and Change" (OECD 2003). Using this analytical framework, the OECD conducted reviews of Mexico, Norway and Denmark, and additional reviews are planned for 2005-2006.

The development of the OECD e-government peer review methodology is an ongoing process, but the general framework will be preserved so as to allow for comparability among countries. The OECD will continue to ensure that the methodology used is updated and as relevant as possible for OECD countries.

In the development of the methodology, the OECD kept in mind that:

- The OECD should assign great importance to statistical rigor and quality when measuring and describing variables.
- Comparable descriptive characteristics of variables are necessary for building an international classification of e-government experiences.
- The OECD E-Government Project should compare its approach to those of other OECD directorates, and collect lessons learned for future reference and sharing with other directorates.

As the first step for a country review, the OECD Secretariat develops an agreement with the country authorities concerning the objectives, analytical framework and timeline of the study. The terms of reference (available on the

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OECD E-Government Project Web site *http://webdomino1.oecd.org/COMNET/PUM.egovproweb.nsf*) sets out the areas to be studied in what is a vast subject, and structures the issues to provide an overall view of e-government implementation and impacts.

The review is structured around the notion of a policy cycle in which e-government goals, strategies and initiatives are developed and diffused centrally, as individual e-government projects are initiated at the agency level. How these efforts interact leads to a focus on **co-ordination issues** for the development and implementation of e-government across the central government. This has been a recurring issue in discussions with e-government officials and experts.

As part of the study the Secretariat also provides definitions of terms such as "e-government", "external barriers" and "e-government skills". A full glossary is provided in Annex D of this report.

Inputs

The Mexico study is primarily qualitative in nature, presenting a combination of observations and judgements gleaned from reports and official documents, survey responses and interviews. The study has four main inputs:

- Reports and official documents.
- OECD e-government survey.
- Interviews with government officials.
- Peer review meeting.

Reports and official documents

The study brought together a wide range of government documents across sectors and competencies which provided insight into how various planning processes are co-ordinated in Mexico. It also drew on academic research and journal articles on public management reform, e-government and the information society in Mexico. This approach was based on the notion that e-government cannot be addressed in isolation.

Additionally, information was exchanged with other OECD teams conducting reviews of Mexico. In particular, the teams conducting reviews of **regulatory reform** and **territorial development** in Mexico were consulted regularly. By sharing information with GOV colleagues, the OECD was able to avoid duplicative data gathering and to gain further insight into how regulatory systems and regional and local issues impact e-government initiatives.

OECD survey of e-government in Mexico

The OECD survey on e-government was originally developed in 2002, and it was revised in 2003 based on the experience of the Finland review. A revised version of the survey was presented to the OECD Steering Group on the complementary areas of work on e-government at a meeting in Paris in December 2003. Comments from the Steering Group were incorporated into the final version of the survey.

Within the OECD Directorate of Governance and Territorial Development, the survey was sent to colleagues working on regulatory reform, territorial development and government indicators. It was also sent to the Statistical Directorate of the OECD and to the Directorate for Science, Technology and Industry – in particular experts on the information society, privacy and security, and ICT statistics.

In February 2004, the OECD administered the survey to ministries and agencies in the Mexican government. The survey was targeted at IT officials within ministries and agencies of the central administration. It looked at ministry/agency characteristics, asked their opinion on e-government challenges, barriers and priorities, and allowed them to self-classify the progress of their e-government initiatives. The survey was provided online, in a multiple-choice format to maximise ease of response.

The survey was sent out to two groups of organisations:

1. All government agencies in the Central Public Administration and all government units belonging to the E-Government Network (*Red E-Gobierno*)[1] in the Federal Public Administration.
2. All agencies outside the Central Public Administration and outside the E-Government Network.

For the first group, the OECD surveyed a sample of 77 units across 48 administrative bodies from the Mexican Federal Public Administration that together share 90% of the federal government's IT budget. From the Central Administration, the sample included all 18 ministries, the President's Office and the Attorney General, and the response rate was 80%.[2] The remaining 28 bodies surveyed had a response rate of 71%. The entire E-Government Network units were surveyed, and the response rate was 57%. A breakdown of respondents by ministry follows in table C.1 below.

It should be noted that the response rate for agencies outside the Central Public Administration and outside the E-Government Network was not representative of all agencies in the Mexican government. Therefore, information from this second group was not included in the main text but rather as a case study for the review (see Annex B). The second group of agencies surveyed was discarded for use in the main text of the analysis (only 22 responses from a sample of 185 agencies).

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Table C.1. **Responses to OECD survey**

		Total	OECD sample	Valid Responses	Response rate % (from sample)	Personnel
Administrative bodies in entire Mexican Federal Public Administration		200	48	36	75	1 276 756
Central Administration	Ministries	18	18	14	78	583 503
	Central Administrative Bodies	3	2	2	100	18 570
	Total	21	20	16	80	602 073
Federal Administrative Bodies outside the Central Administration		179	28	20	71	674 788
Units across the Federal Government belonging to E-Government Network		77	77	44	57	14 587
Ministries/bodies in the Central Administration (total refers to internal units belonging to E-Government Network)						
Ministry of Energy		1	1	1	100	1 007
Ministry of the Environment		1	1	1	100	9 281
Ministry of Social Development		1	1	1	100	9 365
Ministry of Labour		1	1	1	100	5 955
Ministry of Agrarian Reform		1	1	1	100	2 559
Ministry of Tourism		1	1	1	100	1 979
Ministry of Navy		1	1	1	100	50 026
Ministry of Defence		1	1	1	100	171 688
Ministry of Public Administration		5	5	3	60	2 348
Ministry of Agriculture		2	2	1	50	28 466
Ministry of the Economy		2	2	1	50	4 826
Ministry of the Interior		2	2	1	50	13 839
Ministry of Finance		3	3	1	33	8 380
Ministry of Communications and Transportations		3	3	1	33	81 743
Ministry of Foreign Affairs		2	2	0	0	3 825
Ministry of Education		2	2	0	0	125 544
Ministry of Public Security		1	1	0	0	19 287
Ministry of Health		3	3	0	0	43 385
President's Office		6	6	5	83	1 846
Attorney General		1	1	1	100	16 619
President's Legal Counsel		1	0	0	0	105

Once responses were collected, the Secretariat conducted a statistical analysis of survey findings. One of the primary values of the survey was to allow the OECD to look at how far e-government rhetoric – as indicated in strategic plans and documents – has penetrated the awareness and actual practice at the agency level.

Interviews with government officials

The OECD E-Government team had two sets of interviews with Mexican government officials. The first, which took place in November 2003, was a set of exploratory interviews, designed to help the OECD understand the key elements regarding e-government in Mexico. The OECD team met with 7 ministries and agencies involved in the E-Government Network (Red E-Gobierno). The interviews were scheduled by the Ministry of Public Administration, with input from the OECD, so as to gain insight into the main issues and problems regarding e-government in Mexico. The OECD met with a mix of organisations that were relatively advanced and less advanced with regard to e-government. The exploratory interviews generally lasted one hour, and focussed on the successes and challenges of implementing e-government. These exploratory interviews were not meant to be comprehensive, but to assist the OECD with the reformulation of the survey, and to develop an understanding of areas that merited further research.

The second set of interviews took place in March 2004, and constituted in-depth interviews with government officials and the OECD peer review team. The in-depth interviews included three members of the OECD Secretariat plus three peer reviewers: from Canada (Darryl Hirsch), Finland (Olavi Köngäs) and Korea (Victor Kwon). The peer review team undertook a total of 37 interviews that included all 18 ministries and the 10 most important government agencies in the Federal Public Administration.

The in-depth interviews followed a structured set of questions, covering each of the main themes of the report. The interviews focused on the more informal issues that could not be captured with the written survey. Officials were given the option of keeping the interviews confidential.

Interviews covered all of the ministries, plus a cross-sample of agencies chosen to represent advanced, average and lagging e-government performance. In addition to government officials, the OECD also interviewed a selection of representative of local governments.

Peer Review Meeting

In the assessment phase of an OECD Peer Review, the main findings of the review are discussed in a plenary meeting of the body responsible for the review. The examiners lead the discussion, but the whole body is encouraged to participate extensively. Following discussions, and in some case negotiations, among the members of the body, including the reviewed country, the final report is adopted, or just noted by the whole body. Generally, approval of the final report is by consensus, unless the procedures of the particular peer review specify otherwise ("Peer Review: An OECD Tool for Co-operation and Change", OECD 2003).

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The main findings of the OECD Peer Review of E-Government in Mexico were circulated to all OECD countries for comments in June 2004, and it presented for discussion at the OECD E-Government Symposium for Senior E-Government Officials in July 2004. Countries took this opportunity to use their own expertise on e-government to provide insightful commentary on the report. Following the peer review meeting, the OECD Secretariat revised the final text, taking into account country comments. The review was also submitted to the Public Governance Committee under the written procedure prior to publication.

Independence and neutrality and verification of inputs

Within a framework approved by the Mexican government, the OECD conducted the study with its own staff and independent peer reviewers. The study was conducted with guidance and financing from the Mexican Ministry of Public Administration, but the Ministry did not influence the final conclusions or bias the study regarding its own role in e-government design and implementation.

The report was drafted by the OECD Secretariat with input from three peer reviewers from Canada, Finland and Korea. The text also benefited from fact checking by the Ministry of Public Administration and other relevant ministries that participated in the in-depth interviews. The OECD regularly briefed the Mexican Ministry of Public Administration and the OECD Steering Group on the Complementary Areas of work on E-Government on the progress and procedures of the Mexico review.

Notes

1. The President's Office for Innovation created a network of senior e-government officials to implement the e-government strategy in 2002. Officials from 48 administrative bodies representing 90% of the federal government's IT budget were chosen for membership. The network meets once a month to share best practice and to discuss e-government strategies and solutions.
2. The only central body not included in the sample was the President's Legal Counsel.

ANNEX D

Glossary

This glossary was compiled for the purpose of this study, and describes how the terms are used in this report.

AUTHENTICATION – a security measure for checking a user's identity before being allowed Internet or intranet access, typically by entering a user identity and/or password.

BACK OFFICE – the internal operations of an organisation that support core processes and are not accessible or visible to the general public.

EXTERNAL BARRIERS – external barriers to e-government are obstacles need to be resolved with the help of other actors (*e.g.* in central administrations) in order to be overcome. They often concern breakdowns, missing components or lack of flexibility in the government-wide frameworks that enable e-government. The result is often the inability to achieve a whole-of-government or seamless perspective in e-government implementation.

CHANNELS – a means of accessing services (*e.g.* Internet, telephone, visit to a government office). Different types of customers use different service access channels

E-GOVERNMENT – the use of information and communication technologies (ICTs), and particularly the Internet, as a tool to achieve better government.

FRONT OFFICE – refers to government as its constituents see it, meaning the information and service providers, and the interaction between government and both citizens and business.

INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT) – refers to both computer and communication technology. IT (information technology) is defined as any equipment or interconnected system (subsystem) of equipment that includes all forms of technology used to create, store, manipulate, manage, move, display, switch, interchange, transmit or receive information in its various forms. Information can be in the form of: business

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data; voice conversations; still images; motion pictures; multimedia presentations and other forms including those not yet conceived. The meaning of communication refers to a system of shared symbols and meanings that binds people together into a group, a community, or a culture. The word communication was added to IT so as to make a network of the usage of Information Technology.*

INFORMATION MANAGEMENT (IM) – operations which develop and maintain the information reserves and information processes of an organisation.

INFORMATION NETWORK – a system of IT hardware and services which provides users with delivery and retrieval services in a given area (*e.g.* electronic mail, directories and video services).

INFORMATION NETWORK INFRASTRUCTURE – the whole system of transmission links, access procedures, legal and general frameworks, and the basic and supportive services of the information network.

INFORMATION SOCIETY (IS) – a society which makes extensive use of information networks and ICT, produces large quantities of information and communications products and services, and has a diversified content industry.

INFORMATION TECHNOLOGY (IT) – means the hardware, software and methods used for the automatic processing and transfer of data.

INTEROPERABILITY – the ability for organisations to share information and data (*e.g.* by using common standards).

MIDDLEWARE – Middleware is software that integrates services and distributed applications across the Internet or local area networks, and may provide a set of services such as authentication, messaging, transactions, etc. Middleware allows government organisations to share data between front office service delivery channels and back offices applications and processes, and is increasingly perceived as a technology for delivery of joined-up e-government services.

ONE-STOP SHOP – a government office where services by multiple public administration authorities are available on the same visit.

ONLINE GOVERNMENT SERVICES – services provided by, but not necessarily supplied by, the public administration to citizens, businesses and organisations as well as to other public administration units through information networks.

* Adapted from *http://afrinet.intnet.mu/competition2002/rcpl2/ict/frameless/definition.htm*.

PORTAL – this is a dedicated service that co-ordinates and presents information and services from different, independent suppliers into one interface, typically a Web site. The information is categorised in accordance with given criteria related to users' needs.

PUBLIC KEY INFRASTRUCTURE (PKI) – PKI is a method for authenticating a message sender or encrypting a message. It enables users of an insecure public network, such as the Internet, to securely and privately exchange data through the use of a public and a private cryptographic key pair that is obtained and shared through a trusted authority. It provides for a *digital certificate* that can identify an individual or an organisation and directory services that can store and, when necessary, revoke the certificates.

SEAMLESS SERVICES – this means presenting easy to use, function-driven services to the public. Seamless services provide citizens with what they need to know in a particular topic or client grouping, without having to know which government level or agency they must contact to get it. It provides all the information and services a user needs in one Web site.

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Additional information on the OECD E-government Web site

Terms of Reference for Mexico

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List of organisations who responded to the OECD survey

List of interview questions for in-depth interviews

List of organisations and people who were interviewed

Bios of authors and peer reviewers

Links to background documents on Mexico

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OECD e-Government Studies

Mexico

In four years, Mexico prepared, launched, and implemented an e-government strategy that positioned the country among the top performers of online services in the world. The Mexican government is consciously looking at how to integrate e-government in a broader reform agenda that defines e-government as a tool to improve the quality, transparency, and efficiency of government and public services.

Like other OECD countries caught in the initial enthusiasm of e-government, Mexico began by focusing on the widespread application of ICT, the dissemination of information and the production of as many online services as possible. This contributed to an international recognition of Mexico's performance and e-government development. But it also led the Government to raise new questions as unexpected and more complex challenges emerged, and other OECD countries also began to change their approach to e-government. Mexico completed the initial phase of setting up and delivering e-government services successfully, but the continuing public demands to improve government have made the country realise the importance of refocusing the strategy to find a way of making e-government improve the overall quality of government. This report analyses and assesses these challenges and provides a set of proposals for action to deal with the most actual and pressing questions of e-government in Mexico.

This review is the first study that undertakes an in-depth analysis of e-government in Mexico from a whole-of-government perspective. It is part of a series of national e-government reviews conducted by the OECD E-Government Project. Other reviews in this cycle cover Finland, Norway and Denmark, with additional reviews under way. The report is based on the OECD synthesis reports *The e-Government Imperative* (2003) and *E-Government for Better Government* (2005). The common framework provided by the OECD assists countries in evaluating their e-government policies, ensures international compatibility of findings and systematically builds up a body of empirical evidence regarding good e-government practices.

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