Chapter 8

E-Government Case Study
Introduction

Finland is one of the early adopters of e-government within the OECD, and has achieved impressive results based on international comparisons. A number of specific strengths have placed it in a favourable position for relatively fast development of e-government. Its basic culture is open to change and modernisation, and its citizens are, on average, well-educated and ready to use new information and communication technology (ICT) and e-services. Finland is the home of Nokia, one of the global leaders in mobile communications, along with many competent and competitive software enterprises. Its citizens have traditionally trusted their government, which uses unique identifiers and shared databases for residents, companies and corporations, vehicles and real estate in order to improve the quality and efficiency of public service delivery. Historically, Finland was able to use these strengths to become a world leader in e-government.

It seems that more recently, however, Finland has been unable to keep pace with other countries, which may have advanced further, according to some international rankings. The deterioration in Finland’s e-government rankings provides an example of the consequences of a lack of strategic agility embedded in the public administration.

Finland’s position in international e-government rankings

The EU’s latest report on the information society provides a set of benchmarks that clearly show that the information society in Finland – although well evolved – is lagging behind the leading countries. Finland is ranked fifth in the index on the take-up of advanced private and public services, sixth in the index on socio-economic context, and only 13th in the aggregated broadband performance index. Finland is above the EU average in the index of digital literacy, but is at the same time consistently outranked by its neighbours – Denmark, Norway and Sweden – which share the same general social and cultural context.

Another important set of benchmarks is the EU’s recurring rankings of e-government, which is primarily an output index and looks exclusively at the provision of services to residents and enterprises (but does not include progress in transforming structures and processes, or in administrative effectiveness and efficiency). The two main composite indicators in this benchmark include “online sophistication” and “fully available services”. In addition, the latest ranking contains a composite index on “user centricity”. Finland has always been among the top countries in these benchmarks, and its ranking has consistently been above the EU average. Its performance has increased over time, but its place in both of the main indices slipped from second in 2001 to 13th in 2007. However, its performance has since increased relatively quickly, and as at November 2009, Finland was ranked fourth for “online sophistication” and fifth for “fully available services” among the 22 EU countries that are members of the OECD (see Figures 8.1 and 8.2). In 2007, Finland was awarded maximum points for 11 of the 20 services covered by the composite index, but ranked below the EU average for eight other services. In 2009, Finland’s scores
improved, and it was awarded maximum points for 15 of the services and only ranked below the EU average twice. The November 2009 report contained a first attempt at benchmarking the user experience. Here Finland ranked first with maximum points awarded for usability, user-satisfaction monitoring and user-focused portal design. The report also contained a benchmarking of e-procurement, where Finland only ranked 26th out of the 31 countries covered by the benchmark.
A similar story is told by the United Nations’ e-government readiness index,\(^5\) where Finland dropped from eighth place among OECD countries in 2005 to 14th in 2008. This index covers a broader range of countries and is partially based on implicit or explicit best practices, which entails a risk for bias. It is noteworthy that Finland shared first place in the sub-index on human capital with Australia, Denmark and New Zealand (see Figure 8.3).

Figure 8.3. **UN e-Government Readiness Index, 2008**

![Graph showing UN e-Government Readiness Index, 2008](source: United Nations e-Government Readiness Knowledge Base)

Another global index is produced by the World Economic Forum. For 2009/10, Finland ranked fifth on its networked index, on par with its position in 2008/09.\(^6\) What is noteworthy about Finland's results on this index is that its weakest point is government usage, where the country is only ranked in 10th place (see Figure 8.4).

Figure 8.4. **The Networked Readiness Index 2009-10**

![Graph showing The Networked Readiness Index 2009-10](source: World Economic Forum (2009), The Global Information Technology Report 2008-09 – Mobility in a Networked World, INSEAD and World Economic Forum.)
Finland’s strategic vision for enhanced e-government

Until recently, Finland has been a world leader in exploiting ICT to renew its economy and to reform its public administration. It enjoys one of the highest e-government take-up rates by business in the OECD, and while there is room for improvement in citizen take-up rates (50% on average), citizen usage of e-government services is still well above the OECD average of about 35%. However, in recent years, Finland’s position as a leader in e-government has been slipping; this has perplexed the government, which sees strong e-government as a key factor in Finland’s competitiveness. In response to the slippage in international rankings, the government has implemented a series of programmes that aim to re-invigorate Finland’s position in the international comparative rankings. The goal of the Finnish government is for Finland’s rankings in established international e-government surveys to improve by 2015 and to be, on average, among the top five countries.7

In 2003, in an attempt to increase the coherence and co-ordination of ICT in the Finnish public administration, one of the first horizontal Policy Programmes was dedicated to the Information Society Policy Programme (see Box 8.1). The aim of the Information Society Programme (2003-07) was to improve competitiveness and productivity, promote social and regional equality, and improve citizens’ well-being and quality of life through the effective use of information and communication technologies. To support the implementation of the Information Society Policy Programme, the government appointed a large Information Society Council, which included representatives of both the public administration and private organisations and businesses, as a consulting and co-ordination body. The Information Society Policy Programme was directed and co-ordinated by a ministerial group chaired by the Prime Minister and supported by a programme director in the Prime Minister’s Office.

While the work undertaken under the Information Society Policy Programme made considerable progress to raise understanding of the importance of information society policy at the political level, the work programme was not completed. To follow up, a new programme of work was agreed (Government Resolution on the Objectives of the National Information Society Policy 2007-11, which included details of the government’s key objectives and priorities to accelerate information society development) and is being implemented under the National Information Society Programme 2007-11. This programme of work is based on the National Knowledge Society Strategy 2007-15, which outlines the national vision and strategic intent for the kind of information society the government of Finland wishes to create.

As the National Information Society Programme 2007-11 was launched, the government appointed the Ubiquitous Information Society Advisory Board (replacing the Information Society Council), whose role is to ensure the implementation of the National Knowledge Society Strategy 2007-15 and the National Information Society Programme 2007-11. In undertaking this role, the Advisory Board released the Ubiquitous Information Society Action Programme 2008-11 as a platform for projects to support the National Information Society Strategy.

Another government initiative – the Action Programme on eServices and eDemocracy 2009-12 (SADe) – is a joint development programme covering both the state administration and the municipalities. It is intended to accelerate the development of Finland’s information society and the spread of e-services. The main objectives of the programme are well established: improved service availability, customer-oriented services;
Box 8.1. Information Society Policy Programme: Principles of the model of corporate management in state information management

The main achievements of the Information Society Policy Programme included: introduction of the model of corporate management to state information management, increased co-operation between state and local authorities in relation to information society issues, and developments in the health sector.

The model of corporate management was introduced through the “Organisation and Steering of State IT Management” report (2004), which was a cornerstone for a new state public administration ICT strategy (which was later adopted in 2006) and led to structural reforms relating to public sector information management and co-ordination of information society issues.

The State IT Management Unit was established in the Ministry of Finance in 2005 to co-ordinate common information management within the public administration; and, in 2006, an equivalent Local Government IT Unit (KuntaIT) was established in the Ministry of Interior to co-ordinate information management co-operation among Finnish municipalities. In 2008, the Local Government IT Unit was transferred to the Ministry of Finance as part of another wave of structural changes.

The model of corporate management identified four major principles in state ICT management:
- ICT activities should be managed as in a consolidated company.
- Common ICT services should be provided centrally. Government agencies should concentrate on using ICT in their core businesses.
- State ICT should use a common model of economic supervision and performance management.
- State ICT should support the development of customer-centric services and productivity enhancement.

In June 2006, the government approved a new State IT Strategy (called “Government Policy Decision on the Development of IT Management in State Administration 2006”), which supported the consolidation of IT management in state public administration. The strategy introduced common structures and common IT services, and fostered inter-operability of IT systems to enable government agencies to focus their IT resources on the systems of their core business processes. The 2006 State IT Strategy was implemented within five development programmes focused on:
- Customer-centred e-services.
- Inter-operability.
- Shared IT systems.
- Harmonized basic IT services.
- Information security and contingency planning.

Later in 2006, the Strategy for Local Government IT Management was published, supporting the Local Government IT Unit in providing inter-operable, customer-centric IT services for the use of all municipalities. The strategy was elaborated as more detailed measures in an action plan adopted early in 2007. It aimed to respond to incoherence among the then-450 municipalities developing their own IT systems, which could not exchange information.

Source: Ministry of Finance, Finland.
increased competitiveness; minimised administrative burden; improved investment profitability; and a strong civil society.

Figure 8.5 provides a timeline of the implementation of strategic e-government and information society activities by the Finnish government during the period 2003-10.

**Figure 8.5. Timeline of Finnish e-government and information society strategies and actions, 2003-11**

Together, the National Information Society Programme 2007-11, the Ubiquitous Information Society Action Programme 2008-11 and the Action Programme on e-Services and e-Democracy 2009-12 establish a very broad and ambitious work programme. As evidenced in Figure 8.5, quite a lot of activity is being undertaken to progress towards Finland’s information society goals. However, it can be argued that the volume of activity has led to a lack of clarity within the public administration as to the strategic vision to be achieved. It is difficult to ascertain how all the programmes and strategies currently in play link together to achieve Finland’s strategic objective: increasing Finland’s rankings in established international e-government surveys to be among the top five countries by 2015.

Chapters 4 and 5 describe how layering strategic objectives can lead to a lack of true prioritisation, in which secondary objectives are dropped or reduced in scope in order to ensure that sufficient attention and resources are available for real top priorities. This can be exacerbated by a lack of supporting evidence to ensure that policies will actually achieve intended objectives (see Chapter 3). Existing information society and e-government activities should be mapped using a results chain to demonstrate how the various projects and programmes are being co-ordinated to achieve the intended strategic outcomes. Benefits realisation modelling can be used to compare resource investment to the achievement of quantifiable benefits and/or outcomes. This type of mapping enables the public administration and the government to identify risk areas and assumptions in the chain, and to better manage the achievement of outcomes. This type of modelling is also very effective for communicating strategic vision and the processes and activities that need to be enacted to achieve that vision (see Figure 8.6).
The difficulty in operationalising the strategic e-government vision mirrors the challenges being faced in operationalising the government's strategic agenda more broadly across the Finnish public administration. Much effort has been taken to develop a vision, but that vision is not clearly communicated and major implementation failure is a risk. The remainder of this study addresses the challenges facing Finland in achieving its strategic vision of being ranked among the top five countries in established international e-government surveys by 2015.

**Achieving collective commitment through alignment of governance and leadership**

E-Government policy requires action from multiple actors – the public administration needs to co-ordinate various stakeholders and players to promote collaborative working methods. E-government requires parallel action in multiple policy or administrative areas, and is dependent on adequate outcomes or policy results in other areas. These include the country's physical infrastructure, penetration and use of the new technologies outside the public sector, a sufficient supply of relevant skills and competences in the national market, and the market supply of adequate and competent IT-related services.

In Finland, responsibility for e-government, information society, and data privacy and data protection policy are shared across three ministries – the Ministry of Transport and Communications is responsible for the information society portfolio; the Ministry of Finance has responsibility for the e-government portfolio; and the Ministry of Justice has responsibility for privacy and data protection issues and the citizen participation portfolio. In terms of developing e-services, each line ministry is responsible for its subordinated executive agencies, both their performance in developing e-services and for co-operation with other executive agencies. At the sub-national administration level, e-services are delivered by a large number of autonomous local municipalities and joint municipal authorities.
In order to perform well and to achieve progress towards the government’s e-government and information society policy objectives, Finland’s challenge is multi-dimensional: horizontally, across ministries and their subordinated agencies; vertically, among the ministries and the largest executive agencies; and constitutionally, between the national and the local governments and their respective administrations. In addition, the Social Insurance Institution (KELA), which is a key player in joined-up e-government, is not subordinated to the government but only to the Parliament. This type of fragmentation, however, does not necessarily prevent a strong performance in e-government development – as demonstrated by Sweden, which also uses a diffuse administrative structure to support e-government, but which has still managed a world-class performance during recent years. Comparatively, Finland seems to have been less successful in managing its fragmented administrative system, and to suffer more from sectoral and silo sub-optimising, and from a lack of inter-sectoral co-operation and coherent funding. Both Sweden and Finland have recently updated their e-government strategies with some significantly different approaches (see Box 8.2).

The key barrier to e-government collaboration across central ministerial units, agencies and municipalities is the tendency to sub-optimize, which is an unavoidable companion of specialisation and distribution of responsibilities across parallel organisations. The transversal goals have to be broken down into separate adapted goals and targets for each organisation, and each organisation must then attempt to maximise the achievement of its own goals, even if this comes at the expense of other parts of the transversal goals. This is true for public administrations in all countries. Improving e-government co-ordination therefore requires governance and leadership arrangements that cut across narrow sector interests to establish strong cross-organisational cohesion, co-ordination and co-operation to overcome barriers.

The key instruments guiding Finland’s strategic planning and leadership of e-government policy have been the Information Society Policy Programme 2003-07 and the follow-up National Information Society Programme 2007-11. The basic principle underlying these programmes has been to guide actions and deliberations of different ministers and ministries, leading to sufficient horizontal co-ordination and a proportionate political thrust. In reality, the ability of these programmes to achieve their intended objectives has been dependent on the level of leadership and political cohesion in the government and the public administration.

The relatively slow evolution of e-government during the period covered by the first horizontal Information Society Policy Programme indicates that the political leadership during that period may not have been sufficiently forceful to overcome the natural barriers to transversal co-operation. The Government has, however, taken more forceful action after the adoption of the National Information Society Programme 2007-11. By creating the Ubiquitous Information Society Board, the government has co-opted other stakeholders in formulating shared goals and action programmes, assuring active support and contributions from these stakeholders.

The government has also announced that it intends to strengthen central governance in such areas as basic information technology, basic databases, architecture at the state level and other shared architectures, shared information systems and services, compatibility, data security and readiness, quality control, and competence development. It also intends to intensify the development of information management using strategic...
Box 8.2. **E-Government strategy in Finland and Sweden: Similarities and differences**

The public governance models in Finland and Sweden share the same historical and cultural origins. Both countries have relatively fragmented public administrations, with separately managed executive agencies and independent local government with a strong public service delivery role. Recently, however, the administrative arrangements and cultures of the two countries have evolved in slightly different ways, demonstrated by their respective approaches to e-government development.

Both Finland and Sweden have recently reviewed and revised their e-government strategies. The main goals set by the governments are almost identical: a more efficient public sector, improved services for citizens and enterprises, more transparent public processes, and improved access to public information. Both countries also intend to strengthen the governance and co-ordination of e-government development. They intend, however, to do so in different ways.

Finland has focused on strengthening the political governance of its development efforts. For this purpose, it has established the Ubiquitous Information Society Advisory Board – composed of representatives from key ministries, agency heads, senior business leaders and prominent academicians, and chaired by the Minister of Transport and Communication.

In contrast, Sweden focuses on strengthening the arrangements for the horizontal co-operation that already dominates its e-government work. It has established the e-delegation, composed of key agency heads and chaired by the former Director General of the National Tax Agency. It has also set up an internal co-ordinating committee within the government offices composed of key state secretaries.

The choice of strategy also differs between the two countries. Finland is focusing on technical and operative harmonisation and standardisation across the central and local government administrations. The State ICT Unit, within the Ministry of Finance, has been tasked with standardising the equipment and software used by the national government administration, and with developing shared back-office services to be used by both national and local government administrations. The latter will be financed by adjustments in budget allocations and provided free or at reduced costs, ensuring sufficient take-up.

Sweden abstains from any technical and operative standardisation and instead focuses on inter-operability, information management and procurement co-operation. It also intends to develop shared back-office services, but will rely on agency clusters, where one agency is tasked with promoting service cohesion and co-ordination. The financing of shared projects will be devised on a project-by-project basis.

Both countries have built their e-identification arrangements on co-operation with commercial banks. Finland has not signalled any reforms to its relatively weak system, while Sweden prioritises further development of its system to reduce costs, improve security and facilitate usage for both citizens and private and public service providers.


directives, information directives, procurement management and norms. The Ministry of Finance holds responsibility for the preparation of the necessary legislation for enhanced central governance, and for ensuring compatibility of the information systems. However, at the time of writing, the expected timetable for Parliamentary approval and implementation are unknown.
In addition, the new Action Programme for e-Services and e-Democracy 2009-12 (SADe) will strengthen national governance of development activities and consolidate Finland's technical infrastructure and ICT investments. Preparatory work is underway to launch a joint organisation to oversee the operative production and management (e.g., procurement, implementation, maintenance) of shared public IT solutions in January 2011. Shared IT solutions will be financed through a designated budget line.

In launching these ambitious initiatives, the Ministry of Finance is taking on a dual role: providing policy (and political) leadership to advance the e-government strategy, and being the technical enabler through standardisation initiatives and the development and provision of technical solutions. This duality of roles can pull an organisation in different directions in terms of staffing and organisational needs.

The increasingly strong role of the State IT unit can, in fact, be seen as a deviation from Finland's standard constitutional model of weak ministries. The consolidation of the Municipal IT Unit into the State IT Unit, while supporting consistency and whole-of-government perspective, for example, will give this Unit unprecedented power in the Finnish context. This level of leadership is probably necessary to secure the high-level political support and decision making authority necessary to achieve the ambitious goals of the e-government strategy. Looking to Sweden's experience, however, the failure of the Swedish Administrative Development Agency (VERVA) could be instructive for Finland. VERVA was established in January 2006 as one of the government's central advisory agencies. Its remit was to co-ordinate the development of central government in Sweden while driving and promoting the country's e-government development in both state and local governments. It was shut down at the end of 2008, based on the view that it had not made any substantial achievements.

The Swedish experience demonstrates some of the potential difficulties with trying to use strong leadership in an administrative culture where leadership can be distrusted and government bodies are used to acting independently (see sub-section on leadership in Chapter 5 on Collective Commitment). Other issues, such as lack of financial resources, also played a role in this outcome. The necessary trust and authority to show leadership cannot be taken for granted and, instead, must be exercised in conjunction with more traditional dialogue and catalyst roles.

In terms of the State IT Unit's more technical functions, one could argue that the services developed within the Ministry of Finance can help to “buy the goodwill” of state and sub-national authorities and encourage them to follow the national e-government agenda. All governments – whether with department-based or agency-based administration – need the support of a range of specialised competence centres. In other OECD countries, however, more technical support functions are often provided by separately managed agencies or advisory bodies, in part because longer-term technical perspectives are invariably crowded out by short-term political concerns, and because ministries’ human resources policies may prevent them from recruiting and retaining the qualified technical staff they would need. An important exception is technical and organisational standardisation – a major component of the Finnish e-government agenda – which may require the leadership of a ministry in order to achieve buy-in from other actors. On the other hand, technical service provision for agencies (e.g., framework procurement and technical assistance) can be provided more easily on an agency-to-agency basis.
Bringing local governments on board presents special challenges in Finland’s administrative structure. Local governments are independent not only in relation to the national government, but also in relation to each other; and there is no central organisation mandated to take binding decisions for all local governments. The key issues are to ensure that there are effective mechanisms available to support agencies and local governments in fully implementing central initiatives and centrally decided policies and services.

The Finnish government has stated that it intends to use a mixture of legislative frameworks and economic incentives to achieve co-ordination and coherence of e-government policy across the state and sub-national public administrations. It is not yet known how far the Finnish Parliament is prepared to go in legislating on e-government, and it can be assumed that the economic incentives may be the most important piece. The intended use of budget deductions to finance investments in shared services and other projects for both executive agencies and local governments is innovative, given the strong emphasis on delegated mandates for agencies and local government autonomy in Finland. These intentions should be carried out; they would provide Finland with the necessary impetus for extending advanced e-government to the local government sector.

The government must also ensure that the Regional Councils and local governments participate fully in the networked administrations. It is therefore necessary to engage them as partners in the design and implementation of e-government policies, and to opt for strategies and solutions that are compatible with their autonomous standing.

While many of these initiatives are still relatively new, the current difficulty in advancing the e-government agenda raises a troubling hypothesis that Finland’s lacklustre performance in e-government development during a number of years might be the result of a fundamental mismatch between its fragmented administrative structure and its choice of a centralised steering model. As Finland moves towards a more controlling approach – for example, with regard to the identification of shared corporate services and the establishment of Shared Service Centres (see Figure 8.7) – it is important that its leadership style, and its governance structure and culture, remain aligned with its strategic approach. As noted earlier, Finland shares a fragmented administrative model with Sweden, but Sweden has opted for a more decentralised way of e-government development based on empowering executive agencies and holding them responsible, and on choosing voluntary co-operation before compulsory co-ordination wherever possible.

**Figure 8.7. Countries’ approaches to the organisation of common business processes**

<table>
<thead>
<tr>
<th>Control approach</th>
<th>Facilitating approach</th>
<th>Laissez-faire approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Korea</td>
<td>USA</td>
<td>?</td>
</tr>
<tr>
<td>Finland</td>
<td>Germany</td>
<td>New Zealand</td>
</tr>
<tr>
<td>Denmark</td>
<td>Netherlands</td>
<td>Sweden</td>
</tr>
</tbody>
</table>

Source: Adapted from OECD (2005), e-Government for Better Government.
The most serious obstacles to the information society and e-government policies in Finland may thus be general government arrangements. The government-wide programmes are intended to promote cross-ministerial priorities and focus, but are not sufficiently linked to or integrated with main governance arrangements, such as the budget or the annual instructions to each agency/sub-government body. Ministerial stovepipes remain a key factor, and any cross-ministerial projects seem to require negotiations and adaptation to the whims of individual ministries.

The strategy selected by the Finnish government may prove as appropriate as, or even better than, the Swedish strategy but it clearly requires more active and visible political involvement. As discussed in Chapter 5, strategic vision alone will not provide governments with the flexibility and agility needed to adapt to the changing and increasingly complex policy environment. Collective commitment is required to support the successful operationalisation of a strategic vision; this relies on a clearly communicated vision and whole-of-government co-ordination and collaboration. The implementation of the government’s strategic e-government vision requires a strong, coherent strategy that links the various programmes. It will also require strong, effective leadership at the political level and within the public administration to commit to the vision and inspire and motivate the public administration to work collaboratively to operationalise that vision within and across the levels of government.

A decisive factor for Finland in progressing towards its goal of becoming one of the five leading e-government countries will be its ability to achieve joint action across political sectors, administrative silos and levels of government. In order to do so, it needs to achieve sufficient co-ordination and coherence across the policy areas in the three primary ministries, and implementation efficiency and inter-operability at the state and sub-national levels.

To overcome fragmentation of ministerial silos, the government must act in a concerted manner. This will require political determination and leadership, and strong direction from within the state public administration. It is not just a question of leadership, however; it also represents a governance shift for Finland in which accountability and resources are re-aligned around a stronger centre. Finland must present a clear vision of networked government, hold agencies accountable for failures in implementing the government’s strategy, focus on the standards and shared functions and services necessary for a well-functioning networked administration, and avoid the pitfalls of over-centralisation. Many of these changes will require legislation, and legislative drafting has already been mandated for the standardisation and inter-operability of state ICT under the SADe programme. Strategic vision, leadership and accountability for collective commitment, and resource flexibility to achieve priorities, are all inter-dependent and necessary for the success of Finland’s e-government strategy.

**Resource flexibility to harness the information society**

As discussed in Chapter 6, resource flexibility involves not only the ability to re-allocate resources based on changing strategic priorities, but also ensuring that resource capacity is available in the right place and at the right time. Enhancing Finland’s administrative and infrastructure capacity will be critical to ensuring that its strategic e-government vision is successfully achieved.
Enhancing administrative capacity

Most OECD countries are in a stage of e-government development that can be called output centred, and involves enhancing cost efficiency and making services available via telephone and on the Internet. Development strategies are, as a rule, based on the separation of front-office and back-office processes, enabling functionality-driven development of individual back-office functions. There are three different types of back-office functions to be discussed in the context of enhancing Finland’s administrative capacity:

- the supply of basic information required for case handling and service delivery by executive agencies and sub-national government administrations;
- the sharing of back-office functions and corporate services to improve efficiency and effectiveness; and
- the standardisation of procurement and provision of software and hardware for the different parts of the public administration, which forms the technical foundations for e-government.

Information infrastructure and management

Adequate information infrastructure and management are essential pre-requisites for efficient e-government. Data must be collected appropriately and managed in such a way that they are available to agencies/service providers as needed. The issue is less technical standardisation than semantic and legal standardisation or inter-operability, and adequate regulations. Deficiencies in the way the public administration manages its data stores can reduce service quality, unnecessarily increase costs, and harm public confidence in its ability to appropriately handle sensitive information.

Information sharing practices and policies differ from country to country, depending on the administrative and political culture and historic background. The Nordic countries (e.g., Denmark, Finland, Iceland, Norway, and Sweden), have for several decades maintained central key databases containing basic citizen data like name, birthday, addresses, etc. to be shared among all public authorities. Legislation and regulation are not strong barriers to information and data sharing in the Nordic countries (even though privacy protection does limit re-use of information and data); however, administrative challenges such as the pricing of information and data for re-use and exchange, do exist and are discussed within the public sectors in a number of OECD countries (e.g., Denmark, the Netherlands, and Finland).

The pre-conditions for efficient and appropriate basic information management in Finland are stronger than in most other OECD countries. Finland has unique identifiers and shared databases for residents, companies and corporations, vehicles and real estate. Public basic data are stored in a number of different state and municipal registers, and Finland has thus avoided the creation of a public mega-database.

The National Information Society Programme 2007-11 states that the usability of basic data registers and shared use of data will be promoted, and that public administration data should be easily available to all public organisations. Citizen information needs should also be addressed. Guidelines for information disclosure and shared use should be clarified, and the related issues of responsibility should be harmonized across registers.

This part of the programme does not, however, seem to have led to any visible results. The utility of the present arrangements seems to be taken for granted and little attention is
given to how trust and integrity protection might evolve over time under existing arrangements – or to potential strategies for enhancing basic information management. The arrangements for accessing public basic data registers seem to be relatively un-sophisticated (generally through insecure online access, with the associated privacy and security risks). Nor does access seem to be limited to the data required for the handling of specific cases.

Moreover, Finnish government agencies that provide information to other public organisations charge these organisations for its use. The charges are not negligible; for example, they account for about half the revenues of the Population Register Centre. As a result, massive downloads are being stored and re-used by other public organisations, creating parallel registers that contain the same sets of information, but which are updated at different times. This almost certainty leads to differences in the same data posted in different public registers. Finnish officials interviewed by the OECD criticised these arrangements, but acknowledged that abolishing charges would have substantial budget effects.

Appropriate pricing of public information is a key part of good information management. On the one hand, it can be argued that the full costs of producing, maintaining and supplying public information should be borne by those who use the information. This allows users to see the full cost of providing the information and balance this against the value generated by using it. Costs will also be appropriately itemised so that the full costs of different activities will be apparent in users’ financial reports. On the other hand, information is a non-rivalrous good; that is, consumption of the good by one individual does not reduce its availability for consumption by others. Economic research has shown that the optional price for this type of good corresponds to the short-term marginal cost for distributing it. A higher price will reduce the use of the good and lower its economic yield. Many governments charge external commercial re-users of public information, although there are exceptions such as the United States, where public information, as a principle, is free of charge. Very few governments charge internal re-users.

The health sector provides an especially troublesome problem due to its many different databases. These generate extra costs and contribute to inefficiencies in the health system. A number of development activities are going on in large cities and hospitals, but without any cross-sector integration. The “own health service entity”, which is in a preparatory stage in 2010 under the SADe programme, envisages the creation of electronic “well-being and health” files which would be controlled by individual citizens and include health data provided by citizens as well as electronic health and treatment data provided by their healthcare professional and data from the National Archive of Health Information (KanTa).

Three groups have recently been set up to review state information management arrangements and the re-use of public information. Such efforts need to be supported at a high level in order to maintain focus on maximising overall benefits for the state and for citizens, especially through the conditions and modalities for sharing information among public organisations. The present arrangements in Finland seem to be dominated by a cost-allocation logic, which has led to government agencies charging other government agencies for the re-use of public information. The motives for applying this logic to internal information sharing within the public administration does not seem sufficiently compelling to compensate for its evident drawbacks.

A comparison can once again be made with the proposed e-government strategy recently tabled by the Swedish e-government delegation. The delegation considers the
provision of basic data as a public function in itself, rather than a service to other information users. It has therefore proposed that the government designate a small number of executive agencies as main information providers, and task them with providing information free of charge to other executive agencies and local governments.

Another characteristic of Finland's management of basic public information is that executive agencies normally have online access to each other's databases, which they can use to build duplicate databases. This contravenes one of the main tenets of good information management: that a set of information should only be stored in one database in order to avoid discrepancies between registers. The incentives for building duplicate databases will be reduced if internal charging for basic information is abolished, but government should still look to ban this practice.

Another drawback of online access is that it typically gives a user access to more information than necessary for case handling. Governments need to be able to assure citizens that the responsible organisation monitors the use of basic information in databases and acts to ensure that it is only used or distributed as intended. There are a number of technical solutions for better control over data sharing. These include eLink and other similar products, which are recommended by the EU's IDABC programme for data sharing between the administrations of its member countries. The Finnish government should consider adopting one of these solutions to achieve more stringent information management.

**Back-office functions and shared corporate services**

The networking and inter-connectivity made possible by ICT provides new opportunities for identifying and eliminating duplications and redundancies, and for remedying incompatibility of systems and processes across government. Most governments work to identify common business processes, and have or are deliberating measures to standardise and share such processes in areas such as finance, human resources and information technology management, administrative support, legal services, facilities management, travel services, marketing and communication, and other similar functions. The evolution towards separating back-office and front-office functions has been in play for more than a century, and the transformations enabled by the technological revolution have vastly expanded these opportunities and the ensuing potential for increased efficiency. Many OECD countries are now designing and implementing this type of reforms.

A survey of practices and reforms in OECD countries shows a spectrum of in-house separations, where one part of the administration provides services for other parts of the administration, and of outsourced provisions. In-house arrangements may be a way to ensure coherent implementation, for example in the case of the Selektiebureau van de overheid/Bureau de sélection de l’administration (SELOM) in Belgium. In other cases, the in-housing seems mainly to have been motivated by a desire to minimise disruption, for example in the case of Okonomiservicecentret (the Economic Service Centre) in Denmark. The probability of a second reform phase leading to full outsourcing is then increased, as in the case of a Swedish agency set up to assist other executive agencies in negotiating office leases when that function was devolved.

Efforts to improve the efficiency of Finland's public administration following the 2004 report on Organisation and Steering of State IT Management have led to a strong
focus on the sharing of corporate back-office services in the state administration. The Shared Service Centre project was started by state ministries, who modeled it on how large private sector entities organised their financial and HR services. The Ministry of Interior and Ministry of Defense were the first Finnish state ministries to adopt the idea, followed by the Ministry of Justice. Each ministry launched its own Shared Services Centre. Then the Ministry of Finance has also developed a Shared Service Centre.

Given the success of the models in these four portfolios, in 2007 the Finnish government decided to increase efficiency by implementing one Shared Service Centre for all state-level ministries and agencies. At the time the cost of processing one invoice in the public administration was estimated at around EUR 30-40, when the cost in the most efficient private companies was only EUR 8. In addition, the public administration launched an electronic method to process invoices, followed by electronic financial and HR processes. Agencies have targets to achieve in relation to these processes.

As of 1 January 2010, the four Shared Service Centres have merged into one centre. All state ministries and agencies are required to use the centre for all financial and HR services (this will be implemented through a staged rollout of the services offered through the service centre). The merger will reduce the number of locations around the country from 10 to six. As part of the regional policy initiative, the Ministry of Finance will keep six locations to ensure some state-level presence in the regions. In the absence of the regional policy initiative, the Ministry of Finance would have maintained only two locations as a means of further increasing efficiency. However, the benefit of a higher number of locations is better access to a greater skills base and employees who are less likely to leave their jobs (than if the centres were in Helsinki using Helsinki staff). Also, the rental of the premises is much less expensive in the regions.

In addition to the Shared Service Centre mergers, the government had also invested in new data processing facilities – merging computer systems (such as payroll, HR and accounting) across all state ministries and agencies. The government gives these systems to agencies to use for free (to interface with the Shared Services Centre). The first pilots of the new computer systems roll out in 2010, and will align each agency’s computer systems (there are currently up to 53 different computer systems in some portfolios). Although all agencies use the same brand of computer system, each organisation seems to tailor it differently, which is very inefficient.

One important issue is whether the use of shared services should be compulsory or optional. Participation in the Shared Service Centres is mandatory for the Finnish state administration, consistent with a control approach to organising shared services (see Table 8.1). It may seem logical to argue that the use should be always compulsory in order to maximise the return on the public investment. Ensuring coherence is another motive for compulsion. A drawback of mandatory use, however, is that units providing compulsory shared services have captive customers, and may therefore not have sufficient incentives to innovate and to keep costs as low as possible. In fact, some state agency staff have suggested that the cost of joining the Shared Service Centre is 2.5 times their original costs for delivering the same services. This assertion cannot be tested, as the cost structure of the service centres is not known (the Ministry of Finance is currently producing a study of good practices in Shared Service Centres). As such, the comparison of costs between arrangements in individual ministries and agencies through salary costs compared to the total costs of the service centre to the client do not naturally bring a comparative result. In
addition, the Ministry of Finance has argued that achieving cost efficiencies will take time, as customer service relations develop.

The OECD has noted that member governments increasingly require sufficiently attractive business cases before moving forward with proposed ICT projects. Among the questions that should be covered by the business cases are clear outcome indicators, quality data, risk-management techniques and an understanding of both the intended and unintended benefits of the investment. Such analyses need to be conducted ex ante and then verified as part of an ex post evaluation. The SADe programme has provided guidance for e-government service entities to draw up cost-benefits analyses for the administration, as well as for customers, based on the Standard Cost Model.

Achieving greater efficiency through shared services will require better data about baseline service costs, including the entire cost of service delivery, as well as appropriate incentives and controls to ensure that service provision costs stay below the baseline cost of providing the same service in the corresponding government agencies. Interestingly, there is some indication that shared services developed in a more bottom-up fashion (i.e., a facilitating or laissez-faire approach) actually result in greater co-operation at the agency level than those imposed from the top down (see Table 8.1). It is also possible – at least for some potential shared services – to argue that an organisation that can satisfy its requirements at a lower cost by using another provider should be allowed to do so.

Denmark has also adopted a control approach to the identification and consolidation of shared services. From 2010-12, eight ministries will join the Agency for Governmental IT Services (SIT), with a combined total of about 30% of central administration users. Other ministries may join later, depending on the evaluation of the first phase. The government estimates that centralisation of routine activities will contribute about DKK 368 million, while more efficient administrative functions within ministries will contribute DKK 204 million, and the consolidation of ICT-infrastructure and applications, DKK 230 million. In terms of evaluation, it was decided that the service centres will implement activity-based cost models from 2011, though the precise models have not yet been identified.

**Standardisation and procurement of ICT.** The technical foundations for e-government are composed of the hardware used for running different applications, and the software necessary for operating this hardware. These are typically purchased from private companies. Many OECD countries are now actively consolidating their technical systems in order to reduce heterogeneity and costs. Leading countries are also actively working with technology roadmaps to implement visionary planning for the introduction of new innovative arrangements and applications.
One factor highlighted by government officials was an ambition to consolidate IT resources through standardisation of hardware, centralised procurement and Shared Service Centres. This type of policy is frequently pursued by countries with a department-based government administration. Implementing them in Finland, with its agency-based administration and independent local governments, will present substantial challenges to be handled at the political level.

Centralised hardware procurement generates substantial inertia, and transaction costs may consume a large part of intended savings. The government should instead assess the use of framework procurement agreements that verify the quality of the products and the capacity and reliability of selected suppliers, but leave the actual procurement decisions and volume to the organisations needing the products or services.

The key issue is not so much weighing standardisation and consolidation, but determining the appropriate balance between consolidation and delegated responsibilities. Central purchasing is not the sole alternative to fragmented purchasing of systems and programmes. Some countries have achieved good results with framework procurement contracts. These entail a formal procedure for selecting a small number of reliable suppliers with approved products, and a less formal procedure through which different public organisations can order the products they need.

The Finnish government should assess the pros and cons of different levels of consolidation of ICT resources. While the government can clearly reduce its costs by co-ordinating public procurement of ICT equipment and services, centralised procurement can also lead to significant transaction costs, including those caused by inertia. There are also questions as to whether inter-operability will be increased. Technical development is also moving towards new modes of computing, where the choice of hardware becomes less significant than the adherence to open data standards and communication protocols. In this context, one can note that the National Information Society Programme 2007-11 aims to promote the use of open interfaces in ICT systems in a competition-neutral way. The SADe Action Plan states that “Application of the pre-commercial procurement procedures will be assessed in the service entities to find new innovations”, and makes a commitment to the utilisation of open source code.16

The organisation responsible for framework procurement should be instructed to promote the use of open interfaces in ICT systems, as proposed in the National Information Society Programme. Finally, the government should ask the Ubiquitous Information Society Board to discuss and propose a programme of action for the promotion of electronic procurement for e-government. The guiding paradigm should be a new model adapted to networked government rather than the traditional hierarchical one dominant in industrial societies. The challenge is to find an optimal balance between the requirements of a well-functioning and cost-efficient network, and the need to preserve sufficient empowerment and accountability of agency heads when it comes to business re-engineering and service development.

**Information society policy and e-government**

The Finnish approach to the mutually supporting aspects of e-government and information society policy are strongly linked. “The information society” is an analytical concept, and not a well-defined state. It signals that information has become the key production factor in the society, replacing industrial capital (just as industrial capital
previously replaced agricultural land). The key message is that economic growth and competitiveness now depend on how well a country can develop its information resources and processes. As such, e-government is not only a marker of the level of ICT advancement in a country, but also a significant source of ICT spending in its own right, a way to attract knowledge workers with high expectations for quality services, a major tool for strengthening social cohesion in remote and rural areas, and a driver for take-up of electronic services in general.

The key document for reviewing and understanding Finland’s strategy and programmes for promoting the transition to an information society is the Ubiquitous Information Society Action Programme 2008-11, which enumerates a number of action areas and objectives.

**E-Services**

The government promotes the change to electronic commerce and electronic services by developing the operating environment for electronic commerce. The National Information Society Programme 2007-11 indicates that the purchasing process in public administration – from invitations to tenders and to invoicing and payments – would be made electronic in order to foster the development of new business, and so that it can be used for cross-border purchases. This entails the development and establishment of appropriate standards and common procedures. This is done in close collaboration with businesses and by supporting the introduction of electronic invoicing and purchasing. The main body driving the change is the Finnish Information Society Development Centre (TIEKE), where a number of private enterprises and public organisations co-operate.

An evaluation group presented its report on the National Accessibility Strategy in February 2007, and the strategy was to be updated and necessary measures taken to ensure unhindered access to information society services. This includes preparing a special action programme for improving the consumer’s position in offering information society services. However, so far, no action appears to have been made public about how these parts of the Ubiquitous Information Society Action Programme are to be implemented.

**Broadband availability**

A key element in support of both the information society and e-government is broadband penetration and access. Residents and enterprises need access to fast and reliable data transmission networks, able to handle large data quantities, at a competitive cost. Promoting increased investments in such networks is a sine qua non (without which there is nothing) for all OECD countries. This is also why progress in this area is monitored by the EU as part of its Lisbon Strategy for a more dynamic and competitive European economy.

This is one area where small and compact countries such as Denmark, Luxembourg and Malta have advantages over countries containing large areas with low population density, such as Australia, Canada and Finland. The latter group of countries can therefore be expected to invest more in mobile broadband services as a complement to fixed lines in densely populated areas.

Many countries also find themselves in a situation where private investments in broadband networks are inadequate, resulting in increasing demand for public investments. A parallel can be drawn with the creation of national railway and electricity grids a century ago, which also required substantial state intervention.
The European Commission monitors broadband access in the EU countries; its recently published survey report\textsuperscript{17} showed that Finland was fifth in fixed broadband penetration at 30.5%, but also indicated that Finland had not made any measurable progress during the last 12 months – several other countries also lacked action over this period. Data on mobile broadband penetration was not available, although it would have been of interest given the large sparsely populated areas in Finland (see Figure 8.8).

Figure 8.8. **Broadband penetration rate, 2009 Q2**

![Broadband penetration rate, 2009 Q2](image)

Source: OECD Broadband Portal.

The National Information Society Programme 2007-11 states that communications infrastructure should be developed to provide Finnish households, businesses and public sector organisations throughout the country with high-speed data transfer connections which enable versatile use and provision of content, business processes and transactions, and provision of high-quality electronic public services. Wireless broadband networks and mobile networks should be developed to provide more versatile content. Introduction of next generation technologies should be accelerated.

In addition, the Ubiquitous Information Society Action Programme 2008-11 states that the national broadband strategy will be updated and that the level of the universal service obligation covering the whole country will be evaluated. In September 2008, the Minister of Transport and Communications announced that the government had agreed in principle to draft and adopt a programme extending broadband access over the entire country through 2015.\textsuperscript{18} The goal would be access to a 100 Mbit/sec net at a distance of not more than two kilometres for all citizens. As a first step, the minimum standard of the existing base nets would be raised to 1 Mbit/sec. In October 2009, the government adopted its legislative proposal to Parliament for the enactment of the Programme.\textsuperscript{19}

The cost of two kilometres of access lines is not negligible, and thus broadband access might be out of economic reach for isolated rural households even after 2015. The proposed enhancement would, however, probably cover all built-up areas and most residents and enterprises in Finland. The Finnish example is one of the most ambitious expansions planned among the OECD countries – with the exception of Australia, which is
in the process of developing a National Broadband Network (see Box 8.3). Both Australia and Finland have a large geographic land area, with citizens living in rural and very remote areas. The difference between the Finnish and Australian examples is that the Australian government has not been as ambitious as the Finnish government and has only committed to connecting up to 90% of all Australian homes, schools and workplaces with broadband speeds of up to 100 Mbit/sec, rather than the 100% of citizens as in Finland. The Finnish programme still has to be finalised, and a financing agreement among the state, the Regional Councils and the local governments must be reached.

Box 8.3. **Australia’s National Broadband Network**

In April 2009, the Australian government announced that it would invest AUD 4.7 billion (over eight years) to establish a new company to deliver superfast broadband to Australian homes and businesses.

This new National Broadband Network, built in partnership with private sector, will be the single largest nation-building infrastructure project in Australian history. This National Broadband Network will connect 90% of all Australian homes, schools and workplaces with broadband services with speeds up to 100 megabits per second, 100 times faster than those currently used by many households and businesses; and connect all other premises in Australia with next-generation wireless and satellite technologies that will deliver broadband speeds of 12 megabits per second. The new superfast network is expected to:

- Connect homes, schools and workplaces with optical fibre (fibre to the premises or FTTP), providing broadband services to Australians in urban and regional towns with speeds of 100 megabits per second, 100 times faster than those currently used by most people in towns with a population of 1 000 or more people.
- Use next-generation wireless and satellite technologies that will be able to deliver 12 megabits per second or more to people living in more remote parts of rural Australia.
- Provide fibre optic transmission links connecting cities, major regional centres and rural towns.
- Be Australia’s first national wholesale-only, open-access broadband network.
- Be built and operated on a commercial basis by a company established at arm’s length from government and involve private sector investment.
- Be expected to be rolled out, simultaneously, in metropolitan, regional, and rural areas.


**Information security**

Adequate information security is a second key element. Users of communication media have to be able to trust its availability, integrity and non-corruptibility if they are to use it as a base for vital economic functions, or for the transmission of confidential information. These issues are global, and primarily beyond a country’s reach, since they involve the design of commercial software such as office programmes and web browsers, and the functioning of the Internet.

Much depends, however, on the national implementation of these global tools. Data systems must be sufficiently robust to survive overloading attacks; protection against viruses and other forms of malware have to be up-to-date and optimised. Users must be made aware
of risks and of the need for appropriate behaviours, and protection must be sufficient. Governments have a dual responsibility: both for the general level of information security in the society, and for the information security standards in the public administration.

Finland is giving high priority to information security. The National Information Society Programme 2007-11 promotes the information security of networks and services, particularly defining and ensuring the critical infrastructure of the information society. The Ubiquitous Information Society Action Programme 2008-11 states that the National Information Security strategy would be updated by the end of 2008. In November 2009, the Ministry of Transport and Communications adopted a decision on the principles for developing information security in the national government administration.20

**Electronic identification**

A third key element is access to adequate and appropriate methods for electronic identification. Available methods range from user names combined with short pin codes, to separate devices using asymmetric encryption for transformation of longer data strings. There is a general agreement that service providers need to choose an appropriate security level for each service, allowing simple methods to continue to be used in parallel with more sophisticated methods. Officials also believe that the more sophisticated methods should be universally valid, which requires a degree of government intervention in their design and administration.

OECD countries have chosen different levels of government intervention to implement sophisticated security measures. In some countries the state takes the lead, while others have let commercial banks or other private companies play that role. Some countries have established smart-card-based solutions, although with varying success. Others have so far only used software-based methods. The level of security of these methods varies, with hardware-based solutions normally being more secure than software-based options.

The lack of international standardisation creates challenges for service providers that want to enable cross-border services and transactions. Here, the EU plays a leading role. Its STORK21 project aims to establish a European eID Interoperability Platform that will allow citizens to conduct new cross-border e-transactions just by presenting their national electronic identifications. STORK classifies the different national methods according to a four-level scale to enable service providers in one country to know what identifications from other countries are adequate for the chosen security level.

Some countries have created or intend to create so-called single sign-on services that give access to a range of e-services requiring an electronic identification. There are also private e-service providers offering the same type of service to users. While these services facilitate transactions for users, they also increase possible damage in the case of malicious capture of the system’s identification method. Therefore, such systems should use a highly secure method of electronic identification. This is, however, not always the case.

Access to widespread and sufficiently secure methods for electronic identification is essential for the development of the information society, and a vital part of its infrastructure. The use and development of electronic services requires reliable, secure and easy-to-use electronic identification methods suitable for different purposes. Finland has the advantage of a national population register and unique personal identification numbers for all persons residing in Finland, including those without Finnish citizenship.
Finland was an early leader in providing residents with e-identifications, fostering a high degree of security. The Finnish Population Register Centre started issuing electronic ID cards in December 1999, but so far only 5% of the population has acquired them and less than 1% of all online authentications are based on this card. The main reasons for the lack of interest seems to be that when the card was introduced, there were few e-services using it. The cost of the card is also likely creating a barrier to take-up.

The standard mode of electronic identification today is the TUPAS tokens issued by commercial banks, which use their own proprietary methods to identify their Internet banking customers. These vary from bank to bank, and some are vulnerable to malicious attacks using the so-called “man in the middle” method. The tokens can only be issued to persons who have an Internet bank account at a Finnish bank.

A 2008 National Audit Office (VTV) report on eID services in Finland found serious flaws in nearly all eID initiatives, services, implementations and procurement practices. The report also found many problems related to the use of TUPAS, which is clearly not suitable or usable for identity federation and single sign-on, and is not compatible with the current Finnish eID strategies.

The National Information Society Programme 2007-11 also states that coherent procedures of electronic identification in public administration would be agreed and widely introduced. It recognises that several identification procedures could be used at the same time. The intention was to create an extensive joint operating model for the public and private sectors on the basis of existing identification methods, with the aim of providing citizens and businesses with easy access to reliable methods for e-identification.

The Ubiquitous Information Society Action Programme 2008-11 notes that secure electronic identification is particularly important for the use of public electronic services that contain sensitive personal data and for those that require payment. It identifies a reliable method allowing users to identify themselves for all, or at least most, public and private sector services as a key objective of an efficient information society. The Action Programme also assumes that a number of methods will be used simultaneously, and aims to ensure the inter-operability of different identification methods in Finland and to prepare for the requirements of internationally inter-operable e-identification. Furthermore, it states that conditions for the introduction of mobile identification would be established during 2008, that legislation on certification services would be reformed, and that a resolution on ways to implement electronic identification would be prepared by the end of 2008. However, so far, nothing seems to have been made public about how this part of the Ubiquitous Information Society Action Programme is to be implemented. Finland is also not participating in the EU’s programme for secure identification across borders (STORK).

There is room for significant improvement to existing Finnish arrangements for the development of more secure methods for electronic identification. The level of security needs to be higher for applications that give access to sensitive information about individuals or enterprises than for mere economic transactions – an economic transaction can always be reversed, while an unintended release of confidential information cannot. The dominant use of identification methods developed for Internet banking leaves Finnish e-government vulnerable. Specifically, it is not acceptable to use identification methods that are vulnerable to “man in the middle” attacks.

At the same time, Finland should continue to aim for methods of electronic identification that can be used by all private and public service providers. Since a large
volume of transactions will involve payments and other financial services, close co-operation with banks for the continued development of electronic identification methods is essential. The government should also assess the security level of its own arrangements against the level in other European countries, to ensure that Finnish users can use cross-border services and transactions.

Serving the citizen

The transition to an Information Society requires implementation of a wide range of public electronic services, and developing associated service processes. The EU’s e-government benchmark shows that Finland has a number of public services that are fully available over the Internet, but it is not ranked among the five top countries in the index for fully available services. One of the goals of the Finnish government is to improve Finland’s rank in this and other similar indices.

OECD countries are actively working to place as much information and as many services as possible online. How they do this and their place in the development chain (e.g., organisation-centred, output-centred, or citizen-driven and integrative) varies depending on the culture and maturity of their basic administrative arrangements. Although electronic technologies provide new tools, enable new arrangements and present new opportunities, support for administrative transformation is limited and governments may have to prioritise among various urgent needs. This is giving rise to new thinking about how to better manage service delivery channels in order to both increase access and manage costs.

OECD countries are also increasingly making a distinction between front-office functions for interactions with users, and the back-office functions that manage information and provide basic case handling. There is general agreement that both residents and enterprises should have access to electronic one-stop shops, single information and transaction portals for each service, regardless of how many public organisations are involved in providing that service.

Some countries have taken this concept one step further, setting up single government portals giving access to all public services. Early examples of such projects were the Netherlands’ Overheidsloket and the United Kingdom’s UK Online, developed about a decade ago. The failure of many commercial portal projects has, however, showed that users generally prefer to go directly to the service in which they are interested at the moment. Some OECD countries are therefore setting up online service clusters around specific life situations or business needs, as well as using public websites to engage customers and citizens.

Re-organisation of public electronic services

OECD countries’ e-government experiences show that merely transferring online the traditional producer-oriented processes typically found in government organisations will not allow the full potential of electronic service delivery and e-government to be realised. It is thus crucial to focus on what needs to be done to modernise the business processes and governance mechanisms that underpin this transition.26

The key government document in this respect is the Action Programme on eService and eDemocracy (SADe programme), through which the government intends to prioritise 10 to 12 cross-administration projects for citizens and enterprises for electronic case handling. Ministries, municipalities and the pension authority have submitted
74 proposals for consideration, which has resulted in the selection of seven service entities so far (learner’s service, participation environment, own health, built environment and housing, employer’s service, citizen’s welfare service planning, and business establishment). Nine criteria were laid down for the selection of programmes that will receive central financing. These are: customer orientation and quality; importance; cross-administrative character; productivity potential; cost efficiency in implementation; readiness and implementation speed; need for legislative changes and readiness to enact them; compatibility with the architecture of the public administration; and innovation and creativity. In addition, special emphasis was placed on those projects that help to increase the productivity of municipalities.

The SADe programme is intended to provide impetus for the development of e-services. The large number of project proposals that have been submitted indicates a high level of interest within the government administration. The selection criteria are, however, numerous and quite general, and no relative weight has been specified. The steering group, and ultimately the government, has thus been able to exercise substantial discretion in the selection of projects for financing.

One rule of thumb for the development of e-government is that good e-services cannot be built on unsatisfactory processes and structures. The government should therefore avoid selecting project proposals from organisations that have not yet reviewed, and at least started to modernise, their business processes. The government should also require that project proposals have been assessed from a user point of view to ensure that they will generate sufficient added value for users to justify development costs. Finally, the SASe programme does not yet have a mechanism to shut down existing services made redundant by newly developed shared services. Such a step is necessary in order to harvest and re-invest savings for additional e-government development.

The SASe programme includes development of a uniform method for evaluation of the government’s information-systems projects. Large projects will only be continued if the evaluation function approves the project, and the ministries will have more influence over both approval and management of such projects at sub-government levels. A pilot programme was started in early 2010. As noted earlier, such mechanisms are necessary as part of an overall governance shift towards more central accountability in support of the current e-government vision.

**Multi-channel customer service**

Finland is not only set on expanding and standardising the range of electronic services offered, but also on exploring new approaches and arrangements for public services. The aim is a multi-channel customer service concept, incorporating both the physical network of service points and services provided electronically and via call centres. The government intends to create a common basis for enhancing co-operation within the national government administration, with the Social Insurance Institution, and across local governments.

The latter is an especially challenging task for Finland due to the extensive autonomy of local governments and to their important role in providing public services. In additional, Finland has large, sparsely populated areas in the Northern inland, which creates a large variation in the size and capacity of local governments. The development and provision of shared back-office services and functions will be key. The National Information Society Programme 2007-11 states that a new multi-channel model for shared services would be
developed, including one centralised portal to provide administrative services in electronic form. The programme recognised that this would call for reform of public service structures, closer cross-administration co-operation, and the introduction of a service-based architecture. Processes and systems for financial and personnel administration should be harmonised to support cost-efficient services and service centres.

A multi-channel e-service approach can improve service to users by integrating delivery across different systems including the Internet, call centres, over-the-counter services, e-mail and postal mail. Improved networking of organisations, and aligned standards and policies will aid in this transition. Making it easier for users to find and use government e-services can also result in savings to government. However, achieving better services with a fixed or limited overall investment depends, in part, on moving large numbers of users from traditional channels to electronic channels for high-volume services. Governments therefore have to pay attention to adapting traditional service structures to a drastically shrinking transaction level.

**Single gateway to electronic public services**

Under the Ubiquitous Information Society Action Programme, an important goal is to create a uniform, secure and reliable single gateway to electronic public services. The aim is to develop a common solution that will provide a centralised website where every citizen can track how their interactions with the government are being handled, and where they can obtain public documents, such as decisions, in electronic form. This “citizen’s web portal” should allow residents to review and update their personal register information. Electronic contact data management, as well as the management of consents and authorisations, should be integrated into the portal. The portal is expected to promote development of proactive services according to citizens’ life situations and companies’ life cycles.

The Ubiquitous Information Society Action Programme also includes plans for the development of shared national transaction portals and a net service concept, and for the promotion of the use of shared basic databases. This includes revising the two information portals, Suomi.fi (individuals) and YritisSuomi.fi (enterprises), to allow transactions, and creating a shared system for online identifications and payments, Vetuma.fi, that will include electronic signatures, time-stamping and delivery of messages to citizens’ email accounts.

At the same time, Finland is also intent on reforming its traditional provision of public services. The Ubiquitous Information Society Action Programme states that physical one-stop shops for public services can help safeguard diverse, high-quality services in both sparsely populated areas and population centres. Strong customer service and effective utilisation of information technology can help in delivering a high-quality and comprehensive service network that will improve productivity and cut costs. Good customer service is expected to increase citizen satisfaction and improve the image of service providers.

The development of joined-up e-services will require adequate co-operation among executive agencies subordinated to different ministries, the Regional Councils and local governments, and a number of other important stakeholders. It is not reasonable to believe that co-operation can be replaced with legislation, and the government should therefore continue its policy of promoting the involvement of all stakeholders in designing strategy and development measures.

There is a risk that the introduction of a central financing resource may have the perverse effect of slowing down projects that are not selected for central financing, if
executive agencies choose to wait for the next round of central financing instead of using their own resources. It is therefore essential that e-government continue to be pursued through existing channels; that is, by transmitting clear expectations to executive agencies and other actors, monitoring their actions and achievements, and holding agency heads and boards to account for how the e-services which they are responsible for are evolving.

**Provision of shared services and functions**

The development of sophisticated public e-services is accompanied by measures to strengthen e-government networks. Enhanced central provision of shared services and functions is thus a central element of Finland’s e-government strategy. As noted, in spite of its traditionally de-centralised administrative model, Finland has operated in a relatively centralised manner.

The SADe programme includes the creation of a shared service development and provision agency called JulkIT (PubIT) for state and municipal government and for KELA. It would be tasked with developing shared solutions for national and local government administrations and be responsible for the procurement, implementation and operational support of these shared solutions. Finnish officials have indicated that the national government’s administration would be obliged to use the shared solutions.

The government’s intention is that these activities would be financed by a single allocation within the Ministry of Finance’s expenditure area. The necessary resources shall be transferred from other expenditure areas, and from the national budget allocation for block transfers to local governments. The size and distribution of each source’s contributions shall be determined annually depending on the composition of the project portfolio. In this way, it will be possible to make shared solutions available to executive agencies and local governments at no cost or at a reduced cost. It might not be feasible to legislate mandatory use by local governments, and this would probably be unnecessary.

Arrangements for the provision of shared services and functions have yet to be approved by the Parliament. A first proposal is included in the government’s budget bill for 2010, and a detailed proposal is expected to be discussed in internal budget negotiations during the spring of 2010.

**Social and healthcare services**

Most OECD countries are looking at ways to improve their health services. The potential for increased efficiency of health services is substantial – through e-services such as online health information and appointment bookings, better integration of service providers, and better back-office management of patient journals and other health or treatment-related information. Experiences and progress have varied, mainly due to the sensitivity of the information concerned, complexities of national health systems that involve a number of separate private and public service providers, and strong professional associations.

Finland has assigned high priority to improving its social and healthcare services. As part of the National Information Society Programme 2007-11, an economical, reliable and secure national information technology infrastructure will be created to enable customer-oriented and cost-efficient provision of high-quality services in these sectors. The benefits are expected to be significant for both healthcare providers and clients.

The goal off the Ubiquitous Information Society Action Programme is to develop electronic medical records, an electronic prescriptions system and an electronic clinical
data repository. After the planned reform, clinical data would be recorded electronically in a uniform format in nearly all public and private healthcare units. Documents would be signed electronically and sent to a national repository service, from which they can be retrieved with patients’ consent by health providers involved in their care. All Finns over 18 years of age would be able to view their own medical records and prescriptions over the Internet. Prescriptions would be sent electronically to a prescription database maintained by KELA, for retrieval by pharmacies. These measures are expected to improve patient safety and quality of care, as well as facilitate more cost-effective healthcare operating models. The first step towards realising this vision has been the establishment of the own health service entity under the SADe programme.

The government expects that by 2011, all public actors will have joined the national electronic archiving service for patient documents, and that all healthcare organisations and pharmacies will have access to e-prescriptions. Citizens will be provided with information and interactive services concerning health promotion and medical treatment, enabling them to take personal responsibility for actively maintaining their health and capacities.

**E-Participation**

The Ubiquitous Information Society Action Programme also notes that, while the Internet facilitates civic participation, these opportunities are still in the early stages of development. It states that information and communication technology should be utilised more effectively to improve and grow pre-conditions for civil participation. The opportunities for information and communication technology to enhance both democracy, and more open and transparent administrative processes, should therefore be actively developed.

The recommendations of the SAG-group report noted the following thematic areas for consideration in relation to e-participation:

- Transparency and information sharing during the preparation and drafting of government decisions.
- Rules for Hearings.
- New mechanisms and structures for involving stakeholders.
- Competence building for public servants and organisation activists.
- Internal co-operation, especially within the organisation group for Swedish-speaking Finns.

The SADe programme also supports creation of a shared e-participation environment. A participation environment service entity has been approved, with a preliminary report in September 2010. The service entity comprises the services of the participant and the services for the arrangement of participation as well as data reserves in order to enhance the possibilities for citizens to participate using ICT and the internet. This project will provide an important platform for promoting citizen participation efforts by lowering administrative barriers to conducting citizen consultation, reducing overlapping development work, creating a more standardised approach and more versatile possibilities for citizen engagement, and improving the quality of preparatory work by strengthening underlying data.

**Conclusions**

Finland has been a leading country in e-government, although it seems to have lost speed during the last few years. The government has recently presented a number of broad
e-government action programmes and taken specific steps to implement these measures. However, work remains before Finland can reach its goal of being among the five most highly ranked countries in the world.

Finland’s main weakness does not concern its strategies and government programmes, nor is it technological or financial. Instead, Finland needs to overcome the administrative fragmentation inherent in its policy and administrative model with a coalition government, separately managed government agencies and local governments which are not subordinated to the national government to achieve adequate co-operation and co-ordination across policy areas, administrative silos and levels of government. Such a re-alignment of the governance model would be consistent with set of objectives and strategies laid out in ongoing e-government plans.

Finland has chosen a relatively centralised model for its continued e-government work, using organisational changes, legislative amendments and financial arrangements to strengthen central capacity and authority. There is a risk that this will create a mismatch with Finland’s disparate administrative structure, unless the government is sufficiently active in co-opting local governments and strategic government agencies.

Excessive centralisation to counterbalance a decentralised governance model with strong executive agencies may lead to increased inertia and transaction costs. Finland should therefore continue to search for an optimal balance between central norms and standards, and dispersed empowerment, engagement and discretion in managing and developing public services.

Insufficient central frameworks and standards may, at the same time, hamper devolved efforts. The tangible measures undertaken by Finland so far seem to let some areas lie fallow, at least for the moment. Thus, Finland needs to take action to improve its basic information management, its arrangements for electronic identification and its level of e-procurement.

A more controlling approach also needs to be matched by sufficient high-level leadership. The use of a small number of ministerial committees to oversee thematic government programmes has enabled Finland to undertake innovative and successful reforms in a number of areas. The government now needs to ensure that its efforts in managing the transition to an information society are driven by sufficient political determination and impetus.

Finally, a citizen focus needs to be more embedded in the operations of Finland’s e-government and information society strategies. Taken together, the National Information Society Programme, the Ubiquitous Information Society Action Programme and the SADe programme seem to reflect an output-driven e-administration. Although the intention is to create value for citizens, little seems to have been done to look at value creation from the citizens’ point of view. Finland’s approaches are typically dominated by large central initiatives with common solutions for the whole administration. A sobering note is that surveys of international experiences show that such reform programmes have often failed to deliver expected results.

Finland is probably the world’s leading country in improving e-government users’ experiences; however, its e-government arrangements are still mainly producer-driven and output-oriented. By providing funding, leadership, and guidance, the SADe programme has taken some important steps towards cutting across administrative boundaries and levels of government in terms of organising service delivery around areas of need rather than...
organisational structures. However, these efforts are still in an early stage and will continue to face a number of challenges ranging from achieving the legislative basis needed for change to putting in place the supporting services to enable cross-cutting services, and embedding the necessary cross-organisational working methods and culture to realise user-centric services. In order to achieve the strategic agility needed to realise its e-government objectives, Finland should strengthen the user perspective in e-government development and aim for a more user-driven e-government.

Notes

1. It should be noted that there are many international e-government benchmarks. The ranking of countries in different systems is seldom exactly the same, and the differences can sometimes be remarkable. The benchmarks done by the European Union for EU members and in some cases for European Economic Area countries are among the most reliable. One reason is that the methods used in compiling them have been assessed and approved by a high-level group composed of national representatives.


8. Ministry of Finance, Finland.


12. This was an agency set up to advise and assist other executive agencies which were empowered to lease their own premises, and abolished less than a decade later.


15. OECD (2010), pp. 54-55.


17. EU (2009), Broadband Access in the EU: Situation as 1 July 2009, Working Document for the Communications Committee, COCOM09-29 FINAL.


24. A malware (i.e., a Trojan) establishes itself in the computer and imitates a legitimate e-service in order to get access to security codes.


