



# Virtual Regions?

A WEB SITE BASED COMPARISON OF FINNISH AND  
NORWEGIAN INTER-MUNICIPAL ICT PARTNERSHIPS

Siv Sandberg

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## AUTHORS' PREFACE

This report is part of the evaluation of the Oppivat Seutukunnat-Learning Regions project (OSKU) conducted by the Department of Public Administration at Åbo Akademi. The report, which should be read as an independent endeavour, compares the OSKU regions with a set of Finnish and Norwegian reference regions. The purpose of the study is to isolate the potential effects of different methods used in order to enhance citizen participation and create regional cohesion using ICT as a bridging device. A thorough analysis of the content of 20 regional portals and 126 municipal homepages creates the basis for comparisons.

Several persons have contributed to the content of the report. Johan Meriluoto and Lasse Pitkänieniemi at Åbo Akademi conducted the data collection. Harald Baldersheim and Morten Øgård at the University of Oslo created the benchmarking device used in the study, *the e-democratic opportunity space*, and provided assistance with the selection of the Norwegian reference regions. I am, however, alone responsible for the final interpretations of the data and, thus, also for the possible mistakes in the report.

*Turku, December 2004*

*Siv Sandberg*

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## TABLE OF CONTENTS

Authors' Preface	3
1 AIM AND FOCUS OF THE STUDY	5
2 THE REGIONS	12
3 THE E-DEMOCRATIC OPPORTUNITY SPACE	23
4 ANALYSES OF REGIONAL PORTALS AND MUNICIPAL HOMEPAGES	30
4.1 Index 1 Access: Devices facilitating and enhancing utilization of ICT	30
4.2 Index 2 Community affairs: General information about the municipality/region	37
4.3 Index 3: Services	42
4.4 Index 4: Politics & administration	49
4.5 Index 5: Communication and feedback	56
5 SUMMARY OF FINDINGS	62
References	78
Appendix	79

This study serves a general and a specific purpose. The general purpose of the study is related to an overall interest in understanding the effects of various mechanisms aimed at stimulating and supporting inter-municipal co-operation and regional cohesion, especially in peripheral areas. During the last decade, national policies in the Nordic countries have emphasized the need of co-operation between municipalities in order to secure the supply of public services and in order to co-ordinate the strengths of the different actors within a geographical area. National programs have been launched in order to stimulate co-operation within functional regions, especially in Finland, but also in Norway, Denmark and Sweden.<sup>1</sup> A common trait in these programs and policies is the emphasis on information and communication technology (ICT) as a tool of enhancing regional cohesion. The bridging effects of ICT are thought to be especially important in peripheral and geographically wide spread areas, where co-operation between municipalities has formerly been difficult for geographical reasons and where the public service delivery for several reasons suffers from disadvantages. The prospects of ICT as a bridging device in peripheral areas are connected both to purely administrative matters and to the interface between the ad-

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<sup>1</sup> See for example [www.krd.dep.no](http://www.krd.dep.no), [www.intermin.fi](http://www.intermin.fi), [www.detnyedanmark.dk](http://www.detnyedanmark.dk)

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ministration and the citizens. ICT facilitates co-ordinated utilization of resources which will secure a higher level of efficiency within the public administration. The prospective importance of ICT and Internet in the interface between the administration and the citizens is mainly connected to the possibilities of facilitating the access to services and the communication between the citizens and the public administration. Increasingly often, however, the prospects of ICT in peripheral regions are also related to democracy and citizenship and to possibilities of using the Internet as a platform for building up a sense of community between the citizens of different parts of the region. In addition to this, ICT technology, especially in its most physical sense (fibre cable networks etc), is seen as a precondition for regional development at large.

As a consequence both of national policies and financial incitements, for example EU funds, as well as of bottom-up activities, the number of inter-municipal ICT projects in the Nordic countries has grown rapidly. This is reflected for example in the increasing number of regional portals established jointly by the municipalities within a functional region. Despite the flourishing co-operative efforts based on ICT, we know very little about whether, and then in what way, they change the nature of inter-municipal co-operation. This creates a need for evaluating different approaches to using ICT in order to enhance regional cohesion.

The specific purpose of the study is related to the follow-up evaluation of the OSKU (Oppivat seutukunnat, Learning Regions) project conducted in eight Finnish regions during the years 2001-2003. The overall aim of the project was to develop methods for bridging geographical and social digital divides in the Finnish society. The project was conducted in totally 8 areas including two suburban areas and 6 peripheral regions consisting of totally 35 co-operating municipalities. The focus in this study will be on the peripheral regions. The project included a variety of different activities and methods, some of which were qualitatively different from the methods usually utilized within projects developing the local and regional information society. The project was based upon a

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bottom-up ideology, emphasizing citizen-to-citizen interaction as a basis of bridging digital divides, thus, was the hypothesis, supporting and strengthening the social capital of the citizens in the peripheral regions. Methods based upon citizen-to-citizen interaction were mainly implemented concerning the supply of ICT courses and assistance. Unemployed persons were employed by the project in order to serve as layman instructors, giving guidance to the use of computers and Internet to the local population. A citizen-to-citizen approach was central also in the establishment of the regional citizens' networks that will be the specific unit of analysis of this study. In relation to the regional networks, the main effects of the citizen-to-citizen approach was the idea that citizens are not only consumers of local and regional services available on the Internet, but also active producers and participants. The practical consequence of this ideology was a requirement for the citizens to register as users of the regional citizens network and restrictions to anonymous participation in the activities, for example debates, of the regional network.

The OSKU project should not, however, be classified as an exclusively bottom-up based activity. The local projects benefited from considerable financial support and other assistance from the main financier Sitra. The assistance from the national project organization consisted of, among other things, an extensive training supply for the leaders of the regional projects, as well as separate content projects supporting the regional projects. The regional projects were co-financed by the municipalities of the project regions and were administered either by one of the project municipalities or by a joint body owned by the project municipalities. All projects had a steering group, consisting of representatives of the local authorities concerned. The original plans for the regional OSKU projects included a vast number of outlines for how the project would serve the overall purpose of developing the region, by creating linkages between the OSKU project and other on-going municipal and regional development project. The various evaluations of the OSKU project showed, by and large, despite the municipal ownership of the project, that the links to the municipalities to some extent



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caused difficulties for the implementation of the project. Similar observations could be made about the prospective links between the regional OSKU projects and other regional development projects; they were fulfilled only to a small extent. From the beginning of 2004, some of the activities launched during the OSKU project, the citizens' network and to a smaller extent also the training activities, have been fully taken over by the municipalities or by regional authorities established by the municipalities.

The general and the specific purpose are joined in the comparative design of the study. In order to be able to assess the effects of the specific OSKU concept, a comparative design is needed. This serves the general purpose of evaluating different approaches to use ICT in order to create regional cohesion.

There are two main features of the OSKU project that are likely to make it different from other inter-municipal projects launched in order to develop the local/regional information society:

- The considerable financial and professional support from Sitra
- The bottom-up and citizen oriented profile of the project.

We ask two questions to be answered on the basis on comparative analyses:

- To what extent is the profile of local/regional information society projects dependent on a certain kind of intervention?
- Are the effects of the OSKU projects on the local/regional society different from effects of information society projects organized in different ways?

The seven (7) OSKU regions: Saaristo, Kehä 5, e-Päijänne, PiiSavo, Kainuu and Pohjois-Lappi, and in addition to these the pioneer region Vaara-Karjala, are compared with equivalent groups of inter-municipal partnerships that:

- Are characterized by a certain degree of inter-municipal co-operation within the area of information technology, for example share a corporate regional ICT profile (regional portal or equivalent).

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- As far as possible, share similarities in background characteristics with the OSKU regions concerning population, location, population density, number of municipalities.
  - May have been the object of diverse projects aimed at developing the local/regional information society but have **not** been object of as broad and co-ordinated an effort as the OSKU regions.

The reference regions include Finnish as well as Norwegian inter-municipal partnerships. The inclusion of Norwegian regions makes it possible to control for the effects of national context, as well as for potential diffusion effects between Finnish regions. Although there, in this case, are practical reasons for selecting Norway as the reference country, there are nevertheless strong theoretical motivations for the choice:

- The number and size of municipalities is approximately the same in both Finland and Norway, thus creating equivalent needs of inter-municipal solutions.
- The problems of peripheral regions/municipalities are equivalent in both countries.
- There have been national efforts to utilize information technology, both as a democratic tool and as a measure of creating regional cohesion.

However:

- Since Norway is a non-EU member, the number of regional development projects, including those with an information society profile is smaller than in Finland
- The national information society profile of Norway has been less pronounced than has been the case in Finland

But:

- As a rule, democracy and citizen orientation usually plays a more important role in the national and local/regional development efforts in Norway than in Finland (see for example Øgård 2002).

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Altogether, the comparative setting makes it possible to control for a number of potentially intervening variables.

Among the many effects aimed at by the OSKU project, we will mainly concentrate on two, possible to systematically cover also in the reference regions:

- The enabling of citizens by means of information technology. This includes efforts to equip citizens with needed skills, as well as the supply side, efforts to make information technology available as well as the local/regional (citizen oriented) supply of electronic services.
- The utilization of information technology as a tool for creating regional cohesion and enabling inter-municipal co-operation.

The focus of the comparative study is on the comparison of the contents and quality of regional portals and municipal websites within the three groups of regions studied. The comparison is conducted on the basis of a benchmarking tool for municipal websites and regional portal, *the e-democratic opportunity space* (see description below). Systematic comparisons are made between regions according to the main independent variables *country* (Finland vs. Norway) and *type of intervention* (OSKU vs. other interventions) as well as according to a number of intervening variables, including characteristics of the regions as well as connectedness between the regional ICT projects and other efforts to create cohesion within the region.

The approach has both limitations and strengths. The approach of the study makes it difficult to assess other aspects of the local/regional than those explicitly represented on the municipal and regional web sites. Many potential effects of the OSKU intervention remain uncovered by this approach, for example the effects of the broad educational efforts within the project. We are also aware of that the effects of many projects aimed at creating regional cohesion by the use of ICT, also in the regions studied, are not possible to measure by merely studying the scope and quality of regional and municipal web sites. Both these aspects set limitations as to the conclusions drawn on the basis of the study.

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However,

1. Firstly, regional portals and other web sites are the most manifest symbols of the joint efforts in order to use ICT as a bridging tool within regions consisting of several municipalities. Despite variations in the focus, scope and methodology of regional ICT projects, few projects are implemented without the establishment of a regional portal or equivalent. We hypothesize that differences in context and methodology may be reflected in the content and quality of the regional web sites.
2. Secondly, if the aim is to create a relevant common platform for the citizens and civil society of the region, the quality of the content of the information and services of the web site is a necessary, if not sufficient, condition. Regional and municipal web sites often suffer from a deficit in the quality of the content, which again in its turn, will form an obstacle to the considered relevance of the regional portals and web sites among the citizens of the region.

A thorough examination and comparison of the content of regional portals and municipal web sites against the background of different national settings and project interventions will produce information that is crucial in order to understand the dynamics of processes aiming at developing a regional information society.

Table 1. The design of the study

Independent variables	Intervening variables	Dependent variables
Type of intervention (OSKU vs. others) Country (Finland vs. Norway)	Regional/local government characteristics <ul style="list-style-type: none"><li>• Size, type of partnership</li><li>• Connections between ICT projects and other projects launched to strengthen regional cohesion</li></ul>	Quality of regional portals and municipal web sites with special focus on <ul style="list-style-type: none"><li>• Citizen orientation</li><li>• Regional cohesion</li></ul>

The analysis comprises 20 inter-municipal partnerships, hereafter named regions: 7 OSKU regions, 7 Finnish reference regions and 6 Norwegian reference regions. These regions consist of altogether 125 primary municipalities. The selection procedures for the reference regions are described below.

The formal status of the inter-municipal partnerships is by and large the same in Finland and in Norway. Most of the inter-municipal ICT partnerships studied cover the municipalities within a functional region, NUTS 4 according to the EU standards. In Norway, the municipalities within a NUTS 4 area, or ABS region, often form a joint authority, *regionråd*, to which the municipalities have transferred a number of functions concerning co-ordination, promotion and regional development. In Finland, the co-operation between the municipalities within a functional region may be organized more or less informally, or, which is increasingly the case, be located to a formal authority, a joint municipal authority, a voluntary association or a publicly owned company. The national SEUTU experiment, concerning relatively many of the regions studied, requires the municipalities to establish joint regional bodies with formal decision-making authority (see for example Airaksinen, Haveri & Nyholm 2004). The aim of the SEUTU experiment is to create new methods in order to deepen and strengthen inter-municipal co-operation.

Table 2. The comparative setting

	Finland	Norway
Inter-municipal Bottom-up Co-ordinated intervention	7 OSKU regions Kehä 5 PiiSavo Saaristo E-Päijänne Kainuu Pohjois-Lappi Vaara-Karjala	(No cases, however, among the Norwegian regions, there are a number of more bottom- up oriented projects)
Inter-municipal Top-down Diverse forms of intervention	7 reference regions Järviseutu Kaustisen seutukunta Oriseutu RaJuPuSu Siikalatva Loimaan seutukunta Salon seutukunta	6 reference regions OTIIN (Indre Namnsdalen) Fosen Salten Fjellregionen Sörlandet/Demokratitorget Sörlandet/Aust-Agder

The regions studied are presented below. The main background characteristics of the regions are summarized in table 3. The background characteristics include basic data, such as number of municipalities and number of inhabitants, but also a description of the context of the projects, that is, to what extent the ICT projects are linked to other efforts of creating regional cohesion and strengthening inter-municipal co-operation.

### The OSKU regions

The group of OSKU regions consists of the six inter-municipal project regions in the main OSKU project conducted during the years 2001–2003. In addition to these, the analysis comprises also the pioneering region, Vaara-Karjala, where the main concept utilized within the OSKU project was developed. The two suburban OSKU projects, (Itä-Turku and Netti-Maunula) are left outside the analysis, since they do not fit into the comparative setting.

*Kehä 5* consists of five municipalities with a total population of 12 305 inhabitants. The *Kehä 5* –partnership is relatively newly

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established. It has formed the basis for a number of former rural development projects but does not form a functional region (NUTS 4) proper.

The *PiiSavo* region is made up of four municipalities with a total population of 30 004 inhabitants. The region is part of the national SEUTU project, which means that there are several efforts going on in order to strengthen the co-operation between the municipalities of the region.

*Saaristo* consists of 8 municipalities in the Southwestern archipelago. The number of inhabitants in the region is 22 810. The Saaristo region is part of the national SEUTU project aiming at creating new models for inter-municipal co-operation. This means that there has been a formalization of formerly existing co-operative bodies within the region. A vast number of ICT projects have formerly been implemented in the Saaristo region.

The *e-Päijänne* region consists of four municipalities with total population of 19 871 inhabitants. When the OSKU project started, the tradition of co-operation between the municipalities in the region had been relatively moderate, although a number of development projects concerning the same conglomerate of municipalities had been launched. The region does not form a NUTS 4 region proper.

The *Kainuu* region consists of five municipalities with a total population of 30 125 inhabitants. The density of population in the area is low. The municipalities do not form a NUTS 4 region proper. The municipalities are, however, part of the regional experiment in the county of Kainuu, which is reshaping the division of labour between the municipalities, the county level and the regional state agencies.

*Pohjois-Lappi* consists of three municipalities in Northern Lapland. The number of inhabitants in the geographically wide spread area is 17 911 and the density of population is extremely low. A joint municipal authority of the area administered the OSKU project in Pohjois-Lappi. The joint municipal authority is also in charge of the activities within the SEUTU experiment in the Pohjois-Lappi area.

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The *Vaara-Karjala regional network* includes six municipalities with a total population of 41 615 inhabitants, the three pioneer municipalities in the Oppiva Ylä-Karjala project and their three neighbouring municipalities. The idea of a regional citizens' network that to a large extent is dependent on activities from the citizens themselves was worked out in the Ylä-Karjala region and has been further developed within the Vaara-Karjala area as well as within the OSKU project.

### **The Finnish reference regions**

*Finnish reference regions.* The reference regions were selected in May 2004 from a list of regional portals at the web site of the Association of Finnish Local Authorities, [www.kunnat.net](http://www.kunnat.net). Among the about 30 regional portals potentially interesting for the purposes of the study, we identified groups of municipalities with background characteristics as equivalent to the OSKU regions as possible concerning number of municipalities, number of inhabitants and geography. The regional ICT projects within the reference regions range from narrow projects, with the regional portal as the only visible outcome to fairly ambitious and co-ordinated, including many different types of activities (broadband projects, regional portal, projects aiming at developing public services). Equivalently to the OSKU regions, where Saaristo, PiiSavo and Pohjois-Lappi are part of the national SEUTU experiment, focussing on deepening inter-municipal cooperation and regional cohesion, a number of the reference regions participate either in the SEUTU project or in the national project for strengthening regional cities and their surrounding municipalities (Aluekeskusohjelma, AKO).

*Järviseuutu.* The regional portal has been established by five municipalities in Southern Ostrobotnia: Evijärvi, Lappajärvi, Alajärvi, Vimpeli and Korttesjärvi. The total population in the region is 21 685 inhabitants. The regional portal is one component in a broader effort to create the regional information society, financed through EU objective 1 funds and national sources. The totality of informa-



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tion society projects in the region includes development of ICT infrastructure (fibre cable network), utilization of ICT solution for the purposes of business development as well as projects co-ordinating the ICT resources of the municipalities in the region. A number of efforts aimed at strengthening the ICT knowledge of the population in the region have also been made.

*Kaustisen seutukunta.* The Kaustinen region consists of 7 municipalities (Halsua, Ullava, Veteli, Lestijärvi, Perho, Toholampi, Kaustinen) with a total population of 18 332 inhabitants. The portal is financed by the municipalities in the region, but has also benefited from EU funds within the objective 1 programme. The portal is connected with a number of other strategies aimed at utilizing ICT in order to create better circumstances for the citizens, the private business and the public sector in the region. The ICT projects are part of a broader effort to strengthen co-operation and regional cohesion within the region. From the beginning of the year 2005, the Kaustinen region will be one of 15 regions within the national SEUTU experiment.

*Loimaan seutukunta.* The Loimaa region consists of 12 municipalities with a total population of 37 152 inhabitants. The Loimaa region is part of the national SEUTU experiment, aiming at developing new methods for inter-municipal co-operation. As a consequence of this project, former co-operation between the municipalities in the region has been formalized. The municipalities have decided upon a common ICT strategy. As a consequence of the strategy, the aim is to create regional electronic systems for a number of administrative functions. The portal has been established as a part of this strategy. The aim of the portal is to function as a regional channel of information that also provides the citizens of the region with possibilities of utilizing electronic public services disregarding of in which municipality they live.

*Oriseutu.* The Oriseutu project represents a relatively narrow effort to create a corporate electronic identity. Three municipalities, Orivesi, Juupajoki and Längelmäki, established the portal with altogether 12 285 inhabitants. The portal functions as an entrance to the

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homepages of the municipalities and to a village network within the area. The number of other activities creating cohesion between the municipalities is limited.

*RaJuPuSu.* The RaJuPuSu region consists of five municipalities (Rantasalmi, Juva, Puumala, Sulkava, Joroinen) with a total population of 23 777 inhabitants. The municipalities form a joint municipal authority dealing with regional development issues. The regional portal was founded within a EU objective 1 project developing the ICT infrastructure of the region. The portal has functioned as a source of information concerning for example the development of the regional broadband network and as a tool of promoting the region to the outside world. The content of the portal has been developed especially in order to serve as a source of information for small and medium sized companies in the region, as well as a link to the region for people with summer cottage in one of the municipalities. The future plans for the portal include further development of services and devices for the inhabitants of the RaJuPuSu region.

*Salon seutukunta.* The region consists of 12 municipalities in Southwestern Finland with a total population of 62 709 inhabitants. The municipalities in the Salo region have established manifold cooperative relationships within service production and development policy. The portal has been established by the regional development agency. The Salo region is part of the national AKO programme aiming at developing the strengths of city regions outside the Helsinki area. The ICT projects administered within the development agency are aimed at creating user-friendly applications as well as standardizing the operating procedures of the ICT systems of the municipalities in the region. Environmental issues play an important role in the regional conglomerate of ICT projects.

*Siikalatva.* The Siikalatva region consists of six small municipalities, Haapavesi, Kestilä, Piippola, Pulkkila, Pyhäntä and Rantsila. The total population of the area is 16 551 persons. The Siikalatva municipalities have established a joint municipal authority that functions as the development agency of the area. The regional portal has been established in order to create a common identity of the municipali-

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ties within the region. The portal project is not linked to any other ICT project in the area.

### **The Norwegian reference regions**

*Norwegian reference regions.* The Norwegian reference regions were selected in May 2004 by the research group at the Department of political science at the University of Oslo. The reference regions were selected among a larger group of potentially interesting regional ICT partnerships. The reference regions will all be studied more in-depth within a research project financed by the Norwegian science council. The reference regions mainly represent peripheral regions and constitute examples of different approaches to creating ICT solutions that transcend the borders of single municipalities. The projects are different in scope and focus and include more narrow projects as well as broader and co-ordinated efforts to develop the regional information society. A number of projects are conducted within the framework of national programs aiming at strengthening inter-municipal co-operation and regional cohesion (AAD = Ministry of Labour and Administration, KRD = Ministry of Local and Regional Affairs). The Norwegian reference regions are not perfectly equivalent to the OSKU regions and the Finnish reference regions, considering background characteristics. Three of the regions are small and peripheral, thus fully comparable to the Finnish regions. The other half of the Norwegian reference group includes regions comprising also a larger central city, which means that the number of inhabitants is higher in these regions, a fact that has been taken into consideration in the analysis of the results.

*Det digitale Sørlandet/Demokratitorget.* The portal has been established in co-operation between two county councils (Vest-Agder & Aust-Agder) and the central city of the region, Kristiansand. The aim of the portal is twofold. Firstly, the purpose is to enhance citizen participation by providing a platform for debates and information about regional and local issues. Secondly, the aim is to use the portal in order to promote the region to the outside world. The area

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covered by the portal is fairly large, since it consists of two counties with a total population of 262.414 inhabitants.

*Det digitale Sørlandet/Aust-Agder.* The regional portal has been established as a co-operative effort of eight municipalities with a total population of 82 014 inhabitants. The eight municipalities aim at establishing a cross-border service region based on intensive use of ICT. The project was partly financed by the Ministry of Labour and Administration. The municipalities have created common regional ICT based functions within in the fields of personnel administration, accountancy, psychiatry and environmental protection. There are also a number of ICT infrastructure projects going on in the region.

*Fjellregionen* consists of 7 fairly small municipalities with a total population of 21 298 inhabitants. The area is sparsely populated. The municipalities co-operate within a project aimed at strengthening the competence to handle ICT issues within the area. A network between resource persons within various departments and organizations has been established. There are also efforts to create a supply of education and courses based upon ICT technology. The regional council administers the projects that are financed partly by the municipalities themselves, partly through funds from the national agency for regional development.

*Fosenportalen.* 9 municipalities together forming the regional council Fosen regionråd have established the portal. The number of inhabitants in the area is 28 802. The portal has been established in close co-operation between the regional council and the municipalities. The regional portal and the homepages of the individual municipalities in the region have been built up following a common standard for layout and content. In addition to this, there are a number of more narrow co-operative ICT projects within the regions, for example efforts to create a common regional ICT based map system. The municipalities themselves have financed the majority of the activities, although the region has also benefited from national development resources.

*OTIIN/Indre Namnsdalen.* The project Offentlig tjenesteproduksjon i Indre Namnsdalen is implemented in a relatively sparsely popu-

Table 3. Basic characteristics of the regions studied

Region	Number of municipalities	Number of inhabitants	Density of population, Inhabitants/km <sup>2</sup>	
<i>OSKU regions (O)</i>				
Kehä 5/Ring 5	5	12 305	11.0	
PiiSavo	4	30 044	18.4	
Saaristo	8	22 810	14.6	
E-Päijänne	4	19 871	5.4	
Kainuu	5	30 125	2.6	
Pohjois-Lappi	3	17 911	0.5	
Vaara-Karjala	6	41 615	3.9	
<i>Finnish reference regions (F)</i>				
Järviseuutu	5	21 685	9.8	
Kaustisen seutukunta	7	18 332	6.0	
Loimaan seutukunta	12	37 152	15.9	
Oriseutu	3	12 285	9.7	
RaJuPuSu	5	23 777	6.7	
Salon seutukunta	11	62 709	9.3	
Siikalatva	6	16 551	3.8	
<i>Norwegian reference regions (N)</i>				
Digitale Sörlandet / Demokratitorget	3**	262 414	16.5	
Digitale Sörlandet/Aust-Agder	8	82 014	11.2	
Fjellregionen	7	21 298	6.9	
Fosenportalen	9	28 802	7.1	
OTIIN (Offentlig tjenesteproduksjon i Indre Namsdalen)	6	9 116	1.1	
Salten regionråd	10	75 314	6.2	

lated area consisting of six very small municipalities with a total population of 9 116 inhabitants. The aim of the project is to use ICT in order to co-ordinate resources within seven different fields, including administration, development policy, infrastructure policy

	Region is part of other (national) co-ordinated effort aiming at strengthening regional cohesion	Focus of ICT project (in reference regions)
	No	
	Yes, SEUTU-project	
	Yes, SEUTU-project	
	No	
	No/Yes (Kainuu experiment)	
	Yes, SEUTU-project	
	No	
	No	Broad
	No*	Broad
	Yes, SEUTU-project	Broad, includes other cohesion activities as well
	No	Narrow (village networks)
	No	Narrow (mainly promotion of region, broadband project)
	Yes, AKO	Broad, includes other cohesion activities as well
	No	Narrow
	Yes, AAD-project	Narrow (promotion of region, e-forum for discussion about regional and local affairs)
	Yes, AAD-project	Broad, includes other cohesion activities as well
	No	Narrow (supply of education, projects directed towards municipal administration)
	Partly (Part of project financed by national funds)	Narrow (co-ordination of certain functions)
	Yes, AAD/KRD -project	Broad, includes other cohesion activities as well
	No	Broad, includes other cohesion activities as well

\* The Kaustinen region will enter the SEUTU project in the beginning of 2005

\*\* "Det digitale Sörlandet includes two counties (fylkeskommuner) and one municipality

as well as social and health care. Common ICT systems within personnel management and accountancy are implemented. There are also a number of general activities going on in order to enhance the cohesion within the region. The regional portal functions as an

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umbrella for all the separate co-operative efforts. National project resources finance about 50 percent of the project expenditure, the municipalities themselves finance the other half.

*Salten.* The regional council in the area, Salten regionråd, administers the portal. The region consists of 10 municipalities with a total population of 75 314 inhabitants. The municipalities have established a number of common projects based on the use of ICT, for example a common call center, common education for administrative personnel, as well as common ICT solutions concerning software and administration of homepages. In addition to this there are also other activities going on in order to enhance the co-operation and cohesion within the region.

# 3

## The e-democratic opportunity space

The comparison between OSKU regions, Finnish reference regions and Norwegian reference regions is conducted on the basis of a benchmarking device for local government web sites and regional portals, *the e-democratic opportunity space*. The benchmarking device has been created and tested by a group of researchers at the University of Oslo, the department of political science (Haug & Øgård 2003, Baldersheim 2004).

In 2002, around 400 web sites of rumoured frontrunners were inspected to identify the variety of communication systems and aids utilized on municipal web sites around the world. The lists range from the fairly commonplace to the highly sophisticated. The systems listed are therefore not just visions of the future, since they are in actual operation on a municipal web page somewhere. On the basis of the survey of communication systems and aids, a checklist for the coding of municipal web sites was developed. The aspects surveyed include *online retrieval systems*, *online feedback systems* and *online participation systems*. Within each category, a multitude of concrete aspects are checked. For example, within the category online retrieval systems, the existence and functionality of downloadable forms within each municipal sector is checked. *The e-democratic opportunity space* has been utilized in a broad study of the web sites of all 434 municipalities in Norway, as well as in more narrow studies, including an analysis of regional cities in Denmark, Finland, Norway and Sweden.



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We have utilized the modified version of *the e-democratic opportunity space* as a basis for coding and analysis of two types of web sites in the OSKU regions and the Finnish and Norwegian reference regions.

- The *regional portals/regional citizens' networks* form the main unit of analysis (20 regional portals/citizens' networks O=7, F=7, N=6).
- In addition, we have inspected and analysed the *web sites of all municipalities* within the regions (126 municipal web sites O=35, F=49, N=42). The analysis of the municipal web sites serves several functions. Firstly, it functions as an indicator of the general level of development of the regional information society. The regional portals may in some cases represent random or ad hoc efforts, but the municipal homepages are characterized by a certain degree of stability. Secondly, the parallel analysis allows us to study whether regional efforts to develop the information society have had any effects on the electronic service supply of the individual municipalities. Many of the projects analysed have had the explicit ambition to develop not only the regional portal, but also the municipal services available on the Internet.

For the purpose of this study, we made a number of minor modifications to the checklist forming the basis of the e-democratic opportunity space:

1. Firstly, since the main focus of the analysis is regional portals, not web sites of single municipalities, a number of variables measuring *the regional dimension* were included in the checklist (for example information on regional services, regional civil society, the existence of communication devices and web services transcending the borders of single municipalities). The variables measuring the regional dimension were included also in the analyses of the web sites of single municipalities.
2. Secondly, since the aim of the follow-up study is to assess the uniqueness of the OSKU intervention, a number of *variables*

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*measuring aspects specifically highlighted within the OSKU project* were added to the checklist. These include a number of indications of activities enhancing the supply of various aspects of ICT technology (ranging from information on supply of courses and assistance in the utilization of ICT to information about the existence of free access to the internet and information on, for example, the construction of regional fibre cable networks). We also included a number of indicators with focus on the interaction within the local/regional civil society, since *the e-democratic opportunity space* is mainly concentrated on the activities of the public sector.

3. Despite of these changes to the checklist, there are still a number of problems connected with applying the e-democratic opportunity space in analyses of regional portals. The problems stem from the fact that the regional organizations and inter-municipal partnerships are different from primary municipalities when it comes to the profile and the activities of the organization in charge of the regional portal. The problems connected to applying the benchmarking instrument are discussed more in detail in connection with the presentation of the specific indexes and categories. The analyses in this report will form a basis for making adaptations of the benchmarking instrument for future purposes. The experiences from applying *the e-democratic opportunity space* in analyses of regional portals will be summed up in the concluding chapter.

Altogether, the modified checklist utilized in the study comprises 105 single variables/aspects within 18 subcategories (for example accessibility, services, administrative communication), together forming the three main categories *online retrieval systems*, *online feedback systems* and *online participation systems*. In the coding of the regional and municipal web sites, each single aspect/variable surveyed has been given the score 0, 1 or 2. The score is 0 if the web site or portal lacks information about a certain aspect, 1 if certain information or devices exist on a non-systematic basis and 2, if the

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existence of a device is systematic practice on the web site or portal. To avoid randomness in the scores, there are quantitative guidelines for most of the aspects coded, for example number of downloadable forms required in order to give the homepage the score 2. Since the benchmarking tool comprises activities and devices that are broad in scope as well as more narrow and peripheral activities and devices, there may be a slight bias in the scores, because no weighting has been conducted. Therefore, accurate comparisons can be made only within thematic categories. The overall scores, for example the total maximum score 210, should be viewed as tentative numbers, roughly indicating the level of the content of the portals or web sites.

The regional portals and municipal homepages were inspected and analysed on the basis of the e-democratic opportunity space during the period June – August 2004. Two research assistants conducted the work. Continuous crosschecks of the coding results were conducted in order to assure the validity of the database.

### **Limitations of the approach**

It is necessary to underline that the picture of the regional and local information societies reflected in the analyses built upon the e-democratic opportunity space has its limitations, due to the basic assumptions underlying the benchmarking device and due to the choice of elements in the checklist. Firstly, there is an implicit assumption that the availability of a broad range of municipal/regional services on the Internet is a value in itself. This is naturally not the case. The supply of electronic services must be contextualized and judged against how well the information and service provision of the municipality or region functions at large. Secondly, the comparisons between regions and municipalities are supply driven. The interaction between supply and demand at the local/regional level has to be analysed in order to be able to make correct conclusions about the quality of the supply. Thirdly, one implication of the e-democratic opportunity space is that the quality of the web site is higher, the more of the totally 105 different aspects are covered by the e-

Table 4. Basic assumptions of the e-democratic opportunity space

Assumptions underlying the e-democratic opportunity space	Aspects needed to be taken in consideration in order to be able to make the right conclusions about the situation in a specific municipality/region
Availability of broad range of municipal/regional services on the internet is a value in itself.	Electronic services must be contextualized and the supply judged against how well the service provision of municipality/regional organization functions at large.
The <i>supply</i> of services on the internet is the basis for comparisons between municipalities/regions.	Analysis of supply should take into consideration the actual <i>demand</i> for services on the Internet.
The broader the supply of different services on a web site, the higher the quality of the web site.	Specialization among separate web sites within a region. Web sites with narrow range of functions may have high relevance for local/regional users.
Emphasis on public services, politico-administrative processes.	Supply of content reflecting the local/regional civil society.

democratic opportunity space. In practice the supply of electronic services within a region may be implemented in various ways, either by concentrating the supply of services to one portal or by providing several web sites with different focus of the content. Web sites with a narrow content may, although they get low scores according to the e-democratic opportunity space, be functional from the point of view of the users. Fourthly, although the checklist includes a range of variables reflecting community affairs in general, the emphasis of the e-democratic opportunity space is on public services and politico-administrative processes. These are not the only aspects of a vibrant civil society, which may mean that the benchmarking device includes some bias with regard to making a diagnosis of how well the local/regional society as a totality is represented on the web.

### Five thematic indices

The 105 individual variables of the e-democratic opportunity space have been compiled into five overall thematic indices, reflecting dif-

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ferent aspects of the content of the portals/homepages. The division into indices differs to some extent from former compilations made on the basis of the same checklist (see for example Baldersheim 2004). This is due to the specific context of this evaluation. In order to be able to trace possible effects of the specific OSKU concept on the regional and municipal web sites, it is necessary to specifically look at devices enhancing citizens' access to ICT. In former analyses, this aspect has been built into the overall indices.

- Index 1, *access*, summarizes *devices aimed at enhancing and facilitating citizens' use of ICT*. The index includes variables approximating the user friendliness of the portal/homepage, as well as measures of the supply of devices and structures enhancing citizens' use of ICT, for example possibility to get an e-mail address.
- Index 2, *community affairs*, includes a number of aspects related to the supply of general background information and news about the municipality or region.
- Index 3, *services*, reflects the public services related content of the regional and municipal web sites.
- Index 4, *politics & administration*, includes information and devices reflecting the transparency of politico-administrative processes.
- Index 5, *online feedback and participation*, sums up the existence of channels enhancing feedback and online citizen participation.

Altogether, the five indices create a norm for a good regional portal or municipal homepage according to the e-democratic opportunity space. It should lower the threshold for using ICT in general, and the web site specifically. It should orient the users about the basics and news of the community. It should provide information about public services available and facilitate citizens' contacts with service providers by for example supply of downloadable forms. It should enhance the transparency of politico-administrative processes by supplying information about decision-making and decision-makers. It should, finally, function as a platform for citizen participation.

The indices are different with regard to a number of aspects. Some of the indices include a larger number of sophisticated de-

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vices, while other summarize the existence of mostly fairly commonplace information. Some of the dimensions require more activity from the municipal organization in charge of the service, for example in terms of continuous updates of the content, while other dimensions are more passive, requiring little commitment from the municipality or regional organizations. Thirdly, some of the indices are better suited for analyses of regional portals, while other include variables that are not fully compatible with the organizational realities of the inter-municipal partnerships and regional organizations. The content of all of the indices are discussed in relation to these three dimensions.

The results of the analysis of the regional portals and municipal homepages on the basis of the e-democratic opportunity space are presented according to the following logic. The first step includes an overview of the opportunity space for each index and comments on the proportion of the opportunity space actually utilized, as well as comments on overall differences between regional portals and municipal homepages. In the second step, the portals and municipal homepages are compared according to country and type of intervention, that is, comparisons are made between Finland and Norway and between the OSKU regions and regions representing other types of intervention. For each index, results are presented both as averages for the three groups of analysis (OSKU regions, Finnish reference regions and Norwegian reference regions) and as values for individual regions concerning the portals and average values for the municipal homepages of each regions. A listing of the top-ten municipal homepages is provided for every index. The index scores of the individual municipalities are presented in the appendix.

The average results for the three groups and the results for the individual portals are presented in two ways, as index scores and as percentages of the maximum index score for each dimension. Since the indices differ in volume, the maximum scores for each dimension vary from 32 to 66, the percentages reflect how much of the opportunity space for each dimension is actually utilized.

### 4.1 INDEX 1 ACCESS: DEVICES FACILITATING AND ENHANCING UTILIZATION OF ICT

#### **The opportunity space**

The first index, *access*, includes devices and information that enhance citizens' utilization of ICT. The index, including totally 16 components (maximum score 32), has two main components. The first reflects formal criteria, including the existence of a clear identity of the municipal homepage/regional portal (independent platform, not under-directory of other portal) and basic navigation devices enabling the use of the portal/homepage. The second component reflects the supply of various activities enhancing the citizens' utilization of ICT, ranging from information about points of free PC/Internet access to possibilities for citizens to get an e-mail address, e-mail archive or homepage of their own through the regional portal/municipal homepage. A majority of the items within the latter under-category are devices included in the OSKU concept, aiming at creating access to ICT technology for a larger number of citizens.

#### **Balance between commonplace and sophisticated, "active" and "passive" criteria**

The formal criteria refer to fairly standardized and commonplace mechanisms and devices. The criteria describing the supply of activities

Table 5. Index 1 Access. The opportunity space.

Item	Percentage/ number of re- gional portals with score above 0 Total n=20	Percentage/ number of municipal homepages with score above 0 Total n=126
<i>Formal criteria (1a):</i>		
1. Region/municipality has separate .fi/.no address	100% (20)	98% (124)
2. Intranet/extranet	75% (15)	52% (66)
3. Intranet/extranet covers more than one municipality	75% (15)	44% (56)
4. Menus/tables of content available	95% (19)	98% (123)
5. Presentation of criteria for the content of the portal/ homepage	15% (3)	9% (11)
6. Search engine or equivalent device enhancing navigation available	70% (14)	52% (65)
7. Links to other municipal homepages in the region available	95% (19)	47% (59)
8. Content of portal/homepage indicates connection to broader regional context	70% (14)	47% (59)
<i>Devices enhancing citizens' access to/utilization of ICT (1b)</i>		
9. Information about courses/education concerning ICT	30% (6)	23% (29)
10. Information about availability of free access to PC/ internet	55% (11)	47% (59)
11. Information about supply of ICT infrastructure (for example availability of broadband connections)	30% (6)	10% (12)
12. Possibility for citizens to get own e-mail address through homepage/portal	50% (10)	5% (6)
13. Possibility for citizens to get own archive on the regional/ municipal server	50% (10)	5% (6)
14. Possibility for citizens to get own homepage in connection with regional/municipal homepage	20% (4)	2% (3)
15. Devices enhancing user security (PIN codes, passwords, smart cards, digital signature)	25% (5)	3% (4)
16. Availability of advanced services not free of charge for the user	0% (0)	0% (0)

and devices enhancing the citizens' utilization of ICT demand active commitment from the municipality/region when it comes to supply of courses, free access to PCs and equivalent devices. The supply of e-mail addresses and homepages requires a certain degree of technical



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sophistication and continuous monitoring of the portal, as does naturally also solutions including PIN-codes and digital signatures.

### **Relevance of criteria for analysis of regional portals**

None of the aspects included in the criterion is problematic with regard to the analysis of regional portals. We have made adaptations to the original checklist in order to include mechanisms that monitor the specific aspects of the OSKU concept, but these aspects are not per definition only possible to implement in a regional setting.

### **How much of the opportunity space is actually utilized?**

The index includes two kinds of features facilitating citizens' utilization of ICT. Most regional portals and municipal homepages obtain high scores for the formal criteria, that is, the existence of, for example, menus and navigation devices. Only 14 of the web sites present the criteria underlying the choice of information presented on the site. The existence of activities and infrastructure aimed at enhancing citizens' access to ICT is more rare. About half of the regional portals provide information about free access to PCs/internet and about the same share of the portals include possibilities for the citizens to get an e-mail address of their own through the portal. Six regional portals and 29 municipal homepages include information about the regional supply of ICT education for the public. More advanced features, for example devices enhancing user security, are rare on the web sites analysed.

### **Comparison according to level (*regional portals vs. municipal homepages*)**

The regional portals are somewhat better equipped than the municipal homepages when it comes to the supply of devices facilitating citizens' utilization of ICT, whether the question is about the existence of formal navigation devices on the actual web site or the provision of concrete activities in order to give the citizens equal

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access to PCs and Internet. The average score for the regional portals is 69% of the maximum score when it comes to the supply of formal devices, while the average for the municipal homepages is 45% of the maximum score. As noted above, the supply of activities in order to concretely enhance citizens' access to ICT is narrower. The average for the regional portals is 29 % of the maximum score, while the average municipal homepage supplies only 10% of the potential activities and devices.

**Comparison according to country (*Finland vs. Norway*)  
and type of intervention (*OSKU vs. other*)**

The index measures specifically the existence of a number of activities promoted by the OSKU projects, for example supply of ICT courses and free access to PCs. The effects of the co-ordinated OSKU intervention are possible to detect in the comparison of the regional portals. The average score for the OSKU regions on the overall index 1 is 19.1, which is 60% of the maximum score, while the Finnish reference regions on the average score 13.7 (43% of the potential) and the Norwegian reference regions 14.2 (44%). If we look at index 1b, which reflects the more demanding activities in order to enhance citizens' access to ICT, the OSKU regions score 7.3 (45% of the maximum), the Finnish reference regions 3.4 (21% of the maximum) and the Norwegian reference regions 2.8 (18% of the maximum). By and large, this reflects the different focus of the ICT projects of the Norwegian and Finnish regions studied, the Finnish projects being more concerned with the supply of ICT infrastructure, while the Norwegian projects are more concentrated on the content of the electronic public service supply. The effects of the co-ordinated OSKU intervention are reflected also in the fact that the lowest score for an individual regional portal is fairly high, and that the scope of variations in the supply of information on the portals is narrower than for the two groups of reference regions. The scope of variation on the overall index 1 (% of maximum score) is 47-72 for the OSKU regions, 13-72 for the Finnish reference regions and 22-59 for the Norwegian reference regions.

Table 6. Index 1 Access according to country and type of invention. Percentages within parentheses indicate the relation between the actual index score and the maximum potential score for each dimension.

	OSKU regions	Finnish reference regions	Norwegian reference regions
Index 1 (Total) (max 32) <i>Average for regional portals</i>	19.1 (60%)	13.7 (43%)	14.2 (44%)
Index 1a (Formal aspects) (max 16) <i>Average for regional portals</i>	11.9 (74%)	10.2 (64%)	11.3 (71%)
Index 1b (Devices enhancing access to ICT) (max 16) <i>Average for regional portals</i>	7.3 (45%)	3.4 (21%)	2.8 (18%)
Index 1 (Total) (max 32) <i>Average for municipal homepages</i>	7.9 (25%)	7.4 (23%)	11.3 (35%)
Index 1a (Formal aspects) (max 16) <i>Average for municipal homepages</i>	6.5 (40%)	6.1 (38%)	9.3 (58%)
Index 1b (Devices enhancing access to ICT) (max 16) <i>Average for municipal homepages</i>	1.4 (9%)	1.3 (8%)	2.0 (13%)

If we look at the municipal homepages, the municipalities within the Norwegian reference regions supply more devices facilitating the utilization of the web site and the access to ICT in general. The average for index 1 for the Norwegian homepages is 11.3 (35% of the total potential), while the municipalities in the OSKU regions get the average score 7.9 (25% of the total potential) and the Finnish reference regions 7.4 (23% of the total potential). The balance between the parts 1a (formal aspects) and 1b (conscious activities in order to enhance access to ICT) of the index points more towards the formal aspects in all groups. Thus, we cannot on this point detect any spill over of the citizen-oriented activities initiated by the OSKU project to the municipal homepages of the OSKU regions.

Table 7. Index 1 Access. Scores for individual regional portals and average values for municipal homepages of each region. Percentages within parentheses indicate the relation between the actual index score and the maximum potential score for each dimension.

	<b>Index 1 (total) Regional portal (max 32)</b>	<b>Index 1b (devices enhancing access to ICT) Regional portal (max 16)</b>	<b>Index 1 (total) Average for municipal homepages (max 32)</b>	<b>Index 1b (devices enhancing access to ICT) Average for municipal homepages (max 16)</b>
<i>OSKU regions (O)</i>				
Kehä 5/Ring 5	19 (59%)	8 (50%)	8 (25%)	1(6%)
PiiSavo	23 (72%)	9 (56%)	8 (25%)	1 (6%)
Saaristo	17 (53%)	6 (38%)	7 (22%)	1(6%)
E-Päijänne	21 (66%)	8 (50%)	7 (22%)	2 (13%)
Kainuu	17 (53%)	6 (38%)	8 (25%)	2 (13%)
Pohjois-Lappi	22 (69%)	8 (50%)	9 (28%)	3 (19%)
Vaara-Karjala	15 (47%)	6 (38%)	9 (28%)	2(13%)
<i>Finnish reference regions (F)</i>				
Jänviseutu	15 (47%)	2 (13%)	7 (22%)	2 (13%)
Kaustisen seutukunta	23 (72%)	10(63%)	7(22%)	1 (6%)
Loimaan seutukunta	15(47%)	3 (19%)	9 (28%)	1(6%)
Oriseutu	4 (13%)	0 (0%)	5 (16%)	0 (0%)
RaJuPuSu	11(34%)	2 (13%)	8(25%)	3 (19%)
Salon seutukunta	16(50%)	7 (44%)	7 (22%)	1 (6%)
Siikalatva	12 (38%)	0 (0%)	9 (28%)	2 (13%)
<i>Norwegian reference regions (N)</i>				
Digitale Sörlandet / Demokratitorget	15(47%)	6 (38%)	8 (25%)	2 (13%)
Digitale Sörlandet/Aust-Agder	17(53%)	2 (13%)	10 (31%)	3 (19%)
Fjellregionen	9 (28%)	0 (0%)	11 (34%)	1 (6%)
Fosenportalen	18 (56%)	5 (16%)	15 (47%)	3 (19%)
OTIIN (Offentlig tjeneste-produksjon i Indre Namnsdalen)	19(59%)	4 (13%)	17 (54%)	3 (19%)
Salten regionråd	7 (22%)	0 (0%)	7 (22%)	1 (6%)

## Best practices

Among the five regional portals with the largest supply of information and devices aimed at enhancing citizens' utilization of ICT, four represent the OSKU regions and one the Finnish reference regions. The regional portals with the highest scores on index 1 are PiiSavo (O, 72%), Kaustinen (F 72%), Pohjois-Lappi (O 69%), e-Päijänne (O 66%) and Kehä 5 (O 59%).

The municipal homepages with the highest scores on index 1 are found in two of the Norwegian regions, OTIIN (average 54% of maximum score) and Fosen (average 47% of maximum score). The top-ten individual municipal homepages represent these regions as well, which indicates that there have been co-ordinated regional efforts to affect the content of the municipal homepages. It is noteworthy that the municipalities scoring best on dimension 1 are very small in terms of number of inhabitants. The scores of Finnish municipal homepages are more randomly distributed among the different regions.

Table 8. Index 1 Access (total, max 32). Top-ten municipal homepages (index values for all municipalities are presented in appendix). Percentages within parentheses indicate the relation between the actual index score and the maximum potential score for each dimension.

Municipality	Score	Region	Number of inhabitants
Osen	20 (63%)	Fosen (N)	1 005
Lierne	18 (56%)	OTIIN (N)	1 535
Høylandet	17 (53%)	OTIIN (N)	1 258
Snåsa	17 (53%)	OTIIN (N)	2 296
Namsskogan	17 (53%)	OTIIN (N)	958
Grong	17 (53%)	OTIIN (N)	2 530
Røyrvik	17 (53%)	OTIIN (N)	539
Orland	17 (53%)	OTIIN (N)	5 169
Bjugn	17 (53%)	Fosen (N)	4 717
Mosvik	17 (53%)	Fosen (N)	887

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## 4.2 INDEX 2 COMMUNITY AFFAIRS: GENERAL INFORMATION ABOUT THE MUNICIPALITY/ REGION

### **The opportunity space**

Totally 16 individual items form the summary index *community affairs*, the maximum score for this dimension is, thus, 32. The index reflects the existence of background information about the region/municipality (e.g. number of inhabitants) and descriptions of and links to civil society actors in the region (voluntary associations, private companies). The index also recognizes the existence of locally or regionally produced news items or bulletins on the portal/homepage.

### **Balance between commonplace and sophisticated, “active” and “passive” criteria**

The majority of the criteria are fairly commonplace and “passive”, since they do not require commitments from municipalities/regional organizations in order to be established or updated. Three out of sixteen items survey the existence of links to various homepages. Some of the criteria duplicate, in the sense that the existence of locally produced news items or bulletins result in full scores on 3-5 items. On the whole, this criterion is the least demanding one of the criteria within the e-democratic opportunity space.

### **Relevance of criteria for analysis of regional portals**

A slight adaptation of the set of criteria has been made in order to make it accurate for an analysis of regional portals. In practice this has been done adding items surveying the incidence of information on events, news etc. exceeding the borders of the single municipalities. The construction of the checklist results in certain duplication, which means that the scores of regional portals with a news production of their own may to some extent be disproportionate.

Table 9. Index 2 Community affairs. The opportunity space.

Item	Percentage/ number of regional portals with score above 0 (n=20)	Percentage/ number of municipal homepages with score above 0 (n=126)
1. Presentation of basic facts about the municipality	45% (9)	97% (122)
2. Presentation of basic facts about the region at large	65% (13)	25% (32)
3. Presentation of local news	65% (13)	74% (93)
4. Presentation of regional news	65% (13)	15% (19)
5. The portal/homepages produces its own news	65% (13)	70% (88)
6. ... local news items	65% (13)	71% (89)
7. ... regional news items	65% (13)	11% (14)
8. Presentation of the local business, culture etc	65% (13)	96% (121)
9. Presentation of regional business, culture etc	70% (14)	11% (14)
10. Links to other public sector organizations in the region	75% (15)	66% (83)
11. Links to other portals/homepages of the region	70% (14)	78% (98)
12. Links to local private business companies	60% (12)	69% (87)
13. Presentation of local voluntary organizations/associations	45% (9)	61% (77)
14. Presentation of regional voluntary organizations/associations	45% (9)	11% (14)
15. Information about events in the municipality (culture, sports, music etc)	65% (13)	74% (93)
16. Information about events in the region as a whole (culture, sports, music etc)	65% (13)	15% (19)

### How much of the opportunity space is actually utilized?

As noted above, index 2 is the least demanding of the components in the e-democratic opportunity space. A majority of the portals include a majority of the aspects included in the index, that is, various kinds of information about local and regional events, history

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and civil society. The supply of information about the region as a whole is, naturally, more narrow on the municipal homepages than on the regional portals.

### **Comparison according to level (*regional portals vs. municipal homepages*)**

The variations in the supply of information transcending the borders of single municipalities is the main reason why the regional portals score somewhat higher than the municipal homepages on index 2. By and large, the scores of the regional portals and municipal homepages are high on this dimension. The average score for the regional portals is 18.8, which means 59% of the total potential, while the average for all municipal homepages is 15.4 or 48% of the maximum potential according to the checklist of the e-democratic opportunity space. The average scores for the regional portals, however, hide larger variations in content than do the average scores of the municipal homepages.

### **Comparison according to country (*Finland vs. Norway*) and type of intervention (*OSKU vs. other*)**

The supply of general information on the municipality/region on the regional portals and municipal homepages is not systematically related to country or type of intervention. The regional portals of the Finnish reference regions get the highest score on index 2, 20, which means 64% of the maximum potential. The OSKU regions score 17 (53%) and the Norwegian reference regions score 19 (60%) on index 2, general information about the regions. The variation in the content of the municipal homepages is hardly at all related country or type of intervention, the averages for the three groups are 47% (O), 46% (F) and 52% (N).

The average scores for the regional portals reflect considerable variation between the individual portals in each group. The scope of variation is 0-100 per cent of the maximum score within the group of OSKU regions, 22-100 among the Finnish reference regions and 0-100 among the Norwegian reference regions. The fact that the



Table 10. Index 2 Community affairs according to country and type of intervention. Percentages within parentheses indicate the relation between the actual index score and the maximum potential score for each dimension

	OSKU regions	Finnish reference regions	Norwegian reference regions
Community affairs (max 32) <i>Average score for regional portals</i>	16.9 (53%)	20.4 (64%)	19.2 (60%)
Community affairs (max 32) <i>Average score for municipal homepages</i>	15.0 (47%)	14.6 (46%)	16.5 (52%)

supply of information about community affairs is most extensive and most evenly distributed among the regional portals of the Finnish reference group is probably related to the fact that the profile of these regional portals is partly oriented towards the outside world, aiming at promoting the region by providing information about it. Equivalently, some of the citizens' networks of the OSKU regions in practice lack general information about the region, which might be the consequence of the fact that the regional network has been defined mainly as a channel of communication for persons who already know the basic facts about the region.

### Best practices

The top-six regional portals with regard to the supply of general information and news about the region are PiiSavo (O 100%), Pohjois-Lappi (O, 100%), Salo (F 100%), Fosen (N 100%), e-Päijänne (O 88%) and Järvisetu (F 88%).

The top-five average scores for municipal homepages on index 2 are noticed for the Norwegian regions Fosen, Fjellregionen and OTIIN and for the Finnish regions e-Päijänne (O) and RaJuPuSu. The highest average scores vary between 54 and 59 per cent of the maximum. The individual municipal homepages with the best supply of general information about the municipality/region are relatively randomly distributed among the regions.

Table 11. Index 2, community affairs. Scores for individual regional portals and average values for municipal homepages of each region. Percentages within parentheses indicate the relation between the actual index score and the maximum potential score for each dimension

	<b>Regional portal Index score/ percentage of maximum score (max 32)</b>	<b>Average score for municipal homepages within region Index score/percentage of maximum score (max 32)</b>
<i>OSKU regions (O)</i>		
Kehä 5/Ring 5	0 (0%)	12 (36%)
PiiSavo	32 (100%)	16 (49%)
Saaristo	0 (0%)	15 (46%)
E-Päijänne	28 (88%)	19 (59%)
Kainuu	4 (13%)	16 (50%)
Pohjois-Lappi	32 (100%)	14 (45%)
Vaara-Karjala	22 (69%)	15 (46%)
<i>Finnish reference regions (F)</i>		
Järviseuutu	28 (88%)	15 (48%)
Kaustisen seutukunta	13 (41%)	14 (45%)
Loimaan seutukunta	27 (85%)	16 (49%)
Oriseutu	7 (22%)	13 (40%)
RaJuPuSu	27 (84%)	17 (54%)
Salon seutukunta	32 (100%)	12 (38%)
Siikalatva	9 (28%)	15 (46%)
<i>Norwegian reference regions (N)</i>		
Digitale Sörlandet / Demokratitorget	2 (6%)	14 (44%)
Digitale Sörlandet/Aust-Agder	19 (59%)	15 (46%)
Fjellregionen	16 (50%)	17 (54%)
Fosenportalen	32 (100%)	19 (59%)
OTIIN (Offentlig tjenesteproduks- jon i Indre Namsdalen)	24 (75%)	17 (52%)
Salten regionråd	22 (69%)	15 (48%)

Table12. Index 2 Community affairs (max 32), top-eleven municipal homepages (index values for all municipalities are presented in appendix). Percentages within parentheses indicate the relation between the actual index score and the maximum potential score for each dimension.

Municipality	Score	Region	Number of inhabitants
Rantasalmi	27 (84%)	RaJuPuSu (F)	4 435
Tynset	22 (69%)	Fjellregionen (N)	5 463
Folldal	22 (69%)	Fjellregionen (N)	1 739
Bodø	22 (69%)	Salten (N)	42 745
Sysmä	22 (69%)	e-Päijänne (O)	4 716
Osen	21 (66%)	Fosen (N)	1 055
Snåsa	21 (66%)	OTIIN (N)	2 296
Tvedestrand	21 (66%)	Aust-Agder (N)	5 887
Houtskär	21 (66%)	Saaristo (O)	662
Koski TI	21 (66%)	Loimaa (F)	2 559
Juva	21 (6%)	RaJuPuSu (F)	7 446

### 4.3 INDEX 3: SERVICES

#### The opportunity space

The index, including 19 items, total score 38, monitors the supply of information and devices related to public services, especially services provided by the municipalities. According to the standard set by the *e-democratic opportunity space*, a good municipal homepage or regional portal supplies information about services produced by the municipality both in general and in detail. It gives information about rights and procedures connected with specific services and it supplies devices that enable contacts between citizens and service producing organizations, for example downloadable forms or virtual information centres.

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### **Balance between commonplace and sophisticated, “active” and “passive” criteria**

The index includes a number of fairly regular devices, as well as items that refer to the existence of more sophisticated techniques and devices that require active support and commitment from the municipality/regional organization in charge of the service. The commonplace and “passive” criteria include general information about the supply of services, as well as links to other public organizations. Among the criteria requiring activity and commitment from the organization in charge are devices enabling online applications as well as existence of virtual information centres, where citizens can turn with their questions.

### **Relevance of criteria for analysis of regional portals**

There are a number of problems connected with applying the criteria in the analysis of regional portals or regional network. While primary municipalities are in themselves service producing organizations, the regional organizations in charge of the portals analysed in this study do not, generally, have a service production of their own. A regional portal can, however, function as an entrance to service producing organizations in the area. Considering that the aim of a large number of regional projects within the study has been to utilize ICT technology as a tool for securing equal supply to public services in peripheral areas it is relevant to analyse the portals with regard to the existence of information and devices connected with public sector services. For future purposes, the checklist has to be developed further in order to accurately reflect how regional portals relate to the potential supply of electronic public services on an inter-municipal/regional basis.

### **How much of the opportunity space is actually utilized?**

As noted above, the checklist concerning devices related to public services is adapted to the realities of the primary municipalities and has a number of weaknesses when it comes to the regional portals.

Table 13. Index 3 Services. The opportunity space.

Item	Percentage/ number of regional portals with score above 0 (n=20)	Percentage/ number of municipal homepages with score above 0 (n=126)
1. Information about main service producing sectors within municipality	45% (9)	94% (118)
2. Information about services provided on a regional basis	65% (13)	61% (77)
3. Links to homepages of other public/state authorities	50% (10)	56% (70)
4. General presentation of citizens' rights	0% (0)	1% (1)
5. Presentation of citizens' rights concerning specific services	20% (4)	17% (21)
6. Information about and links to legislation	20% (4)	14% (17)
7. Information about other kinds of rules	40% (8)	33% (42)
8. Availability of procedural information (rules for handling cases etc)	20% (4)	21% (27)
9. Information about goals and responsibilities concerning the services	40% (8)	69% (87)
10. Information about persons in charge of specific services	30% (6)	78% (98)
11. Information about office hours etc	20% (4)	54% (68)
12. Availability of contact information connected to specific services	40% (8)	91% (115)
13. Availability of information centre or equivalent that handles questions from the public	25% (5)	33% (32)
14. Virtual information centre	15% (3)	7% (9)
15. Existence of service charters/service guarantees	5% (1)	9% (11)
16. Downloadable forms for different municipal/regional services	15% (3)	36%(45)
17. Extensive use of downloadable forms	15% (3)	34% (43)
18. On-line handling of applications	5% (1)	8% (10)
19. Possibility of sending forms electronically	5 % (1)	7% (9)

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This is reflected in the actual supply of the information and devices included in the e-democratic opportunity space. The content of the regional portals is narrow and restricted to supply of general information of services available. We rarely find, for example, downloadable forms or online handling of cases on the regional portals. Information of this kind is not commonplace on the municipal homepages either, but appears more systematically. If we look at the individual indicators and how they appear on the municipal homepages studied, the incidence of passive and less sophisticated devices (information, links) is relatively high while devices demanding active commitment from the municipal organization, as well as more technically sophisticated solutions are more rare.

### **Comparison according to level (*regional portals vs. municipal homepages*)**

Only a small part of the total potential of index 3 is utilized. The average score for the municipal homepages is 11.9, that is 31% of the maximum score, while the average score for the regional portals is 7.0 or 18 % of the total potential. By and large, this indicates that the possibilities for the citizens of peripheral regions to get municipal services electronically are still relatively scarce. Despite ambitions in that direction, at least in some of the projects in this study, the supply of electronic public services on a regional basis is still very random. This finding is in line with earlier findings indicating that Nordic municipalities, despite their strong position as service providers, provide very little information about services on their web sites.

### **Comparison according to country (*Finland vs. Norway*) and type of intervention (*OSKU vs. other*)**

In general, the Norwegian regional portals and municipal homepages obtain better scores than their Finnish equivalents on index 3. Even the Norwegian portals and homepages score very moderately

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on this dimension, but the differences between Finland and Norway systematically indicate that there have been more co-ordinated and conscious attempts to develop a supply of electronic public services in the peripheral Norwegian regions. The average score for the Norwegian regional portals are 9.2 (24% of the maximum), while the OSKU portals score 6.6 (17% of the total potential) and the portals of the Finnish reference regions get the average score 5.4 (14% of the total potentials). The average scores for the municipal homepages on index 3 are respectively 10.7 (28%) in the OSKU regions, 10.9 (29%) in the Finnish reference regions and 14.3 (38%) in the Norwegian reference regions.

The scope of variation among the regional portals in each group is 0-26% between the OSKU regions with the lowest and the highest score, 0-34% within the group of Finnish reference regions 0-34% and among the Norwegian reference regions 0-58%. If we compare the quality of the regional portal with the average quality of the municipal homepages of the same region, the general picture is that the municipal homepages are richer in content. There are, however, two exceptions to this rule in Finland, where the regional portals of the Salo and the Järvisetu regions get somewhat better scores than the municipal homepages of the same regions, even if the supply of public service related information and devices is by no means impressive on either portal (34%). The two Norwegian exceptions to the rule do, on their hand, represent portals where the supply of electronic public services is considerable, also in comparison with homepages of larger municipalities.

### **Best practices**

The two best practices among the regional portals, when it comes to content related to supply of information about and electronic access to municipal and other public services, have a distinct profile in comparison with the other portals studied. The Norwegian portals Fosen and OTIIN score 47% and 58% respectively on index 3, which reflects a relatively broad supply of diverse service related

Table 14. Index 3 Services according to country and type of intervention. Percentages within parentheses indicate the relation between the actual index score and the maximum potential score for each dimension.

	<b>OSKU regions</b>	<b>Finnish reference regions</b>	<b>Norwegian reference regions</b>
Index 3 Services (max 38) <i>Average score for regional portals</i>	6.6 (17%)	5.4 (14%)	9.2 (24%)
Index 3 Services (max 38) <i>Average score for municipal homepages</i>	10.7 (28%)	10.9 (29%)	14.3 (38%)

information and devices. The Fosen and OTIIN portals differ from the other portals studied in the sense that they originally have been established first and foremost as a platform for supplying services to the regional public. Both portals are also characterized by a close link between the content of the individual municipal homepages and the regional portal, meaning that the two levels have been developed simultaneously and concertedly. Fosen and OTIIN are also the regions with the highest average values for municipal homepages on index 3. The highest-ranking individual municipal homepages represent these regions as well. This means that very small municipalities present a better supply of services on the web than do the larger cities within the study.



Table 15. Index 3 Services. Scores for individual regional portals and average values for municipal homepages of each region. Percentages within parentheses indicate the relation between the actual index score and the maximum potential score for each dimension.

	<b>Regional portal Index score/ percentage of maximum score for index (max 38)</b>	<b>Average score for municipal homepages (max 38)</b>
<i>OSKU regions (O)</i>		
Kehä 5/Ring 5	10 (26%)	11 (29%)
PiiSavo	10 (26%)	10 (26%)
Saaristo	8 (21%)	11 (29%)
E-Päijänne	2 (5%)	11 (29%)
Kainuu	6 (16%)	13 (33%)
Pohjois-Lappi	10 (26%)	10 (27%)
Vaara-Karjala	0 (0%)	9 (25%)
<i>Finnish reference regions (F)</i>		
Järviseuutu	13 (34%)	10 (26%)
Kaustisen seutukunta	0 (0%)	12 (30%)
Loimaan seutukunta	11 (29%)	12 (31%)
Oriseutu	0 (0%)	11 (28%)
RaJuPuSu	0 (0%)	10 (27%)
Salon seutukunta	13 (34%)	10 (27%)
Siikalatva	1 (2%)	11 (29%)
<i>Norwegian reference regions (N)</i>		
Digitale Sörlandet / Demokratitorget	0 (0%)	12 (31%)
Digitale Sörlandet/Aust-Agder	10 (26%)	14 (37%)
Fjellregionen	5 (14%)	12 (27%)
Fosenportalen	22 (58%)	19 (51%)
OTIIN (Offentlig tjenesteproduksjon i Indre Namsdalen)	18 (47%)	17 (46%)
Salten regionråd	0 (0%)	11 (29%)

Table 16. Index 3 Services. Top-eleven municipal homepages (index values for all municipalities are presented in appendix).

Municipality	Score	Region	Number of inhabitants
Orland	26 (68%)	Fosen (N)	5 169
Mosvik	24 (63%)	Fosen (N)	887
Osen	22 (58%)	Fosen (N)	1 055
Bjugn	21 (55%)	Fosen (N)	4 717
Åfjord	21 (55%)	Fosen (N)	3 322
Roan	20 (53%)	Fosen (N)	1 073
Snåsa	19 (50%)	OTIIN (N)	2 296
Tvedestrand	19 (50%)	Aust-Agder (N)	5 887
Kaustinen	19 (50%)	Kaustinen (F)	4 432
Aura	19 (50%)	Loimaa (F)	3 514
Namsskogan	19 (50%)	OTIIN (N)	958

#### 4.4 INDEX 4: POLITICS & ADMINISTRATION

##### The opportunity space

The indicator politics & administration comprises 33 separate criteria, which means that the maximum score for a homepage or portal on this dimension is 66. The criteria reflect the extent to which municipal homepages and regional portals are utilized in order to enhance the transparency of political and administrative processes. This means that information about the decision-makers, the decision-making processes and the products of the decision-making processes are presented to the citizens. The indicator includes the following sets of sub-criteria: *general political information, overview of decision-making organization, decision-makers and political parties, information supply of documents connected to decision-making processes, supply of plans, budgets and other strategy documents*. The supply of information can be reactive, informing about decisions already made or pro-active, enhancing citizens' interest and participation in decision-making processes. In this case, information is published in advance

of meetings and citizens have possibilities of reacting to decisions and plans in the making. The criteria account for variations in the volume of documents available, for example by taking into consideration whether appendixes to agendas of decision-making bodies are made available to the citizens. We also consider active efforts of municipality/region in order to make decision-making processes more understandable for the public, for example by publishing summaries of recent decisions.

**Balance between commonplace and sophisticated, “active” and “passive” criteria**

The majority of the items included in the index are commonplace in the sense that they refer to phenomena, documents and processes that form the basis of the activities of every municipality. The key question is whether they are made available electronically and to what extent information is processed in order to make it more accessible to the public. The criteria account for differences in volume and user-friendliness of the information available. The supply of updated information about the decision-making process in demands active commitment from the municipality/regional body, but does not require extraordinary technical skills.

Table 17. Index 4 Politics & administration. The opportunity space.

Item	Percentage/ number of regional portals with score above 0 (N=20)	Percentage/ number of municipal homepages with score above 0 (N=126)
<i>Information about political and administrative decision-making</i>		
1. Links to national government etc	20% (4)	14% (18)
2. Information about regional political bodies	45% (9)	73% (92)
3. Organization chart describing political system of municipality/regional body	10% (2)	34% (43)
4. Summary of recent decisions	10% (2)	25% (26)

5. Political strategy documents etc available	20% (4)	19% (24)
6. Statistics, prognoses and other background material utilized by the political bodies available	0 (0%)	6% (7)
7. Schedules for meetings of council and executive board	15% (3)	34% (43)
8. Schedules for meetings of main committees	5% (1)	25% (32)
9. Agendas available in advance of meetings of council and executive board	15% (3)	36% (45)
10. Appendixes to agendas available	0 (0%)	2% (2)
11. Minutes of council and executive board available	40%(8)	70% (88)
12. Appendixes to minutes available	0 (0%)	0 (0%)
13. Agendas available in advance of meetings of main committees	0 (0%)	25% (32)
14. Minutes of main committees available	20% (4)	47%(59)
15. Description of the responsibilities of different political bodies	10% (2)	21% (26)
16. Overview of elected politicians	20% (4)	86% (108)
17. Overview of the division of seats between political parties	0% (0)	33% (41)
18. Presentation of chairmen of council and executive board	10% (2)	69% (87)
19. Presentation of executive board	10% (2)	71% (89)
20. Presentation of council	10% (2)	69% (87)
21. Presentation of individual politicians	0 (0%)	13% (16)
22. Presentation of tasks and memberships of individual politicians	5% (1)	60% (75)
23. Presentation of local political parties	10% (2)	28% (35)
24. Links to homepages of political parties	20% (4)	7% (9)
25. Information about elections – possibilities to vote in advance	0% (0)	5% (6)
26. Information about elections – districts etc.	0% (0)	3% (4)
27. Presentation of statistics etc. from former elections	0% (0)	15% (19)
28. Municipal strategy/plan available	20%(2)	15% (19)
29. Budget available	0%(0)	18% (22)
30. Yearly account available	0%(0)	18% (23)
31. Other steering documents (e.g. balanced scorecards) available	5% (1)	19% (12)
32. ICT strategy available	30% (6)	4% (4)
33. Regional strategy documents etc. available	45% (9)	17% (21)

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## **Relevance of criteria for analysis of regional portals**

The set of criteria underlying the dimension politics & administration are problematic from the point of view of examining the content of regional portals or citizens' networks. The criteria reflect the normal politico-administrative process of a typical Nordic municipality. Municipal homepages do and should refer to this process. Regional portals, however, do not have the same automatic connection to political processes. Many of the regional portals studied have a connection to some kind of regional/inter-municipal decision-making body, for example the regional councils (regionråd) in Norway or their equivalents in Finnish regions (seutukuntaneuvosto/-valtuusto). The scope and competencies of these regional bodies are, however, much more narrow than the scope and competencies of primary municipalities. Since regional portals have several functions: they refer to activities exceeding the borders of single municipalities as well as they function as platforms that create links and enable access to actors within the region, including primary municipalities, we have examined the portals with regard also to the politico-administrative dimension. This aspect of the e-democratic opportunity space is, however, the one most urgently needing to be reconstructed if the ambition is to create an accurate instrument for analysing portals/homepages comprising more than one municipality. There is a need for developing a two-level instrument of analysis that makes it possible to assess to what extent politico-administrative information refers to processes and decisions of regional bodies proper and to what extent regional portals aggregate and co-ordinate information on politico-administrative processes of the primary municipalities in the region.

### **How much of the opportunity space is actually utilized?**

The regional portals are relatively empty of content when it comes to information about politico-administrative processes, which could naturally be expected due to the circumstances presented above. The politico-administrative dimensions most often represented on the

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regional portals relate to overviews of regional political bodies and supply of minutes of decision-making bodies, this kind of information is found on 8–9 of the portals studied. The other aspects of the politico-administrative index appear randomly, if at all at the regional portals. The municipal homepages include more information about politico-administrative processes, even if the majority of the supply relate to commonplace and passive activities, not requiring continuous commitment on behalf of the municipal organization.

### **Comparison according to level (*regional portals vs. municipal homepages*)**

For the reasons related above, the e-democratic opportunity space does not do full justice to the regional portals, therefore, the comparison of the politico-administrative content of the regional and municipal web sites is not fully comparable with the comparisons of indexes 1,2,3 and 5. However, the average score for the regional portals on index 4 is 6.1, which is equivalent to 9 % of the total potential outlined by the benchmarking instrument. The average score for all municipal homepages is 17.4 or 26% of the maximum.

### **Comparison according to country (*Finland vs. Norway*) and type of intervention (*OSKU vs. other*)**

The comparison of the politico-administrative dimension of the municipal homepages shows only minor differences between Finland and Norway. The average score for the Norwegian municipal homepages is the highest one, 19.8 or 30% of the opportunity space for index 4. The average score for the municipal homepages in the OSKU regions is 17.6 (27%) and the average for the municipal homepages of the Finnish reference regions is 15.6 (24%).

The Norwegian regional portals contain somewhat more information and devices related to the politico-administrative process than do the Finnish ones: The average score for the Norwegian regional portals is 11 (17% of the maximum), while OSKU regional portals on the average score 2.3 (3% of the maximum) and the re-

Table 18. Index 4 Politics & administration according to country and type of intervention. Percentages within parentheses indicate the relation between the actual index score and the maximum potential score for each dimension.

	OSKU regions	Finnish reference regions	Norwegian reference regions
Index 4 Politics & administration (max 66) <i>Average score for regional portals</i>	2.3 (3%)	5.6 (8%)	11.0 (17%)
Index 4 Politics & administration (max 66) <i>Average score for municipal homepages</i>	17.6 (27%)	15.6 (24%)	19.8 (30%)

gional portals of the Finnish reference regions get the average score 5.6 (8% of the potential score). The incidence of regional portals totally lacking content with regard to politico-administrative processes is highest among the OSKU regions (3 of 7 get the value 0). The scope of variation between the portal with the lowest and the highest value is 0-9% within the OSKU regions, 0-23% within the Finnish reference group and 4-36% within the Norwegian reference group.

### Best practices

Very few of the regional portals could be characterized as good practices according to the e-democratic opportunity space, but this is partly due to how the instrument is constructed. The four regional portals with the highest scores on index 4 are Aust-Agder (N, 36%), Salo (F, 23%), OTIIN (N, 21%) and Fjellregionen (N, 20%). A common trait of the top-four portals is that the projects behind the establishment of the regional portal could be characterized as a bit more oriented towards administrative and political issues than the other projects studied.

The regions Digitale Sörlandet (N, in practice the city of Kristiansand), Fosen (N), e-Päijänne and Kainuu rank highest according to the averages scores of the homepages of individual municipalities.

Table 19. Index 4 Politics & administration (max 66). Scores for individual regional portals and average scores for municipal homepages of each region. Percentages within parentheses indicate the relation between the actual index score and the maximum potential score for each dimension.

	Regional portal Index score/ percentage of maximum score for index (max 66)	Average score for municipal homepages (max 66)
<i>OSKU regions (O)</i>		
Kehä 5/Ring 5	0 (0%)	16 (24%)
PiiSavo	6 (9%)	11 (16%)
Saaristo	0 (0%)	14 (22%)
E-Päijänne	2 (3%)	25 (37%)
Kainuu	0 (0%)	22 (33%)
Pohjois-Lappi	6 (9%)	17 (26%)
Vaara-Karjala	2 (3%)	21 (31%)
<i>Finnish reference regions (F)</i>		
Järviseuu	6 (9%)	15 (22%)
Kaustisen seutukunta	0 (0%)	18 (27%)
Loimaan seutukunta	7 (11%)	16 (24%)
Oriseuu	0 (0%)	15 (23%)
RaJuPuSu	7 (11%)	18 (26%)
Salon seutukunta	15 (23%)	11 (17%)
Siikalatva	4 (6%)	18 (28%)
<i>Norwegian reference regions (N)</i>		
Digitale Sörlandet / Demokratitorget	4 (6%)	34 (52%)
Digitale Sörlandet/Aust-Agder	24 (36%)	21 (31%)
Fjellregionen	13 (20%)	15 (23%)
Fosenportalen	10 (15%)	22 (34%)
OTIIN (Offentlig tjenesteproduksjon i Indre Namsdalen)	14 (21%)	17 (26%)
Salten regionråd	2 (3%)	18 (26%)



Table 20. Index 4 Politics & administration (max 66). Top-ten municipal homepages (index values for all municipalities are presented in appendix). Percentages within parentheses indicate the relation between the actual index score and the maximum potential score for each dimension.

Municipality	Score	Region	Number of inhabitants
Asikkala	49 (61%)	e-Päijänne (O)	8 554
Paltamo	37 (56%)	Kainuu (O)	4 220
Osen	35 (53%)	Osen (N)	1 055
Kristiansand	34 (51%)	Demokratitorget (N)	75 280
Belam	34 (51%)	Salten (N)	1 183
Halikko	34 (51%)	Salo (F)	9 374
Arendal	33 (50%)	Aust-Agder (N)	39 495
Tvedestrand	32 (48%)	Aust-Agder (N)	5 887
Meløy	31 (47%)	Salten (N)	6 672
Aura	30 (45%)	Loimaa (F)	3 514

The high average scores for e-Päijänne and Kainuu are much due to the fact that individual municipalities of the regions, Asikkala (61%) and Paltamo (56%) are noted for extraordinarily high values on the politico-administrative dimension.

#### 4.5 INDEX 5: COMMUNICATION AND FEEDBACK

##### **The opportunity space**

The index, *communication and feedback devices*, includes 21 items (maximum score 42) that describe the quality of the municipal homepages and regional portals when it comes to possibilities of online feedback and online participation. The index monitors the functionality of the feedback systems on the homepage or portal, including the use of e-mail addresses. It also measures to what extent the municipality/regional organization utilizes the Internet as a measure of monitoring the citizens' opinions in general or in connection with specific plans or policies.

Table 21. Index 5 Communication and feedback. The opportunity space.

Item	Percentage/ number of regional portals with score above (N=20)	Percentage/ number of municipal homepages with score above 0 (N=126)
1. Common e-mail address for all units of the municipality (xx@municipality.fi)	45% (9)	84% (106)
2. Standardized e-mail addresses to leading officials (official@municipality.fi)	30% (6)	91% (115)
3. Standardized e-mail address of municipal CEO	10% (2)	79% (99)
4. Search engine/other search function that enables finding the correct e-mail address	0% (0)	20% (25)
5. Debate forum available	55% (11)	6% (7)
6. On-line chat possibilities	0% (0)	0% (0)
7. Codes of conduct for debate and chat forum established and available on portal/forum	10% (2)	3% (3)
8. Moderator function for debate forum/chat	15% (3)	2% (2)
9. Possibilities of face-to-face interaction between citizens through the portal/homepage (for example "market place")	10% (2)	4% (5)
10. Feedback possibilities through server	30% (6)	48% (61)
11. On-line surveys, questions of the week etc. available	10% (2)	2% (2)
12. Information about petitions, citizens initiatives, campaigns available	20% (4)	11% (14)
13. Official e-mail addresses of individual politicians available	0% (0)	16% (20)
14. Private e-mail addresses of individual politicians available	20% (2)	23% (30)
15. Information about utilization of citizens' jury/panel	0% (0)	15% (19)
16. Information about utilization of professional jury/panel	0% (0)	0% (0)
17. Surveys about citizen satisfaction with services costs etc. available through the homepage	0% (0)	1% (1)
18. Does the municipality/regional body initiate discussion about policy documents or plans on the web site	15% (3)	2% (3)
19. Does the municipality/regional body initiate hearings about plans/policies	0% (0)	0% (0)
20. Contact information available in connection with plans etc. presented on the web site	0% (0)	0% (0)
21. Does the municipality/regional body utilize citizen hearings/surveys at all	5% (1)	0% (0)

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### **Balance between commonplace and sophisticated, “active” and “passive” criteria**

The majority of the criteria require activity and commitment from the municipality or regional organization in charge of the homepage. Among the five overall indexes constructed on the basis of the e-democratic opportunity space, the index concerning communication and feedback devices is the most demanding one. Active use of debate forums, hearings and surveys has to be based on conscious considerations from the municipal or regional organizations and the solutions also require commitment when it comes to responsibilities and processes. The criteria concerning the use of e-mail addresses are less demanding with regard to the level of required commitment on behalf of the organization in charge.

### **Relevance of criteria for analysis of regional portals**

There are no apparent problems connected with applying the communication and feedback criteria in the analysis of regional portals. The majority of the items are neutral when it comes to the profile of the activities of the organization in charge of the portal/homepage.

### **How much of the opportunity space is actually utilized?**

Index 5 is in many respects the most demanding of the indexes based on the e-democratic opportunity space. The opportunities of online feedback and communication are implemented to a very little extent on the regional portals and municipal homepages. Of the 21 components in the index, seven (7) do not appear on any of the regional portals studied and five (5) do not exist at all on the municipal homepages. In addition to this, there are many devices found on only one or two web sites. The most common activities and devices are related to unsophisticated feedback functions, for example e-mail addresses to officials and politicians.

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### Comparison according to level (*regional portals vs. municipal homepages*)

The average score for all regional portals on index 5 is 5.3, that is 13% of the total potential. The average score for the municipal homepages is only slightly higher, 7.9, which means 19% of the maximum.

### Comparison according to country (*Finland vs. Norway*) and type of intervention (*OSKU vs. other*)

As noted above, the scores on index 5, communication and feedback devices, are very moderate. Among the regional portals, OSKU regions score somewhat higher, 6.3 (15%), than the two other groups: Finnish reference regions 3.7 (9%) and Norwegian reference regions 5.3 (13%). This is mainly due to the existence of a debate forum as common practice on the portals/citizens' networks of the OSKU regions. This may be seen as a consequence of the specific intervention, which is also reflected in the scope of variation between the portals. The extreme values of the OSKU regional portals are 10 and 24 % of the maximum score, while the scope of variation is 5–14% for the portals of the Finnish reference regions and 5–31% for the Norwegian. Concerning the municipal homepages, the differences

Table 22. Index 5 Communication and feedback according to country and type of intervention. Percentages within parentheses indicate the relation between the actual index score and the maximum potential score for each dimension.

	OSKU regions	Finnish reference regions	Norwegian reference regions
Index 5 Communication and feedback (max 42) <i>Average score for regional portals</i>	6.3 (15%)	3.7 (9%)	5.3 (13%)
Index 5 Communication and feedback (max 42) <i>Average score for municipal homepages</i>	8.2 (19%)	7.8 (18%)	7.8 (18%)

between the three groups are hardly detectable, the average for the municipalities in the OSKU regions is 8.2 (19%), the average both for the Finnish and the Norwegian reference regions is 7.8 (18%).

Table 23. Index 5 Communication and feedback (max 66). Scores for individual regional portals and average scores for municipal homepages of each region. Percentages within parentheses indicate the relation between the actual index score and the maximum potential score for each dimension.

	Regional portal Index score/ percentage of maximum score for index (max 42)	Average score for municipal homepages (max 42)
<i>OSKU regions (O)</i>		
Kehä 5/Ring 5	2 (5%)	8 (18%)
PiiSavo	10 (24%)	10 (23%)
Saaristo	4 (10%)	6 (14%)
E-Päijänne	8 (19%)	11 (25%)
Kainuu	6 (14%)	12 (28%)
Pohjois-Lappi	8 (19%)	4 (9%)
Vaara-Karjala	6 (14%)	9 (20%)
<i>Finnish reference regions (F)</i>		
Järviseuu	4 (10%)	6 (15%)
Kaustisen seutukunta	6 (14%)	10 (24%)
Loimaan seutukunta	4 (10%)	8 (19%)
Oriseutu	2 (5%)	7 (17%)
RaJuPuSu	4 (10%)	8 (20%)
Salon seutukunta	4 (10%)	7 (16%)
Siikalatva	2 (5%)	8 (19%)
<i>Norwegian reference regions (N)</i>		
Digitale Sörlandet / Demokratitorget	13 (31%)	10 (24%)
Digitale Sörlandet/Aust-Agder	6 (14%)	8 (19%)
Fjellregionen	2 (5%)	8 (19%)
Fosenportalen	6 (14%)	6 (14%)
OTIIN (Offentlig tjenesteproduksjon i Indre Nam- sdalen)	2 (5%)	9 (21%)
Salten regionråd	6 (14%)	8 (19%)

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## Best practices

The top-four regional portals according to index 5, communication and feedback devices, are Demokratitorget (N 31%), PiiSavo (O, 24%), e-Päijänne (O, 19%) and Pohjois-Lappi (O, 19%). Demokratitorget has been established especially as a debate forum and platform for discussions about regional issues. The scores of the best practice OSKU regions stem from the existence of a debate forum, but also include credits for devices like online surveys. The top-nine individual municipal homepages represent seven different regions.

Table 24: Index 5 Communication & feedback. Top-nine municipal homepages (index values for all municipalities are presented in appendix). Percentages within parentheses indicate the relation between the actual index score and the maximum potential score for each dimension.

Municipality	Score	Region	Number of inhabitants
Suomussalmi	17 (40%)	Kainuu (O)	10.376
Perho	16 (38%)	Kaustinen (F)	3.038
Sysmä	14 (33%)	e-Päijänne (O)	4.716
Padasjoki	14 (33%)	e-Päijänne (O)	3.721
Hyrnsalmi	14 (33%)	Kainuu (O)	3.212
Tvedestrand	13 (31%)	Aust-Agder (N)	5.887
Loimaan kunta	13 (31%)	Loimaa (F)	5.909
Sørfold	13 (31%)	Salten (N)	2.184
Lieksa	13 (31%)	Vaara-Karjala (O)	14.396

### A. Overall impressions

Against the benchmark provided by *the e-democratic opportunity space*, the content and quality of regional portals and municipal web sites of all Finnish and Norwegian regions studied is at its best moderate, often fairly weak. The content of the best regional portal (Fosen, N) fulfils less than half (45%) of the criteria for good performance provided by the modified benchmarking instruments. Of the individual municipalities analysed, only three have web sites that score 100 or more according to the e-democratic opportunity space, the highest possible score being 210. The majority of the regional portals analysed score about 25–35% of the maximum and there are also a handful of projects that meet only around 10% of the potential outlined by the benchmarking instrument. The quality of municipal web sites is more even than the quality of regional portals/network, but is, in general, not especially high.

Every instrument has its weaknesses, therefore, a natural question to ask, is whether the portals contain other types of instruments, devices and information than those covered by *the e-democratic opportunity space*. We have controlled for this aspect and the answer is, generally, no. The overall impression of regional portals/citizens' networks as often relatively empty of information stands also after controlling for other aspects. The overall impression is not unique

Table 25. Summary of results according to country and type of intervention, **regional portals**. Index values (means for all portals within group). Percentages within parentheses indicate how the index scores relate to the maximum potential within each dimension (for example index score 6.4 in relation to maximum score 12 = 52%).

	OSKU regions	Finnish reference regions	Norwegian reference regions
Index 1 Access (max32)	19.1 (60%)	13.7 (43%)	14.2 (44%)
Index1b (max 16) Activities/devices enhancing citizens' access to ICT	7.3 (45%)	3.4 (21%)	2.8 (18%)
Index 2 Community affairs (max 32)	16.9 (53%)	<b>20.4 (64%)</b>	19.2 (60%)
Index 3 Public services (max 38)	6.6 (17%)	5.4 (14%)	<b>9.2 (24%)</b>
Index 4 Politics & administration (max 66)	2.3 (3%)	5.6 (8%)	<b>11.0 (17%)</b>
Index 5 Communication and feedback (max 42)	6.3 (15%)	3.7 (9%)	5.3 (13%)
Total score (max 210)	51.6 (25%)	50.4 (24%)	<b>62.7 (30%)</b>

for this study, earlier studies of municipal web sites in the Nordic countries have mainly reached the same conclusion (see for example Åström 2004).

The comparison between the different aspects of the e-democratic opportunity space shows that both the regional portals and the municipal homepages obtain the highest scores for dimensions that are to be classified as passive in the sense that they require only little commitment from the organization in charge of the service. Information about community affairs in general is relatively well represented on the web sites, the function of the web site is mainly that of an electronic billboard, while very few municipal and regional organizations use their Internet sites as platforms for communication and dialogue with the citizens.

On the whole, the analyses show *few differences between Finland and Norway on the one hand, and between OSKU regions and the Finnish and Norwegian reference regions on the other hand.* Variations are usu-



Table 26. Summary of results for key variables, **municipal web sites**. Index values (means for all municipal web sites within group). Percentages within parentheses indicate how the index scores relate to the maximum potential within each dimension (for example index score 6.4 in relation to maximum score 12 = 52%).

	OSKU regions	Finnish reference regions	Norwegian reference regions
Index 1 Access (max32)	7.9 (25%)	7.4 (23%)	11.3 (35%)
Index1b (max 16) Activities/devices enhancing citizens' access to ICT	1.4 (9%)	1.3 (8%)	2.0 (13%)
Index 2 Community affairs (max 32)	15.0 (47%)	14.6 (46%)	16.5 (52%)
Index 3 Public services (max 38)	10.7 (28%)	10.9 (29%)	14.3 (38%)
Index 4 Politics & administration (max 66)	17.6 (27%)	15.6 (24%)	19.8 (30%)
Index 5 Communication and feedback (max 42)	8.2 (19%)	7.8 (18%)	7.8 (18%)
Total score (max 210)	60.2 (29%)	57.0 (27%)	72.2 (34%)

ally larger within each group than between groups, at least when we look at non-detailed overall figures. Among the regional portals ranking top-nine according to the e-democratic opportunity space, there are three OSKU regions, three Finnish reference regions and three Norwegian reference regions.

## B. Variations between Finland and Norway

Given the fact that variations are small, there are still a number of observations to be made about differences between Finland and Norway.

Small differences concerning regional portals,  
Norwegian municipal web sites hold somewhat higher quality

Even if the total score for the regional portals is somewhat higher (63) for the Norwegian regions than for the Finnish regions (O=52,

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F=50), the variations are unsystematic and thus not valid as a basis for conclusions about national differences. The detailed examination shows that Norwegian regional portals are stronger than the Finnish (O & F) when it comes to supply of information about public services and the quality of devices enhancing active communication between citizens and the authorities. Finnish reference regions stand stronger when it comes to information about the region and OSKU regions provide a larger number of aids enhancing utilization of ICT as well as participatory devices.

Against the benchmark provided by the e-democratic opportunity space, Norwegian municipal web sites rank systematically somewhat higher than do Finnish municipal web sites. This is the case also if we analyse only the web sites of the smallest municipalities (< 3 000 inhabitants). The Norwegian web sites rank higher than the Finnish especially when it comes to supply of information about services and the political organization of the municipality.

#### **Lower correlation between quality of regional portal and quality of municipal homepages in Finland**

In table 28, the regions are presented according to a cross-tabulation of the content of regional portals vs. the content of municipal web sites in the regions. This cross-tabulation reveals a systematic difference between Finland and Norway. The five regions in Finland ranking highest concerning regional portals (PiiSavo (O), Pohjois-Lappi (O), Järviseuutu (F), Loimaa (F), Salo (F)) are characterized by a fairly low level of the content of municipal web sites within the region. On the other hand, regions like Kainuu (O) and Vaara-Karjala (O) ranking relatively low on the regional dimension obtain good scores concerning the municipal web sites. In Norway, the top-ranking regions are the same whether we look at the regional or municipal dimension.

Table 27: Summary of results for individual regional portals

	<b>Total score</b>	<b>Index 1 Access</b>	<b>Index 2 Community affairs</b>	<b>Index 3 Services</b>	<b>Index 4 Politics &amp; administration</b>	<b>Index 5 Communication and feedback</b>
<i>OSKU regions (O)</i>						
Kehä 5/Ring 5	31 (15%)	19 (59%)	0 (0%)	10 (26%)	0 (0%)	2 (5%)
PiiSavo	84 (40%)	23 (72%)	32 (100%)	10 (26%)	6 (9%)	10 (24%)
Saaristo	29 (14%)	17 (53%)	0 (0%)	8 (21%)	0 (0%)	4 (10%)
E-Päijänne	61 (29%)	21 (65%)	28 (88%)	2 (5%)	2 (3%)	8 (19%)
Kainuu	33 (16%)	17 (53%)	4 (13%)	6 (16%)	0 (0%)	6 (14%)
Pohjois-Lappi	78 (37%)	22 (69%)	32 (100%)	10 (26%)	6 (9%)	8 (19%)
Vaara-Karjala	45 (21%)	15 (47%)	2 (69%)	0 (0%)	2 (3%)	6 (14%)
<i>Finnish reference regions (F)</i>						
Järviseuutu	70 (33%)	15 (47%)	28 (88%)	13 (34%)	6 (9%)	4 (10%)
Kaustisen seutukunta	42 (20%)	23 (72%)	13 (41%)	0 (0%)	0 (0%)	6 (14%)
Loimaan seutukunta	66 (31%)	15 (47%)	27 (84%)	11 (29%)	7 (11%)	4 (10%)
Oriseutu	13 (6%)	4 (13%)	7 (22%)	0 (0%)	0 (0%)	2 (5%)
RaJuPuSu	29 (23%)	11 (38%)	27 (84%)	0 (0%)	7 (11%)	4 (10%)
Salon seutukunta	85 (40%)	16 (50%)	32 (100%)	13 (34%)	4 (6%)	2 (5%)
Siikalatva	28 (13%)	12 (38%)	9 (28%)	1 (3%)	4 (6%)	2 (5%)
<i>Norwegian reference regions (N)</i>						
Digitale Sörlandet / Demokratitorget	34 (16%)	15 (47%)	2 (6%)	0 (0%)	4 (6%)	13 (31%)
Digitale Sörlandet/ Aust-Agder	80 (38%)	17 (53%)	19 (59%)	10 (26%)	24 (36%)	6 (14%)
Fjellregionen	45 (21%)	9 (28%)	16 (50%)	5 (13%)	13 (20%)	2 (5%)
Fosenportalen	95 (45%)	18 (56%)	32 (100%)	22 (58%)	10 (15%)	6 (14%)
OTIIN (Offentlig tjenesteproduksjon i Indre Namdalen)	83 (40%)	19 (59%)	24 (75%)	18 (47%)	14 (21%)	2 (5%)
Salten regionråd	39 (19%)	7 (22%)	22 (69%)	0 (0%)	2 (3%)	6 (14%)

Table 28: Regions according to scores for content of regional portals and mean scores for content of municipal web sites in the regions.

	Regional portal Below average (total score < 54.5)	Regional portal Above average (total score 54.5 <)
Municipal web sites (mean) Below average (total score < 62.8)	Kehä 5 (O) Saaristo (O) Kaustinen (F) Oriseutu (F) Siikalatva (F) Salten (N)	PiiSavo (O) Pohjois-Lappi (O) Järviseuutu (F) Loimaa (F) Salo (F)
Municipal web sites (mean) Above average (total score 62.8<)	Kainuu (O) Vaara-Karjala (O) RaJuPuSu (F) Fjellregionen (N)	E-Päijänne (O) Aust-Agder (N) Fosen (N) OTIIN (N)

### C. Observations about the OSKU regions and the OSKU concept

The differences between regions within the OSKU group are approximately as large as the differences between regions within the reference groups

The OSKU concept is characterized by a combination of co-ordinated intervention and bottom-up orientation. When it comes to the content of the individual regional project, bottom-up orientation was the guiding principle, while the national project provided finances, concepts and guidance. Therefore, the fact that we detect differences between OSKU regions representing a co-ordinated intervention that are nearly as large as differences within the reference regions, representing a variety of interventions, is not in itself surprising. The regional citizens' networks seem to have developed in different directions, some of them remaining mainly a platform of communication for the citizens of the region, other expanding with regard to the scope and focus of the content.

On the regional level, the enabling and communicative aspects of the OSKU concept are unique in the comparative setting

Although differences are generally small, in the comparison between regional portals, the OSKU regions stand out when it comes to two aspects; 1) activities aiming at enabling the use of ICT, 2) commu-

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nicative and participatory aspects. Both stand central in the original idea about the OSKU concept. In this sense, the OSKU portals/networks represent a clearer orientation towards a regional citizenry than do the other portals studied. The existence of devices equivalent to the regional citizens' networks is rare in the other regions studied, although, according to the former evaluations, the existing devices may be technically embryonic and not fully utilized.

**Relatively high scores for access and communication  
are combined with relatively low scores for content**

In comparison with the Finnish and Norwegian reference regions, the regional portals of the OSKU regions stand strong when it comes to communicative aspects and devices enhancing access to ICT, but show weaknesses when it comes to content, especially content related to services and politico-administrative processes. The OSKU regions have, however, developed differently in this respect. The OSKU portals obtaining good scores according to the e-democratic opportunity space, PiiSavo and Pohjois-Lappi, supply a broad range of information as well as channels for discussions and citizens' participation. The other extreme is made up of Saaristo and Kehä 5. The citizens' networks of these regions provide only a narrow range of information and services and seem to function foremost as a channel of communication. Former and more recent user surveys indicate that there is no straightforward connection between the content of the portal and the users' overall assessment of the relevance of the portal/network. For example Kehä 5 that gets fairly low scores according to the e-democratic opportunity space, gets a good overall assessment from its users (Seutuverkkojen käyttäjätutkimus 2004).

**Limited spillover from regional level to municipal web sites.**

As noted above, the spillover between the regional and municipal platforms is limited in Finland. This is the case also concerning the specific OSKU features that, surprisingly enough, are hardly detectable on the web sites of the municipalities of the OSKU regions.

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This underlines formerly detected problems with the interface between the project organization and the municipalities. As a contrast, the Norwegian frontrunners, also in the most peripheral regions, seem to develop electronic services parallel at the regional and the municipal level.

#### **D. Characteristics of best practice regions**

Neither country nor type of intervention does sufficiently well explain differences in the content and quality of regional portals/networks. An examination of the best practices, the top-nine, among the regions studied, systematically analysing background characteristics and indicators about the linkages of the various projects revealed the following pattern:

Best practice regions represent both countries and various types of interventions  
The nine best practice regional portals include three OSKU regions, three Finnish reference regions and three Norwegian reference regions.

Top-nine regions include smaller and larger regions,  
more peripheral regions as well as more central regions.

No systematic variation can be detected as to whether the best practice regions represent a certain type of co-operative constellation or geographical setting. Among the top-nine regions we find smaller regions as well as regions with a larger number of inhabitants, as well as both peripheral and less peripheral regions.

Top-nine regions are generally characterized by the existence of efforts  
to enhance regional cohesion also in other fields

The factor mainly discriminating between top-nine regions and the other regions studied seems to be that nearly all top-nine regional portals represent regions where there are a number of other efforts going on in order to enhance regional cohesion. Either or both of the following characterize the regions:

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- being part of national project aiming at strengthening co-operation between municipalities/regional cohesion (Seutu, AKO, AAD/KRD-project)
  - considerable local/regional initiatives towards co-ordinating municipal resources

Six of the top-nine regions participate in some kind of national project launched in order to strengthen inter-municipal co-operation and regional cohesion. The top-ranking portal, Fosen (N) is an example of a case, where the municipalities of the region have made considerable financial and other efforts in order to enhance co-ordination of municipal activities within the region and the creation of a corporate regional identity. The Fosen portal has to some extent benefited from national project funds, but is mainly the fruit of consciously co-ordinated local initiatives. Outside the top-nine, regional portals are more often results of more limited and exclusively ICT oriented projects.

Apparently, the co-existence of ICT and other projects oriented towards regional cohesion, result in the following kinds of linkages and preconditions:

- on the whole, more resources available
- linkages between representatives of service sectors in municipalities → better potential for creating regional information content
- regional services are consciously developed utilizing ICT → spillover to regional portal (this is the case especially in Norwegian projects, OTIIN, Fosen)
- status related questions, national and regional projects create corporate identity of region → better potential for approaching the citizens of the region

Top-ranking portal Fosen stands out in committing municipalities to the common regional purpose

An e-mail survey in July-August 2004 to the webmasters of a number of the regional portals studied revealed a considerable difference between the top-ranking portal Fosen and the other portals

when it comes to committing the municipalities of the region to the common regional purpose. The general pattern in the regions studied, especially in Finland, seems to be that the regional portal has been established as an independent endeavour within a development project. The linkages to the municipalities and the linkages between the content of the regional portal and the municipal homepages have been non-existent or random. Fosen constitutes an exception to this rule. The municipalities of the region have planned the content of the regional portal jointly and there has been conscious activities in order to secure that the individual municipalities benefit from the work done on the regional level. This is reflected in the exceptionally high level of quality of the municipal homepages in the Fosen region, regarding the fact that most municipalities are very small.

Table 29: Characteristics of top-nine regional portals/regional citizens' networks according to rank scores on the e-democratic opportunity space.

Region	Total score for regional portal (max 210)	Country/ Intervention	Number of municipalities	Total population	% small municipalities (< 3.000 inhabitants)	Region is part of other (national) co-ordinated effort aiming at strengthening regional cohesion	Total average score for municipal web sites above average
Fosen	95	N	9	28.802	44%	No	Yes
Salon seutu	85	F	11	62.709	55%	Yes	No
PiiSavo	84	O	4	30.044	25%	Yes	No
OTIIN	83	N	6	9.116	100%	Yes	Yes
Aust-Agder	80	N	8	82.014	38%	Yes	Yes
Pohjois-Lappi	78	O	3	17.911	33%	Yes	No
Järvisseutu	70	F	5	21.685	40%	No	No
Loimaan seutu	66	F	12	37.152	58%	Yes	No
e-Päijänne	61	O	4	19.871	25%	No	Yes



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Quality of Finnish municipal homepages to some extent dependent on size, quality of Norwegian municipal homepages dependent on region/intervention

Usually, studies show that the quality of municipal homepages is dependent on the size of the municipality. This is to some extent true for the Finnish municipalities analysed in this study. In the Norwegian sample, the municipalities with the best homepages are very small. Region and intervention, in practice being part of the Fosen or OTIIN regions, is the most efficient explanation to why a Norwegian municipal homepage obtains high scores.

### **E. Lessons about ICT as a bridging device**

As an overall conclusion, the analysis confirms that efforts to create regional partnerships using ICT are still at an relatively early stage in the Nordic countries, this being the case especially when it comes to efforts of utilizing regional portals and web sites in order to create regional cohesion and a sense of community between citizens living in neighbouring municipalities. The analyses of the regional portals/citizens' networks show weaknesses at least in the following respects.

#### **Who are the users of the regional portal?**

The understanding of the proper public of the regional portal/network seems to be a common problem. Is the aim of the portal to present the region to the outside world or to provide services for the citizens and civil society of the region? The projects studied differ in focus on this aspect, some of them are primarily directed towards promoting the regions, but the impression of ambiguity about the proper public is a general one. This question being unsolved, only small steps have been taken towards citizen oriented electronic services at the regional level.

#### **Weak co-ordination between different electronic platforms in the same region**

The results indicate that there are a number of weaknesses in the linkages between the organizations and projects responsible for the

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regional ICT projects resulting in the establishment of regional portals and the main actors of the public sector and the civil society within the region. This creates a variety of problems. The content of the regional portals is fairly weak, since the sufficient linkages are not functional. Especially in Finland, the co-ordination between regional portals and municipal homepages is random or non-existent. This may be a good thing, but it equally often results in the existence of several parallel low-quality web sites, also in the most sparsely populated areas. From the point of view of using ICT in order to strengthen the supply of services for the citizens, the lacking co-ordination is a waste of resources.

**ICT can serve as a bridging device**

– but requires co-ordinated and conscious action

The individual best practice of this study, the Norwegian Fosen portal, shows that peripheral regions and small municipalities can provide relatively high-quality web based services and that ICT can be used as a tool in order to create cohesion within a region consisting of several municipalities. This, however, requires conscious and co-ordinated action committing the municipalities to the common purpose. The Fosen example also shows that action in order to develop the supply of inter-municipal or regional services can benefit also the individual municipalities. The quality of the homepages of the small municipalities of the Fosen region is in fact higher than the quality of the homepages of larger cities in the study, such as Kristiansand, Bodø or Salo.

## **F. Lessons about the e-democratic opportunity space**

The analysis of regional portals and municipal homepages has provided a number of lessons about the e-democratic opportunity space as a benchmarking device. The experiences can be divided into two groups: a) general experiences from using the tool, b) experiences connected to the using the tool in analyses of regional portals and other electronic platforms including more than one municipality.

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### General experiences

The e-democratic opportunity space suffers from a number of problems that are well known also for other types of benchmarking tools, for example the Municipal Compass (the Bertelsmann criteria for good local governance) or the European CAF criteria (see for example Sandberg & Ståhlberg 1999). There is a general risk with benchmarking devices becoming too formalistic, paying more attention to the existence of a certain device than to the functionality of the same. There is also a risk of a certain blindness to phenomena outside the devices and mechanisms included in the checklist. This is especially true when we look at electronic services, which change rapidly.

### Measures existence of tools and devices – not their user friendliness

The checklist includes 105 separate variables that refer to different kinds of information or devices. A municipality or regional portal scores 0, 1 or 2 for the existence of a certain device, for example a debate forum or possibilities to contact municipal officials. There are a number of separate variables measuring user friendliness (for example existence of separate feedback functions), but in general, no attention is paid to whether information about a certain phenomenon is easy to find or is subject to complicated search operations or whether a debate forum is not only existing, but is also utilized. The functionality of the technical solutions is neither analysed. This is important considering the OSKU portals, which, according to the judgements made by the researchers conducting the coding of the content of the web pages, to some extent suffer from problems connected with technology, even if content and devices are in place.

### Measures provision of services, not the actual functionality of services offered

The existence of various electronic devices, for example possibilities to make applications and fill in forms through the homepage of the municipality, usually means that the municipal organization is prepared to handle matters electronically. There is, however, no

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guarantee for this happening, which means that the benchmarking device would have to take better into account devices that measure the functionality of the interaction between the service providers and the citizens. There are a limited number of variables separately taking this aspect into account (for example existence of regulated response times), but in order to be able to make a correct judgement about the functionality, this aspect would have to be taken into consideration in connection systematically within each thematic area.

#### **The content of the checklist and the balance between the thematic areas**

The idea of the e-democratic opportunity space is to cover the local government decision-making process from initiative and decision-making to implementation and evaluation of services. This is a fully acceptable principle that is fairly unproblematic when it comes to analyses of municipal homepages. When it comes to analyses of regional homepages and other electronic platforms comprising more than one municipality, there are slight problems with the device (see more detailed discussion below). If the ambition is to analyse how well the municipal homepage covers the life and works of the local community outside the politico-administrative apparatus of the municipality, a number of addition would have to be made to the checklist in order to get a correct picture. Within the existing benchmarking tool, considerable weight is given to the politico-administrative process. Considering principles of transparency and openness, this is a correct solution. The impression is, however, that the criteria are very specific when it comes to politico-administrative information and feedback devices, relatively detailed variables are assigned criteria of their own, while devices concerning the citizen as a service consumer are given less relative weight and are handled in less detail. For example, the device, in the form utilized here, does not make detailed judgements about differences in provision of customer-oriented services within the various municipal sectors (for example schools, social services, technical sectors).

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## Experiences connected to using the e-democratic opportunity space in analyses of regional portals

The device is first and foremost constructed as a tool for analysing local government homepages. We made a number of changes to the checklist in order to be able to make it a more accurate instrument for analysing regional portals and homepages provided by inter-municipal partnerships. These changes included variables measuring the regional dimension of the content of the homepages. For future purposes, a number of adaptations have to be made to the e-democratic opportunity space, if the ambition is to utilize it also for analyses of regional and inter-municipal portals and homepages.

### **Benchmarks for a good regional portal**

The e-democratic opportunity space was constructed on the basis of a survey of hundreds of local government homepages, from which a list of aids and devices was compiled. This means that the checklist shaping the benchmarking device is constructed on the basis of ideas of what a good local government homepage looks like. Since local government homepages are common, the benchmarking instrument is quite compatible with common sense ideas and experiences of the functionality of homepages. There is no similar common understanding of what a good regional portal looks like. The analysis of the content of the regional portals indicates a great deal of hesitancy when it comes to the proper public of the regional portal: is it primarily directed towards the citizens of the region, or is its function primarily to present the region to the outside world? Both ambitions are legitimate, but have different implications for the construction of a proper benchmarking tool.

If the main ambition of the regional portal is to serve as a coordinating platform for the provision of electronic public services in the region, the criteria of good performance would have to take the following aspects into consideration:

- The supply of information and devices concerning genuinely *regional* political organizations and service providers, that is, service

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providers and political bodies. In Finland this would for example mean a more thorough investigation of the existence of information concerning various joint municipal authorities, as well as the existence of information about political processes in the regional decision-making bodies, for example the political bodies of the experimental regions within the SEUTU project.

- The supply of information and devices concerning the municipalities within the region.
- Indicators of to what extent the portal covers the region as a totality both spatially (that is, does the portal include information about all municipalities on an equal basis) and functionally (that is, how many areas of potential regional services are covered by the portal).

For the most part, the existing criteria of the e-democratic opportunity space can be utilized for the purposes indicated above. It would, however, be necessary to be more specific about the various spatial and functional levels of the regions. In practice, this would be possible to implement by establishing parallel sets of indicators for the various thematic areas.

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#### OSKU regions

<http://www.oskut.net>

#### The Finnish Reference Regions

Järviseu tu <http://www.jarviseu tu.fi>

Kaustisen seutukunta <http://www.kase.fi>

Loimaan seutukunta <http://www.loimaanseutu.fi>

Oriseutu <http://www.oriseutu.fi>

RaJuPuSu <http://www.rajupusu.fi>

Salon seutu <http://www.salonseutu.fi/>

Siikalatva <http://www.siikalatva.fi/portaali>

#### The Norwegian Reference Regions

Demokratitorget <https://www.demokratitorget.no/>

Aust-Agder <http://www2.aa-f.kommune.no/>

Fjellregionen <http://www.fjellregionen.no>

Fosen <http://www.fosen.net>

OTIIN <http://domino.adcomdata.net/apps/otiin/internett/otiinbip.nsf>

Salten <http://www.salten.no>

[www.detnyedanmarck.dk](http://www.detnyedanmarck.dk)

[www.intermin.fi](http://www.intermin.fi),

[www.krd.dep.no](http://www.krd.dep.no).

## APPENDIX

The e-democratic opportunity space. Index scores for homepages of individual municipalities. Index scores, percentages within parentheses indicate percentage of maximum score for each index.

Table 1: OSKU regions Kehä 5, PiiSavo, Saaristo

Region	Municipality	Number of inhabitants	Overall index Max 210	Index 1 Access Max 32	Index 2 Community affairs Max 32	Index 3 Services Max 38	Index 4 Politics and administration Max 66	Index 5 Communication And feedback Max 42
OSKU Kehä 5	Liljendal	1 466	44 (21%)	7 (22%)	8 (25%)	8 (21%)	15 (23%)	6 (14%)
OSKU Kehä 5	Lapinjärvi	2 977	51 (24%)	7 (22%)	19 (59%)	12 (32%)	5 (8%)	8 (19%)
OSKU Kehä 5	Pernaja	3 871	54 (26%)	11 (34%)	13 (41%)	11 (29%)	12 (18%)	7 (17%)
OSKU Kehä 5	Pukkila	1 979	57 (27%)	6 (19%)	10 (31%)	10 (26%)	23 (35%)	8 (19%)
OSKU Kehä 5	Myrskylä	2 012	60 (29%)	7 (22%)	8 (25%)	12 (32%)	24 (36%)	9 (21%)
OSKU PiiSavo	Pieksämäki	8 754	38 (18%)	4 (13%)	14 (44%)	10 (26%)	2 (3%)	8 (19%)
OSKU PiiSavo	Haukivuori	2 361	48 (23%)	8 (25%)	16 (50%)	12 (32%)	4 (6%)	8 (19%)
OSKU PiiSavo	Kangasniemi	6 419	49 (23%)	8 (25%)	13 (41%)	6 (16%)	10 (15%)	12 (29%)
OSKU PiiSavo	Pieksämäki	12 510	79 (38%)	11 (34%)	20 (63%)	11 (29%)	26 (39%)	10 (24%)
OSKU Saaristo	Nagu	1 446	36 (17%)	4 (13%)	12 (38%)	6 (16%)	8 (12%)	6 (14%)
OSKU Saaristo	Korpo	921	49 (23%)	6 (19%)	9 (28%)	10 (26%)	20 (30%)	4 (10%)
OSKU Saaristo	Iniö	251	50 (24%)	8 (25%)	15 (47%)	7 (18%)	12 (18%)	8 (19%)
OSKU Saaristo	Pargas	12 001	53 (25%)	10 (31%)	18 (56%)	13 (34%)	12 (18%)	0 (0%)
OSKU Saaristo	Dragsfjärd	3 419	56 (27%)	5 (15%)	4 (44%)	12 (32%)	17 (26%)	8 (19%)
OSKU Saaristo	Houtskär	662	62 (30%)	9 (28%)	21 (66%)	10 (26%)	15 (23%)	6 (14%)
OSKU Saaristo	Västansfjärd	811	62 (30%)	8 (25%)	15 (47%)	12 (32%)	11 (17%)	10 (24%)
OSKU Saaristo	Kimito	3 299	70 (33%)	9 (28%)	14 (44%)	17 (45%)	19 (29%)	6 (14%)



Table 2: OSKU regions: e-Päijänne, Kainuu, Pohjois-Lappi, Vaara-Karjala

Region	Municipality	Number of inhabitants	Overall index Max 210	Index 1 Access Max 32	Index 2 Community affairs Max 32	Index 3 Services Max 38	Index 4 Politics and administration Max 66	Index 5 Communication And feedback Max 42
OSKU e-Päijänne	Kuhmoinen	2 880	51 (25%)	3 (9%)	16 (50%)	9 (24%)	15 (23%)	8 (19%)
OSKU e-Päijänne	Padasjoki	3 721	69 (33%)	5 (16%)	20 (63%)	12 (32%)	18 (27%)	14 (33%)
OSKU e-Päijänne	Sysmä	4 716	77 (37%)	7 (22%)	22 (69%)	8 (21%)	25 (38%)	14 (33%)
OSKU e-Päijänne	Asikkala	8 554	92 (44%)	12 (38%)	18 (56%)	16 (42%)	40 (61%)	6 (14%)
OSKU Kainuu	Ristijärvi	1 686	62 (30%)	10 (31%)	16 (50%)	14 (37%)	14 (21%)	8 (19%)
OSKU Kainuu	Kuhmo	10 630	66 (31%)	7 (22%)	19 (59%)	10 (26%)	20 (30%)	9 (21%)
OSKU Kainuu	Suomusalmi	10 376	66 (31%)	3 (9%)	12 (38%)	10 (26%)	22 (33%)	17 (40%)
OSKU Kainuu	Hyrnsalmi	3 212	72 (34%)	10 (31%)	18 (56%)	12 (32%)	15 (23%)	14 (33%)
OSKU Kainuu	Paltamo	4 220	91 (43%)	11 (34%)	15 (47%)	17 (45%)	37 (56%)	10 (24%)
OSKU P-Lappi	Utsjoki	1 385	35 (17%)	8 (25%)	16 (50%)	8 (21%)	3 (5%)	0 (0%)
OSKU P-Lappi	Inari	7 153	64 (30%)	10 (31%)	9 (28%)	11 (29%)	26 (39%)	4 (10%)
OSKU P-Lappi	Sodankylä	9 373	68 (33%)	8 (25%)	18 (56%)	12 (32%)	23 (35%)	7 (17%)
OSKU V-Karjala	Illomantsi	6 690	45 (21%)	8 (25%)	12 (38%)	0 (0%)	17 (26%)	0 (0%)
OSKU V-Karjala	Juuka	6 238	58 (28%)	10 (31%)	6 (50%)	6 (16%)	16 (24%)	0 (24%)
OSKU V-Karjala	Tuupovaara	2 176	66 (31%)	7 (22%)	19 (59%)	10 (26%)	24 (26%)	6 (14%)
OSKU V-Karjala	Lieksa	14 396	67 (32%)	13 (41%)	8 (25%)	16 (42%)	17 (26%)	13 (31%)
OSKU V-Karjala	Valtimo	1 816	68 (33%)	9 (28%)	8 (56%)	10 (26%)	21 (32%)	7 (17%)
OSKU V-Karjala	Nurmes	9 299	73 (35%)	7 (22%)	15 (47%)	14 (37%)	28 (42%)	8 (19%)

Table 3: Finnish reference regions: Järviseu, Kaustinen, Loimaa

Region	Municipality	Number of inhabitants	Overall index Max 210	Index 1 Access Max 32	Index 2 Community affairs Max 32	Index 3 Services Max 38	Index 4 Politics and administration Max 66	Index 5 Communication And feedback Max 42
FIN Järviseu	Evijärvi	2 985	28 (13%)	9 (28%)	10 (31%)	2 (5%)	2 (3%)	5 (10%)
FIN Järviseu	Lappajärvi	3 792	48 (23%)	9 (28%)	12 (38%)	10 (26%)	11 (17%)	6 (14%)
FIN Järviseu	Alajärvi	9 055	59 (28%)	3 (9%)	17 (53%)	10 (26%)	19 (29%)	8 (19%)
FIN Järviseu	Vimpeli	3 403	67 (32%)	5 (16%)	19 (59%)	13 (34%)	20 (30%)	8 (19%)
FIN Järviseu	Kortesjärvi	2 450	72 (34%)	9 (28%)	19 (59%)	15 (39%)	22 (33%)	5 (12%)
FIN Kaustinen	Halsua	1 498	39 (19%)	3 (9%)	5 (16%)	7 (18%)	16 (24%)	8 (19%)
FIN Kaustinen	Ullava	1 037	45 (21%)	3 (9%)	7 (22%)	9 (24%)	18 (27%)	8 (19%)
FIN Kaustinen	Veteli	3 690	50 (24%)	10 (31%)	17 (53%)	6 (16%)	9 (14%)	8 (19%)
FIN Kaustinen	Lestijärvi	973	62 (30%)	6 (19%)	18 (56%)	10 (26%)	20 (30%)	8 (19%)
FIN Kaustinen	Perho	3 038	68 (32%)	5 (16%)	15 (47%)	13 (34%)	19 (29%)	16 (38%)
FIN Kaustinen	Toholampi	3 664	74 (35%)	6 (19%)	20 (63%)	17 (45%)	19 (29%)	10 (24%)
FIN Kaustinen	Kaustinen	4 432	90 (43%)	14 (44%)	19 (59%)	19 (50%)	24 (36%)	12 (29%)
FIN Loimaa	Oripää	1 346	20 (10%)	6 (19%)	8 (25%)	2 (5%)	2 (3%)	2 (5%)
FIN Loimaa	Mellilä	1 252	30 (14%)	5 (16%)	6 (19%)	6 (16%)	9 (14%)	4 (10%)
FIN Loimaa	Alastaro	3 017	55 (26%)	6 (19%)	17 (53%)	8 (21%)	15 (23%)	8 (19%)
FIN Loimaa	Loimaa	7 185	55 (26%)	10 (31%)	12 (38%)	14 (37%)	9 (14%)	10 (24%)
FIN Loimaa	Marttila	2 081	58 (28%)	9 (28%)	18 (56%)	12 (32%)	11 (17%)	8 (19%)
FIN Loimaa	Karinainen	2 499	64 (30%)	9 (28%)	19 (59%)	12 (32%)	18 (27%)	6 (14%)
FIN Loimaa	Tarvasjoki	1 946	65 (31%)	9 (28%)	17 (53%)	11 (29%)	18 (27%)	8 (19%)
FIN Loimaa	Pöytyä	3 684	69 (33%)	11 (34%)	20 (63%)	13 (34%)	17 (26%)	8 (19%)
FIN Loimaa	Yläne	2 157	71 (34%)	5 (16%)	19 (59%)	16 (42%)	19 (29%)	9 (21%)
FIN Loimaa	Koski TI	2 559	74 (35%)	8 (25%)	21 (66%)	14 (37%)	21 (32%)	8 (19%)
FIN Loimaa	Loimaan kunta	5 909	85 (40%)	13 (41%)	18 (56%)	16 (42%)	23 (35%)	13 (31%)
FIN Loimaa	Aura	3 514	86 (41%)	11 (34%)	16 (50%)	19 (50%)	30 (45%)	10 (24%)

Table 4: Finnish reference regions: Oriseutu, RaJuPuSu, Salo, Siikalatva

Region	Municipality	Number of inhabitants	Overall index Max 210	Index 1 Access Max 32	Index 2 Community affairs Max 32	Index 3 Services Max 38	Index 4 Politics and administration Max 66	Index 5 Communication And feedback Max 42
FIN Oriseutu	Längelmäki	1 734	3 (16%)	5 (16%)	9 (28%)	9 (24%)	4 (6%)	6 (14%)
FIN Oriseutu	Juupajoki	2 252	47 (22%)	6 (19%)	11 (34%)	8 (21%)	12 (20%)	8 (19%)
FIN Oriseutu	Orivesi	8 839	73 (35%)	3 (9%)	18 (56%)	15 (39%)	28 (42%)	7 (17%)
FIN RaJuPuSu	Puumala	2 867	44 (21%)	10 (31%)	5 (16%)	11 (29%)	12 (18%)	6 (14%)
FIN RaJuPuSu	Joroinen	5 273	54 (26%)	6 (19%)	14 (44%)	6 (16%)	20 (30%)	8 (19%)
FIN RaJuPuSu	Sulkava	3 306	61 (29%)	3 (9%)	19 (59%)	6 (16%)	25 (38%)	8 (19%)
FIN RaJuPuSu	Juva	7 446	67 (32%)	6 (19%)	21 (66%)	12 (32%)	18 (27%)	8 (19%)
FIN RaJuPuSu	Rantasalmi	4 435	88 (42%)	13 (41%)	27 (84%)	16 (42%)	16 (24%)	12 (29%)
FIN Salo	Särkisalo	723	4 (2%)	2 (6%)	0 (0%)	0 (0%)	0 (0%)	2 (5%)
FIN Salo	Suomusjärvi	1 311	40 (19%)	9 (28%)	11 (34%)	10 (26%)	2 (3%)	8 (19%)
FIN Salo	Kuusjoki	1 800	43 (20%)	7 (22%)	14 (44%)	12 (32%)	4 (6%)	6 (14%)
FIN Salo	Muurla	1 444	43 (20%)	5 (16%)	6 (19%)	8 (21%)	18 (27%)	6 (14%)
FIN Salo	Kisko	1 912	44 (21%)	7 (22%)	15 (47%)	10 (26%)	2 (3%)	8 (19%)
FIN Salo	Pertteli	3 773	44 (21%)	5 (16%)	11 (34%)	14 (37%)	10 (15%)	4 (10%)
FIN Salo	Kiikala	1 875	47 (22%)	7 (22%)	15 (47%)	12 (32%)	5 (8%)	8 (19%)
FIN Salo	Perniö	6 023	47 (22%)	9 (28%)	11 (34%)	12 (32%)	6 (9%)	6 (14%)
FIN Salo	Somero	9 680	63 (30%)	9 (28%)	18 (56%)	12 (32%)	16 (24%)	8 (19%)
FIN Salo	Salo	24 974	74 (35%)	5 (16%)	20 (63%)	12 (32%)	29 (44%)	8 (19%)
FIN Salo	Halikko	9 374	75 (36%)	7 (22%)	12 (38%)	10 (26%)	34 (52%)	12 (29%)
FIN Siikalatva	Piippola	1 377	48 (23%)	8 (25%)	14 (44%)	4 (11%)	12 (18%)	8 (19%)
FIN Siikalatva	Pyhäntä	1 845	58 (28%)	8 (25%)	16 (50%)	10 (26%)	16 (24%)	8 (19%)
FIN Siikalatva	Haapavesi	7 818	61 (29%)	11 (34%)	20 (63%)	12 (32%)	11 (17%)	6 (14%)
FIN Siikalatva	Kestilä	1 711	65 (31%)	10 (31%)	15 (47%)	14 (37%)	20 (30%)	6 (14%)
FIN Siikalatva	Rantsila	2 079	65 (31%)	9 (28%)	12 (38%)	12 (32%)	22 (33%)	10 (24%)
FIN Siikalatva	Pulkkila	1 721	73 (35%)	9 (28%)	12 (38%)	15 (39%)	28 (42%)	8 (19%)

Table 5: Norwegian reference regions: Demokratitorget, Aust-Agder, Fjellregionen, Fosen

Region	Municipality	Number of inhabitants	Overall index Max 210	Index 1 Access Max 32	Index 2 Community affairs Max 32	Index 3 Services Max 38	Index 4 Politics and administration Max 66	Index 5 Communication And feedback Max 42	
NOR	Demokratitorget	Kristiansand	75 280	80 (38%)	8 (25%)	14 (44%)	12 (32%)	34 (52%)	10 (24%)
NOR	Aust-Agder	Grimstad	18 740	36 (17%)	7 (22%)	7 (22%)	11 (29%)	0 (0%)	6 (14%)
NOR	Aust-Agder	Froland	4 698	55 (26%)	5 (16%)	10 (31%)	10 (26%)	22 (33%)	7 (17%)
NOR	Aust-Agder	Vegårshei	1 856	62 (30%)	16 (50%)	14 (44%)	15 (39%)	11 (17%)	6 (14%)
NOR	Aust-Agder	Arendal	39 495	71 (34%)	8 (25%)	16 (50%)	11 (29%)	33 (50%)	3 (7%)
NOR	Aust-Agder	Amlie	1 859	77 (37%)	13 (41%)	17 (53%)	16 (42%)	20 (30%)	10 (24%)
NOR	Aust-Agder	Risor	6 938	77 (37%)	6 (19%)	19 (59%)	14 (37%)	27 (41%)	9 (21%)
NOR	Aust-Agder	Gjerstad	2 541	79 (38%)	14 (44%)	15 (47%)	17 (45%)	21 (32%)	12 (29%)
NOR	Aust-Agder	Tvedestrand	5 887	100 (48%)	10 (31%)	21 (66%)	19 (50%)	32 (48%)	13 (31%)
NOR	Fjellregionen	Røros	5 632	14 (7%)	5 (16%)	5 (16%)	4 (11%)	0 (0%)	0 (0%)
NOR	Fjellregionen	Os	2 131	46 (22%)	10 (31%)	17 (53%)	14 (37%)	1 (2%)	4 (10%)
NOR	Fjellregionen	Tolga	1 781	68 (32%)	14 (44%)	18 (56%)	9 (24%)	14 (21%)	10 (24%)
NOR	Fjellregionen	Alvdal	2 406	72 (34%)	11 (34%)	19 (59%)	12 (32%)	18 (27%)	12 (29%)
NOR	Fjellregionen	Rendalen	2 146	73 (35%)	11 (34%)	19 (59%)	13 (34%)	17 (26%)	10 (24%)
NOR	Fjellregionen	Folldal	1 739	85 (40%)	13 (41%)	22 (69%)	10 (26%)	29 (44%)	11 (26%)
NOR	Fjellregionen	Tynset	5 463	87 (41%)	13 (41%)	22 (69%)	10 (26%)	29 (44%)	10 (24%)
NOR	Fosen	Verran	2 684	49 (23%)	5 (16%)	14 (44%)	10 (26%)	18 (27%)	2 (5%)
NOR	Fosen	Rissa	6 384	71 (34%)	16 (50%)	20 (63%)	12 (32%)	15 (23%)	6 (14%)
NOR	Fosen	Roan	1 073	85 (40%)	15 (47%)	17 (53%)	20 (53%)	20 (30%)	8 (19%)
NOR	Fosen	Åfjord	3 332	88 (42%)	15 (47%)	19 (59%)	21 (55%)	21 (32%)	6 (14%)
NOR	Fosen	Mosvik	887	88 (42%)	17 (53%)	17 (53%)	24 (63%)	20 (30%)	6 (14%)
NOR	Fosen	Leksvik	3 511	90 (43%)	14 (44%)	21 (66%)	18 (47%)	22 (33%)	10 (24%)
NOR	Fosen	Bjugn	4 717	91 (43%)	17 (53%)	20 (63%)	21 (55%)	24 (36%)	4 (10%)
NOR	Fosen	Orland	5 169	103 (49%)	17 (53%)	20 (63%)	26 (68%)	25 (38%)	10 (24%)
NOR	Fosen	Osen	1 005	106 (50%)	20 (63%)	21 (66%)	22 (58%)	35 (53%)	4 (10%)

Table 6: Norwegian reference regions: OTIIN, Salten

Region	Municipality	Number of inhabitants	Overall index Max 210	Index 1 Access Max 32	Index 2 Community affairs Max 32	Index 3 Services Max 38	Index 4 Politics and administration Max 66	Index 5 Communication And feedback Max 42
NOR OTIIN	Grong	2 530	63 (30%)	17 (53%)	14 (44%)	12 (32%)	12 (18%)	8 (19%)
NOR OTIIN	Namnsskogan	958	74 (35%)	17 (53%)	12 (38%)	19 (50%)	15 (23%)	8 (19%)
NOR OTIIN	Røyrvik	539	74 (35%)	17 (53%)	19 (59%)	18 (47%)	10 (15%)	8 (19%)
NOR OTIIN	Høylandet	1 258	85 (40%)	17 (53%)	14 (44%)	18 (47%)	26 (39%)	8 (19%)
NOR OTIIN	Snåsa	2 296	91 (43%)	17 (53%)	21 (66%)	19 (50%)	20 (30%)	8 (19%)
NOR OTIIN	Lierne	1 535	92 (44%)	18 (56%)	20 (63%)	18 (47%)	21 (32%)	12 (29%)
NOR Salten	Skjerstad	1 030	3 (1%)	0 (0%)	3 (9%)	0 (0%)	0 (0%)	0 (0%)
NOR Salten	Fauske	9 627	43 (20%)	6 (19%)	15 (47%)	9 (24%)	7 (11%)	4 (10%)
NOR Salten	Gildeskål	2 215	48 (23%)	3 (9%)	10 (31%)	11 (29%)	15 (23%)	9 (21%)
NOR Salten	Steigen	2 863	64 (30%)	7 (22%)	17 (53%)	10 (26%)	22 (33%)	8 (19%)
NOR Salten	Saltdal	4 823	69 (33%)	6 (19%)	19 (59%)	13 (34%)	21 (32%)	8 (19%)
NOR Salten	Sørfold	2 184	75 (36%)	6 (19%)	18 (56%)	18 (47%)	18 (27%)	13 (31%)
NOR Salten	Beiarn	1 183	79 (38%)	9 (28%)	15 (47%)	11 (29%)	34 (52%)	8 (19%)
NOR Salten	Meløy	6 772	80 (38%)	7 (22%)	16 (50%)	16 (42%)	31 (47%)	6 (14%)
NOR Salten	Bodø	42 745	83 (40%)	8 (25%)	22 (69%)	12 (32%)	27 (41%)	12 (29%)
NOR Salten	Hamarøy	1 872	85 (40%)	10 (31%)	19 (59%)	14 (37%)	23 (35%)	12 (29%)