Initiatives and actions concerning register data in Finland

CSC - IT Center for Science
Digital Agenda for Europe: key initiatives

Annex 1: Key actions

A vibrant digital Single Market

Key Action 1: Simplify copyright clearance, management and cross-borer licensing by: (…)

• Reviewing the Directive on Re-Use of Public Sector Information, notably its scope and principles on charging for access and use.
Government Programme of Prime Minister Mari Kiviniemi’s Government


8. (...) Information systems used in public administration will be harmonized as quickly as possible. ICT management in the public sector will be centralized 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.
2.8 Public sector procurement policy and the general availability of publicly collected information

General availability of publicly collected information

- Information held by the authorities, which is collected on the basis of legal provisions, must be made available for citizens, researchers, businesses and other organizations, either free of charge or for a price that covers the additional or marginal costs incurred in its disclosure. Costs arising from the collection and administration of information must be covered from central and local government budgets. If an authority, at a customer's request, modifies, classifies, sorts or otherwise processes information, this service should be subject to a fee at marginal cost. The transfer to pricing based on marginal cost will support the market development of information intensive service sectors and information products as well as promote the use of information for research. (Ministry of Finance, Ministry of Education and Culture)
• Open access requires e.g. the creation and availability of common databanks and the development of electronic services to support information sharing. For example, possibilities for the remote utilization of Statistics Finland’s databases must be expanded without delay, on the basis of a pilot project. The legal and administrative basis for the joint use of data must be harmonized and clarified, as should pricing, while supporting technical and legal solutions should be developed. Moreover, issues which must be taken into account include ensuring the protection of individual privacy and the creation of a competitive environment for public information production in relation to private actors in the field. (Ministry of Finance, Ministry of Education and Culture)
Speed up building Digi-Finland

(-) Overall architecture in building the information society is important and in that particularly the coordination of different systems. Finland has incredibly good public databanks, but, among other things requirement of payment (Act on Criteria for Charges Payable to the State) prevents the effective use of data. Variety of incentives must be used to activate citizens. When the report will be submitted to Parliament commitment of different actors will be confirmed, and thus contribute to ensuring the Digi-Finland breakthrough.

Committee for the Future proposes in a statement ----

that as a result to the report the following statements will be accepted: Government will act to boost building the Finnish information society and transiting to the digital era, and shall report to Parliament.
Winners of the future
Opportunities for a welfare state in Finland
- Editor Juho Saari

9 INNOVATION SYSTEM in welfare state - Jussi Simpura

Conclusions
10 interfaces
Innovation system consists of practices that can be openly exploited in the system infrastructure (in particular, databases and research that need monitoring) as one substrate of ideas.

Challenges
How can we get the existing and continuously maintained data resources in wider use?

Opportunities:
More open user environment of the data resources and monitoring information; to produce this solutions are required in data protection practices and research professionals taking a more active role as user advisors of information resources (due to the nature of data resources these professionals can only work in government research institutes).
Ministry of Transport and Communications: Accessibility of public information

• Ministry of Transport and Communications Working Group will assess what are the barriers to access of public information and how they could be removed. The Working Group will make the necessary statements to enhance the usage of public information and define principles to support this. Such information include maps, weather information, legislation, statistics and different registers.

• Working Group determine the means by which accessibility to information can be added and what kind of enhancing practices should be established. Experiments will be launched in selected areas, which are intended e.g. to clarify operational and legal challenges related to accessibility of information, demand for and benefits.

• In addition to economic and social impacts issues such as competition and intellectual property-related challenges should be observed.

• In addition, the working group will observe re-usage of public data and assess on what national actions are needed in implementation of the EU policies that focus on alleviating the re-usage.
Government resolution on the objectives of improving accessibility and enhancing reuse of digital data on public sector (published on 3.3.2011)

To improve public sector data accessibility and re-use one must

1. clarify public sector information and the policy and legislation concerning its exploitation with a particular objective of primarily free data accessibility.

2. harmonize the structures and practices to enable usage of information (open infrastructure of information)

3. enhance service and application development utilized data material of the public sector
Ministry of Finance: Use of public information (2 work groups)

- The goal of the first work group is to get various information resources available by consistent pricing and licensing terms available to those who need the information. The second group defines common technical surfaces by which information can be collected in pc-readable form. Groups will also clarify the need for legislative changes.

- Databanks are meant to be opened without compromising data and privacy protection. There are many records in Public administration that contain information covered by data protection. In these cases it may be possible also to publish a summary and statistics in a level, where individuals are not identifiable. Similarly, a national safety-critical data resources won’t be opened.

- Working groups are lead by the state IT manager George Benson and Senior Advisor Jukka Uusitalo, Ministry of Finance.
Tasks of the work group

- Evaluate needs of reuse of registers and other information resources together with implications for public administration

  – Assess what data resources are possible and appropriate for widespread use

    • Whether there is demand for it’s information
    • Whether data protection and privacy restrictions imposes restrictions
    • Whether some other regulations or agreements set restrictions
    • Does shared usage pose a threat to national security

  – Assess budgetary implications of free of charge or changed pricing together with impacts on unpaid production costs
Tasks of the work group

• Make the necessary proposals for corrections for the state government budget framework and assess the impact of municipalities and local government budgets, taking into account
  – internal charges of the public sector
  – non-received income coming from outside
• Assess other effects on resource allocation and operation of the public sector organizations
• Assess the needs for changing the legislation of registries and make proposals to the applicable ministries of any legislative project launches
• Formulate recommendations for the licensing models of information and terms of use in collaboration with other actors. Licensing models created alongside with PSI and INSPIRE Directives can be used.
Research Data - project

National research data contains at least:

1. Data sets administered by the public sector, which do not involve specific requirements e.g. related to data protection, the contents or usage of the materials, and which therefore could be published available for everyone and to be used without restrictions.

2. Data sets produced or administered by the public sector and the research system, with specific limitations, and requirements (e.g., related to privacy or intellectual property rights).

3. Data produced by the research system, which should be brought for wider use.
Vision

Finland has a clear data policy, supported by common e-services.

Data administered by the public sector, and data generated by the public research funding are by the legislation and common terms of use in principle free for the public.

Long-term funding of the information infrastructure development and maintenance ensures that existing and new data resources will be described and they are easily found and taken into use by the computer network services.

Incentive and fair merit system must will ensure that new, high-quality data will be connected to information infrastructure.
### Key Challenges and Problems According to the National Survey

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<thead>
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<th>With regard to utilisation of research data:</th>
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<tr>
<td>Scattered data and poor findability (lack of descriptive data and metadata, lack of central metadata register)</td>
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<td>Time-consuming and inconvenient processes for obtaining data</td>
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<td>Vague or restrictive rights of use (occasionally with regard to whom and for what purpose the data are assigned)</td>
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<td>High prices or confusing pricing policy</td>
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<td>Lack of clarity relating to data protection and privacy</td>
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<td>Challenges related to data utilisation and merging (lack of metadata, lack of quality assurance, lack of compatibility among data, data formats and software)</td>
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<td>Underdevelopment of infrastructures, e-systems and services</td>
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#### With regard to data providers and administrators:

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<td>Lack of clear data-related practices, policies and operating cultures</td>
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<td>Defectiveness and underdevelopment of research infrastructures</td>
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<td>Dearth of resources and funding</td>
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<td>Conflicting demands and goals set for organisations</td>
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<td>Deficiencies in competence</td>
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<td>Lack of incentives</td>
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## RECOMMENDATIONS AND SCHEDULE FOR IMPLEMENTING THE VISION

### Data policy

Data policy refers to the determination of legislation, responsibilities, roles, operating models and payment policy. In addition to the recording, distribution and handling of data, data policy also includes goals and actions concerning competence and working culture and the allocating of resources and funding. Data policy covers all data produced using public funds, whether generated in the field of research or by public administration authorities.

### Goal

Finland has a clear data policy that enables the most efficient and convenient research utilisation of data, both data produced and administrated by the public sector and data produced through public research funding. Implementation of data policy is steered with clarity and in a coordinated manner to ensure compatibility and cost-efficiency.

### Recommendation 1.

A comprehensive and clear data policy to be drawn up relating to national data, taking note of the requirements and goals of both national science policy and international scientific cooperation:

- Determination of the principles of data availability
- Development of mechanisms, funding and practices
- Clear mandates and implementation plans

### Practical action 1.

Preparation of a proposal for a Government decision-in-principle on the drafting of national data policy. National data policy should take note of the requirements and goals of international scientific cooperation, define the principles governing data availability, set clear mandates and implementation plans and outline the development of operating mechanisms, funding and practices.
## Operational steering

Operational steering refers to more effective cooperation and rules for achieving goals within the administrative sector, and to clearer ownership steering concerning the operations of organisations.

### Goal

Management of the operability, coordination and cooperation of the responsible bodies’ overall strategies, funding and projects relating to research data.

### Recommendation 2.

Coordination of the various actors and the compatibility of strategies and development projects should be strengthened through commitment to the creation of a cost-efficient data infrastructure for the long-term and coordinated funding of key national projects:
- Centralised data on projects
- Compatibility taken into account in project planning
- Drafting of coordinated development plans
- Outlining of common e-services
- Cost-efficiency through compatibility and cooperation

### Practical action 2.

Appropriate bodies should be tasked with gathering project data from the administrative sector, assessing the compatibility of project plans with particular regard to data, identifying common e-services, coordinating development plans and promoting cooperation among projects.

### Recommendation 3.

The ministries define the roles and objectives of government organisations as data providers and data distributors. This will cover the following:
- Clear definition of the tasks of the authorities
- Definition of service production
- Adoption of data financial statements within public organisations

### Practical action 3.

The ministries define the roles and objectives of government organisations as data providers and data distributors. This covers clear definition of authority tasks and of service production, as well as adoption of data financial statements within government organisations.
Legislation

Questions concerning legislation and legal interpretation as well as data protection

Goal

Legislation assists in promoting the widest possible degree of openness, availability and usability of data. The use of data is regulated and restricted only in cases where this is unavoidable. Legislation takes into account the assurance of equality for researchers irrespective of their place of work.

Recommendation 4.

Enactment of legislation on scientific research.

Practical action 4.

The ministry in charge prepares the necessary legal amendments.

Recommendation 5.

Relevant sections of legislation are brought up to date:
- Act on Criteria for Charges Payable to the State, separate statute relating to data output
- Statistics Act
- Copyright

Practical action 5.1.

Payment and pricing of data output, and related legislative development in accordance with the spirit of the recommendations of the PSI directive issued by the OECD and EU.

Practical action 5.2.

Amendment of legislation concerning the availability of statistical and register data for research use and harmonisation of practices.

Practical action 5.3.

Amendment of the restrictive provision stipulated in the Copyright Act, to permit the use of works protected by copyright for non-commercial scientific research and teaching, with the proviso that the author’s name is mentioned, unless this proves impossible.
Data infrastructures

Data infrastructure is the part of e-infrastructure that contains all interoperable basic services and tools required for the production, recording, distribution and utilisation of data.

Goal

Construction, development and maintenance of data infrastructure is long-term and guarantees that data are described and brought, with the publication of results, into the sphere of data network services. All significant data with regard to research are described with the aid of metadata and descriptions aggregated to a search service, through which material can readily be found. Essential materials are preserved permanently and allocated a permanent identifier.

Recommendation 6.

Planning and implementation of essential e-services for high-quality production, recording, communication, distribution, access management, handling, compatibility, merging, analysis, anonymisation and updating of data.

Practical action 6.

Authorisation of an expert body to draft a plan for common e-services and tools for high-quality production, recording, communication, distribution, access management, handling, compatibility, merging, analysis, anonymisation and updating of data. Reference should be made to the work of the National Digital Library.

- Drafting of a service map and authorisation of service implementation.
- Agreement on common metadata models, schemas and open interfaces in cooperation with the Advisory Committee on Information Management in Public Administration (JUHTA) and the Government’s data architectures project VALTASA.

Recommendation 7.

Planning and implementation of thematic clusters and data storage with clearly outlined data production processes, data life cycle models and development plans.

Practical action 7.

Planning of an entity of thematic clusters derived from common e-services. Preparation of action for promoting the metadata work of data providers and obligating and supporting an increase in material metadata. Investigation of international standardisation working groups relevant to research data and the appointment of national representatives to partake in them.

Recommendation 8.

Implementation of a common long-term preservation system for research data.
Thus a common set of rules for at least the following needs to be agreed:

- Mechanisms for improving data findability (e.g. metadata, indexing, identifiers)
- Mechanisms for common use of data reserves
- Mechanisms for consolidation, anonymisation and harmonisation
- Definition of open interfaces (enabling the building of end user services)
- Process definitions for data provision
Re-use

Primary use

Official data
- Data from public research institutes
- Data generated through cooperation with businesses
- Other publicly funded data

Research data from higher education institutions
- International research data

Research and publishing activity
- Research combining data
- Follow-up research

Register research
- Communications
- Public use

Applied research and product development

Private use
- Decision-making
- Monitoring
- Administrative tasks

Commercial use
- Innovations
- Statistics production
- Tasks of authorities
MIDRAS-project

MIDRAS (Micro Remote Data Access System) project objective was to figure out how accessibility of register research and data information (in future: register data) can be enhanced by remote usage.

The project's proposed approach alleviates and diversifies making the registry, offers a new technical solution to support the research and enhances accessibility and reuse of data collected by public funds. The approach improves in particular sensitive data use of the data security point of view and integration of more than one authority.

Vision: Unit-level data sets, held by the public authorities via the National remote system, subject to authorization, will be in research use comprehensively, safely, cost-effectively and easily.
Starting point: Secured data remote service (in which researcher will be able to use pseudonymisoitua individual data, without being able to by accident or on purpose to spread outsiders) enables more precise and larger data accessibility.

-Lähde: Australian tilastovirasto, Tam, Farley-Larmour & Gare, 2010
Objectives and tasks

• Unified register data service for researches
• Part of national research infrastructure
• By the end of June 2011:
  – Agree on future unification of online services
  – Suggest a governance model
  – Suggest a roadmap for realization, funding and resourcing
Thank you!

Kiitos!