Proposal for a government resolution on improving the accessibility and promoting the reuse of public information resources in digital format

Abstract

This government resolution presents the policy lines and measures needed for improving the accessibility and increasing the reuse of digitalised public sector[1] information resources in all areas of society.

The object of the government resolution is to promote the reuse of digitalised information resources that are publicly funded, administered by the public sector and made publicly accessible for disclosure as such, and the handling of which is not subject to any statutory limitations. Thus, the primary purpose of the resolution is not to re-examine the actual regulations[2] governing limitations on disclosure, use and handling. However, the policy lines presented in the resolution can also be followed when facilitating the reuse of information covered by such limitations insofar as disclosing and making such information accessible is permitted under these limitations.

The policy lines include development measures in order to clarify data policies and legislation, to create structures and practices that enable use and to promote the development of services and applications.

The aim of the policy lines as regards public sector data policy is that public sector information resources become openly accessible and reusable under clear and common conditions for reuse that are equal to all. Public sector information should be made accessible cost-effectively from the information holder's perspective, in accordance with the overall benefit to the national economy and, as a rule, free of charge to the user. At the same time, the quality and maintenance of the data must be attended to through budgeting and performance management.

A joint-use data infrastructure will be created for society to effectively make public sector information accessible for reuse. Administrative branches should identify and describe their information resources so that they can be reused. In order to make data content easier to find, information needs to be described in a consistent manner, and service directories are needed to facilitate the use of data. Data that may be disclosed as such should be made accessible to users in digital format through open interfaces. Necessary support services should be created in order to promote the supply and use of public sector information resources. The development and maintenance of the infrastructure for open and interoperable data will be secured with long-term funding.

Cooperation models and incentives are required to promote the development of services and applications. The public sector should foster an open information culture and support the activities of developer communities. Research and international cooperation in the sector should be strengthened. Investments must be made in pilot projects so that, in particular, data that is in wide demand can be made accessible, and common practices can be developed.

Objective

This government resolution presents policies and measures for making digital information resources administered by the public sector accessible to citizens, enterprises and organisations, authorities, research and education in an easily retrievable and utilisable format

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[1] Here, 'public sector' refers to authorities and operators engaging in official activities, as specified in section 4(1) of the Act on the Openness of Government Activities (621/1999).

[2] The most extensive sets of norms concerning limitations on disclosure of information are included in the Personal Data Act (523/1999) and the Act on the Openness of Government Activities (621/1999).

through information networks. The goal is that information resources are widely accessible to the general public so that they promote innovation and research activities, the development of digital products, services and markets, the efficiency, impact and transparency of public administration and citizens' participation in decision-making.

The object of the government resolution is to promote the reuse of digital information resources produced primarily in conjunction with the carrying out of official tasks and other digital information resources that are publicly funded, administered by the public sector and accessible for disclosure as such. The government resolution's policies may also be applied in order to facilitate the reuse of information subject to limitations on disclosure, use or handling insofar as this information can be made accessible under these limitations.

It is appropriate that the policies of this government resolution be taken into consideration in planning, developing, updating and procuring information technology systems, so that information resources can be made accessible under a certain agreed service level through open interfaces. The objective presented here can be supported by opening the processes in which information resources are created, in addition to opening the information itself. In the long term, these measures will form an interoperable information infrastructure.

Background

The public sector handles large quantities of information concerning different sectors that is useful in official tasks. It compiles, maintains, provides and updates this information in databases and registers, and for statistical purposes. As part of their duties, public sector bodies produce material such as location, map and weather data to be used by various actors in society. In order to fulfil its public task, it also maintains base registers that cover personal, property, building, company, organisation and foundation information. Moreover, the public sector administers various digital contents, such as research and cultural material - a significant part of which may be information subject to third-party copyrights - and produces information resources related to the democratic decision-making process.

The public sector's information resources can be utilised in various sectors of society. The wide accessibility and usability of the information resources reinforce the knowledge-based administration and strengthen the administration's efficiency, transparency and impact. The public sector's information resources are an important source of information for education, research and scientific work. Web applications utilising the public sector's information facilitate the citizens' daily lives, promote their participation in society's decision-making processes and strengthen open communication. Web applications and e-services based on public sector information can generate cost-savings both for the public sector and the general public, while at the same time providing a basis for innovation, business and new forms of cooperation, for example in the development of public services.

When implementing services and opening up information, however, it must always be ensured that the right to privacy, business secrets, copyrights, national security or other similar principles and rights are not jeopardised.

The following factors are among those that hamper the effective utilisation of public sector information resources both between different authorities and in other sectors:
-   reuse of information resources is made more difficult or restricted by agreement practices and conditions of use
-   publication practices that promote the use of information resources are still undeveloped in government activities
-   information disclosure is subject to fees to cover the costs of information disclosure and administration, and, in general, the Act on Criteria for Charges Payable to the State is applied inconsistently

- the roles of the public and private sectors in producing, refining and maintaining information are undefined
- the ownership and copyrights of public sector information resources are undefined
- information resources are hard to find and deficient in terms of their technical reusability due to the lack of an open information infrastructure
- lack of knowledge on accessible information resources
- lack of incentives promoting the disclosure and reuse of public sector information.

Information resources controlled by the public sector may be subject to various disclosure limitations and terms of use that are due to, for example, the ownership and copyrights of the information, confidentiality regulations and agreements governing the information, or disclosure and use limitations due to the fact that disclosure of the information is discretionary. Concerning the limitations mentioned above, an assessment must be made to determine which information resources could be made more easily accessible for utilisation by measures such as revising permit procedures and authorisations, developing information use services, clarifying licensing and agreement models, converting information resources into a format enabling open use and enhancing the information resources' content by, for example, removing the information subject to limitations from the data set to be opened, including only the necessary information and generalising the information resources made accessible for disclosure. The generalisation of information resources would do away with the need to block whole data sets from wider use because of use restrictions in individual information fields.

The Government Programme of Prime Minister Mari Kiviniemi's Government, reports dealing with economic growth and drawn up under the leadership of businesses, and the Sustainable Economic Growth and Employment Programme recently published by the Prime Minister's Office all pay attention to the social and financial benefits that could be reaped from opening up public sector information resources and improving their accessibility for utilisation in commercial and non-commercial use.

The accessibility, usability and reuse of public sector information resources are being developed as part of the government's IT corporate steering and comprehensive architecture. The necessary measures are being examined by four cooperating working groups formed in 2009 and 2010: Accessibility of Public Information (Ministry of Transport and Communications), Promoting the Accessibility and Use of Public Sector Information Resources (Ministry of Finance), Interfaces for Public Sector Basic Information Resources (Ministry of Finance) and the Information Resources for Research study project (Ministry of Education and Culture/CSC).

The final report of the study project that examined the utilisation of electronic information resources for research (Ministry of Education and Culture, 2011) proposes, among other things, that legislation be improved to support the accessibility of information and its utilisation in research and decision-making free of charge. The report recommends that data protection be taken into consideration and that the conditions for the use of information resources be developed so that they do not prevent high-quality research.

More productive use of public sector information resources was made a key objective in the national strategy for developing the information society (Productive and Inventive Finland – Digital Agenda for 2011–2020), which was submitted to the Finnish Parliament in November 2010.

More effective utilisation of information is also considered important in the EU's Digital Agenda Flagship Initiative, which was issued as a Communication in May 2010. The Agenda's key measures for developing the internal digital market include re-examining the PSI Directive, which governs the utilisation of information controlled by the public sector, by 2012 and the implementation of the INSPIRE Directive, which governs the use of spatial information.

In its Communication in 2009 concerning the impact of the PSI Directive, the European Commission stated that Member States should intensify and increase their actions so that the full potential that public sector information offers for the EU economy can be utilised.

According to the Commission's Communication, the utilisation of public sector information is being slowed down by, among other things, a deficient ability to see the overall economic benefits, competition between the public and private sectors in the information resources markets and lack of knowledge on accessible public sector information resources. The Commission has asked Member States to pay attention to such issues as abolishing exclusive rights arrangements and facilitating reuse, as well as charging policies, competition between public sector bodies and reusers, and procedures for settling disputes.

The accessibility of information resources has been speeded up in several countries, with high-level commitment to opening up public sector information as part of the process of strengthening the openness of administration. For example, in January 2009, the President of the United States, Barack Obama, issued a 'directive' to his budget officials concerning rapid measures to open up public sector information resources. In May 2010, the Prime Minister of the United Kingdom, David Cameron, issued a letter to his administration concerning the opening up of public sector information. National portals that support the opening up and utilisation of information resources have been established in both countries. In the United Kingdom, the Office of Public Sector Information (OPSI), which merged with the National Archive in 2006 and regulates Crown copyrights and the authorities' justice and openness requirements, also serves as a support service. In addition, mutual links between information resources are supported as part of the development of a semantic network. In Norway, the ministry in charge of renewing government administration issued official guidelines in November 2010, according to which all government offices must publish their information resources in digital format.

The value of the public sector's information resources market in Europe is estimated at approximately EUR 27 billion (Mepsir, 2006). Estimated by GDP, Finland's share of this amount would be about EUR 400 million (Finland's share in the EU's national income in 2009 was 1.53 per cent, Statistics Finland). The Ministry of Finance estimates that the current annual income from information disclosures totals some EUR 40 million. On the other hand, the administration of information disclosures will also increase the amount of work and other immediate expenses. In addition, it has been stated that if public sector information resources were utilised more widely and effectively, the national economy can expect to gain income in the form of corporate taxes because of an increase in business volume.

The Finnish Government's policy lines and proposed measures for promoting the accessibility and reuse of public sector information resources

National policy lines and measures for improving the accessibility[3], findability, terms of use and usability of public sector information resources and encouraging the reuse of such information are needed to ensure that these information resources are utilised in various areas of Finnish society more diversely, effectively and innovatively than at present.

In order to improve the accessibility and reuse of public sector information resources,

1. information policies and legislation governing public sector information and its utilisation must be clarified

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[3] Here, the opening up of public sector information refers to conditions of use that permit reuse and the placement of information resources in information networks so that the information is not only accessible to users, but can be automatically retrieved and utilised using computer applications in a format suitable for reuse, particularly a digitalised format.

2. structures and practices enabling the use of information (open infrastructure) must be made more consistent

3. service and application development that benefits public sector information resources must be promoted.

1. Policies and legislation governing data

The objective of the policy lines is to ensure that Finland has an open public sector data policy that guides all operators, encourages making public sector information resources accessible and promotes their reuse. Information resources should be made widely accessible for use by the whole of society by improving policies concerning the obtaining of information, user rights and charges payable to the State and legislation governing them, as well as by making operating models more consistent.

1.1. The public sector's digitalised information resources that may be disclosed should be openly accessible and reusable

Measures:

1.1.1 Under the guidance of the Ministry of Finance and in accordance with regulations concerning the authorities' communication obligations[4], different administrative branches should be obligated and instructed to make obtaining information more efficient and to facilitate the use of public information resources produced or controlled by them.

1.1.2 Various ministries should be given the responsibility of charting any necessary changes to legislation in their own administrative branch and assessing the costs of transition periods, taking internal transfers and long-term benefits gained from more efficient operations into consideration.

1.1.3 Assess, from the point of view of copyright legislation, how and to what extent the public domain use of information resources can be speeded up and in which situations it is in the national interest to protect material with copyrights.

1.1.4 Define the basic service level of technical services facilitating the accessibility of information, which will be affected by, among other things, general principles on the maintenance and interoperability, information security, risks, ease of use and technical interfaces of information systems, to be given as a Public Administration Recommendation (JHS standards).

1.1.5 The roles of the public sector, private sector and research in the production, refining, maintenance and distribution of information must be clarified as the process progresses. In particular, steps need to be taken to ensure equal competition on the markets.

1.2. The terms of use of information resources that can be disclosed should be consistent, clear and equal to all, and they should encourage publication

Measures:

1.2.1 Ensure that the conditions concerning the use of information resources are as consistent, clear and equal as possible, and that they do not pose an obstacle to the versatile and

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[4] According to section 18 (good practice on information management) of the Act on the Openness of Government Activities, the authorities must attend to the appropriate availability and usability of documents and information management systems and the information contained in them.

innovative commercial and non-commercial use of information. This will also require that the ownership of information be clarified in the public sector so that no unnecessary obstacles to the opening up and use of information are created on the grounds of information ownership.

1.2.2 Information resources should be accessible for use as widely as possible without separate negotiations or permit procedures. If there is a reason to place conditions on use, they should be justified, clear and flexible, and encourage use.

1.2.3 Conditions of use concerning the utilisation of information should be made consistent by applying, whenever possible, licensing models that are being developed internationally and are in general use.[5] The information resources should be licensed for use and their conditions of use should be accessible for online approval with one agreement.

1.2.4 Public sector organisations may place appropriate conditions on the disclosure of information resources, such as conditions on the information holder's discharge from liability or on mention of the source. The agreement can also be used to guarantee the reuser a certain predetermined service level and continuity in the accessibility of information for a determined period. Such agreement practices should be equal for all users.

1.2.5 Public sector organisations may place conditions that promote reuse on funding for the production of information resources, such as the requirement that the produced information must be made accessible online after a certain period of time following publication.

1.3. Information disclosures are mainly free of charge to the user

In the disclosure of information, public sector information should be made accessible cost-effectively from the information holder's perspective, in accordance with the overall benefit to the national economy, and, as a rule, free of charge to the user. The recipient of the information should pay the information holder any costs incurred if the disclosure of the information has to be customised to the recipient's needs or in the event that the predetermined basic level of service is increased.

Due to the diversity of information resources and their disclosure practices, the transition to information disclosures that are, as a rule, free of charge should take place in stages.

The charging of fees should be discontinued within the government and in the disclosure of information between municipalities and the government. The major effects of this operating model on funding for central government departments and on central government transfers to municipalities should be taken into consideration in the preparation of the Budget.

Concerning the pricing of information disclosure, any need for amendments to the Act on Criteria for Charges Payable to the State, the Act on the Openness of Government Activities and administrative branches' special legislation should be examined, with the primary premise being that information and its disclosure should, as a rule, be free of charge.
All cases in which there is a need to consider fees or chargeable service operations should be specified as part of the stage-by-stage process.

Measures:

1.3.1 The Public Information Accessibility working group (Ministry of Finance) will present detailed solutions and justifications for payment policies at the level of amendments to the statutes of the Act on Criteria for Charges Payable to the State and determine the timetables for the implementation of the amendments. At the same time, the quality and maintenance of

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[5] For example, several countries have introduced and currently apply Creative Commons licensing conditions in order to clarify the copyrights of information resources and improve legal certainty.

the public sector information resources must be attended to through budgeting and performance management.

2. Open infrastructure for the utilisation of public sector information resources

The objective of the policy lines is to create an open infrastructure[6] that can be used by the entire society, offering public sector information resources for public use in a digital format, with descriptions and clear conditions of use, and in such a way that they are easy to find.

Within their capabilities[7], authorities should
- identify and name their information resources on an appropriate level during 2011 (in accordance with policy lines 2.1 and 1.1.1)
- describe the information resources using metadata and place the metadata in joint listing and search services as from 2012 (in accordance with policy line 2.2)
- make the information resources accessible as digital files or in an interface service as from 2013 at the latest (in accordance with policy line 2.3).

2.1. Information resources should be identified and described for reuse

Measures:

2.1.1 Administrative branches should identify and inventory key information resources that may be disclosed.

2.1.2 National information resources should be itemised according to their nature, special characteristics and purpose, and the definition of responsibilities and roles should be continued in the Ministry of Finance's corporate steering in accordance with the overall architecture work.[8] At the same time, concepts concerning information resources should be further specified.

2.2. Information contents that are easy to find and have consistent descriptions enable the use of information

Measures:

2.2.1 Agreement should be reached on a consistent way to describe information resources, and a definition for metadata[9] should be provided. The information offered should be described in a consistent manner using metadata, and the metadata should be compiled in a free-of-charge search service. When using the service, it should be easy to find out what information

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[6] Open information infrastructure refers, on the one hand, to the information that may be disclosed from public sector information resources, such as registers, databases and files, and on the other hand, the authorities' interface services that transmit information and their descriptions, and easy accessibility practices.
[7] 'Within their capabilities' refers to stage-by-stage development aiming at comprehensiveness, in a way enabled by resource-specific benefits, development programmes under way and resources currently employed, taking into consideration the timetables laid down in international legislation (e.g. INSPIRE) and common lines with national regulatory work (e.g. decrees to be issued under the IT Act).
[8] See draft of the Government-level Architectures project concerning the focus area distribution in the Finnish Enterprise Architecture.
[9] The definition of metadata may utilise the practices of the Finnish Enterprise Architecture project, the National Digital Library, the INSPIRE Directive, and other international practices, such as W3C.

the public sector has made available for public use. Any conditions, limitations and fees concerning commercial use of the information should be attached to the metadata.

2.2.2 The description of the information content should be harmonised under a Public Administration Recommendation (JHS standards). Authorities should be encouraged to present information offered in a consistent manner, in accordance with the recommendations.

2.2.3 The findability and use of information resources should be promoted with purposeful and user-friendly portals and lists. Portals can, for example, be national, international, local or thematic. Lists should be based on determined metadata, and they should, if possible, be made internationally interoperable.

2.3. Information resources that can be disclosed should be accessible in digital format and in open interfaces so that information can be reused

2.3.1 Authorities should be instructed, using consistent recommendations, to create technical interfaces in accordance with the definitions of the Interfaces for Basic Information Resources working group (Ministry of Finance). Public administration operators should make sure that information offered for use is in a digital[10], easily utilisable format. For this purpose, authorities should establish interface services that would facilitate the browsing and downloading of information. Moreover, the conditions of use should be accessible for approval electronically via an information network so that they can be easily utilised.

2.3.2 When collecting new information and digitalising information resources, steps should be taken to ensure that the information available for publication is offered for utilisation via an open information infrastructure. Service processes with which information resources are produced and handled, and information systems procured for them, must be equipped with open interfaces enabling repeated display and use.

2.3.3 The functionality and basic service level for interface services should be defined so that use of the information can be ensured. Each government branch must attend to the implementation of its own interface services in order to ensure that the information can be utilised easily.

2.3.4 The interface services should include authorisation management concerning information whose use is subject to authorisation. An authorisation management system that covers the entire public sector and produces the necessary monitoring data concerning use should be implemented.

2.3.5 Electronic systems should be developed so that the reuse of unit-level information resources, for example, can be facilitated without jeopardising the right to privacy.

2.4. Necessary support services should be created in order to promote the supply and use of public sector information resources

Measures:

2.4.1 Establish a national support service (clearing house) to assist authorities and users in placing information resources in open interface and search services. The task of the support service would be to assist in the implementation of an open infrastructure in accordance with

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[10] 'Digitalised format' refers to the fact that the data is sufficiently structured so that it enables an automated process, i.e. it refers in practice to a known format of data (e.g. XML, CSV, JSON or RDF standard). For example, RDFA support in publication systems improves the open publication of information resources.

national recommendations, to strengthen awareness of the utilisation of information resources, to promote knowledge of regulations and their application, to encourage good publication practices, and to act as an arbitrator in any disputes concerning the accessibility of information or procedures. The support service should have expertise in information rights. It should be organised by the Ministry of Finance, for example, under the Government IT Shared Service Centre (Suomi.fi).

2.4.2 Organise training and offer it to administrative branches so that the functional and technical requirements can be created in order to promote the provision and use of information resources.

2.5. The development and maintenance of an open and interoperable data infrastructure can be secured with long-term funding

Measures:

2.5.1 The creation of open information infrastructure services needs to be secured with a funding system that aims at rapid and cost-effective implementation. Different options and funding (such as appropriation transfers through the Budget or a separate programme within the national innovation system) for the information infrastructure (including interface services) and the needs of functional arrangements for resources (such as support services) should be evaluated.

3. Promoting service and application development that utilises information resources

The objective of the policy lines is to create cooperation models and incentives for the opening up and reuse of information resources in order to promote service and application development. It is important that several stakeholders undertake this task simultaneously, creating an ecosystem that promotes the use of information resources. The ability to utilise information resources should be increased through training, research and pilots.

3.1. The public sector should develop a culture of open information

Measures:

3.1.1 Performance management should be developed in a direction that promotes the use of information resources and content, emphasising the scope and versatility of information reuse instead of the income gained from information disclosures. Authorities should be instructed to revise their strategies so that improving the accessibility of information together with other authorities and promoting the utilisation of information resources for different authorities' needs are included in them.

3.1.2 Authorities should be encouraged to promote the use of information resources with special recognitions and awards. The best practices should be published. Authorities should announce the existence and location of information resources and maintain a dialogue with the users of the information.

3.2. Communities developing the use of information resources and new applications should be supported

Measures:

3.2.1 Competitions and awareness raising campaigns for the utilisation of open information resources should be organised, and the publishing of model applications for information resources should be encouraged.

3.2.2 Online services and joint operating models, with which developers can offer administrative organisations and other operators national reading and writing interfaces and national services and software utilising authorisation management, should be developed. Efforts should be made to support integration into international information resources interfaces and authorisation management systems.

3.2.3 Development environments that are intended for different developer groups and that contain a collage of documentation and software libraries for the use of Finnish interface services should be developed and maintained.

Research and international cooperation for promoting the opening up and utilisation of public information should be strengthened

Measures:

3.3.1. Funding should be allocated to research and development activities concerning information resources and to the production of open research material. Research on the economic and social effects of the use of public information should be increased.

3.3.2 The availability and utilisation of public information resources should be promoted for the needs of science and research, and in the development of electronic learning environments at all education levels. Training related to open information resources should be organised at many competence levels.

3.3.3 Research institutes, higher education institutes and businesses should be encouraged to participate in community-based work that results in a semantic network combining information resources.

3.3.4 The utilisation of information resources should be strengthened in the programme and the research activities of key operators in the national innovation system, such as the Academy of Finland and Tekes, the Finnish Funding Agency for Technology and Innovation. This must be taken into consideration particularly when forming research infrastructures.

3.3.5 Finland should actively participate in international cooperation promoting the opening up and utilisation of public information, especially with other Nordic countries. At the EU level, the measures laid down in the Digital Agenda concerning the openness of information resources (including review of the PSI Directive and implementation of the spatial information infrastructure Directive) should be promoted. Finland should participate in defining pan-European standards.

3.3.6 Finnish solution models should be announced and made available to international networks in the form of, for example, operating models, standards and open source code libraries. The international interoperability of the Finnish information infrastructure would be an advantage to Finnish application developers.

Policy line 3.4. Investments should be made in pilot projects so that information with a wide demand can be made available and common practices can be developed

Measures:

3.4.1 Measures should be taken to launch pilot projects and monitor experiments already underway that are aimed at promoting the reuse of public sector information. The focus should be on the evaluation of practices and tools applied in the compilation and distribution of information resources and content, and on the promotion of the opening up and reuse of information resources in high demand (such as spatial and map data, the National Digital Library).

Background sources

1. Working groups' letters of appointment and interim reports.
2. Putting data into use. A roadmap for the utilization of electronic data in research (Reports of the Ministry of Education and Culture, 2011:4)
3. Government Programme of Prime Minister Mari Kiviniemi's Government. Information systems used in public administration will be harmonised as quickly as possible. ICT management in the public sector will be centralised and strengthened. The Government will give decisions which provide for the opening and availability of data in the possession of the public sector without compromising data security.
4. Productive and Inventive Finland - Digital Agenda for 2011–2020 (other publications by the Ministry of Transport and Communications, 2010). The section entitled 'Information in productive use' presents strategic objectives and the measures for achieving these objectives, so that public sector information can be utilised effectively.
5. Sustainable Economic Growth and Employment Programme (Prime Minister's Office Publications 23/2010). 48. Public pools of basic information must be freely available to all public-sector actors to the extent allowed by data protection and other legislation. Within the public sector, free-of-charge searching for and utilisation of information that is present in information pools is made possible by the transfer of appropriations and other budgetary methods. Separate information processing requests shall entail costs. In order to enhance growth opportunities for the economy, cost-effective means to improve the availability to the general public of information pools produced with public funding must be promoted.
6. EU Digital Agenda (EU, 2010). The measures to develop digital internal markets propose that, by 2012, the Directive on Re-Use of Public Sector Information be reviewed, notably its scope and principles on charging for access and use. Similarly, the Public access to Environmental Information Directive should be reviewed by 2011..
7. European Commission communication (EU, 2009): Re-Use of Public Sector Information: review of Directive 2003/98/EC.
8. Mepsir (2006): Measuring European Public Sector Information Resources. Final Report of Study on Exploitation of Public Sector Information – benchmarking of EU framework conditions.
9. EU Ministerial Declaration on eGovernment (approved in Malmö, 18 November 2009). 11. Increase availability of public sector information for reuse. We will increase availability of public sector information for reuse, in accordance with the spirit of and the conditions established by Public Sector Information Directive 2003/98/EC. We will encourage the reuse of public data by third parties to develop enriched services that maximise value for the public. New demand-led information products and services enabled by the reuse of public sector information will support the transition of Europe to a knowledge-based economy.
10. Background study on the availability of and legislation governing public information. (Ministry of Transport and Communications/Henri Tanskanen, 2010)
11. Poikola, Kola, Hintikka (2010): Public data – introduction to the opening up of information resources (other publications by the Ministry of Transport and Communications, 2010).