

e-Power Expansion

- create, connect, participate

Icelandic State and Municipal Policy on the Information Society 2013-2016



MINISTRY OF THE INTERIOR

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Address by the Minister of the Interior

Since its 2008 banking collapse, Iceland has faced significant challenges in re-building and developing its society. There has been a continuous need to find ways of improving economic welfare, strengthening industry, increasing the efficiency of public administration, providing better services to the general public and solving the numerous tasks that demand completion. One of the most important and difficult tasks has been to build up confidence in society. Part of what is desired in that context is greater transparency in public procedures and increased access to the information possessed by government authorities. The search also continues for ways of widening possibilities for the general public to participate or enter into various kinds of government decision-making, for example in choosing municipal projects, formulating policy or drafting legislative bills. In all of these matters, information technology can serve as a powerful tool.



Ögmundur Jónasson
Minister of the Interior

I am convinced that the 21st century will be a century of direct democracy, and that all of those involved in organising society's legal and regulatory machinery play a role in facilitating this. The tone has already been given for public administration during the new century: Not only should State and municipal employees ensure quality services and infrastructure and the connection of government systems into a coordinated network, but they should also concentrate on their service functions, seeking ways to analyse the needs and wishes of the general public and to listen to its voice. The present document introduces the future vision of an Icelandic society which will be taking advantage of information technology. This technology is both the basis and guiding light of the municipal and State policy expressed in e-Power Expansion:

When developing public services, the main considerations are democracy, efficiency and the needs of people and industry. A good knowledge of information technology, together with access to government data, will promote innovation and business growth. Furthermore, the general public will be able to influence public-sector decisions by participating in their preparation through online means of open, transparent consultation.

The present policy, which was jointly formulated and drawn up by the State and municipalities, extends from 2013 to 2016. This is the first time that these parties have formulated joint policy in the field of information technology, and there are high hopes of continuing State and municipal cooperation towards implementing e-Power Expansion.

A handwritten signature in blue ink, which appears to read 'Ögmundur Jónasson'. The signature is fluid and cursive.

Ögmundur Jónasson
Minister of the Interior

Introduction

This policy on the Icelandic information society has been prepared in a quite lengthy formulation process. Combining numerous aspects, the policy was in part drawn up during consultation work which the Minister of the Interior coordinated with the Association of Local Authorities in Iceland. That process concluded with the necessity of viewing e-services and online authentication as integral to the infrastructure of the information society. In January 2012, the Ministry of the Interior summoned specialists from government administration for a general discussion of Iceland's position in these affairs. Information on the subject and its overall context emerged at the meeting, and led to a consensus or mutual understanding of the actual status. The outcome of a previous policy, Iceland the e-Nation - Icelandic Government Policy on the Information Society, was then assessed and a brief status report compiled. When this assessment was complete, a new procedure was organised, with an emphasis on open activities and information access for everyone. Thus the assessment conclusions, along with further evaluations of previous policy, became accessible straightaway on the Ministry of the Interior website.

After stakeholder analysis was finished, a well-attended workshop was convened with stakeholders (the advisory group) on 2 November 2012. By encouraging those attending to describe the ideal situation in these affairs at the end of 2016, a concrete vision for the future crystallised, along with aims and routes for accomplishment. An explanation was given of projects that might later need implementing to achieve this future vision, and over 80 proposals were subsequently submitted at this meeting.

The formulation of this policy has involved a large body of people from the State, municipalities and various stakeholders.

The ensuing phase involved convening a core group both to process these proposals and to compose a draft future vision and aims. During this phase, from November 2012 to February 2013, the Ministry of the Interior website was open for consultation on policy contents and aims, based on the documents then available.

Various useful comments were received and then formally discussed at a meeting of the core group, which insofar as possible took them into account. At the end of 2012, proposals were requested for projects which would harmonise with the principal aims of that time. Both the Ministry and the Association of Local Authorities turned in such proposals, which the core group then processed.

The 2013-2016 implementation plan accompanying this policy was drawn up on the basis of these proposals. Clearly, the formulation of this policy and implementation plan has involved a substantial number of people from the State, municipalities and various other stakeholders.

The core group consisted of the following representatives from Icelandic ministries and municipalities:

Guðbjörg Sigurðardóttir,
Chair, Ministry of the Interior

Angantýr Einarsson,
Ministry of Finance and Economic Affairs

Anna G. Björnsdóttir,
Association of Local Authorities in Iceland

**Arnór Guðmundsson and
Sigurbjörg Jóhannesdóttir,**
Ministry of Education, Science and Culture

Björn Sigurðsson,
Prime Minister's Office

Hjörtur Grétarsson,
City of Reykjavík

Kjartan Ingvarsson,
Ministry for the Environment and Natural
Resources

Urður Gunnarsdóttir,
Ministry for Foreign Affairs

Valgerður Gunnarsdóttir,
Ministry of Welfare

Þórir Hrafnsson,
Ministry of Industries and Innovation

Arnar Pálsson, a consultant at Capacent Iceland,
worked with the above group.

The Policy's project list and principal themes were based on the proposals of the following advisory group, who were convened in a workshop on 2 November 2012:

Angantýr Einarsson, Ministry of Finance and Economic Affairs
Anna Guðrún Björnsdóttir, Association of Local Authorities in Iceland
Arnar Pálsson, Capacent Iceland
Arnheiður Guðmundsdóttir, Icelandic Computer Society
Auður Ösp Jónsdóttir, Computer Scientists Association
Áki Ármann Jónsson, Environment Agency of Iceland
Árni Yngvi Hermannsson, Primary Health Care of the Capital Area
Benedikt Benediktsson, Icelandic Health Insurance
Benedikt Ívarsson, Icelandic Student Loan Fund
Bergþór Skúlason, Icelandic Financial Management Authority
Birna Guðmundsdóttir, Computer Scientists Association
Birna Kolbrún Gísladóttir, Ministry for the Environment and Natural Resources
Bjargey Guðmundsdóttir, Icelandic Construction Authority
Björgvin Sigurðsson, Statistics Iceland
Björn Guðmundsson, Directorate of Customs, Reykjavík
Björn Jónsson, Landspítali University Hospital
Björn Sigurðsson, Icelandic Prime Minister's Office
Eggert Ólafsson, City of Reykjavík
Eiríkur G. Guðmundsson, National Archives of Iceland
Elísabet M. Jónasdóttir, Ministry of the Interior
Elsa Heimisdóttir, Icelandic IT industry
Eydis Línal Finnbogadóttir, National Land Survey of Iceland
Guðbjörg Sigurðardóttir, Ministry of the Interior
Guðfinna Kristjánsdóttir, Garðabær municipality
Guðgeir Eyjólfsson, District Commissioner, Kópavogur municipality
Guðmundur Hannesson, Icelandic State Trading Centre
Guðmundur Kári Kárason, Ministry of Industries and Innovation
Guðrún Auður Harðardóttir, Directorate of Health
Gunnar Linnet, Icelandic Road Administration
Halla Björg Baldursdóttir, Registers Iceland
Hannes Ottósson, Innovation Centre Iceland
Harpa Sólbjört Másdóttir, Ministry of Industries and Innovation
Hermann Ólason, Social Security Administration
Hildur Björg Hafstein, Social Security Administration

Hjörtur Grétarsson, City of Reykjavík
Hjörtur Þorgilsson, IcePro, the Icelandic Committee on Trade Procedures and e-Commerce
Hrafnkell Gíslason, Post and Telecom Administration
Hreinn Hreinsson, City of Reykjavík
Ingi Steinar Ingason, Directorate of Health
Ingilín Kristmannsdóttir, Ministry of the Interior
Ingvar Kristinsson, Icelandic Meteorological Office
Jón Baldvin Halldórsson, Landspítali University Hospital
Katrín Dóra Þorsteinsdóttir, Federation of Icelandic Industries
Kristinn Sigurðsson, National and University Library of Iceland
Kristján Vilhelm Rúriksson, Icelandic Construction Authority
Margrét Erlendsdóttir, Ministry of Welfare
Margrét Sigurgeirsdóttir, Information - the Icelandic Library and Information Science Association
Ottó V. Winther, Ministry of the Interior
Óðinn Baldursson, Directorate of Labour
Pétur Berg Matthíasson, Ministry of Finance and Economic Affairs
Ragnar Þorvarðarson, Icelandic Chamber of Commerce
Róbert Ragnarsson, Grindavík municipality
Sigrún Eva Ármannsdóttir, Icelandic IT industry
Sigrún Gunnarsdóttir, Icelandic Computer Society
Sigurbjörg Jóhannesdóttir, Ministry of Education, Science and Culture
Sigurjón Friðjónsson, Registers Iceland
Stefán Guðmundsson, Icelandic Food and Veterinary Authority
Stefán Kærnested, Financial Management Authority
Steinunn Valdimarsdóttir, ICT Sector Committee of Icelandic Standards
Steinunn Þorsteinsdóttir, Hafnarfjörður municipality
Sverrir Jónsson, Ministry of Finance and Economic Affairs
Valgerður Gunnarsdóttir, Ministry of Welfare
Þorbjörg Árnadóttir, Althingi
Þorleifur Gunnlaugsson, City of Reykjavík
Þórdís Þórsdóttir, Housing Financing Fund
Þórir Hrafnsson, Ministry of Industries and Innovation
Þórólfur Halldórsson, District Commissioner, Keflavík
Þuríður Hjartardóttir, Icelandic Consumer Association
Ævar Ísberg, Internal Revenue Directorate

Iceland's current position

When examining Iceland's status in adopting information technology and comparing it with neighbouring countries, considerable strengths appear in some areas, while weaknesses are revealed in others. Surveys show that Iceland's general levels of computer ownership, Internet access and high-speed connections rank among the best in the world today. The same is true in relation to general Internet activity and the actual utilisation of services offered online. However, when the focus turns to government services supplied online and to opportunities for the public to exercise democratic influence online, a different picture emerges.

Surveys show that government administration in Iceland has not made due use of the opportunities which information technology entails to improve services and increase efficiency.

Icelanders have therefore fallen somewhat behind those nations with whom they most often compare themselves. In international surveys, it is noteworthy that Icelanders rank at the bottom regarding indicators of the potential for public involvement in preparing government administrative decisions.

In short, Iceland's status is currently that the public is ready to use the services offered, a good telecommunications infrastructure is available, the general populace owns the relevant equipment and is already online, but government sector bodies fail to make adequate use of the inherent opportunities. What these opportunities involve is installing online self-service and upgrading government service efficiency. Other inherent but poorly utilised opportunities involve the strengthening of democracy by requesting and showing consideration for public opinion and comments on the great range of issues dealt with by government, whether towards improving services or formulating legislation and official policy.

One can infer from the above situation that any policy renewal on the information society must emphasise additional online public services as well as opportunities for public participation in democratic processes. But there is also a need to examine further aspects, viewed in the long term due to how many challenges require substantial implementation periods. Much can be learned in this regard from what is going on internationally.

Throughout the world, shortages of information technology expertise are a constantly growing problem, accompanied by the urgency of revamping educational systems in order to adapt them to evolving employment patterns and to the technology and equipment now used daily by most of the population.

Many nations are placing particular emphasis on adapting their educational systems to modern technology and on producing more specialists in the field of information technology. Worthy of mention are the extensive programmes widely initiated for providing access to public sector information and databases, with the object of giving the general populace opportunities to monitor public sector activities and also of encouraging innovation and the re-use of public sector information for commercial purposes.

Access to public sector information and databases is a priority.

Readiness for using information technology

Information from several surveys is set forth in the tables below to indicate how prepared Iceland and some other countries are for realising the potential of the Internet. The source is the annual Network Readiness Index (NRI) of the World Economic Forum.

	2004	2005	2006	2007-08	2008-09	2009-10	2011-12
Iceland	2	4	8	8	7	12	15
Denmark	4	3	1	1	1	3	4
Finland	3	5	4	6	6	6	3
Sweden	6	8	2	2	2	1	1
Norway	13	13	10	10	8	10	7
United Kingdom	12	10	7	12	15	13	10
Total number of countries	104	115	122	127	134	133	142

TABLE 1: NRI RANKING OF ICELAND AND ITS COMPARATOR COUNTRIES

	2004	2005	2006	2007-08	2008-09	2009-10	2011-12
Score	---	---	5.5	5.44	5.5	5.2	5.33

TABLE 2: ICELAND'S SCORE ACCORDING TO NRI

E-government

The United Nations publishes regular reports in its series of *Global E-Government Surveys*. As seen above in rankings from the World Economic Forum reports, Iceland's position has deteriorated considerably over the past four years, while its comparator countries have maintained a more stable position during this period, for example all appearing in the top-10 list in the 2012 rankings. Even though Iceland's score rose between 2010 and 2012, it still ranked only 22nd.

	2003	2004	2005	2008	2010	2012
Iceland	15	14	15	21	22	22
Denmark	4	2	2	2	7	4
Finland	10	9	9	15	12	7
Sweden	2	4	3	1	12	7
Norway	7	10	10	3	6	8
United Kingdom	5	3	4	10	4	3

TABLE 3: RANKINGS OF ICELAND AND COMPARATOR COUNTRIES ACCORDING TO THE UN SURVEYS

	2003	2004	2005	2008	2010	2012
Score	0.702	0.7699	0.7794	0.7176	0.6697	0.7835

TABLE 4: ICELAND'S SCORES ACCORDING TO THE UN SURVEYS

Online offerings

In December 2010, the European Union published a report entitled *Digitising Public Services in Europe: Putting ambition into action*. This report endeavoured to assess the availability of public services online, concentrating on two service categories, "Finding a job" and "Starting a company". The point of reference was the extent to which these categories were digitalised.

Out of the 32 countries examined, Iceland ranked 30th, scoring 58%. Since the average score was 82%, Iceland could obviously have done much better in making public services available online. Since the average score for 2009 was 69%, countries had in general improved by 13% from 2009 to 2010, while Iceland improved by only 3%, i.e. from 55% to 58%. Our geographical neighbours have been performing much better, placing greater emphasis on online public services.

Online public service usage

In contrast to the above, Icelanders excel in using online public services. Eurostat, the statistical office of the European Union, maintains statistical data on "individuals using the Internet for interaction with public authorities" in the so-called EU-27 countries. Icelanders have come out extremely well in this regard and have always been placed first, except for ranking second in 2007. The reason is that the proportion of Icelanders who utilise online public services has climbed sharply in recent years.

In 2010, the percentage of those interacting with public authorities online was 77%, whereas it was only 55% in 2005. To gather these statistics, Eurostat noted whether individuals had used the Internet for any of the following three functions: obtaining information, downloading forms, or completing and submitting forms. No distinction was made as to which one or more of these functions the Internet was used for.

In regard to how frequently Icelandic enterprises use e-government services, the outcome is similar, although it should be mentioned that statistical data about enterprises is only available for 2003, 2006 and 2008. In each of these years, Iceland maintained first place.

State and municipal cooperation

When information society affairs were transferred from the Prime Minister's Office to the Ministry of the Interior in 2011, numerous opportunities emerged. One of these was that information society issues could be integrated with various relevant affairs of the Ministry of the Interior, not least those of telecommunications and local government. In order to promote e-government, the Ministry of the Interior launched a series of projects in cooperation with both Icelandic municipalities and the Association of Local Authorities. This cooperation has intensified and led to considerable achievements. The State and municipal authorities thus have a firm basis for initiating yet further cooperative projects in order to implement the present policy, which is to be their first joint policy in matters of the information society.

Among the programmes initiated through this cooperation was the development of a digital authentication for Iceland, now called IceKey. Following development at Registers Iceland, IceKey was officially brought into use in April 2013. Efforts were also made to facilitate e-democracy among local authorities, passing amendments to the Local Government Act which pave the way for citizens to participate in e-elections or collect signatures online at www.island.is. These undertakings provide the basis for a variety of e-services that may utilise and be supported by the authentication service at this website.

Future vision

What characterises the information society above all else is constant change. New equipment, updated technology, increased communication speeds and changing lifestyles are all part of this picture. Government sector bodies continually have to adjust to sudden demands, such as service accessibility through whatever devices people are adopting at the moment, which currently include state-of-the-art smartphones and tablets. Next year, government bodies may face revised expectations, due to rapid developments. This policy's future vision is marked by the pressing need to consider the ever-evolving requirements of society as a whole, both individuals and companies; to seek out and listen to views voiced in consultation processes; and to improve general as well as specialist knowledge of information technology.

Public services are built up with democracy, efficiency and the needs of people and industry in mind. A solid knowledge of information technology, along with access to government data, will promote innovation and business growth. The general public will affect public-sector decisions by helping prepare them through online, open, transparent consultation.

While formulating the present future vision, the policies, main emphases and programmes of other European countries were investigated. Nonetheless, the small size of Icelandic society has to be taken into account when adapting foreign ideas to Icelandic reality. This can be achieved by comprehensive harmonisation and communication between systems, as well as by their rapid introduction. There is a clear need to examine structures and to build and connect systems in light of the many tiny institutions and organisational units in this country. Participation by the general public and stakeholders, along with their access to decision-making, is a premise for success. All of this is implied in the following motto of this policy:

CREATE, CONNECT, PARTICIPATE

To a greater extent than in most other countries, Icelanders need to pool their knowledge, solutions, equipment and facilities in order to achieve efficiency.

Since the challenges of the information society crisscross traditional political party lines, it is imperative to integrate the present policy with other policies. Thus the projects mentioned in the implementation plan often have their origin in the plan and harmonise with projects in other public policy documents. When/if a particular programme obtains funding, its links to other policies in the implementation plan must be expressed.

Not least, information society projects may be attuned to key Ministry of the Interior programmes in the areas of infrastructure, i.e. transportation and telecommunications. This becomes obvious when the principal aims of the transportation and telecommunications plans are examined. For example, the principal aims of the telecommunications plan are the following: *accessible, easy, economical, efficient, secure and environmentally friendly telecommunications*. These aims from the telecommunications plan are echoed by the principal aims of the present information society policy, so that close inspection here will generally find key words from the telecommunications aims.

The principal aims of this policy, six in all, contribute to the future vision which has been expressed for the period till 2016.

1 Knowledge development

Society's knowledge of the possibilities and uses of information technology shall be enriched, with the purpose of applying technology in the optimal manner for creating employment, improving services, effectiveness in all respects and increasing democratic participation. The focus shall be on building up knowledge among students, managers and other State or municipal personnel, and in groups who have limited acquaintance of information technology.

3 Structure, safety, synergy

Throughout Iceland, a coordinated structure shall be established to ensure that a synergy of State and municipal information systems can fulfill specific security and quality criteria. Special policies, criteria, standards and rules shall be formulated for government websites as the need arises, so that these can develop in step with technological progress and the demands of society. Access shall always be available to authentication solutions which meet current security level requirements, including access to *IceKey* and a qualified digital certificate.

5 Democracy

The state, the municipalities and their institutions shall adopt transparent, efficient and open consultative procedures to ensure that both business enterprises and the general public can easily express their points of view during the policymaking phase and when regulations are issued and decisions are taken. Electronic electoral registers, and electronic residents' referendums and petitions, shall be established at the municipal level and this work may serve as the basis for e-elections to municipal councils.

2 Accessibility, transparency

The general public, businesses and stakeholders shall have easy access to non-personal information and files kept by the State or municipalities. The basis for State and municipal policies shall be openly accessible data, providing a single portal for accessing such data or databases.

4 Economy, efficiency, sustainability

Information technology shall be systematically exploited in order to achieve greater automation and effectiveness, higher quality in business and services and the pooling of useful information. State and municipal bodies shall pool their knowledge and advice in improvement projects (such as open house projects). Efforts shall be made to use information technology to reduce State expenditures, for instance for the exposure and reduction of tax and welfare benefit fraud. Legal hindrances shall be removed which might obstruct the provision of digital services and access to data.

6 Services

Individuals and businesses shall be able to handle affairs related to State and municipal administration anytime, anywhere and without delay. Individuals and businesses shall also be able to obtain information about their particular issues and to monitor the status of these issues. Finally, the State and municipalities shall jointly develop personal pages through a single portal, *www.island.is*, so that individuals will be able to access their personal information; moreover, new systems shall be designed to allow such access.

Policy implementation - quantifiable aims

This policy is accompanied by a four-year implementation plan which shall be reviewed annually, together with the list of projects and their funding. The project list review must ensure that every project will support the advancement of at least one of the six principal aims on which this policy is based. Each project must be funded with reference to its progress, meaning that if it has not resulted in indications of progress within a specified time, it shall be evaluated as to whether its continued funding is justified or whether other projects should be given funding priority.

Every year, the implementation plan shall be reviewed and further elaborated, noting the latest information on the status of projects, developments in the realm of technology, and the social circumstances at the time.

An indicator dashboard has been set up to show quantifiable aims or criteria; these have been presented for ease in monitoring policy accomplishments. Since such criteria should serve as indicators of success in achieving the policy's principal aims, the criteria should be a useful tool in policy implementation.

The dashboard takes account of two criteria from the Iceland 2020 policy statement. However, since the criteria there relate to achievements for 2020, the standards below are set somewhat lower in order to relate to 2016 as the final year. In the list below, the two criteria that appear in both statements are Nos. 6 and 8. The quantifiable aims or criteria that are to be monitored regularly, as soon as the present policy is implemented, are as follows:

Policy criteria

1. The number of university-level students who graduate with majors in information technology shall correspond to commercial-sector demand, cf. the 2012 report sponsored by the Association of Local Authorities, the Federation of Icelandic Industries and the Ministry of Education, Science and Culture on student circumstances in relation to future commercial demand.
2. A continuing education programme on information technology shall be operated for the staff employed in State and municipal administration.
3. By the end of 2016, access shall have been made available to 80% of the most important State and municipal databases, with nationwide arrangements for government data systems having been prepared and formally approved by the end of 2015.
4. By 2015, all medical practitioners shall have easy, secure access to the test results of their patients.
5. The proportion of invoices that are digital shall increase among those emanating from companies and other parties doing business with government bodies.
6. Iceland shall rank as one of the top-20 countries in the United Nations e-participation score for 2016.
7. By 2014, an electronic electoral roll shall have been set up which shall be used experimentally in the municipal government elections of that year.
8. Iceland shall figure as one of the top-15 countries in the United Nations e-government rankings for 2016.



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