Helsinki Region Infoshare – Open Access to Urban and Regional Statistics

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Open data a rather new phenomenon

Open data is still a relatively new phenomenon. Globally, the number of encouraging examples of open data and its applications, regardless of the challenges, is growing. In Finland, the importance of open data has been recognized and there has been a number of working groups active in the field. *Helsinki Region Infoshare – Open Access to Urban and Regional Statistics* represents a first example of open data implementation in Finland.

The planning of *Helsinki Region Infoshare* (www.hri.fi) was encouraged by international examples and experiences such as data.gov.uk, data.london.gov.uk, data.gov.au, data.worldbank.org, and www.data.gov. Domestic support was due to the Finnish Open Data Guide published by the Ministry of Transport and Communications and available free of charge at www.lvm.fi and www.julkinendata.fi. Moreover, there were two working groups or study projects offering support in terms of guidelines, i.e. Accessibility of Public Information (Ministry of Transport and Communications) and Information Resources for Research (Ministry of Education and Culture/IT Centre for Science CSC). Finally, it is important to mention the Government resolution 3/2011 (http://www.lvm.fi/web/fi/tiedote/view/1234053) entitled "***Policy lines and measures needed for improving the accessibility and increasing the reuse of digitalised public sector information resources in all areas of society".*** The implementation of this resolution will significantly add to the progress of open data for all.

What is Helsinki Region Infoshare?

Helsinki Region Infoshare (HRI, www.hri.fi) aims at making information, especially various urban and regional statistics focused on the Helsinki Region, its municipalities and sub-districts freely available by offering easy access in a user-driven way. Actually, *Helsinki Region Infoshare* aims at a new, open model for sharing and re-using public data. The point of departure for this challenging project is at least three-fold. Firstly, the broad cooperation in the region requests for good information basis covering the whole region. Secondly, we believe that open data, openness and open cooperation is a competitive advantage stimulating new businesses, products and services and improving already existing ones. Thirdly, open access to statistical information and public data is essential to the society and to the public enabling participation, interactivity and commitment. In addition, open data and open access support harmonisation of data and improve operation efficiencies on all levels. Open access to information can also lead to new services and businesses,

and it may advance research and development. All in all, sharing public data between as many users as possible, and for free, will benefit society and public policy, citizens, service developers and businesses alike.

Helsinki Region Infoshare   is a research and development project running from 2010 through 2012. The core municipalities Helsinki, Espoo, Vantaa and Kauniainen of the Helsinki Region, Forum Virium Helsinki and The Finnish Innovation Fund (Sitra) are participants in this project, which is coordinated by the City of Helsinki Urban Facts (www.hel.fi/tietokeskus). Forum Virium Helsinki (www.forumvirium.fi) is responsible for project planning, providing R&D-services and coordinating subprojects. Ministry of Finance is also supporting the project. The project is funded by the cities of Espoo, Helsinki, Vantaa and Kauniainen, as well as the Finnish Innovation Fund Sitra. In addition, the Finnish Ministry of Finance has given the project a municipality cooperation grant.

The data published by the project is mainly statistical, giving a comprehensive and diverse outlook on different urban phenomena, such as demography and living conditions, economics and well-being, employment and transport. A good proportion of the data offered is GIS based allowing for varied use and applications.

After 2012 the target is that offering open data and open access will becomes part of the ordinary operations of the municipalities in the Helsinki Region. The service and the major part of the data will be made available also in English.

Why open data?

Information is a resource which never wears out. Data and information grow in value the more they are used, unlike most commodities which are diminishing with use. There are many benefits of sharing public data. Among the most important ones you may recognize government efficiency on all levels and opportunities for new business development and innovation as well as research and education. Open data also foster transparency, civic participation and democracy. Finally, open data advance the harmonization of data and data interoperability.

What data are opened?

The *Helsinki Region Infoshare* – project and web service offers accessibility to statistical data and projections on a significant number of themes and topics, among others population, living conditions and well-being, economy, employment, commercial activities, various services, housing, transport and other urban infrastructure, environment, education and culture. The information is typically updated annually, quarterly or monthly. The statistical and time series and projections vary according to the source.

The project advances the accessibility of map-based information of the region to a wider audience. For example, distributing the boundary information of the area in vector format enables presenting statistical data

using map applications according to the user needs.

Some examples of data pools made freely available to all

The project is continuously mapping existing data pools of Helsinki region and related information. These data holdings are developed or amended to meet the open data criteria, for example they are made machine readable and provided with adequate metadata descriptions. All open data sources will be listed in the web service www.hri.fi, the beta version of which was published in March 2011. The web service makes all the various materials easy to find and readily available. On the project web site, we will report regularly on each advances of opening new data as they have been successfully completed.
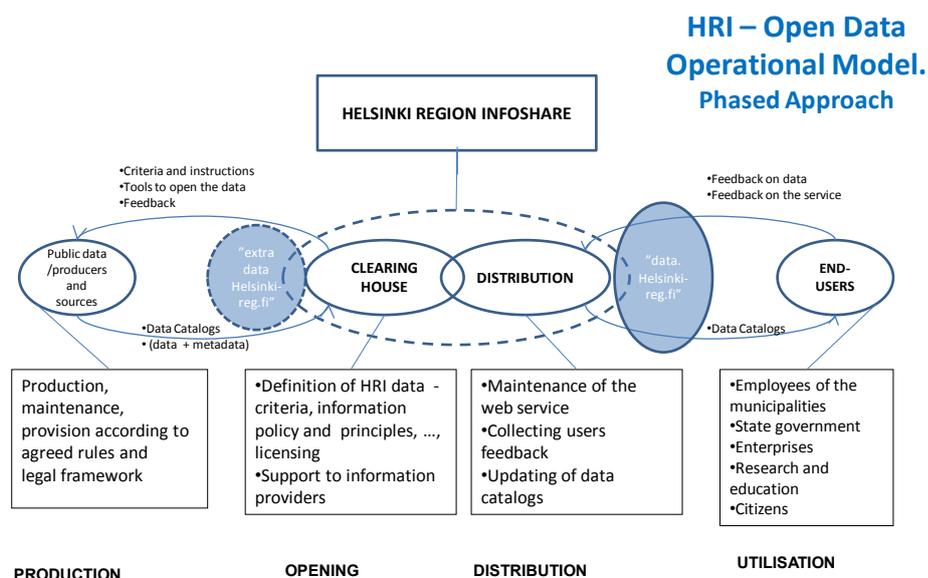
A good example of statistical data made open and available through the project is the *Helsinki small area database* www.aluesarjat.fi. It contains basic statistics on the municipalities and their subdivisions of the Helsinki metropolitan area, as well as the greater Helsinki region. The information from the database can be presented in a browser or downloaded in various formats depending on the use.

Another example is the web launch of the *Yearbook of the City of Helsinki 2009* in a downloadable package of statistical tables. Previously, the Yearbook was available only in printed format. The Yearbook was the very first offer of open statistical data through *Helsinki Region Infoshare*. The Yearbook contains extensive and up-to-date statistical data on the city of Helsinki and its residents. In addition to the metropolitan area, the Yearbook also has statistics and comparative data on other major cities in Finland, Scandinavian capitals and Tallinn, Riga, Vilnius and St. Petersburg. There are also more than 300 tables and charts covering fifteen different topics.The tables can be downloaded in Excel format at the City of Helsinki Urban Facts web site. The information was also published at the Suomi.fi portal, maintained by State Treasury.

Making the Yearbook openly accessible was a good practice run, since its data was originally processed to be published in print form only. As the project advanced, we learned in detail what it takes to make open access to this type of material. Also, we learned about how to maintain similar data in the future in order to directly make the data better suited for IT applications, too.

Description of the *Helsinki Region Infoshare* operational model and online service

Helsinki Region Infoshare clarifies and communicates what data is open, how it can be utilized or re-used, and at what fundamental principles and terms. These guidelines and information are provided on the web site www.hri.fi. The utmost interest of data providers is safeguarding quality, trust and confidentiality. These key issues are responsibilities designated to the "Helsinki Region Infoshare Clearing House" (i.e. City of Helsinki Urban Facts in practice) in the model presented below.

**HRI – Open Data
Operational Model.**
Phased Approach

HELSINKI REGION INFOSHARE

•Criteria and instructions
•Tools to open the data
•Feedback

•Feedback on data
•Feedback on the service

Public data /producers and sources

"extra data Helsinki-reg.fi"

CLEARING HOUSE

DISTRIBUTION

"data. Helsinki-reg.fi"

END-USERS

•Data Catalogs
• (data + metadata)

•Data Catalogs

| Production, maintenance, provision according to agreed rules and legal framework | •Definition of HRI data - criteria, information policy and principles, …, licensing
•Support to information providers | •Maintenance of the web service
•Collecting users feedback
•Updating of data catalogs | •Employees of the municipalities
•State government
•Enterprises
•Research and education
•Citizens |

PRODUCTION   **OPENING**   **DISTRIBUTION**   **UTILISATION**

The openness of data means in practice that data has been made as easy as possible for anyone to use. The level of openness can vary in different aspects. The most important ones are technical accessibility, free access, re-use permitting licensing, findability and understandability.

The data can be downloaded as files and is also available as raw data via various network services or technical interfaces. Downloadable file formats are generally XLS , PC-AXIS or CSV files. Data for map materials may be available in KML or GML format. Data available via technical interfaces may be in JSON or XML format.

The data is maintained by the authorities that provide it, generally via their own servers. Users of the service can submit feedback on the data materials, participate in discussions on the data materials and submit requests to publish new materials as open data.

How to use the service to find open data?

The Helsinki Region Infoshare   www.hri.fi service has a term search, which you can use to search for a particular subject. There is also the possibility to use filters to restrict your search to a particular geographical area or file format, or particular keywords. Clicking on the search results will display more detailed metadata for the desired material.
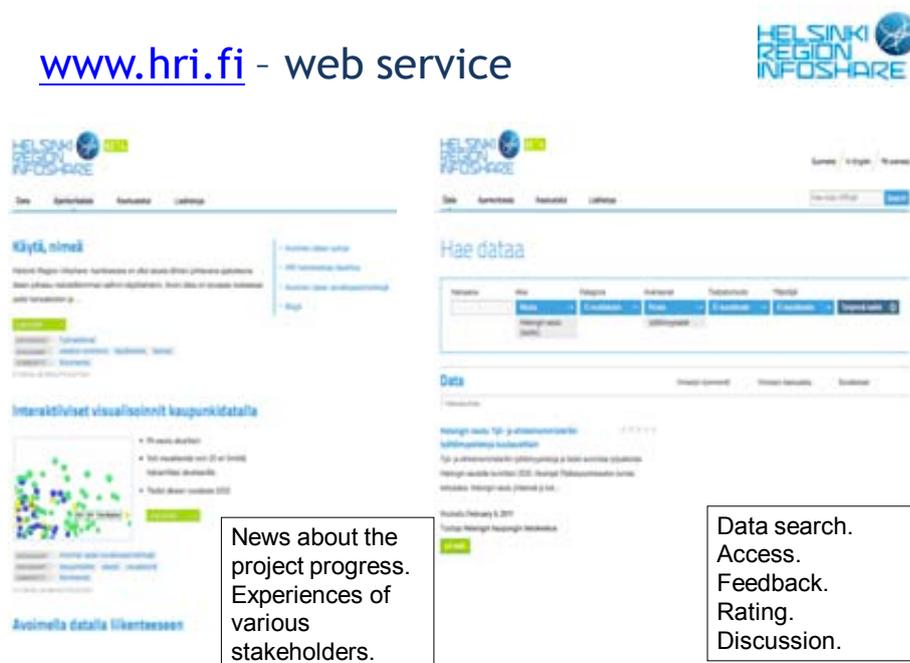
The metadata contains information about the data material, such as: title and description; a link to further information about the material; a link to the location of the data; name and contact details of the producer and maintainer of the material; a link to the terms and conditions of use of the material; and a list of the sources used in the material.

Every data material description has a facility that allows the user to give a score for that material. There is

also the possibility to give a written comment about the material. Scores and comments can be submitted anonymously, and the feedback will be visible to all users of the service.

In addition, there is a section of the service that presents some applications or other products that have been created using open data. Hopefully, these examples encourage using open data. Moreover, each data material includes information of whether there are any applications that utilize data from that particular source.

News about the project progress. Experiences of various stakeholders.

Data search. Access. Feedback. Rating. Discussion.

Next steps and focus areas 2011

The next steps comprise further development of the content and functionalities of the web service www.hri.fi in dialogue with the users and establishing the Helsinki Region Infoshare open data operational model (including the clearing house function and guidelines to the producers and maintainers of the data materials). In addition, efforts are to be targeted at making more data sources open and freely accessible, encouraging the usage of the data, increasing applications of the data, organizing application competitions for developers, expanding the cooperation with universities and companies and so forth.

Special attention is paid to data visualization, which is a goal to be achieved through various means and co-operational working patterns. Two distinctive programs are on the agenda, namely the Helsinki World Design Capital 2012 and the IBM Smarter Cities Challenge in Helsinki.

One important forum for new web applications of public data is the annual Apps4Finland. The contest is aimed at finding new ways to utilise public data sources. It also aims at speeding up activities that turn lively discussion concentrated on open data into concrete services and applications. One goal is to provide visibility for young talents and application designers. See Apps4Finland 2011 homepage for more information: http://www.apps4finland.fi. Helsinki Region Infoshare is one contributor to the competition by offering open

data.

For more information concerning the Helsinki Region Infoshare –project and web service:

www.hri.fi

http://www.facebook.com/helsinkiregioninfoshare

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