ITRACT

Improving Transport and Accessibility through new Communication Technologies

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Student assignments
Based on the Service Innovation Worksop of September 2012 and the user scenario's, written for the selected ideas, in the end of 2012 three student assignments were made for developing ICT-applications. In the first months of 2013 ICT and Media students of the Hanze University started working on their assignments.
The use of public transport and car sharing is facilitated by easily accessible, understandable and timely information. More and more travellers have a smart phone or tablet and thus new ways to get their information. Students at Hanze University Groningen develop different ICT applications for the project. The prototypes will be tested among the target groups in the region in the second half of 2013 and the first months of 2014. The students can also make use of

knowledge and experience of colleges and universities in the countries of the project partners involved. Two students will attend the Mid Term Conference in the UK to present and discuss their work.
Applications in development are:
a guide for the new and inexperienced traveller, 'Step by Step'
a 'Get Connected' application for longer trips, including a 'Marketplace' for transport from and to major bus stops or train stations
"Tell us", through which travellers can give their opinion about their journey and share ideas about optimizing public transport
Shuttle Drive, a car sharing system

EU Kijkdagen (EU Open days)
On May 10 and 11 ITRACT presented itself at the EU Kijkdagen in Groningen. Apart from the general information about the project , the first try outs for ICT applications, developed by students, were available on laptops. ITRACT Groningen produced a new folder, a banner and a give-away for this occasion.

The Yorkshire Dales

Dales hub dashboard concept
The Dales Hub Dashboard idea, formulated during the ITRACT Service Innova-

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tion Workshop last year, has now been developed into a tangible solution. Although still quite rudimentary, the hub dashboard can be displayed from any screen to display bus scheduled and real time departures, travel disruption news, local weather and news based on the location of each hub. Demonstrations have now taken place at the Grassington, Pateley Bridge and Leyburn hubs using a portable all-in-one PC. It was encouraging to have two local bus operators in at-

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tendance at Grassington, their valuable feedback will be used to further develop the concept. In **figure 1** you can get an idea of how the hub dashboard currently looks.
In order to get the bus departures part of the display working, the Metro Telematics department put together websites that display both scheduled and Real Time information for a cluster of bus stops across each Dales hub location. This can be seen in the top left of figure 1.

Although this concept uses a free application called **Digital Signage** it is hoped that this concept can be developed further into either a smart phone enabled website or a smart application.

ITRACT presentation in Grassington

On 5th March 2013 an ITRACT presentation took place in the picturesque town of Grassington, within the Town Hall (see figure 2). In attendance there were Dales hub volunteers, local authority and DITA (Dales Integrated Transport Alliance) representatives. This gave a great opportunity to share some of the ideas that were currently being looked at being developed in ITRACT and possible areas for testing these concepts as pilot services.
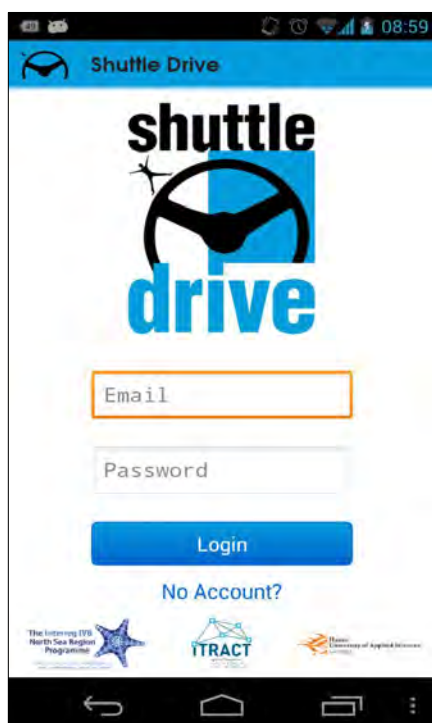
Mobile Data signal strength mapping exercise

Due to the importance of there being some kind of a mobile data signal in areas where ITRACT pilots are likely to take place, focusing around each Dales hub, a signal strength test exercise has now commenced. Using a free Android application called **Root Metrics** (available for the iPhone also) the UK partner has started to test certain networks to find out where smart phone pilot services are likely to face signal strength issues. As Root Metrics success depends on "crowd sourcing" techniques, a request has been sent round to both DITA and ITRACT stakeholders in the UK to download the application and run signal strength tests when in the Yorkshire Dales. This should provide some great results for mobile data signal strength where most needed. An example of what tests have provided in Leyburn and Grassington so far can be seen in figure below.

Region Värmland

Information Architecture Reaches Second Level

The development of the information architecture and exchange mechanisms in WP4 is further under development. Our work has changed focus from an overview level towards a detailed architecture design and implementation for Iteration 2. The backend infrastructure is now capable of gathering static information from different information sources provided by different transport authorities, including timetables and trip information based on GTFS (General Transit Feed Specification). We have integrated several services such as trip-planning and information about public transport stops and routes,

and we provide web service access towards those services. To ensure that we are able to meet high performance requirements we have chosen a virtualized environment in the Cloud. To this extent, we have set up a local Cloud based on OpenStack, which runs our services in a scalable way. In addition, we have installed Wordpress, which gives developers the possibility to use our Cloud as a content store.

Demo Applications

Students from Karlstad University are currently developing two demo applications as a result of the service innovation workshop that was held in Värmland in October. The applications under development are a smart live travel map and a mobile app for order on demand-traffic. We aim to have them ready for pilot test in the fall.

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Swedish Partner Meeting in Stenungssund

The 26th of April Värmlandstrafik arranged a meeting with Swedish ITRACT partners at Hogia in Stenungsund. Our hosts, Hogia, offers solutions and products within the fields of central database management, integration, operation & information control, realtime passenger information and operational follow-up.

During the meeting Hogia presented their public transport systems, and Hogia PubTrans in particular. Per-Erik from Viktoria Swedish ICT told us about the recently completed ISET-project, and the four students from Karlstad University presented their work with developing two demo applications within ITRACT

Region Rogaland, Norway

Rogaland hosted the ITRACT meeting in December 2012. At that stage it was determined that several of the building blocks were of interest to the area. One building block called Traffic Management was also set to be developed in Rogaland, but this was not aimed to be a software unit and therefore not related to WP4. However, early in 2013, we realized that the implementation process at least in Rogaland for a traffic management method, would be too long and could at best start after the end of ITRACT. It was therefore cancelled, and we wait for the building blocks developed at other ITRACT partners. In parrallell with the ITRACT development, the bus company in Rogaland, Kolumbus, had started with a development on their own together with Google. In June 2012 this was released on itunes and for android. It is an APP for planning journeys that checks where the user are, tells about nearby bus stops and scheduled arrivals, and suggests how to get to your destination by public transport.

In February 2013, Kolumbus released another APP. This time it tells you when to expect a bus to arrive in real time, not only according to predefined schedule. This one will also be accompanied by online screens on some bus stops and inside many busses. According to some public feedback the realtime APP is functioning well on some of the routes.

In parallell University of Stavanger have had out a questionnaire to test public opinion about choices for public transport in general, and APP use ands bus on demand. Some simulation models have also been done.

As of May 2013 four students are engaged to plan and do testing in the region. This includes to find and promote the APP use for relevant user groups. And then test the use and attitudes by comparing all ITRACT APPS with the Kolumbus APPS, and to test Bus On Demand as a special issue.

The students will also take part in WP2 as content providers for all relevant medias. A possibility to add video production clips as part of the documentation will be determined later. In Rogaland ITRACT project is a combined prohject between Universuity of Stavanger and Traffic Office of Rogaland County.

Jade University, Germany

The ITRACT project was presented to different groups during the last months. There was a conference about the interreg IVb projects at Wilhelmshaven with an exhibition to the current projects, where Jade University presented ITRACT (see photograph Hannover).

There also was a presentation of the project during the NKIF Conference (Norddeutsche Konferenz zur Informatik an Fachhochschulen) at Wismar where the aims of the project and the current status was presented to members of other north german universities of applied sciences (see photograph Wismar).

Workpackage 5

During the last project period the Jade University of Applied Science in Wilhemshaven responsible for workpackage 5 has established its internal personal structure. Dr. Schmoll from Jade University has entered the project group http://itract-project.eu

of WP5, he is responsible for the marketing of the workpackage like its Facebook presentation as well as other public relationship issues. Following the demand of the entire project the deadline of activity 5.1 (Develop an organisational model for testing and training innovative transport concepts) has been brought forward to end of February 2013: WP5 will provide the application builder within the whole project with a checklist that contains important facts concerning the usability of ITRACT-mobile applications. Usability with regard to ITRACT means that the generated mobile applications comply with the users needs with effectiveness, efficiency and satisfaction. Moreover WP5 was involved in the preparation and organization of the
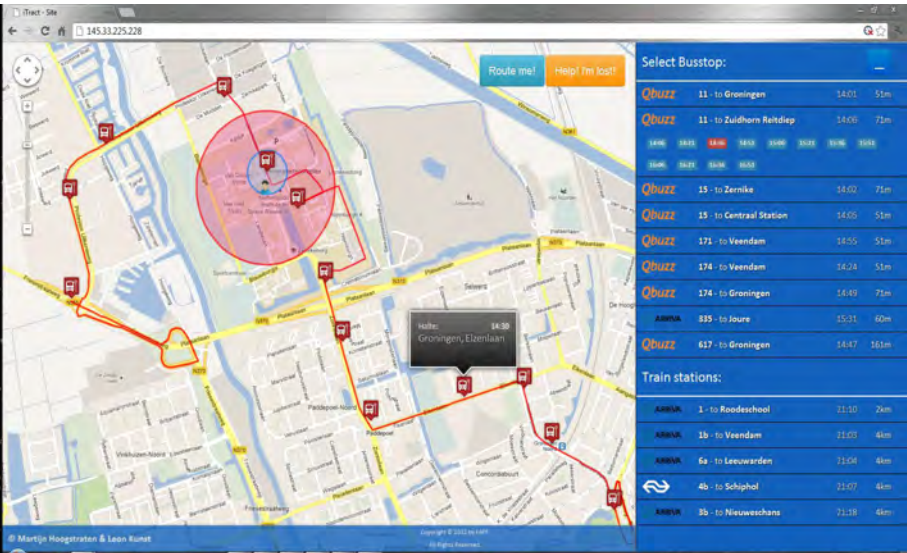

of the SIW organized by VEJ four ideas are already in a process of development at Jade University:

Students as well as scientific staff members have been working on ap-

Stavanger meeting (28th-30th November 2012) that aimed in a prioritized overview of all the service ideas coming from the service innovations workshops (SIW) per region and project members that are responsible for building and realisation these ideas. Based on the results

plications for tracking busses in realtime (hardware solution see pictures), for checking bus tickets of pupils via smartphone, for low cost displays for bus stops in rural areas as well as for an online route network.

Web site of ITRACT.

The website was restructured mid April 2013. The intention was to move the focus from plans and internal processes to results.
So far, more and more content have been added in the new structure, but to keep a site LIVE we need more frequent input from regions and workpackages. The number of visitors per day more than doubled with the new structure. The graph shows the number of visitors per day for last month, and one of three of these visitors are new since the restructuring. Since December 2012 1600 people have visited the site.
It is appreciated if new content to projectplace.com (the project internal communication platt-form) are followed by a mail indicating if new content can be published on the site or in a newsletter.