OECD e-Government Studies

Finland



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Foreword

With backing from the Finnish government (Ministry of Finance), the OECD E-Government Project has conducted this country study of e-government in Finland to identify the challenges facing e-government implementers and to assess how e-government strategies and solutions contributed, and could contribute in the future, to good governance objectives.

The report was completed in March 2003. It draws on a survey of Finnish ministries and agencies administered in 2002 and on a set of interviews with Finnish officials during the period May to November 2002.

This report is the first in a series that will look at ICT use in government, implementation challenges, and governance implications. As a pilot study, it has contributed greatly to the establishment of an analytical framework for the OECD report, "The E-Government Imperative", which was published in 2003, as well as for other country studies.

The report was written by Edwin Lau of the OECD Public Governance and Territorial Development Directorate (GOV), with the assistance of Marco Daglio and Stine Dragsted. It was prepared under the supervision of Christian Vergez and Hélène Gadriot-Renard (GOV). The report is published on the responsibility of the Secretary-General of the OECD.

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Assessment and Proposals for Action

Introduction

This report provides a first comprehensive analysis of e-government implementation within the Finnish central administration.

Since the 1990s, Finland has been a leader in exploiting information and communication technology (ICT) to renew its economy and to reform its public administration. Its reputation for successfully providing proactive electronic government services and information has brought officials from around the world to learn from its experience.

The Finnish central government plays a leading role in developing, planning, implementing and co-ordinating e-government initiatives. With backing from the Ministry of Finance (MoF), the OECD E-Government Project has carried out a study of e-government in the central administration, taking an in-depth look at e-government structures and processes and examining their strengths and weaknesses. This report analyses the various aspects of e-government policies, implementation and impact, and provides a first comprehensive analysis of e-government implementation within the Finnish central administration.

E-government structure and context

As in the case of other OECD countries that began e-government early, e-government in Finland was first launched in many different ministries and agencies and levels of government in response to broader societal and policy changes rather than resulting from top-down planning.

Finland has clarified central co-ordination responsibilities for e-government…

The organisational model for e-government in Finland today is based on central guidance and decentralised responsibilities and implementation. The development of e-government is marked by the relation between the central administration's role in promoting e-government and the local and regional governments' role as the primary service providers. A third set of actors,

independent central agencies under parliamentary authority, also provide important services. Input from the private and non-profit sectors, in the form of the Information Society Advisory Board (ISAB) has further helped define Finland's e-government strategy.

Finland has clarified central co-ordination responsibilities for e-government in response to the perception within the central administration that the current level of co-ordination is insufficient.

The organisation structure of e-government reflects the involvement and responsibilities of key ministries. The Ministry of Finance has the principal role of policy setting and horizontal co-ordination, while the Ministry of Interior is responsible for vertical co-ordination and ensuring the diffusion and exchange of standards and good practices at the regional and local levels. The Ministry of Justice sets the main regulatory framework. A number of inter-ministerial and interagency bodies complete the e-government co-ordination structure and ensure collective decision-making.

Across government, however, ministries have been passive in the development and encouragement of e-government initiatives.

Across government, however, ministries without central co-ordination responsibilities have been passive in the development and encouragement of e-government initiatives in the agencies under them. This reflects limited resources but also a perceived absence of a strategic role. While not all agencies need an additional push, another result of weak ministerial guidance is a lack of e-government collaboration among agencies. While both formal and informal networks ensure the flow of information about IT initiatives and guidance among e-government officials, inter-agency collaboration in the development of e-government plans is relatively rare across levels of government and even less common among agencies and ministries. Ministries could assume a stronger role in helping develop an overall strategy and in guiding their agencies, in particular those that are lagging in developing electronic services.

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The case for e-government

As an instrument to increase efficiency, strengthen competitiveness and enhance modernisation, e-government has become an explicit component of public sector reform.

The development of e-government in Finland has been shaped by overall reforms in the public administration and the development of the information society.

Public management reforms in the early 1990s led to major changes in the Finnish administration in terms of greater responsibility, accountability and flexibility at the agency level and decreased oversight and co-ordination responsibilities at the ministry level. This redistribution of power has freed energies to develop new initiatives throughout government, but it has also drawn attention to the need for improved, central co-ordination in order to maintain coherence of vision and efficacy of results. As an instrument to increase efficiency, strengthen competitiveness and enhance modernisation, e-government has become an explicit component of public sector reform. Conversely, reform of the public administration in Finland has provided a general framework for defining e-government goals and responsibilities by setting an overall vision and objectives for improving the quality and efficiency of public services.

The government's desire to make the opportunities of the information society available to all has provided a strong case for developing e-government in Finland.

The constant advancement of the information society in Finland has provided a second impetus for the development of e-government. The government's desire to make the opportunities of the information society available to all and the demonstration effect of ICT use in the economy have provided a strong case for developing e-government and for integrating the e-government strategy in a comprehensive information society vision. As a result of its success in planning the information society, the government has obtained a degree of public confidence, which serves to reinforce its ability to incorporate e-government in its overall ICT strategy.

However, this report shows that in Finland, as in other OECD countries, little is known about actual citizen demand. While limited e-government surveys indicate citizens' general support for the development of electronic services, they have revealed little about their specific views. Information on demand for

such services is incomplete, despite the government's emphasis on the need to appraise user preferences as a basis for e-government strategies. This reflects the difficulty of collecting useful data and the diffuse nature of citizen demand, as well as the government's approach to developing proactive services and anticipating citizen needs. More could be done to aggregate the information on customer needs currently available in ministries and agencies.

Finland could reinforce citizen support by better marketing e-government and demonstrating how it meets areas of immediate citizen concern.

Over the long term, e-government requires the continued support of citizens and business. Finland could reinforce citizen support by better marketing e-government and demonstrating how it meets areas of immediate citizen concern including service delivery, efficiency, security and privacy, and the accompanying reforms. This is particularly true in the case of back-office reforms that have an important impact, but which are not immediately visible in citizens' day-to-day lives.

Barriers to e-government

The OECD report, "The E-government Imperative" identifies four main external obstacles to e-government: 1) legislative and regulatory barriers; 2) budgetary barriers; 3) technical barriers and 4) the digital divide. Finland has overcome many of these barriers, though challenges still remain.

The demand for more central guidance to move forward may reveal insufficient internal governance structures that empower agencies to take action within broad regulatory frameworks.

Legislative and regulatory issues. The Finnish government has taken major steps to set the regulatory framework for ensuring the full equivalence of electronic and paper processes by enacting legislation on electronic identification, data exchange and authentication. Existing guidance provides technical "how to" support for ministries and agencies already engaged in new initiatives, but does not provide many incentives or a "push" to launch initiatives. Agencies are increasingly asking for guidance on implementing the vision for e-government.

With regard to policy orientation, agency demand for more central guidance in order to move forward may reveal 1) a tendency to rely on external direction rather than developing internal capacities, 2) a lack of ministerial

leadership to promote e-government and 3) insufficient internal governance structures (*i.e.* regarding relationships among different government organisations). The solution is not necessarily more regulations, but rather a governance system that ensures accountability while empowering agencies to take action within broad regulatory frameworks.

With regard to technical standards, the government is providing the necessary guidance, but there is also a need to clarify and better diffuse existing regulations in order to avoid duplication and unnecessary regulation. Fragmented regulations, in fact, have resulted in confusion and uncertainty over their content. The result, in some cases, has been inertia while agencies wait to be told what to do and/or receive clarification over what they are allowed to do.

The Finnish case shows that maintaining citizen trust is an on-going process, and not a final result that is achieved and then taken for granted.

A closely related regulatory issue is the need to deal effectively with concerns about privacy of personal data. In Finland, privacy and security remain a high priority in order to maintain current levels of citizen trust. The use and delivery of data are protected by law and an independent authority ensures the respect of privacy rules, though confidence remains weak in the ability of ministries and agencies to develop technical solutions to deliver secure services. The Finnish case shows that maintaining citizen trust is an on-going process, and not a final result that is achieved and then taken for granted.

An Important challenge in Finland [is] the use of budgetary processes to enhance the availability of cross-agency funding in support of integrated online services.

Budgetary barriers. The Finnish budgetary context for e-government is characterised by a tight fiscal environment and a decentralised system of IT spending with central monitoring of resources. Central one-time funds have been crucial for developing electronic service delivery frameworks ("e-enablers") and may provide a model for setting up new incentive funds to foster innovation. Although insufficient funding for ICT purchases did not appear to be a major barrier for developing e-government to date, costs related to the back office implementation of e-government, such as for training and change management, are likely to make up an increasing proportion of e-government costs, and have not been counted as part of total e-government expenditures.

This report identifies as an important challenge in Finland, the use of budgetary processes to enhance the availability of cross-agency funding in support of integrated online services.

Technical issues have been recognised as important, but secondary challenge.

Technological barriers. Technological progress has created opportunities to improve administrative efficiency and advance e-government initiatives Technical issues regarding privacy and security, the need to account for rapid technological change, the lack of standards and internal integration have all been recognised as important challenges for ministries and agencies, but as a secondary challenge relative to the need to develop e-government capacities in the public service.

Technical solution should follow rather than anticipate demand for services. For example, the government introduced the Finnish electronic citizen identity card without adequately analysing market demand or developing the advanced services that would use such a card. As a result, it has created a secure solution and a national authentication infrastructure, but has not met usage targets or stimulated new services. In particular, ministries and agencies have been reluctant or unable to make use of this common system. If the government believes that "e-enablers" are needed, it should show how it plans to promote accompanying services.

Additional ICT penetration is less a matter of access and cost than of perceived value from computer usage and Internet services.

The digital divide. Finland is doing well in terms of providing access to ICT and in particular the Internet, although generations, family types and regions still differ markedly with respect to access to and possession of information technology. Rural connectivity projects have strengthened collaboration among municipalities and fostered partnerships between public and private actors.

As in other countries with high ICT penetration, closing the digital divide in Finland now seems to depend increasingly on citizens' own choices. In addition to improving access and cost, computer and Internet use will depend on citizens' perceptions of the value-added of electronic services, thereby further raising the stakes for improving e-government.

Implementing e-government

This report analyses Finland's implementation progress along six variables: 1) its vision for e-government and plans to achieve it; front-office actions to 2) deliver services, 3) encourage e-engagement and 4) establish portals; back-office efforts to 5) foster organisational change, develop leadership and skills; and 6) the performance of monitoring and evaluation.

Finland's national e-government vision results from a successful collaboration among top decision makers. However, the government has been less successful in mobilising government employees around its central vision.

Vision and planning. Finland's national e-government vision, initially formulated in the 1990s, is well-integrated with its administrative reform and Information Society agenda and results from a successful collaboration among top decision-makers in the public and private sectors and civil society. However, the government has been less succsuccessful in effectively informing and mobilising government employees around its central vision. The lack of wide ownership of the e-government vision has resulted in confusion at the agency level over their role and the actions required to move forward the overall government agenda. In addition, the government has not set clear responsibilities for e-government implementation. As a result, some agencies have failed to translate the broad vision into concrete objectives and action plans.

The lack of explicit targets within agencies and ministries has decreased accountability and makes it more difficult to establish internal milestones by which agencies and ministries can judge their own progress.

Ministries and agencies also experience confusion because broad national e-government goals have rarely been accompanied by precise and monitorable targets. The government has been reluctant to provide quantifiable national targets to achieve its e-government goals and objectives. This shows some foresight given the difficulty other OECD countries have experienced in meeting what are sometime arbitrary national targets. The lack of explicit targets *within* agencies and ministries, however, has decreased

accountability and makes it more difficult to establish internal milestones by which agencies and ministries can judge their own progress.

This report demonstrates that the existence of a plan influences the degree and level of implementation of electronic services within the Finnish central administration. E-government planning has been promoted as a way to increase the taking of responsibility and encouraging organisations' commitment to the e-government vision. However, planning for e-government at the organisational level was not required until 2001, nor were any guidelines available for agencies who wished to do so. The level of success of the new planning requirements will depend on technical assistance to get the plans right and the level of oversight, accountability and feedback. This is the responsibility of the Ministry of Finance and is a key component for the continued success of e-government in Finland.

Rather than focusing on the overall number of online services available, Finland has focused on service quality, relevance and access in its e-government programme

Electronic services. Nearly all Finnish ministries and agencies responding to an OECD survey reported providing information (Stage 1 services) as part of their online e-government services. More than half offer interactive information (Stage 2 services), while almost a third propose transactions (Stage 3 services) and relatively few engage in data sharing with other agencies (Stage 4 services). Provision of online information (Stage 1 and 2 services) is an initial effort to better inform the public and promote services. In many cases, services are sufficient at this level of complexity. The realisation of more advanced services, where appropriate, will require improved cross-agency collaboration for seamless services and the exchange of personal data.

Although the share of advanced services in all electronic services provided by the central administration is quite low, Finland has early on put in place a system of national data registers: shared nation-wide databases that have the potential to greatly improve government efficiency in areas of authorised use. Register-based data collection for statistical purpose has been used by Statistics Finland since the 1980s, for example, to take the national census without additional data collection. Some basic applications of the registers have demonstrated the potential of exploiting data sharing for more advanced and efficient services while preserving citizens' trust in public institutions by protecting privacy. This system should be further exploited in order to develop additional services.

Rather than focusing on the overall number of online services available, Finland has focused on service quality, relevance and access in its e-government programme. This reflects, in part, Finnish attention to meeting specific policy objectives through e-government such as decreasing the cost of data collection, improving service quality and increasing access to services, rather than simply attempting to put all services online, whether or not value is added. The Finnish experience also shows that the expectation to improve services to citizens can be met, not simply by providing more services, but also by doing away with some unnecessary services. There is no need to put census reporting online because the need to report has been eliminated.

The central government, however, lacks the tools to encourage and guide additional e-government development in areas where agencies need assistance.

The Finnish approach of persuasion rather than obligation within the administration, combined with highly independent ministries and agencies has promoted agency ownership in established online services. On the other hand, considerable potential clearly remains for putting many more services online, in particular services involving transactions and data sharing. Agency independence, however, means that the central government currently lacks the tools to encourage and guide additional e-government development in areas where agencies need assistance.

In Finland, businesses have more online presence, are more frequent users of government services and have greater financial incentives to use e-government. This report found that Finnish e-government services provided to business are more advanced than those provided to citizens. The business orientation of service delivery seems, however, to have helped to advance the development of e-services generally. Possibly indicative of a more general trend in OECD countries, government to business services (G2B) tend to be more customer-oriented than government to citizens services (G2C).

Finland's commitment to openness and citizen' participation in public affairs has also been a fundamental aspect of the national information society strategy. As a result Finland is at the forefront in the development of e-engagement.

E-Engagement. E-Engagement is an important dimension of e-government, and Finland has integrated activities into its e-government programme aimed

at improving online access to information and citizen consultation and participation in policy-making. Ensuring equal opportunities to access public information and easing the sharing and exchange of national public documents became priorities of the government's information management strategy in the 1990s. Finland's commitment to openness and citizen' participation in public affairs has also been a fundamental aspect of the national information society strategy. As a result Finland is at the forefront in the development of e-engagement. More lessons could be drawn, however, from the many experiments in e-engagement by improving co-ordination and structured sharing of good practice.

The high rate of connectivity between agency websites and government portals, including the citizen portal, indicates the popularity of portals in Finland.

Portals. National government Web portals were created in response to public demand for easy access to a complex set of services across government. A national portal, along with other thematic and regional portals, has been launched in Finland with a view to creating a seamless interface between government and citizens and businesses.

According to the OECD survey, the high rate of connectivity between agency websites and government portals, including the citizen portal, indicates the popularity of portals (four-fifths of survey respondents are connected to some kind of portal). Portal development has paid attention to providing solutions to problems related to the quality and accuracy of information, service integration and ease of use.

The impact of e-government is highest in the areas of service quality and government processes. In general, respondents [to the OECD survey] saw much less impact on the underlying culture or structure of the administration.

Back-office changes. This report looks at five aspects of back-office changes that are related to e-government implementation: 1) promoting internal change, 2) providing leadership, 3) ensuring co-ordination, 4) managing public-private partnerships and 5) improving skills.

The reform of the back office is rapidly becoming one of the main challenges to e-government implementation in OECD countries. In Finland,

back office changes related to e-government have been slow to take place. A few agencies are only now beginning to rethink their back office structures and processes as part of the implementation of e-government. Respondents to the OECD survey reported that the impact of e-government is highest in the areas of service quality and government processes. In general, respondents saw much less impact on the underlying culture or structure of the administration.

E-government has helped improve planning, increased efficiency of working processes, enhanced a customer focused orientation and assisted in the application of good governance principals of transparency and accountability.

Promoting internal change. Organisational change in Finland has benefited from continuous interaction between the planning and development of public administration reform and e-government objectives. IT officials in Finland report that e-government has helped to improve planning, increased efficiency of working processes, enhanced a customer-focused orientation and assisted in the application of good governance principals of transparency and accountability. In most cases, it has reinforced existing values. For example, respondents reported that e-government has provided the tools for the administration to better implement transparency values already held prior to the introduction of ICT. Efficiencies arising from e-government, for the most part, have been channelled towards improvements in the quality and availability of electronic services rather than being recouped as cost savings. This is consistent with the Finnish government's service orientation.

For now, it seems that e-government has only had a minimal impact on organisational structure.

For now, it seems that e-government has had only a minimal impact on organisational structure. E-Government structures and policy in Finland reflect current governance arrangements within government. This could lead to an under-exploitation of the full potential of e-government as a facilitator for the transformation of government structures. Further cultural change in the Finnish administration, as in most OECD countries, is required to maximise e-government benefits. This includes the willingness to collaborate across agencies. While the Finnish public service seems relatively open to change, internal organisational change requires greater staff involvement in and ownership of reforms.

Providing leadership. As in the case of other countries which early on began putting services online, the initial experience of establishing e-government in Finland has shown success in organisations with extremely innovative and motivated lower-level managers, without necessarily the involvement of top management. It is not clear whether this lesson can be extended to organisations with few resources or expertise, or to the next stage of e-government implementation which demands a broader, whole-of-government perspective in order to deliver seamless services. Enhancing leadership at all organisational levels is a priority for the development of e-government in all OECD countries, and top management leadership for e-government initiatives remains an important way to ensure support and resources and to motivate staff.

Co-ordination does not equal collaboration, and both formal and informal co-ordination have been insufficient to promote cross-agency collaboration to provide seamless services.

Ensuring co-ordination. The dilemma of e-government implementation is to balance the need to ensure that responsibility remains at the agency-level where most implementation takes place, with the need for common decisions on some horizontal issues by the central government. Co-ordination does not equal collaboration, however, and both formal and informal co-ordination have been insufficient to promote cross-agency collaboration to provide seamless services or to encourage agencies to work together to find common solutions.

The government has found some innovative ways to partner with the private sector in ways that simplify administrative processes at a relatively low start-up cost to the administration.

Managing public-private partnerships. The rise of e-government partnerships in Finland is linked to the liberalisation of the telecommunication sector in the 1980s and the privatisation and decentralisation reforms that followed in the l990s. Partnerships have brought in needed expertise and helped to spread the risk of e-government-related initiatives.

At the operational level, however, managing private sector contractors has required the establishment of specific skills and capacities, particularly in smaller agencies in order to negotiate, monitor, manage and evaluate IT projects. The government has found some innovative ways to partner with the private sector (for example, the TYVI project – a broker system that streamlines businesses reporting to the administration) in ways that simplify administrative

processes for both the administration and for users at a relatively low start-up cost to the administration. It would beneficial for the government to continue to foster its close working relationship with the private sector.

Improving skills. The ability to design, create and implement an effective e-strategy is increasingly linked to the development and enhancement of specific skills at both the organisation and the personnel level. The OECD survey shows that the administration is more concerned with improving project management and change management abilities, owing to the growing trend towards contracting out of IT projects, than enhancing the technical skills of personnel. Both types of skills are needed.

Monitoring and evaluation. Monitoring and evaluation is a key challenge for all OECD countries. Improving monitoring and evaluation has been an important component of the Finnish administrative reform agenda and has become increasingly relevant as a tool for the assessment of the overall impact of electronic delivery, estimating progress and supervising ongoing initiatives.

The government has set general guidelines for evaluating governmental policies, but has not determined central responsibility for monitoring electronic services implementation. It has, however, tried to establish and support ministerial responsibility for achieving e-government related goals, although as yet few ministries and agencies measure the progress of e-government activities. Lack of government-wide targets and central guidance and, until recently, the lack of e-government plans have been perceived as reasons for the slowness of ministries and agencies to implement monitoring and evaluation of e-government.

Overall assessment

The first phase of e-government development in Finland has shown a solid implementation of the early stages of electronic services on an agency-by-agency basis, adequate resources for ICT investments, and the establishment of some common and necessary e-government enablers such as the Citizen Portal.

The next phase will be more difficult requiring, in addition to the continued development of systems applications, an improved knowledge of user demands, increased inter-agency collaboration and additional investments in re-engineering processes and change management. As in the other Nordic countries, Finland's decentralised governance structure has shown quite a bit of flexibility in meeting the needs of citizens and business. Implementing e-government raises questions of how this structure can be adapted to reinforce planning and accountability, impetus for agencies lagging behind, mechanisms for pooling agency expertise and resources, and incentives for collaboration across agencies.

E-government in Finland: proposals for action

1. In order to **increase awareness of the e-government vision** throughout the administration, the government could better market its vision through a communications project aimed at front-line staff, IT officials, top management and ministers, and the general population:
   - 1a. Ministries and agencies could be encouraged to begin thinking about what action is needed to change the structures, processes and culture of the administration through inter-agency discussions involving broad cross-sections of staff on how e-government can improve public governance. Additional consultation of staff could also improve the quality and ownership of the e-government vision.
   - 2b. The vision could be incorporated more explicitly into technical training and assistance for the preparation of agency e-government plans.
   - 3c. A communications strategy could be used to inform citizens and businesses of the objectives, actual and potential benefits, and progress of the overall e-government initiative.
2. In order to better **promote user-centric electronic services**, the government could examine how it can better understand user preferences. Actions could include requiring agencies to report existing information on customer needs, making better use of survey and statistical information, and aggregating all existing information to present a clearer overall picture.
3. In order to **ensure ownership of the e-government initiative** and to provide clear guidance and leadership, it would be beneficial for the Ministry of Finance (MoF) to continue to develop its current co-ordination activities as the designated primary co-ordinator for e-government in the central administration. In particular, as the co-ordinator for agency and ministry e-government plans, MoF could:
   - 3a. Further promote action and a whole-of-government perspective by taking an active role in supporting, reviewing, co-ordinating and monitoring plans in order to ensure that they are realistic, integrated with overall agency planning and consistent with the overall e-government vision and objectives.
   - 3b. Review e-government plans for inter-agency collaboration, including requiring ministries and agencies to identify natural partners and to consult with them on their e-government plans.
   - 3c. Require ministries and agencies to set targets for themselves as part of their e-government plans in order to promote action and improve accountability. These targets could be negotiated with the MoF based on the circumstances of each agency. Once agreed upon, agencies should be held accountable to these targets.

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E-government in Finland : proposals for action *(cont.)*

4. In order to **support agency and ministry understanding of the requirements concerning e-government**, it could be beneficial to reorganise and simplify existing guidance into a more comprehensive form. This would also serve to clarify and explain existing regulations and improve access.
5. The government has maintained citizens' confidence by **guarding against privacy and security** abuses. Towards this end it would be beneficial to continue to offer technical support to agencies seeking authentication solutions.
6. The constitutional independence of service delivery agencies under parliamentary authority *vis-à-vis* the central administration represents a co-ordination challenge. While recognising this independence, it could be useful to look at how parliamentary and government agencies could better co-ordinate in certain areas of service delivery in order to **improve joint responsibility for online service quality.**
7. In order to **promote co-ordination**, ministries could play a stronger role by providing guidance, identifying areas of weakness within agencies, providing technical assistance and helping agencies to negotiate common contracts for ICT systems and services and for electronic service delivery.
8. In order to **strengthen collaboration**, agencies need to hold common or shared stakes in e-government projects. The government may want to supplement its current structure of co-ordination bodies by:
   - 8a. Identifying and promoting cross-agency projects and service strategies within specific sectors, service clusters or shared customer groups so that ministries, agencies and parliamentary agencies have an incentive to not simply improve information sharing, but also collaborate on e-government projects.
   - 8b. Re-examining how budget structures and processes can better allow and promote cross-agency financing of shared electronic services.
9. The government could beneficially continue to anticipate areas of e-government that can **facilitate electronic service delivery** ("e-enablers"), and make recommendations on how these issues can be addressed in a unified manner, including identifying common funding mechanisms. Development of e-enablers should take a user-based approach, based on market analysis and better taking into account the services and customers that are likely to benefit.
10. In order to **advance e-government development**, the government could develop a process for identifying specific areas of e-government service with potentially high benefit, in particular building on the use of data registers to develop new services based on data sharing. The government may also want to explore the creation and use of incentives fund to promote the development of online services in these selected areas.

E-government in Finland : proposals for action *(cont.)*

11. In order to build on Finland's strong progress in **involving citizens in policy-making**, the government could support and promote inclusion of e-engagemet activities in e-government plans.
12. In order to **reinforce accountability**, the government could strengthen the reporting of monitoring and evaluation results through the e-government planning process.

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PART I

Country Study

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Introduction

Finland's success in reinventing its economy in the 1990s has drawn a good deal of attention to the "Finnish model" of exploiting information and communication technology (ICT). A land with few natural resources other than its forests and its people, Finland has proven remarkably apt at anticipating its economic needs. In particular, the Finnish government has put in place the reforms and investments necessary for taking advantage of opportunities on the horizon. In the area of e-government, Finland's reputation in providing proactive government services electronically has brought officials from around the world to learn from its experience.

This report looks closely at e-government in Finland. It focuses on the central administration's role in planning, implementing, co-ordinating and promoting e-government and providing the "e-enablers" that create the framework for transactions among ministries, agencies and regional and local government and with businesses and citizens. It considers the impact of e-government on government administrations, public services and relations with business and citizens, that is, its governance implications. In doing so, it also looks at linkages among e-government and Information Society policies, information management within government, public management reform and individual sectoral objectives. Regional and local government, while a vital partner for delivering services and strengthening relations with citizens, is outside of the scope of this report.

The report looks at all aspects of the e-government policy cycle:

1. E-government structure and context.
2. Drivers for e-government, including public administration reform imperatives, the evolving information society and citizen and business demand.
3. External barriers to e-government, including legal, funding and technological frameworks.
4. Implementation of e-government, in terms of both front-office and back-office activities, including e-government planning and goal setting, service delivery and e-engagement, and monitoring and evaluation.
5. An assessment of current and future e-government objectives and activities

In addition, there is a discussion of three cross-cutting projects that have laid the groundwork for seamless electronic service delivery in Finland: *i*) the TYVI broker system for reporting business data to government; *ii*) the

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electronic citizen identification card (the FINEID "smart card"); and *iii)* the citizen portal.

This report was prepared by the OECD, with financing from the Finnish Ministry of Finance. It draws upon the OECD flagship report, *The e-Government Imperative* (2003), as well as work conducted under the OECD E-Government Project. It also draws on over 20 interviews with Finnish officials, a survey of 43 ministries and agencies and an extensive review of legislation, research and background documents. (For more on methodology, see Appendix 4).

As the first OECD report of its kind, it is a "pilot study" which has served both as a reference for the flagship report and may eventually serve as a model for other such studies. It therefore lacks baselines for comparison, but it is the authors' hope that the issues raised will provide a springboard for discussion and action both in Finland and in other countries facing similar e-government challenges.

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PART I

Chapter 1

E-Government Structure and Context

Identifying the structure and context for e-government can help to understand the directions taken and the responsibilities ultimately attributed and point towards possible solutions for addressing e-government challenges. This chapter defines the scope of this study in terms of the main actors in the central government and their relationship with one another.

1.1. The e-government administrative structure and key players

In Finland, out of a labour force of almost 2.3 million, the public sector accounts for about 28% (*i.e.* 643 000 employees) of which about 23% (*i.e.* 145 000 people) are in the central administration.[1] These employees work for one of 13 ministries or 111 agencies. (For additional background on Finland's political and administrative system, see Appendix 1.)

While this report focuses on the role of the central administration, it is important not to forget the many other actors that make up the Finnish government. These include the regional and local offices of the central government. In addition, as most public services are provided at the local level, regional and local governments are key service partners. Municipalities and municipal unions account for 77% of all public sector employees.

The importance of regional and local government for implementing e-government shapes the context for the actions of the central administration. At the national level, the Association of Finnish Local and Regional Authorities (AFLRA) plays a major role in representing the interests and perspective of local government partners.

In Finland's central administration, a number of different actors share co-ordination responsibilities. In addition to putting their own services online, certain ministries are also responsible for promoting the exchange of ideas and initiatives among ministries and agencies and for ensuring coherent government action by providing general instructions and guidelines. Central actors responsible for budgeting, public administration reform and the promotion of the information society all have an important and direct impact on e-government in Finland. They are the primary focus of this study.

The Ministry of Finance plays perhaps the most important role in the horizontal co-ordination of e-government. It has a central policy-making function and helps the government to translate its vision and principles into effective guidelines and related e-government strategies. It also has a central co-ordinating function and ensures the harmonisation of information

Box 1.1. **E-government co-ordination responsibilities of central ministries**

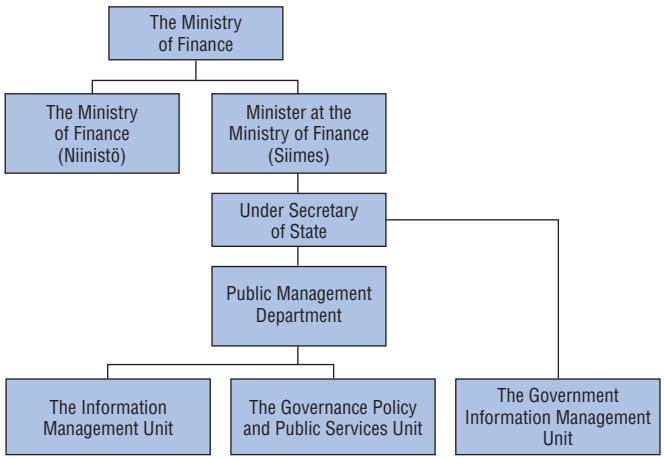
Within the central administration, the organisation of e-government involves specific governmental actors which perform different policy-related functions:

- **The Government** (also known as the Council of State and consisting of the Prime Minister and Ministers) is in charge of defining, as part of the government programme, the long-term vision and overall e-government strategy and providing a general mission statement.
- **The Ministry of Finance** (MoF) has policy-making responsibilities in the areas of central reforms and general information and communication technology (ICT) policy and guidance for the state administration. These functions are primarily carried out by the Information Management (IM) Unit of the Public Management Department. The MoF also has responsibility for the Government IM Unit (see below and Figure 1.1).
- **The Ministry of the Interior** (MoI) is responsible for information management in regional administration and local authorities and plays an important co-ordinating role at the local level. Under the second government of Prime Minister Lipponen (1999-2003), the MoI was tasked with co-ordinating electronic services issues within the central administration. As of early 2003, it no longer has this role.
- **The Ministry of Justice** is responsible for law-making initiatives for e-government and for setting the main regulatory framework for electronic services.
- **The Government Information Management Unit** (under the Ministry of Finance) provides general information management planning and operational support as well as a network and services for ministries.

management among ministries and agencies. In addition it is responsible for allocating limited central government ICT funds and monitoring ICT performance and spending throughout government.

To perform these tasks, the Public Management Department of the MoF has had an Information Management Unit since 1967. In addition, the Government Information Management Unit was formed in 2002. This unit provides network services and shared applications for the ministries. Responsibility for a Government network connecting ministries and joint services was transferred from the Prime Minister's Office to the MoF in 2002 and is under the supervision of an under secretary of state. With this transfer,

Figure 1.1. **Organisation of e-government co-ordination responsibilities within the Finnish Ministry of Finance**



Source: OECD.

the Prime Minister's Office ceded all responsibilities for day-to-day ICT co-ordination.

While the MoF is responsible for overall co-ordination of ICT initiatives, the MoI is responsible through its Information Management Unit for vertical co-ordination and ensuring the diffusion and exchange of standards, good practices and approaches at the regional and local levels. The MoI also supervises inter-ministerial and interagency co-ordinating groups on electronic services. In addition, between 1999 and 2001, the MoI was responsible for the JUNA project for promoting wide-ranging collaboration among public authorities for the active production and use of electronic services which led to a series of recommendations for improved collaboration (see Appendix 3, Section 7.3.6, for a more complete description of the JUNA project).

The 2002 *Action Programme to Promote Online Government* (see Box 1.1) found multiple co-ordination responsibilities for e-government to be a problem, as responsibility for overall policy coherence was unclear. In January 2003, the parliament passed legislation giving the MoF full responsibility for e-government co-ordination within the central administration, though the MoI maintains responsibility for co-ordination with regional and local government.

The Ministry of Justice sets the regulatory framework for e-government. It was instrumental in developing the 2000 *Act on Electronic Service in the Administration* which makes it possible to initiate, handle and serve notice on administrative issues electronically.

Key Points – 1

- ***The e-government organisational model for the central administration (central planning and direction and decentralised responsibilities and implementation) requires a high level of co-ordination in order to maintain policy coherence.***
- ***The central administration does not act alone: local and regional governments are the most important deliverers of services and therefore key partners.***
- ***The Ministries of Finance and Interior play a key role in e-government co-ordination. Legislative changes in January 2003 have given the MoF full responsibility for co-ordination within the central administration.***

Independent agencies under parliamentary authority constitute an important exception to the central government's co-ordination responsibilities. The most important is KELA, the Finnish Social Insurance Institution, which has over 450 offices around the country and is responsible for administering 20 benefits worth about EUR 10 billion annually. Although six ministries are involved in administering these benefits, KELA acts independently, subject only to parliamentary oversight. It is steered by a board of directors of 12 people chosen by the parliament.

Several permanent interagency groups in MoF and MoI act as IT co-ordinating and advising bodies across government. They draw their members from ministries, parliament, agencies and external experts. The most important are:

- VATI: the Council of IT directors created in June 2002 as a result of a multiphase process in 1996 involving representatives of major agencies and the enhancement of the role of ministries in 1999.
- VALTIPA: the government network of information service professionals created in 1996.
- VAHTI: the government's IT security board created in the late 1980s.
- JUHTA (The Advisory Committee on Information Management in the Administration): an advisory committee for IT in the public administration created in 1989.

In addition, the Information Society Advisory Board (ISAB) was convened in 1996 and 1999 to help the Finnish government formulate and evaluate information society policies. It is chaired by a cabinet minister and its members are permanent secretaries and other high-level civil servants from

Key Points – 2

- ***A number of formal and informal networks ensure the flow of information about IT initiatives and guidance among e-government officials in the ministries and agencies.***
- ***Independent agencies under parliamentary authority are not subject to the central administration's oversight. Some, in particular, the Social Security Agency, are major providers of electronic services.***

state and municipal administrations as well as IT industry leaders, representatives from civil society and social partners.

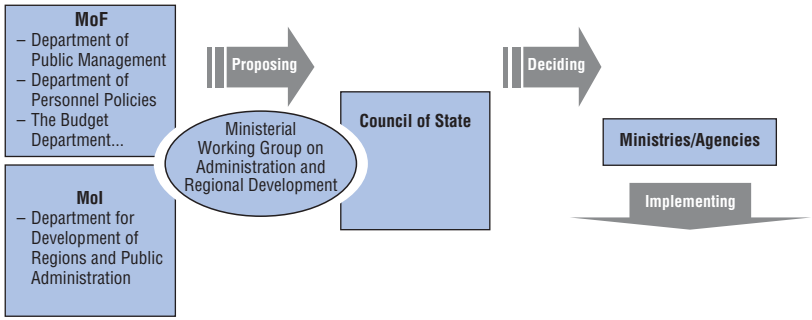
Public administration reform and the government budget are two other areas with important implications for the implementation of e-government. Both fall under the responsibility of the Ministry of Finance and their bearing on e-government co-ordination is treated later in the report. However, a brief look at the overall process of state administration reform in Finland provides useful insight into how the state administration's decision making and co-ordination are structured.

The Department of Public Management, under the MoF, is the main authority for planning and defining public administration reforms in Finland, although the Department of Personnel Policies and the Budget Department are also involved.

Public administration reform is organised on the basis of a two-level co-ordination model. As shown in Figure 1.2, the Ministry of Finance proposes general reform strategies to the government, helps prepare the guidelines for the entire state sector and promotes interagency development programmes. The Ministerial Working Group on Administration and Regional Development helps build consensus, managing the interaction between political decision makers and civil servants. Responsibility for implementing the reforms has been delegated to ministries and agencies.

At the political level, co-ordination is ensured by the Prime Minister. The Ministry of Finance supervises co-ordination and management in the public sector, acting as a policy-planning unit for the government. In addition, the prime minister plays a fundamental role in fostering and supporting the reform initiatives, as both decisions-in-principle and political resolutions in the Cabinet and in promoting reform initiatives by the Ministerial Working Group on Administration and Regional Development, which is currently chaired by the Minister of the Interior. This group is made up of nine

Figure 1.2. **Public administration reform responsibilities in Finland**



Source: OECD.

ministers, and its role was expanded under the second Lipponen government to include regional development issues.[2]

Chapter 4, "Implementing E-government", will look at the extent to which co-ordinating bodies understand their roles and at the agencies that deliver electronic service. It will also look at the governance frameworks in place to manage the relationships among these different actors.

Notes

1. Statistics Finland, 2002, *www.hel.fi/tietokeskus/en/Trends202/labourmarket.html*
2. See *www.valtioneuvosto.fi* for a description of tasks and participants.

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PART I

Chapter 2

The Case for E-Government

The OECD report, *The E-government Imperative*, lays out a number pressing reasons why e-government should be high on today's policy agenda. In particular, e-government serves to:

- Improve efficiency in government.
- Enhance service quality.
- Bring about more effective outcomes in different policy areas (*e.g.* health and education).
- Promote economic policy objectives (*e.g.* increased growth and productivity).
- Advance the reform agenda.
- Improve the overall trust relationship between citizens and public administrations.

The report as a whole looks at the extent to which these aims have been met in Finland. This part examines, in particular some major drivers for e-government, such as the reform of the public administration and the evolution of the information society. This part will also discuss the demand for e-government.

2.1. Public reform imperatives

In Finland e-government and broader public reform efforts share the same objectives. The Finnish government has recognised e-government's potential as a tool to improve the quality of public services and strengthen the public administration's customer orientation. As official documents and government programmes clearly state, e-government plays a central role as an instrument in the modernisation of Finland.[1]

The main purpose of these strategic documents is to establish a framework for introducing e-government as a tool for improving the public service system and for promoting more effective management in the public administration by reducing transaction costs and creating an open information system. Understanding the path of public administration reform in Finland can clarify the values and goals underlying e-government initiatives.

Reform also sets the context in which e-government is being developed. Historically speaking, public administration reform were carried on the basis of a large political consensus, reflecting the broad coalition nature of governments. Reforms have been a component of a more general

re-organisation of Finland's welfare state at both the ideological and the structural level. Administrative reforms began in the 1960s, but the state remained relatively centralised until the late 1980s. The economic recession of the early 1990s and the need for greater budgetary discipline speeded up the new economically oriented reform process.

Key Points – 3

- ***Public administration reform has provided an overall vision and objectives for improving public service quality and efficiency and for developing e-government goals and responsibilities in Finland***.

Public reforms in the 1990s have largely been along new public management (NPM) principles, focusing mainly on decentralisation and enhancing public governance, in particular increasing citizen input and choice. These reforms aimed at restraining rises in public spending, improving performance and productivity by introducing market-type mechanisms and improving the public sector's overall accountability.[2] NPM reforms in the 1990s took place in three major areas:

- **Decentralisation**: municipalities and agency autonomy was increased significantly.
- **Privatisation and the creation of public enterprises:** 90 000 civil servants were removed from under the state's detailed control and budget and many were moved into newly created public enterprises.
- **Tight budgetary discipline:** budget cuts in combination with maintaining output have increased productivity.

Owing to NPM reforms, there is less ministerial control of agencies, and ministries' detailed input-oriented instructions have been eliminated. Finnish ministries today seem to take a passive approach to their co-ordination responsibilities of the agencies under them. According to interviews with government officials, the MoF has developed a tendency to bypass ministries and work directly with agencies on providing e-government guidance. The relative weakness of ministries, however, is as much the result of their own perception of their role as the reduction in their resources and tools.

Interviews with ICT officials in ministries indicate that most feel that they should have a "light touch" in terms of co-ordinating e-government activities in agencies in their ministerial portfolio. The OECD report *Budgeting*

in Finland, however, demonstrates that, relative to other Nordic countries, Finnish ministries possess a greater share of staff resources. In Finland, about 5% of all government employees are employed in core ministries, compared with less than 1% in Sweden.[3]

Following NPM reforms, not only do agencies have more freedom to set their own priorities, but the set of tools and incentives available to e-government co-ordinators such as the MoF for urging agencies to work together has decreased as well. As part of NPM reforms the MoF gave up much of its power to steer organisational reforms, especially in the budget and performance management areas. Instead, it devolved a number of co-ordination activities to other government structures.

Key Points – 4

- ***Public administration reforms in the early 1990s brought major changes to the Finnish administration in terms of greater responsibility, accountability and flexibility at the agency level but also decreased central co-ordination tools and a weakened role of the ministries.***
- ***While NPM reforms have reduced the resources and tools for co-ordination that ministries have at their disposal, their weakened role is also self-perceived and self-imposed. They are not prohibited from developing their own competencies and capacities to guide the agencies under them.***

The broad consensus is that the NPM reforms have been positive. By putting responsibility and resources into the hands of the agencies, they have encouraged government to be more efficient and effective. In addition, having successfully dealt with improving public efficiency, the government also began to put in place reforms aimed at improving openness, service quality and public governance. There has been no evaluation, however, of the efficiency and productivity outcomes of the reforms, particularly in the context of e-government implementation.

The arrival of e-government has affected the reform agenda in two ways. First, while e-government continues to be a tool for reform, ICT infrastructure and interoperability concerns have raised the need, not simply for co-ordination, but for establishing and enforcing common standards and approaches. Second, if e-government is to be a priority, it requires central tools to promote, catalyse and diffuse individual and government-wide initiatives.

Box 2.1. **Finland's paperless accounting system**

By increasing agency autonomy, Finland's most recent public management reforms have had important implications for implementing e-government, in terms of the reduced number of co-ordination tools available to central actors such as the Ministry of Finance and the growth of divergent ICT systems, which reduces compatibility and increases redundancy.

Until 1994, Finland had very centralised accounts. After the introduction of results-oriented budgeting and management reforms, however, each agency was given an appropriation and freedom to decide how to use it. As a result, accounting systems proliferated: the Finnish administration now has 120 "independent accountancy units", with staff ranging in size from ten to 10 000. Each has an independent accounting system, separate reporting and separate appropriations and requires specific competencies and resources within each unit.

The cost of ICT integration has been a barrier to the restructuring and/or consolidation of agencies to achieve benefits of scale. Rather than imposing a common IT infrastructure, the State Treasury developed in 2000-2001, a paperless accounting pilot which all agencies may eventually use as a common electronic system for financial records. The project addresses billing and book-keeping, as well as financial accounting. Ten agencies are currently using the system and around 20 are expected to implement it by the end of 2003. Agencies are free to choose whether or not they want to participate in the paperless system.

The project is partly funded by the MoF, which took the initiative to have the State Treasury develop and implement the system. The project steering group consists of representatives from the MoF, the State Treasury and the State Audit Office. Finnish officials have not found it difficult to involve other ministries and agencies, which are generally willing to implement the system. Nor was building a system a problem; a solution was found that fits all the different book-keeping systems used in the various agencies. The system has been designed to be very easy to use; users need about an hour of training to get to know and use the system.

The paperless accounting project is scheduled to run from 2002 to 2010, with a monitoring and evaluation component to determine the impact. The main savings are expected to come from gains in working time.

Key Points – 5

- ***The implementation of e-government in Finland requires the strengthening of certain central functions in order to balance the current decentralised system. In particular, the continued development of guidance on standards and incentives in support of e-government initiatives requires central action.***

This has not meant a reversal of NPM, but the beginnings of a discussion on how to keep the benefits of the principle of individual accountability stressed by NPM, while adding new ways to advance e-government coherently and efficiently through government steering and co-ordination.

2.2. Spillover from the information society

The general advancement of the Finnish information society continues to be an important driver for e-government. The country's progress in this area has been marked by major achievements, such as the liberalisation of telecommunications and the improvement of market competition, which have paved the way for much of Finland's recent economic success.

The emphasis on the efficiency of the public administration as a means of enhancing international competitiveness, the need to make the services and opportunities of the information society available to all, the use of ICTs in advancing customer orientation and other good governance objectives, and the demonstration effect of ICT use in a sizeable percentage of the economy have all provided a strong case not only for developing e-government, but for integrating the e-government strategy in a comprehensive vision for promoting the information society.

2.2.1. Promotion of the information society

Finland has long taken a comprehensive approach to establishing an information society. The first specialised committee with a clear mandate on information society issues dates back to the early 1970s. In 1996, the Parliament established a Committee for the Future to identify upcoming challenges for Finland, including those related to the information society. In the early 1990s, the government began defining a national information society strategy, outlining a vision for ICT development and identifying information society goals (for a description of official government documents and initiatives see Appendix 3, "Synopsis of History and Key Decisions").

Government initiatives to establish and develop the information society have been framed in the context of the Finnish economic situation. The use of ICT has always been perceived as an instrument to enhance competitive conditions and market-oriented mechanisms. Beginning in the 1970s, the digitisation and the improvement of wireless telecommunications technologies paved the way for the convergence of media, information technology and communications. In the 1990s, the liberalisation of the telecommunications market freed additional resources, lowered the costs of services and broke down barriers between sectors. This has resulted in increased collaboration between enterprises, as well as mergers and acquisitions, as content producers, operators and equipment suppliers search for synergy benefits. In the mobile telephony sector, common standards (first the Nordic NMT standard, later the GSM) developed by the Finnish Post and Telecommunication Office, in co-operation with other Nordic Offices, provided a basis for private pursuit of large benefits in the telecommunications sector.

As a result of these earlier government decisions, there seems to be a belief in the government's ability to set the stage for market-driven growth through strategic investments and visionary planning. The Finnish government has tried to achieve some major objectives by encouraging competitive economic practices, by implementing new operating models and by providing online services. The government's strategy to enhance the information society is based on the following five main points:[4]

- Information technology and information networks as tools in the renewal of the private and the public sector.
- The information industry to become an important sector of economic activity in Finland.
- Professional expertise in ICT to be maintained at a high overall level, with selected peaks.
- Everyone to have the opportunity and basic skills to use the services of the information society.
- Finnish information infrastructure to be competitive and capable of providing high-quality services.

The 2001 Information Society Advisory Board (ISAB) *Programme of Action to Promote Online Government* provided additional strategies in order to address these broad goals (see Box 4.1).

In order to strengthen the use of IT as an instrument for renewing the public sector, the Ministry of Transport and Communications has launched a development project on electronic commerce. Its aim is to use the means available to the public sector to promote the business activities of electronic

communication networks and the introduction of new technologies. The measures are directed at developing the communication infrastructure and increasing the trust of users and actors.[5] The Ministry of Trade and Industry, for its part, has programmes to promote entrepreneurship and to develop the use of e-commerce by SMEs. In 1999, the government launched a project aimed at improving the vision of Finland as a content-industry country[6] in addition to its leadership role in data communications technology.

The development of the information society has not been limited to generating economic growth. The Ministry of Education has promoted IT skills development and access to the Internet through its network of public libraries. Through its policy of decentralisation, the government has also moved central administration offices out of the Helsinki region, drawing on the networking potential of ICT to promote regional development and employment. (For a discussion of Finnish activities to address the digital divide, see Section 3.4, "The digital divide".)

Another important example of government foresight, with far-reaching consequences for later e-government applications, concerns the collection and use of personal data and other basic information. The Finnish government, like that of the other Nordic countries, has long maintained information registers on citizens covering variables such as inhabitants, dwellings, enterprises and motor vehicles. In the 1970s, the government decided to establish automated national registers. Today, this national information database allows ministries and agencies to generate valuable information and services within defined privacy rules.[7]

Key Points – 6

- ***Finland's success in promoting the rapid development of an information society has led to a high level of confidence in the government's role, especially with regard to setting the policy framework for the development of a telecommunications infrastructure and market growth and identifying new areas of need.***

2.2.2. Online transactions

The overall level of development of the information society has important consequences for the take-up of e-government services. Even when citizens are comfortable using "one-way" services such as online information (see description of Stage 1 services under "Implementing E-government",

Section 5.2.1), they may not have sufficient ease and/or confidence in the adequacy of privacy and security protection to engage in online transactions or consultation (bank transactions are an exception,[8] see discussion below). The percentage of actual online transactions in Finland has been modest. While more than half of those 15-74 years old in Finland use the Internet on a regular basis, less than 7% use it for purchases.[9] At the end of 2001, according to Statistics Finland, only 9% of those interviewed had bought something over the Internet.[10]

Finnish ministries and agencies are aware that in addition to ensuring access and providing more advanced, secure and joined-up electronic services, increasing take-up of e-government services requires building users' overall level of experience and skills with regards to e-commerce and e-government. In the OECD survey, ministries and agencies were asked to indicate the five main factors that constrain customer demand for electronic services. The two factors ranking highest are "the lack of experience in using electronic services" (70%) and "the electronic service delivery not seen as sufficiently advanced"(60%). These are followed by others factors, namely security and privacy issues, lack of access and insufficiently joined-up/ integrated electronic services in the public sector.

From a supply perspective, barriers to e-commerce in Finland – as discussed in the OECD business survey, *Businesses' Views on Red Tape* (2001) – are related to the general view that e-commerce is not suited to the nature of some businesses, as well as to problems of payment security, uncertainty in contracts and an insufficient customer base. From a consumer perspective, e-commerce does not seem to be any more popular than traditional mail order. As a recent study by Research International underlined, while many people use mail order in Finland, mail order sales, via both e-commerce and traditional means, totalled only EUR 580 million (excluding VAT) in 2001. This is only 2.5% of the entire retail trade market in 2000, which is estimated at EUR 23 billion.

Unlike citizens, companies (at least large ones) seem to be more than ready to benefit from electronic services. In order to understand why this is so, the experience of Nordea, Finland's biggest bank, is illustrative. An online transaction costs EUR 0.11 while a manual transaction costs EUR 1. In addition, e-banking has allowed Nordea to eliminate half of its branches. In 2000, profits jumped by USD 400 million largely owing to e-banking initiatives.

Finland's best preparation for online transactions – both e-commerce and e-government – may in fact be its experience with e-banking. Finland is at the forefront in the use of online banking services, particularly by business. In 2000, Nordea, one of the largest banks in Finland, had:

- 6.9 million online banking transactions per month and 2.3 million online customers.

- 6.9 million online bill payments monthly, more than any other bank in the world (by way of comparison, the Bank of America had 3.1 million transactions and 3.2 million online customers in 2001).
- Two-thirds of its Finnish clients handle their bank transactions via the Internet.
- 80% of its securities trading is handled via the Internet, reducing transaction costs by more than 90%.
- A fifth of its loan applications are processed and approved over the Internet, saving the bank 30% in processing fees per loan.[11]

E-banking's rapid growth in Finland is connected, in part, to the banking sector crisis of the late 1980s and the need to cut costs and find alternative, cost-effective ways to provide services. E-commerce, on the other hand, has not yet reached this level of penetration and familiarity. The change from subsidised to cost-based transaction fees has served to make e-banking a more attractive option than traditional branch services. No fees are charged for paying bills online and an online share transaction of less that EUR 5000 costs only EUR 12. Many banks have closed branches and charge for face-to-face banking services, thereby pushing people to use e-banking.

Key Points – 7

- ***The overall development of the Finnish information society will affect the take-up of both e-commerce and e-government.***
- ***Given the high level of ICT penetration in Finland, take-up of electronic services is determined less by access than by familiarity, experience and skills, especially for complex services. One would expect the popularity of e-banking in Finland to affect the take-up of e-government services, although it does not yet appear to have done so for e-commerce.***

2.3. Demand for e-government

As in most OECD countries, relatively little is known about overall demand in Finland for e-government services, although the government and other e-government stakeholders such as the Chamber of Commerce have carried out some general customer surveys in order to help understand service demand and customer's preferences. (See Box 2.2 and Section 4.3, "E-engagement", looks more closely at what the Finnish government is doing to consult with its citizens.).

Box 2.2. **E-government-related surveys**

- Since 1999, the Ministry of the Interior has made a series of annual surveys on citizens' views on the delivery of electronic services by the public administration. The results suggest that while citizens are familiar with services provided by their own municipality or local state authority, they are little aware of other public-sector electronic services. These limited surveys indicate that Finns support the development of e-government services, but do not reveal much about citizen demand for them.
- As a part of building the national citizen portal, the MoF surveyed 100 citizens and civil servants in 2000. The results showed that citizens recognised the need for a portal that could provide *i)* information about public sector organisations and their services; *ii)* advanced electronic services with the possibility of transactions; and *iii)* feedback mechanisms on specific questions.
- The Confederation of Finnish Industries and Employers has begun to conduct a business tendency survey on ICT services, covering companies of about 45 000 employees and turnover of 7.5 billion euros (it covers over half of the whole ICT business sector). The Confederation also publishes a monthly ICT service confidence indicator and a quarterly general business outlook including ICT services. These business tendency surveys are part of the European Commission harmonised business survey system.
- The Chamber of Commerce and the Association of SMEs have also conducted several surveys on companies' interest in electronic services.
- For regional portals, the most commonly used services were public services. Even though the attitude towards these services was positive and they were frequently used, these services were also seen as the ones that needed the most development.

What the government does know about citizens' demand for e-government is that it is as yet relatively limited. This is not remarkable, given that citizens have relatively limited contact with the state administration. The survey by Statistics Finland showed that, on average, citizens have two contacts a year with the administration, whether via electronic channels or otherwise (Table 2.1). In comparison, the typical Finnish company has at least 25 interactions a year with the tax

administration alone, leaving a much wider scope for the development of electronic services. As noted above, the level of enthusiasm or demand for electronic services seems to be correlated with the overall level of experience with electronic services, whether public or private. The OECD survey found that respondents reported the greatest demand for electronic services from businesses (41%), followed by citizens (34%) and finally, from other public organisations (24%).

Table 2.1. **Number of citizen-government transactions in Finland**

Percentages

In response to the question: "How often have you done this within the last year?"			
	Never	Once	More often
Announcement of change of address	82	13	5
Change of tax rate	71	25	4
Other tax-related income	68	28	4
Property tax-related	84	15	2
Child day-care	89	8	4
Income support	92	5	3
Housing support	86	11	4
Study support	88	9	3
Health care	50	29	21
Unemployment	84	5	11
Pensions	92	6	2
Marriage or divorce	96	3	1
Passport or driver's licence	77	20	3

Source: Statistics Finland.

If support for e-government is the result of direct contact with government, this may have consequences for government policy for communicating the benefits of e-government to citizens, especially in cases where joined-up services are taking place in the back office and therefore are not seen by citizens.

Demand for online services, whether public or private, is not a static variable. Rather, it is related to what services are available and the perceived benefit to users. As noted in a report by Statistics Finland: "What is crucial is whether there is something rewarding related to the use of the Internet and e-mail… this would, therefore, encourage those, who are unfamiliar with information networks at work or school to use information networks. Changes in the communication capabilities [in Finland] between 1996 and 1999 show that the motivation to use Internet connections has not increased at all in three years despite the increase in the opportunity to use, or become competent, in the Internet and e-mail."[12] Ultimately, demand from citizens

and business is market-based and is apparent in the number of users who choose to go online for services.

Individual ministries and agencies also use feedback mechanisms to find out about customers' specific electronic service needs. While this limits the population to those who already receive services, such information can provide insight into how services may be better provided, thereby making them more attractive to others as well. The OECD survey on e-government in Finland shows that all respondents have mechanisms for this purpose: "electronic feedback mechanisms" are the most commonly used method (56%) for enquiring about customer demand, followed by "customer surveys" (49%) and "focus on most used service" (46%). In addition, 45% of the participating ministries and agencies reported using more than one mechanism to obtain knowledge about customer demand for electronic services. (Section 4.6, "Monitoring and evaluation of e-government", contains a more detailed discussion of means used to obtain customer feedback.)

At present there is no planned or organised transfer of the knowledge collected at the ministry and agency level for co-ordination or policy planning purposes. There is very little knowledge at the central level about the general demand for electronic services. Therefore, making better use of existing knowledge about customer preferences at the service delivery level, including frontline local and municipal service providers, may provide a useful source of information and feedback for government-wide priority setting. Given differences in focus and in the data collected, it would probably be very difficult in the short term to aggregate this information, but a patchwork approach can still provide insights into service needs, as well as point to where additional data collection is needed.

Government-wide statistics are also a good source of information about user needs and preferences. Surveys by Statistic Finland provide information on how often citizens use public services, which allows the government to see where the greatest demand lies as well as how the provision of services is evolving. Since 1999, Statistics Finland has also conducted a longitudinal survey on opinions and attitudes regarding the information society, including issues such as attitudes towards data sharing, which provides valuable information on how the government can better meet citizens' needs.[13]

A possible method for collecting user information for use at a central level would be to make it an integral part of the online service strategies. In its *Programme of Action to Promote Online Government*, the ISAB recommends that electronic services strategies be based on an appraisal of user needs. This would also serve to standardise reporting, with the possible goal of ultimately collecting comparable information on a few key questions. Such a requirement could serve to create an overview that could be useful when

Key Points – 8

- ***Aggregating data on users of electronic services from ministries, agencies and local and regional government could provide feedback into the government-wide planning process, improving the government's understanding of user preferences.***
- ***This does not replace, however, an overall understanding of the needs and preferences of businesses and citizens. Like most countries, Finland does not currently have a process for gathering this information. The situation could be improved by using statistical information on the use of electronic services and adapting existing surveys, for example those produced by Statistics Finland.***

further developing the national vision and strategy. Even if the information is not very comparable, it would establish a mechanism whereby ministries and agencies, in co-operation with local and regional administrations, explicitly build customer preferences into their service delivery model. In this way, they could subsequently be held more accountable for planning e-government according to the needs and demands of citizens and businesses.

Key Points – 9

- ***Even if the quality of information is not very dependable at first, requiring agencies to collect information on user needs would make them consider more explicitly the preferences of citizens and business in their e-government strategy and make services more citizen-focused.***

The OECD's *The E-government Imperative* (2003) does not provide benchmarks for international comparison, but reports from e-government officials in other OECD countries show that the lack of clear knowledge about citizen preferences and of strong, proactive support on the part of citizens for electronic services is not unusual. Indeed, citizens may never feel strong support for e-government, and the goal for governments should perhaps be to build confidence in, rather than enthusiasm for, e-government. On the other hand, as experience with electronic services in the public and private sectors

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spreads, citizen preferences may become clearer and better defined, providing governments with the guidance they need.

For example, the OECD survey shows that the lack of joined-up or seamless services is not yet perceived by ministries and agencies as a major constraint on citizen demand. As there are as yet few concrete examples of joined-up services, however, it is not clear whether or not citizens would be able to articulate how this might facilitate online services or how the principle should be put into practice. Instead, the failure to anticipate citizen needs is more likely to result in vague dissatisfaction with e-government, at worst, or general disinterest, at best.

Notes

1. For example, the *Cabinet Decision on Information Management in Government* (1994) and the *Government Decision-in-principle on Developing a Finnish Information Society* (1995).
2. Alam and Kiviniemi, *National Report on Finland*.
3. OECD (2002), *Budgeting in Finland: Report to the Public Management Committee,* [PUMA/SBO(2002)8/FINAL], p. 15.
4. These guidelines are contained in the MoF proposal, *Finland's Way to the Information Society: The National Strategy and its Implementation*, December 1996.
5. These projects contain six different subprojects regarding development (NetMate, on improving the prerequisite of digital service production, on usability of services of the Information Society) and regulation. See *Finland as an Information Society: The Report of the Information Society Advisory Board to the Government, 2001*.
6. The term "content industry" refers to the production of documentary, cultural, educational, research, entertainment or marketing content for electronic media and related business activities.
7. Pietarinen, Ilmari (1998), *Information Society Policy Development – Example of Finland*. ICA Information General Issue, p. 19.
8. According to Nordic Information Society Statistics, 90% of enterprises with at least ten employees use the Internet for financial transactions.
9. Ministry of Transport and Communications (2001), *Telecommunications Statistics 2001*.
10. Statistics Finland (2000), *Mobile Phones and Computer as Parts of Everyday Life in Finland*.
11. "eBiz Bonus: Helsinki's Dynamo of E-Banking", *Business Week*, 16 April 2001.
12. Viherä and Nurmela in Statistics Finland (2001), *On the Road to the Finnish Information Society*, p. 206.
13. Statistics Finland (2001), *Three Years of the Information Society*.

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PART I

Chapter 3

Barriers to E-Government

E-government barriers, as defined in the OECD's *E-government Imperative* (2003), are obstacles *external* to governments which can constrain e-government efforts and cannot be overcome without the co-operation of multiple actors. They often concern breakdowns, missing components or lack of flexibility in the government-wide framework for e-government. The result of not addressing these barriers can be the inability to achieve not just single agency projects, but also a whole-of-government or seamless perspective on e-government implementation. The OECD's *The E-government Imperative* (2003) raises four main barriers: *i)* legislative and regulatory barriers; *ii)* budgetary barriers; *iii)* technical barriers; and *iv)* the digital divide.

The Finnish government has sought to address e-government barriers by focusing on e-enablers that provide common solutions to problems that go beyond the scope of individual government agencies. The term "e-enabler" covers: complementary processes and legal frameworks, such as digital identification and authentication, that are not services in and of themselves but facilitate the electronic delivery of services or information; and physical ICT infrastructure, as well as channels for electronic service and information provision such as portals, Web sites and portable phones. The 1998 Finnish information society strategy also considered that the education and training that permit process and cultural change are also e-enablers, but this report treats these important variables separately (see Section 4.5, "Back-office changes").

3.1. Legislative and regulatory barriers

3.1.1. Regulatory framework

In order for electronic services to gain widespread acceptance, they must first have legal recognition and electronic equivalents to paper processes must be established. This does not necessarily require an ordered introduction or even a detailed accounting of the types of technologies to be used, but some initial steps can lay the way for either the government or the private sector to step in and develop applications. For example, the legal recognition of digital signatures establishes a principle of equivalence which then needs to be implemented through technological standards and accompanying services.

The 1998 *Government Resolution on Electronic Transactions, the Development of Online Services and Reduction of Data Gathering* was a major step in setting a framework for electronic identification and data exchange by opening up the

way for the development of a Finnish authentication system. This was later reinforced and given the strength of law by the *Act on Electronic Services in the Administration*, which also established a legal framework for the use of online services, including criteria for the recognition of electronic documents.

Regulations, however, are not limited to laying the groundwork for electronic services. In Finland, several e-government actors have been calling for further e-government regulations to improve standardisation, to clarify what is already in the law, to make auditing easier and to encourage additional action.

Agencies are increasingly asking for more e-government guidance at all levels, from broad principles to detailed technical standards. Because many agencies are risk adverse, the latter are especially important for advancing action. From a government-wide perspective, common guidelines make sense as they promote interoperability. The multiplication of Web services, accompanied by decentralisation, has invariably meant that ministries and agencies use different ICTs to implement their Web sites and electronic services. A framework of interoperability standards can ensure that technical barriers at least can be overcome as ministries and agencies move towards better integrating their services, a key challenge for e-government noted by the OECD's *The E-government Imperative* (2003). (See also Section 3.3.2 on standards.)

Confusion about the provisions of the law was also a common theme in interviews. Many agencies repeated a demand for legislation that would provide direction and clarify what they could or could not do, particularly in the areas of data security and technical standards. Especially in the case of small agencies with few resources, the cost of developing an e-government project in the wrong direction or using the wrong standards is potentially disastrous. A legislative initiative is currently under discussion to combine all existing e-government legislation covering areas such as reducing data collection burdens and electronic transactions. While nothing is new in the legislation, it would make it easier to have an overview of legal requirements.

Another voice for additional legislation comes from the State Audit Office (SAO). When asked what their one wish to improve e-government would be, SAO officials said that they would like a central ministry or unit to have the authority to give orders (*i.e.* a single data law or rule) which would make it easier for them to audit compliance. Right now, the MoF can make recommendations but cannot enforce them. The SAO officials felt that more authority would improve data security, by giving them better criteria for carrying out their audits. They admitted, however, that ministries already have the authority to give orders to the agencies under them, especially in the case of big ministries such as Defence or Interior, even if they do not like to

exercise it. Even without the backing of law, strengthening the audit function could potentially give more weight to ministerial guidelines, especially when the results are published.

The Ministry of Justice (MoJ) acknowledged the pressure for additional legislation but is reluctant to launch new laws since it sees demand as driven by management needs rather than intrinsic regulatory needs. This view was echoed by some in the MoF when told that some agencies were awaiting enabling legislation to move forward, "there is nowhere that says they can't move forward now". In one interview, officials cited the legislation on the smart card (the 1999 *Identity Card Act*) as an example of unnecessary legislation since there was already sufficient authority under existing legislation to manage data security and digital signatures. If anything, those officials feel that further deregulation is needed.

As noted earlier, there is plenty of room under existing legislation for providing guidance where needed, and indeed much of the guidance has taken the form of government resolutions, which are more flexible, but less binding. Another solution is not more guidance, but simply more clarity about existing guidance. When asked about the barriers to implementing e-government, one official raised the need for training about new legislation. He cited 20 laws concerning data security, and noted that very few experts understand them all and how they interact.

There seems to be a tendency in Finland to use legislation as a catalyst for action. Many ministries and agencies are not actively resisting implementing e-government, but simply waiting to be told that they have to act. This may, in

Key Points – 10

- ***The Finnish government has already shown flexibility in supplementing legislation with appropriate regulation. Additional legislation, if any, would most effectively focus on putting in place a governance framework for decision-making and actions, rather than substituting for administrative regulations or leadership at the organisation level.***
- ***There is a need in Finland for clear regulations. The government may want to consider how to better clarify and explain existing regulations. The ministries, in particular, could play a determining role in clarifying guidance for the agencies under them and better exercising their own authority under existing regulations. Otherwise unclear guidance will continue to be an excuse for lack of action.***

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fact, reflect a lack of leadership and political will at the ministry and agency level for e-government action or inadequate governance frameworks that make responsibility for action unclear. In interviews, IT officials tended to raise the need for additional legislation as a reason for the lack of progress, but respondents to the OECD survey ranked it last out of nine possible challenges to e-government (privacy and security issues were ranked first), with only about a third of respondents seeing problems regarding legislation and the regulatory framework as a major challenge (see Figure 3.4). Indeed, legislation is a cumbersome and costly way to induce action.

3.1.2. Privacy protection

The overall take-up of online services and the general acceptance of e-government depend on the level of citizens' trust in government. To this end, protection of privacy and sufficient means of guarding against public abuse are a necessary pre-condition of successful e-government. In Finland, the access, protection and delivery of data are all regulated by law. Paragraph 10 of the Constitution protects "private life, honour and the sanctity of the home".

Legislation regulates data sharing as well as data protection.[1] It provides a legal basis for sharing information among agencies and using common administrative registers (see Section 4.2.4 on Stage 4 electronic services). For example, some agencies in the Ministry of Labour (Consumer Protection Office, Labour Safety Authority, Environmental Authority) reported working with the same companies and/or products but on different aspects of the cases. Informally, they share information by e-mail. Formally, legislation requires that relevant applications be sent for comment to other agencies which, in turn, can use this information if they have a legal right to do so.

The data protection authority – the Protection Ombudsman and the Office of the Data Protection Ombudsman – provides guidance and advice on all issues related to the processing of personal data and control observance of the law. It is an independent office but operates in connection with the Ministry of Justice. The office has a number of tools at its disposal to ensure that personal data is properly used.[2] It provides guidance on the use of data; where necessary, brings cases to the Data Protection Board which can prohibit improper processing of data; brings cases to the public prosecutor; and takes decisions on cases of wrong data (about 200 cases yearly), which can be appealed to the administrative court as well as the highest court. The office does some 40 investigations each year. By the end of October 2002, they had reached 1 999 verdicts, half of which concerned citizens and half business cases.

When asked about concern over privacy and security, the Data Protection Ombudsman felt that on-going concern over privacy issues was the best way to maintain citizen trust and to play a preventive role with regard to privacy

abuses. He cited a 2001 study by a Finnish law office and an international accounting firm, which asked 400-500 data controllers in both public and private organisations what they thought about data protection. Most listed data protection as the number one problem. However, when asked the question, "When your customer has problems, what are they based on?", data protection figured in last place.

According to the Data Protection Ombudsman, a May 2000 study asked Finns how they use their mobile phones. The study indicated that people are not concerned about data use and trust the Finnish authorities and companies. However, they are interested in knowing who collects data and who uses it and to have a say when their data is used. The bigger concern was that neighbours should not have access to their data. It is important that the data protection authority be transparent in order to ensure that people know what the instruments are that provide protection.

In Finland, there seems to be a sentiment that, while it is important to remain vigilant, existing privacy protection is sufficient. Interviews with government officials and consumer groups seemed to support the view that the administration is unlikely to abuse data and that it is rational to use data that is already in the possession of other administrative authorities, thereby reducing data collection costs. While it may be an overstatement to construe this as "trust", it at least shows that Finns are willing to give their government the benefit of the doubt.

Privacy concerns remain high, but they seem to be focused more on technical implementation than on regulatory protection. The issue of legislation was commonly raised in interviews, but the low relative ranking of legislative and regulatory issues in the OECD survey seems to indicate that current regulations are adequate, though not always sufficiently clear. From an agency perspective, privacy, security and authentication were raised as the most important technical issues (see Figure 3.4 and Section 3.3 on technological barriers) and therefore as an important barrier to the development of more advanced services permitting transactions with citizens and businesses. The appropriate response to those

Key Points – 11

- ***Privacy and security are real concerns, but they have also been used as excuses to not advance. Current regulatory and oversight protections seem to be adequate. Some of the privacy concerns in Finland may focus more on the technical ability of agencies to deliver secure services.***

technical concerns would be additional technical assistance on how to establish adequate privacy protection based on the existing public key infrastructure, rather than additional legislation or regulations.

3.2. Budgetary barriers

E-government is broader than ICT use in government, yet the investment in government information systems forms the basis for changes in the structure, processes, practices and, eventually, culture of public organisations. The OECD's *The E-government Imperative* (2003) lays out a number of budgetary barriers which play an important role in a government's ability to make constructive ICT investments. Many of these considerations focus on the ability to use the allocation and control aspects of the public budget to make intelligent, flexible and accountable investment decisions, rather than being hemmed in by rigid budgetary rules.

As noted in Chapter 2, the State budget, public administration reform and e-government in Finland are all responsibilities of the Ministry of Finance, albeit within different departments. The combination of decentralised ICT spending authority and divided oversight responsibilities within the MoF means that a concerted effort is required to ensure sustainable and strategically allocated funding for e-government initiatives.

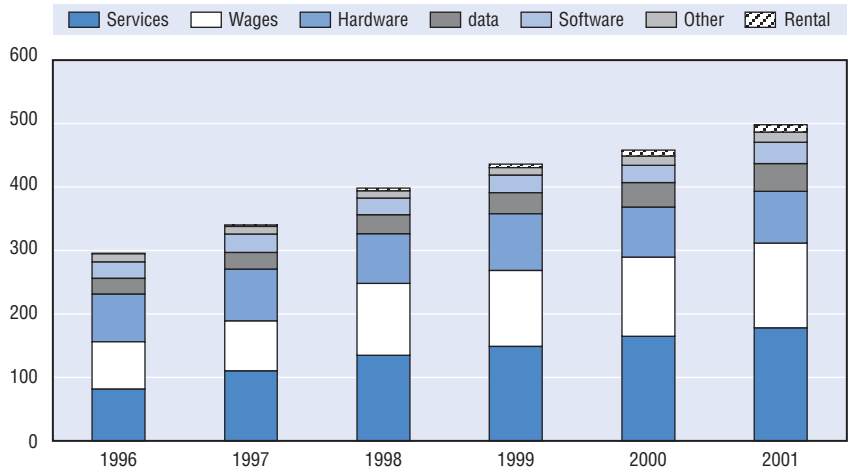
3.2.1. Budgetary environment

As a general rule, each agency decides on its IT spending in light of its operating appropriation.[3] The Ministry of Finance monitors progress on the use of IT in government through an annual survey, which covers the types of system investments, spending on IT, pervasiveness of technology in ministries and agencies and staffing, as well as current and proposed electronic services. The survey also asks agencies for suggestions on future work such as on standard contract modules and security guidelines.

IT spending by the Finnish government takes place in a tight fiscal environment. After a round of heavy budget cuts in the 1990s, the Finnish budget has stabilised with a target of maintaining central government expenditure, in real terms, at 1999 levels.[4]

Establishing e-government, however, requires up-front investment expenditures, not only in IT systems, but also in personnel and training, and increasingly, in outsourced services. As in many OECD countries, overall IT spending by the Finnish government is increasing (Figure 3.1). Between 1996 and 2001, IT spending increased on an average of over 13% a year. The nature of spending, however, is changing. Spending on hardware and software purchases has declined as a share of overall total spending, while the amount spent on purchasing services and rental and leasing have steadily crept up. Wages and salaries have been relatively steady. New usage patterns, on the

Figure 3.1. **Expenditures on information technology by type of expenditure, 1996-2001**



Source: Ministry of Finance (2002), "Information Technology within the Government 2001", pp. 2-3.

other hand, may also be reflected in increases for costs such as data transmission services, which, at an average growth rate of about 15%, have outpaced overall growth in IT spending.

3.2.2. *Funding at national level*

Budgeting for cross-organisation ICT projects

Currently all IT development funds in Finland are part of the budgets of individual ministries and agencies. There are no permanent central IT investment funds. In 1999, however, a total of EUR 37 million in one time "future funds" were approved by the Parliament to promote the information society. The Information Management Unit of the Ministry of Finance received some of these funds to create government-wide e-enablers. These special funds have been used by the MoF to support several cross-government projects, including the TYVI pilot, the Citizen Portal and the electronic forms service (for more on these projects see the case studies in the appendix).

The "future funds" have played an important role in the development of e-enablers in terms of additional funding, but also because ministries are reluctant to pay for projects with widely enjoyed benefits. Additional incentive funds for innovation and project development could play a further role in promoting Finland's e-government agenda.

If the MoF is to make good use of central incentive funds, however, it will need better information on IT investments. While its annual survey of IT use in the administration provides quite a lot of information on spending and

service levels, it is only since 2001, when ministries and agencies were required to provide e-government strategic plans, that is has started to receive more detailed information on goals and performance. When asked if there were barriers in the budgeting system to developing IT systems, an MoF official replied that the ministry is trying to make better use of all information regarding costs and expenses. Agencies' strategic plans will be used for budget planning purposes for the first time in March 2003.

The OECD's *The E-government Imperative* (2003) points out that another way to fund cross-organisation IT projects is to improve mechanisms for shared spending. Officials from the Government's Information Management Unit argued that they would be better able to promote further collaboration if ministries could contribute their share of the costs of common systems. The unit's budget is based on the cost of the previous system and it provides its services free of charge. While the unit has no reason to charge for basic services such as access to Government systems, it would like to be able to ask ministries to pay their share when they benefit from the shared services it might propose (*e.g.* a common financial, case management or e-mail system).

Key Points – 12

- ***Central funds have been effectively used for the development of e-enablers such as the Citizen's Portal. However, the MoF is only now starting to collect the information that it would need in order to better link budgeting and performance and to make informed central budget allocations if it were to create any central funds.***
- ***Central funding earmarked for cross-administration projects could also help create incentives for collaboration. However agencies should show how such funding will lead to integrated services rather than services provided by one agency for others.***
- ***It may be useful to examine joint funding systems that would allow ministries and agencies to contribute to the costs of a shared IT project.***

Capital versus *operational expenditures*

The OECD's *The E-government Imperative* (2003) calls attention to the risk of inappropriate ICT funding decisions due to difficulties with the treatment of major ICT capital expenditures and with funding requirements over long time periods. As in many other OECD countries, IT spending in Finland is treated as an operating rather than a capital expenditure so that spending is calculated

on an annual cash basis. In interviews, however, this was not raised as a major source of difficulty for developing IT systems. To treat IT spending as investment, better information on performance would be needed in order to estimate e-government benefits.

The OECD's *The E-government Imperative (2003)* suggest that classifying major ICT projects as capital investment would enable a fairer comparison of such investments with recurrent spending alternatives. In Finland the adequacy of annual budgets and the lack of focus on return on investments could explain the fact that IT spending is integrated with overall operating costs rather than treated as a separate cost category. This fact has actually helped to lessen the danger of competition between spending on ICT and on other substantive programmes and had the added advantage of linking ICT spending to related e-government back office implementation investment (such as change management and/or process re-engineering) that are also crucial to a project's success. However, few agencies have taken these measures and limited funds are available.

Key Points – 13

- ***In general, budgets to date did not appear to inhibit significantly the development and implementation of e-government. ICT spending estimates, however, do not take into account the cost of related back office reengineering and change management.***

3.2.3. Funding at ministry and central agency level

Funding e-government activities

Funding for IT projects appears to be a real, but secondary, issue for many Finnish public organisations. The MoF asked ministries to indicate in their 2003-2007 budgets if any new IT funds were needed: three ministries replied that some new funds were necessary, but the amounts requested ranged from only 1 to 5% of their annual information management spending. The problem is more one of guidance and exchange of good practices as one of scale. Because of their size, many of the smaller agencies seem to be less interesting to large contractors. Agencies are also looking for efficiencies in order to allow them to finance additional electronic service but the small size of many agencies, prevents efficiencies of scale.

Some IT officials interviewed felt that dealing with the millennium bug (Y2K) and the cost of moving to the euro had absorbed available funds for the

past two years, but that existing funds have now been freed up. For example, the defence forces are planning to spend EUR 25 million on new IT investments.

As Table 3.1 indicates, almost all respondents to the OECD survey fund their e-government activities through their own general budget. Given the low and limited level of central funding, it is not surprising that none of the ministries or central agencies fund most of their e-government activities through central funding, and only 26% fund even some of their e-government activities through central funding.

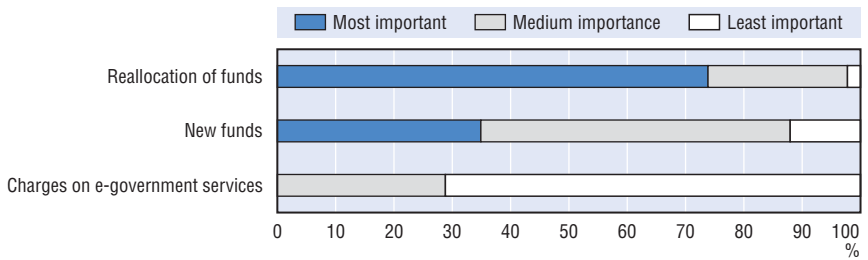
Table 3.1. **Funding of e-government activities**
In percentages

	Most activities	Some activities
Through your organisation's general budget	98	2
Through central government ICT funding	0	26
Through private funding/business unit	2	2
Through joint funding with other public organisation	2	41

Source: OECD.

Within existing budgets, however, there is some variation in how respondents' e-government activities are financed. As Figure 3.2 shows, 68% of respondents reported that they reallocated existing funds to fund e-government projects through efficiency gains or by reducing budget items with lower priority. Less than one-third (29%) ranked new funds as the main source for e-government projects, while 44% ranked new funds second. None of the respondents reported charges for e-government activities as the most important way to fund e-government activities, but around half did report receiving some of their funding through charges to users and/or other organisations.

Figure 3.2. **Funding of e-government activities through organisations' own general budgets**



Source: OECD.

One small agency with a staff of about 120 reported that online filing of application forms will eliminate some routine work and free staff for better customer service. As it has the authority to reallocate within its own administrative budget to pay for ICT costs, it plans to use some of these savings to help finance the development of further e-government services. In addition, approximately 10% of its budget comes from user fees for certain types of licences.

Box 3.1. **Financing from user fees: the JULHA Directory**

The Advisory Committee on Information Management in Public Administration (JUHTA) launched the Public Sector E-mail and Contact Directory Service (JULHA)* in 1998. Its objective is to provide contact information for electronic interaction with the Finnish administration. The directory can be used with a browser, LDAP, WAP and Communicator.

In 1997, the Ministry of Finance and the Ministry of the Interior paid for the X.500 directory software and some development costs. The operation of the system was left to an operator chosen by an open call for tender. Since no central funding was available, a different approach was needed, and the operation of the JULHA directory is therefore financed by fees collected by the operator from organisations that publish their contact information in the directory. The use of the directory is free of charge.

Running a directory involves high fixed costs. In the first year, some large organisations volunteered to pay a rather high fee to get the service started. The fees did not cover costs, however, and the operator therefore sought new customers for the service. These have made it possible to lower the user fee, and this, in turn, has attracted more customers and, as the number of entries increased, further increased the value of the directory. As a result, the number of customers is increasing after a slow start.

* *www.julha.fi* – In 2000, JULHA was transferred to the Population Register Centre.

An agency with a staff of about 1 000 in 20 locations across Finland noted with frustration the difficulty of getting users to pay for online services. In 2001, it began to require registration for access to information, but only about 30 users registered (at a cost of about EUR 50). When asked how they could build support for e-government, they replied, "better services".

Very few respondents to the OECD Survey reported funding most or some of their e-activities through private or business funding. When asked to rank

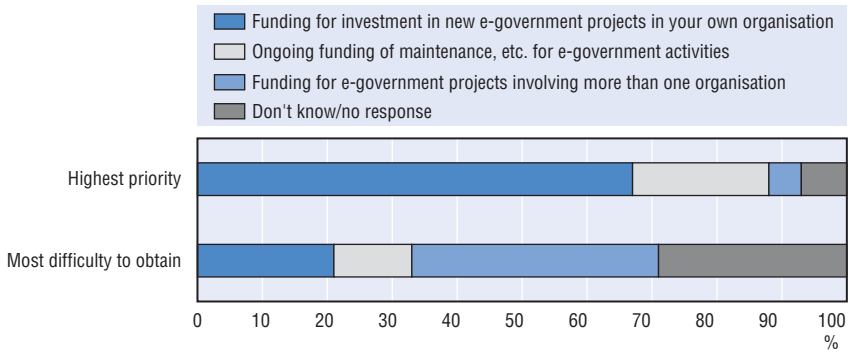
the source of e-government funds, only the Finnish Forest and Park Service reported that it funds most of its e-government activities through its business unit. These results are surprising. Both the Finnish Population Registry Centre and the Finnish Post run commercial information services, including selling personal addresses. They also run a joint system which allows users to notify changes of address using telephone, Web or paper.

With regard to funding e-government projects within organisations, it is often easier (and politically more rewarding) to make one-off start-up or innovation funding available for new projects. However, survey responses seem to indicate a more sustainable ICT funding structure in Finland at the ministry and central agency level. It may be, though, that organisations that still have to bring the bulk of their services online have not yet experienced a crunch for finding resources to fund ICT projects. One agency freely admitted that its IT initiatives are shaped by the availability of funding.

In the OECD survey, ministries and central agencies were asked to rank different types of funding for e-government activities with regard to their priority in the organisation (Figure 3.3). Perhaps not surprisingly, respondents ranked funding for investment in their own e-government projects highest (67%), followed by funding for ongoing maintenance (21%), and lastly, funding for cross-administration projects (5%).

This is not necessarily an indication that Finnish ministries and agencies do not acknowledge the need for collaboration on e-government. Several respondents expressed a need to develop their own information systems and databases before being able to engage in or take advantage of cross-administration e-government projects.

Figure 3.3. **Priorities for e-government funding and difficulty in obtaining funds**



Source: OECD.

In comparison, when asked to rank funds for different purposes with regard to the difficulty of obtaining them, respondents reported that funds for cross-administration projects were the most difficult to obtain (38%), followed by funds for organisation-specific projects (21%) and funds for the maintenance of on-going e-government activities (12%).

It does not seem to be a coincidence that funding for cross-administration projects is both the lowest priority for organisations in the central administration and seen by many as the most difficult to obtain. This result is not surprising, given the general reluctance expressed by ministries and agencies to engage in cross-administration e-government projects because of lack of incentives, ownership and funding mechanisms (see Section 4.5.3, "Ensuring central co-ordination").

Some 41% of respondents indicated that they funded some of their e-government activities through joint funding with other public organisations. The share was somewhat higher for ministries (50%) than for central agencies (37%). Joint funding, however, does not seem to be closely linked to integrated public administration online services. Only one of six ministries and two of 11 agencies that reported joint funding also provide advanced online services for which transactions or data sharing are possible and which are integrated with other public organisations. While one would expect the organisations that provide more advanced online services to be the most interested in finding cross-administration funding, survey results did not indicate that this was the case. Only a third of advanced organisations have accessing funds for joint e-government projects as a priority.

Jointly funded projects are more likely to involve one agency providing service to another rather than supporting the provision of an integrated service. Instead of collaboration to produce interactive services, it suggests an "all or nothing" approach based on the organisation's claim to a set of services or constituencies.

Integrated services with multiple funding sources, such as those involving e-engagement or e-enabling mechanisms, such as joint portals or the

Key Points – 14

- ***While joint funding of IT projects seems fairly common, the projects only rarely seem to support truly integrated services, and instead tend to be based on one agency providing electronic services on another's behalf. While this is not a problem in and of itself, it raises the question of the extent to which programme rules and approaches are being co-ordinated.***

government intranet, seem to be the exception rather than the rule. While the fact that many organisations did report some joint funding seems to indicate that mechanisms are in place to allow agencies to share funding, it seems that they are not using these mechanisms in support of truly integrated projects.

Spending flexibility

New public management reforms have given agencies greater flexibility for spending their funds. Since this is also true for local and regional governments, however, some agencies have indicated that their ability to improve services has diminished when service delivery responsibilities are shared with local and regional partners. In particular, the loss of the ability to earmark funds, but also to set standards or co-ordinate services, has reduced the tools available for improving vertical integration of services (see Box 3.2).

Key Points – 15

- ***Decentralisation of spending authority has reduced the ability of central government to promote specific aspects of electronic service delivery at the local and regional level***

3.3. Technological barriers

Technology constitutes a basic prerequisite for e-government advancement. In the OECD survey, respondents did not consider it the most important challenge (compared to leadership and the development of skills – see Section 4.5, "Back-office changes"), but nonetheless recognised its importance. The following part reviews the main challenges that technology and information management pose to ministries and agencies and why some organisations face particular challenges.

3.3.1. Relative importance of IT challenges

The OECD survey asked ministries and central agencies to indicate which factors concerning technology and information management had been a challenge or a constraint when implementing e-government. In the Finnish context, information management comprises those "operations which develop and maintain the information reserves, information technology services and information processes of an organisation". Figure 3.4 illustrates the relative importance of the ten different ICT challenges.

Not all of the technological challenges presented are necessarily external barriers as defined by the OECD's *The E-government Imperative* (2003)

Box 3.2. **Lack of financial tools for improving electronic access at the municipal level: the Finnish Consumer Agency**

The Finnish Consumer Agency maintains a network of 180 municipal consumer counsellors (Finland has about 450 municipalities). They are civil servants and the first point of contact for customer complaints. They can, for example, negotiate with a shopkeeper on behalf of a consumer over a purchase dispute.

While services are delivered in partnership with municipalities, the agency's lack of influence over resource allocation at the municipal level has sometimes been an important challenge for online service delivery. Municipal consumer counsellors have access to an extranet containing information for resolving consumer questions and exchanging information on cases. Service quality can vary, however, with the quality of municipal tools and Internet access. As an official of the agency explained: "Some municipalities have a lot and some have nothing, but from the point of view of citizens they should all have equal services. In a recent presentation, one municipal counsellor asked: 'can you e-mail me the presentation without pictures because my modem is so slow?' Public libraries provide good access, but there is a pecking order in municipal budgets for IT equipment, so engineers might get new equipment, but economic counsellors tend to be a lower priority."

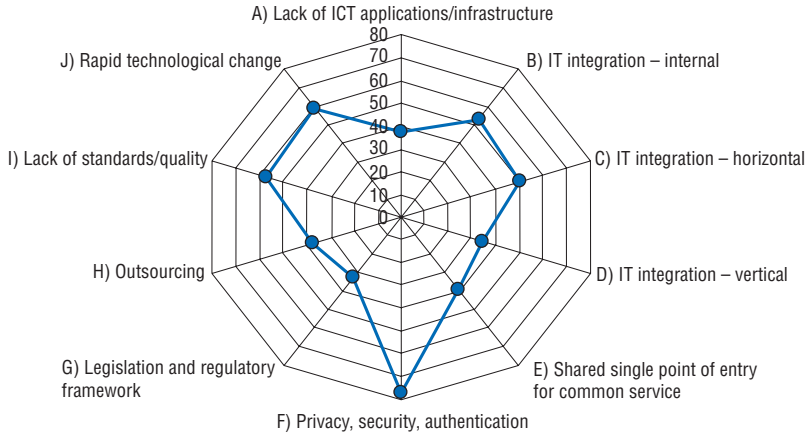
Municipalities have asked the agency to provide funding for the purchase of new equipment. Ten years ago, this would have been possible, but changes in state subsidies to municipalities have eliminated the earmarking of funds for different projects in order to improve flexibility. They can no longer tell municipalities what to do with the funds they receive.

(*e.g.* internal IT integration and outsourcing). Still, most are beyond the scope of any single organisation and depend on government action to put in place a framework for improved integration and standards. Four factors concerning technology and information management are regarded by more than half of respondents as a very important or important challenge/constraint. Of these, all but the fourth, internal integration, include at least some important elements that are beyond the control of any individual organisation:

- **Privacy and security:** the most important challenge, identified by 77% of respondents, concerns problems of security, privacy, authentication or public key infrastructure (challenge F in Figure 3.4).

Figure 3.4. **E-government technological barriers: all respondents**

Percentage of respondents rating technology and information management issues "very important" or "important"



Source: OECD.

- **Rapid technological change:** the second most important challenge, identified by 60% of respondents, is insufficient means for adjusting to and taking account of rapid technological change (challenge J).
- **Standards and quality:** the third most important challenge is the lack of standards for quality, design, branding of portals/web sites for service delivery (57% of respondents) (challenge I).
- **Internal integration:** the fourth most important challenge, identified by 54% of respondents, is problems integrating electronic services with their own information systems and databases (challenge B). This was considered more important than horizontal integration, *i.e.* integrating electronic services with information systems, databases etc. of other central government organisations, as well as vertical integration (*i.e.* integrating electronic services with information systems, databases, etc., of other international, regional and local organisations).

Advanced vs. *non-advanced*

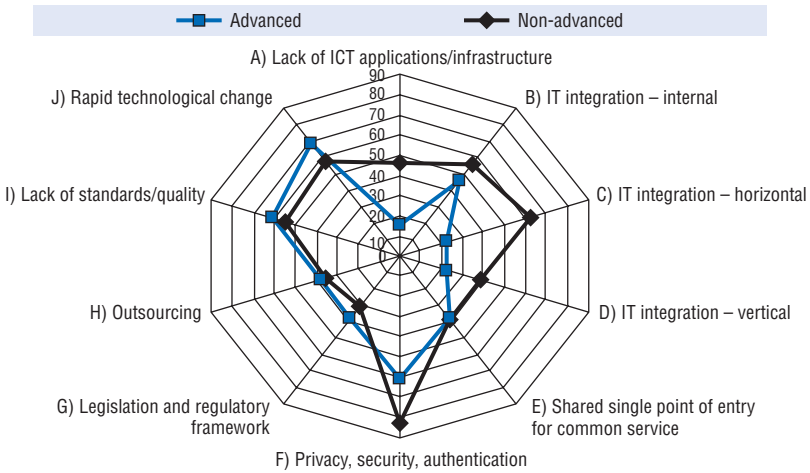
The OECD survey divided organisations into "advanced" and "non-advanced" in terms of the level of electronic services they provided. "Advanced" agencies are those that reported in the OECD survey that they are currently providing transactional services and/or engaging in data sharing with other public authorities (Stage 3 and 4 services). For more information, see Section 4.2 and the glossary.

In reviewing the survey results, it is important to keep in mind that results for all respondents and for "non-advanced" respondents track closely because the large majority of respondents can be classified as "non-advanced". As shown in Section 5.2 ("Electronic services"), only 29% of respondents reported providing electronic services at Stages 3 or 4, which are considered here as "advanced services".

The majority of respondents at all levels named the four challenges identified above. However, the relative importance of the challenges differs according to the level of online services (Figure 3.5).

Figure 3.5. **E-government technological barriers: advanced *vs.* non-advanced**

Percentage of respondents rating technology and information management issues "very important" or "important"



Source: OECD.

In general, advanced respondents were less likely to cite technological challenges than non-advanced respondents. In particular, they were not very concerned by issues of IT integration. Non-advanced respondents, on the other hand, were much more likely to cite all aspects of IT integration, in particular the relative importance of horizontal IT integration. This could be a cause for concern. As argued in the OECD's *The E-government Imperative* (2003) and as shown later in this report, advanced services will increasingly need to be integrated among the various ministries and agencies. It is unclear whether the low level of concern about IT integration among advanced respondents reflects a lack of awareness of this upcoming need or whether they consider themselves already well-prepared for this challenge. In either case, the

current lack of integrated services implies that this issue has not yet been sufficiently addressed.

Not surprisingly, the OECD survey shows that less advanced organisations in the Finnish government are more likely to regard basic technology issues as important challenges (*e.g.* infrastructure, integration of electronic services with own or other systems, etc.) when compared to organisations already providing advanced services. About 46% of the less advanced agencies indicate that the lack of ICT applications and infrastructure in their organisation is an important or very important challenge, compared to only 15% of the more advanced respondents. Advanced respondents, however, are more likely to raise insufficient means for adjusting to and taking account of rapid technological development as a major problem. This seems to indicate that advanced organisations have mastered many of the basics, but are concerned about how to deal with new and upcoming technological challenges.

Since privacy and security issues are more likely to arise in the context of advanced interactive services – that is, in cases where citizens' data are either submitted via the Internet (Stage 3) or used in internal data sharing (Stage 4) – one would expect privacy and security concerns to rise with the level of advances in service delivery. However, the OECD survey indicates the opposite to be the case, with less advanced respondents relatively more concerned over privacy and security, although it is the main IT challenge for all respondents.

Key Points – 16

- ***Less advanced organisations in Finland are more likely to regard basic technology issues as challenges (e.g. setting up IT systems, integration of online services with own or other systems, etc.), whereas more advanced organisations are more concerned about how to respond to rapid technological developments.***
- ***More advanced ministries and agencies were less likely to be concerned about IT integration, in particular horizontal integration. This could be a cause of concern as advanced services will increasingly need to be integrated among the various ministries and agencies.***
- ***Less advanced ministries and agencies were more likely to be concerned about privacy and security. It is unclear to what extent this reflects concrete implementation concerns and to what extent it is simply a justification for not yet having achieved more advanced services.***

This may be, in part, simply because more advanced respondents have already addressed the issue in order to provide more advanced services.

The concern of non-advanced respondents about privacy and security issues may also stem from feelings of uncertainty about the Finnish public authentication system. Prior to the introduction of the FINEID card (see the case study in Section 7.2), the lack of an authentication infrastructure was often raised as a reason for the lack of advanced e-government services. The fact that more agencies and ministries have not taken advantage of the current system, which has been in place for more than two years, may point to continuing difficulties in using the system. It may also be that the lack of an authentication infrastructure simply masked other barriers to implementing more advanced services (see also Section 3.3.2., "Privacy and security").

Ministries vs. *agencies*

The OECD survey tracked ministry and agency respondents separately and found that ministries and agencies perceive technological barriers differently (Figure 3.6). In particular, agencies emphasised infrastructure and technological change barriers more than ministries. In contrast, ministries emphasised the importance of horizontal and vertical integration and privacy and security more than agencies.

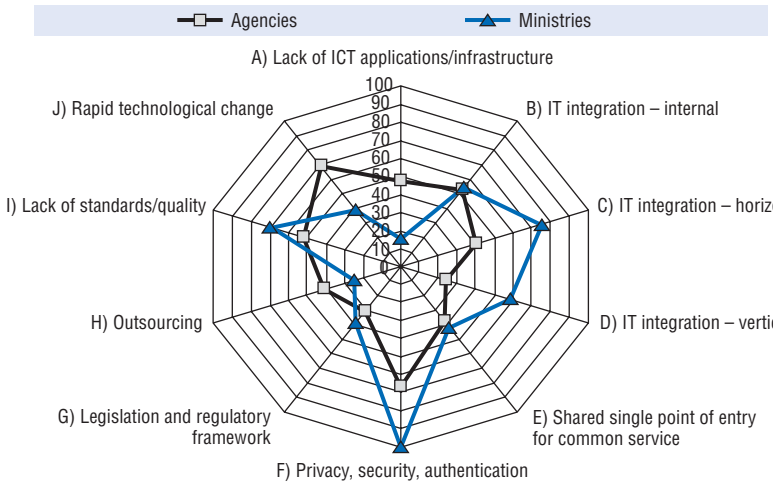
Key Points – 17

- ***Agencies more than ministries see infrastructure and adjusting to technological developments as challenges. Ministries are more concerned about IT integration. This appropriately reflects their respective roles in terms of implementing and co-ordinating e-government initiatives.***

For agencies, the problem of adjusting to technological development is one of the most relevant challenges: 69% reported insufficient means for adjusting to and taking account of rapid technological development compared to 39% of ministries. While only 15% of ministries found lack of ICT applications and infrastructure in their organisation to be a very important or important challenge/constraint, almost half of the central agencies responded that this is the case.

Among respondents to the OECD survey, ministries were extremely concerned about privacy and security: 100% of ministries considered privacy to be a very important or important challenge, compared to two-thirds of agencies. These differences might be explained by the ministries' involvement

Figure 3.6. **E-government technological barriers: ministries *vs.* agencies**
Percentage of respondents rating technology and information management issues "very important" or "important"



Source: OECD.

in the development of the FINEID card, as well as by a broader concern about protecting citizens' rights, as opposed to the more prosaic service delivery focus of the agencies.

3.3.2. Types of barriers

Respondents to the OECD survey identified four technological challenges as the most important: privacy and security, rapid technological change, standards, and integration. As internal integration is not considered to be an external barrier for the purpose of this report, it is covered in Section 4.5.1, "Promoting organisational change". The other important barriers are discussed in turn.

Privacy and security

Respondents see privacy and security as the highest overall challenge, even though, as discussed in the part on legislative and regulatory barriers and in the case study on electronic citizen ID (see Sections 3.1.2 and 6.2), much of the groundwork has been laid to allow electronic identification and authentication in support of secure transactions.

An identification and authentication framework is an essential element for the delivery of the most advanced electronic services which allow online transactions and datasharing. The framework makes it possible to verify that online users are who they say they are, thus ensuring the security of online

transactions. Methods can range from a simple username and password to a public key infrastructure which allows the agency to verify user identity.

The 1998 *Resolution on Electronic Transactions, the Development of Online Services and Reduction of Data Gathering* set a target of establishing an electronic identity card by 1999. As the citizen ID card allows a service provider to verify the owner's identity, by checking with a third-party certificate holder – in this case, the Finnish Population Registry Centre (PRC) – this necessitated the development not only of a smart ID card (see Box 3.3), but also of a PKI infrastructure to support authentication transactions. This included making card readers available in institutions and people's homes so that the card could be used. The electronic ID card and card reader require an up-front payment, though there is no additional charge for each subsequent transaction. It also required building support among service providers to adopt the process and/or develop services that incorporated it and to convince users to buy the resulting card once it became available.

By launching a general card rather than targeting a specific service or even a specific population or institution, such as a university or hospital, the Finnish government ventured into a much more diffuse and unpredictable market over which it had very little control. The Government seems to have learned the important lesson that e-enablers need to be developed with the accompanying services in mind. If those services do not yet exist, it should either reconsider moving ahead of the market or develop an accompanying plan to develop those services. As one interviewee noted wryly, "Finland is good at building infrastructure, but not so good at providing content".

Key Points – 18

- ***All respondents rank privacy and security very high on their list of IT challenges***.
- ***Successfully achieving a government wide PKI infrastructure does not automatically mean that it will become the commonly-accepted system. E-enablers need to be developed with the accompanying services in mind.***

Despite criticism of the process of developing the citizen ID card and the disappointing number of users, a robust verification infrastructure is now in place that can be used and adapted for a variety of transactions, in both the public and private sectors. The real danger, however, is that after such an investment of money and resources, technological advances will result in

Box 3.3. **Challenges to achieving a unique ID card: The Finnish smart card**

The Finnish National Electronic Identification Card (FINEID) has been used much less than expected since its introduction in late 1999, in terms of the number both of services using the smart card and of cards sold. The result has been a self-perpetuating cycle in which users do not buy ID cards because there are no services and service providers do not develop services because there is no perceived demand.

Part of the difficulty lies with the government's inability to convince other public authorities to use the citizen ID card for their services that require authentication. Without must-have applications – "killer apps" – there is little incentive for users to purchase cards, and for most citizens in Finland contact with government, electronic or not, is limited. In particular, the Social Insurance Institution, KELA, which carries out the reimbursement of health services, only agreed to do a pilot using the citizen ID card standard for its own electronic social security card. It has not yet agreed to adopt the FINEID card, contrary to what the card's developers originally envisaged. As KELA is under parliamentary authority, it is largely immune to pressure from the central administration, or, for that matter, concerns about horizontal co-ordination.

In addition, rather than using the citizen ID card, several large municipalities decided to develop their own smart cards which could carry some basic information about their holders and allow them to hold small amounts of electronic funds to pay for certain municipal services.

Apart from the usefulness of its authentication function, a smart card offers its issuer many benefits. By branding it, service providers can promote themselves. As a result, there is an incentive for organisations to issue their own cards and then to convince others to adopt them. From a user perspective, however, it is much more useful to have a single smart card to handle multiple applications than to have several smart cards each dedicated to a separate function and/or service. If this is not possible, the next best thing is to allow the cross-use of smart cards for authentication (*i.e.* using a municipal card in lieu of a citizen ID card and *vice versa*) and to allow users to choose the card that is most useful for them.

In order to increase the number of applications, the MoI is proposing to increase the amount of memory on the citizen ID chip in an effort to allow additional functionality, such as electronic payments or holding basic information. Adding functions can seriously complicate the use of the card, as information such as eligibility for services must be constantly updatly

Box 3.3. **Challenges to achieving a unique ID card: The Finnish smart card** *(cont.)*

if it is to be useful. In addition, it is encouraging smart card developers to adopt its certification standard and co-operating with the MoF to increase the number of transactional services.

competing solutions that are equally secure, while also being simpler, less expensive and most importantly, market-oriented. Many of the agencies interviewed are still taking a "wait and see" attitude about adopting the citizen ID card authentication standard. (For more detailed information on the development of the citizen ID card, see the case study in Section 7.2.)

However, the Stage 3 interactive services that require authentication remain relatively rare in Finland. Of those that exist, the majority have settled for the moment on relatively weak but simple identifying systems such as a username and password. This stems from uncertainty by some agencies over how to create an authentication system using the PKI infrastructure, but also from caution over whether or not the public system will become the commonly accepted standard before investing scare agency resources. As a result, purchase of the card has been much slower than expected.

Rapid technological change

Rapid technological change was identified by 59% of respondents to the survey as an important barrier to e-government. It entails great uncertainty regarding future policy and the economic impacts of technologies. The OECD *Information Technology Outlook* (2002) identified five broad approaches to dealing with technological change:

- Technology neutrality in legislation and regulation to avoid closing off promising options.
- Flexibility within broad regulatory frameworks and adaptation of current laws to a digital world.
- Involvement of all stakeholders in regulatory processes.
- Performance requirements rather than technical specifications when procuring new technologies.
- Increasingly looking to international co-operation to harmonise approaches to transborder issues.

At the ministry and agency level, learning to use the government authentication system remains a challenge and will continue to be a barrier to take-up even though the government-wide system is up and running. Indeed, catching up with the latest technologies and integrating them into their internal systems is a significant challenge for most respondents. In interviews, many agencies said that they needed more assistance in building technical solutions for e-government.

For more advanced agencies, the challenge will be to maintain flexibility and a capacity for innovation in the face of increasing pressure to standardise systems and approaches. This challenge shows how allocating responsibilities and setting standards require leadership and managerial skills as well as technology. Ensuring the functioning of the whole government IT system is not a purely technical process. It also requires a perspective on the role of technical units (see Section 4.5.3, "Ensuring central co-ordination").

Key Points – 19

- ***Adjusting to rapid technological development requires establishing a balance between planning and establishing standards and being open to new opportunities and changes. Change management should be considered in conjunction with technological issues.***

Key Points – 20

- ***The Finnish electronic citizen ID card still lacks a base of Stage 3 (transactional) services that require authentication. As a result, it has failed to meet usage targets and to stimulate the development of new transactional services. The government should avoid playing the pioneer role in developing technical solutions without a prior analysis of market demands.***

Standards

The Government's *Policy Decision on the Development of Information Management of State Administration (2000)* sets the principles and aims for developing standards for the appropriate maintenance of information systems,

Box 3.4. **Anticipating technological change still requires a market focus: The Finnish smart card**

The use of smart cards in Finland provides some interesting insights into how to approach rapid technological change. Finland was a pioneer in this area and therefore did not have many opportunities to learn from the experience of others. Finland's desire to be a leader and the fear that the lack of strong authentication solutions would be a damper on the development of interactive services led the government to step in where the private sector feared to tread. Finland chose to correct the perceived market failure by developing and marketing its own certification standard and infrastructure. Said an official from the PRC, "We are the only sector providing strong authentication because markets follow services and there are few services yet available".

The government did not adequately analyse the reasons for market failure. Instead, it took the "build it and they will come" approach. No market studies were made and the analysis of financial requirements was weak. Some of the IT officials working on the FINEID card compared developing an authentication framework with the creation of Finland's ICT infrastructure – a task at which Finland has succeeded admirably. The country's telecommunications and Internet infrastructure, however, was developed by the private sector. While the legislative decision to develop the FINEID card was made with broad private sector consultation, by approaching authentication as a long-term infrastructure project, the government set objectives that were independent of short-term returns and failed to establish a user base.

Furthermore, by choosing a "strong solution" for its authentication system, the Finnish government sought to anticipate future needs by providing the best security for still-to-be-developed services. The decision was based on a snapshot of what was technically possible at the time and did not take into account the new technologies or standards that could develop by the time interactive public services were more mature. In trying to ensure the best technical solution, whether or not it was needed, the government devised an expensive solution which is intimidating for many agencies that lack the necessary technical expertise. Many agencies are, instead, keeping an eye on solutions being produced in the widespread e-banking sector.

networks and services, the accuracy of data processing, the interoperability and compatibility of information systems and information security.

While standards can be developed in conjunction with individual services or organisation Web sites, important economies can be gained through a whole-of-government approach, by reducing redundant systems and lowering the technological barriers to co-operation across organisations. There is no single solution. A national approach can range from shared systems to common rules and/or standards governing separate, but connected systems.

The case of the Finnish smart card is also illustrative of the pitfalls of closed standards. One of the reasons behind the introduction of the FINEID card was the fear that competition between competing standards would delay the construction of an authentication infrastructure. The government hoped to provide an electronic ID card as a "universal" solution to authentication needs, rather than offering it as a solution among many. The government has since realised that it cannot operate the authentication function as a monopoly based on the certification standard in the citizen ID card. Instead of requiring that everyone use the citizen ID card for their authentication needs, it is now proposing to license the electronic certificate for use in other smart cards or even in mobile phones. This could include an electronic social security card, operated by KELA. It is also wooing private-sector partners, including banks and mobile phone companies, who are looking for secure e-commerce or e-banking solutions.

In Finland, interoperability work is carried out through JUHTA, the Advisory Committee on Information Management in Public Administration. So far, JUHTA has set over 40 IT standards. Common IT standards have been essential for government-wide e-government projects such as the citizen portal. There is bound to be frustration, however, as there will always be a lag between the changes in the technical system, services and technological possibilities and the rules governing them.

Establishing common technical standards can also pave the way for improved efficiency as the government seeks benefits of scale in some common back-office processes such as human resource management and payroll. The Government's Information Management Unit, which hosts the citizen portal and provides a range of technical services to ministries and agencies, is responsible for maintaining the "backbone" of the government network infrastructure. The unit is looking at overall inter-ministerial network needs, that is, the "kernel processes" needed by all ministries and agencies. In the future, it hopes to add workflow and document management to current services such as e-mail. To do so, it is working on interoperability standards. While the agencies are independent, an official in the unit noted, "Things are so complicated and they cost so much that it is more reasonable to co-operate." (On improving the internal efficiency of government, see Section 4.5, "Back-office

changes".) In addition, the Government's Information Management Unit is also working on providing assistance to ministries to ensure interoperability standards between different levels of government.

Guidance need not all be top-down. The JUNA project, which ended in 2001, focused its attention on the need to increase co-operation between different levels of authorities providing public services. The project played a special role in monitoring the advancement of electronic information and service delivery and in setting guidelines for electronic services. (On JUNA, see Appendix 3, Section 7.3.6.) The MoF is also launching an eGIF-type operation, as in the United Kingdom, with development of and agreement on government-wide standards.

Key Points – 21

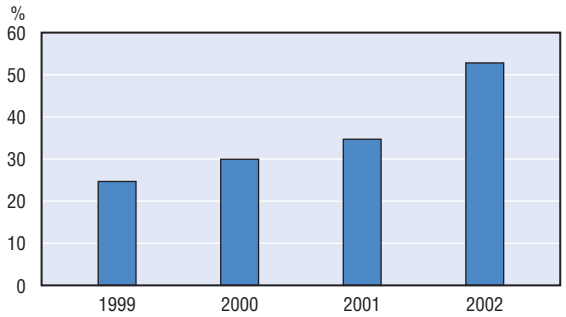
- ***There is continued need for assistance in developing common standards – this seems to be an area where co-ordination initiated by the centre might help. Standards are important for improving interoperability, as they facilitate the elimination of technical barriers to services integration and can bring major efficiency gains by realising economies of scale in common government back-office processes.***
- ***By proposing to license the electronic certificate for other smart cards, Finland is broadening the potential user base for the FINEID card and increasing the attractiveness of this authentication standard for both public and private service providers.***

3.4. The "digital divide"

Access to ICT and, in particular, the Internet remains a major barrier to e-government. Finland has a high level of Internet and telecommunications connectivity, however ICT access is not the same across the country. Statistics Finland has made several reports on the access to and use of ICT in Finnish society as part of the project, The Finns and Information Society, which was based on panel surveys from 1996 to 2001.[5] The results suggest that there are large generational, family-type and regional differences with regard to access to and possession of information technology (Figure 3.7). In addition, the *Information Society Statistics*, a yearly publication of the statistical institute of the Nordic countries, has recently provided comprehensive data on ICT penetration in Finland. Internet access still differs along a number of variables:

- **Age:** In 2002, 63% of the population had access to a computer at home. While this figure is about 59% for those below 30 years old, it is as low as

Figure 3.7. **Households and individuals with access to Internet in Finland**



Source: OECD, ITO, 2002 and national statistical survey in Finland.

25% for those over 60. With regard to use of the Internet, 62% of the population can access the Internet somewhere, but this figure is as low as 19% for those over 60.[6]

- **Region:** The possession of a network connection is high around the large towns (Helsinki, Tampere, Turku, etc.), while rural areas "are still largely inaccessible via computer networks".
- **Broadband access:** The number of xDSL connections has increased by 83%, while the number of cable modem subscriptions reached 25 000 in 2001.
- **Household size:** Small households (1-2 persons) fall well behind larger households with regard to possession of ICTs such as mobile phones, home computers and Internet connections.

3.4.1. Actions to reduce the digital divide

The OECD's *The E-government Imperative* (2003) points out that those least likely to have access to electronic services may, in fact, stand to benefit the most from e-government. Bridging the digital divide therefore becomes not only an information society concern, but also an important consideration in an overall policy strategy for service delivery and citizen engagement. In Finland, there is political awareness of the differences in access to and use of ICT. The 2000 Information Society report notes, "The social effects of the advance of the information society are divergent and partially paradoxical". It draws the following conclusion: "The use of new information and communication services in Finland does not indicate increasing alienation even though there are differences in the use of these services between population groups and in different regions. In spite of this, the Information Society Advisory Board considers it necessary to monitor the eventual development of alienation."

Improving access and take-up of electronic services has been a central priority in the Finnish government's information society strategy. Many recent government projects have been directed towards increasing the number of public access Internet terminals (*i.e.* the JUNA project), building information infrastructure and regional networks to connect rural areas and improving options for distance learning and teleworking. These efforts tie in with the policy goal to extend broadband access throughout Finland.

A shared attribute of many regional ICT projects is the need to meet the challenge of improving rural connectivity and increasing access to online services. In most of these projects, the role of local or regional authorities is decisive, even though the principle of partnership is widely applied. For example, the Suupohja Information Network Project aims to help small enterprises, schools, municipalities and public organisations and local inhabitants to apply and utilise the opportunities of modern information networks. The project will develop a wide information network infrastructure connecting small and medium-sized enterprises (SMEs), schools and colleges, municipalities and libraries to each other and to the Internet. The project is based on the computer network in Kauhajoki, the largest municipality of the area.

The 2002 *Programme of Action to Promote Online Government* stressed the need for plans to augment public access to electronic services by increasing the number of public Internet terminals in libraries, joint service points, major shopping areas and other public spaces. In addition, the plan calls for an extension of the availability of broadband connections (BB for All by 2005). These initiatives target the general public as well as disabled citizens and other marginalised groups.

As discussed in Section 2.2.2, "Online transactions", access is a multi-dimensional concept, concerning not only access to or possession of ICT, but also the knowledge and skills to use ICT effectively regardless of age, physical impairment, education, wealth, geographical area, etc.[7] The digital divide is as much an issue of familiarity with information technology and general ICT skills as it is access to the Internet. On this front, observers of the information society in Finland are also relatively positive.

3.4.2. Alternative Internet access channels

As advanced technologies have become available to the public at large (*i.e.* the Internet, SMS, WAP services) and their popularity rises, the use and acceptability of electronic services is likely to increase as well. In particular, Finland's telecommunications sector offers citizens well-known channels for receiving certain types of services. The use of mobile phones as a channel for service delivery offers the advantages of wireless connection, high penetration

Key Points – 22

- ***The remoteness of some Finnish regions makes improving access to Internet terminals a key priority for the development of e-enablers. Rural connectivity projects have strengthened collaboration between municipalities and fostered co-operation between public and private actors.***
- ***The government's strategy to overcome the digital divide has sought to develop and reinforce IT knowledge and experience as well as improving access based on an awareness of continued differences in ICT use within Finnish society.***

and familiarity (see Box 3.5). For example, in 2002 94% of the Finnish population had a mobile phone

For the moment, as in most OECD countries, these additional channels are under-utilised. OECD-wide, alternative Internet access routes are expanding but will be used differently from the PC-Internet model in the foreseeable future. Even with a dramatic increase in use of the most common alternative Internet services (*i.e.* e-mail, entertainment, news, location services), opportunities to access more complex services such as on-line education are limited, and such services may not be offered in the near future.[8]

The OECD survey shows that while all of the surveyed ministries and central agencies reported using Web sites, only one-third reported using voice services and very few provide electronic services through WAP or SMS. The MoF's survey of IT use in government showed that about 9% of public network services (15 out of 171 services) included mobile phone services in 2001, with another 18 public organisations reporting that mobile services were under preparation.

As a study in 2002 on Finnish mobile clusters pointed out,[9] several weaknesses still prevent mobile technology from being effectively implemented in Finland They include a negative attitude towards mobile services by end users, the conservative approach of dominant telecommunications operators and a high level of taxation. Nevertheless, some pilot projects have been launched by public authorities using mobile phones for voice, WAP and SMS services. With the use of SMS, in particular, Finland seems to be an innovator among OECD countries and takes advantage of its popularity (only 10% of Finnish mobile phone users had never sent any text messages, and 17% had used the phone

more for SMS than for calling[10]). Mobile-based innovations include the following initiatives:

- Through the JUNA project, the MoI launched a series of pilot projects to better exploit mobile channels to provide public services. The aim of these projects was to test the development of new technology and its effectiveness for delivering public services.
- The Ministry of Transport and Communication has developed the Mona programme to improve home-care service through the use of mobile technology in the City of Tampere. This pilot, launched in December 2001, involves the city and private service producers to improve the online booking, controlling and ordering of pharmaceutical products.
- The Finnish Meteorological Institute provides a mobile weather service (Weatherproof) for WAP operators. It offers mobile end users global and local weather forecasts and observations. A private-sector partner acts as a service provider for the mobile weather service application and provides the content for the service in close co-operation with national and local weather services worldwide.
- The Ministry of Foreign Affairs has launched an SMS service for people travelling abroad. The service, available in Finnish and Swedish, provides the contact details of Finnish missions, allows users to subscribe to information concerning travel and allows them to provide notification of their travel plans.
- University libraries have begun to use SMS messaging to notify users when a book is overdue.

The OECD survey results indicate that, reflecting their greater service focus, agencies seem to have done more to try new service channels than have ministries. None of the ministries reported using WAP or SMS and agencies were 50% more likely than ministries to report using voice services (38% of agencies, 25% of ministries).

Key Points – 23

- ***The continued penetration of ICT into Finnish society presents new opportunities to serve citizens and business through new channels. Finland is already a frontrunner among OECD countries for developing mobile phone applications. Given the popularity of mobile phones, however, the potential for mobile applications to deliver electronic information, in particular, SMS, could be even better exploited.***

Box 3.5. **The development of mobile phones as an alternative Internet access route**

Because of wide diffusion, low cost, fast power-up and ease and familiarity of use, mobile telephones have great potential as alternative routes to the Internet, but penetration of Internet-capable mobile phones remains weak:

Table 3.2. **Finnish mobile phone users in May 2001, by sex and age**

Percentages

15-19	20-29	30-39	40-49	50-59	60+		Total
Men							
Mobile phone in own use	90	98	94	89	87	74	88
WAP phone	12	16	21	9	9	4	12
Women							
Mobile phone in own use	98	94	90	82	78	51	80
WAP phone	1	5	5	4	5	3	4
Reported WAP use							
in Helsinki region	0	13	20	11	7	5	10
in other regions (excluding big cities)	8	12	10	5	7	4	8

Source: Statistics Finland.

Notes

1. See also the *Act on Protection of Privacy and Data Security in Telecommunications*, 1999; *Personal Data Act*, 1999; and the *Act on Openness in Government Activities*, 1999.
2. See also *www.tietosuoja.fi*
3. For a more detailed discussion of the Finnish budgeting system, see OECD (2002), *Budgeting in Finland, Report to the Public Management Committee*, [PUMA/SBO(2002)8/FINAL]
4. In fact, however, spending has grown by 1% of GDP in real terms.
5. Statistics Finland (2000), *Environmental Attitudes*.
6. Nordic Information Society Statistics (2002).
7. A. Hopkins (2002), *Discussion paper on the issue of responsive e-government services from the perspective of service users*. OECD E-government Seminar on Vision, Context and Responsiveness, Paris, 11-12 March 2002.
8. OECD (2002), *Information Technology Outlook*, p. 226.

9. Läppavuori, L. (2002), *The Analysis of the Finnish Mobile Cluster: Any Potential in Finnish Mobile Services*. The study analysed the structure of the Finnish mobile cluster, the opinions of the cluster companies, the codes of conducting business in the cluster, the current use of mobile services in companies and the factors of success of Japanese mobile services.
10. *Statistics Finland*, p. 199.

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PART I

Chapter 4

Implementing E-Government

As discussed in the OECD's *The E-government Imperative* (2003), implementing e-government is not a simple linear process, but involves setting a path and correcting along the way to take into account unanticipated obstacles as well as unexpected benefits. In the Finnish context, implementing e-government in the central administration primarily involves setting a framework for shared action since so many electronic services are provided at the local and regional level. As discussed in the previous chapter, some of these frameworks have been in the form of e-enablers. In addition, implementing e-government involves finding a common vision and planning to achieve it and promoting front-office actions for service delivery, e-engagement and setting up portals. Finally, back-office actions are also needed, such as organisational change, developing leadership and skills, co-ordination and monitoring and evaluation. E-government has focused attention on the need for back-office reforms while also serving as a tool for achieving these changes.

4.1. Vision and planning

E-government depends on an overall vision for a common sense of direction. But vision alone is insufficient. The OECD's *The E-government Imperative* (2003) argues for a coherent planning process as well, in order to bring together and guide e-government implementation. This part looks at the process by which the Finnish government has developed its e-government programme. It identifies key elements of the Finnish vision for e-government and discusses the extent to which this vision has been successfully shared within the central government. Finally, it considers how the vision has been translated into goals as well as strategic plans on how to achieve those goals.

Appendix 3 of this report includes a brief synopsis of the government legislation, decisions and reports that together form the Finnish government's vision for e-government. It also takes into account reports from advisory groups and taskforces that have been convened or consulted by the government. These documents are not limited to e-government but cover a range of related topics including the information society, information management in the public administration and public management reform. Some main themes have been:

- Development of the information society: *i)* transforming information technology and information networks into tools for the renewal of business

and the public sector; *ii)* enhancing the information industry as Finland's most important future business; *iii)* improving competitiveness and creation of excellence in ICT skills; *iv)* making the information society services and the basic skills for their utilisation accessible to all; and *v)* securing the overall competitiveness and service capability of the Finnish information infrastructure (*Finland Towards the Information Society – A National Strategy*, 1994).

- E-government as a facilitator of joint and more advanced services, with an emphasis on customer orientation, freedom of choice and availability (*Government Resolution on High-quality Services, Good Governance and a Responsible Civic Society*, 1998).
- Improving the public administration's ability to provide services and enhancing their effectiveness by transacting business electronically (government programme, 1999).
- Modernising the service culture in the public sector through the promotion of social and technological innovations (government programme, 1999).
- "Enhancing and developing the information management operations from the needs of the citizens in a manner that promotes good governance, good information management practice and the development of the information society" (*Policy Decision of the Government on the Development of the Information Management of State Administration*, 1999).
- Services should always be available online and the aim of the development of online services is to improve the quality of customer service, to decrease the costs of both government and its customers as well as to reform the working methods of government (*Standpoint of the Ministerial Steering Group on the Reform of Central Government*, 2001).
- "By providing secure and user friendly online services, the public administration will *i)* save trouble and expenses for its customers; *ii)* empower citizens; and *iii)* support the competitiveness of firms." *(Public Service in the New Millennium, ISAB Programme of Action to Promote Online Government 2002-03, 2002)*.

4.1.1. *Developing a common vision*

Vision statements in Finland (see Appendix 3) are consistent with the objectives of public administration reform and make it clear that e-government is a tool for promoting a broader vision of citizen choice, service quality and improved working methods. Still, 56% of respondents to the OECD survey expressed the view that a lack of vision and/or overall strategy was an important challenge for e-government. Clearly, this perception does not reflect the planning that has gone into developing Finland's e-government vision, but it does seem to reveal confusion among ministries and agencies

about the central message in Finland's e-government programme. While the values expressed in these vision statements are not inconsistent, they do reflect multiple stakeholders and perspectives. This is normal, but raises the question of how communication can be improved within the administration to articulate how the visions fit together.

In light of interviews with IT officials, the values underlying the government-wide vision seem to be shared within the central government, though many IT officials are not very familiar with the official documents. The problem is that ministries and agencies are having some difficulty translating the vision into a concrete programme of action. Confusion over the vision or the inability to articulate that vision may be almost as much of an immobilising factor as a lack of vision.

Key Points – 24

- ***Finland has a government-wide vision that is well integrated with its public administration reform agenda. While it is based on shared values, however, it is not well known or well understood within the administration. Additional communication is needed to avoid confusion over the content of the vision at all levels of government.***

In interviews with the OECD, the MoF, which is responsible for co-ordinating e-government plans, did not express surprise that many agencies felt uncertainty about responsibilities for implementing e-government, reporting that this was consistent with their own surveys and discussions. It emphasised, however, that unfamiliarity with official government documents did not necessarily mean that the values in the government vision had not been understood and accepted. Instead, it stressed that ministries and agencies should not wait for central guidance on what they could do.

Sharing an overall e-government vision does seem to be tied with agencies' progress in delivering electronic services: among respondents, organisations providing advanced e-government services were less likely (38%) to see the lack of a government-wide vision/strategy as an important challenge than organisations providing less advanced services (63%) (see Figure 4.22, Section 4.5.3). It seems clear that the most advanced organisations have access to a vision, whether linked to political commitment to the government programme or dependant on the guidance and individual vision of a committed director general or other top official, or even that of the head of an IT unit with sufficient determination and resources.

Whether the vision is shared across government or limited to a single organisation, however, makes a difference. No matter how advanced they are in terms of the services that they provide, organisations concerned only with their own vision may not notice broader co-ordination problems that go beyond their own services. Even though they do not play a strong co-ordinating role, Finnish ministries are in a better position to see the problems that can arise from lack of a common vision, whereas the "front line" perspective of agencies does not leave them much room to worry about whether or not their e-government initiatives are consistent with those of other agencies. In fact, ministries responding to the OECD survey were more likely than agencies to feel that a lack of e-government vision/strategy was a problem (a "very important" challenge for 23% of ministries compared to 13% of agencies) (see Figure 4.21, Section 4.5.3).

Finnish ministries have not played a strong role in helping agencies articulate their vision and reviewing the resulting strategic plans. As the government-wide co-ordinator, the Ministry of Finance, provides assistance to agencies and strategic plans are submitted to it directly. Ministries are short on resources, but they also have relatively few service responsibilities (the Ministries of Agriculture and Labour have the most direct responsibility for services). The position of ministries as an intermediary for agencies, *vis-à-vis* co-ordinating authorities such as the MoF and bodies such as JUHTA, could be better exploited to bridge overall visions with on-the-ground realities. This does not mean a return to a command-and-control relationship, but rather the development of a strategic advisory and diagnostic capacity and help in sharing information and practices between agencies.

A few ministries have started to take a more active role. For example, in 2000, the Ministry of Transportation and Communications commissioned a survey to look at progress in the implementation of e-government in its agencies. The survey identified the lack of information and skills for managing and developing e-government projects as one of the major problems for implementing online services in the ministry and its agencies. It is now developing plans to help its agencies address these needs. (For more on the role of ministries, see Section 4.5.2, "Providing leadership" and Section 4.5.3 "Ensuring Central Co-ordination".)

The OECD's *The E-government Imperative* (2003) indicates the importance of a common vision, not only as a means to engage and co-ordinate with agencies but also as a basis for communication with political leaders to impress upon them the importance of e-government, not as a goal in itself but as a means to realise policy priorities. Many of the Finnish ministries and agencies surveyed expressed concern about insufficient engagement at the political level for driving an e-government agenda forward.

Key Points – 25

- ***Finnish ministries could help translate the overall vision into concrete action by playing a more strategic role in the guidance and correction of agency plans, as well as by creating more opportunities for the exchange of information and experiences. In doing so, they will also develop their own capacity to identify common problems and solutions***

In its 2002 report to the government, the Information Society Advisory Board (ISAB) notes an increasing demand for e-government owing to concerns about maintaining national competitiveness. In addition, the ISAB noted that as the current population using electronic services ages, the need for electronic services will also grow. As a result, it calls for refining both the government vision and goals in order to focus on more efficient methods of public services delivery and higher overall productivity. This is needed, in particular, to prevent loss of enthusiasm and disillusionment relating to the implementation of e-government.

Before ISAB's 2002 *Programme of Action to Promote Online Government*, Finland had no overall e-government strategy for drawing together decisions and acts relating to e-government so that challenges, problems, dilemmas and contradictions could be identified and specific action to solve them could be proposed. ISAB's approach was to identify and focus on problems areas to help match the government-wide vision with proposals for action: major improvements in the development, implementation and delivery of online services; service quality and development of demand; accessibility,

Key Points – 26

- ***Ministries and agencies continue to demand clearer information and guidelines, not only regarding the content of guidance, frameworks and standards, but also regarding their scope of action and whether actions are mandatory or voluntary. This is seen by some, however, simply as an excuse for not taking action on delivering electronic services. In fact both leadership in ministries and agencies and clear guidance are needed . The ISAB Action Programme takes an important step in bridging vision and action.***

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Box 4.1. **ISAB's Programme of Action to Promote Online Government, 2002-03**

In early 2002, the Information Society Advisory Board submitted a proposed programme of action to the government, which was accepted by the Ministerial Working Group on Administration and Regional Development. The programme focuses on some of the major weaknesses that have characterised government action in the e-government arena, including the level of resources available, fragmentation of initiatives, lack of central leadership, profusion of vision and policies, scarcity of co-ordination at both the technical and administrative levels.

According to the ISAB document, understanding the constraints and bottlenecks that inhibit the reform of online public services is a first step towards defining a clear strategy for action. This programme proposes to address some major objectives in 2002-03, including:

Reforming administrative activities and processes rather than adding technologies:

- The MoF should define guidelines for an electronic servicse strategy.
- Each agency should be responsible for defining, managing and staffing its electronic services strategy and should incorporate its electronic services strategy in its budget plan for the next four years.
- Ministries and agencies should launch projects for integrating electronic services.
- The MoF and MoI should co-operate to encourage data sharing activities.

Encouraging the supply of and demand for online services:

- Ministries and agencies should develop public participation by publishing public documents on the Internet, allowing citizen feedback, etc.
- Ministries and agencies should encourage the channelling of public services through portals.

Improving access, usability and end-user competence:

- The Ministry of Education and related ministries and agencies should increase the number of public access Internet terminals to one per 1 000 inhabitants.
- The MoF, the Association of Finnish Local and Regional Authorities (AFLRA, Suomen Kuntaliitto) and the Advisory Committee on Information Management in Public Administration (JUHTA) should co-operate to develop guidelines and recommendations on electronic authentication at the state and municipal levels.

Box 4.1. **ISAB's Programme of Action to Promote Online Government, 2002-03** *(cont.)*

- The Ministry of Trade and Industry should work to increase the number of services available via the Enterprise-Suomi portal.

Ensuring co-ordination:

- The MoF should be given central authority and additional resources for co-ordinating development work for online government.
- The MoF and MoI, together with AFLRA, should prepare proposals for the improvement of public administration standards (JHS).
- The MoF and JUHTA should follow up on implementation.
- The Ministerial Group on Administration and Regional Development should become more involved in matters of online government.

usability and user qualifications; guidance and co-ordination of the development of online services (see Box 4.1). It is still too early to know if the programme is successful, but ministries and agencies are familiar with it. In addition, the focus on action, clear responsibilities and a short timeline for results all serve to underscore its role as a catalyst for action.

4.1.2. Planning at the ministry and agency level

The Council of Ministers' 1995 *Resolution on Developing a Finnish Information Society* that each ministry should prepare a detailed action plan on how it would implement the information society strategy. While there was no requirement to include e-government planning, the Ministry of Education and Statistics Finland used this as an opportunity to begin planning elements of an e-government strategy. Their 1995 information society plans included organisation-specific plans for e-government.

E-government planning at the organisation level, however, was not required until 2001, nor were there guidelines available for agencies who wished to do so. In 2001, as a part of the JUNA project (see Appendix 3, Section 7.3.6), four pilot projects on the public administration's strategy in the area of the information society were carried out. The projects aimed at helping agencies develop an e-strategy that was integrated into its overall business plan and took into account the need to develop management and personnel skills as part of the implementation of e-government. The pilot projects showed that developing models of strategies suited to different organisational settings presented a difficult challenge. They also showed that top management commitment

combined with skilled project management were important factors for success.[1]

The 2002 *Programme of Action to Promote Online Government* states that in 2002 each agency should draw up an electronic service strategy – based on an appraisal of user needs – as an integral part of their overall service strategy. It also recommended that each strategy should include goals, although monitoring and evaluation are not specifically mentioned. The Ministry of Finance is tasked with drawing up guidelines for formulating an electronic service strategy and designing a programme for ministries and agencies wanting to learn about how to develop their e-government strategy. The programme calls for each ministry to incorporate an e-strategy into its four-year planning and budgeting cycle, and the MoF has issued guidelines.

When asked whether or not they had a plan for e-government, half of the respondents to the OECD survey reported having either one (36%) or several (14%) such plans (50% total). This falls short of the figure reported to the Ministry of Finance's annual survey, which indicated that 76% of all agencies and ministries had an information management plan in 2001. Part of the discrepancy may be due to the fact that agencies did not consider their broader information management plans to be specifically about e-government.

In the OECD sample, 21% of those reporting an e-government plan indicated having a specific plan on e-government, while 25% had a general business plan that also covered e-government activities. The majority of e-government plans reported by respondents were produced between 1998 and 2001. Half reported having already revised their original e-government plans at least once.

Almost all respondents to the OECD survey reported having included explicit goals in their e-government plans (91%), and most also included an explicit strategy for reaching those goals (87%). Evaluation plans and frameworks for monitoring goals, however, were less common. About 56% of respondents reported that their plans indicated how to monitor goals. About 50% included an evaluation framework.

The ministries and agencies that reported not having any kind of e-government plan gave many different reasons. For some, it seemed to be a question of lack of resources, while others mentioned that planning takes place as part of a more informal process, such as *ad hoc* working groups set up to deal with specific e-government activities.

One small agency interviewed (TUKES – the Safety Technology Authority) reported that while its electronic services strategy was partly inspired by government "background documents", the main push for developing a strategy came from business customers who sent e-mail inquiries about

whether or not they could conduct transactions electronically. In fact, they initiated their electronic services when enterprises began to submit documents by e-mail. TUKES had to determine if the documents were acceptable and what was the appropriate response. However, current use of electronic services remains low: while around 8 000 official documents arrive each year, only 20-30 were received electronically in 2001.

The OECD survey found that there is a relation between having an e-government plan and providing electronic services, as well as how advanced the services are. Among respondents, ministries and agencies with an e-government plan are more likely to provide electronic services to citizens, businesses and others than those without a plan:

- 30% of respondents with a plan provide electronic services that allow for transactions (stage 3 services) with citizens, compared to 14% for those that do not.
- 35% of the respondents with a plan provide electronic services that allow for transactions with businesses, compared to 10% for those that do not.
- 5% of respondents with a plan provide data sharing (stage 4 services) to citizens and 5% to businesses. None of the organisations without a plan provides electronic services that allow for data sharing.

These survey results indicate that an e-government plan influences the degree and level of complexity of electronic services. As the survey only looked at whether or not an agency had a plan, however, it did not measure quality of plans, how well the plans were integrated into overall operations or the link between these variables and the number and complexity of services.

In and of itself, the existence of a plan is not sufficient. Interviews with another small agency suggested that there was a split between the administrative unit that developed the e-government plan and the operational unit that implemented e-government initiatives. The strategic plan, which included a vision statement and "wish list", was not linked to resource allocation and so did not seem to be a very effective planning document. Moreover, there was not a great deal of ownership of the plan.

Key Points – 27

- ***Among Finnish ministries and agencies, the existence of an e-government plan is correlated with whether an organisation is providing electronic services and how advanced those services are.***

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Without buy-in at all levels of an organisation, from agency heads to operational IT officials, agency and ministry strategic plans will have little impact on the commitment to developing e-government, on what types of service and engagement are developed and how results are achieved.

4.1.3. E-government goals and targets

The e-government planning process within the central government helps to establish and diffuse the e-government vision and to translate it into concrete goals and actions. As the OECD's *E-government Imperative* (2003) indicates, e-government goals are distinguishable from the more general vision in that they translate the broad values contained in the vision into more concrete objectives, usually with a stronger operational basis, reflecting actual programmes, procedures or outputs. Goals can either indicate a general principle or desired programme direction (*i.e.* "serve more citizens") or a more specific target (*i.e.* "serve all eligible citizens by 2005"). Goals can be set at the national, ministry, agency, or project level, taking into account the specificity of each sector or organisation.

Since the mid-1990s, Finland has issued several documents containing e-government-related goals. These range from very broad objectives in the Finnish information society strategies and government programmes to very specific objectives in e-government decisions and acts. The main e-government objectives expressed in the information society strategies and government programmes from 1995 to 2001 focus on improving the quality of public services and strengthening customer orientation in the public administration. To achieve this, they suggest improving information management and ICT infrastructure. Other major goals include improving enablers of e-government and co-ordination across levels of government. In particular, the specific issue of electronic identification, including authentication and digital signatures, is stressed in all of the strategies and programmes.

Openness and transparency are also a major theme, embodied in the 1999 *Act on the Openness of Government Activities*. With regard to e-engagement, the general goal is that citizens should be empowered through enhanced transparency in decision making thanks to electronic access to information and electronic feedback mechanisms (see Section 4.3 "E-engagement" and Appendix 3, Section 7.3.7).

Another theme is enabling joined-up government, including the sharing of personal data among agencies, to eliminate unnecessary services and to reduce the administrative burden on citizens and businesses. The 1998 *Resolution on Electronic Transactions, Development of Services and Reduction of Data Gathering* set a goal of reducing the costs of data collection by one-third by 2001.

While reducing running costs is also mentioned in the first information society strategy of 1995, more recent government documents have not focused

on cost savings. Using e-government to achieve savings in the public administration seems to have been overtaken by customer service goals as the main driver of e-government. This can be related to the general shift in the focus of public management reforms from economic factors and structural reforms during the economic recession of the 1990s to strategic governance including public service values from the 1990s.

Few of the national e-government goals, however, take the form of precise targets. The 1998 resolution provided some of the most specific targets:

- An electronic identity card to be issued in 1999.
- A significant proportion of electronic forms and requests to be instituted electronically by 2001.
- The costs of data gathering to be reduced by at least one-third from 1997 to 2001.

Apart from the 1998 decision, the relevant decisions and acts set no specific, monitorable targets. Instead, in each specific area, they present extensive objectives which together form a comprehensive regulatory framework with regard to PKI, electronic identification and signature, and security and interoperability of information systems. In fact, the goals seem to reflect a high level of consensus within the Finnish government. It is on issues that have been less consensual, such as establishing a smart card, that the government has established the most explicit goals.

The lack of clear targets or goals pinpointing action areas may make it harder for ministries and agencies to know what they need to do or how to prioritise their actions. If goals are the bridge between an overall vision and specific action, then, as noted above, it is likely that the concern about lack of e-government vision and strategy raised by respondents to the OECD survey actually reflects a lack of clarity on goals and targets.

In addition, goals serve not only to provide a direction for action and achievement, they can also be used to prioritise and even advance action. Without milestones to measure the achievement of goals, there is less pressure for agencies to act. Only 24% of respondents to the OECD survey felt that decisions of the Council of Ministers provided the main impetus for developing e-government initiatives (21% of agencies, but 31% of ministries). As an IT official in the Ministry of Transportation and Communications stated, “Goals could be a useful tool to push things forward. Agencies don’t know what is expected of them and the ministry is not giving them a clear signal. Everyone is waiting to see what others are doing. No one wants to take a risk developing services that no one wants”.

Broad targets without a plan on how to achieve them are not particularly useful and can be counter-productive if too unrealistic. The government's ambivalence towards the use of precise, measurable targets, however, should be viewed in light of the new public management reforms of the 1990s, which abolished the very strict numerical targets of the MoF. Rather than return to a situation where the MoF is responsible for "operationalising" overall targets, it could be useful to negotiate concrete objectives with agencies input, establishing targets only in areas where there are bottlenecks.

More specific, short-term targets that build on each other and are negotiated with ministries and agencies, or developed in consultation, can be used as a tool to advance action, secure leadership buy-in and improve accountability. Recent experience with targets (the 1998 resolution), however, was based, in part, on the need to push through a controversial measure (the electronic ID card), which may explain, in part the low take-up and as yet low level of related services (see Box 3.4 and Section 3.3.2 "Types of Barriers" and the case study on the Finnish smart card in Section 6.2).

Within the framework of the national vision and goals, performance measures can serve as indicators to fill the gap and improve accountability (see Section 4.6, "Monitoring and evaluation of e-government"). The targets for placing forms online, also part of the 1998 resolution, have relied on voluntary compliance.

To develop realistic goals and build consensus, targets need to be developed with input at all levels. While they should reflect political priorities, targets imposed from above without consideration of operational realities or actual desires of citizens are not likely to succeed (see Section 2.1). The Finnish government has tried to address this danger, in part through the use

Key Points – 28

- ***Finnish e-government goals are comprehensive, but because they tend to be general, it is difficult to know when they have been attained. As a result, they do not seem to have been a strong driver for e-government action or accountability.***
- ***Specific goals have been used where there was less consensus on the desired outcome or path, with mixed results.***
- ***Specific, achievable targets, developed with agency input, could make clearer to ministries and agencies what needs to be achieved and to marshal the resources and willpower to achieve it.***

of advisory boards to help identify possible targets and to build consensus around how to achieve them.

Because of its extensive representation, the Information Society Advisory Board has produced useful reports that integrate many levels and views on the information society, including e-government issues. Its consultative role permits it to undertake in-depth analysis and to identify and propose solutions to challenges, problems, dilemmas and contradictions through legislation, co-ordinated funding and other co-ordination and co-operation mechanisms. By focusing on problem areas, the ISAB *Programme of Action to Promote Online Government* more clearly identifies problems and areas of action.

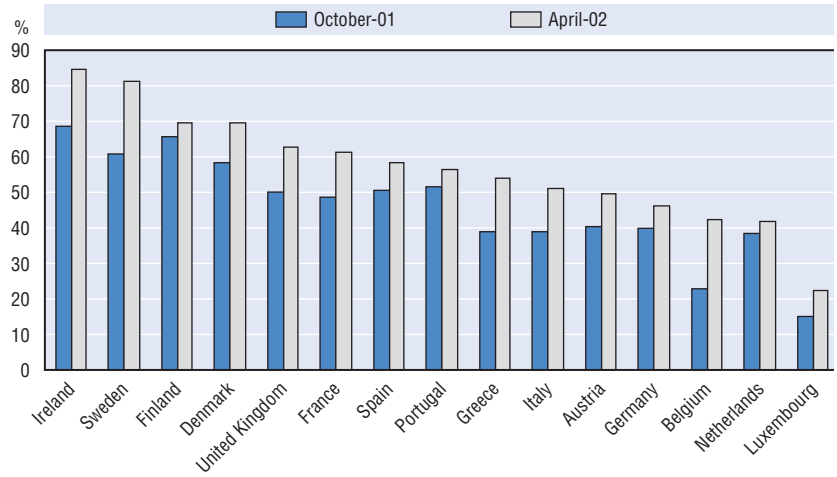
4.1.4. *E-Europe goals*

The European Commission has played an important role in identifying the actual and potential benefits of the information society and in acting as a stimulus to ensure that all members continue to advance in this area. The eEurope programme is a political initiative aimed at "bringing every citizen, home and school, every business and administration, into the digital age and online; creating a digitally literate Europe, supported by an entrepreneurial culture ready to finance and develop new ideas; ensuring that the whole process is socially inclusive, builds consumer trust and strengthens social cohesion".[2]

To achieve these goals, the eEurope programme has defined priority actions and set targets for providing IT training to young people, providing cheap and fast access to the Internet, accelerating e-commerce, developing safe authentication systems for citizens (smart cards), enhancing e-participation for the disabled, improving health-care online and strengthening e-government. As in other areas, specific targets for e-government have been set on electronic information and service provision (*i.e.* simplify online public information), and indicators have been developed to measure countries' efforts to achieve these goals.

A recent report, *Finland in eEurope*, commissioned by the Ministry of Transport and Communication, assesses Finland's efforts to achieve eEurope objectives. The purpose of the research was to assess how the eEurope project of the Commission has progressed in Finland from the perspective of the administration, enterprises and organisations. The report focuses also on analysing how the eEurope project supports Finnish national objectives and provides an evaluation of information society policy and organisation of the State administration. According to the programme indicators, Finland has performed well in ensuring cheaper and faster Internet access, especially for researchers and students, but it lags behind other EU countries in the use of secure networks and smart cards as well as in developing electronic access to public services (see Figure 4.1). Finland is also perceived to be weak in

Figure 4.1. **eEurope ranking of the availability of online services**



Source: European Commision.

providing equal opportunities to those who participate in the knowledge-based economy and in accelerating the take-up of e-commerce.

Even though it ranks relatively well according to the eEurope indicators, the Finnish government has expressed strong disagreement with the indicators, as they do not take into account the quality and effectiveness of the electronic services measured. In fact, the ISAB explicitly states, "these [eEurope] indicators miss most of the services provided by Finnish municipalities while they include processes that are not relevant for Finland as they have already been automated in other ways"[3]. Moreover, the Finns note that the current eEurope indicators look only at availability and not at the volume of use of services.

Although Finland has successfully taken the first steps to develop the information society and e-government, according to the *Finland in eEurope* report, some crucial areas have to be addressed in the future. The report recommends that Finland set clear targets, strengthen co-ordination within the administration and promote joint action programmes in order to ensure that the resources of the information society are appropriately used and shared by all. Moreover, on a project level, the *eEurope Action Plan* calls for increased efforts to provide electronic access to public services, simplify online procedures for business, develop an action programme for customer management and set up citizen and business portals.

International benchmarking can be a very powerful tool for capturing the attention of ministers and generating political commitment to achieving certain national goals.[4] Finding common measures across countries, however,

is a very difficult task, especially if, as in Finland, the country has taken a different approach to electronic service provision. Finding effective and comparable measures is also more difficult when dealing with complex variables such as "quality" *versus* the more simple quantity of services online.

Looking at the eEurope indicators, it is difficult to tell where genuine progress in electronic service delivery still needs to be made in Finland and where innovation as part of overall service delivery has simply not been captured by overly simple measures. Still, as the eEurope initiative enters into its second phase, it is working towards recognising quality measures as well as the diversity of national approaches.

Key Points – 29

- ***The eEurope electronic services goals have been useful for encouraging action, but, as in any benchmarking exercise, it has run into the difficulty of comparing different types of systems and approaches.***
- ***Focusing on the number of services provided does not take into account the quality, appropriateness or take-up of those services. In addition, electronic services of local and regional government have not been taken into account.***
- ***The eEurope indicators have put pressure on Finland to advance, but possibly not in the direction that best suits its national approach and needs.***

4.2. Electronic services

Given the diversity of public services provided by ministries and central agencies, it is extremely difficult to measure the implementation of electronic services, in Finland as elsewhere. The OECD's *The E-government Imperative* (2003) lists some possible indicators: *breadth* (*i.e.* the number of services provided), *span* (*i.e.* the customer target group to which electronic services are delivered, *e.g.* citizens, businesses and/or others), *depth* (*i.e.* the complexity of the electronic services provided) and *quality* (*i.e.* the extent to which electronic services achieve their stated objectives).

Most international e-government studies tend to focus on the breadth and span of electronic services. When discussing breadth in the Finnish central administration, it is important to keep in mind that the majority of services are provided at the local and regional level, so that the share of services to put online at the central level is reduced.

This part looks at both of these variables, as well as depth, which attempts to capture the complexity of what can be accomplished via an electronic service and therefore its value to customers. The discussion of quality addresses what individual ministries and agencies are doing to develop indicators to measure quality that are relevant to their specific needs (see Section 5.6, "Monitoring and evaluation of e-government").

In order to survey the depth of electronic services proposed by the Finnish central administration, the OECD survey adapted a model for electronic service delivery from the Australian National Audit Office.[5] The model defines four stages of electronic service delivery:

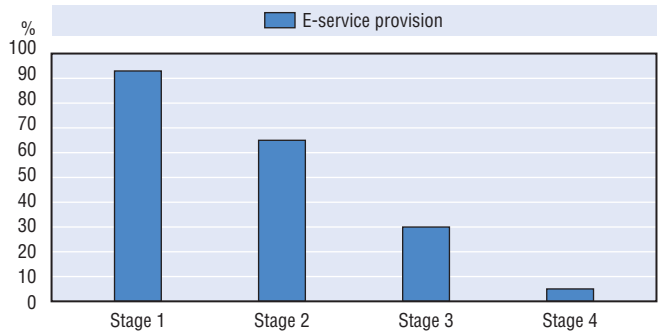
- **Stage 1: Information:** A Web site publishes information about service(s).
- **Stage 2: Interactive information:** Stage 1 + the ability for users to access agency database(s) and to browse, explore and interact with that data.
- **Stage 3: Transactions:** Stages 1 + 2 + the ability for users to enter secure information and engage in transactions with the agency.
- **Stage 4: Data sharing:** stages 1 + 2 + 3 + the ability for the agency, with the user's prior approval, to share with other government agencies information provided by that user.

Several international surveys of electronic service development have been carried out using a similar model, but there does not seem to be general agreement on how to define the stages of electronic service delivery. In particular, the definition of the last two, supposedly the most advanced stages, seems to cause the most difficulty. This is not surprising given the limited experience with electronic services at these stages.[6]

In the OECD survey, to allow for adaptation to the Finnish context, ministries and central agencies were asked to redefine Stage 4 if the definition did not apply well to their service delivery. While this makes benchmarking against other countries more difficult, the OECD is also seeking to refine its service delivery model to reflect as accurately as possible the status of service delivery in member countries.

A useful classification should also avoid conveying the impression that the only – or even the most important – objective of all e-government projects should be the development and enhancement of stage 3 and 4 services. The different e-government objectives and ICT development paths chosen by OECD countries means that there will necessarily be different models of online service development and different means of deriving value from the exploitation of ICT. The difficulty of developing a model that can capture the diversity and constant evolution of electronic services in different countries, let alone their ideal distribution, tends to call into question the utility of benchmarking the most advanced stages of e-government service.

Figure 4.2. **Electronic service provision in the Finnish central government by stage of service (2002)**



Source: OECD.

In order to reveal the span, breadth and depth of electronic services, the OECD survey also asked ministries and agencies to distinguish between electronic services to citizens, businesses and others, such as NGOs and civil society organisations as well as other parts and levels of government, and also to list up to three electronic services in each customer category.

The survey results show that the vast majority of respondents offer Stage 1 information and many offer interactive information and downloadable forms at Stage 2. At the more advanced stages, however, progress is much more modest: 30% propose Stage 3 transactions, while only 5% engage in data sharing with other agencies to produce services for citizens and businesses in addition to the services and information in the preceding stages (Figure 4.2).

Key Points – 30

- ***The proportion of interactive services in all electronic services is still relatively low. This should be seen in the light of services that are not necessary in the Finnish context or that have been made redundant by e-government. Recognising this, the Finnish government seems to be taking the approach that "more is not necessarily better", at least when it comes to electronic services.***
- ***A classification by stages provides a static representation of service delivery. Understanding organisations' efforts to advance service delivery has to take into account hybrid services or services in transition as organisations deal with the upgrading of technologies and the re-engineering of processes.***

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4.2.1. *Stage 1 online services: information*

All respondents reported having Web sites with information about their service(s).

Some examples of Stage 1 services in Finland include:

- An agency Web site with pages providing general information about the organisation, its operations, its mission and its services, such as the National Agencies for Medicine web site.[1]
- Information that an organisation provides as a service to its users, such as general statistics or indicators. For example, the Energy Market Authority Web site provides basic information on energy prices in multiple languages.[2]
- Answers to frequently asked questions (FAQs). Some can be found, for example, on the Web site of the Finnish Consumer Agency and Ombudsman.[3]

1. *www.nam.fi*
2. *www.energiamarkkinavirasto.fi/select.asp?gid=102* At the time of writing, it did not yet have searchable statistics.
3. *www.kuluttajavirasto.fi/user_nf/default.asp?tmf=8579&lmf=9317&mode=readdoc)*

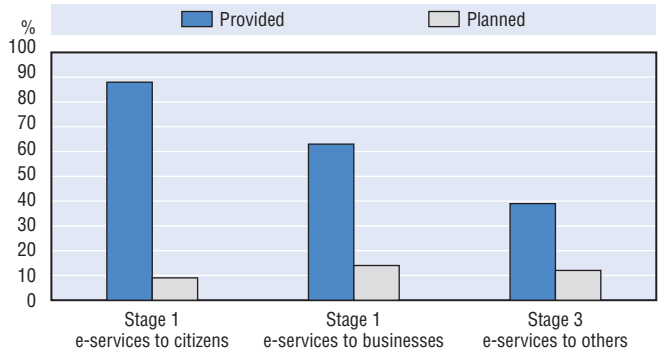
Organisations' initial reaction to the government online strategy has been to digitise existing information. At Stage 1, users can read and download publications as well as undertake limited inquiries and searches. All information flows from the administration to the user.

Since this stage primarily involves the digitising of existing information and placing it online, it has so far required the least investment in process re-engineering and therefore can be undertaken with a minimal amount of planning. Although providing information is technically less difficult than providing more advanced, interactive services, it still requires planning in terms of presentation, target audience, selection and quality.

The Finnish Ministry of Finance found that in 2001, 68% of available electronic services included electronically-available forms. The 1998 government resolution on electronic transactions specifically required making a significant proportion of forms and requests available electronically by 2001. However, 35% of respondents reported to the OECD that they had not developed electronic services beyond Stage 1.

Figure 4.3 illustrates the customer orientation of the electronic services provided at Stage 1, as reported by respondents to the OECD survey.

Figure 4.3. **Customer orientation of Stage 1 electronic services, 2002**



Source: OECD.

At Stage 1, citizens were clearly the group most targeted by respondents. Almost all reported providing Stage 1 electronic services to citizens, about two-thirds reported providing services to businesses and less than half reported providing services to "others" (*e.g.* other public organisations, civil society organisations, etc.).

One reason why respondents were more likely to provide Stage 1 electronic services to citizens than to businesses seems to be that all ministries and agencies are oriented towards serving citizens by ensuring that they have access to basic information on their services . The early development of electronic services can, in fact, be attributed in part to organisations' need to promote their services by better informing the public.

Those reporting that their largest demand for electronic services came from businesses, however, seem to have a broader customer orientation than those reporting that their largest demand came from citizens. While the former group of respondents reported delivering as many electronic services to businesses as to citizens, only 29% of the latter reported providing services to both citizens and businesses.

Organisations facing the largest demand from enterprises seem to have a customer-oriented service approach that extends to both citizens and business. Reasons for this may be two-fold. On the supply side, agencies and ministries with a knowledge of market functioning and rules have an advantage in terms of the capacity to fulfil different types of demand. On the demand side, businesses may have a natural tendency to require better services since they have an immediate financial incentive to find more efficient ways of working with government.

Key Points – 31

- ***Basic online information, or stage 1 services, are the type most commonly provided by central ministries and agencies.***
- ***Respondents which reported a greater demand for electronic services coming from the business sector reported providing stage 1 services to both citizens and businesses. This was not necessarily the case for respondents with less of a business orientation (i.e. those that reported a greater demand from citizens).***

4.2.2. Stage 2 online services: Interactive information

While Stage 1 information tends to be static, developing services to Stage 2 allows users to access an agency's database for publicly available information and to interact with the information in order to carry out electronic searches and calculations based on their own criteria.

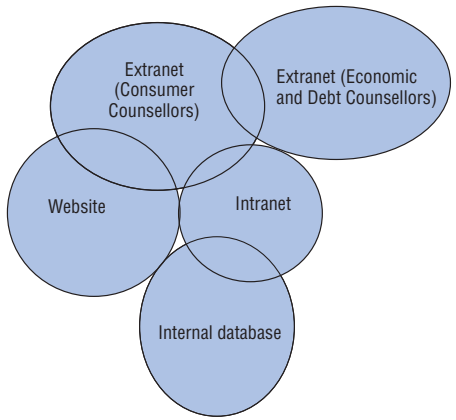
Both Stage 1 and Stage 2 services focus on providing information to users, but Stage 2 services necessitate a greater investment in thinking about how citizens and businesses will use that information, the rules for making certain information public and accessible, the target audience and the types of tools that can add value to the user's experience, making it easier to find what he or she is looking for and/or tailoring information searches. For example, in interviews with the OECD, the Agrifood Research Agency indicated its intention to provide more personalised services on its Agronet Web site. It has just entered into an

Some examples of Stage 2 services in Finland include:

- Finlex, a searchable database of legislation, case law and international treaties run by the Ministry of Justice.[1]
- The StatFin service on Statistics Finland's Web site which allows users to define variables in order to query data.[2]
- Agronet, the Agrifood Research Agency Web site, which provides information with some limited interactivity, for example, allowing users to find out information about their particular area of the country.[3]

1. *www.finlex.fi/english/index.html*
2. *www.stat.fi/index_en.html*
3. *www.agronet.fi/*

Figure 4.4. **Diagram of the Finnish Consumer Agency's information resources**



Source: OECD.

agreement with a private contractor for obtaining portal tools that will allow it to provide information based on the type of user. They are also developing an enterprise portal for researchers and administration officials.

Since Stage 2 services may mean allowing users some access to organisations' databases, it is necessary to set rules on access and improve security. For example, the Consumer Agency is in the process of transferring its intranet to an XML-based system to make it easier to access and to allow certain users (*i.e.* municipal counsellors) to query the internal database. They are also looking at making some information available on their external Web site. This requires establishing a hierarchy for access to different levels of information (Figure 4.4).

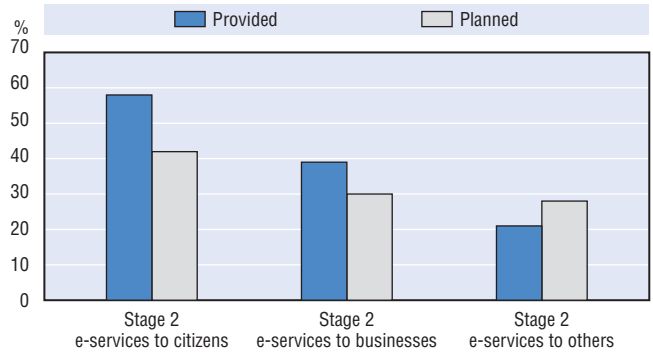
Figure 4.5 illustrates the percentage of respondents that reported providing services at Stage 2, by customer orientation. As for Stage 1, respondents reported that services were targeted more to citizens than to businesses or other users.

Key Points – 32

- ***Interactive information creates additional value for users by permitting the tailoring or searching of data. It will become increasingly easy to implement as Finnish agencies move their databases to Web-based systems. The challenge is not one of technical implementation, but is rather one of setting rules for access, target group, quality and security.***

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Figure 4.5. **Customer orientation of Stage 2 electronic services, 2002**



Source: OECD.

Among those reporting providing services at Stage 2, 23% had a very broad customer focus, delivering services to citizens, businesses and other users.

4.2.3. Stage 3 electronic services: transactions

Developing electronic services to Stage 3 makes it possible for customers to enter secure information and engage in electronic transactions.

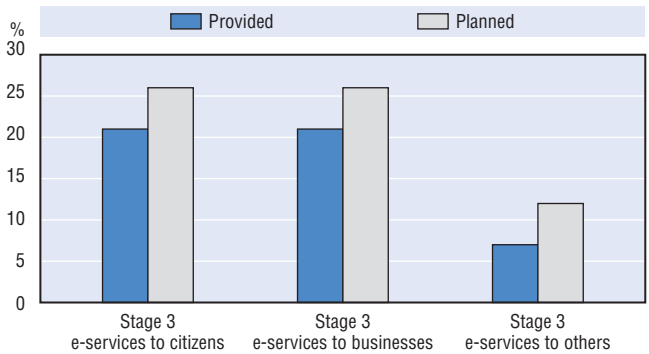
Some examples of Stage 3 services in Finland include:

- Applicants to the Academy of Finland can either apply online or download and send their application form via the Internet.
- Forms of the Trade Register (*i.e.* copies of basic declarations, amendment notices and other registration certificates), which is maintained by the National Board on Patents and Registration of Finland, can be obtained over the Internet for a fee which is paid directly with an electronic bank transaction.
- Certain databases run by Statistics Finland allow private individuals, enterprises and other organisations to search for data on as a paid transaction.

Stage 3 electronic services were provided by 30% of respondents, and 35% reported plans to develop such services. In 2001, the Ministry of Finance found that about 20% of available electronic services were "interactive" (or Stage 3 according to the OECD classification). Figure 4.6 illustrates the customer orientation of Stage 3 electronic services.

A project on electronic forms for citizens has been undertaken to help promote the online submission of information under the leadership of the MoI and JUHTA and with the participation of several ministries and agencies. The 2001 Programme on Action to Promote Online Government also recommends, as one of its action items, the co-ordinated design and implementation of interactive forms.

Figure 4.6. **Customer orientation of Stage 3 electronic services, 2002**



Source: OECD.

Respondents at Stage 3, unlike those at Stages 1 and 2, were equally likely to provide electronic services to businesses as to citizens. This suggests a number of hypotheses relative to interactive services:

- **Businesses are have a greater demand for interactive services.** The OECD survey found that, with regard to electronic services, 41% of respondents reported the greatest demand from businesses, 34% reported the greatest demand from citizens and 24% from other public organisations.
- **Businesses have a greater online presence.** Businesses have stronger ICT readiness and greater online access than citizens in general. About 98% of large businesses in Finland (250 or more employees) reported using the Internet in 2000, while 78% of small businesses (5-9 employees) reported having access.[7] In contrast, about 60% of citizens have access to the Internet (see Section 2.2, "Spillover from the information society").
- **Businesses are more frequent users of government services**. Several Finnish studies have shown that private companies use the Internet when dealing with the government to a greater extent than they do for electronic business transactions such as taking orders. In terms of transactional services, electronic government-to-business services (G2B) are second only to banking. The survey by Statistics Finland (Table 2.1 and Section 3.3) showed that, on

average, citizens have two contacts a year with government. In contrast, the typical Finnish company has at least 25 interactions a year with the tax administration alone. Citizens' infrequent contact with government is likely to reduce their desire to make an up-front investment in knowledge or hardware to take advantage of online services.

- **Businesses have a greater financial incentive to use e-government.** Reducing the cost of transactions and services has a direct impact on business earnings, so that demonstrating potential savings from electronic services should increase business interest in the possibilities of using more efficient electronic services. While citizens also stand to gain, the benefits of one-time transactions may not outweigh the costs of familiarising oneself with a new service channel.

Many of the Finnish G2B services are very straightforward and concern the sale of data and other information resources. Administrative simplification can translate into big savings for both the administration and business users. Part of what differentiates government from the private sector, however, is the obligation to serve all citizens. The MoF survey of IT use in government found that 66% of organisations reported that their services targeted citizens, while 64% reported that their services targeted businesses (respondents were allowed to pick more than one target group)[8]. Serving businesses can help government better prepare for serving citizens. The 2001 *Information Society Report* suggests that developing electronic services for businesses can facilitate the development of electronic services for citizens, as they create "functional and technological solutions which are easy to apply to services directed at citizens".[9]

Very few ministries and agencies reported providing electronic services to non-citizen and non-business users at stage 3. Only one agency, Statistics Finland, reported maintaining a very broad customer focus, providing electronic services to citizens, businesses and others. It provides a variety of statistical services to private users, a broad public (*i.e.* municipalities) and private organisations. Access to certain databases (*e.g.* maps, geographical tables, economic indicators) is on a fee basis and provision is subject to online registration.

Many services that are currently at Stages 1 or 2 can logically be transformed into Stage 3 services. The Citizens' Electronic Forms Service,[10] for example, allows users to search for and download forms and to submit them by e-mail. The MoI is working with other agencies to allow online submission of forms. The Citizen Portal team in the MoF is responsible for the forms service.

TUKES, the Safety Technology Authority, has downloadable forms on its Web site and is currently working on electronic filing of applications. All application forms are gradually bring transferred to electronic form, but means

Key Points – 33

- ***Finnish e-government services provided to businesses are further advanced than online services provided to citizens. A business orientation to service delivery seems to have helped advance the development of electronic services at all stages. Business services tend to have a greater customer orientation, which may provide some lessons for developing and delivering electronic services to citizens.***

of connecting separate documents have not yet been determined. Experts coming into an examination can in the near future select a date for their examination and the selection goes automatically into the back office database. The result of the examination are stored in the database and also licenses are generated from there. The licenses, however, are still sent printed on a paper. The agency is also trying to be more proactive. For example, they no longer require some supporting annexes, because the required information can be found on the websites of National Board of Patents and Registration of Finland.

The Finnish Communications Regulatory Authority has developed a system for notifying use of a television via the Internet for the purpose of collecting television fees. The service allows private persons and organisations to fill in an online notification form (as well as change and termination forms) as an alternative to phone and paper notification. While television fees cannot be paid over the Internet, they can be debited directly from a bank account, which is a simple, paperless process in Finland. The potential for greater depth of service is, in part, related to the possibility of introducing stronger identification to allow for online direct payment (Table 4.1). In fact, however, merely allowing online payment does not add much value in a system where electronic bank transfers are already in place. Increasing the complexity of online services requires a business case for why the additional transaction is needed.

The electronic citizen card, available in Finland since 1999, enables citizens to provide electronic identification and signature, thereby ensuring the security necessary for sensitive electronic transactions, for example those involving sensitive personal information or financial transactions. The level of use of the electronic citizen card depends greatly on the ability of ministries and agencies to deliver electronic services at Stage 3. Of course, not all electronic transactions demand this level of security. Many Stage 3 electronic services are provided with the use of a simple user name and/or personal identity code (PIN). (see Section 6.2 for the case study 2 on the electronic citizen ID card – FINEID).

Table 4.1. **Examples of multiple stages of service depth within a single public organisation: the Finnish Communications Regulatory Authority site**

Description	Stage 1	Stage 2	Stage 3	Stage 4	Web address
Information on:					
Electronic media supervision					*www.ficora.fi/englanti/tvjaradio/i ndex.htm*
Protection and prevention of security incidents (CERT: Computer Emergency Response Team)	●				*www.ficora.fi/englanti/tvjaradio/index.htm*
The information society at large					*www.ficora.fi/englanti/tietoyhteiskunta/index.htm*
Searchable database on telecommunications regulations in force	●	●			*www.ficora.fi/englanti/esittely/n2563.htm*
Notification of possession of television (for collection of television fees)		●	●		*www.tv-maksu.fi/eng_navi3.html*
Application for radio transmitter licence by e-mail		●	●		*www.ficora.fi/englanti/radio/getlicen.htm*

N.B. Pilot project (transmissions are still not encrypted, and it is not possible to use strong identification).
Source: OECD.

4.2.4. *Stage 4 electronic services: data sharing*

Stage 4 electronic services in Finland are based primarily on a system of central data registers.

As noted above, it is particularly difficult to define a model for the advanced stages of electronic service delivery. This is evident from the OECD survey findings for electronic services at Stage 4. The survey defines Stage 4 electronic service delivery as "Stage 1 + 2 + 3 + the ability for the agency,

Some examples of Stage 4 services include:

- The Statistics Finland Census Collection, a statistical database that draws most of its information from central registers rather than by collecting data from the public (see Box 4.2).
- The Traffic Data System, a system of road traffic registers containing information on vehicles and driving licences that can be used for different purposes, *e.g.* taxation, insurance, inspections, statistics. (see Box 4.3).

Box 4.2. **The Statistics Finland Census collection**

An important application of the public registers is data matching for statistical purposes. Register-based data collection, based on indirect data collection, has been used by Statistics Finland since the 1980s. The Public Register System has since become Finland's primary statistical data resource.

The construction of a register-based census began in the early 1980s with the aim of containing costs and making collecting procedures faster so that statistics could be produced rapidly. Census calculations are now obtained by combining information collected in existing registers (indirect data collection) rather than by direct interviews. Direct data collection now represents only about 6% of all data collection.

The Finnish Population Census System draws on the country's basic registers which contain data on the population census target units and the links between them. The basic registers used are the Central Population Register, the Register of Buildings and Dwellings, the Statistics Finland Register of Enterprises and Establishments and the Register of Public Association and Local Government Functional Units. In addition, the census system also uses files from about 30 other registers, including the Ministry of Labour's Register of Job Applicants and the Central Pension Security Institute's Register.

This advanced data linking demonstrates the high level of co-operation and trust between citizens and government. A survey in connection with the 1990 census showed that the register data had a high level of reliability.

with the user's prior approval, to share with other government agencies information provided by that user". In its response to the survey, Statistics Finland notes, "Sharing personal data at micro level with other ministries or agencies is not possible because of privacy protection. Use of aggregate statistical data from other ministries and agencies is possible and widely used as our data collection is based mainly on registers of other authorities".

In all, only two respondents (5%) indicated that they provide an electronic service at Stage 4. Five other ministries and agencies state that they plan to deliver Stage 4 electronic services. These results disguise the fact that much of the data matching in the PRS is not tied to specific services for users. It simplifies government operations without necessarily involving individual citizens or businesses, so that the government can reduce the number of services needed and provided.

Box 4.3. **The Vehicle Administration registers**

The Traffic Data System (LTJ)* maintained by the Finnish Vehicle Administration (AKE) is based on legal provisions of the *Road Traffic Act* (267/1981), the *Motor Vehicle Registration Act* (1100/1998) and the *Motor Vehicle Registration Ordinance* (1598/1995).

This data system contains information on approximately 3.7 billions registered vehicles and 3.2 valid driving licences in the European Union. The register also contains basic information on individual vehicles and their owners. The police use the AKE database and provide it with information for updating purposes.

Vehicle register data is used in insurance and inspections, traffic safety research, the compilation of statistics, data services, marketing and taxation. A new simplified process for vehicle taxation has also been developed based on the register. Earlier, there were separate processes for paying taxes on diesel vehicles and for the regular annual tax on vehicles. Now it is a single process which allows for collection directly from banks without any paper documents.

AKE organises vehicle registration both by carrying out registrations and contracting out the service to registration centres. Vehicle registration is performed at registration centres, insurance companies, automotive dealerships and financing companies. To access the vehicle database, one contacts the vehicle administration, which examines need and gives permission. One can then either obtain a terminal with access to the AKE mainframe or process data in batches. Permission to use data follows very strict guidelines for meeting legal requirements on data use.

The vehicle register is public but the driving licence register is confidential. Access to personal registered data is on a fee basis but, according to law, individuals are allowed to access their personal data once a year free of charge. The information requested is given on the basis of a personal identity code (registration number or chassis number) in writing, via SMS or a Web service. To protect privacy, AKE does not allow personal database searches or indirect access to personal information.

* See *www.ake.fi/index_e.asp*

All data matching needs to be legally approved or explicitly permitted to prevent the unauthorised or illegal use of data (including collection of anonymous data for research). The level of transparency of data collecting organisations and the confidence in data protection authorities are critical both

for the accuracy and quality of data and for the protection of citizens' rights. Said the Data Protection Ombudsman, "People think that data protection is about protecting data, I think it's about protecting people and their rights." (See Section 3.1.2, "Privacy protection".)

Stage 4 electronic services have great potential because Finland has quite complete system of public registers. The Basic Public Registers System comprises a series of related public registers held by agencies and other public authorities: the Personal Information System, the Corporate Information System, the Real Estate Information System and the Building Information System[11].

Each of these national information systems is in reality made up of smaller, linked databases maintained and developed by the public administration (*i.e.* municipalities as well as state authorities). For example, the Corporation Information System includes the Trade Register maintained by the National Board of Patents and Registration[12] and the Business Register kept by Statistics Finland. The PRS acts as an integrated information collector, and information on a single unit can come from different registers linked by a unique identifier. For example, apartment registration is kept both in the Population Information System and in the Building Information System.

Co-operation between register holders is needed to ensure the efficient functioning of the system. A standardised system of identifiers (*e.g.* the identity code of a building or a property) links data together and preserves their coherence within the system.

Significant savings in public administration costs and simplicity of procedures are the immediate advantages of the system. In fact, public registers reduce multiple collection of basic information, since data are collected only once and are then transmitted and shared by different users. Some online applications have been developed to make full use of the information stored in public registers. Box 4.2 and Box 4.3 provide examples of Stage 4 service delivery based on the public registers.

Agencies have developed their own databases to run their systems, and some have opted to keep them separate. For example, TUKES has a database of incoming information but would like to keep its 35 databases separate for reasons of administrative ease (*i.e.* they can easily become too big and complicated), rather than for legal reasons (*e.g.* privacy).

The Finnish Vehicle Administration, AKE, also has its own database. It maintains registers on vehicles and their taxation, on inspections, mortgages and driving licences and tests (see Box 4.3). The Traffic Data System (LTJ) data system, created in 1985, is one of the administration's largest central registers. It is a closed system, but the Vehicle Administration is transferring it to a Web-based system by 2005.

The use of public registers in Finland has been facilitated by the introduction of a single number to be used for all registers, which simplifies data-sharing procedures, and by the population's acceptance of new methods of data collection. Government interest in centralising data collection as part of reducing the overall burden of collecting data has been another reason for the PRS's success. Some agencies, such as those dealing with social security (KELA) and taxation, have started work on nation-wide databases in order to better share information.

Extending use of the system should be balanced by efforts to improve overall reliability in terms of quality and exchange of information and managing the public authorities' responsibility for collecting, maintaining and updating data sets.

Key Points – 34

- ***Finland's system of registers provides a very complete and high quality set of data that has been used effectively to improve efficiency and simplify administration while maintaining citizen trust.***
- ***While data matching is used in ways that eliminate the need for some additional services, it would be useful to examine where the registers can be of further use for service delivery and administrative savings.***
- ***The vulnerability of information has increased along with greater use of data processing and sharing. As public registers grow in number and importance, the principle of versatility, which allows easy sharing of data among users, necessitates continued privacy protection and vigilance and the transparent and legitimate use and/or transmission of data.***

4.2.5. *Managing multiple service channel strategy*

Managing difference service channels is part of the government wide strategy aimed at ensuring access and effectiveness in service delivery. This approach also includes the decision to reduce some traditional channels where there is sufficient electronic coverage: for example, the MoF decision to eliminate the hard copy of the Citizen's Handbook was justified by the success of the online version of the handbook. Today the MoF reports that more citizens have access to the online Citizen's Handbook than they did to the hard copy or cd rom versions (see Section 4.4.1, The Citizen Portal as well as case study 3, Section 6.3).

Institutional users are another area where users are likely to have better access to the Internet and to the skills necessary to conduct online transactions. As a part of a 1999 agreement in the JUHTA project to expand the electronic collection of data, Statistics Finland now requires compulsory schools to answer a questionnaire by using the Internet and has developed a collection of Web-based forms for the questionnaire. The decision was taken in consultation with schools, taken into account their needs and web access. The results have been positive and Statistics Finland is also likely to test a single-channel strategy for the collection of financial information from municipalities.[13]

4.3. E-engagement

As the OECD's *The E-government Imperative* (2003) points out, ICTs offer valuable opportunities for citizens to engage in policy making and, at the same time, raise some questions about how to ensure equal participation for those excluded from the information society (the so-called "digital divide" problem – see Section 3.4).

Finland's efforts towards openness and citizen participation in public affairs have been a fundamental component of the national strategy to develop the information society. Beginning in the 1990s, ensuring equal opportunity to access public information and easing the sharing and exchange of national public documents appear as priorities in government IT strategy documents.[14] The high regard for citizens' access to information is consistent with Finnish attitudes even prior to the use of IT in the public administration. Finland has been traditionally at the forefront in providing a legal basis for public access to information, the first

Key Points – 35

- ***Finnish initiatives to improve online access to information and to facilitate e-engagement continue a longer-term trend of valuing openness, transparency and citizen participation. They have been enabled, however, by legislation which defines legal rights and responsibilities, as well as values such as agency responsiveness.***
- ***The diffusion of information and increasing interest in e-participation are the two main trends identified by the OECD survey. It seems that, after a pioneering phase devoted to the increased diffusion of online information, more attention is going to be given to e-participation. Very few OECD countries have as yet begun to experiment with e-participation. Finland provides some of the leading examples to date.***

step towards effective public participation in policy making. Legislation on access to public documents dates back to the 1950s.[15]

In more recent times, increased citizen participation and easy access to public databases have been central points of official papers and government action programmes.[16] The Finnish central government has been active in stressing the need for citizen involvement in policy making, in particular in its early stages (agenda setting). The 1998 government *Resolution on High-quality Services, Good Governance and a Responsible Civic Society* set out the government's aims to "create possibilities for the active participation of citizens".

4.3.1. E-engagement at the national level

The *Act on the Openness of Government Activities*, which came into force in 1999, has ensured greater public access to documents. The goal of this important reform was "to increase the openness of government activities, to enhance the implementation of the openness principle relating to these activities, to improve the possibilities to participate in the public debate and to influence the management of common issues". This act makes public authorities' responsiveness to citizens' requests for information a basic principle.

This Act represented a major achievement in defining the right of access to information in official documents, and it has paved the way for the development of e-engagement, as it increases the potential for disseminating information in electronic form more widely than in the past. In fact, far from being a substitute for traditional means of information, electronic methods of collecting and providing information have integrated traditional ones, increasing the possibility of information and data sharing.[17]

As new ICTs began to be considered a major driver for a comprehensive renewal of the public administration, electronic access to public information and participation in policy making have been receiving greater attention by the government. A number of pilot projects have been developed both centrally and within individual ministries and agencies (for example, see Section 4.4.1 for a discussion of the new government portal *www.suomi.fi*). The government-wide projects are under the authority of the Ministries of Finance and of the Interior.

- In 1997, the MoI launched a development project, The Participation Project, which ended in spring 2002. It was based on the programme of the first and second Lipponen governments, and its objective was to increase citizens' ability to participate in and influence municipal affairs. It also aimed at publicising the administration and increasing its openness. The core of the Participation Project is the municipality, a central actor in society.
- As part of the JUNA initiative, the MoI launched in 2001 the Public Access Terminal and Citizen's Electronic Transaction Project. This project aimed at

reducing the digital divide for both electronic services and information provision by "promoting the versatile and systematic acquisition of public access terminals suitable for making electronic transactions. These terminals are located in government offices providing public services and in public places where there are people".[18]

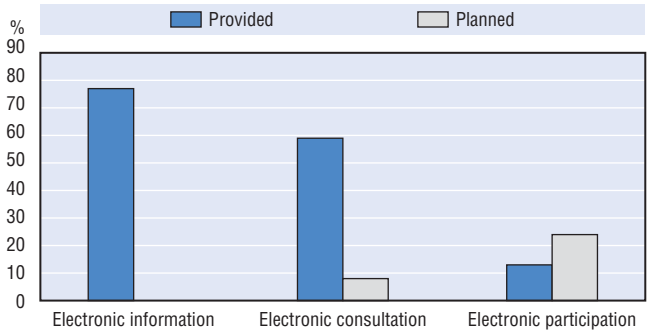
- In 1999, the MoF launched the project, "New Information Technology and Citizens' Possibilities for having an Influence on Decision Making", which ended in 2000. The project looked at best practices in public administration Web pages in Finland and abroad and made proposals on how to improve it so that, in the future, the most relevant information would be the most visible and easiest to find. The project had also planned and started pilot projects aimed at improving citizens' possibilities for giving feed-back and for influencing decision making at the planning stage.
- The first pilot project initiated by the MoF in 1999 was an online open discussion forum called "Share your views with us" (*www.otakantaa.fi*). This forum features a series of policy issues that citizens are invited to discuss with civil servants and with ministers in special online sessions. Started as a one-year pilot project, the discussion forum has been extended to act as a common platform for all Finnish ministries to "hear the citizens", and its administration will rotate among ministries for a one-month period each (in late 2003 the forum will become permanent with the appointment of an editor-in-chief and a permanent staff). The forum concentrates on issues in the early stages of preparation in ministries so that citizens can give their views when their input can contribute to developing policy options. Civil servants' active participation in the discussion shows that emphasis is given more to debate than to answering questions or making comments. The MoF is in charge of defining the basic principle of the forum and of running and maintaining it, but in the future ministries are expected to share responsibilities for its functioning. A private technical supplier is in charge of the forum's technical functioning and for any technical assistance needed during discussion.
- The Finnish Youth Corporation Allianssi and the Ministry of Education have created a Web site (*www.valtikka.net*) which serves as a discussion and information forum for social issues. Civil organisations, individual citizens and civil servants are all invited to participate in forum discussions. The aim of the project is to increase young people's involvement in civil society and in policy making in areas affecting their lives. The project also aims to encourage debate and the exchange of ideas among citizens, experts and civil servants. Marketing campaigns have been put forward to promote young people's involvement in the project (*i.e.* posters, postcards and banner ads).

4.3.2. E-engagement at the ministry and agency level

To provide an overall estimate of the extent of e-engagement projects in Finland, the OECD survey asked ministries and agencies to indicate whether e-engagement is a main goal of their e-government strategies. Respondents mentioned e-engagement as a main goal in 42% of cases. While ministries reported much greater participation in e-engagement activities than agencies, the survey did not find any relationship between the size of ministries and agencies and the degree of implementation of e-engagement activities.

In contrast, an even higher percentage of respondents had already initiated some type of e-engagement activity at the time of the survey (Figure 4.7). This seems to indicate that e-engagement is seen as a vital tool for improving service delivery and decision making, rather than as an end in itself. The OECD survey did not show any difference in e-engagement activities between respondents who listed e-engagement as one of their main goals and those who did not. The presence of an e-engagement strategy did not seem, therefore, to be a decisive factor in e-engagement implementation.

Figure 4.7. **Implementation of e-engagement and information activities**

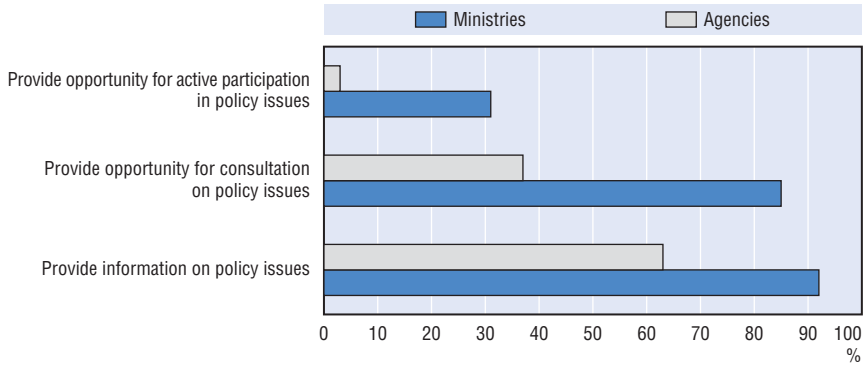


Source: OECD.

Not surprisingly, the most common type of e-engagement activity among respondents to the OECD survey was the provision of information related to policy issues (77%). More than half of respondents, however, also reported conducting citizen consultation on policy issues (59%), for example through electronic letterboxes, surveys, news groups, etc. Only 13% of respondents reported providing opportunities for citizens' active participation in policy making, for example through online discussion groups, chat events, etc., but 24% plan to implement this kind of e-engagement.

One would expect that the more an organisation offered interactive (Stage 3 and 4) services, the more it would need to engage users to make sure

Figure 4.8. **E-engagement activities: comparison of ministries and central agencies**



Source: OECD.

that the services are well targeted. The survey, however, did not show any relation between the presence of feedback mechanism and the degree to which advanced (*i.e.* Stage 3 or 4) electronic services are provided. A reason for that may be that advanced services are mainly business oriented, while e-engagement activities are more citizen focused. In addition, as e-engagement is a new area of interest, agencies and ministries, even if interested, may simply still lack the expertise to implement e-engagement programmes.

Key Points – 36

- ***E-engagement initiatives are in place in many ministries and agencies that do not identify e-engagement as a main organisational goal. This seems to indicate that e-engagement is seen as a vital tool for improving service delivery and decision making, rather than an end in itself.***
- ***In the future as both electronic services and e-engagement tools and practices become more commonplace, including e-engagement in organisation plans may help to better co-ordinate e-engagement with service provision. More importantly, planning can help demonstrate both to organisations and to citizens how citizen feedback can be incorporated into policy making.***
- ***Ministries are more experienced in e-engagement activities than are agencies. They could usefully share this experience with agencies.***
- ***Advanced agencies were not any more likely to have e-engagement activities than less advanced agencies. This may, in part, be due to the business-focus of many advanced services.***

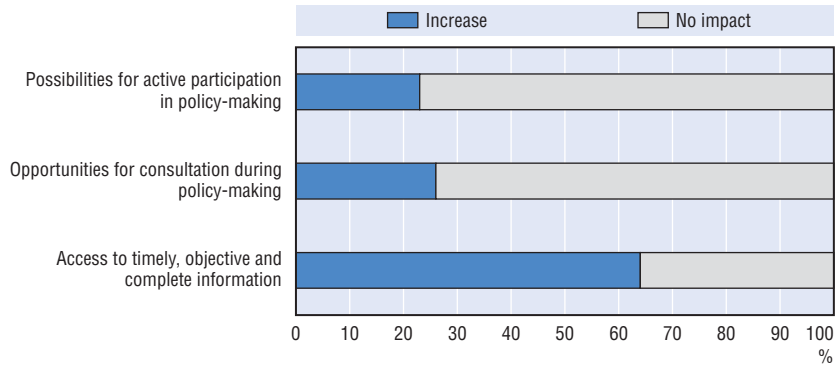
With regard to the differences between ministries and agencies, the survey results indicate that, among respondents, ministries have implemented more e-engagement activities involving information, consultation and participation in policy making than agencies (Figure 4.8). One could expect greater ministry involvement in e-engagement owing to the natural inclination of political organisations to involve citizens. If this is the case, ministries' experience in using ICT to build relations with citizens could be shared with the more "operational" agencies.

Finally, the survey found that most e-engagement activities seem to take place in an existing information and consultation framework, and 80% of respondents reported that their e-engagement information, participation and consultation activities are integrated with traditional tools to inform and engage citizens in policy making (*e.g.* brochures, posters, public hearings).

4.3.3. Impact of ICT on citizen engagement

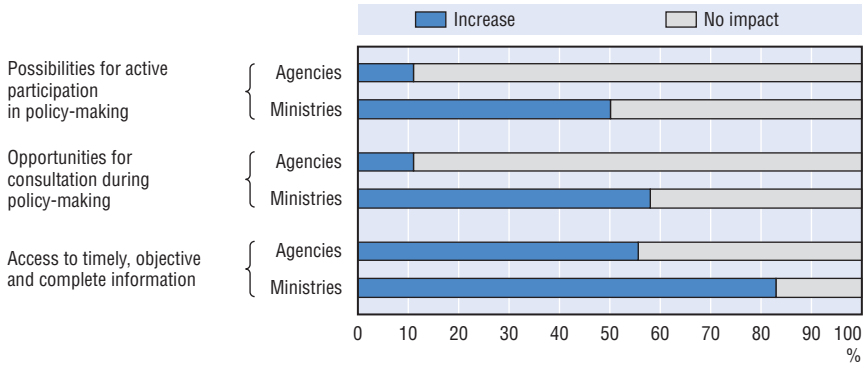
When asked if the introduction of ICT had increased the administration's ability to engage citizens, most respondents felt that ICT had increased access to timely, objective and complete information (Figure 4.9). They were, however, much more circumspect with regard to the impact of ICT on opportunities for consultation or active participation. Ministries were much more likely to report an increase in the three levels of citizen engagement indicated in Figure 4.10. This is consistent with the finding that ministries have implemented more e-engagement activities than agencies.

Figure 4.9. **Reported impact of ICT on citizen engagement: aggregate**



Source: OECD.

Figure 4.10. **Reported impact of ICT on citizen engagement: comparison of ministries and central agencies**



Source: OECD.

4.4. Portals

Delivering citizen-centred services and consultation demands that both electronic and traditional activities should be organised around citizens' needs and not bureaucratic structures. Since agency Web sites tend to focus on the services offered by a specific agency, however, governments either have to create incentives for agencies to co-operate or link together agency Web sites, for example through a national portal, in order to create a seamless interface for citizens and business.

Finland has developed its official government portal, the citizen portal, as an e-enabler to facilitate access to services and e-engagement activities. The portal provide a common entry point and a user-friendly first contact with the administration.

4.4.1. *The citizen portal*

In 1997, the Ministry of Finance launched the Citizen Guide, which aimed to bring online the Citizen's Handbook, an informational publication for citizens which had been available in printed form since the early 1990s. When the Citizen Guide first appeared in 1997, it was simply an online version of the handbook. In April 2002, the Citizen Portal (*www.suomi.fi*) was launched with the intention to provide information on the central issues on which a citizen needs information in different situations during his/her lifetime.

The citizen portal provides access to all public authorities, but it has also begun to be used by businesses and trade unions, which were not originally addressed. While the portal was financed by the MoF, other ministries and the association of municipalities and regions were all involved in its development. The portal has an editorial board drawn from agencies to monitor decisions

regarding content, upgrades, etc. The project, as a whole, is based on mutually agreed metadata and quality standards. Until 2002, the MoF was in charge of updating the portal, but in the future this task will be transferred to a contact person in each organisation who will be responsible for updating that organisation's pages.

At the end of 2002, the current version of the portal was integrated with the MoI's Citizens' Electronic Forms project with the goal to allow some forms to be submitted electronically (for the moment, they can only be downloaded, see Appendix 3 on the citizen portal in Section 7.3).

Key Points – 37

- ***The creation of the Finnish citizen portal has provided a seamless interface for citizens and business that has been embraced by agencies and ministries. Its success, however, should not mask the need to ensure the quality of information and links provided and to determine the responsibility for updating information.***

4.4.2. Portal connectivity

While portals may make it easier for citizens and businesses to find the information and services that they need, they are not a panacea. In themselves, they do not ensure that services are integrated or intrinsically easier to use. In particular, identifying responsibility for the overall quality of information available through the portal is essential, including updating links and information. In the OECD survey, "lack of standards for quality, design, branding of portals/Web sites for service delivery" was the third most frequent important or very important challenge cited by respondents.

Finnish IT officials interviewed were largely aware of strategies used both in Finland and internationally – organising topics around life events or target populations, showing the most frequently accessed topics – to make information easier to find and more accessible for users of Web sites and portals.

In April 2003 a working group set by the Ministry of Finance proposed a common quality and evaluation criteria for the network services maintained by municipalities and (federal) local authorities. The goal is to evaluate the quality of traditional as well as electronic services from the point of view of the customer, *i.e.* testing the ease of use and the reliability of services.

Box 4.4. **Finnish e-government portals**

In addition to the citizen portal, *suomi.fi*, the government has also launched several portals aimed at specific audiences or on specific themes such as the enterprise promotion portal, *yrityssuomi.fi* (available in Finnish and Swedish). The MoF and MoI also work with regions and municipalities to develop regional portals which focus on the needs of local areas and locally available services. Examples of thematic and regional portals include:

Libraries.fi First available in 1995, this portal provides access to the Finnish Networked Library Services under a single user interface. It provides links to information on libraries, culture and other information services and allows access to searchable catalogues and databases. The services are meant to be everyday tools for library workers, but they are also available for anyone co-operating with or interested in public library matters. The portal is published in three languages, each with its own domain and profile: Finnish (most complete), Swedish (similar to the Finnish version) and English (a summary mainly focused on information for foreigners).

Edu.fi Launched in late 2001, this educational portal for non-academic education and training in Finland is published by the National Board of Education. The portal gathers together services categorised according to the different levels, fields and themes of the Finnish education and training system. It also provides a gateway to services by other actors in Finland or abroad. The English version of edu.fi is produced to serve immigrants not fluent in the Finnish national languages and foreigners who are interested in the Finnish education system.

The Helsinki City Portal (*www.hel.fi*). This portal provides in-depth information on institutional issues, cultural events and general news regarding the city of Helsinki. It also features a series of electronic services:

- Enquiry services such as social counselling and library enquiries.
- Transactional services (*e.g.* report of electricity consumption, change of address by e-mail) for several departments of the City of Helsinki and other public administration authorities. At the moment the service includes about 700 online forms.
- Net Shop Service: buying online tickets for Helsinki internal services and regional transport, books, maps, etc.
- Interactive services, including a forum with city officers and decision makers.

The City of Helsinki is responsible for the authenticity and reliability of the information relating to the city's services.

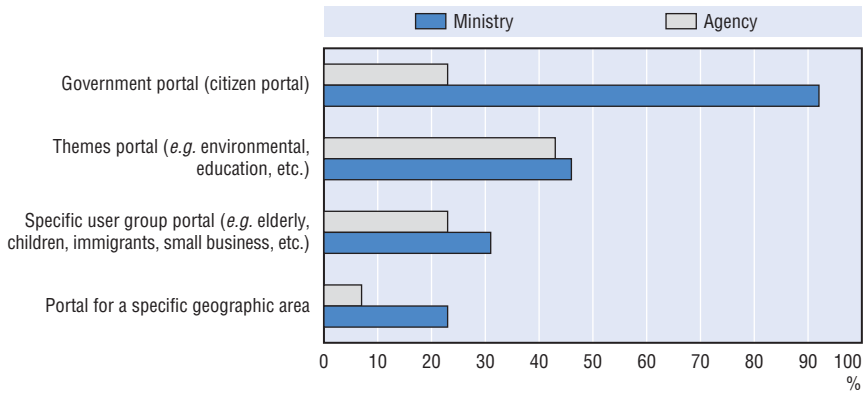
OECD interviews clearly indicated that portals are popular. The survey showed that 81% of respondents are connected to some kind of portal (see Box 4.4). Of those that are not, only one respondent was from a ministry (Ministry of Foreign Affairs), whereas 23% of agencies reported that they are not connected to the government portal. This is also true for portals in general, as illustrated by Figure 4.11; ministries are more likely than central agencies to be linked to portals. One reason may be the fact that all ministries except one were involved in building the citizen portal. This demonstrates the importance of user involvement in order to increase awareness, relevance and quality of content.

Concerning links with sites outside of the central administration, 30% of respondents reported that their main portal is integrated with regional or local public organisations, 14% that their portal is integrated with business portals while only 5% that it was integrated with portals of civil society organisations. Ensuring links outside of government remains a challenge, in part owing to the large number of potential partners, but also because of worries about data quality and the logistical problem of having to maintain links.

With regard to other kinds of portals, 44% of respondents reported being connected to a thematic portal, while 26% reported being connected to a specific user group portal and only 12% were linked to a portal for a specific geographic area.

As with smart cards, organisations tend to want everyone to link to their portal in order to increase their visibility and recognition. The pressure to increase the number of portals is ultimately self-defeating. The existence of a single government-wide portal, with broad ministry and agency participation, however, has helped to reduce the need for additional portals.

Figure 4.11. **Connection to different types of portals**



Source: OECD.

Key Points – 38

- ***The consolidation of websites under a central portal brings together a broad range of information and services across government but is not a substitute for the integration of electronic services. While portals have increasingly gained visibility and popularity, service integration remains a remote goal in Finland.***

4.5. Back-office changes

As the OECD's *The E-government Imperative* (2003) points out, the successful implementation of e-government is accompanied by changes in organisations' internal operations supporting core working processes. This section illustrates back office reform initiatives in the Finnish central government involving organisational change, leadership, central co-ordination and collaboration, management of public–private partnership, skills and monitoring and evaluation.

4.5.1. *Promoting organisational change*

Implementing e-government does not automatically result in organisational change. As mentioned earlier, if information is simply digitised and put online, traditional structures and practices are not modified. The impact of e-government on central government depends on how it is planned and implemented and how fully other stakeholders are involved. The OECD study shows that the introduction of e-government in the administration interacts with efforts to reform the administration by:

- Highlighting the need for internal change
- Implementing organisational change.
- Creating a culture of good governance

This part looks at these interactions to see the extent to which changes have actually taken place in Finland and whether additional changes can be expected.

Highlighting the need for internal change

E-government is now at a crossroads. The OECD's *The E-government Imperative* (2003) observes that, across OECD countries, support for e-government is waning, in part because it has not lived up to high – and often unrealistic – expectations, and, in part, because the relatively simple stage of digitising information and putting it online is drawing to a close and the next stage of

action is less clear and more complex. To renew interest in e-government, governments need to look at how they can achieve the necessary changes in processes, structures and culture to make the most of e-government.

Until now, governments have generally tended to try to use technology as a patch to provide a seamless user interface for a complex administrative structure. All too often, ICTs are overlaid on an existing organisational structure without any thought as to how this structure can be improved. For example, since it is much more difficult to change agency behaviour and to establish a culture of co-operation, it has been easier to create national Web portals so that users can find everything they need by going to a single site. In this respect, compiling Web site links under a single portal resembles the earlier process of digitising information for Web sites – information is rearranged without a fundamental shift in processes or procedures.

Over time, however, can administrations continue to meet the challenge of proactive electronic service delivery using current practices and structures? The OECD's *The E-government Imperative* (2003) argues that providing seamless services will require fundamental changes in hierarchy, decision making and interagency co-operation.

For the moment, however, there are few models to show where such changes have successfully taken root. As illustrated by the examples in Boxes 4.4 and 4.6, the rethinking of current structures is only now starting in Finland, and it is too soon to tell what the eventual impact will be. Figure 4.12 confirms this by showing that respondents to the OECD survey have not yet found that e-government has had a strong impact on the structures of organisations.

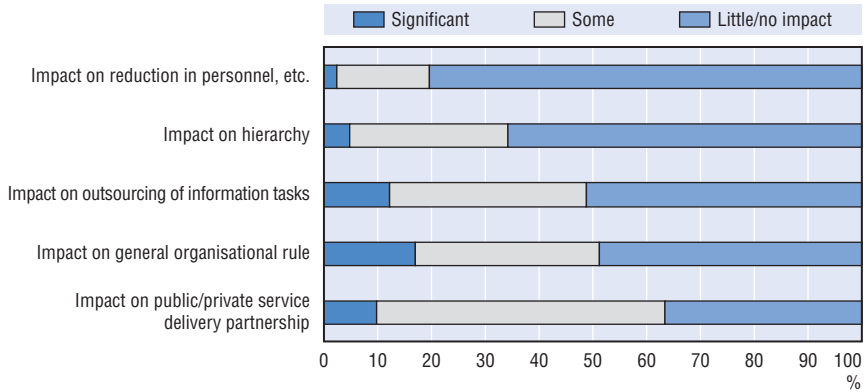
Few respondents saw an impact of e-government activities on their organisation's hierarchy or on reductions in personnel. Consistent with the

Key Points – 39

- ***E-government represents a major opportunity for the administration to re-engineer existing processes and to gain the support of personnel for crucial reforms. Yet such changes demand an investment in terms of time and resources. Many Finnish ministries and agencies have found this to be a challenge, in terms of finding new ways of thinking and resources to support the re-engineering process.***

Figure 4.12. **The impact of e-government activities on organisation structure**

Implementing organisational change



Source: OECD.

overall trend towards privatisation and outsourcing, more than half of respondents found that e-government has had at least some impact on public-private partnerships and outsourcing of information management tasks (see Section 4.5.4, "Managing public-private partnerships"). The most significant structural change noted was in terms of the general organisational rules of the agency or ministry, which may reflect a general increase in information sharing owing to the use of e-mail and other communications technologies, albeit within the same traditional hierarchical structures.

In an administration that has seen many waves of reform in a relatively short period of time, the launching of e-government initiatives has served to revitalise interest in improving government processes. More than 70% of respondents to the OECD survey reported that e-government had increased incentives and/or motivation in the workplace.

In many of the agencies interviewed, IT officials were conscious of the need for reform and enthusiastic about the opportunities that e-government created to discuss how to go about it. For example, in OECD interviews, the TUKES Safety Technology Agency reported a strong need to change internal business processes and organisation culture. Its employees are, on average, 45 years old, and TUKES emphasised that they do not want to think about how to work in new ways. It also reported that re-engineering is difficult: "it's hard work to rethink processes." Within working groups in the agency, there has been considerable discussion of working styles.

Given the difficulty and time needed to rethink organisational processes, agencies off to the best start are those that have invested both time and

Box 4.5. **Re-engineering process as well as IT systems in the Vehicle Administration**

In 1999, the Vehicle Administration (AKE) launched the PALKO programme to re-engineer its data systems to improve overall programme efficiency. The goals of PALKO are to improve its processes through: *i)* the diversification of services and service channels; *ii)* greater cost-efficiency and quality; and *iii)* the development of information services. To do so, it is completely reconstructing its IT systems, putting in place a new systems architecture, new databases and back-end systems (the basic registers), and new graphical user interfaces (GUIs) for its partners.

Rather than simply putting in a new computer system, AKE has sought to use this as an opportunity to streamline its processes. Each process has been broken down into 15 process development areas (PDAs) which fall under three broad organisational process categories (Help Desk, human resources workflow and documents/data management). The PDAs, in turn support three major service lines: vehicles, drivers and information services.

PALKO has established a three-step process which it is undertaking for each PDA: *i)* process re-engineering (3-6 months for each PDA); *ii)* planning the information system; and *iii)* implementation. In addition to increasing efficiency and flexibility, the Vehicle Administration hopes that PALKO will have operational benefits such as improving work motivation, augmenting the ability to supervise the quality of service providers and establishing common concepts and terms in order to ease further operational development within the partner network. In particular, the use of open-source technology is expected to increase competition and improve cost efficiency in system maintenance and operations. Clearly established interfaces will ease further system development.

This is an ambitious undertaking. The PALKO programme covers the period, 2000-05, and will be implemented by outside vendors for a number of contracts totalling at EUR 25 million. The programme is led by a steering committee with top management commitment and responsibility for programme-level decisions. A programme manager and programme office provide support, while a co-ordination group is responsible for change management and other operational programme issues.

money in the re-engineering process (see Box 4.5). Not all re-engineering efforts, however, have to be complete makeovers. E-government also offers opportunities to rethink specific aspects of the service delivery chain, such as customer categories (see Box 4.6).

Box 4.6. **Planning client-based electronic services in the Finnish Consumer Agency**

In order to develop its service strategy, the Finnish Consumer Agency set up a cross-departmental working group consisting of the production unit, the IT unit and the internal processes (administration) unit. Once completed, the plan will be proposed to the director general for approval. It reported that this process has made the agency think through all of its customer groups as well as its main tasks and functions. It sees this as an opportunity to change some of its working methods because "there has to be a benefit [from making these changes]".

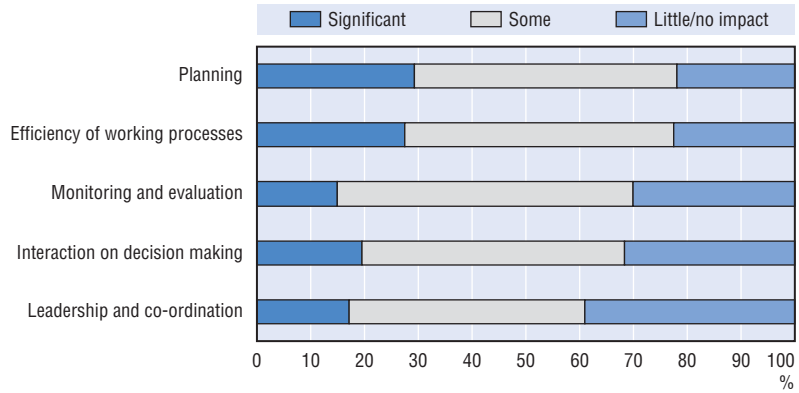
The agency has already started to make some changes. In July 2002, it launched a new version of its Web site, which has pages for different client groups, such as consumers, companies, teachers and journalists. Before, its offerings were divided by categories, such as product safety, markets and housing, but companies complained that they were unable to find what they were looking for. In addition to e-mail feedback from their Web site, for the past three years the agency has done an annual survey, selecting users randomly for additional questioning during a one-month period. It also analyses Internet traffic statistics.

Said one of the officials from the agency, "Developing online services doesn't mean developing online services, it's about developing your services in general – you need to have the whole picture. The process itself is as important as the results – that's how you create trust".

E-government is also part of the solution to meeting the gap between higher expectations with regard to effectiveness and service delivery and the administration's ability to deliver. It can not only increase the administration's overall efficiency but also improve its ability to track inputs and outputs and gather better information on service quality. For example, the Ministry of Finance has developed a Human Resources Accounting System which tracks personnel inputs, such as numbers and structure, working hours, labour costs, travel costs and demand for and supply of the labour force. The system also contains a job satisfaction enquiry and models and methods for assessing skills and competencies as resources for strategic management at the agency level. The system is now used by 80% of agencies.[19]

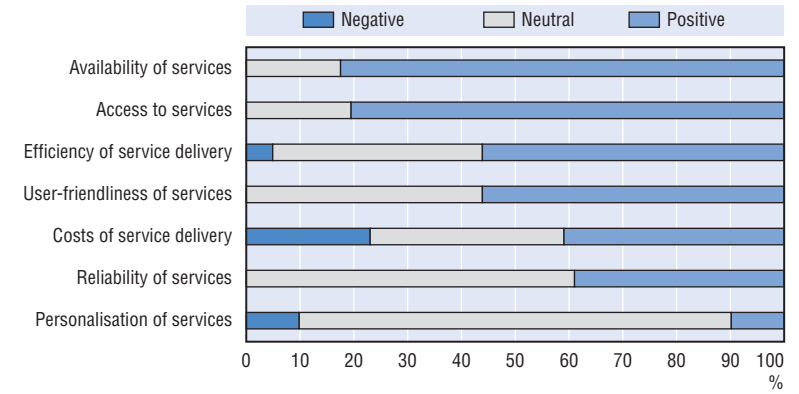
As expected, e-government seems to lead to greater administrative efficiency. Almost 30% of respondents reported that the planning and efficiency of working processes were significantly affected by e-government activities. The share rises to just under 80% when adding those who find some

Figure 4.13. **The impact of e-government activities on organisation processes**



Source: OECD.

Figure 4.14. **The impact of e-government activities on service quality and costs**



Source: OECD.

impact on these two variables (Figure 4.13). With regards to services, 56% saw an increase in the efficiency of electronic service delivery (Figure 4.14).

While e-government has not yet had a major impact on administration structures, respondents were much more likely to perceive an impact on organisation processes. In particular, the introduction of e-government seems to have increased planning in the administration and, to a lesser extent, to have promoted monitoring and evaluation. Interestingly, of the five variables provided on organisation processes, respondents were least likely to feel that e-government had a significant or some impact on leadership and

co-ordination. These two areas have also been identified by respondents as key weaknesses in the development of e-government in Finland.

About 20% of respondents observed a decline in costs as a result of e-government. Rather than cost savings, e-government's potential to increase efficiency is more likely to manifest itself in improved customer service. The elimination of routine work through the use of online procedures (*e.g.* online filing of administrative forms) frees workers and resources to focus on better customer-oriented service. The most significant impact of e-government activity reported in the OECD survey was the availability of and access to services. More than 80% of respondents felt that e-government had increased service access and availability, 56% reported that services were more user-friendly, and while almost 40% reported greater reliability (see Figure 4.14).

These results reflect the Finnish government's focus on customer service over savings, but also the difficulty of identifying financial savings from e-government activity (see also Section 4.2, "Electronic services").

Some respondents felt that e-government activities had a negative impact in certain areas. For example, more than 40% reported that e-government increased costs, presumably because of the need to open an additional electronic service channel; 10% felt that e-government decreased the ability to personalise services; and 5% felt that e-government reduced the efficiency of government working processes. Many of these perceptions are linked to the initial stages of e-government development and implementation. They illustrate, however, the need for a visionary plan on how and when the longer-term benefits of e-government will be achieved.

Key Points – 40

- ***Structural impacts on the Finnish administration (its internal hierarchy) remain minimal, given that re-engineering efforts linked to e-government reforms are still very new.***
- ***Working processes have shown a few more results. In particular, their planning and efficiency are the two areas in which e-government activities seem to have had the most impact.***
- ***Access and availability of services, as well as improved service quality, have been significant results of improved e-government efficiency. Reported cost savings, however, have been relatively minor.***

Creating a culture of good governance

Over the last ten years, the enhancement of public governance has been a priority of the Finnish reform agenda. In this context, e-government has played a growing role as an instrument for strengthening external governance by improving participation and transparency in decision making (see Section 4.3, "E-engagement"), and as a means to strengthen internal governance by improving the internal co-ordination and coherence of the administration (*e.g.* the government intranet).

At the same time, e-government has raised new governance issues, in particular, the central dilemma of balancing a decentralised system with the need for co-ordination and common standards. The ability of the government to resolve this challenge rests on its ability to establish an internal governance framework which takes into account different perspectives, mediates differences, diffuses information and sets overall direction (see Section 4.5.3, "Ensuring central co-ordination").

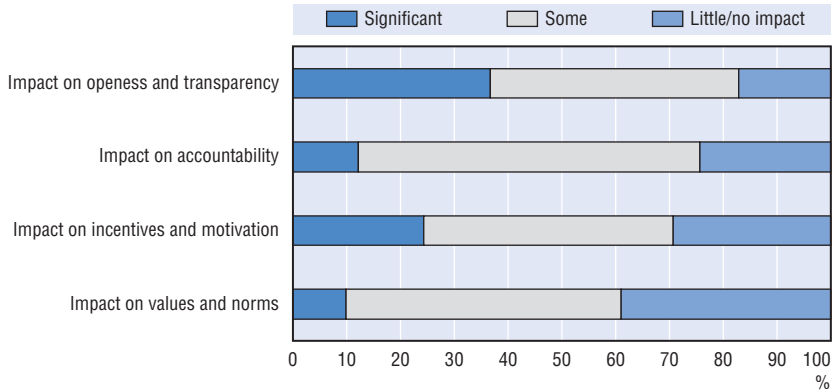
Finally, e-government is itself affected by how well good governance values permeate the administration. As the OECD's The E-government Imperative (2003) points out, constraints and barriers to e-government do not simply concern integrating IT in the organisation. Successful e-government is also a question of changing habits and culture. Creating commitment for cultural change is important at all levels but is difficult. Finland's traditional openness to innovation and trust in the public sector has eased the way for introducing e-government.

The shift in the Finnish administration from a simple "culture of efficiency" to a more citizen-oriented culture means that the implementation of e-government must be accompanied by efforts to strengthen and develop principles of accountability and transparency within the administration through teamwork and the sharing of responsibility.

A recent study of the use of change management for achieving e-government in Finland questions the extent to which existing practices adequately involve workers in the overall vision and strategy for change.[20] To develop ownership of e-government reforms, a participatory framework is needed for communication of the e-government vision and for consultation and feedback. For example, with regard to the Vehicle Administration's PALKO programme (Box 4.5), the report observes that "staff are involved in developing the new working processes, but the assumption still seems to be that the organisation knows best and that decisions must be left to senior management… Decisions on the level of staff involvement are made at director level rather than being part of a widely held cultural belief within the organisation that staff will automatically be fully involved in the change management process".[21]

In light of these considerations, the OECD survey focused on the link between e-government implementation and its impact on the organisational culture of Finnish ministries and agencies. More than half of respondents felt that e-government activities have had significant or some impact on aspects of the organisational culture.

Figure 4.15. **The impact of e-government activities on culture of good governance**



Source: OECD.

Of the four cultural variables included in the OECD survey – impact on openness and transparency, accountability, incentives and motivation, and values and norms – respondents felt that e-government had the greatest impact on openness and transparency, with more than 80% reporting a significant or some impact. While they also reported a positive impact on motivation and incentives and on accountability, they were more circumspect about the impact on the administration's underlying values and norms. This seems to indicate that e-government has simply provided the tools for

Key Points – 41

- ***Change management and the involvement of staff at all levels remain a key challenge which requires cultural change. To develop ownership of e-government reforms, a participatory framework is needed for the communication of the e-government vision and for consultation and feedback.***
- ***E-government seems to have allowed the administration to better put into practice those basic values of transparency and accountability which it already possessed.***

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ministries and agencies to better carry out a transparency mandate which preceded the introduction of ICT. As a TUKES official noted, "Planning the future using IT helps to promote basic values of transparency and accountability that were already part of the organisation".

4.5.2. Providing leadership

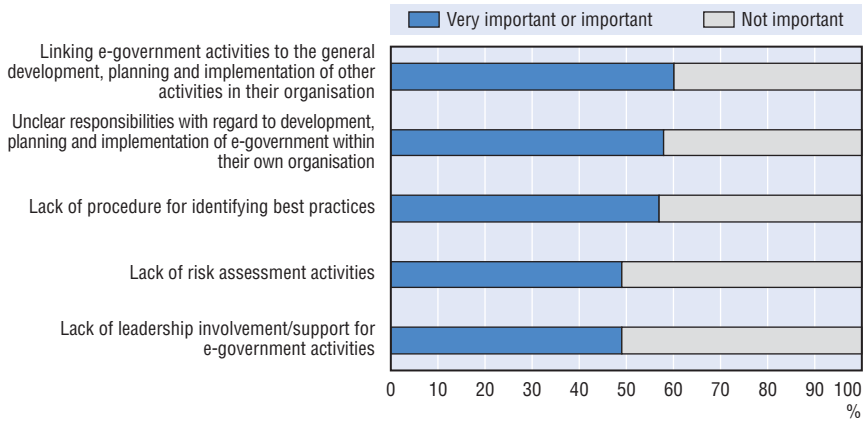
Leadership is needed both as a catalyst for change and in order to build a shared vision of e-government values and goals. It requires the ability to communicate a vision to the public service, to build capacity and to inspire the confidence and trust needed to change behaviour. Leadership also serves to identify and deal with risk and to steer the organisation when it faces major challenges. When respondents to the OECD survey were asked to rank leadership, skills and IT challenges to e-government, leadership at the organisational level had the highest mean, followed by skills, leadership at the central government level and, lastly, technology and information management. All are related, but this ranking highlights an understanding within the Finnish administration that the greatest e-government challenges have to do with changes in workplace culture and practices rather than technology.

Leadership can take place at many different levels. The OECD's *The E-government Imperative* (2003) argues that top-level commitment is crucial for success but also recognises the importance of efforts by lower management. In fact, only 33% of respondents to the OECD survey reported that the head of their organisation was currently part of the group responsible for producing the e-government plan or e-government activities. Of course, there are important exceptions. For example, since 1984, the Permanent Secretary of the Ministry of Labour has been chairman of ministry's information management steering committee.

The OECD survey asked ministries and central agencies to indicate which factors concerning leadership within their own organisation had been a challenge or constraint when implementing e-government. Roughly half of respondents identified five of the ten variables as very important or important challenges within their own organisation (see Figure 4.16).

Overall, about 60% identified "linking e-government activities to the general development of other activities in the organisation" and "unclear responsibilities with regard to development planning and implementation of e-government" as major challenges. Part of the challenge is internal coherence within organisations for the planning and implementation of e-government. The Consumer Agency and Ombudsman's Office noted that, in general, communications and substance staff have done most of the planning while the IT staff ensure that things work: "For agencies like us, the challenge is to train the leadership regarding the possibilities and the vision [of e-government].

Figure 4.16. **E-government leadership challenges within organisations selected as "important" or "very important"**

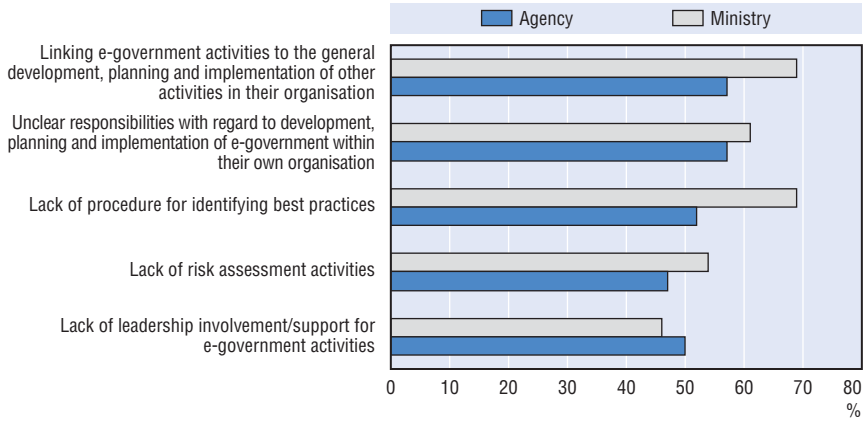


Source: OECD.

These people have very many things to think about. I don't think they realise how important this is going to be. Even if people think that in Finland, we've gone very far, it's not very easy: it's not easy to get a commitment."

In general, ministries tended to view all leadership challenges with greater concern than agencies. Both ministries and agencies tended to view leadership support for e-government activities as among the least important of the top five variables provided (see Figure 4.17).

Figure 4.17. **E-government leadership challenges within organisations selected as "important" or "very important" by ministries and agencies**

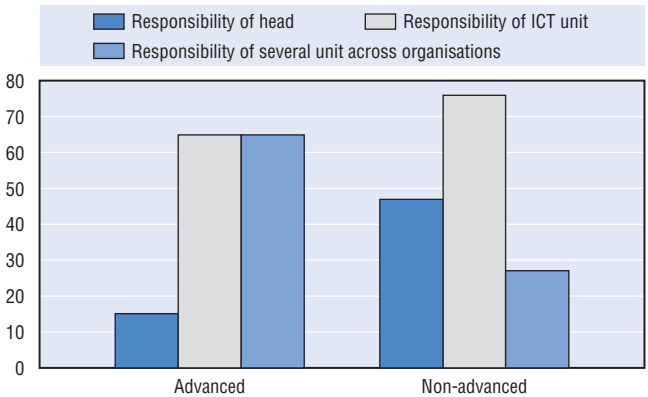


Source: OECD.

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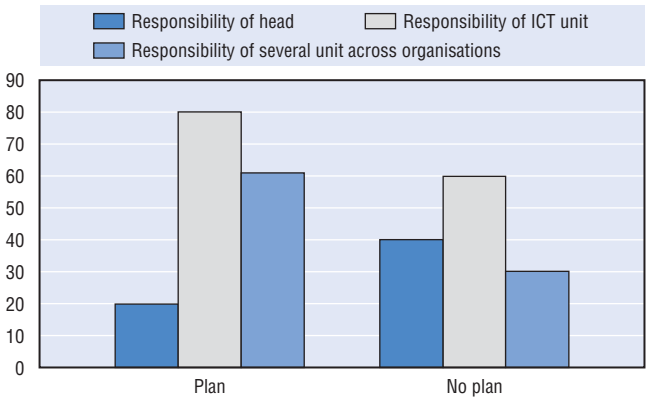
Figure 4.18 and 4.19 suggest that organisations with an e-government plan or with advanced electronic service delivery more often delegate the responsibility for producing an e-government plan to the ICT unit of the organisation or to several units working across the organisation than organisations without an e-government plan or very advanced electronic service delivery. In line with this, the figures furthermore suggest that organisations with an e-government plan and/or which are advanced in their delivery of electronic services are less likely to give the responsibility for developing an e-government plan to the head of the organisation than those that lack a plan or advanced electronic services.

Figure 4.18. **Main responsibility for producing an e-government plan (advanced *vs.* non advanced organisations)**



Source: OECD.

Figure 4.19. **Main responsibility for producing an e-government plan (organisation with a plan *vs.* organisation without a plan)**



Source: OECD.

One interpretation of these results is that top management responsibility alone does not suffice to ensure successful e-government planning and implementation. The top management in an organisation might produce an e-government vision or objectives as part of the overall business plan, but without the establishment of project management with a clear accountability framework and the involvement of relevant organisational units, the vision cannot be translated into an action plan.

Interviews with several of the Finnish ministries and agencies that are advanced in terms of e-government planning and implementation gave the impression that top management interest in and support of e-government activities were not present at the outset. The main drivers of e-government initiatives have, instead, been a need for organisational change and awareness by lower-level managers that e-government could be used to support the process of change. Given the proper initiative and resources, IT offices can drive change. Said an IT official from the Ministry of Labour, "Saying that it is the fault of the political authorities not getting involved is an easy way out".

This is not to conclude that top management responsibility is not important when planning e-government. As noted in Section 4.1.1, an agency-level vision cannot replace a government-wide vision. What is suggested, instead, is that extensive e-government planning and implementation can succeed without the involvement of top management if an organisation has extremely innovative managers and when there is a broader framework (*i.e.* a government-wide action plan) which provides guidance and into which they can fit its own initiative.

Another possible explanation is simply that the organisations that are furthest behind in developing information management plans have belatedly brought in top management in an effort to force progress. If so, it may be too early to tell what the ultimate impact of this top commitment is. The Ministry of Transportation and Communications, for example, reported that it does not yet have a strategic document but has been trying to gather enough information to assess IT needs and challenges within the ministry and its agencies. To do so, it began with a survey of agencies in 1998 and then commissioned a larger study. It has not always seen its role as an activist one in terms of pushing its agencies' e-government efforts, but since the 1998 survey, it feels that, as a practical matter, it increasingly needs to take on this role. While the IT office is responsible for developing the ministry's plan, it has not been the sole driver: pressure has come from the permanent secretary as well as from the minister to develop a plan.

Interviews with ministries and agencies that are late starters with regard to e-government planning and implementation suggested that top

management responsibility for planning is imperative for developing e-government in these organisations. All indicated that e-government would have the potential to facilitate better customer services and engagement and make possible more efficient and smarter working processes. Without a window of opportunity in terms of general business changes, for example, lower levels of management would not initiate e-government unless higher levels in the agency or ministry give it priority and support.

International experience suggests that involving top management in ICT projects is important to get the necessary resources, to motivate staff, to support dealings with external partners and stakeholders and to ensure co-operation across ministries and agencies. Top management involvement, support and responsibility are also necessary to produce an e-strategy that is integrated with the organisation's general business plan and incorporated into the planning and budget processes. Attention from top management, however, is a scarce resource, and ICT projects are often regarded as low-priority technical issues rather than crucial to the success of the overall business plan.[22]

With regard to public administration reforms in general, experience shows that innovators in OECD member countries come from the top ranks of the public service, whether political or administrative, and not from operating levels. "The broad scope of reform requires perspective and power that is held either in central agencies or department headquarters."[23]

The Finnish Prime Minister's Office is looking at different proposals for building leadership at both the administrative and political levels. For example, it is examining the possibility of developing "programme leaders" – senior officials in the Prime Minister's Office, with an *ad hoc* team drawn from ministries to lead particular issues. At the political level, it is considering co-ordination arrangements through a committee of the Council of Ministers. What is needed is an enthusiastic minister who can win the approval of an e-government plan by the Council of Ministers.

In interviews with the OECD, officials responsible for e-government co-ordination emphasised the lack of involvement of top management at the ministerial level to ensure vertical e-government planning in their administrative fields as an extremely important constraint for the development of e-government. In the OECD survey, ministries were more likely than agencies to respond that unclear responsibilities, lack of links to other activities and lack of use of best practices within the organisation with regard to e-government are an important or very important challenges and constraints to e-government implementation.

Key Points – 42

- ***Political leadership for e-government in Finland has not been consistently strong across ministries. In the initial start up phase this has been less important since committed managers have been able to initiate e-government projects. Cross-agency leadership is now needed, however, in order to push agencies lagging behind and to ensure co-operation for seamless services by fostering a common vision and approach.***
- ***While the precise modalities of its involvement will vary from agency to agency, top management remains a factor in the successful promotion of a shared vision. Establishing sound e-government strategies, however, requires that leadership be accompanied by a support structure that shares the vision and can set specific goals and targets, along with a plan for attaining them.***

4.5.3. *Ensuring central co-ordination*

In most OECD countries, centrally developed e-government visions and goals co-exist with agency-level project initiatives. The interaction between these two drivers has led to a focus on co-ordination issues relating to development and implementation of e-government across the central government.

While efficiency and accountability require responsibility at the implementation level, the interests of the government-at-large – at least regarding horizontal questions of interoperability and data sharing – call for some common decisions and approaches. This requires better co-ordination. As the OECD's *The E-government Imperative* (2003) points out, better co-ordination not only improves the promotion of government-wide e-government initiatives, but can also ease their implementation by encouraging the sharing of information, facilitating collaboration and avoiding duplication. Co-ordination can also generate efficiencies, reduce risks and ensure the sharing of a common vision of broader e-government goals.

Successful co-ordination within the central administration depends on finding an equilibrium between the ministries' steering role and the performance responsibilities of agencies. The 2000 *Policy Decision of the Government on the Development of Information Management of the State Administration* aptly describes the dilemma: "a basic problem is how the agencies' responsibility for results and autonomous operation can be retained while at the same time ensuring the interest of the government

administration at large in questions pertaining to interoperable systems and shared use of information resources."[24]

Improving co-ordination

As noted in Chapter 2, various actors in the central administration share government-wide co-ordinating responsibilities in Finland, with the Ministry of Finance playing a leading role in ensuring horizontal co-ordination and supporting the efforts of ministries and agencies as they develop e-government strategies.

Across government, however, ministries have traditionally played a relatively passive role in terms of co-ordinating agencies (see Sections 1.1, "E-government administrative structure and key players", and 4.1, "Vision and planning"). Therefore, as OECD interviews with Finnish government officials reveal, government officials are uncertain about what is expected from them and how to accomplish it. Ironically enough, ministries – more so than agencies – sense the co-ordination challenge but evidently do not see it as their mandate to improve the situation.

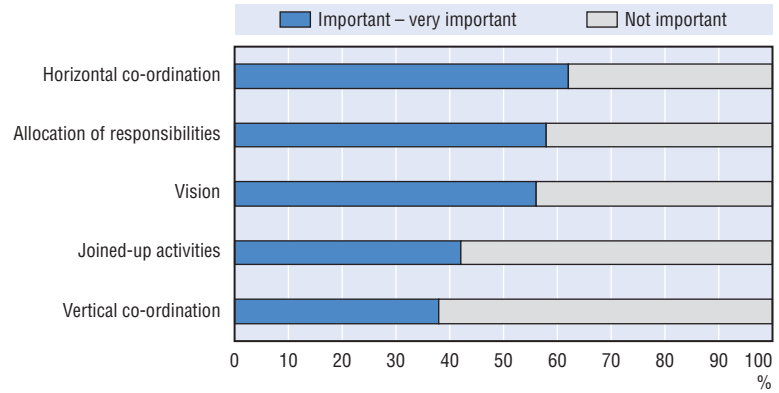
Key Points – 43

- ***There is a strong perception within the Finnish administration that co-ordination is a problem. This is largely because of the decentralised system, agency autonomy and weak ministries.***

The OECD survey asked ministries and central agencies to indicate which factors concerning leadership at the central government level had been a challenge or constraint when implementing e-government. Out of five choices, three were selected by more than half of respondents as "very important" or "important" (Figure 4.20):

- **Horizontal co-ordination:** lack of steering and co-ordination of e-government within the central government administration a very important or important challenge/constraint when implementing e-government (62%).
- **Allocation of responsibilities:** unclear responsibilities with regard to development, planning and implementation of e-government in the central government administration a very important or important challenge/constraint (58%).
- **Vision:** lack of government-wide vision/strategy for e-government a very important or important challenge/constraint (56%).

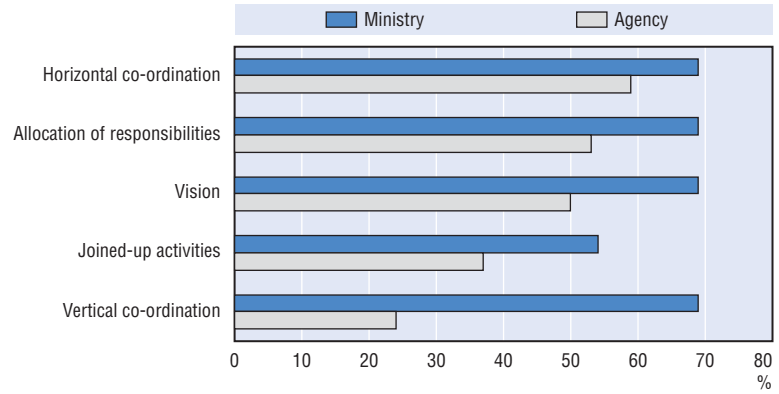
Figure 4.20. **Government-wide leadership and co-ordination challenges selected as "important" or "very important" – aggregate**



Notes:
1. Horizontal Co-ordination: lack of steering and co-ordination of e-government within the central government administration.
2. Allocation of Responsibilities: unclear responsibilities with regard to development, planning and implementation of e-government in the central government administration.
3. Vision: lack of government-wide vision/strategy for e-government.
4. Joined-up Activities: lack of opportunity for joined e-government activities within central government and with other levels of government.
5. Vertical Co-ordination: lack of steering and co-ordination of e-government activities across different levels of government (central, regional, local).

Source: OECD.

Figure 4.21. **Government-wide leadership and co-ordination challenges selected as "important" or "very important" by ministries and agencies**



Note: See Figure 4.20.

Source: OECD.

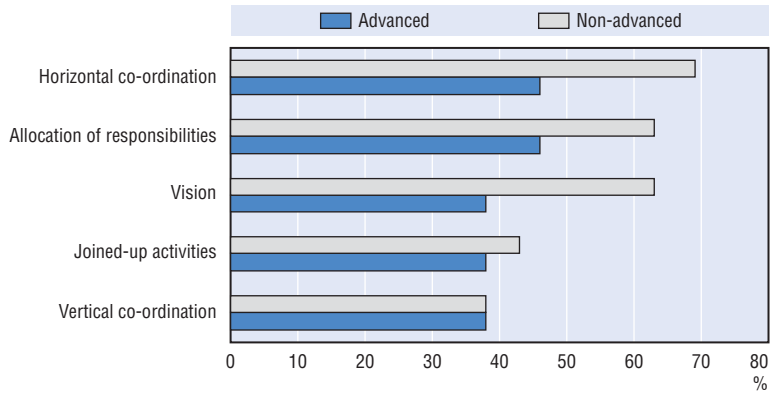
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Ministries responding to the OECD survey cited all three of the top challenges equally (along with lack of vertical co-ordination) and were consistently more likely to cite government-wide co-ordination challenges. In particular, ministries were much more likely than agencies to see vertical co-ordination as a government-wide challenge.

Agencies' seeming lack of concern for vertical co-ordination is surprising because they are most likely to be in contact with municipal and regional service delivery partners. For example, the Finnish Consumer Agency provides consumer information directly though its Web site, but citizens get more personal services by seeing municipal consumer counsellors who can access information from internal databases through the agency's intranet (see Box 3.2).

Not surprisingly, agencies and ministries that responded that they had an e-government plan were less likely to find unclear responsibilities with regard to e-government planning and implementation responsibilities (53% and 61%, respectively). The same was true for advanced agencies, which were a third less likely to raise horizontal co-ordination as an important or very important challenge (46% vs. 69%) (Figure 4.22).

Figure 4.22. **Government-wide leadership and co-ordination challenges selected as "important" or "very important" by advanced and non-advanced organisations**



Note: See Figure 4.20.
Source: OECD.

While ministries have engaged in co-ordination, for example through the VATI Council of IT directors and the VAHTI IT Security Board, they have not been important vectors of information for the agencies under their responsibility. In many cases, formal and informal networking among agencies' IT officials has replaced central or ministry-level guidance for

improving cross-agency co-ordination. VALTIPA, a government network of information service professionals, was created in 1996 to improve the exchange and flow of information.

One agency interviewed noted that its ministry does not play a direct role in e-government development, though it does convene agencies three to four times a year to discuss general IT issues, mainly licensing programmes and the cost of IT procurement. It noted that at these meetings, "they [ministry officials] seldom talk about electronic services, and there are no opportunities provided by the ministry to share good practices". The agency noted that it has more opportunities to talk to other agencies when invited to speak at a conference by an IT supplier. Otherwise, however, IT officials in agencies often talk to each other informally and share experiences. Interviews indicated that this practice seems to be fairly common.

Key Points – 44

- ***Ministries should, at a minimum, have a role to play in advancing the e-government agenda by comparing agencies' progress, identifying patterns and weaknesses, suggesting where agencies can work together and providing opportunities to network and exchange experience.***

The Finnish Workplace Development Programme's final report (2001) draws attention to the need to increase the exchange of experiences between workplaces as a way to develop a genuine commitment to change. Another agency noted that it participates in many different types of meetings for the exchange of good practices. They discuss companies, projects and new initiatives. A meeting organised by the Ministry of Finance on security was very successful and useful: "Everyone is busy, but these types of meetings make it easier to discuss our needs." The agency would like to have more *ad hoc* working groups with clear goals.

Between September and December 2002, almost 50 agencies participated in MoF training sessions on developing online services for citizens. So many agencies signed up to participate for this new service that they were divided into four groups of 15 agencies. When the interviews for the present report took place, they had only met once and were scheduled to meet twice more. In addition to the training, they also were given a consultant for two days to look at their agency's particular issues. This not only helps to address the specific

Key Points – 45

- ***Because of the small size of the Finnish administration information technology officers at the agency level tend to know what is happening in other agencies, both through formal (e.g. committees, workshops, publications) and informal e.g. word-of-mouth, networking) channels.***

problems encountered by each agency, but also serves to promote a common approach to planning, even if the resulting solutions differ.

The need to strengthen the steering role of ministries in their administrative fields was emphasised in the 1998 resolution, High-quality Services, Good Governance and a Responsible Civic Society, and in a 2000 report by an international expert group on the reform of the central government and administration. When asked if it assesses the e-government needs of its agencies, the Ministry of Technology and Industry (MTI) responded that it is developing a strategy, and that the assessment is being done but will take several years. Departments within MTI have developed separate strategies and the only co-ordination has been between the technology and industry departments. The special advisor's staff is responsible for co-ordinating MTI's information management strategy. They hoped to produce a strategy soon, but it may take longer because other ministries are also involved. Said an MTI official, "this has been quite a scattered field", adding, "the MoF has tried to take a leading role, but it is difficult for them because they don't provide the same services that we do, and so can't know [what we need]".

The Ministry of Transport and Communications provides one of the few examples of a ministry that takes an active, long-term approach to assisting in the progress towards e-government of the agencies under its responsibility (see Section 4.5.2, "Providing leadership"). While this initiative is still at a needs-assessment stage and does not provide any real technical support or strategic guidance to the agencies, it demonstrates the role that ministries can play owing to their position in the administration. Even without a major resource commitment, ministries can advance the e-government agenda by comparing agency progress, identifying patterns and weaknesses, suggesting where agencies can work together and providing opportunities to network and exchange experience.

Improving inter-agency collaboration

The OECD's *The E-government Imperative* (2003) also stresses the role of central co-ordination in facilitating collaboration for the establishment of joint projects. Finland's existing informal and formal networks are useful for information sharing among ministries and agencies, but are not sufficient to initiate and support extensive co-operation involving cross-administration projects such as integrated electronic services.

Large-scale or cross-agency e-government initiatives usually have been planned by (or at least had support from either Ministry of Finance or Ministry of the Interior). These ministries can act as a catalyst as well as formal or informal mediators for the interests of the various participating agencies. For example, the JUNA project (Section 7.3.6), the TYVI project (Section 6.1), the citizen ID card (Section 6.2) and the citizen portal (Section 6.3) all originated in either the Ministry of the Interior or the Ministry of Finance.

While much co-ordination takes place at an informal level, it is difficult for agencies to take this to the next level of co-operation without frameworks that allow them to share costs, responsibility and benefits. A sense of equality among agencies and a desire not to upset the current balance may also make it difficult for some to take a lead over others. For example, material for Government decision-making meetings is handled through a single system, but in many other cases, the interest in and need for joint action is much less clear and/or insufficient to overcome agency inertia.

Key Points – 46

- ***Informal co-ordination is insufficient to promote cross-agency collaboration to produce seamless services. Co-ordination does not imply collaboration.***
- ***For agencies to work together to deliver seamless services, frameworks and incentives for collaboration are needed for sharing costs (and benefits), for promoting risk taking and innovation and for giving up some agency authority in return for reduced duplication and sharing common technical standards.***

The OECD survey indicates that intra-agency collaboration is more common than inter-agency collaboration for developing e-government plans. The OECD survey shows that there is very little cross-administration planning for e-government across the central government and across different levels of

Figure 4.23. **Main responsibility for producing e-government plan: lack of inter-agency collaboration**



Source: OECD.

government (Figure 4.23). Only 5% of respondents reported having an interagency group involved in developing their e-government plan. In terms of co-ordination across different levels of government, 10% of respondents reported having organisations from regional or local administrations involved in their e-government planning.

Ministries and agencies that reported providing advanced services stressed that to move ahead with cross-administration projects, co-ordination and planning to facilitate co-operation are needed within each administrative field at the central level and across the central government. They also raised the lack of co-operation with autonomous bodies such as KELA, whose work is closely tied to that of the central administration, as a barrier to developing joint projects. The Ministry of Labour noted, for example, that 80% of the benefits administered by KELA are paid for by the central administration, which also determines eligibility.

Most shared services seem to be taking place when a local constituency provides a focal point for service provision. Identifying specific electronic service clusters and projects at a central level could facilitate co-operation by requiring top management in the organisations concerned to set responsibility and accountability frameworks. This would provide a clear mandate for lower-level managers to participate in interagency co-operation, while ensuring that the initiative at the top management level is consistent with the needs identified within the organisation.

The Programme of Action suggests specific measures to strengthen joint service capabilities, take advantage of base registers and promote data

sharing. These measures will be useful enablers of electronic service clusters and cross-administration e-government projects but may not be sufficient, in themselves, to initiate the planning of such projects. It would probably be valuable if one of the central ministries or boards took responsibility for identifying specific areas in which there is a need for planning service clusters and cross-administration projects in light of organisation-specific strategies and the existing formal and informal cross-administration networks.

The 2001 *Programme of Action to Promote Online Government* also recommends that a national, seamless and client-oriented model of online social and health services should be created with the co-operation of the Ministry of Social Affairs and Health, the National Health Institute, the Association of Finnish Local and Regional Authorities and municipalities, organisations and businesses concerned.

The idea of seamless service clusters is not a new one in Finland, but the results of several pilot projects in this area have been mixed. One example is the Satakunta Macro Pilot project, whose goal is to set up a regional ICT system that supports seamless care and services. An IT architecture was created to link the regional information systems of public and private service providers and to provide Web-based services for health professionals and citizens. A similar project has been initiated in the Helsinki area. Common systems allowed reduction of duplications and agencies' presence in areas where they are not cost efficient. Critical assessment and evaluation of these projects is needed to identify the planning and implementation measures necessary to develop a more successful service cluster model. Other examples of shared service clusters include:

- **The national land survey.** The Ministry of Justice, municipalities and another state agency use a common system for land registration.
- **Employment and Economic Development Centres (TE-keskus)** jointly administered by the Ministries of Labour, Trade and Industry and Agriculture and Forestry. The 15 TE Centres throughout Finland deliver services at the regional level (*www.te-keskus.fi*).
- **Local centralised service points.** There are 50 local agencies providing joint services.
- The four **provincial governments** also co-ordinate some services.

Interviews with Finnish officials indicated that finding opportunities for collaboration remains a big challenge, but also that many ministries and central agencies are not yet ready for this. Relatively few have implemented electronic services to a degree where they look beyond their individual mandates to see how they can fulfil their mandate better by working with other agencies or provide new services as the result of interagency partnerships.

Key Points – 47

- ***Government-wide planning can improve co-ordination between government organisations, help to establish criteria for reconciling conflicting approaches and signal preferred approaches and shared resources for overcoming challenges. Planning therefore serves both as a catalyst for action and as a co-ordination tool.***
- ***One possibility for improving co-ordinated planning and service delivery would be to involve top management in planning cross-agency projects and service strategies within specific sectors or service clusters. The building of service clusters is mentioned in the 2002 Programme of Action, but as each ministry is responsible for launching such projects, it is not clear how to facilitate cross-agency co-operation.***

4.5.4. *Managing public-private partnerships*

Part of the New Public Management (NPM) reforms in Finland involved the privatisation of many state functions and the opening up of many tasks to private-sector competition. This has meant not only changes in how the public sector works, but also in terms of how it interacts with the private sector. These changes have clearly set the stage for e-government public-private partnerships.

When asked whether or not e-government has had an impact on administration structures (including general organisation, hierarchy or reduction in personnel – see also Figure 4.12), partnerships for public-private service delivery was the structural factor most frequently cited (64%). It is worth noting that less than 20% of respondents felt that e-government activities had a significant impact on any structural elements.

Public-private partnerships

The need to find alternative ways to finance e-government projects and to share risk is probably two of the most important factors driving the development of e-government partnerships with the private sector. In the TYVI project, for example, the objective was to develop a system that would be self-sustainable in the long term (see Section 7.1). It is based on interaction between enterprises, data-collecting companies (TYVI brokers) and administrative agencies/data users: firms send their information only once over the Internet directly to a broker, which then forwards it to the appropriate authority or authorities. An official from the Confederation of Finnish Industry and Employers pointed to the role of the private sector in enhancing

the development of e-government as a way to create an environment that suits enterprises' needs and to improve public sector productivity.

The TYVI project has had the additional benefit of generating commercial activity through the value-added exploitation of public data. While the TYVI brokers collect payment from the agencies that use their data, in fact, most of their revenue come from additional services that they provide to reporting companies (*e.g.* formatting raw data, providing different types of data reports).

In the case of the JULHA directory (see Box 3.1 and Section 3.2.3), the lack of start-up funds was made up for by the willingness of a few key agencies to pay higher fees at the outset to have their information listed in this government-wide directory. As additional agencies joined the project, the private-sector contractor running the service was able to lower the fee and now has a sustainable revenue stream.

Public-private partnerships in Finland are not solely commercial in nature. They also tie into the shared vision of developing an information society and commonly shared values of openness and stakeholder consultation. As argued in Chapter 2, the development of the information society commonly creates expectations among citizens and these will have an impact on the take-up of e-government and online services. This is the one of the reasons why the Information Society Advisory Board (ISAB), with high-level public- and private-sector representatives, has played such an important role in developing an e-government vision for Finland.

Problems regarding the setting of standards and the assuming of technological and market risk can complicate the relationship between the public and private sector. In addition, the government's service commitment to close the digital divide will also necessarily mean that its orientation will be somewhat different from that of the private sector. By initially attempting to "go it alone", the FINEID card (see Box 3.3 and Section 6.2) demonstrates that co-operation between public authorities and private businesses is not always simple. In the end, however, the lesson has been useful. The MoI's current efforts to increase co-operation with private sector partners demonstrates an understanding that developing a shared customer base benefits all parties.

There is still much room for partnerships in areas of overlap between the two sectors, such as authentication and information services. Finland's admirable ICT infrastructure, both private (*i.e.* broadband and mobile networks) and public (*i.e.* public access points, personal register system, PKI framework) can converge to add value and avoid duplication, for example, by developing synergy with the banking sector for authentication and payment services. Another potential area for partnerships is the development of Internet service delivery channels. Here, the mobile phone sector already plays an active role (see Section 3.4.2, "Alternative Internet access channels").

Key Points – 48

- ***In Finland, public-private partnerships are based on a common vision of the information society. At the operational level, however, there is still much room for developing partnerships by finding complementary uses of infrastructure and client knowledge in ways that add value and avoid duplication.***

Outsourcing and IT capacity

In Finland as in other OECD countries, the outsourcing of ICT services is an important element of e-government. Between 1997 and 2001, rentals and services were the two IT spending categories that rose fastest (61% and 17%, respectively, on an average annual basis – see Figure 3.1 and Section 3.2.1). Most ministries have kept small internal IT units, but have contracted out the development of IT applications and IT maintenance. For example, maintenance and updating of the Ministry of Justice's Finlex site is entirely outsourced. Practically all of the government-wide e-enablers, from the citizen portal to the TYVI Project, were also developed by outside contractors under guidance from the MoF.

Some limited IT capacity remains in the central administration. The Government Information Management Unit, for example, runs an optical fibre network linking all ministries. All ministries have a connection to the government network and some have maintained their own network in addition, as well as IT services such as e-mail and intranet. Ministries such as the Ministry of Agriculture and Forestry and of the Environment also have separate agencies that provide IT services.

In general, however, agencies increasingly turn to the private sector for expertise in developing solutions. Several agencies interviewed saw outsourcing as a way to improve the depth of their services. For example, many agencies already use the form service *www.lomake.fi* , which has a direct support from web forms to back office processes. Outsourcing, however, can also raise problems relating to personal privacy and industrial secrecy when partnerships give contractors access to potentially sensitive information. Perceptions of weak security and uncertainty about finding the right solution can delay the launching of projects.

Outsourcing has also raised the issue of the management skills needed to manage contractors when a project is not done in-house. The capacity imbalance between large contractors and small agencies, in particular, is a

cause for concern. Outsourcing is here to stay, but, as the next section will show, the central administration needs to ensure that its agencies have the skills and tools to adapt to this new environment. In addition to basic IT skills, they need the skills to manage risk and performance and innovative ways to monitor and evaluate (*i.e.* independent verification and validation of projects by third-party contractors).

Agencies have reported that the MoF training sessions are especially valuable in terms of the networking opportunities that they provide, notably in terms of tendering, since this allows them to find out which companies can provide the services they need and how to buy them. Said one IT official, "People like me are not familiar with IT terms in the same way that IT consultants are. They are experts on something that I am not and yet I am buying from them".

An official from TUKES noted the difficulty of finding good contractors. TUKES would like more co-ordination and technical support so as to get more results with less effort. "There should be a group of agencies or ministries with similar types of customers. Together, they can make plans for how to serve the customers. With more people, it would also be easier to get good contractors."

Solutions need not involve a centralised approach. MoF training seminars have provided a good opportunity for agencies to network and to compare information on potential contractors. Additional technical support could encourage agencies with similar needs to band together and produce joint tenders, thereby pooling expertise and buying power.

Key Points – 49

- ***Outsourcing requires agencies to develop new skills and build their capacity to negotiate with private sector contractors, including through consolidated purchasing. This is particularly a problem for small agencies that lack technical skills and experience and purchasing volume.***

E-procurement

The OECD's *The E-government Imperative* (2003) suggests that e-procurement can be an effective tool for improving efficiency of simple procurement. Centralised procurement is difficult when agencies use different and often incompatible systems. Collaboration between agencies helps reduce this problem, but closed legacy systems make the technical barriers difficult to overcome. For this reason, the MoF would like to make

more use of open source software, which the state payment system has already adopted, so that agencies can do their own tailoring. However tailoring of off-the-shelf solutions requires both technical and planning skills, which agencies may or may not possess.

Efficient collaboration for e-procurement can be difficult, as the Hansel procurement system in Finland demonstrates (see Box 4.7). The MoF's Budget Department has considered making use of Hansel mandatory for all procurement. Others feel, however, that it would be better to increase the involvement of agency heads or budgetary officers as a way to take into account the overall savings objectives of the organisation. The government is already moving in this direction, for example, by requiring agencies for the first time to submit procurement plans along with their e-government strategic plans. An improved system of checks and balances in procurement, especially with increased transparency of procurement decisions, would allow agencies the flexibility to solve specific problems optimally.

Other actors in the Finnish administration are also looking for procurement solutions. The MoF negotiates standard software agreements and licences with vendors such as IBM, Microsoft, Adobe and Novell in order to reduce costs for agencies. The MoF's Budget Department is currently discussing personnel, finance and accounting systems that would allow the State Treasury to bid for orders from suppliers and decide centrally which system to allow agencies and ministries to use and which to recommend. For

Key Points – 50

- ***Tendering for IT systems and services is much more complicated than traditional procurement. Centralised procurement support for e-government demands familiarity with large-scale IT projects, the ability to break down problems into modular segments that can be tailored to agencies' individual needs and the confidence of agencies that will use the service.***
- ***Mandatory use of a central procurement system limits flexibility and inhibits responsiveness. Improved procurement planning, however, can promote the use of procurement by increasing transparency and tying procurement to e-government and budget planning.***
- ***The outsourcing and procurement challenges faced by small agencies could be overcome by creating opportunities for agencies with similar needs to join together to engage in joint tendering and other centralised tendering approaches***.

Box 4.7. **Adapting E-Procurement for the purchase of complex IT services: the Hansel System**

The principle behind e-procurement is that agencies should be able to get all products and services through a single procurement channel, thereby strengthening buying power, and that suppliers, in turn, should have improved access to a large number of customers through the procurement system. Electronically integrated processes can also save time and money. The Finnish e-procurement agency, Hansel, has been ranked as "the most advanced system" of e-procurement, as it integrates "almost all the procurement cycle" into its online processes. The only missing step is electronic invoicing, and a legislative framework is now in place to allow agencies to deliver a single invoice for all services and to receive electronic invoices.

However, Hansel only handles about EUR 138 million in procurement out of Finland's total government purchases of about EUR 4 billion. Hansel was formerly an agency under the Ministry of Trade and Industry (it has since become a state-owned company), but the ministry purchases little through Hansel. In an interview, a ministry official indicated that Hansel did not have enough knowledge to handle the procurement of complicated services and suggested the need for a new arrangement. In addition, the interviewee said that while the Hansel e-commerce site is good, the organisation has not updated its processes: "It is useful for buying a car, but not for modern systems needs."

In fact, Hansel has been successful at procuring concrete goods such as machines and computers for agencies, but service provision is more difficult, and Hansel is only beginning to develop solutions in this area. It does not currently handle IT outsourcing and its catalogue does not cover many services as these often require additional tailoring. There is a need for a common solution, in terms both of buying power and expertise. The tendering process is expensive, and, as noted earlier, small agencies feel that they have little leverage with large consulting firms which are not interested in small-scale projects.

Does Hansel have the right expertise? It is launching a project in which attributes such as hardware specifications and maintenance could be tailored. Its goal is to reduce specifications to a few specific questions that could be incorporated into the procurement system. The key to the success of this approach is securing agreement from users on the tailoring criteria. For the moment, Hansel is wary of going too far without additional customer consultation: "If we make all the features available and no one use them, it would be a waste."

Box 4.7. **Adapting E-Procurement for the purchase of complex IT services: the Hansel System** *(cont.)*

When one official from Hansel was asked why potential savings from common procurement was not enough to lure agencies to e-procurement, she responded that procurement officials in agencies have good relations with their current suppliers and may resist e-procurement efforts. Part of the expected savings from e-procurement is a reduction in procurement personnel.

example, it has piloted five different systems for the provision of travel services. After evaluating the relative performance of the systems, it plans to buy one and to allow agencies to use it based on a negotiated agreement for all ministries. This would make travel services cheaper and easier to use.

4.5.5. *Improving skills*

The delivery of increasingly complex e-government services demands mastery of a combination of skills. On the basis of survey responses and interviews with government and agencies officials, this part examines in some detail the challenges to the implementation of e-government that concern the adequacy and improvement of skills.

Types of skills

The OECD's The *E-government Imperative* (2003) identifies four types of skills needed by managers and employees to implement e-government projects:

- **IT skills:** the technical skills necessary to implement e-government. They include basic IT literacy (all employees) and the technical skills necessary to design and implement the technical elements of an e-government initiative (IT specialists).
- **Information management skills:** the deployment of knowledge resources within an administration and the sharing of knowledge with partners and others outside the organisation (specialists and managers).
- **Information society skills:** the ability to use ICT resources to implement an e-government strategy coherent with the organisation's overall strategy (managers).
- **Updated management skills:** the renewal of traditional managerial competencies to manage organisational change, improve customer responsiveness, develop accountability frameworks, create incentives for

co-operation and collaboration and manage relationships with the private sector (managers).

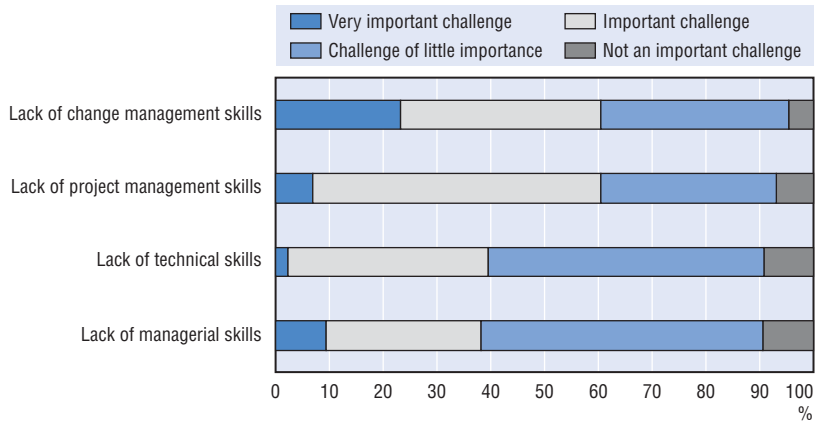
Any organisation requires a certain level of knowledge and competence to set up, maintain and upgrade its internal information technology system: special skills cover not only knowledge of suitable IT strategies but also the ability to set up an IT infrastructure that suits an organisation's needs. At the central government level, the coherence and flexibility of the IT structure require centralisation of know-how and resources.

Traditional management skills need to be updated to meet the needs of the information society, which is characterised by rapidly evolving technology, non-hierarchical relations and increased outsourcing. The ability to design, create and implement an effective e-strategy is increasingly linked to the development and enhancement of specific skills at both the personal and the organisational level.

The OECD survey included a section on skills, with particular emphasis on IT and updated management skills. These skills were broken down into four skill types: technical skills, managerial skills, project management skills and change management skills.

Survey respondents were asked to rank a lack of these skills as a very important challenge, an important challenge, a challenge of little importance or not an important challenge. Overall, they ranked change management and project management skills as a more important challenge than technical and managerial skills (Figure 4.24).

Figure 4.24. **E-government challenges: skills**



Source: OECD.

OECD E-GOVERNMENT STUDIES – FINLAND – ISBN 92-64-10259-0 – © OECD 2003

According to respondents, the biggest challenge was change management skills; 61% of respondents listed this as an important or very important challenge. Also considered an important challenge was the lack of project management skills: 61% of respondents listed this as important or very important Managerial and technical skills were considered somewhat less important.

Agencies generally rank lack of technical skills, insufficient opportunities for training, mentoring and coaching regarding e-government skills as well as problems in attracting and retaining a qualified, highly skilled ICT workforce much higher than ministries. Ministries rank lack of managerial skills as well as resistance to change among personnel higher than agencies. Both agree on the importance of project and change management skills.

As agencies are more service-oriented than ministries, the lack of technical and IT expertise is considered a major obstacle for implementing e-government services: the need for a fast decision-making procedure and a customer-oriented focus calls for more attention to training and coaching activities. Ministries tend to see the problem as resistance to change rather than insufficient resources to effect change.

Key Points – 51

- ***The ability to design, create and implement an effective e-strategy is increasingly linked to the development and enhancement of specific skills at the level of both the organisation and the personnel.***
- ***The OECD surveys shows that the Finnish administration is more concerned with improving project management and change management abilities, owing to the growing trend towards contracting out of IT projects, than enhancing the technical skills of personnel.***

Skills and outsourcing

One possible explanation why respondents ranked managerial and technical skills as being of relatively less concern is that, given the high amount of IT outsourcing, the challenge for the Finnish government is not the mastery of technical skills *per se* but the ability to manage the contractors providing the services.

Interviews support this conclusion. Throughout the Finnish administration, most services are contracted out. Several interviewees noted that contractors never keep to timetables and results are usually not as good

as expected. It is also hard to find companies to make bids. Some felt that it would be useful for their ministries to play a greater role in IT procurement. All of the small authorities share similar problems.

Additionally, the transfer of most technical functions to private-sector contractors has led to a "hollowing out" of agencies in terms of technical competence and capacity. The external acquisition of IT (term contracts, external appointments) and lack of in-house training has contributed to the dispersion of IT management skills. Responses to the OECD survey on outsourcing, however, indicate that it is less of a problem than the impression given from interviews.

Skill development

Attracting, training and retaining a qualified ICT workforce is a challenge for implementing e-government. As ICT technologies require a high level of expertise and continuous updating, human resource management is an essential task for public organisation involved with e-government.

The Finnish administration's recognition of the need to develop a "culture of change" within the administration to adapt to new technologies has paved the way for updating IT management skills. In particular, the willingness of personnel to experience change is an extremely valuable factor in determining the ability of the administration to implement e-government.

Finland has launched major projects to strengthen IT education and research at the university level. The Information Industry Programme has focused on increasing student numbers and the funding levels at polytechnics. Although the reallocation of funds to research and development activities increased in the last two years, the IT equipment of educational institutions was still judged insufficient by the Information Society Advisory Board's 2002 annual survey.

Moreover, the lack of opportunities for training, mentoring and coaching regarding e-government skills represents an important constraint, especially for agencies. The OECD survey shows that 54% of respondents found the lack of training opportunities in the field of IT to be an important challenge.

Agencies complain in fact that ministries pay insufficient attention to training and technical assistance. Ministries respond that they lack the resources to develop IT training opportunities. One respondent noted, for example, that the Ministry of Agriculture and Forestry only has two IT staff. Ministries feel that their main tasks *vis-à-vis* the agencies are to help in licensing software and to establish general policies for procurement.

The Ministry of Finance has taken a lead in trying to develop IT project management skills. It tries to familiarise agencies with approaches to and requirements of planning and to spread best practices though seminars (for

example, by organising a part-time seminar on open-source software). Co-operation has also been enhanced by VATI, the inter-ministerial co-ordinating group composed of IT directors, which gives guidance to the IT unit and secures common decisions from all ministries.

Successful e-government requires both a mastery of enabling technologies and the ability to anticipate and address the concerns that arise from new developments. Creating commitment is important at all levels. Noted one agency, "Selling this to personnel will also be difficult – this will change the way we work and people are afraid".

According to the *Finnish Programme of Action to Promote Online Government*, it is up to each ministry to provide management and staff with appropriate skills for developing electronic services. This implies, at the central level, the need for better co-ordination of resources, more effective central steering and enhancement of collaboration between personnel at different administrative levels.

Key Points – 52

- ***Developing IT literacy and training staff are two issues that cannot be handled without the co-operation of personnel at all organisational levels and co-ordinated information sharing within central government.***

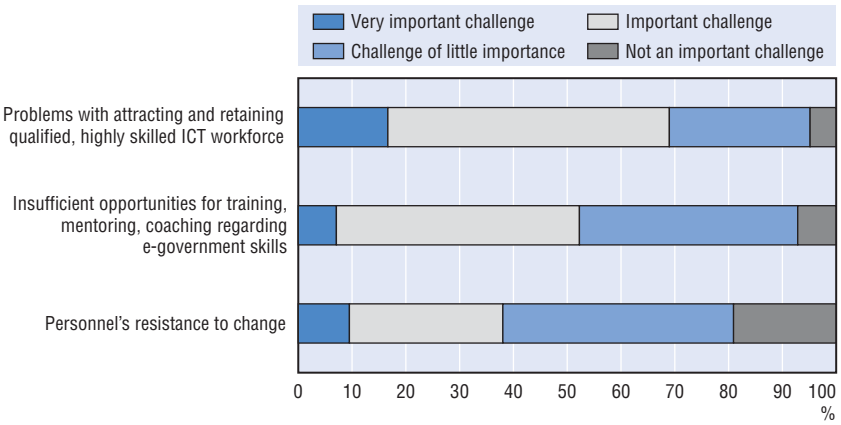
The OECD survey included a section on challenges to skills development. It found that the three major challenges were:

- Problems of attracting and retaining a qualified, highly skilled workforce.
- Insufficient opportunities for training, mentoring and coaching.
- Personnel's resistance to change.

Figure 4.25 shows the relative importance of these three challenges in Finland.

When asked to indicate which factors related to skills were a challenge or a constraint when implementing e-government, respondents seemed to see recruitment of skilled workers as a greater challenge than developing these skills within the administration: 69 % identified "problems with attracting and retaining a qualified, highly skilled ICT workforce" as an important or very important challenge, while 52% considered insufficient opportunities for training and coaching to be an important or very important challenge.

Figure 4.25. **Challenges to skill development**



Source: OECD.

Changing internal business processes to adapt to new technologies is costly. According to the OECD survey responses, however, the resistance of personnel to change in the Finnish administration was ranked a lesser challenge to skill development: 38% thought this was an important or very important challenge. Awareness of the need to improve working habits and a cultural propensity to innovate contributed to fostering the implementation of e-government.

Respondents providing electronic services at Stages 3 or 4 tend to rank change management skills as a greater challenge than respondents that reported providing electronic services only at Stages 1 or 2. Service provision at advanced stages requires not only a major commitment to change among personnel, but also the development of specific change management skills within the organisation (ability to adapt to new work practices and procedures, learning and teaching activities).

4.6. Monitoring and evaluation of e-government

As pointed out in the OECD's *The E-government Imperative* (2003) monitoring and evaluation activities are crucial elements of the e-government policy cycle. They make it possible to assess the overall impact of electronic services delivery, estimate progress and supervise ongoing initiatives. The up-front process of building measures and indicators into e-government planning also serves to clarify objectives and to make goals more realistic.

The OECD report on the Finnish budgeting system (OECD, 2002) suggests that there is not always a clear link between targets set in performance contracts and budget targets and that there is no general method for implementing

performance contracts in agencies. This means that even if a clearer, more robust monitoring and evaluation system for e-government is in place, the results may not necessarily have an impact on decision makers.

Evaluation of reforms has been a major aspect of the Finnish renewal of the public administration. The government has set general guidelines for evaluating governmental policies so as to have the instruments it needs to evaluate social and economic policies and internal management performance.

4.6.1. Monitoring and evaluation at central government level

The 1995 government *Resolution on Developing a Finnish Information Society*, introduced the principle of decentralised responsibility to achieve the information society and related e-government goals: each ministry is held accountable for the implementation and monitoring of their own e-government initiatives.

In this context, the central government's role is to set the major evaluation guidelines. According to the 1998 Decision in principle, the Ministry of Finance has overall responsibility for monitoring, guiding and reporting back on the execution of the programme concerning the development of information management in the government, including e-government. It has done so for the period 2000-2001, reporting back to the Ministerial Working Group on Administration and Regional Development. It does not have central responsibility, however, for monitoring ongoing progress or for holding ministries and agencies accountable for reaching certain targets.

In fact, relatively few agencies and ministries are measuring the progress of e-government initiatives. An exception is the Ministry of the Interior, which developed extensive evaluation activities related to the JUNA Project. Real accountability to the centre, however, seems to be lacking as there are no guidelines for implementing a reporting system.

As discussed in Section 4.1.3, "E-government goals and targets", the relative lack of government-wide targets and the lack of requirements for ministries or agencies to set their own goals as part of their information plans makes it difficult to develop an accountability framework. Even without targets, agencies need guidance on how to measure and evaluate progress towards more general goals.

Involvement of the State Audit Office (SAO) may lead to more evaluation. The SAO is under parliamentary authority and is responsible for auditing offices of the state administration, although it has no jurisdiction over parliamentary institutions such as KELA. In interviews, the SAO indicated that it was interested in performance auditing of e-government and has begun making plans to do so. While it has long experience in auditing specific aspects of IT systems (financial accounting of IT systems, IT security and the

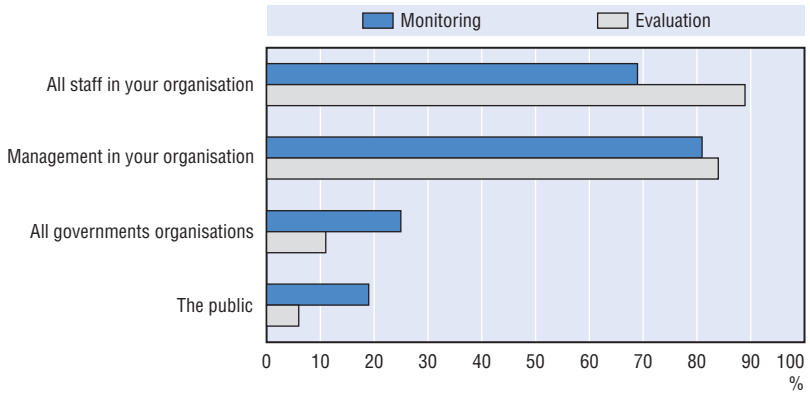
new paperless accounting system), it has not done a more general e-government audit. It has looked at IT systems as one aspect of overall programme effectiveness. One problem identified was the difficulty of auditing according to recommendations rather than clear rules.

In particular, as Figure 4.26 illustrates, while respondents reported that monitoring results are almost always made available to organisation staff, this was less true for evaluation results. Only a few respondents reported making either their evaluation (25%) or monitoring results (11%) available to all

Key Points – 53

- ***Accountability structures require not only goals but clear responsibilities for monitoring, assessing, evaluating and revising them. Improving monitoring and evaluation has been an important component of the Finnish administrative reform agenda and has become increasingly relevant for the assessment of the overall impact of electronic delivery, estimating progress and supervising ongoing initiatives.***
- ***The Government has set general guidelines for evaluating governmental policies but has not determined central responsibility for achieving electronic service implementation. It has, however, tried to establish and support ministerial responsibility for achieving e-government related goals, although as yet few ministries and agencies measure the progress of e-government activities.***

Figure 4.26. **Reporting of monitoring and evaluation results**
"Results of monitoring made available to:"



Source: OECD.

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government organisations. The public was even less likely to see the results of monitoring (6%) and evaluation (19%) of e-government projects.

4.6.2. Implementing monitoring and evaluation

Although the Ministry of Finance plays a major role in maintaining and co-ordinating e-government initiatives in ministries and agencies, it also stresses the need for the agencies to perform monitoring and evaluation activities on their own.

The OECD survey included questions to assess the effectiveness of the monitoring and evaluation of e-government activities, and 36% of respondents reported that they fully or partly monitored e-government implementation against e-government goals of the organisation and that they evaluated e-government activities. The survey found that among respondents:

- E-government plans are important for promoting monitoring and evaluation. The survey found that respondents with an e-government plan were more likely to engage in monitoring (68%) and evaluating (55%) e-government activities than those without a plan (10% monitor and 19% evaluate). The availability of an e-government plan is important for putting a monitoring and evaluation framework in place, as it serves to set goals and responsibilities and to provide guidelines for the measurements of the results.
- The complexity of providing advanced electronic services requires monitoring and evaluation to ensure effective service. Respondents that deliver less advanced electronic services at Stages 1 or 2 were much less likely to report monitoring and evaluating activities (27%) than those delivering advanced electronic services at Staged 3 or 4 (over 50%). This is consistent with the survey findings that 77% of respondents with advanced electronic services had one or more e-government plan(s) compared to 37% of respondents that do not yet deliver advanced electronic services.
- An e-government plan that provides instructions on monitoring pushes agencies to engage in monitoring and evaluation. The survey found that respondents whose e-government plan stated how to monitor whether e-government goals are met were much more likely to monitor e-government activities (91%) than those whose plan does not (33%). The survey also found a similar, but weaker correlation for evaluation (55% of those with an e-government plan that includes an evaluation framework evaluate e-government activities, compared to 44% of those with a plan that does not).
- Finnish ministries are more likely than agencies to use monitoring and evaluation of their e-government activities. Monitoring and evaluation are more widely used in ministries (42%) than in agencies (34%). This should be

seen in connection with the fact that, among respondents, ministries are more likely to have one or more e-government plans (69%) than agencies (41%). It is not clear whether this means that ministries also have a more performance-oriented culture than agencies.

- Responsibility for monitoring and evaluation generally lies with senior officers (*e.g.* head of administration or of division), IT managers or consultants.
- The results of monitoring and evaluation activity are mainly for (and made available to) the internal organisation rather than for outside accountability or control.

User satisfaction and service quality are valued as indicators of e-government quality. As noted in Section 2.3, most respondents collected customer feedback on services, including through the use of electronic feedback mechanisms and customer surveys. Table 4.2 shows that, in their evaluation criteria, most respondents include user satisfaction and quality of services (82% and 76%), followed by efficiency gains in working processes (68%). Less than half use cost-benefit analysis for their own organisation (50%) and an even smaller minority (31%) do a cost-benefit analysis for citizens and businesses. In this respect, based on the OECD sample, e-government seems to be driven more by service enhancement for customers than by economic savings, even though benefits to users are not quantified.

Table 4.2. **Criteria included in e-government evaluation**

User satisfaction	82%
Quality of services	76%
Efficiency gains in working processes	68%
Financial cost/benefit for your organisation	50%
Cost/benefit for citizens/business	31%

While, responses to the OECD survey seem to demonstrate a customer service focus that is consistent with the overall vision of the public administration, it is not clear whether or not these indicators are linked to clear, achievable targets. It is also unclear how these results are used in programme planning. The OECD survey did not ask to what extent this feedback had an impact on the programme or on the direction of future services.

Monitoring and evaluation is the key not only for more accountable e-government initiatives, but also for ensuring that projects follow the original vision and direction laid out in e-government plans and for ensuring quality and efficient services to the public.

Key Points – 54

- ***Lack of government-wide targets and central guidance and, until recently, the lack of e-government plans have been perceived as reasons for the failure to monitor and evaluate results.***
- ***Monitoring and evaluation results are much more likely to be shared with the management in the organisation rather then to organisation staff and the public at large. Increased transparency of some monitoring and evaluation results can increase external accountability and citizen confidence in government.***

Notes

1. JUNA report on the e-Stra project, *Information Society and Management's Strategic Ability in Public Administration*.
2. See *E-Europe, An Information Society for All*, Communication on a Commission Initiative for the Special European Council of Lisbon, 23-24 March 2000.
3. *Public Service in the New Millennium: Proposal for a Programme of Action to Promote Online Government* (English summary), 2002.
4. *The Global Information Technology Report of the World Economic Forum* shows a high position for Finland not only in the networked society and economy (e-government, information infrastructure and ICT policies rank high in the special classification of the organisation), but also in the global competitiveness report (first position in the global competitiveness rank). See the related Web pages at *www.weforum.org*.
5. This model for Electronic Service Delivery was developed by the Australian National Audit Office and the Australian Office for Government Online. It is available in the Audit Report No. 18, 1999-2000: *Electronic Service Delivery, including Internet Use, by Commonwealth Government Agencies*. (*www.anao.gov.au*).
6. An example is the eEurope report, Web-based Survey on Electronic Public Services (2002), which distinguishes between interaction, two-way interaction and transaction. Stage 4 in this model is then equivalent to Stage 3 in the model used above. Data sharing not included in the eEurope model. The Office of the UK e-Envoy on the other hand redefines the model used above so that Stage 3 is two-way interaction while Stage 4 is still defined as data sharing (Office of e-Envoy, 2000, *Benchmarking Electronic Service Delivery*, p. 76).
7. OECD (2002), *Information Technology Outlook*.
8. Ministry of Finance (2001), *Information Technology within the Government 2001*.
9. P. 75.
10. At the time of writing, this service was only available in Finnish and Swedish: *https://lomake.fi/lp/index.cgi/–*

11. See the JUHTA publication "*The National Basic Registers of Society General Description*", 2/1977.
12. In April 2001, the National Board of Taxes and the National Board of Patents and Registration of Finland (NBPR) put into use a new joint declaration procedure for business information (The Business Information System, BIS) which allows a business to report all information pertaining to it to both authorities in a single notice by using a Business Identity Code as a single identifier.
13. Björkqvist, S. (2002), *Experience with eGovernment in Statistics Finland*.
14. See, for example, *Finland's Way to the Information Society*, p. 11.
15. Publicity of *Official Documents Act*, 1951.
16. See the Standpoint *of the Ministerial Steering Group on the Reform of Central Government*, Ministry of Finance, Public Management Department, 2001.
17. This was further promoted by the *Act on Electronic Services in the Administration*, 2000.
18. See Public Access Terminals Provide Access to Electronic Public Services, Report on the Terminals and Citizens' Electronic Transactions Project, 2001.
19. Maija Jussilainen (2003), Knowledge Management at the Finnish Government, paper presented at the OECD Learning Government Symposium, 3-4 February.
20. Pauline Bradshaw (2001), *Working Together to Deliver e-Government; Involving Staff with Change Management*, Ministry of Finance.
21. Bradshaw, p. 27.
22. OECD (2001), *Management of Large IT Projects in the Public Sector*.
23. OECD (2000), *Government of the Future*, p. 132.
24. P. 14 of the Swedish version of the decision, translated by Sørgaard, 2000, p. 23.

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PART I

Chapter 5

Next Steps

In May 2003, the initial results of the review of e-government in Finland were presented to the Finnish government. The Finnish Ministry of Finance found the review very helpful, and said that it was "an extensive and valuable analysis of the e-government experience in the central administration" and the review process "fostered mutual confidence and brought shared benefits within the administration". Over the next few years the Ministry of Finance intends to apply the findings of this report with regard to the central administration to advance e-government initiatives at the local and municipal level.

The first in a series of national e-government reviews, the review of e-government in Finland uses a common analytical framework that will assist other countries in evaluating their e-government policies, ensure international comparability of findings and systematically build up a body of empirical evidence regarding good e-government practices. Other OECD countries have recognised the utility of a review of e-government in Finland, as Finland is a relatively advanced e-government country. As the "E-Government in Finland" study highlighted common challenges in implementing e-government, several countries have asked the OECD to conduct similar reviews of their own e-government programmes, and the OECD plans to undertake 2-3 of these reviews over the 2003-2004 period.

The review of e-government in Finland has been highly complementary to OECD work on e-government, and has provided numerous insights which fed into the OECD report *The E-Government Imperative*. While the Finland review was the first of its kind, by pursuing 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.

PART II

Annexes

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PART II

Chapter 6

Case Studies

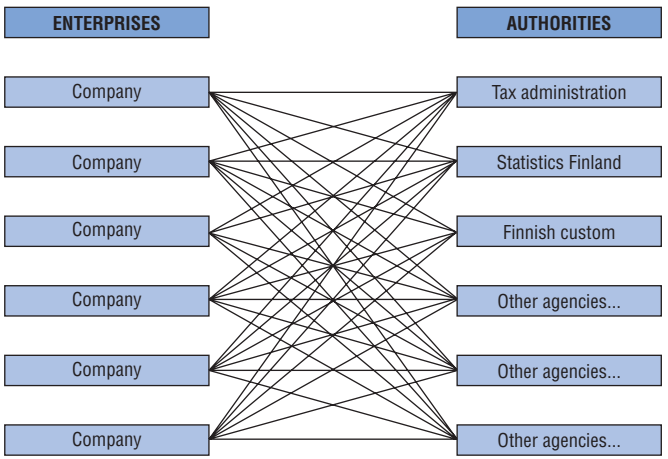
6.1. Case study 1: G2B broker system for reporting business data to government (TYVI)

In 1997, the Finnish Ministry of Finance (MoF) began a project to improve electronic data reporting from companies to public authorities (business to government or B2G), the TYVI Project (TYVI – Information from Companies to Public Authorities). Its goal was to allow tax authorities to offer an electronic form on the Internet for the collection of monthly VAT and payroll tax reports.

Electronic data reporting directly between companies and authorities would have required every data collecting authority to individually receive and report from companies, resulting in a very high number of point-to-point connections and thus maintaining high data communication costs. Considering the relatively low number of transactions, it would be costly to companies and also to authorities to operate (Figure 6.1).

The MoF began to look for other models of data reporting with the intent to speed up, simplify and reorganise data collecting procedures. While this effort preceded the 1998 goal of reducing data collection costs by a third, it seems to have stemmed from the same frustration with mounting paperwork and increased administrative burden. In 1997, the MoF discovered a way to

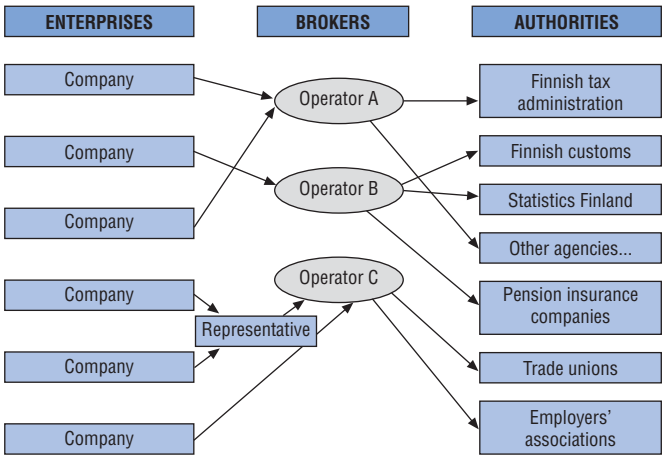
Figure 6.1. **Electronic B2G data reporting without TYVI: a scenario**



Source: Ministry of Finance.

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Figure 6.2. **The TYVI model for B2G data reporting**



Source: Ministry of Finance, adapted from Experience with Security in Statistics Finland, Conference of European Statisticians, Joint UNECE/EUROSTAT Work Session on Electronic Data Reporting, Working Paper No. 14, p. 4.

reduce the number of transactions with the central administration through the use of private brokers. This model implies a completely new architecture for gathering and exchanging data, based on data collecting companies (TYVI operators or brokers). The model is simple: firms send their information via the Internet to a broker, an experienced provider of EDI (electronic data interchange) services, which forwards it to the correct authority or authorities (see Figure 6.2). Authorities pay the brokers for the data that they request. Firms report at no cost (but may need to pay for the formatting of "raw" data). A pilot operator was involved in early 1997 and two more joined by the end of the year.

By setting up a system which allows administrative reports to be sent to agencies using private service providers, the Ministry of Finance's main goals were to:

- Decrease the number of point-to-point technical and administrative connections.
- Provide businesses with a single interface for reporting to several agencies.
- Develop reporting modules in enterprise resource planning and human resource management software so that administrative reports can be created and delivered automatically.
- Provide a low-entry, low-cost solution for data transfer, in terms of reporting by businesses and collecting by public agencies.

6.1.1. *Advantages of the TYVI model*

The TYVI model has obvious advantages for businesses. First of all, data ideally have to be reported only once to a single broker, rather than to all authorities requiring data (all-in-one data reporting). Not only does this minimise firms' need to establish electronic connections with different authorities, it also means that they no longer have to repackage their data for each authority's data reporting standard, file structure and data network interface (*i.e.* problems for converting to different telecommunication standards).

Second, the interface to the central administration is the TYVI operator chosen by the firm. The system is Web-based, so there is no need for any special data communication knowledge. Firms may contact any TYVI operator and decide together on the appropriate data transfer system (a software house may also be involved at this point).

From the perspective of the central administration, the most important advantage of the TYVI system is the existence of a single standardised data collection system. In fact, agencies have co-ordinated their data collections through the system (for example, information collected for tax purposes can be shared with Statistics Finland). Further co-ordination occurs at the point of data collection, with a number of specific statistical questions being added to tax questionnaires (the so-called combi-questionnaires), thereby reducing the need for separate contact with companies. In addition, authorities do not have to maintain the system (a task performed by the TYVI brokers) or adapt their data communication system to those of firms.

Although in the initial years the profitability of the service was low (losses on brokers' budgets), the number of companies reporting and the volume of services offered have risen fast and revenues from TYVI are now rising. The *Tax Administration Report 2001* indicates that businesses using the TYVI service doubled from 10 000 in 1999 to 20 000 in 2000. In 2001, there were 35 000 users, and in 2002, some 50 000 companies used the service regularly. The TYVI name is familiar to a third of SMEs. In many ways, 2001 was a breakthrough year for TYVI. Marketing since then, both by individual brokers and by the MoF, has had a clear impact on visibility, which has further increased the value of the service to data collection agencies and to businesses. TYVI's success has, therefore, been market-driven, as demonstrated by the increase in the number of users and in rising revenues for brokers.

6.1.2. *Involving TYVI operators*

For the initial pilot project, a single broker was given the task of preparing an electronic form, defining user agreements and providing for the initial data transfer. Today, Finland has five TYVI providers (Elma, Finland Post,

TietoEnator, TeliaSonera, Novogroup. Many other companies, however, are also involved as suppliers of data to the brokers. For instance, an IT contractor that runs a human resource management system as a service to many companies can send all of the necessary reports on behalf of its clients using one of the TYVI brokers.

Making the system work effectively requires close co-operation between accounting firms and software houses, especially to manage and co-ordinate the provision of electronic data (one accounting firm can serve a large number of firms). Accounting offices have commented positively on TYVI in the media, underscoring the value-building nature of the service. As they often serve as the interface between small firms and TYVI providers, they have been an important target for the MoF's marketing and information campaign.

An added advantage of the involvement of private companies as TYVI brokers is that they have been active in developing complementary services – such as improving the integration of data collection into business software packages – as well as attracting more users to the service through marketing. Additional value-adding services offered range from converting data into different formats and transferring data to management for monitoring and ongoing support.

Brokers receive revenue from two sources: agencies that collect data and companies that pay for additional services (for a reporting company, the basic service is free of charge). Data collection authorities pay the broker for the volume of data received and fees are agreed on a commercial basis. The agreed fee for a single report has been considered low compared to alternative services (about EUR 0.17 per report) and the quality of data is high. The typical agreement between a broker and a data-collecting authority also includes a monthly connection fee.

6.1.3. Involving public authorities

The first agency involved in the TYVI Pilot Project was the Finnish Tax Administration. Since then, several other public authorities have joined TYVI, including Statistics Finland, the Customs agency, several work pensions companies and the Ministry of the Environment.

After an initial investment of EUR 50 000 in 1996, the MoF continues to run the Project. Since the beginning, it has spent a total of EUR 200 000 for establishing and promoting TYVI.

6.1.4. Problems and criticisms

While the benefits of the TYVI system have been clearly recognised, including the speed of services, flexibility, cost savings, ease of use and quality of information, some problems have emerged.

Although TYVI brokers have been very active in developing the services and getting more customers, a lack of co-ordination between brokers and authorities can affect the quality and effectiveness of the services. For example, some agencies have been reluctant to adopt new data-collecting principles (*i.e.* some trades unions and insurance companies are unwilling to change existing systems).

An even more important issue involves co-operation by brokers. Competitive behaviour can be counterproductive, as co-ordination and exchange of information are necessary for the system to function properly. Since TYVI brokers are paid according to the volume of data they handle, they are not necessarily eager to reduce their individual profit by exchanging data with other brokers. While some agreements have been made, one broker has refused to participate. To avoid this type of breakdown, authorities should set a clear regulatory framework that promotes co-operation between TYVI operators, possibly including establishing payment options for sharing information among brokers.

Another potential challenge is related to the development of software that would allow data to be transferred directly, without the need for intermediaries. If this system is further explored and exploited, this may mean a rethinking of the functions and roles of providers in the TYVI system. One broker is already testing software, but so far this idea has met with

Key Points – 55

- ***TYVI has been a low-cost way to reduce the reporting burden for businesses and has simplified agencies´access to administrative data.***
- ***TYVI started as a small scale pilot with a possibility to scale up. The addition of major data users and authorities to the project has acted as a driver for development by increasing demand. It can also be seen as a general recognition of the effectiveness of the system for reducing data transfer costs.***
- ***By providing a Web-based application, TYVI was designed to work with both more or less advanced technology.***
- ***User fees have allowed costs to be allocated from the administrative area that benefits from the project.***
- ***Central funding was needed to start up a pilot project and to build user familiarity through marketing, but the project was conceived from the beginning to be financially independent and based on private providers.***

resistance not only from brokers but from businesses, as they would not like data to be reported directly from their systems.

6.2. Case study 2: The electronic citizen identification card (FINEID)

FINEID, the Finnish National Electronic Identification Card, is a very ambitious project. It seeks to replace the existing citizen identification card with a smart card that serves all of the identity card's previous functions while adding new electronic capacities. It can be used for electronic identification and digital signatures, as a tool for encrypting sensitive documents and as an enabler for information exchange among citizens, businesses and public authorities, as well as for secure electronic transactions.[1]

The case of the FINEID card is worth noting both for the breadth of its ambition – providing an authentication platform for all interactive public services and for interested private sector service providers – as well as for its early introduction (late 1999), which makes it a useful example for other countries considering following the same or a similar path.

6.2.1. Background

The electronic citizen ID card was first deployed on 1 December 1999 following studies undertaken from 1995 to 1997. The goal of the TIEKE 2.3 project, launched by the Ministry of Finance in spring 1996, was to develop a standard solution for public sector electronic documents and for user identification and digital signatures. In 1996, the Ministry of Transport and Communications, the Ministry of the Interior and the MoF published a joint report, *Electronic Identification and the Electronic Citizen Card*, which recommended the use of smart card technology for identification, electronic signature and the encryption of documents. It also recommended that the adoption of electronic identification should begin in 1998.

In 1998, the government agreed on a resolution[2] which paved the way for the FINEID project by appointing the Population Register Centre as the official certification organisation, promoting the preparation of legislative amendments and requiring ministries and agencies to provide electronic services. The decision set 1999 as a starting year for the implementation of the card and gave the MoF and MoI responsibility for reporting annually on progress to the government.

A legislative framework for the introduction of electronic identification was provided by the *Identification Card Act* (1999) and the *Electronic Communication in the Administration Act* (1999), as well as amendments to the *Population Information Act* (1999). This legislation set out the legal

guidelines for personal identification and for the production of electronic signatures and services.

6.2.2. Demand for electronic identification

Interviews with Finnish officials offered many reasons as to why the FINEID card was originally mandated. Some say that it arose from the perception that agencies would not develop interactive Stage 3 services unless there were secure channels for such services. Others noted the concern that multiple standards would result in lost time and opportunities as providers of electronic authentication battled it out for a dominant market position. Finally, some felt that the decision to issue an electronic identification card was essentially a political decision based on the desire to have a high-profile output, rather than on an analysis of service needs, and that, at the time it was mandated, politicians did not have a good understanding of what the FINEID card entailed. One interviewee noted that in 1995-96, when the decision to launch a smart card was made, the government was making information society policy decisions in isolation and later admitted it may have been naïve in taking this approach.

Prior to the unveiling of the FINEID card, the private sector tended to choose weaker solutions for online service authentication such as a username and password that offered less security than a smart card, but which were easier to use and did not requiring setting up a separate infrastructure. The first such services came from the banking sector. Banks started to offer authentication as a separate service in 2001. Other smart cards had previously been issued in Finland [*e.g.* city cards, multiple service card (Posti), public transportation system travel cards (Tampere) and electronic purses (Avant)], but none of these offered the possibility of personal identification. The first electronic ID cards to be issued focused on more targeted populations. For example, three of the largest Finnish municipalities offer their residents electronic identification cards. In addition, the Student Union of the University of Helsinki has issued a smart card that can be used both as an electronic purse and as an identity card.

The FINEID card has the ambition of being a "universal" identification and authentication provider. It has the advantage of building on an existing citizen ID card. Like the other Nordic countries, Finland has a long-standing tradition of citizen identity registers extending back to the seventeenth century in which the government maintained administrative tax records and parishes kept birth and death records. Nor are electronic identities a novelty, since the citizen registers were digitised in the 1960s and have been used to provide a number of proactive services to citizens. As a result, the government saw introducing the electronic ID card simply as an extension of its role to

create an information society infrastructure and to further improve and support electronic services.

6.2.3. Implementation and initial results

Major pilot projects were launched between 1998 and 1999 by various ministries (the Interior, Agriculture and Forestry, Social Affairs and Health) and some cities (*e.g.* Espoo, Vantaa). The parliament was also involved in a pilot project on electronic documents and digital signatures.[3] These projects focused on electronic transactions between cities and public authorities, the development of electronic application forms and improving access to public services.

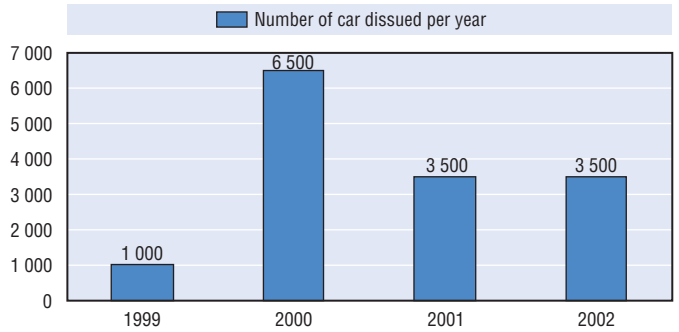
Since the introduction of the FINEID card, the government has used its certification standard and infrastructure to develop an identity card for civil servants, which is used in ministries and agencies as well as municipalities and joint municipal boards for personnel authentication. For general citizen use, the electronic ID card is issued by the local police department, complete with a personal identity code (PIN), supplied by the Population Register Centre. The card costs EUR 29 and is valid for three years with a renewal charge of EUR 29. The cost of the reader and the required software is around EUR 70. In late 2003 the ID card will only be available as a FINEID version, it will cost EUR 40 and be valid for 5 years. Once the card is purchased, transactions are free for the user as well as for agencies using the services. Currently, certificate and revocation lists are openly available on the Internet and the PRC cannot collect fees from service providers.

Policy planning and oversight are the responsibility of the MoI, while the PRC is responsible for maintaining the certificate registry and for promoting adoption of the card by service providers. The PRC has recently reengineered the card infrastructure by updating the databases in order to meet with the demands of the Qualified Certificate Authority. The MoF estimates that EUR 10 million have been invested in the development of the FINEID card. The card and related PKI services lose around EUR 3 million a year.

The PRC and the Finnish Post were among the first to use the FINEID card, for electronic notification of address changes. The PRC, which also electronically certifies the identity of holders of the FINEID card, estimates that additional services are also available from municipalities and regions, the Finnish patent organisation, the Ministry of Labour and the Education Board and Social Security.

From a technical perspective, the FINEID project has successfully developed a robust standard for authentication and put in place a framework to allow service providers and end users to take advantage of it, if they so choose.[4] The FINEID card has yet, however, to achieve the

Figure 6.3. **Finnish electronic citizen's ID card issued per year (1999-2002)**



Source: MoF estimates.

widespread use originally envisaged. As of October 2002, about 15 000 cards had been sold, compared to an original target of 100 000 (though more cards have been distributed free of charge as part of pilot projects). As shown in Figure 4.25, the number of new subscribers seems to have levelled off after a small initial spurt of card purchasers shortly after the introduction of the FINEID card.

While several ministries have been involved in the development of the FINEID card, most have yet to develop services that use it. The Ministry of Transport and Communication, for example, plans to have services requiring authentication by 2005. Only 15 respondents to the MoF's 2001 survey of government IT use reported currently using PKI as part of their service provision. Another 41 reported that PKI services were under development (out of about 118 public organisations providing electronic services). When asked about projects, however, the percentage of PKI use rises, with about 30 out of 101 projects involving some type of PKI.

6.2.4. Problems and criticisms

The main, and most apparent, reason for the FINEID card's lack of popularity is the relatively few transactions with government and the lack of interactive services requiring authentication. While the absence of an authentication infrastructure was cited by some as a reason for the lack of Stage 3 services, there has not been a marked increase in interactive services requiring authentication since the card was launched. The current worry about how to develop an adequate user base reveals the danger that the FINEID card is a solution in search of a problem.

When it was first rolled out in 1999, some in the MoI believed that the card would be used to make changes to ID entries and that more

applications would be available in six months. After three years, there are now more than 50 applications for the FINEID card, including regional and central administration services, online banking and insurance and educational services. Very few of these services are provided by the central administration.

None of the current services using the FINEID card seems to provide the "killer app", an electronic service that is so useful to citizens that they would buy a FINEID card to be able to conduct that transaction over the Internet. In addition, killer apps should be easy to use and be needed frequently enough to justify making the effort to acquire the necessary equipment and learn a new procedure. While e-government services are meant to simplify life for the user, the need to apply and pay for the card and purchase and install the card reader may make the electronic service option less attractive than existing service channels. For example, one of the best-known online services requiring authentication using the FINEID card is the change of address announcement, yet changes of address occur relatively infrequently and can be done using a telephone without any additional authentication.

This example also reveals the higher security standard to which e-government services have been held, both in Finland and in other OECD countries, in comparison with traditional service channels. This concern is understandable given the anxieties around online services in general and governments' particular interest in maintaining citizen trust, but it is also a factor in user take-up of online services, especially when it adds extra steps to the process. Importantly, none of the interviewees felt that there has been any question about the FINEID card's ability to ensure secure transactions

For interactive services that could use the FINEID card but do not yet do so, there is reluctance to adopt it, with most waiting to see whether more citizens purchase the cards. For those that cannot wait, the tendency is for agencies to "hedge their bets" and offer the FINEID card along with another authentication option. The MoF, for example, has issued authentication guidelines that allow the use of Internet banking codes (username and password) to log in for e-government services.

Among the expected advantages of a private-sector solution would be user familiarity with the card and process, a common solution for e-commerce, e-banking and e-government transactions, and an existing infrastructure. Co-operation with banks and mobile operators is ongoing in order to implement citizen's certificate on a bank or mobile platform. With the exception of e-banking, however, e-commerce in Finland is developing slowly

and overall use of e-commerce services in Finland continues to be relatively weak.

IT officials in the Ministry of the Interior do not express any regrets about how the project has been implemented. They see the problem as being primarily the lack of early collaboration with the private sector. While this is true, co-ordination within the government for developing services based on the FINEID card remains a major challenge. It is not clear if the MoI and PRC have learned how to convince potential partners of the need for authentication services. One MoI official estimated that it would need another five to ten years to develop the services that make full use of the FINEID card. While this may have been a good argument for waiting to develop the FINEID card, now that it has been released, a more aggressive approach to service development seems more appropriate.

From a user perspective, citizens may not be aware of the level of uncertainty within the administration, but the relative lack of concrete and immediately useful services does not, for the moment, justify the purchase of the FINEID card. In addition, although the cost of certification is free once the card is purchased, the cost of the card remains a barrier: the smart card readers have not been supplied with standard computers as expected.. Finally, there have been some issues regarding the compatibility of different software applications.

Another barrier is citizens' limited awareness of the potential benefits of the FINEID card. The PRC has continuously provided help and advice to agencies to improve communication on new applications and services, but citizens lack precise knowledge of what authentication is or how it can benefit them. Analysing and understanding demand is the first step in developing a market-oriented service strategy and escape from the current cycle of weak demand reinforced by lack of services. There does not seem to be, however, a clear strategy on how to involve citizens in the development and marketing of services.

The ambition to provide "universal" authentication services was seriously scaled back when, upon its introduction, the MoI failed to convince the major municipalities to merge their cards with the FINEID card. Discussions with KELA, the national social security agency under the authority of the parliament, did not result in a decisive agreement but led instead to a proposal for a pilot project in which KELA issued 900 social security cards using the FINEID certification standard.

For both municipalities and KELA, the primary obstacle to adopting the FINEID card was the difficulty of tailoring the card to their individual needs by adding information and/or services, such as the ability to make electronic payments. The current social security card has printed information on rights

to certain free medication which it would not necessarily be appropriate to include on a citizen ID card. KELA has raised the concern that sensitive health information on the card could be stolen or misused, especially if carried in conjunction with other information and applications, for example, if the card were also to serve as an official travel document in the countries covered by the Schengen Treaty. It is currently developing direct access to pharmacies to allow them to receive this information directly.

In addition, there is also strong interest in having the card reflect the issuer's identity. Municipalities want to brand their cities as technologically advanced and to showcase their particular services. KELA has had its own identification card for about 30 years. The MoI argues, however, that service providers with smaller target populations, such as smaller municipalities, are much more likely to adopt the FINEID card than to issue their own.

The crucial shift in attitude seems to be acceptance within the MoI that the FINEID card will probably not be the only card providing authentication for e-government services. In fact, it now realises that getting other smart cards to adopt its authentication standard may be the best way to spread its use in both the public and private sector and eventually realise its objective of providing "universal" authentication services.

6.2.5. Future plans

While the genesis of the FINEID may have largely been the result of an internal debate, by 1998 those working on the card realised that they would have to co-operate with others and begin "opening up" if the card was to succeed. Today, there is consensus around the need to work with the private sector to develop e-commerce applications, and co-operation agreements are ongoing, especially with banks, credit card companies and mobile phone operators. For example, Okobank, the third largest bank in Finland, agreed in 2002 to give customers an option to add the electronic citizen ID to its smart card when it is issued. This will allow the authentication standard developed by the government to be licensed for use in other smart cards or even mobile phones, increasing the user base. Partnerships would also encourage the development of private-sector applications, such as allowing card holders to check information on their bank account or even interactive services using digital television.

Many agencies and ministries, however, continue to look to the banking sector for a competing authentication solution. This is the result of a widespread view within government that the FINEID card has been a failure. While it is true that there are many fewer users than expected, especially in light of the investment in financial resources and the opportunity cost, this view overlooks the technical strengths of the card and the fact that a standard

is now in place which can be adapted to current needs. That said, there still does not seem to be a clear business case for the government's delivery of authentication services.

A second-generation FINEID card is expected to be introduced in 2003. It will likely have two new features: *i)* more storage capacity (32 KB instead of 16 KB); and *ii)* an expiration date of five years instead of three. Changes in communication services may also be required to upgrade the certification process to meet new technologies.

Less frequent renewals are a good step towards improving ease of use, and the other changes may make the card more attractive to partners, but the move towards offering multiple services on each card may raise new problems. Privacy and security issues may arise if sensitive information about health or income is put on the card. It may also raise the danger that the FINEID card may stray from what it does best: providing identification and authentication services.

The Data Protection Ombudsman noted that the discussion in Finland is about who owns the chip or who owns the card, not who owns the information. In his view, the authorities tend to forget that the citizen, in general, does not like the idea of too much information on a chip, although there are some situations where this is justified (*e.g.* security, welfare of the elderly). For many services, especially over the Internet, identification is not needed. He recommends a focus on providing information to citizens so that they can decide what information they would like on the card.

Plans are also under way for an electronic business identification system which would allow enterprises to identify themselves for the purposes of government-to-business (G2B) transactions, such as through TYVI (see the case study in Section 7.1). The PRC, which already provides more than half of its registry-related data-matching services to business clients, is experienced in this area.

For the moment, the current trend towards multiple smart cards using the same authentication standard seems to be the best way to build demand. International forces may provide some new opportunities for consolidation of multiple smart cards, such as the E180 card – a proposal for a common insurance card within the EU – or a new EU ID card. There is also a proposal to combine the FINEID and KELA cards. Consolidation, however, is unlikely unless the FINEID card first establishes a solid base of both users and applications.

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- *The government's desire to be a leader in the area of authentication may have accelerated the development of the FINEID card, but also created market and technological risks. The lack of a strong business case may be reflected in the current lack of compatible services and weak take-up of the card.*
- *The development of the FINEID card was not accompanied by a concerted effort to launch additional, broadly useful, interactive services, nor was it tied to a particular set of services. Developing additional interactive services is the responsibility of the entire government, but should be led by the MoF and the MoI.*
- *The decision to support the most secure solution, rather than what was sufficient to meet the needs of current services, reflects a long-term approach to establishing a framework of e-enablers into which electronic services can eventually grow. It may have prevented, however, the taking into account of the actual needs and desires of potential users, as well as the dynamic nature of technology.*
- *Co-operation with the private sector in developing electronic applications for FINEID may help to broaden the user base and may have the additional benefit of supporting e-commerce, but it comes late and raises the question of why the government is offering services in an area that would normally be met by the market.*
- *The lack of citizen interest in the FINEID card has been exacerbated by a lack of understanding of the process and benefits of the card.*
- *The government's single card policy emphasised the technical platform, not where authentication services could be used. Licensing the certification standard behind the FINEID card to other delivery mechanisms (i.e. other smart cards or cell phones) is likely to open up the possibilities for new services, both public and private, to use authentication, thereby increasing the user base for the FINEID card*.

6.3. Case study 3: The citizen portal

Finland's national Web portal, the citizen portal, is a recent, high-profile effort to simplify and facilitate citizen access to government services. While it provides information and search facilitation services, it is primarily an e-enabler that can improve access and take-up, and eventually the interoperability, of all e-government services and e-engagement efforts.

6.3.1. Background

In the summer of 1996, the Ministry of Finance initiated a project aimed at bringing online the Citizen's Guide, a handbook which provided citizens with basic information pertaining to different life situations. The Citizen's Guide was first published in Finnish in 1992 (in Swedish the following year) as a printed document and presented public administration services of use to citizens. It was later made available on floppy disc.

In creating a portal, the MoF sought to increase citizen access to this information as well as to be able to update the information more frequently, since updating, printing and distributing the paper version was a resource-intensive process. The idea was to transfer as much as possible the responsibility for the accuracy and quality of the information to service providers.

The decision to opt for an online version was supported by a Citizen's Guide user survey carried out in the summer of 1996. The survey showed that a large majority of orders for the guide was for professional use rather than for private consultation. In addition, the survey revealed that a large majority was in favour of having the information available on the Internet. Experience in other countries also suggested the need to create a channel of continuously updated information for citizens.

The Citizen's Guide was launched on the Internet in 1997. While the electronic publication was less comprehensive than the printed book, it had the advantages of speed and flexibility. At the outset, the Swedish version also did not contain complete and accurate information.

The Electronic Citizen's Guide on the Internet included essential information that citizens need at different stages, and it was organised by themes (emergency, children, families, legal information). Retrieval of information is free of charge. The guide was available in Finnish and Swedish and also featured an English section.

Statistics on use of the guide were compiled in 1999. The total number of visits to one of the guide pages varied between 34 500 and 60 000 and reached 4 000 to 5 000 units a day. The guide's search engine was used by an average of 15 000 users a month. Links to 120 information suppliers were included in the guide.

The views of guide users were analysed by examining user feedback and by undertaking a customer survey in February 1999. The survey examined a total of 62 responses collected over the two-week survey period. Of these, 29 were first-time users. Comments on the guide's conception and comprehensiveness were largely positive, but users expressed a desire for more detailed and up-to-date information on procedures to follow in various situations and stressed the difficulty of using the search engine. An

assessment of the guide's format, service index and search engine has been carried out, and ways to improve and develop the guide have been identified.[5]

In 2000, a project was carried out to determine the purposes of a national public-sector portal, to plan the portal's content and functions and to create a pilot portal for purposes of discussion and feedback from users. After user feedback about the pilot portal was received through a questionnaire, a project to build a portal on the basis of the experience of the pilot was started.

In April 2002, the Finnish public-sector portal (*www.suomi.fi*), the citizen portal, was put online with information based on the Citizen's Guide. At the same time, the MoF decided to adopt a single channel strategy, completely eliminating the Citizen's Guide and moving towards using the citizen portal as the unique channel of information for citizens.

6.3.2. Goals and content

From the outset, the government set out to make the citizen portal the best-known public-sector Web resource. To achieve this, the portal was designed to provide comprehensive and up-to-date information and services to citizens and to promote interaction among citizens, authorities and private businesses. The project focused its initial efforts on analysing and determining the purposes, functions and desired content of a national public-sector portal and created a pilot portal to encourage discussion between citizens and authorities.

By increasing access to the portal, the government hopes to increase overall take-up of online services. The initial short-term target was to double usage of the Citizen's Guide soon after launching of the portal. In April 2002, the numbers of pages requested a day reached the 17 000 mark (against 4 000-5 000 pages requested a day for the Citizen's Guide). In addition, the MoF set several specific goals:

- To improve the quality of public sector Web services by providing information based on customers' needs.
- To promote common standards among public-sector Web services (*i.e* common metadata standards).
- To minimise overlap in the work of the authorities on Web services and to develop the services together.

The portal provides access to all government sites as well as municipal organisations and links to other services (*i.e*. a citizens' electronic forms service, a public-sector contact directory and a forum for online discussion with the authorities). The search engine only provides results for information contained in the portal. It does not allow for searching for the information behind the links, this function having been criticised by users of the Citizen's

Guide. It also does not provide, for the moment, the possibility to personalise single user access, for example, through the use of cookies.

The portal now offers its service in Finnish, Swedish and English. The English section, which provides information for immigrants and expatriates, is, for the moment, a condensed version of the full portal and will be extended in the future. The information menu features different core areas organised around citizen needs, including: housing and family, education and library, culture and leisure, traffic and tourism, immigration and emigration, money and property, Finnish society, health and nutrition, financial support and benefits, employment and enterprise, and environment and nature.

6.3.3. Financing and management

The portal project was co-ordinated and financed by the MoF, which dedicated two staff members and FIM 2 million (EUR 330 000) in initial investment through the one-time "future funds". This represents four times the previous annual budget for the Citizen's Guide (FIM 500 000 or EUR 84 000). At the beginning, however, it was unsure how the operations of this cross-governmental project would be financed, since the "future funds" only covered project development for the period 2001-02. Financing of the portal is in the MoF's operational budget for 2003.

Management of the portal is ensured by an executive board composed of representatives from nearly all ministries, the Consumer Agency as well as three civil society associations (the Finnish Federation of the Visually Impaired, the Finnish Youth Co-Operation Allianssi and the Central Association of Finnish Pensioners). The board was formed in May 2002 to support, supervise and comment on the portal project. The portal information providers, nearly 100 agencies and other public and private authorities, co-operate to improve the co-ordination of information and to develop certain subject areas within the portal. A co-operation network has been formed among the information providers and some theme groups will be formed to verify and augment subject content.

The initial Citizen's Guide and, later, the planning and building of the portal were the responsibility of the MoF's Public Management Department. The implementation was carried out mostly by external contractors, although they also played a major role in the planning and design of the portal (*e.g.* booklets, graphic design, etc.).

Experts from other agencies also contributed to the initial planning and organisation of the portal. All ministries were involved, as well as the association of municipalities and regions. Development of the portal also benefited from a survey on user satisfaction and desired services carried out in 2000 in relation to the portal pilot.

Responsibility for the management, development and running of the portal has been moved to the MoF's Government Information Management Unit. Responsibility for quality control is being transferred to information providers, which are responsible for the accuracy of their own information.

Citizen take-up of the portal and participation by ministries and agencies remain important for the portal's success. The launch of the portal in 2002 was extensively advertised in newspapers, broadcasts, radio and the media in general.

The administration's response to the portal has been generally positive. IT official interviewed by the OECD were very aware of the portal and more than 80% of respondents to the OECD survey reported that their Web site was connected to the citizen portal.

In October 2002 a user survey was carried out:

- Among citizens by a pop-up enquiry (which also provided the MoF with a user profile for the first time).
- Among the authorities by an enquiry via e-mail.
- Among some users by interviewing them personally about the usability of the portal.

The results show citizens to be the biggest user group and led to the creation of an average user profile that is in line with the classification of normal Internet users. Most users received information about suomi.fi from a Web page link. A television advertisement also brought many users. Almost half of the citizens who answered were first-time users. The survey also provided positive feedback about the portal. The ease and rapidity of use, the clear layout, the lack of advertisements and the general idea of the portal were praised. Public authorities considered the service very important for citizens.

The survey also showed the number of page requests to be approximately 16 000 a day, *i.e.* double the target use of the Citizen's Guide.

6.3.4. Future plans

Given the current lack of integration of the services linked to the portal, the executive board described above could play a crucial role in furthering the integration of services. However, some steps have already been taken towards improving service integration. The MoF is co-operating with the MoI's project on citizens' electronic forms to integrate electronic forms into the citizen portal. The first step towards integration has been to transfer the management and running of the electronic forms service to the Government Information Unit. Currently, forms can only be downloaded from the MoF-run Web site, *www.lomake.fi*, but the project is working on making it possible also to submit them electronically. There are also plans to integrate the citizen forum portal with the citizen portal.

The portal project is also working to improve links with existing regional and thematic portals and to help launch new portals where needed. For example, it is co-operating with the Ministry of the Environment on a new housing portal with links to several non-public organisations. At the same time, the MoF and MoI are involved in developing regional portals to complement the citizen portal through improved links with local services and resources and to address specific regional needs.

At the international level, Finland took part in a meeting on portals organised by the eEurope project of the European Commission and joined the pilot EU portal in November 2002. Links to the European Commission, to other European countries and to the Nordic region will be increasingly important with continued economic integration.

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- ***The citizen citizen portal invested in up-front piloting, consultation and evaluation to ascertain the needs of end users (citizens and businesses) and the civil servants who provide content and services. This planning resulted in a clear statement of objectives for guiding the implementation of successive versions.***
- ***The portal has been extensively marketed via television, radio channels, magazine advertisements, Web advertisements, articles, presentations, brochures, bookmarks to libraries and schools. The great increase in the number of users, as well as user feedback from questionnaires, clearly underlines the success of the portal.***
- ***In autumn 2002, a survey of citizens and authorities was conducted to assess the experiences, needs and expectations of actual users. Several ideas for analysis and evaluation before launching the next version have been raised and will constitute the bulk of the 2003-04 portal strategy.***
- ***While the project's stated objective is to promote co-operation among service providers, rather than integration of services, it may want to look at how it can use its position as an entry point for end users to help facilitate service integration.***
- ***Since the unit managing the portal has few tools to ensure co-operation, future success will depend on regular consultation with the ministries and agencies and other partners who provide links and content to ensure that the portal continues to meet their needs. It will also require maintaining clear responsibilities for content creation and updating of the information available through the portal.***

The integration of electronic signature technology into portal services will offer a major challenge to the development of the citizen portal. The possibility of submitting some forms electronically opens up a need, in the near future, to make digital signatures available for the transmission of sensitive information and/or documents.

Notes

1. More information on ID card uses and a technical overview of the products are provided at *www.fineid.fi*
2. All provisions and recommendations are included in the Council of Ministers resolution of 5 February 1998 on Electronic Transactions, Development of Services and Reduction of Data Gathering.
3. For more details on the projects see M. Romppanen and S. Vänttinen (2000), "The Legislation and its Requirements Regarding FINEID", Telecommunication Software and Media Laboratory, Helsinki University of Technology.
4. See the *Report from Information Society Advisory Board*, 2001, p. 65.
5. See the Citizen's Guide to living in Finland: important information and services available on the Internet, Ministry of Finance, 1999 at *www.vm.fi/vm/liston/page.lsp?r=3534&l=fi&menu=3744*

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PART II

Chapter 7

Appendix

7.1. Appendix 1: Finland's political and administrative system

In 2000, public administration consumption in Finland was 19.6% of GDP. This compares with 17.6% for OECD countries in general, 19.3% for the European Union and 21.8% for Nordic countries.[1]

Table 7.1 provides a brief summary of the main characteristics of the Finnish administrative and political system, based on a classification by Geert Bouckaert.[2]

Table 7.1. **Classification of Finnish politico-administrative regime**

Form of government	Finland is a republic. With its new, explicitly parliamentary constitution and hence a president with more modest powers, differences with other Nordic countries are less noticeable.
State structure	**Unitary:** no federation.
Executive government	**Consensual:** tradition of grand coalitions.
Centralised/decentralised	**Decentralised:** municipalities enjoy considerable independence, safeguarded by the Constitution. **Fairly fragmented:** ministries are quite independent and each minister is individually responsible to parliament.
Minister/mandarin relations	**Separate:** mandarins and ministers have "separate" career paths. **Fairly politicised:** top civil servants often openly refer to their political sympathies.
Administrative culture	**Tending to *Rechtsstaat:*** Origin in a *Rechtsstaat* tradition, but moving towards mixed forms with a public interest model.
Public management	Responsibility split between **Ministry of Finance** (co-ordinator and responsible for central level) and **Ministry of the Interior** (responsible for regional government administration).
Diversity of policy advice	**Mainly civil service:** Not much input from academic or trade/business organisations.
Major affiliations	**European Union**

7.2. Appendix 2: Reports, strategies, decisions and acts related to e-government

This part reviews the main Finnish reports, strategies, decisions and acts relating to e-government. Its focus is on those specifically mentioning electronic services, e-enablers and e-engagement.

7.2.1. Visions, strategies and decisions related to e-government in Finland from 1994 to 2002

1994

- Cabinet Decision on Information Management in Government.
- Government Decision on Drafting a National Information Society Strategy.
- "Finland Towards the Information Society – a National Strategy", proposed strategy by Ministry of Finance.

1995

- Developing a Finnish Information Society, Resolution.
- Finland's Way towards the Information Society, The National Strategy.
- Government Programme of Paavo Lipponen I.

1996

- "Finland's Way to the Information Society: The National Strategy and Its Implementation" – MoF proposal.

1998

- Government Resolution on Electronic Transactions, the Development of Online Services and Reduction of Data Gathering (including Methods for Authentication, Digital Signature and Encryption).
- Quality of Life, Knowledge and Competitiveness, premises and objectives for strategic development of the Finnish information society by SITRA.
- Quality Strategy for Public Services.
- Government Resolution on High-quality Services, Good Governance and a Responsible Civic Society.

1999

- Government Programme of Paavo Lipponen II (law passed by Parliament).
- The Act on the Openness of Government Activities (621/1999).
- Personal Data Act (523/1999).
- Act on Protection of Privacy and Data Security in Telecommunications (565/1999).
- New Information Technology and Citizen's Possibilities to Influence Decision Making project of the Ministry of Finance.
- Identity Card Act (829/1999).
- Act on Electronic Service in the Administration (1318/1999). (valid from 1.1.2000 was replaced on 1.2.2003).

- Amendments of the Population Information Act (507/1999).
- Two user surveys on the views of citizens towards the delivery of public administration by Ministry of the Interior.
- Policy Decision of the Government on the Development of Information Management of State Administration.

2000

- Report of international expert group on the reform of the central government/central administration resulting in: *i)* five projects on strengthening government co-ordination and co-operation; *ii)* three projects on strengthening the steering role of ministries in their administrative fields, *iii)* three projects on strengthening citizen/government connections and quality in administration; *iv)* two projects on information systems of government and government as an employer. Ministry of Finance.
- Act on Electronic Service in the Administration.
- Act on Electronic Communication in Administration.
- Information Technology within the Government 2000.
- Policy Decision of the Government on the Development of Information Management of the State Administration.
- Finland as an Information Society – Report by the Information Society Advisory Board (ISAB).
- IT Co-ordination and Public Management Reform, A Comparison between Finland and Norway (2000), Research Reports, Ministry of Finance.

2001

- Report of the Information Society Advisory Board to the Finnish Government (2001).
- JUNA report on Public Access Terminals and Citizen's Electronic Transactions Project.
- JUNA report on the project XML Techniques in the Development of Electronic Public Services.
- JUNA report on the e-Stra project, Information Society and Management's Strategic Ability in Public Administration.
- JUNA report on the MOVE@ project, Possibilities of Mobility in Electronic Public Services.
- Standpoint of the Ministerial Steering Group on the Reform of Central Government, Public Management Department, Ministry of Finance.

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- Programme of Action to Promote Online Government, "Public Services in the New Millennium". Taskforce on online government established by the Information Society Advisory Board.
- Three Years of the Information Society (2001), survey by Statistics Finland on opinions and attitudes.
- On the Road to the Finnish Information Society III (2001), data on the development of the information society by Statistics Finland.
- The Finnish Model of the Information Society (2001), report by SITRA.
- Public Management in Finland (2001), brochure of the Public Management Department, Ministry of Finance.

2002

- Public Service in the New Millennium, ISAB Programme of Action to Promote Online Government, 2002-2003.

2003

- The Act on Electronic Signature.

7.3. Appendix 3: Synopsis of history and key decisions

Finland's first work on ICT and e-government dates back to the Information Technology Advisory Board (1976-91). With regard to policy planning at the government level in Finland, several objectives and visions concerning e-government have been put forward from 1994 onwards in government programmes and in reports related to work on the information society. The development of an explicit strategy did not, however, take form before the beginning of the 1990s.

7.3.1. Drivers for proactive planning: development of the information society

One of the main drivers for information society planning was the 1992 OECD review of Finland's information and communications policies.[3] The review concluded that while Finland had reached a high level of IT and telecommunications penetration and expertise, the country lacked a clear strategy in these areas. As a consequence, a government decision was taken on drafting a national information society strategy, which was researched and written by the Ministry of Finance (*Finland towards the Information Society: A National Strategy*, 1994). The aim of this report was to help Finland to cope with an economic setback and mass unemployment as well as pressures from new technologies and the opening of Finland to the world economy. It benefited from the Information Highway concept launched in the United States and

from decisions of the European Commission on Europe's way to the information society.

Based on this information society strategy report and proposals from different ministries, the government passed a resolution in 1995 on measures to develop the Finnish information society.[4] The resolution specifically mentioned the e-government area, with respect to the public sector and the use of ICT as an enabler to incorporate networks and facilitate data exchange, to develop integrated customer-oriented public service systems and to facilitate information and participation for citizens and businesses. To achieve these and other information society goals, the government identified several important action areas, including information networks and infrastructure, national information resources, education and training, legislation, research and development, etc.

7.3.2. Decentralised responsibility and broad consultation

The government's 1995 resolution stated that responsibility for attaining the objectives lay with the Prime Minister's Office and the competent ministries. Responsibility for co-ordinating the detailed planning phase was given to the Ministry of Finance. Each ministry was responsible for implementing and monitoring objectives within its own sphere. No new budget allocations were provided for this purpose; instead, ministries were instructed to reallocate resources as necessary to implement the decision. No mechanisms for co-ordination or follow-up were mentioned, apart from the requirement that each ministry should prepare a detailed action plan on how it would implement the information society strategy principles and submit these to the meeting of secretaries-general.

The government also began broad consultation on information society issues. Following the 1995 strategy, the Ministry of Finance prepared the establishment of a broad national information society forum (concluded in 1999) and the Information Society Advisory Board, which was chaired by a minister and brought together government, civil society, trades union and private-sector representatives. These bodies also made recommendations that touched on information management in the public administration.

7.3.3. Tying information management planning to overall state administration objectives

There was also a more specific Cabinet Decision on Information Management in Government in 1994, but the decision was not directly related to work on the information society strategy. Instead, it was related to economic and public management reforms that were taking place in Finland in the 1990s, which included areas such as information management and

information technology. In the Finnish context, "information management" is very specific and extends beyond the use of ICT in government (see the glossary in Section 7.4). The 1993 *Resolution on Reforms in Central and Regional Government* required, for example, that an information management strategy be worked out for the public administration.

The 1994 decision stated that a significant part of internal and external communication and information flows should be electronic by the end of the 1990s. The objective was for information management to promote the achievement of overall state administration objectives such as productiveness, quality of activities and services, monitoring and management by results, market-based forms of activity and international integration. The decision also included principles and measures to achieve these objectives, such as integrated planning, use and cost-effectiveness of IT systems, compatibility and security of information systems, data sharing and data reduction and electronic transactions. In doing so, it provided more detailed guidelines and specific tasks for the development of e-enablers for each ministry and agency while only stating broad goals for electronic services and e-engagement.

The Ministry of Finance was given the responsibility for monitoring, guiding, co-ordinating and reporting back on the execution of the decision. The decision further stated, "A co-ordinated development of the state's information management requires harmonising actions throughout the public administration".[5]

The decision clearly illustrates that responsibility for information management in the government was spread among several ministries and agencies. An example is the issue of information systems mentioned in the decision which requires agencies to consult no fewer than five authorities on different recommendations, instructions and principles.

7.3.4. Information society strategy and setting up e-enablers

In 1995, a new government led by the Social Democrats replaced the Conservative/Centre government. It confirmed its support of the information society strategy and its commitment to continue the implementation of the previous government's decision. The new government programme included a number of information society policies, but no specific new vision for e-government in the public administration.

In 1998, the Information Society Advisory Board took the initiative of overhauling the 1995 information society strategy, and it was agreed that the Finnish National Fund for Research and Development (SITRA), working under a broad steering group, should take responsibility.[6]

SITRA again stressed the importance of developing *i) e-enablers* in terms of technology, infrastructure and ICT-related education and research; *ii) e-engagement* in order to strengthen democracy and improve citizens' access to information and opportunities for social influence; and *iii) online services* to develop coherent, cost-effective and secure public services. These were, however, very broad outlines with no details concerning the planning, budgeting, implementation, impacts, monitoring or evaluation of e-government within ministries and agencies or across government.

In the beginning of 1998, the Council of Ministers had passed a short *Resolution on Electronic Transactions, Development of Services and Reduction of Data Gathering*. With regard to electronic transactions, the decision went quite far in specifying the establishment of an infrastructure and a citizen's identification card for electronic identification and digital signature which would enable electronic transactions among the administration, businesses and citizens.

Plans to create a public key infrastructure and an electronic citizen's ID card had been under way in the Ministry of Transport and Communications, managed by the Ministry of Finance. The Ministries of Transport and Communications, Finance and the Interior published a report on PKI in 1996 which led to a series of authentication pilot projects. The 1998 decision, however, made it possible to develop and implement the infrastructure and smart card (see Section 6.2).

Furthermore, the resolution set as a goal that by 2001, ministries and agencies would provide information on central services and a significant proportion of forms electronically. It did not mention, however, similar goals in connection with the development of more advanced electronic services involving electronic transactions and/or support from PKI. As in previous references to more advanced electronic services, no details were given on how ministries and agencies should handle the development, budgeting, implementation, co-ordination, impacts, monitoring or evaluation of these services. As a result, the decision does not seem to have been a major driver with regard to the development of advanced electronic services.

7.3.5. Information management objectives: administrative simplification and improved services

The 1998 resolution also stated that data gathering should be reduced and rationalised and set as a clear and specific goal that data gathering costs should be reduced by at least one-third between 1997 and 2002. This would be done by collecting only information necessary for managing the authorities' duties and by developing data sharing and information services. The decision made the Ministry of Finance, the Ministry of the Interior and Statistics Finland responsible for directing the implementation of these measures.

The 1998 decision does not seem to have been a prerequisite for data reduction initiatives. Already in 1997, the Ministry of Finance and several agencies had agreed to use a special infrastructure for gathering data from enterprises, the TYVI model (see Section 6.1). The goal to reduce data collection stemmed from a desire to reduce the costs of data collection and to reduce the administrative burden for enterprises. While there has not been a formal assessment of whether or not the target was achieved, the common perception is that the target of reducing data-gathering costs was met by municipalities, but not by the central administration.

In 1998 the government resolution *High-quality Services, Good Governance and a Responsible Civic Society*, set the basic guidelines for moving public management reforms from structural to strategic governance reforms.[7] With regard to public services, emphasis was placed on customer orientation, freedom of choice and availability, using measures such as the delegation of decision-making powers to service production levels, introduction of service charters and electronic government. The importance of e-government was strongly stressed as it was seen as a facilitator of joint and more advanced services (from one-way to interactive electronic services).

The need for electronic identification in order to develop electronic transaction services was again emphasised. The resolution showed that legislative action, in addition to the decision on electronic transactions, was necessary, as it called for an examination of the legislative status of digital signatures, electronic authentication and encryption for data transfer. Following the resolution, a *Government Decision on Methods for Authentication, Digital Signature and Encryption* was announced.

Apart from the issues concerning electronic identification, the resolution also raised awareness of the challenge of information management. It stated that "the government will strengthen the resources for information management and its steering. The ministries will have stronger control over the development of information management and data services in their administrative fields".[8] This statement can be seen in connection with the general aim of the resolution to develop the ministries into policy planning units with strengthened political leadership and decision-making power by the use of steering reforms.[9]

As with other decisions and guidelines concerning public management reforms, it is difficult to say how and to what extent these guidelines have been interpreted and implemented by the different ministries, as the model of strong autonomy leaves room for variation. This was probably accentuated in the highly complex areas of information management and e-government.

In 1999, the programme of the second Lipponen government provided a broad vision for the role and purpose of e-government. It stated that:

- The Government will seek to activate experimentation to introduce new technology, a new type of expertise and new working methods in companies and public services output. The government will in particular seek to promote social and technological innovations as part of the modernisation of the service culture in the public sector.
- The operational processes of the public sector, conducting business electronically and the transparency of decision making must be developed by exploiting the opportunities offered by information and communication technology.
- Exclusion of citizens and regions will be prevented by providing the services of the information society to all on an equal basis. Information and communication technology will be used to improve the cost efficiency and smooth operation of public services while at the same time ensuring the protection of data.

"Transacting business electronically will improve the public administration's ability to provide services and enhance their effectiveness. In the central administration, and as widely as possible in municipal administration, a single common electronic identity card will be introduced which will enable people to do business with the different sectors of the civil service reliably and safely."

7.3.6. Integrating e-government with the public administration at all levels: JUNA

On the basis of the government programme, it was decided to create a project to co-ordinate and support the planning and implementation of e-government covering all sectors of the public administration from the local to the state level. The aim of the JUNA project, which ran from 1999 to 2001, was to promote a broad and coherent move by the public authorities towards the active production and use of electronic services and wide-ranging co-operation.[10] Co-ordination of co-operation, particularly on regional and local levels, was seen as necessary to promote a customer orientation and the availability of quality public services throughout the country.

In 2000, JUNA carried out a survey aimed at viewing the current development of e-government services. It sent a questionnaire to leading Finnish civil servants in state and local administrations and information management experts. The answers indicated that existing electronic services were not very advanced, consisting mainly of provision of information rather than interactive services. Internal factors, such as insufficient financial resources for data management, were the obstacle most frequently mentioned. Many also pointed to the lack of a common online service strategy

and vision as well as the detachment of the development of electronic services from the general planning activities of each organisation.

These findings are interesting in that the JUNA project had no funds for agency-specific projects and no remit to develop or implement an e-government strategy. The JUNA project's mandate was to issue guidelines and rules to support the co-ordinated development of electronic services by monitoring and evaluating existing work.

On the basis of the survey, JUNA set up four key projects: *i)* four pilot projects on the public administration's strategic ability in the area of information society; *ii)* customer surveys, usability and accessibility testing and analyses of information security concerning public access terminals that provide public electronic services; *iii)* a project to determine the possibilities, preconditions and limitations of XML techniques for the development of electronic services; and *iv)* a project to determine the possibilities, preconditions and limitations of making services available on mobile channels. In 2001, JUNA published reports on each of these projects with recommendations and guidelines.

The JUNA project terminated at the end of 2001. Some of its general work on electronic services, however, was incorporated into the action programme 2002-03 for e-government (see below).

7.3.7. ICT for citizen participation and greater openness

In 1999, the Ministry of Finance launched several projects on e-engagement of citizens. A project, New Information Technology and Citizen's Possibilities to Influence Decision Making, had three aspects: *i)* a survey on how the administration's Web pages could better serve citizens and what best practices could be found; *ii)* a pilot project to build a portal for the Finnish public sector; *iii)* a discussion forum where citizens could comment and give their views. Both the citizen portal and the discussion forum are now well established and there are plans to integrate the two (see Section 6.3).

A new project, Hear the Citizens, will look at how connections between ministries and citizens can be strengthened, including one focus (among others) on the use of ICT. This activity was part of the extensive plan to reform the Finnish central government following an international expert group report commissioned by the Ministry of Finance in 1999.

The Ministry of the Interior carried out two user surveys in 1999 and 2000 on the views of citizens on services delivered by the public administration. The results indicated that citizens are more familiar with electronic services provided at the local and regional than at the central level. Citizens furthermore expressed demand for the following portal services: information about public sector organisations and their services, electronic transaction services, organisations' contact information, and electronic feedback.

In December 1999, new legislation on the openness of government activities (the *Act on the Openness of Government Activities*) entered into force. The goals of the reform were "to increase the openness of government activities, to enhance the implementation of the openness principle relating to these activities, to improve the possibilities to participate in the public debate and to influence the management of common issues".[11] As a consequence of the *Act on the Openness of Government Activities*, the openness principle was extended (*e.g.* to state and municipal enterprises), access is given to all preparatory documents (with secrecy exceptions) and legislative projects to increase the openness of decision making. Authorities are obligated to make information about their activities available and common provisions for secrecy are given to all authorities. ICT can obviously be used in several ways by authorities to implement the Act.[12]

7.3.8. Enabling legislation for electronic services and information management

In early 2000, the *Act on the Openness* was followed by an *Act on Electronic Service* in the administration, which contained detailed provisions on the most significant requirements for the electronic identification of persons and which gave electronic signatures the same legal effect in the administration as traditional signatures. It also included some very broadly formulated provisions on electronic services, making it possible to initiate, handle and serve notice on administrative issues electronically.

Regarding the availability of electronic services, the act stated that "an authority in possession of the requisite technical, financial and other resources shall offer to the public the option to send a message to a designated electronic address...". Regarding the accessibility of the authorities, it states that "the authorities shall see to it that their electronic data interchange equipment is in working order and that their electronic data interchange equipment is accessible, in so far as possible, also outside office hours". The provisions on electronic services were therefore very limited and dependent on the capabilities and means of the individual authorities.

The 2000 report of the Information Society Advisory Board to the government, *Finland as an Information Society*, summed up the central legislation related to electronic communication and electronic commerce as well as some of the many projects in the area of e-government such as TYVI, the citizen portal, the JUNA project, etc. Apart from proposals to prevent alienation as a consequence of the new information and communications services, however, the report included no specific recommendations, evaluations or goals on e-government.

In March 2000, a new policy decision of the Government on the *Development of Information Management of the State Administration* replaced the 1994 decision.[13] The basis of the project was the government's project portfolio (10 June 1999), which stated that the steering and co-ordination of information management should be concentrated in the Ministry of Finance and that a strategy of information management in the state administration should be developed. It noted that existing legislation on the organisation of information management, the 1998 *Resolution on Electronic Transactions* and the 1999 *Act on the Openness* had been considered, but the 2000 *Act on Electronic Service in the Administration* was not mentioned.

The decision was structured in five parts involving 29 principles: *i)* general goals for the development of information management; *ii)* interoperable systems; *iii)* servicing of information systems; *iv)* development of operational models of information management; and *v)* steering and organisation of information management. The principles set out in the decision defined a broad range of specific goals within each area, but these were not specified as concrete tasks that could easily be measured or monitored and evaluated.

The policy decision was obviously of general relevance to e-government, as information management is often done electronically. How information is managed is very relevant for the development and implementation of e-government. Several of the principles refer to specific e-government issues (*e.g.* interoperability of information systems, joint electronic services and networks, acquisition of information technology).

Many of the measures regarding the integrated planning, use and cost-effectiveness of IT systems, compatibility and security of information systems, data sharing and data reduction and electronic transactions were already part of the 1994 information management decision. The need to reiterate this guidance indicates the difficulties of implementing decisions even after policy has been decided.

7.3.9. The key co-ordinator: the Ministry of Finance

For eight out of the 29 principles in the decision, responsibility for issuing regulations, instructions, examinations or developing models, networks or programmes was clearly given to specific authorities. Overall responsibility for the steering and co-ordination of information management was given to the Ministry of Finance, and a Government Information Management Committee under the Ministry of Finance handles regulations and instructions relating to information management as well as promotes and monitors their implementation. The decision stated that the Ministry of Finance shall appoint, as preparatory bodies to the Information Management Committee, at a minimum: *i)* a Committee on Information Security Steering; *ii)* a Committee

on State Information Services; and *iii)* a Committee on Operation Practices, Cost-effectiveness and Interoperability of Information Systems. It furthermore stated that joint information management services of the Government were to be prepared within a month by the Office of Government and the Ministry of Finance.

Regarding evaluation of the decision, principle 29 stated that "an independent evaluation of the development of state information management in accordance with this decision shall be conducted within two years from the entry into force of this decision".

7.3.10. A fundamental dilemma: balancing steering and co-ordination with individual accountability

Even though the Ministry of Finance has been given the responsibility for steering and co-ordination across the central administration, each ministry still has responsibility for the vertical steering of information management in its own administrative sector through the performance management process. Even in this area, however, the MoF has an important supporting role to play. For example, the 2000 decision requires it to provide network services (through the Government Information Management Unit) and to regulate events between the information management units of ministries and agencies, supporting exchange and discussion of information and experiences.

The dilemma of balancing the need to co-ordinate and to maintain accountability was recognised in the 2001 *Standpoint of the Ministerial Steering Group on the Reform of Central Government* which was a part of the extensive plan to reform the Finnish central government following an international expert group report commissioned by the Ministry of Finance in 1999. The Standpoint noted that "the achievement of flexible and efficient government requires decision making to take place at the implementation level. Supporting the goals of good governance by means of data management requires, on the other hand, *sufficient centralisation of decision making relating to information and data systems* to ensure compatibility".

The *Standpoint of the Ministerial Steering Group* had four parts:

a) The role of government in steering administration. This covers work practices, tools and processes including recommendations on: *i)* the government programme and preparation; *ii)* the government's project portfolio; *iii)* joint handling of strategy policy programmes and the budget framework; *iv)* co-ordinating ministries and fixed-term ministerial groups; *v)* joint forums of the whole government; *vi)* strengthening the joint expert resources of the prime minister and the government; and *vii)* the information basis of leadership in central government.

b) The role of the ministries in steering government, including recommendations on: *viii)* strengthening the steering role of the ministries in performance management; and *ix)* extensive preparation belonging to the ministries.

c) Government in the service of society, including recommendations on: *x)* contacts with citizens and citizen groups; *xi)* improving availability of services – electronic communication; and *xii)* quality of government and public services.

d) The resources and structures of central government, including recommendations on: *xiii)* the competitiveness of the state as employer – personnel strategy; and *xiv)* structural principles of central government.

In Part C, the standpoint stated that services should always be available online and that the aim of the development of online services is to improve the quality of customer service, to decrease the costs of both government and its customers and to reform the working methods of government.

The recommendations of the Standpoint stressed that it was the responsibility of each ministry to steer the development of services in its administrative fields. At the same time, it emphasised that development work required close co-operation between administrative fields to create cross-administration service entities. The means to be used to facilitate this cross-administration co-operation, however, were not proposed.

Part A on the role of government in steering the administration placed heavy emphasis on strengthening the strategic planning and co-ordination mechanisms of the government and the Prime Minister's Office, while part B stressed the need to strengthen the ministries' ability to steer, monitor and evaluate the performance of their agencies, but did not solve the dilemma of decentralised decision-making and cross-administration co-ordination.

7.3.11. Identifying and addressing e-government bottlenecks

The 2001 report of the Information Society Advisory Board differed from earlier ISAB reports with regard to e-government in that it included an extensive section on the use of ICT in public services. It provided a theoretical framework for analysing the reform of public administration processes and online service projects. It pointed to the characteristics and challenges of infrastructure projects, application projects and agency-specific and cross-administration projects. This was used in a detailed review of several different e-government projects, such as the electronic ID card, the TYVI system, the citizen portal, etc., which resulted in the identification of further challenges and factors affecting both success and failure.

On the background of these reviews, the report recommended that the public administration focus on creating added social rather than technological values when producing electronic services. The administration should

concentrate on determining the functional needs of the technology rather than the technology itself. The report asserted that the public administration has been up to date in the general development of electronic services even though the level of electronic services leaves much to be desired. According to the report, the administration has found a balance between openness, security and the protection of privacy, but the basic weakness of a decentralised model based on independent actors has resulted in slow development of cross-administration services.

In evaluating the development of e-government, the report stated that the public administration was at the same level as the private sector, and in some ways ahead, in the creation of electronic services, even though the most successful services were those between organisations and not citizens' services. It suggested that that it might be easier to attain added value in electronic services between businesses and the administration than between citizens and administration. On the other hand, the public sector was in many respects behind the private sector in the creation of its internal systems and in the development of indicators measuring its own activities.

The 2001 report was therefore a major step forward in terms of dealing explicitly with the challenges and possibilities of developing and implementing e-government, even though, in itself, it did not provide a vision or strategy for e-government in Finland with specific tools, tasks and measures to move the development of e-government forward.

This was the goal of the *Programme of Action to Promote Online Government 2002-03* by a Taskforce on Online Government established by the ISAB in 2001. The taskforce's mandate was to:

- Define the concepts and aims of online government.
- Review the present status of government online services.
- Survey expectations of citizens, firms and other organisations regarding online services.
- Evaluate the need for electronic identification and authentication.
- Draw up proposals for carrying out and co-ordinating projects for online government.
- Indicate the required resources.

The programme first set out to consider all of Finland's public administration, encompassing central government and its agencies, as well as the municipal government sector. However, in view of the short time frame (June to December 2001), it was decided to focus on a limited number of strategic points and "bottlenecks" to be addressed in 2002-03. The group also developed a vision, extending to the middle of the decade, on the role of the public administration in the information society. The report and

accompanying programme of action were accepted by the Ministerial Working Group on Administration and Regional Development.

Contrary to former reports by the ISAB, the taskforce focused solely on e-government, considered not only as electronic services, but also as e-engagement and e-enablers. Its starting point was a critical assessment of the current status of e-government in Finland. It adopted a five-year development vision and identified four general problem areas with a number of specific problems or bottlenecks. Against this background it proposed a number of action items.

The Taskforce's vision stated that by providing secure and user-friendly online services, the public administration will: save trouble and expense for its customers, empower the citizen and support the competitiveness of firms.

The vision differed from the vision put forward in the 2001 *Standpoint of the Ministerial Steering Group on the Reform of Central Government* in that it did not include reform of the administration as a goal in itself. On the other hand, it added the e-engagement aspect of e-government. The goals stated in the vision were not very specific, so that progress towards achieving them will likely be difficult to measure, monitor and evaluate.

The report identified four general problem areas on the way to e-government: *i)* development, implementation and delivery of online services; *ii)* demand for online services and service quality; *iii)* accessibility, usability and user qualifications; *iv)* guidance and co-ordination of online service development. The trouble spots and bottlenecks singled out are all very concrete and relevant for the specific Finnish context.

On this basis, action was proposed in four general areas: *i)* reforming administrative processes rather than adding technology; *ii)* encouraging the supply of and demand for online services; *iii)* improving access, usability and end-user competence; and *iv)* co-ordinating the development of online services. The programme of action sought to address goals and problem areas concretely so that a majority of the action items were put forward as specific tasks and stakeholders were identified. The action programme furthermore assigned responsibility for follow-up or guidance on most of the action items, even though the large number of responsible actors mentioned both in specific action areas and in general might itself create a problem of ownership and co-ordination.

The programme recommended that the Ministry of Finance be given central authority and additional resources to co-ordinate development work for e-government. This was in line with the 2000 Decision on Information Management in the Administration, although it at least partly contradicted the *Standpoint of the Ministerial Steering Group on the Reform of the Central Government*, which recommended that significant cross-administration programmes at the government level be placed in the Prime Minister's Office

and that a general staff unit for strategic issues be formed in the Prime Minister's Office to supplement the Ministry of Finance's co-ordination work.

The taskforce on online government had no formal decision-making power to back up the Programme of Action. In comparison with earlier information society strategies, however, its e-government vision included concrete action areas. Challenges and problems were identified and, most importantly, responsibility for each action was given to specific stakeholders. If the different stakeholders acknowledge their responsibility, it may be a way to ensure support and involvement in carrying out the proposed lines of action.

7.4. Appendix 4: Methodology

7.4.1. *Definition of analytical framework*

As the first step for the study of Finland, the OECD Secretariat developed an agreement with the Finnish Ministry of Finance concerning the objectives, analytical framework (based on the overall OECD E-government Project) and timeline of the study. The analytical framework 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 E-government Project is currently gathering methodologies for indicators as part of its work on the measurement and evaluation of e-government.

As part of the Finland survey (see "Inputs" below), the Secretariat also provided common definitions of terms such as "e-government", "electronic services" and "portal", as well as terms based on other work by the Public Governance and Territorial Development Directorate (GOV), such as "information", "participation" and "consultation" (see Glossary).

The report 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 was a recurring issue in discussions with Finnish e-government officials and experts.

7.4.2. *Inputs*

The Finland study is primarily qualitative in nature, presenting a combination of observations and judgements gleaned from interviews, survey responses, reports and official documents. The study has four major inputs:

Background research, Finnish policy documents

The study brought together a wide range of government documents across sectors and competencies which may lead to further insight into how

various planning processes are co-ordinated in Finland (*e.g.* how the strategic documents on information management and e-government interact). It also draws on academic research and journal articles on public management reform, e-government and the information society in Finland. This broad approach is based on the notion that e-government cannot be addressed in isolation.

Information was exchanged with OECD teams conducting reviews of **regulatory reform** and **public budgeting** in Finland. By sharing information with GOV colleagues, the study is able to avoid duplicative data gathering and to gain further insight into how regulatory and budgetary systems impact e-government initiatives.

OECD survey of e-government in Finland

In February 2002, the OECD administered a survey of ministries and administrative agencies operating under the government budget (a list can be found in the Review on ICT within the Government of Finland published annually by the Ministry of Finance). With the help of the Ministry of Finance, a survey sample was created on the basis of the following criteria:

- **Relevance for survey topic.** Ministries and agencies were relevant if they provided services to either citizens, businesses or other public institutions.
- Central **government agencies.** Regional or provincial units of the central government administration were not included in the sample (*e.g.* universities, schools, provincial state offices, provincial state agencies, provincial governments, etc.).

Based on these criteria, the final survey sample included 68 organisations of which 13 were ministries and 55 were central government agencies (from a total universe of 13 ministries and 111 agencies). The overall response rate was 64.7%. A breakdown of respondents by ministry follows (Table 7.2).

The survey was targeted at IT officials within ministries and agencies of the central administration (and was also sent to KELA). 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 according to the scale developed by the Australian Audit agency (see Section 4.2). The survey was provided in a multiple-choice format to maximise ease of response.

The Secretariat conducted a statistical analysis of survey findings. This information, while primarily descriptive, includes a cross-tabulation of survey results to look for correlations between agency characteristics (*i.e.* size, existence of an e-government implementation plan, indicated priorities) and the level of progress in implementing e-government initiatives. One of the primary values of the survey is to allow the OECD to look at how far

Table 7.2. **Responses to OECD survey**

	Total	OECD sample	Responses	Valid responses	Response rate %	Personnel[1]
Ministries and agencies	124	68	43	43	63	≈126 600
Ministries	13	13	13	13	100	≈ 5 600
Central government agencies	111	55	30	30	54	≈121 000
Ministries/agencies according to administrative branch						
Prime Minister's Office and Office of the Chancellor of Justice	2	2	2	2	100	327
Ministry of Foreign Affairs	1	1	1	1	100	1 652
Ministry of Justice	6	4	2	2	50	341
Ministry of the Interior	24	6	2	2	33	350
Ministry of Defence	2	1	1	1	100	119
Ministry of Finance	8	76	5	5	71	338
Ministry of Education	36	10	6	6	60	332
Ministry of Agriculture and Forestry	9	8	5	5	62	454
Ministry of Transport and Communications	10	8	6	6	75	176
Ministry of Trade and Industry	14	12	9	9	75	354
Ministry of Social Affairs and Health	11	5	2	2	40	453
Ministry of Labour	1	1	1	1	100	346
Ministry of the Environment	1	3	1	1	33	322
KELA[2]	**1**	**1**	**1**	*	**100**	**6 000**

1. OECD statistics, 2001.
2. Responses are not included in overall results.

Source: Information Technology within the Government 2001.

e-government rhetoric – as indicated in strategic plans and documents – has penetrated the awareness and actual practice at the agency level.

Interviews with IT officials

A series of **in-depth interviews** with government officials took place 13-17 May 2002. Two teams from the OECD (two staff, a consultant, and one of the peer reviewers, the Deputy Director General of the Swedish Student Loan Agency) conducted over 20 interviews. Interviews covered all of the ministries, plus a cross-sample of agencies chosen to represent advanced, average and lagging e-government performance. A follow-up set of interviews took place in Helsinki on 12-14 November 2002.

In addition to government officials, the OECD also interviewed the Finnish employers' federation and the consumer federation. The interviews were based on the survey structure, but also focused on more informal judgements of priorities and challenges that cannot always be captured by a written survey.

7.4.3. Independence and neutrality and verification of inputs

Within a framework approved by the Finnish government, the OECD conducted the study with its own staff and independent consultants with no ties to the Finnish government. The study was conducted with guidance and financing from the Finnish Ministry of Finance, but the Ministry only explained the aspects of e-government in Finland that it wanted the study to cover. It did not try to influence the final conclusions or bias the study regarding its own role in e-government design and implementation.

The report was reviewed by three peer reviewers from other OECD countries, including one who participated in the in-depth interview process. It also benefited from review by the Ministry of Finance and other relevant ministries that participated in the official interviews.

7.4.4. Transparency of procedures

The OECD has regularly briefed the Finnish Ministry of Finance and the OECD E-government Working Group on the progress and procedures of the Finland study. The written survey was shared with the entire Working Group for comment.

7.4.5. Challenges

As the first pilot study on e-government, the Finland project has had the opportunity to set priorities for studying a relatively new and complicated phenomenon. A new methodology, however, also means that there are few baselines (both internal and external) against which to compare the observations made in the course of the project. The report therefore focuses on qualitative analysis and, where possible, cross-tabulation of survey results which permit comparisons while controlling for variables such as agency size or whether or not an agency has a strategic plan. While recognising the inherent limits of benchmarking, the project will also continue to look for individual points of comparison and proxy indicators that can assist countries that so desire to compare themselves with their peers.

Notes

1. OECD, *National Accounts of OECD Countries*, 1989-2000, Vol. II.
2. Classification from G. Bouckaet *et al.* (2000), p. 77.
3. Ministry of Finance (1995), *Finland's Way to the Information Society*, Helsinki.
4. Government (1995), Government Resolution on Developing a Finnish Information Society, Helsinki.
5. *Ibid.*, p. 6.

6. Finnish National Fund for Research and Development (1998), "Quality of Life, Knowledge and Competitiveness – Premises and Objectives for Strategic Development of the Finnish Information Society", Helsinki.
7. Tiihonen, S. (2000), *From Uniform Administration to Governance and Management of Diversity*, Ministry of Finance, Public Management Department, Helsinki.
8. P. 16.
9. P. 11.
10. Ministry of the Interior. Development Project for e-government JUNA: *www.intermin.fi/suom/juna/english/presentation/index.html*
11. Ministry of Justice, More Information on Preparation, Clarification of Secrecy (*www.om.fi/3470.htm*).
12. *Ibid.*, p. 3.
13. The decision document itself is five pages long, but there is a 16-page version in Swedish and Finnish which is used here as reference since it also includes background and motivation. Finansministeriet. 2000. Statsrådets Principbeslut om Utvecklande av Statsförvaltningens Informationförvaltning. Helsingfors.

Glossary

From the OECD E-government Survey on Finland:

- The term **e-government** is defined as the use of information and communication technologies (ICT), and particularly the Internet, as a tool to achieve better government. The term "e-government" corresponds to the Finnish term *sähköinen hallinto*, in Swedish: *nätkommunikation* or *elektronisk förvaltning*.
- The term **e-government activities** is used broadly to cover all activities relating to the use of ICT by governments. It thus covers both an agency's activities with regard to citizens, businesses, and other public agencies as well as activities concerning internal administration processes, structures, and behaviour.
- The term **electronic public services** covers services provided by, but not necessarily supplied by the public administration to citizens, businesses and organisations as well as to other public administrations units through information networks. The term corresponds to the Finnish term: *julkiset verkkopalvelut*, in Swedish: *offentliga elektroniska tjänster*.
- The term **e-engagement** applies to the use of ICT for developing relations between government and citizens and business, including *information*, *consultation* and *active participation*:
  - **Information:** a *one-way relation* in which government produces and delivers information for use by citizens. It covers both "passive" access to information upon demand from citizens and "active" measures by government to disseminate information to citizens
  - **Consultation:** a *two-way relation* in which citizens provide feedback to government. It is based on the prior definition by government of the issue on which citizens' views are being sought and requires the provision of information. Governments define the issues for consultation, set the questions and manage the process, and citizens are invited to contribute their views and opinions.
  - **Active participation:** a *relation based on partnership* with government, in which citizens actively engage in the policy-making process. It acknowledges a role for citizens in proposing policy options and shaping

the policy dialogue – although the responsibility for the final decision or policy formulation rests with the government.[1]

- A **portal** 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 such as topics, geography or other subjects related to the user's need.[2]
- By comparison, the term **website** describes a ministry/agency site, which primarily provides access to the online resources of that specific ministry/agency.
- From the 2000 Decision of the Government on the Development of Information Management of the State Administration:
- **Information management:** operations which develop and maintain the information reserves, information technology services and information processes of an organisation.

From the 1998 Finnish Information Society Strategy:

- *i*) **enablers** in terms of technology, infrastructure and ICT-related education and research; *ii*) **e-engagement** in order to strengthen democracy and improve citizens' access to information and opportunities for social influence; and *iii*) **online services** to develop coherent, cost-effective and secure public services.

OECD E-government project:

- The term **e-enabler** covers: *i*) complementary processes and legal frameworks, such as digital identification and authentication, that are not services in and of themselves, but facilitate the electronic delivery of services or information; and *ii*) physical ICT infrastructure, as well as channels for electronic service and information provision such as portals, Web sites and portable phones.
- E-government **barriers** are defined for the purpose of this report as the obstacles *external* to governments which however can constrain e-government efforts. As such, they often concern breakdowns, missing components or lack of flexibility in the government-wide framework that enable e-government. The result is often the inability to achieve a whole-of-government or seamless perspective in e-government implementation.

From the 2002 ISAB proposed programme of action:

- **Register pool:** an organisation for co-operation by agencies responsible for maintenance of the base registers.
- **Public administration:** central government administration and municipal administrations.
- **Public access terminal:** PC with Internet access installed in a public space such as a library, available for use by the public at no charge.
- **National base register:** database of administrative information with comprehensive national coverage; there are four large information systems in Finland: populations, organisations (firms, establishments, associations, etc.), buildings and land, and real estate.
- **Ministerial Working Group on Administrative and Regional Development:** a committee made up of cabinet ministers that meets to discuss matters relating to the development of public administration and of regions.
- **Employment and Economic Development Centre:** joint regional offices of the Ministries of Trade and Industry, Agriculture and Forestry, and Labour for the development of employment and of small and medium-sized enterprises.
- **Joint service point:** government office where services by several public administration authorities are available on the same visit (also one-stop shop).

From the 1995 Resolution on Developing a Finnish Information Society:

- **Information technology:** the hardware, software and methods used for the automatic processing and transfer of data and the skills needed to use them.
- **Information and communications industry:** businesses that produce or deal in information or IT hardware, software and services;
- **Content industry:** the production or compilation of information, works or programmes made available over information networks or in the electronic media.
- **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 system of transmission links, access procedures, legal and general frameworks, and the basic and support services of the information network.

- **Information society:** a society which makes extensive use of information networks and IT, produces large quantities of information and communications products and services, and has a diversified content industry.

Notes

1. OECD (2001), *Citizens as Partners*, Paris.
2. Pirkko, Romakkaniemi and Seppo Kurkinen (2001), "Portal Report Finland", Finnish Ministry of Finance, Public Management Department.

List of acronyms

AFLRA	The Association of Finnish Local and Regional Authorities
AKE	The Finnish vehicle administration
BB	Broadband
BIS	Business Information System
CAF	Common Assessment Framework
CERT	Computer Emergency Response Team
EDI	Electronic and Data Interchange
EU	European Union
EUR	Euro (European Monetary Unit)
FINEID	Finnish National Electronic Identification Card
FINLEX	Finnish electronic collection of laws
FIM	Finnish Mark (Finland's monetary unit before Euro)
G2B	Government to Business
G2C	Government to Citizens
GDP	Gross Domestic Product
GOV	Public Governance and Territorial Development Directorate
GSM	Global System for Mobile Communication
GUIs	Graphic User Interfaces
ICT	Information and Communication Technology
IM	Information Management
ISAB	Information Society Advisory Board
IT	Information Technology
JHS	Public administration standards recommendation
JUHTA	The advisory committee on information management in public administration (Julkisen Hallinnon Tietohallinnon Neuvottelukunta)
JULHA	Public sector e-mail and contact directory service
JUNA	The Development Project for e-Government
KELA	The Finnish social insurance institution
LDAP	Lightweight Directory Access Protocol
LTJ	Traffic data system
MoF	Ministry of Finance
MoI	Ministry of the Interior
MoJ	Ministry of Justice

MTI	Ministry of Trade and Industry
NBPR	National Board of Patents and Registration of Finland
NMT	Nordic Mobile Telephone
NPM	New Public Management
PALKO	Project of the Vehicle Administration
PDA	Personal Digital Assistant
PIN	Personal Identification Number
PKI	Public Key Infrastructure
PRC	Population Registry Centre
PRS	Public Registers System
SAO	State Audit Office
SITRA	Finnish national fund for research and development
SME	Small and Medium-Sized Enterprises
SMS	Short Message Service
StatFin	Statistics Finland
TE	Employment and economic development centre
TIEKE	Finnish information society development centre
TUKES	Safety technology authority
TYVI	Electronic transactions from companies to public authorities
UNECE	United Nations Economic Commission for Europe
USD	United States Dollar
VAT	Value Added Tax
VATI	Council of information management directors
VALTIPA	Government network of information service professionals
VAHTI	Government's information technology security board
WAP	Wireless Application Protocol
XML	Extensible Markup Language
Y2K	Year 2000 bug

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