BISER

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Benchmarking the Information Society:
e-Europe Indicators for European Regions

BISER – Workpackage 6:
e-Europe Regions Domain Reporting

Regional Portrait of Central Finland

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Table of Contents

NUTS 2 Regions in Finland

1 The NUTS nomenclature in Finland – background and current structure

The NUTS 2 regions of Finland, unfortunately, correspond neither with natural or traditional regions nor with administrational entities. Obviously, they are familiar to regional development authorities and actors, but people do not identify with them – it is safe to say that a vast majority of Finns never have heard of their NUTS 2, even less would they be able to define its boundaries correctly.

The NUTS 3 regions, on the contrary, are entities with administrational relevance as well as regional identity.

The NUTS 2 division of Finland was revised 1.1.2003. Väli-Suomi (Mid-Finland) no longer exists. Three of its NUTS 3 regions now belong to "West Finland" and the northern-most one was transferred to "North Finland".

When it existed, the NUTS 2 region of Väli-Suomi consisted of the four NUTS 3 regions Central Finland (Keski-Suomi), South Ostrobothnia (Etelä-Pohjanmaa), Ostrobothnia (Pohjanmaa) and Central Ostrobothnia (Keski-Pohjanmaa).

2 The spatial structure of Finland

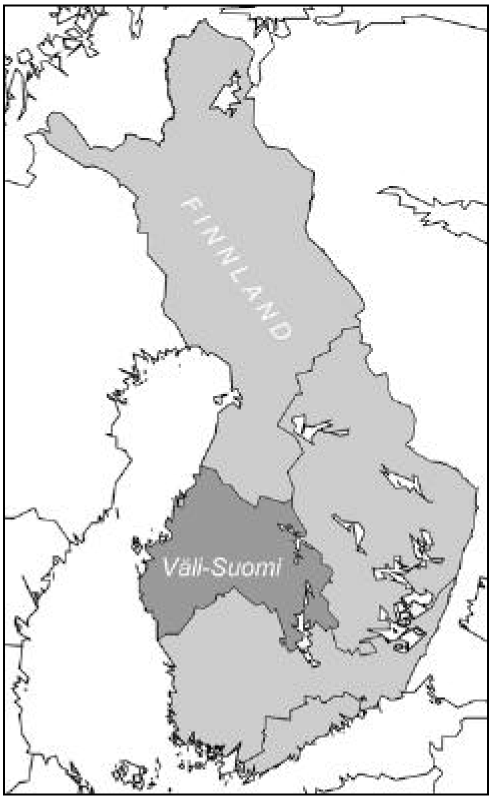
At the time of the survey, Finland was divided into 6 regions (1 NUTS1, 5 NUTS2), administered by the state. These regions were divided into 450 municipalities with local self-rule. They can collect taxes and run their own economy, health sector and primary education.

Qualitative Description of Central Finland

3 Basic facts

	Region (NUTS2)	Country (NUTS0)	EU
	Väli Suomi	Finland	EU15 average
GDP [€ in PPP per inhabitant (2000)]	17,702	26,400 (2001)	22,576.4
Area [km²] (land area)	43,000	304,473	3,191,119.9
Population absolute (1998)	(2002) 702,863	(2002) 5,206,295	375,812,900
Population density [inhabitants/km² (1998)]	16	17	117.8

4 Map



5 Regional structure

5.1 Spatial structure

When it existed the NUTS 2 region of Väli-Suomi consisted of the four NUTS 3 regions Central Finland (Keski-Suomi), South Ostrobothnia (Etelä-Pohjanmaa), Ostrobothnia (Pohjanmaa) and Central Ostrobothnia (Keski-Pohjanmaa).

Largest town	**Population 31.12.2002** [1)]	**Change, % 2002** [1)]	*NUTS 3 region*	**Population 31.12.2002** [1)]	**Change, % 2002** [1)]
Jyväskylä	81 110	+0,9	**Keski-Suomi** (Central Finland)	265 078	+0,1
Vaasa	56 925	-0,2	**Pohjanmaa** (Ostrobothnia)	194 105	-0,2
Kokkola	35 583	+0,0	**Keski-Pohjanmaa** (Central Ostrobothnia)	173 006	-0,0
Seinäjoki	31 085	+0,1	**Etelä-Pohjanmaa** (South Ostrobothnia)	70 674	-0,2

At the beginning of 2003, there were a total of 446 municipalities, 68 of which were urban municipalities, 73 semi-urban municipalities and 305 rural municipalities.

1) According to the regional division of 1 January 2003.

Source: Statistics Finland, Demographic statistics
http://www.stat.fi/tk/tp/tasku/taskue_vaesto.html

5.2 Infrastructure

There is an airport in each or the four NUTS 3 centres, road and railroad networks serve the area and its industries. Of the coastal ports, southern Kaskö (Kaskinen) and northern Kokkola are naturally deep harbours. Jyväskylä is located at the north end of lake Päijänne, one of the major inland waterways.

For the part of telecommunications, optic fibre is – theoretically – available everywhere, but at a price that deters smaller users. There is, however, a small amount of privately or publicly initiated local optic-fibre networks. Commercially ADSL, available in an increasing number of urban or semi-urban environments, is marketed as the broadband solution.

5.3 Population structure / migration (demography)

In-country migration accelerated through the 1990s, decreasing the population of most NUTS 3 regions. Traditionally, Ostrobothnia has been a region of emigration as well – historically to North America, and especially in the 1960s to Sweden.

Jyväskylä (central town of Keski-Suomi) with immediate surroundings is the only sub-region within Väli-Suomi that is distinctly growing.

A population prognosis by Statistics Finland indicates a population decrease in all the four NUTS 3 regions within Väli-Suomi (to be related to a slow overall population increase in Finland as a whole). The decrease estimated for Keski-Suomi, however, is unsubstantial.

Population prognosis

		2000 Total	2010 Total	2020 Total	2030 Total
NUTS 3	**Age**	*Persons*			
All Finland	**Total**	5 181 115	5 267 949	5 317 396	5 290 563
	0-14	936 333	851 482	832 925	805 322
Keski-Suomi	**Total**	263 886	265 389	263 443	257 426
	0-14	47 546	42 615	41 382	39 050
Etelä-Pohjanmaa	**Total**	195 615	186 988	179 650	172 261
	0-14	36 369	30 470	28 400	26 416
Pohjanmaa	**Total**	173 228	169 380	165 899	161 064
	0-14	32 278	28 504	27 578	25 941
Keski-Pohjanmaa	**Total**	71 292	68 172	65 638	62 870
	0-14	14 275	11 871	11 104	10 271
Tilastokeskus 11/10/2003					

http://statfin.stat.fi/StatWeb/

6 Economic factors

6.1 Economic development in the last decade

After the deep recession of the early 1990s – the impact of which on the Finnish economy has been compared to the 1930s' depression on the U.S. economy – Finland very much has restructured and streamlined its economy. Through the rise of the telecommunications sector, a third pillar was added to the traditional two (wood-processing and metal). Each of the three nowadays represents roughly a third of Finland's export value. In Central Finland there is still a strong dependence on the more traditional industries.

Following the E.U. entry in 1995, Finnish agriculture has been adapted to Union policies.

6.2 Sectors

Metal industry is important e.g. in Vaasa, Pietarsaari and Jyväskylä; process industry in e.g. Kokkola, Pietarsaari, Kaskinen and the surroundings of Jyväskylä. Jyväskylä also has benefited from the boom of the electronics industry. Alimentary industry and carpentry is common all over the region, but especially in Seinäjoki with surroundings.

Small and medium-sized entrepreneurship is more predominant in the Ostrobothnian regions than in the rest of Finland.

In Väli-Suomi, primary production plays a central role, too; on the plains of Ostrobothnia, the emphasis is on agriculture, in Central Finland forestry dominates more.

6.3 Unemployment

The unemployment in Väli-Suomi and in Finland in general has fallen since it peaked in the mid-90's. The Väli-Suomi unemployment generally follows the national one +/- 1 %. But as can be seen in the table below there is some difference between the four regions making up Väli-

Suomi. There are unsolved problems of structural unemployment in Väli-Suomi as well as in other regions of Finland.

Unemployment rate

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
NUTS 3	%												
All Finland	3,2	6,6	11,7	16,3	16,6	15,4	14,6	12,7	11,4	10,2	9,8	9,1	9,1
Keski-Suomi	4,5	9,1	13,5	17,6	19,5	19,0	18,9	16,2	15,2	13,5	12,0	11,7	11,9
Etelä-Pohjanmaa	3,2	7,6	11,4	16,6	16,8	15,1	14,8	14,6	11,5	11,1	10,4	9,1	8,9
Pohjanmaa	3,2	6,1	9,0	12,2	13,3	12,9	11,3	8,1	7,7	8,8	8,0	7,1	6,4
Keski-Pohjanmaa	3,0	7,7	13,1	14,8	16,4	16,0	14,6	9,0	11,1	10,8	11,6	9,2	8,0
Tilastokeskus 11/10/2003													

http://statfin.stat.fi/StatWeb/

6.4 Innovation

The following analysis written by Richard Harris for the Canadian business newspaper Financial Post on July 29, 2002, well sums up the Finnish innovation policy.

"Finland: **Good things come in small packages**

In the 1990s, **Finland** ranked among the three most successful small economies in the Organization for Economic Co-operation and Development in terms of productivity growth. From 1990 to 1998, gross domestic product per person employed grew at an annual rate of 2.8%, exceeded only by Ireland and Korea.

Finland made a conscious effort beginning in the 1980s to explicitly develop an economic culture in the public and private sectors oriented toward innovation and knowledge-intensive activities. The key was to co-ordinate government, research institutions (including universities) and private firms, and aim them toward a number of common objectives.

The results are impressive. **Finland** has excelled in such diverse products as icebreakers, cruise liners, lifts, diesel engines, yachts, contraceptives, scissors and axes, Internet-encryption systems and numerous other forestry, engineering and information technology products, including the Linux operating system.

In 2000, the private and public sectors in the country invested approximately 0.3% of the country's GDP in R&D against a European Union average of 1.4%. Finnish researchers and companies file close to 2,500 patent applications annually, of which nearly half result in **patents.**

Per capita, this places **Finland** in fourth spot worldwide, after Japan, Germany and the United States.

The policy framework in **Finland** has five key components:

Leadership Technology policy starts at the highest levels of the central government. Overall policy is set by the Science and Technology Policy Council, which is chaired by the Prime Minister and consists of senior cabinet members plus representatives of the main research organizations, industry and employee associations.

This body directs the overall allocation of public funds to innovation and helps co-ordinate various public/private, forward-looking planning exercises, focused on future technological and global market developments and their impact and potential for Finnish economic development.

Innovation v. technology Beginning in the 1990s, policy shifted from what was termed a narrow technological approach to a broader innovation-based strategy. The latter emphasizes public/private co-operation on the development of labour force skills, financing of various stages of product development, support of particular types of infrastructure and a focus on global commercialization.

Regional issues Finland, as in the case of Canada, had a mixed history of top-down centrally directed regional development policy. In the early 1990s, it gave greater authority and fiscal capabilities to regions to deal with innovation issues. Fourteen regional centres of excellence were established, and explicit efforts were made to network these within an overall national framework. The net effect has been to create greater flexibility and more decentralization of public sector intervention.

Taxation and subsidy The overall tax system toward R&D versus other types of investment is currently relatively neutral. Subsidy to R&D primarily takes place at the level of basic research (particularly in universities or other public labs where the focus is on basic research), or through the provision of facilitating funds for networking and venture capital.

Targeting and clustering Despite the legion of critics, **Finland** signed on to an innovation policy geared toward targeting and promoting clusters. This has been done through continual public/private interaction directed out of the Science and Technology Policy Council.

The sectors chosen include information and communications technologies, with Nokia being one of their most successful companies.

However, other clusters emphasized include chemical, biotechnology and environmental technologies."

http://www.rotman.utoronto.ca/pdf/harris.pdf

7 Soft factors

7.1 Housing

A household-dwelling unit consists of all persons occupying the same dwelling on a permanent basis.

Building type	**Household-dwelling units**							
	1998	**%**	**1999**	**%**	**2000**	**%**	**2001**	**%**
All buildings	**2 247 206**	**100**	**2 272 910**	**100**	**2 295 386**	**100**	**2 329 343**	**100**
Single-family residences	1 218 875	54,2	1 230 232	54,1	1 242 399	54,1	1 257 316	54,0
- detached	915 579	40,7	922 624	40,6	930 180	40,5	938 736	40,3
- attached and semi-detached	303 296	13,5	307 608	13,5	312 219	13,6	318 580	13,7
Blocks of flats	967 818	43,1	979 569	43,1	991 845	43,2	1 010 092	43,4
Other buildings (incl. unknown)	60 513	2,7	63 109	2,8	61 142	2,7	61 935	2,7
Size of household-dwelling unit								
1 person	819 418	36,5	839 316	36,9	856 746	37,3	882 559	37,9
2 persons	692 650	30,8	708 112	31,2	722 437	31,5	741 726	31,8
3 persons	317 842	14,1	315 633	13,9	312 646	13,6	310 149	13,3
4 persons	263 628	11,7	258 656	11,4	254 707	11,1	250 254	10,7
5 persons	106 126	4,7	104 556	4,6	103 339	4,5	101 232	4,3
6+ persons	47 542	2,1	46 637	2,1	45 511	2,0	43 423	1,9

Source: Statistics Finland, Housing statistics

7.2 Culture

For cultural influences in terms of business and research, there has been a distinct post-war shift from German and British orientation towards more U.S. American dominance. Naturally, ties with Sweden always have been strong, too. This particularly goes for the Ostrobothnian coast. Finland also, though both the 1990s' recession and the E.U. entry have left their distinct marks, still could be defined as a Nordic-type welfare state.

Jyväskylä hosts one of Finland's major universities. In Vaasa, there is a small university. Branches or special institutions administered by universities are found in Vaasa, Kokkola and Seinäjoki.

Due to its location between Scandinavia and Russia, Finland always has been at the crossroads of Western and Eastern European influences, beginning with the dual Christianisation (Western parts Catholic; Eastern-most parts Orthodox). Since the Reformation, the vast majority of Finns are Lutheran. Protestant ethics is notably strong in Ostrobothnia.

Finland was part of Sweden until the 1808-09 Swedish-Russian war. Finland had fairly high autonomy under Russia. In 1917, it gained independence, which it managed to maintain in World War II; however, post-war politics was very conscious of geopolitical realities. In 1995, Finland joined the European Union.

7.3 Regional image

Väli-Suomi as an entity lacked a coherent regional image. The three Ostrobothnian NUTS 3 regions have one image – a very strong one, too – and Central Finland another.

The NUTS 2 division of Finland was altered 1.1.2003, although whether the change was for better regarding ex-Väli-Suomi is a matter of dispute. Central Ostrobothnia was put into North Finland, whereas the two southern-most Ostrobothnian regions together with Central Finland were included in West Finland.

8 BISER survey results on Central Finland

The following will (by necessity brief) provide an exemplary insight into the BISER survey data, in order to give an overview on how the *Suuralueet* Vali-Suomi perfoms regarding key Information Society indicators.

8.1 Methodology

There are 211 European regions at the NUTS 2 (Nomenclature des unités territoriales statistiques) level and clearly a project like BISER can not carry out surveys in each of these regions since accuracy of the resulting metrics requires a minimum number of observations. Within the limits of budget, it was decided to select 28 out of 211. The regions cover the range of patterns of sectoral structure (“agricultural”, “manufacturing” and “services”, depending on the share of employment in each of the sectors) and economic power (as GDP per head) as well as Member States according to the distribution of population.

Regions which were surveyed are: Salzburg (Austria), Liége (Belgium), Fyns Amt (Denmark), Väli-Suomi (Finland), Ile de France, Bretagne, Nord-Pas-De-Calais, Languedoc-Roussillon (all France), Darmstadt, Stuttgart, Braunschweig, Magdeburg, Mecklenburg-Vorpommern (all Germany), Kentriki Makedonia (Greece), Border, Midland & Western (Ireland), Sicilia, Lazio, Toscana, Lombardia (all Italy), Friesland (Netherlands), Lisboa & Vale do Tejo (Portugal), Castilla- Leon, Cataluna (both Spain), Smaaland Med Oerna (Sweden), Berkshire, Buckinghamshire and Oxfordshire, Leicestershire, Greater Manchester, and Tees Valley and Durhams (all U.K.).

Within each region the sample was set up as a random probability sample which provides a sufficiently representative picture of the resident population (aged 15+) and of the region’s business establishments. For the population survey (RPS), a minimum of 400 successsful interviews were conducted in each region; in the establishment survey (RDMS) the sample was at least 300 per region.

Computer Aided Telephone Interviewing (CATI) was used. Telephone interviews offer the advantage of quick and reliable data collection from a central telephone unit. For general population surveys in former times there have been doubts about accuracy of randomisation but recent developments in sampling practices can provide for real probability samples even with rather poor list sources and the growing fractions of non-pub numbers – the shortcoming being that a very small number of households without telephone are not included. CATI also offers best field control, automated sample administration, simultaneous data entry and permits a complex branching of the interview flow depending on filter questions and thus allows to apply questions tailored e.g. to the respondent’s experiences with ICT, a firm’s equipment status etc.

The population survey provided a person sample (rather than a household sample) and was predominantly based on random dialling methods. Sampling in each Member States was carried out allowing for national differences regarding organisation of telephone number allocation and unlisted telephone numbers, and taking other national peculiarities into account which may require various strategies of random drawing.

The establishment sample included establishments (and thus covered also branch offices and not only autonomous enterprises) from different industries across all economic activities but excluded establishments with less than 5 employees. Sampling was managed as a stratified approach, i.e. done separately for groups of establishments conforming with certain criteria, in order to guarantee a sample representative of the industrial structure and employment size distribution in each region. The establishment sample was drawn from the best existing source lists available, either provided by public authorities or by specialised address brokers.

Readers are reminded that survey results are estimates, the accuracy of which, everything being equal, depends on the sample size and on the observed percentage. With samples of about 300 and 400 interviews respectively, the real percentages vary within the following confidence intervals:

Observed percentages	10%	20%	30%	40%	50%	60%	70%	80%	90%
Confidence intervals if n=300	6.4% - 15.4%	14.7% - 26.6%	23.7% - 37.2%	33.0% - 47.4%	42.6% - 57.4%	52.6% - 67.0%	62.8% - 76.3%	73.4% - 85.3%	84.6% - 93.6%
Confidence intervals if n=400	7.1% - 13.9%	15.9% - 24.9%	25.1% - 35.4%	34.6% - 45.6%	44.4% - 55.6%	54.4% - 65.4%	64.6% - 74.9%	75.1% - 84.1%	86.1% - 92.9%

8.2 Selected results

The following figure presents relative performance of Central Finland region compared to the average across all 28 BISER region. The BISER average is not representative for the whole of the EU territory in a statistical sense. However, it has been checked that the sample is very similar to the EU with regard to average values for key socio-demographic and business sector variables, respectively.´

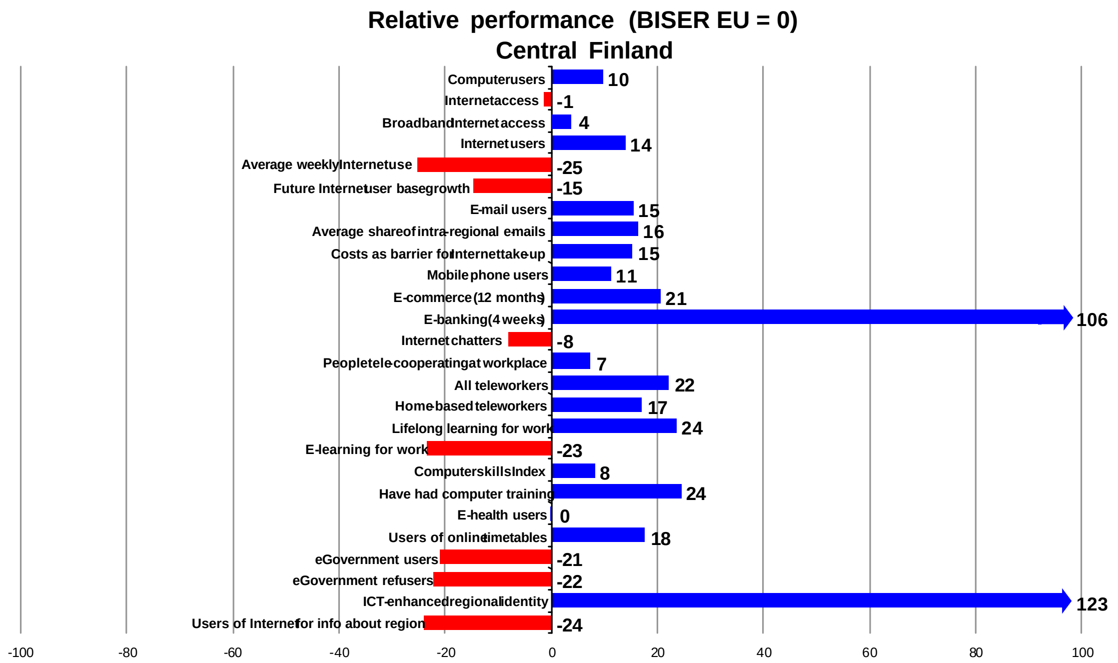
8.2.1 Population

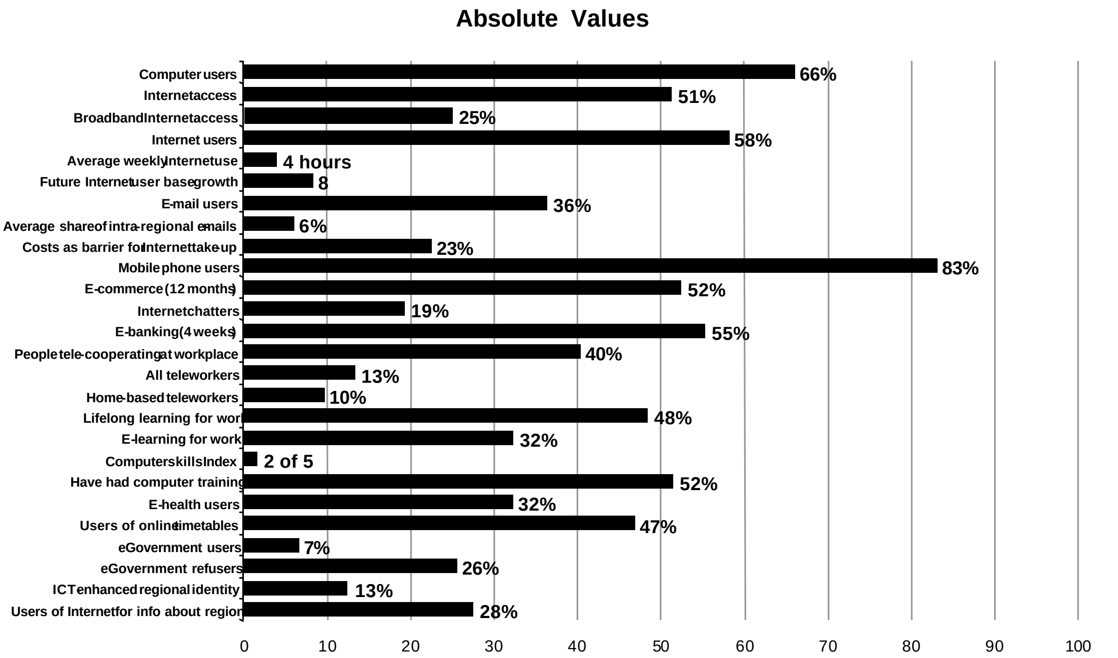
Indicator description (RPS)			
Area	**Indicators**	**Definition**	**Base**
Access and basic usage	Computer users	Persons who have used a computer in the last four weeks	Total population 15+
	Internet access	Persons who have access to the Internet in their home	Total population 15+
	Broadband Internet access	Persons who have access to the Internet at home via DSL or cable.	Persons with access to the Internet at home
	Internet users	Persons who have used the Internet in the last four weeks	Total population 15+
	Average weekly Internet use	Average time spent using the Internet (hours per week)	Internet users (4 weeks), excluding DK
	Future Internet user base growth	Non-users who think it is likely they will use the Internet in the future	Total population 15+
	E-mail users	Persons who have sent at least one e-mail (for private purposes) in the week prior to survey	Total population 15+
	Average share of regional mails	Average percentage of e-mail partners located in the same NUTS 2 region	E-mail users (last week, for private purposes)
	Costs a barrier to Internet take-up*	Involved non-users who agree completely that the Internet is too expensive to use	Involved Internet non-users
	Mobile phone users	Persons who have a mobile phone for their own personal use	Total population 15+
Standard application s	E-commerce (12 months)	Persons who have used the Internet to order products or sevices in the last 12 months	Internet users (12 months)
	E-banking (4 weeks)	Persons who have used the Internet to conduct on line banking in the last 4 weeks	Internet users (12 months)
	Internet chatters	Persons who have used the Internet to conduct online forum in the last 4 weeks	Internet users (12 months)

Indicator description (RPS)

Area	Indicators	Definition	Base
Work organisation	People tele-cooperating at workplace	Use of e-mail or other electronic data transfer for co-operation with clients, customers, suppliers or other working partners at other locations	Total employment
	All teleworkers	Multi-locational workers who spend paid working time doing home-based telework or mobile telework	Total employment
	Home-based teleworkers	Persons who spend paid working time working at home or on the same grounds or bulidings as their home, and are using a connection to the Internet or their company's computer system while doing so	Total employment
Learning and skills	Lifelong learning for work	Persons in paid employment who have been involoved either work related training by their company or by training organisation or in self-directed work related learning in the 4 weeks prior to the survey	Total labour force incl. temporarily not working (unemployed)
	E-learning for work	Persons engaged in lifelong learning who have used e-learning	All respondents engaged in lifelong learning in the 4 weeks prior to the survey
	Computer skills index	Average number of computer skills (out of a list of 5 of increasing sophistication) in the population	Total population 15+
	Have had computer training	Persons who have once attended a computer training course lasting at least half a day in total	Total population 15+
Special applications	E-health users	Internet users who have searched for any health-related information on the Internet in the 12 months prior to the interview	Internet users (12 months)
	Users of online timetables	Percentage of Internet users who have used the Internet to get any timetable information in the 4 weeks prior to the survey	Internet users (12 months)
	eGovernment users	Persons who have used the Internet for receiving at least one of three typical services provided by government/ public administration in the 12 months prior to the survey	All persons who have carried out at least one of these three typical services provided by government/ public administration in the 12 months prior to the survey. Non Internet-users excluded.
	eGovernment refusers*	Persons who agree completely that eGovernment is nothing they are interested in	Internet users (12 months)
Region-specific usage	ICT-enhanced regional identity	Percentage of respondents who state that the Internet and e-mail have given them a greater sense of identity with the region in which they live	Total population 15+
	Users of Internet for information about region	Percentage of Internet users who have got news about region from the Internet	Internet users (12 months)

* = scale inverted in figure below





Note: In the upper figure, the scale has been inverted for indicators where high values are considered negative (see table). This means that if the bar is blue and pointing towards the right for "costs as a barrier for Internet take-up", for example, this means that in this region below average shares of respondents were affected by costs as a barrier.

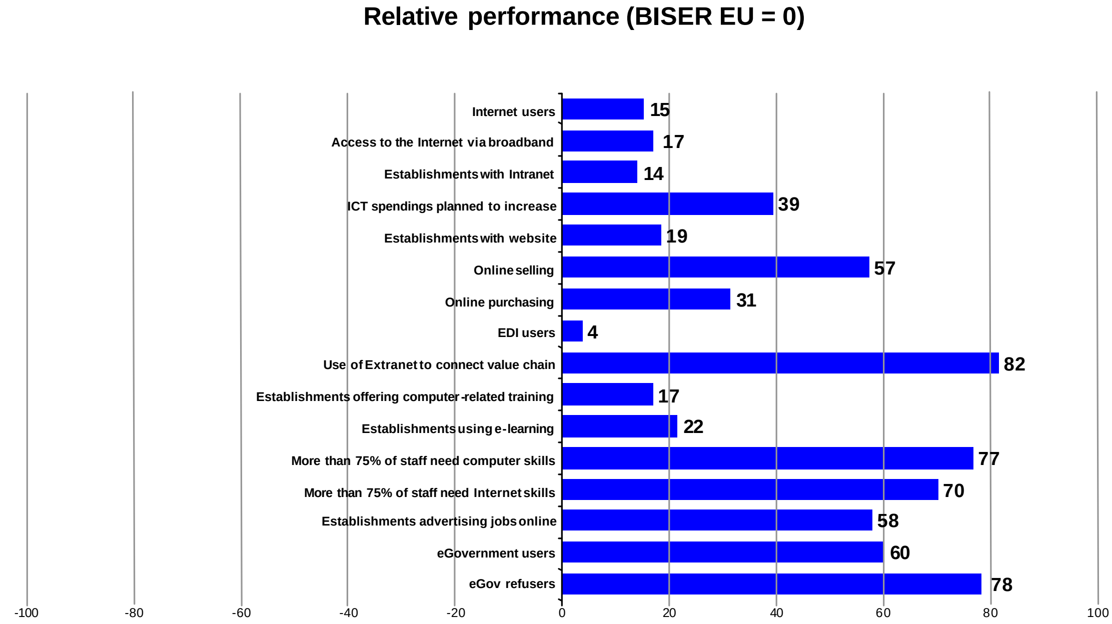
8.2.2 Establishments[1]

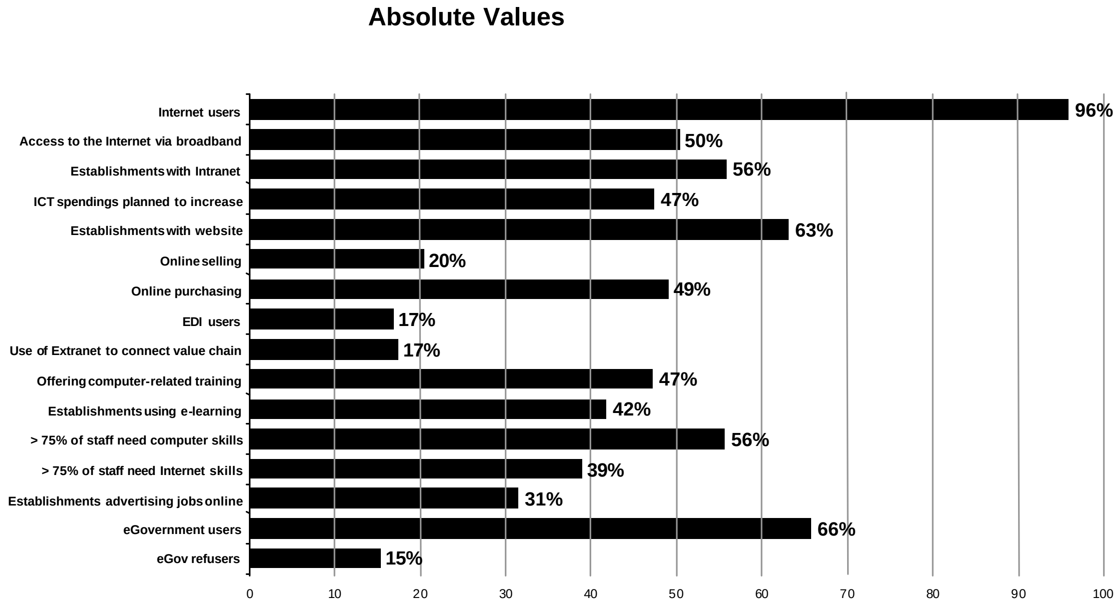
Indicator description (RDMS)

Area	Indicators	Definition	Base
Access and basic usage	Internet users	Percentage of establishments using the WWW	All establishments
	Access to the Internet via broadband	Percentage of establishments that access the Internet via DSL, cable, or leased line	All establishments that use the Internet
	Establishments with Intranet	Percentage of establishments that have an Intranet	All establishments
	ICT spendings planned to increase	Percentage of establishments which are planning to increase spendings on ICT in the next 12 months	All establishments
	Establishments with website	Percentage of establishments that have a website on the Internet	All establishments
eCommerce	Online selling	Percentage of establishments that sell online or distribute digital products online	All establishments
	Online purchasing	Percentage of establishments that purchase online	All establishments
	EDI users	Percentage of establishments that use EDI	All establishments
	Use of Extranet to connect value chain	Percentage of establishments that have an Extranet	All establishments
Training and skills	Establishments offering computer-related training	Percentage of establishments that offer computer-related training courses to their staff	All establishments
	Establishments using e-learning	Percentage of establishments that use e-learning tools (online or offline) for training their staff	All establishments
	More than 75% of staff need computer skills	Need for any computer skills in the establishment: More than 75% of staff	All establishments, excluding DK
	More than 75% of staff need Internet skills	Need for Internet skills in the establishment: More than 75% of staff	All establishments, excluding DK
	Establishments advertising jobs online	Percentage of establishments that have published job adverts on the Internet	All establishments
eGovernment	eGovernment users	Establishments that have used the Internet for receiving at least one of four typical services provided by government/ public administration in the 12 months prior to the survey	All establishments that have carried out at least one of these four typical services provided by government/ public administration in the 12 months prior to the survey
	eGovernment refusers*	Percentage of respondents who agree completely that they do not need any eGovernment services	All establishments

* = scale inverted in figure below

1 All values weighted by employment





Note: In the upper figure (relative performance), the scale has been inverted for indicators where high values are considered negative (see table). This means that if the bar is blue and pointing towards the right for "eGov refusers", for example, this means that in this region below average shares of establishments are classified as eGov refusers.

9 Sources

http://www.stat.fi/

http://europa.eu.int/scadplus/citizens/da/fi/10797.htm

http://www.rotman.utoronto.ca/pdf/harris.pdf