



ITRACT

InterReg North Sea project

WP3 – Toolbox Report

Rogaland County 2012

The main purpose of WP3 (work package 3) of the ITRACT project is to determine what to prioritize in the ITRACT project for each region based on the characteristics and needs of the region.

Content:

1	Tool 1 Customer Needs Assessment.....	2
2	Tool 2 Target Group Selection and User Persona Design.....	4
3	Tool 3 Transport Challenge.....	7
4	Tool 4 Regional Context	8

1 Tool 1 Customer Needs Assessment

The purpose with the template is to provide guidance in using the tool. The template is not strictly mandatory. It should be used as support when performing and documenting the results from the activity. Target size for the assessment is 1500 words (excluding quantitative data if needed, models and pictures).

1.1 General description of the region

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Rogaland County is located on the south- west coast of Norway. Population 440.000 inhabitants. It is divided into four distinct areas with different qualities and challenges:

- Dalane (south), 4 municipalities with a small population.
- North-Jæren – the most populated area, which we are going to focus on in this project. Densely populated and a farming area.
- Ryfylke – an archipelago of islands north of Stavanger. Tied together by ferry connections, bridges and subsea tunnels.
- North Rogaland – the secondmost populated area, in the north
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Stavanger is the county capital, with approx. 128.000 inhabitants and twin city Sandnes approx. 70.000. But when including the surrounding municipalities, we have a population of approx. 300.000. The population grows quickly because the oil industry still is in need of more manpower. Housing is a problem, as we so far have been unable to build new houses as quickly as wanted. New residential areas will be built outside the urban area.

We have a very low share of public transport, only 7 %. The main roads are jammed during rush hours, and we want to increase the public transport rate.

1.2 Approach used to perform customer needs assessment

The need assessment is developed by a group consisting of county representatives University, road authorities, and public transport authorities.

1.3 Identified user needs for the region

The Stavanger- Sandnes region has several traffic issues that are partly interlinked and needs solutions:

1. Most people are troubled by the rush hour delays-
2. Access to parking in the working areas like Forus, Risavika, Dusavika, Buøy etc is slowing down the traffic system in the rush hours
3. Rural areas need better public transport but rural areas lack the necessary volume of passengers.
4. Buses go between the city centres of Stavanger or Sandnes, and only to a limited degree directly between residential areas and working areas when these are out of the corridor between these city centres.
5. Future new areas for houses will significantly increase number of people that commute, and our goal is to avoid increasing the rush hour traffic by making public transport more attractive.
6. Bus capacity is filled up in during rush hours in central areas, but has low utilization the rest of the day.
7. Parking spaces are often filled up in many areas like Forus (work places), the University, etc.

2 Tool 2 Target Group Selection and User Persona Design

The purpose with the template is to provide guidance in using the tool. The template is not strictly mandatory. It should be used as support when performing and documenting the results from the activity. Target size for the selection of target group is 1000 words and for each the user persona design 1500 words (excluding quantitative data if needed, models and pictures).

2.1 Target group for the Stavanger region

The main goal for the Stavanger region is to provide better public transport by utilizing new technology to prioritize buses. As this is a recognized problem during rush hours in urban areas, the target group is the commuters going between home and work or school.

The figure below shows where people live, and the area marked as FORUS has the highest number of employees, and of various companies including highest number of new companies.

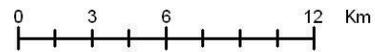
The consequence is that the majority of the workers have to commute between home and work. ***Our target is as such the commuting citizens*** who in most cases use private cars now, whereas public authorities wishes a larger percentage to change to public transportation and bicycles.

We estimate that 70% of a population of 300 000 in the North Jæren area are commuting every day.

Kolumbus, the local public transport authority, is developing apps for citizens to use when planning a bus trip, in order to know exactly when to expect the bus. This will be implemented in October 2012. We also have systems to prioritise buses through traffic lights.

Therefore, for our target, the commuting citizens, we have following priority.

We want to set up tests to find how these new tools actually are performing, and we want to see how this information system can be utilized if connected to the true-time controlling system. So in a longer term we want results that improves commuting by public transportation so much that a higher percentage of the population choose public transport.



2.2 User persona(s) representing the target group for the Stavanger region

The commuting people are the users of our services. A long term goal is to get more commuters to use public transport. We do not know what that may involve of reduced travel time, reduced delays of busses, improved information, and better service.

But, we do know that Kolumbus, the local public transport authority, will have new apps in the autumn 2012 to improve the information to end users.

So, the intentions for iTract in Rogaland are:

- 1) To test impact of the new apps and compare them with the apps developed in ITRACTs other regions, and**
- 2) To see if or how the information from the new apps can be used together with the realtime system to control traffic. The realtime system may be used to improve transportation time and scheduled arrivals.**

3 Tool 3 Transport Challenge

The purpose with the template is to provide guidance in using the tool. The template is not strictly mandatory. It should be used as support when performing and documenting the results from the activity. Target size for each presentation of transport challenges is 1500 words (excluding quantitative data if needed, models and pictures).

3.1 Transport challenges to address in the service innovation for the Stavanger region

The transport challenges in the region are listed under tool 1.

Several possibilities can be seen as possible solutions:

- 1) Buses in rural areas on demand in addition to scheduled buses
- 2) Provide Wi-Fi/ internet/ phone information of actual arrival times of busses, trains and ferries (today such solutions only tells schedule in general or where you are)
- 3) Building new tunnels: Eiganes tunnel, Ryfast tunnel, Rogfast tunnel..
- 4) Improving capacity on existing roads by changing or controlling crossroad points
- 5) Building a city-railroad system
- 6) Increased separation of cars/ busses and bicycles (separate lanes for busses)
- 7) Building separate buss-roads to reduce rush hour impact on scheduled buses
- 8) Access control in working areas like Forus by utilizing chips in cars like those now used for automatic toll road payment
- 9) Traffic regulations by signs redirecting parts of traffic to reduce rush delays
- 10) Extending the motorway beyond Gjesdal (further south)
- 11) Improving capacity on existing roads by adding extra lanes
- 12) Increase payment in toll-road system for private cars during rush hours.
- 13) Increase coordination between various buses, ferries, and railroads to reduce travel time

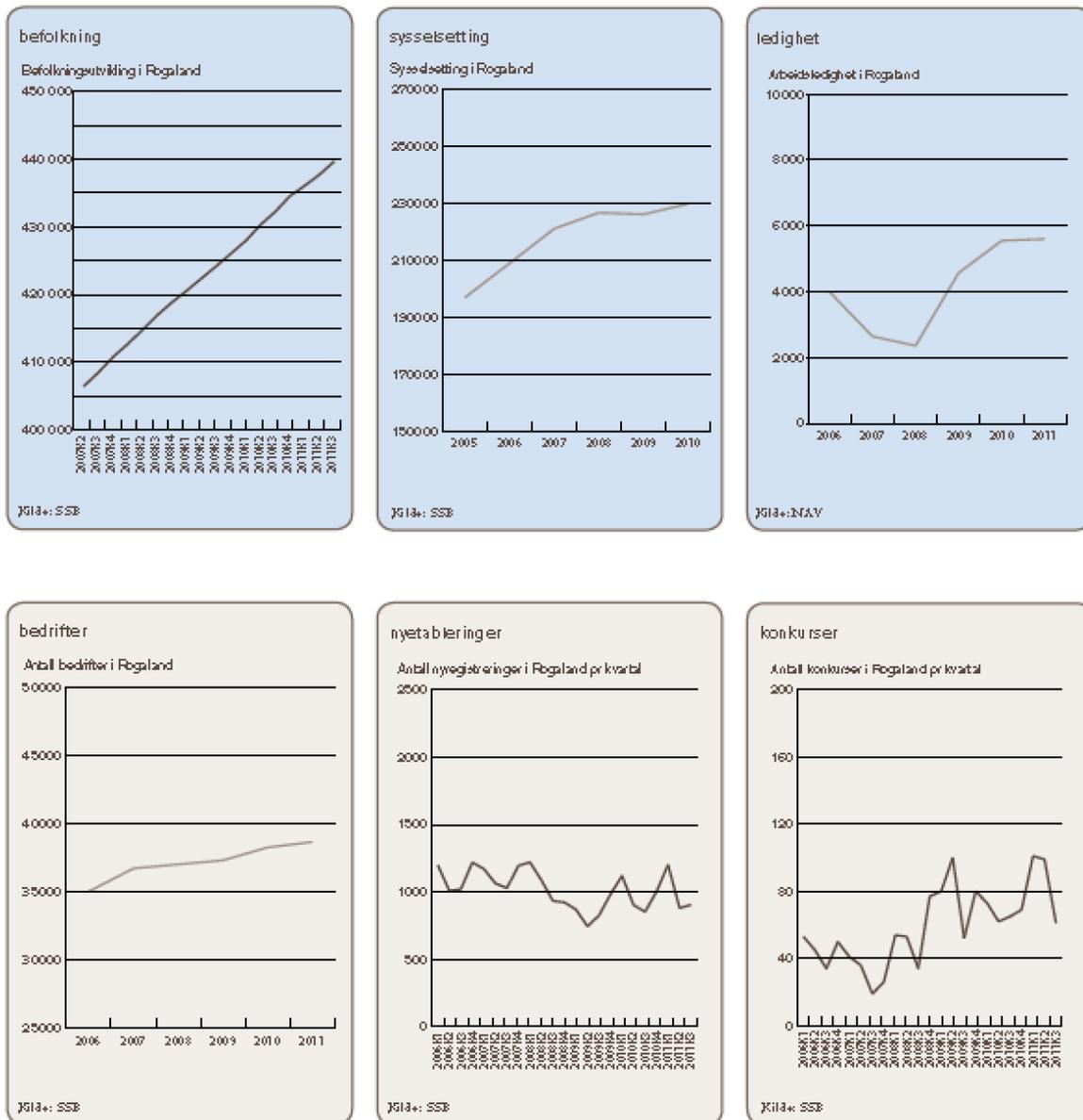
The information system today is based on planned schedule, not real time. The travellers want real time solutions in order to increase their use of public transportation.

An important target is to increase the end user satisfaction with the information system and public transportation generally.

4 Tool 4 Regional Context

The purpose with the template is to provide guidance in using the tool. The template is not strictly mandatory. It should be used as support when performing and documenting the results from the activity. Target size for each presentation of transport challenges is 1500 words (excluding quantitative data if needed, models and pictures).

4.1 Regional Context

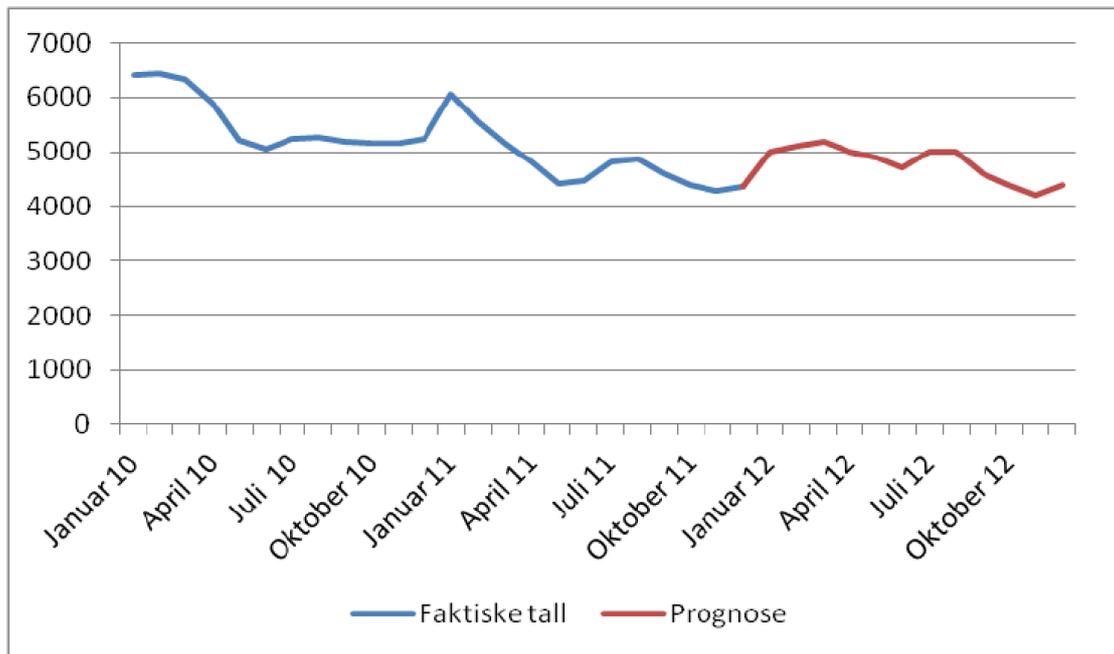


The illustrations above come from Greater Stavanger Economic Development, showing illustrations above from left to right:

Top diagrams: Population, employment, unemployment..

Lower diagrams: Number of companies in Rogaland, new companies, bankruptcies.

Utvikling i antall helt ledige



Kilde: NAV

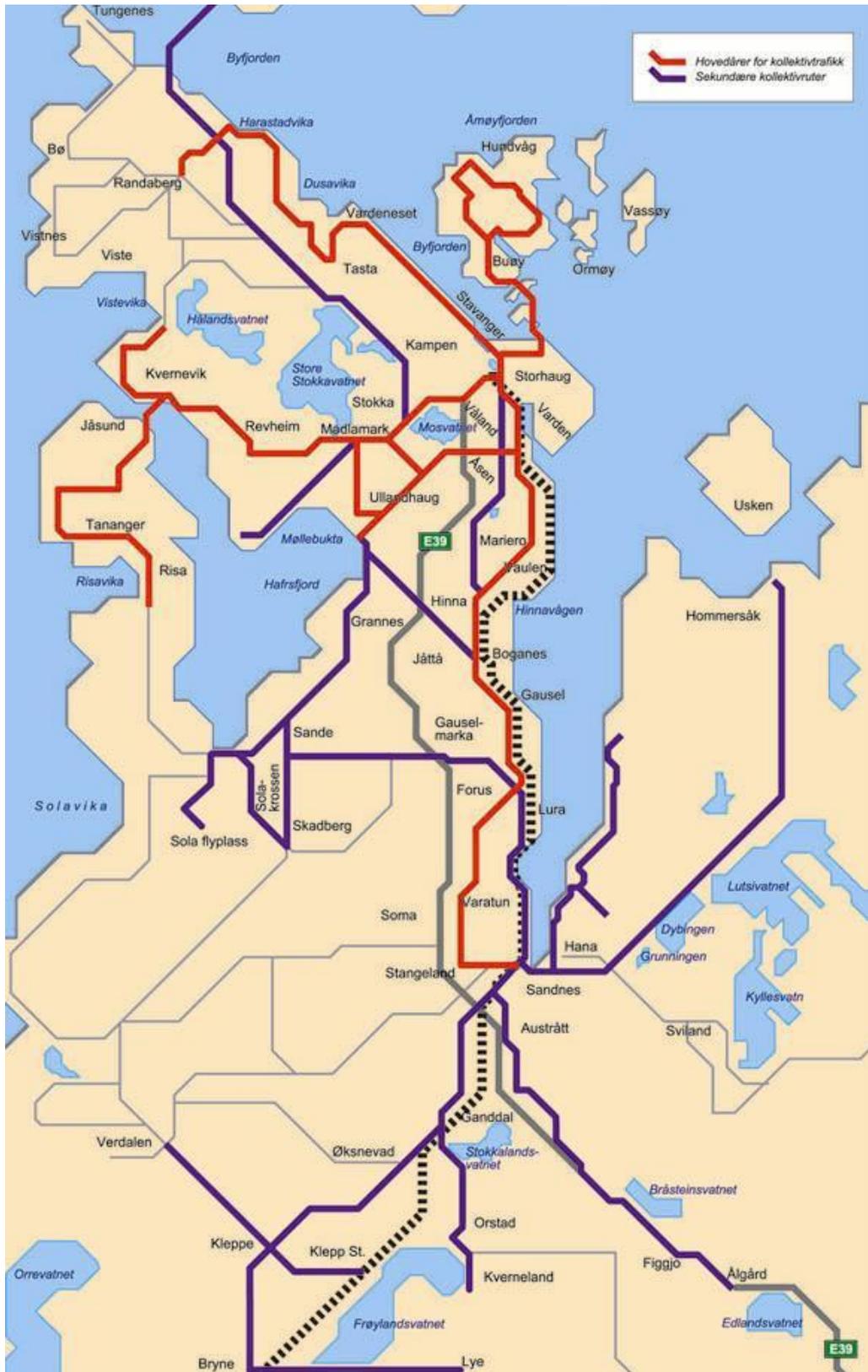
From Greater Stavanger Economic Development forum illustration the trend of unemployed people in region, dating from January 2012. The red lines is a prognosis for 2012.

Employment by industry. Average percentage, 2009. 1 000

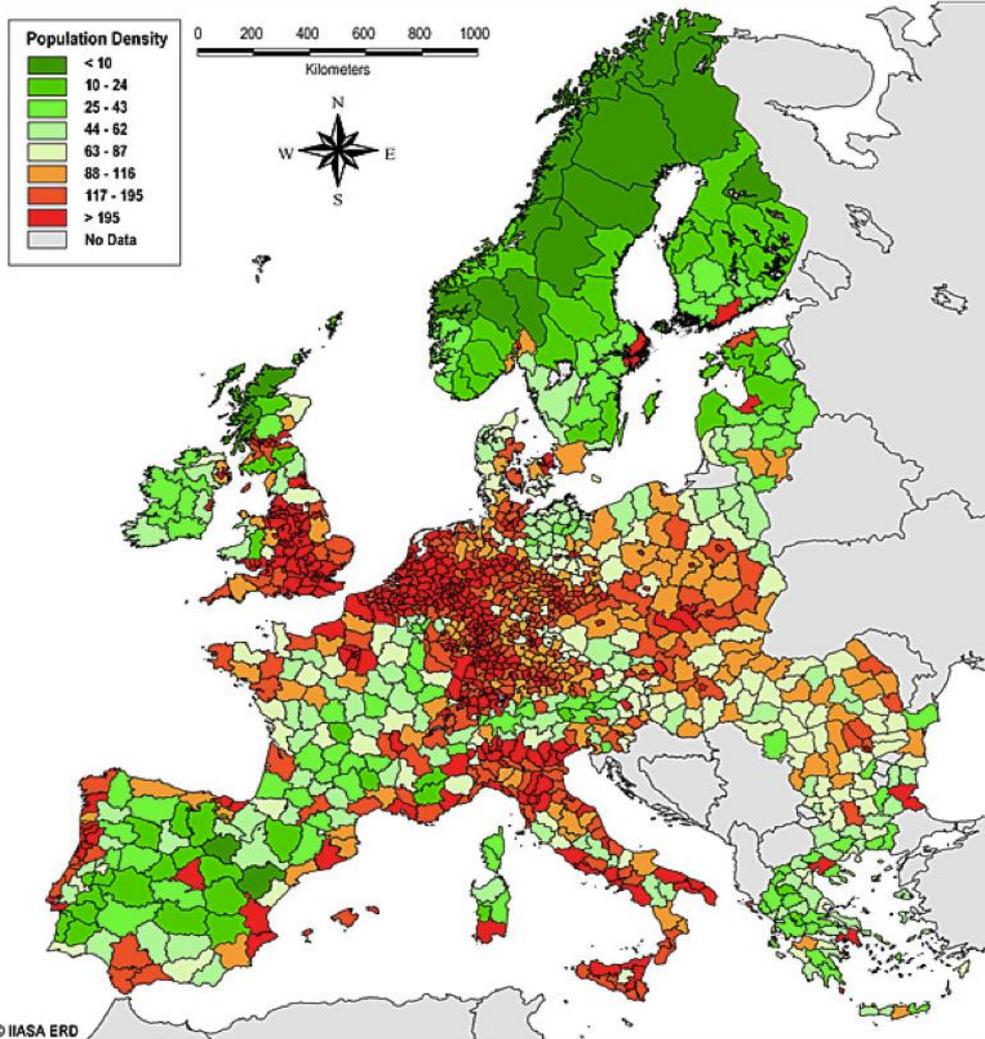
	Per cent	Total	Male	Female
Total (including "not stated")	100.0	2 508	1 317	1 191
Agriculture, forestry and fisheries	2.7	67	53	14
Mining and quarrying	1.8	45	35	9
Manufacturing	9.9	248	195	53
Electricity, water and refuse disposal	1.2	31	24	7
Construction	7.2	180	166	14
Retail, repair of motor vehicles	13.8	345	182	163
Transport, storage and warehousing	5.3	134	104	30
Hotel and restaurant	2.7	68	25	43
Information and communications	3.7	93	65	28
Financial services and insurance	2.1	53	28	25
Technical activities, real estate	6.6	165	99	66
Business activities	3.9	99	53	46
Public administration, defence and social insurance	6.3	157	85	72
Education	8.2	206	70	135
Health and social work	20.7	518	91	428
Personal services	3.9	98	41	58

Source: Statistics Norway.

More information: http://www.ssb.no/aku_en/

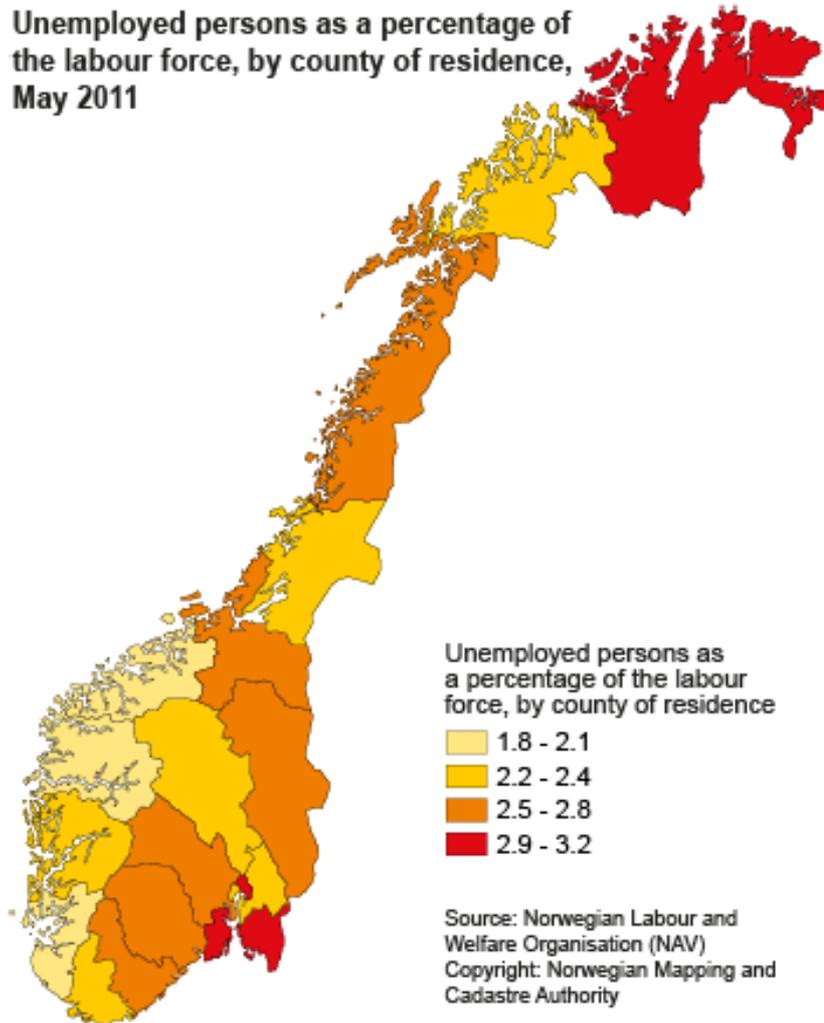


Main bus corridors in red, secondary in blue.



Population density in European regions

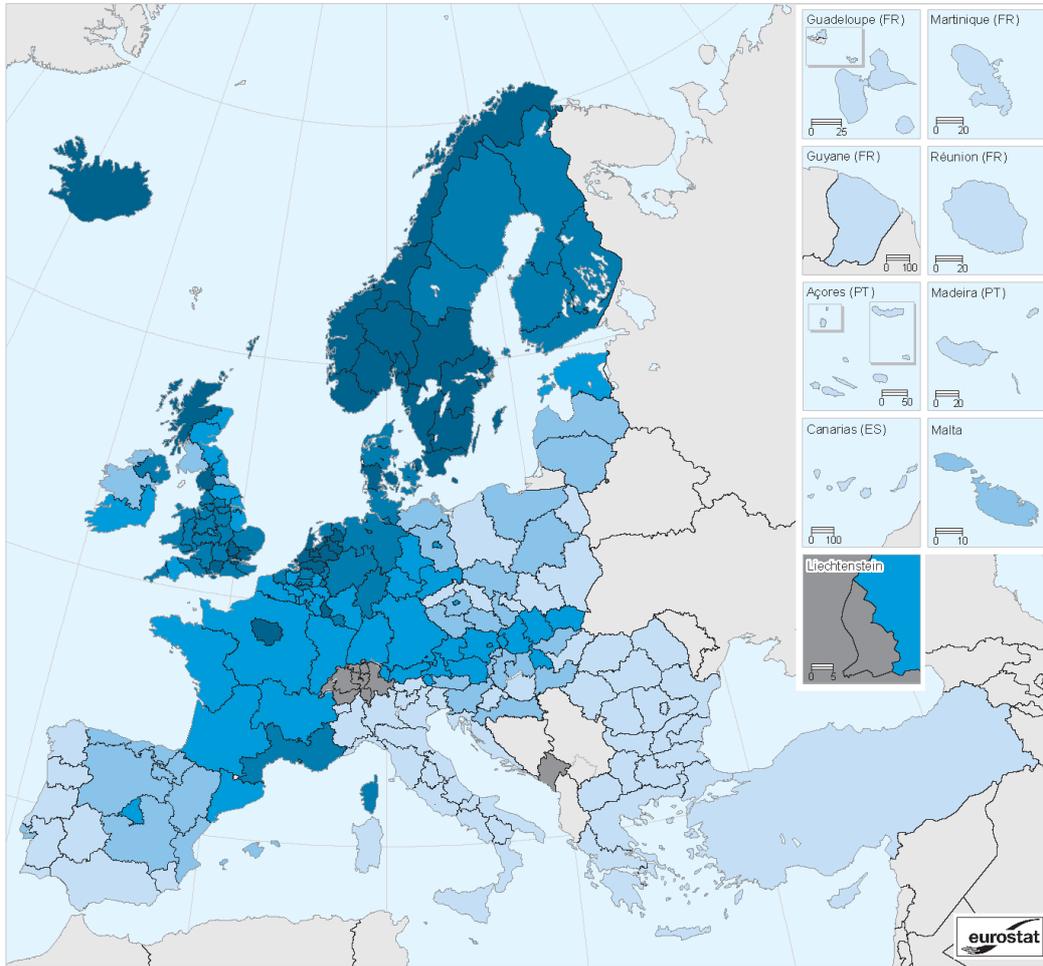
Unemployed persons as a percentage of the labour force, by county of residence, May 2011



Key figures 2010:	
Total petroleum production	230.3 million Sm ³ o.e.
Distributed into petroleum products	
Oil	104.4 mill. Sm ³ o.e., this amounts to 1.8 million barrels a day
Gas	106.4 mill. Sm ³ o.e.
NGL	15.4 mill. Sm ³ o.e.
Condensate	4.1 mill. Sm ³ o.e.
Estimated resources	
Total resources on Norwegian shelf	13 400 Sm ³ o.e.
Remaining resources	8 100 mill. Sm ³ o.e.

Key figures for the petroleum activities that dominate the Regaland region.

Regular use of the Internet, by NUTS 2 regions, 2010 (*)
(% of persons who accessed the Internet on average at least once a week)



(% of persons who accessed the Internet on average at least once a week)
EU-27 = 65



Administrative boundaries: © EuroGeographics © UN-FAO © Turkstat
Cartography: Eurostat — GISCO, 04/2012



(*) Devon (UKK4) and Highlands and Islands (UKM6), 2008; Lincolnshire (UKF3), 2007; North Eastern Scotland (UKM5), 2006; Germany, Greece, France and Poland, by NUTS 1 regions; Slovenia and Turkey, national level; Länsi-Suomi (F119) and Åland (F120) are combined.

Source: Eurostat (online data code: [isoc_r_iuse](#))