I N T E R R E G N O R T H S E A

ITRACT

Improving Transport and Accessibility through new Communication Technologies

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A newsletter No 1, Spring 2012






ITRACT in short:

The accessibility of regions is a clear advantage in terms of their social-economic development. With new technologies, such as satellite and integrated sensor networks, transport and accessibility of remote areas can be improved in innovative ways. We intend to develop and test innovative tools for efficient, user- and environment-friendly transport networks across the NSR.

Our aim is to create sustainable and inclusive regional economies and communities throughout the North Sea Region by improving the virtual and physical modes of transport on a large scale.

Many regions have problems with traffic and logistics. Outside of city centres public transportation is reduced even if there are common intentions to increase the use of busses etc. In several locations the road capasity in rushhours also suggest a future change from private to public transportation. The iTract project partners believe that utilization of new wireless communication technologies may improve the user experience with public transportation and therefore increase use and availability.

The iTract project is a transnational network intending to develop and test innovative tools in close collaboration between the partners. The network includes regional authorities, tansport companies, institutes and universities that compliment each other for the task.

iTRACT
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ITRACT Lead partner, Contact:

Theo Miljoen,
Hanze University
Groningen, Netherlands
t.a.miljoen@pl.hanze.nl
+31 505955565

ITRACT intends to improve public transportation in the regions through WiFi.

Groningen

Partners in this region are Hanze University of Applied Sciences, University of Groningen, Shuttle Drive, Municipality of Oldambt and OV-bureau Groningen Drenthe.
East Groningen is a geographic region of the Dutch province of Groningen, consisting of the sub regions Oldambt, Veenkoloniën and Westerwolde. The region is enclosed by the Dollard, the German state of Nedersaksen, the province of Drenthe and the region North-Groningen.
In East-Groningen demographics will change considerably in the future: less inhabitants, more elderly and fewer young people. Especially Oldambt will be affected with a population decrease of 19% until 2030. The number of households in this municipality will decrease by 11%.
Where facilities (schools, shops, healthcare etc) disappear or are bundled, they will be located at a greater distance from their users. Alternatives have to be found for people who don't have their own modes of transport (such as the elderly and children) and for transport needs that public transport does not provide. Good accessibility is not just a matter of physical proximity. New ICT applications can provide a new meaning to 'access' . ICT can play an important role in keeping professional services accessible. The challenge is to develop and apply such new forms of accessibility.
With the results of ITRACT the partners in this region want to contribute to a vital and pleasant habitat in East Groningen for current and future residents.

Värmland

Partners are Värmlandstrafik AB (regional public transport organizer) and Karlstad University.
Värmlandstrafik (VTAB) is a regional public transport organizer and provides public transports in the county of Värmland. The main tasks of Värmlandstrafik are to coordinate joint needs of passenger transport, increase the county's accessibility to urban areas and expand the labour market.

Karlstad University has around 12 500 students, and just over 1200 staff. It serves as an important knowledge center and driver for regional innovation and development. ICT research and research on public transports constitutes two of the strongest research areas at the university.
The Department of Computer Science at Karlstad University contribute to ITRACT in developing technical solutions that allow gathering information (such as real-time information on public transport delay) in a scalable way and orchestrate the different information sources. The systems and models that the various stakeholders in public transport use today are different and will require new technologies to adjust the flow of information to a single format.
The Service and Market Oriented Transport Research Group (SAMOT) is a VINN excellence center at Karlstad University, and conduct research into how public transport is experienced and used. They are participating in ITRACT as a support to Värmlandstrafik.

Gothenburg

Viktoria institute is a non-profit IT-research institute located at Lindholmen in Gothenburg in Sweden. Viktoria institute is focusing on automotive and transport informatics and employs approximately 40 researchers. Our projects are mainly directed towards five different application areas closely connected to the Automotive and Transport industries:

- Electromobility
- Cooperative Systems
- Open Vehicle
- Sustainable Transport
- Vehicle Diagnostics

The transport competence area covers applied research with industry actors targeting IT applications that support transportation practices. Utilizing mobile devices embedded in vehicles and stationary systems placed in offices, three examples of IT application areas in the road transport industry are transport management, intelligent transports, and remote vehicle diagnostics. In particular, Viktoria's research focuses on how information infrastructures can be designed to leverage core business activities of highly mobile organizations and how distributed computing and communication capabilities can enable such organizations to exploit resources and explore business opportunities. Given this research direction, key questions concern standards design and diffusion, and architectural innovation.

Project ITRACT is a transnational collaboration network for development.

Yorkshire

The Yorkshire Dales is an upland area of Northern England dissected by numerous valleys.

The area lies within the county boundaries of historic Yorkshire, though it spans the ceremonial counties of North Yorkshire, West Yorkshire and Cumbria. Most of the area falls within the Yorkshire Dales National Park, created in 1954, and now one of the fifteen National parks of Britain, but the term also includes areas to the east of the National Park, notably Nidderdale.

DITA's vision is to ensure that a sustainable transport network underpins and promotes economic prosperity throughout the Dales area, whilst minimising carbon emissions.

By working in partnership through the West Yorkshire Integrated Transport Authority, the Yorkshire Dales National Park Authority and North Yorkshire County Council, DITA intends to specify, secure and promote an agreed integrated network of public and community passenger services in the areas of the Yorkshire Dales National Park and the Nidderdale Area of Outstanding Natural Beauty and the main towns and centres on which they are economically and socially dependent. DITA will not be an operator itself but will facilitate the choice of the best transport: bus, cycling, social car, walking or community bus. We will only achieve this through full and on-going community engagement, so that problems can be identified accurately and solutions designed that are fit for purpose and sustainable..

Niedersachsen

Project partner in Germany:

The Jade University of Applied Sciences in Wilhelmshaven is the new German partner in the ITRACT project.

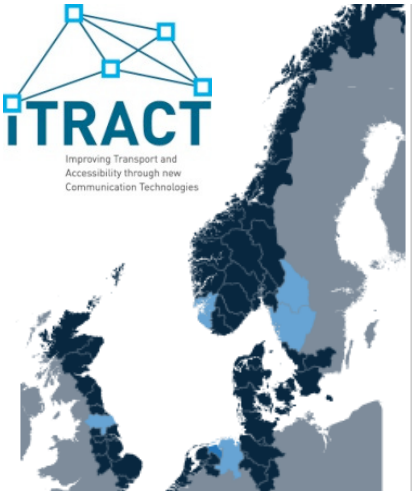
The Jade is going to be work package leader for WP 5. Two of the Wilhelmshaven team members will be especially involved with the work package. One person will focus on the marketing of the project by using modern ICT. The Wilhelmshavener Stadtwerke - which provide the bus traffic for Wilhelmshaven- are already involved in the project by two of our three pilot application designers/developers. The Jadehochschule already has gained some experiences in InterReg IVb project, e.g. in the E-Clic-project. The project coordinator is going to be Juliane Benra (benra@jade-hs.de).

Rogaland

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

1. Most people are troubled by the rush hour delay, which is located between living areas and the main areas for industry, shopping, and offices.
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 being rural lack volume in passengers.
4. Busses go to and from centre of Stavanger or Sandnes, and only to a limited degree direct between living areas and working areas when these are out of the line between town centre.
5. Future new areas for houses will significant increase number of people that commute, and goal is to avoid increase in rush hour traffic by doing the new traffic by public transport.
6. Bus capacity is filled up in much of rush hours in central areas, but has low utilization rest of the day.
7. Limited parking space with capacity often filled up in many areas like Forus, the University, etc

Future public traffic solutions for the region are topics for a public political discussion in the region Spring 2012.



The Interreg IVB North Sea Region Programme

Investing in the future by working together for a sustainable and competitive region

European Union — The European Regional Development Fund

Some Ideas:

• Plan the most optimal route, from address to address, using the public transport. Choose the route you would like to use. And subscribe your route to watch for status updates on your chosen route. Receive status updates, and a new optimal route, when a delay is occurring on one of your routes. And never waste time while travelling again!

• Maintain public transport. Clustering people with similar transport requirements (time, route). Compute most efficient route within cluster. Example: patients to and from a hospital.

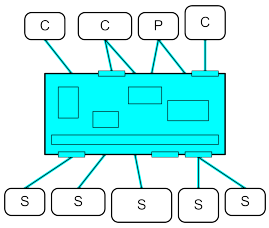
WP2

The "ITRACT" project partners shall smoothly frequently disseminate information. Project external this is done by a website, itract.biz, a brochure, and frequent newsletters.
Internal communication to partners has a platform, projectplace.com , and are done by e-mail, tele-conferences, skype etc.
To ensure easy access to communication we make use of social media, so a LinkedIn group is created to attract professionals.
A Facebook group to make communication smoother with local audiences. This may be extended to local languages. UIS has a site on iTunesU for publishing lecture series and will later establish a project album there for a wider public.

WP3

WorkPackage 3 is defining what to develop as an IT service (e.g. a mobile application) with information about public transport available in one place that may include both on demand traffic and line traffic. The information have to be reliable, easy to comprehend, relevant and user-friendly. Examples of content are: real time information about the vehicles, information regarding payments, delays, changed timetables and other divergences, as well as bookings of on demand traffic. Core topic is to define what functionality for which users in each region, and thus prepare the architecture and implementation.

WP4



WorkPackage 4, "Information Architecture and exchange mechanisms", is focused on realizing an ICT platform which should provide sufficient flexibility to accommodate for the wide variety of requirements from mobile devices. The platform should support static data, for instance train time tables, and dynamic data generated by sensors (e.g. bus locations) and users (e.g. their travel plans). It should also be able to handle real-time events such as a road closure due to an accident. WP4 plans to research, deliver and test such an event oriented service platform.

WP5

WP5 SHALL DEVELOP APPS AND RUN PILOT IMPLEMENTATIONS IN THE REGIONS.

WP6

WP6 shall do evaluation of process and results

The iTract project started late 2011 and will run until late 2014. The partner network have 14 participants in 5 countries.