TRACT



Improving Transport and Accessibility through new Communication Technologies

NEWSLETTER No 7, Spring 2015

Successful Final Conference in Groningen

The ITRACT final conference took place on 4-5 January 2015 in Groningen, the Netherlands. It brought together around 80 people from the partnership and stakeholders intrested in the project and its outputs.

The ITRACT project addresses the need for improving transport and accessibility through new communication technologies. The conference was held on 4-5 January at the Willem-Alexander Auditorium in Groningen. This conference was the culmination of a little more than a three-years Interreg project, involving 16 partners from five European countries.

The first day was for the project partners only, where the remaining

activities were discussed and decided.

During day two, the official program started. After welcome words spoken by Marianne van Os, Vice chairman of the executive board at Hanze University, an overview of lems, Practice Lead at Quint Welthe results in ITRACT were given by Koen Salemink, Ph.D candidate and Prof. Dirk Strijker, University of Groningen.

Many motivational speakers presented great topics that enthused the audience during the day. The keynote speaker, Dr. Frans Thissen, University of Amsterdam, gave a speech about the connectivity of rural older people in a changing countryside and the keynote speaker, Dr. Frank Willington Redwood and Lector at Hanse University spoke about leadership of sustainable communities and what we can learn from olympic sailors and self-organizing high performance teams.

Continued on page 2



Welcome by Marianne van Os, Vice chairman of the executive board at Hanze University.



Many fruitful discussion took place during the workshops.

The Interreg IVB **North Sea Region** Programme /

esting in the future by working together a sustainable and competitive regio

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The Chairman,
Arjen van Leeuwen
intruduces some of
the leaders for the
workshops: Jan Frick,
Professor, University
of Stavanger, Niklas
Johansson, Ph.D,
Viktoria Swedish
ICT AB,
Daan Bultje and
Jacobien Niebuur,
Healthy Ageing
Network Northern
Netherlands.





Prof. Dirk Strijker, University of Groningen (picture 1) and Koen Salemink, Ph.D., candidate, University Groningen, (picture 2) held a work shop on the subject Civic Initiatives and Public Transport.

Three parallel workshops were also held on the ITRACT concept which were very appreciated and inspired to participate in and sharing ideas. The participants could choose to attend workshops: "Co-creation on Smart Mobility," led by Andrew Sage MSc, University of Aberdeen and Eti de Vries, Ph.D. Candidate, Hanze University, "Smart Cycling City" led by Jacobien Niebuur and Daan Bultje, Healthy Ageing Network Northern Netherlands, "Demonstration of the Apps Developed in ITRACT" led by Jan Frick,

Professor, University of Stavanger, "Digital Service Innovation- how do we Create a Better Future", led by Niklas Johansson Ph.D, Viktoria Swedish ICT AB and finally Prof. Dirk Strijker, University of Groningen and Koen Salemink, Ph.D., candidate, University of Groningen held a workshop about "Civic -Initiatives and Public Transport".

The cartoonist Herman Roozen brought humor to the conference. With his drawings as interpreted obstacles in the work of ITRACT, described by the speakers, he brought forth many laughs.

The conference also provided a platform for discussion among the participants on how the results from ITRACT can be built on in the future.



Katarina Nordmark, Värmland and Yolanda Beenen, Eventmanager ITRACT conference.



Workshop - Co-creation on Smart Mobility.



Keynote speaker Dr. Frank Willems, Practice Lead at Quint Wellington Redwood and lector at Hanze University spoke on the subject "Leadership of sustainable communities".



A short break for some gymnastics.



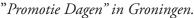
Dr. Hugo Velthuijsen, Hanze Univerity gives Koen Salemink, Ph.D., Candidate, University of Groningen special thanks for all his work in the ITRACT project.



www.itract-project.eu

The Jade-Ems region – Public Relations Activities for ITRACT







"Energiesparmesse" in Wilhelmshaven.

Jade University has been informing about the ITRACT project on many occasions. Two best practice guides and two brochures about the project have been produced.

During travel to the region of Copenhagen and Sonderborg in Denmark Ms. Benra informed stakeholders of universities and communities about the ITRACT project.

ITRACT was presented during the "Energiesparmesse" ("Energy Saving Fair") in Wilhelmshaven in autumn 2014 and on October 14 the project was presented at the "Promotie Dagen" in Groningen by the Jade University. Furthermore, the project was presented by team members from the Jade University During "Open Day" and "Alumni Day" at Jade University.

Best Practice Guides

In summer 2014 a Best Practice Guide concerning WP5 Piloting has been created. Another Best Practice Guide concerning WP5 User Empowerment Activities has been finished in December 2014.

Brochures

Two brochures have been created to inform about the project; One brochure aims more at the target group IT personnel and gives an overview of all the created apps. The other brochure aims for the target group the general public and tells about

the project and its outcome in the Jade Ems Region. There are also some examples shown of the outcome of the other regions. During the final conference in February 2015 these brochures have been presented to the partners and the public.



ITRACT in Sonderborg.

IT solutions for public transport -

Large improvements for passengers in Värmland

Värmlandstrafik in Sweden has been working on new IT solutions for public transport through the ITRACT project. The result is two new apps; one which makes it easier to book demand-responsive transport and another which makes it easier to manage business travel.

– It is nice to see that the project has resulted in significant improvements for passengers here in Värmland, says Anna Stålhammar, Project Coordinator at Värmlandstrafik.

The project began by proposing possible services based on a customer perspective.

– When we have conducted customer surveys, we always get a low rating when it comes to information. We wanted to improve customer satisfaction. But how can you improve the travel experience? That became our starting point, says Anna Stålhammar.

Based on our typical passenger profiles, so called personas, a group of experts began to brainstorm. In the end, they came up with two solutions. One of them was to make it easier to book demand-responsive transport. Previously, customers had to call the booking centre to book their trip. Today, you can easily make the booking yourself via our mobile app and the online journey planner.

The second idea was about making it easier to manage business travel. Within the near future, a new service will be launched where you will be able to pay your journey via our mobile app and receive a mobile ticket while an invoice will be sent to the employer.

In addition to Värmlandstrafik, Karlstad University and Viktoria Swedish ICT AB have also participated in the project in Sweden, using a combination of research and operational-related activities.



Anna Stålhammar, Project Coordinator at Värmlandstrafik.



ITRACT has resulted in significant improvements for passengers in Värmland, Sweden.

Yorkshire Dales:

-ShareRoute Pilot Testing

In the Yorkshire Dales the ITRACT project runs alongside the Connecting the Dales project of the Dales Integrated Transport Alliance (DITA). As part of the Connecting the Dales project, DITA has set up ten transport Hubs. These are local community facilities where members of the public can find out transport information and make transport enquiries.

Several of the Hubs also manage a community transport operation using volunteer drivers and a car or minibus, to meet local transport needs that are not met by scheduled public transport.

ShareRoute is a software package that has been developed with funding from the ITRACT project. ShareRoute provides a journey planner incorporating demand responsive, community transport and taxi options alongside scheduled public transport. It enables Hub managers and members of the general public (through a web interface) to plan journeys that include a mixture of scheduled and non-scheduled transport, and as well as giving options to complete the whole journey by one or the other if available.

ShareRoute enables registered users to book trips by volunteer car, community transport or taxi, and to easily see and manage the trips they have booked. It also enables the operators of those services to accept or reject booked trips, and to manage



Andi Chapple, Hub manager at Sedbergh Hub, testing ShareRoute.

their booked trips.

The ShareRoute Pilot aimed to test the five Apps provided within the ShareRoute software package, with two target groups: (a) Hub managers, and (b) community transport operators. The aim is to find out whether the system will be useful for them (a) for helping members of the general public who come into the Hub with information requests and to book trips, and (b) for managing the community transport operations.

Each Hub manager was visited during the pilot testing to test the software one-on-one. The pilot testing phase went smoothly due to extensive testing of ShareRoute with feedback passed back to the developer to improve the software

before the pilot testing started. Also, it was useful to prepare the Hub managers through the two Hub Workshops before the pilot testing began, so that they knew what to expect. Using Hub managers as the pilot testing group was a good



Katy Penn, Hub manager at Pateley Bridge Hub, testing ShareRoute.

choice because they all have extensive experience with journey planners and responding to transport enquiries from members of the public.

Overall, Hub managers scored the software as satisfactory, and good in some respects. Most felt that further development of the software would be worthwhile, though one Hub manager sounded a cautionary note, saying that "I also worry that it might be a bad idea to try to replace organic, human networks of information and exchange, which are cost-free and indeed add value to the rural society in which they operate, with a technological solution...". On a similar note, other Hub managers commented that their volunteers tended to know about all the transport available locally, so that the need for ShareRoute within the Hubs would be limited to the more complex enquiries for travel outside the immediate geographic area. The future of the pilot will be dependent on finding ongoing funding, and this will be a key area of work for the remaining months of the project.



-Hub Dashboard Pilot Testing

DITA and ITRACT have set up two pilot bus information screens, which can also show additional information "Hub Dashboards". With the Hub Dashboards the general public can easily see when the next bus departures are, and also display other useful local transport information.

The Hub Dashboards are based at two of the ten DITA Hubs, Leyburn Tourist Information Centre, and Grassington National Park Centre. At both of these locations, there are a number of bus services with interchange possibilities, and there is also a community facility (the Hub) nearby where the screen could be sited.

The Hub Dashboards are designed for use by the Hub managers and general public to easily see when the next bus departures are, and also display other useful local transport information, such as information about the DITA Hub, DITA's One Way £1 fare scheme, and any relevant local disruption in-

formation (this was used on the run up to the Tour de France cycle race which passed through both Leyburn and Grassington, for example).

The Hub Dashboard Pilot aimed to test the Hub Dashboard App with two target groups: (a) Hub managers and (b) public transport user representatives on the DITA Advisory Council. The pilot test sessions took the form of one-on-one feedback sessions about the screen for Hub managers, and an emailed questionnaire (with some background information) for the public transport user representatives. The goal was to help understand how useful The Hub Dashboards are to the people who deal the transport requests



The Hub Dashboard screen at Grassington National Park Centre, with Ann Wild, Grassington Hub manager.

and operations on the ground in the Yorkshire Dales, and normal public transport users, and to guide future development and expansion of bus information screens in the Yorkshire Dales.

Test participants rated the screens overall as good. The feedback indicated that the screens are seen as useful but that improvements are required, particularly with regard to the siting of the screens closer to the bus stops, and also to the information displayed. There is also concern about the future of the screens beyond the end of the project as they are currently expensive to run. A cheaper software solution may enable the Hub Dashboard screens to have a more secure future.



The Hub Dashboard at Leyburn Tourist Information Centre, with Martin and Alix Crowson, Hub managers.

-Business Innovation Workshop

The Yorkshire Dales Business Innovation Workshop was held on Tuesday 4 November 2014 to introduce and demonstrate the ShareRoute software pilot.

The workshop was held at West Yorkshire Combined Authority (WYCA) in Leeds to introduce and demonstrate the ShareRoute software pilot developed by the ITRACT project to a range of journey planner, real time information, data and software experts from the passenger transport authorities and transport operators across the Yorkshire region. 14 people attended the workshop.

Lawrence Cocker of Data Images demonstrated ShareRoute's trip



Participants in the workshop.

booking functions, and Ed Beale of West Yorkshire Combined Authority demonstrated the journey planner. Afterwards feedback was given.

- The journey planner and real time information experts of the Yorkshire Partnership thought that ShareRoute was a very good concept and gave us a lot of useful comments to improve the software, for how to market it to different customer segments and about sources of revenue, says Ed Beale. However, they were concerned about how the software would be funded and developed in the longer term.

-User Empowerment Workshop

The new journey planner, ShareRoute was introduced at the Yorkshire Dales ITRACT User Empowerment Workshop on 15 October 2014.

The workshop was held at Hudson House, Reeth, as a basic computer training session looking especially at journey planners and introducing the new journey planner, ShareRoute, which has been developed in the Yorkshire Dales as part of the ITRACT project.

To attract participants to the workshop an advert was placed in the

October issue of the Reeth Gazette. Also posters were put up in Hudson House, the Reeth community centre, library and tourist information centre. A basic guide to using journey planners and ticket booking websites was prepared to be given out to people who attended the User Empowerment Workshop, so that they could follow up on what they had

learned at home. The guide was aimed at showing people the most important information and controls on popular journey planning websites, to make them easier to use.

The event was run by Julie of Quick Start IT, and Ed Beale of West Yorkshire Combined Authority. There were a variety of laptop and tablet devices for people to use. The event was held in the computer room in Hudson House, where there were also four Windows 7 desktop computers for participants to use. As a drop-in session, the event was tailored to the needs of each person who attended. At the end, the participants were shown the pilot version of the new journey planner ShareRoute and feedback was sought about whether they would find it useful.





Participants in the Empowerment workshop.

Seminar in Stavanger – Results from ITRACT were presented

The ITRACT project results were presented and future developemts were discussed at a seminar conducted on 20 January 2015 in Stavanger, Norway.

26 participants came from various companies and public organizations in the region.

Professor Jan Frick gave an overview of the ITRACT project, partners, background and process.

Assc. Professor Thomas Laudal presented the results from three surveys in Rogaland County on user attitudes and response on apps for public transport. One issue was the use pattern by different groups. As example, the realtime app was more used and appreciated in more urban area (with more frequent buses) and the planner app was more used in rural area and in-frequent user groups.

Lina Tremisi, Direction Dévelopement Innovation, Strasbourg, France, gave a speech on status, development, and experiences on apps for public transport in the Strasbourg area. Strasbourg can be seen as being ahead of many other areas in terms of app for transport implementation. A significant difference is that apps merge the public transport tickets with tickets for attractions or entertainment; app based tourism guiding of what visitors see from the bus when travelling, a more flexible RFID based payment etc.

Audun M. Solheim, Kolumbus, presented the apps in use in Rogaland, their development, feedback, and the new functionality that will arrive in app versions this year.

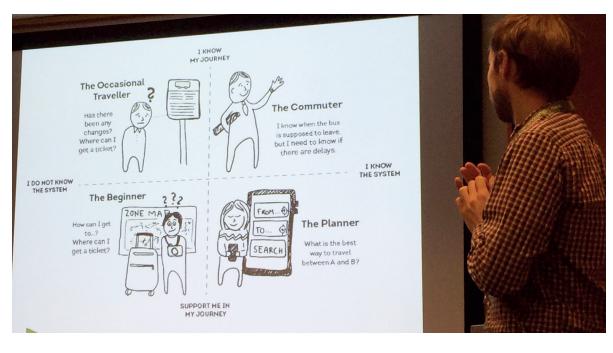
Per Fjeld, Lyse, presented the new Horizon 2020 project Triangulum that starts February 2015 with several partners in Rogaland. Triangulum has Smart Cities with issues including transport as a goal.

Finally, Torfinn Ingeborgrud, local politician from the Green par-



Lina Tremisi, Direction Dévelopement Innovation, Strasbourg, France.

ty, commented on the project and the presentations, and presented his view on future perspectives in terms of how to utilize public transport.



Audun M.
Solheim,
Kolumbus,
presented the
apps in use in
Rogaland.

New infrastructure for public transport planning service

Computer Science at Karlstad University has invested in a new infrastructure to better support the cloud based public transport planning service, that has been developed within the ITRACT project.

The new infrastructure is based on a 10 Gbps fast network to connect the different components that constitute the service within a private cloud. The service that runs on the infrastructure allows users to plan trips in several European areas (whole Sweden including Karlstad, Oslo, Stavanger, Riga, Barcelona, Turin, Berlin, etc.). A beta version of the service is now being tested for user experience by approximately 60 persons.

Updated web client

– During the last few weeks I have been working on implementing services based upon real time data and we at Karlstad University are now proud to present our updated web client, says Andreas Arvidsson.

The client now has full support for three different kind of real time data:

- 1. Vehicle positions. You can now see vehicles traversing the map and each vehicle icon is clickable for additional information about current address, next stop, which line it's running and more.
- 2. Alerts. Every stop or line can now have potential alert messages. This is visualized on the client as a warning triangle next to each effected departure. This icon is of course clickable for more information.
- 3. Trip time updates. All time tables and departure schedules in the client is now up to date and delays in real life will be shown in the application.

All of the above real time feeds are optional and not all transit agencies can supply them to ITRACT. The result of this is that some regions and some agencies have more data and more up to date data than other.



Anders Andreasson and Andreas Arvidsson, two of the developers behind the service, here with the hardware for the new infrastructure.

– We have one agency in our system that has supplied us with all three real time feeds and that is MBTA in Boston, says Andreas.



Departure list with active alerts.



Real time vehicle.

Links to more information

The web application:

http://itract.cs.kau.se/
webClient/

A preliminary Android version:

http://itract.cs.kau.se:8090/ wp-content/uploads/2015/03/ itractplanner.apk

Documentation for the applications: http://itract.cs.kau. se:8090/?p=510

Shuttledrive -

good environmental alternative to private transport

Environmental problems, petrol prices and traffic congestion make it necessary to do something about the car mileage. Shuttledrive brings mobility issues together and reduces CO2 emissions.



Shuttledrive provides an efficient use of car mileage.

Shuttledrive is the dutch variant of the german Mitfahrzentrale, which is a rideshare, where Shuttledrive mediates between offered rides and requests for transport. It is the alternative to private transport. Shuttledrive provides an efficient use of car mileage.

It all started in 2006 when Geert Alberts made a basic website,

www.shuttledrive.nl, which soon got 250 members. In 2009 Geert joined the ITRACT project. Unfortunately Geert suffered a stroke in 2010 but with great help of Jacob Mulder and the students Mathijs Halberstadt and Ben Visser from Hanze University of Applied Sciences and data from Andreas Kassler, Karlstad University, Sweden, the

website www.shuttledrive.eu were optimalized and will be launched at April 1:st.

Geert added an extra idea to Shuttledrive, a spontaneous carsharing for the elderly/disabled.

A stop-pole were people can push the button and see if cars take the

same route as the traveller.

In the near future Gert hopes for the Shuttledrive kiosk to go live. With the kiosk the traveller can ride directly with another driver who has the same route.



Mustard Soup from Groningen

A traditional specialty from Groningen is the mustard soup. It is made with Groningen's regional mustard (although any grainy mustard could substitute pretty nicely).

Ingredients:

50 g butter
50 g flour
1/8 I single cream
1I bouillon
3 tablespoons Groninger
Mustard

Melt the butter, but do not let it colour, add the flour and stir with a wooden spoon. Put this mixture (roux) on a low fire and let it cook

through for 2-3 minutes. Add the hot bouillon while constantly stirring well, then add the mustard and leave to cook gently for another 5 minutes. Just before serving pour in the single cream (do not cook anymore). According to taste, you can add fried bacon, finely chopped, and/or small rings of leek, or chives, or fresh coriander...

Bon appétit!



Results to be proud of!

fter more than three years of collaboration in ITRACT, the project will soon be completed. Our last meeting was the successful final conference in Groningen, during which the results of the project were presented and discussed by several stakeholders. The lessons learned during the project were also discussed and will be of value for the future. Several workshops covered a wide range of topics and were led by a group of inspiring speakers.

During the project, sixteen partners and subpartners from five countries shared their specific knowledge to improve the connectivity and accessibility of remote areas in the North Sea Region, both virtually and physically. Because every region has its own challenges, needs and potential, different perspectives and solutions were weighed and discussed. By broadening the discussion, solutions were sought and found at a more fundamental level.

The involvement of regional partners was very successful. Transport companies, local and regional governments, knowledge institutes and the local people living in the remote areas worked together to find ways to improve the accessibility of their region. By including all stakeholders – in what is called the quadruple helix – the project was able to come up with solutions that addressed the needs of all involved.

Pilot studies were carried out in five regions based on the personas (profiles) developed at the beginning of the project. Seven best practice guides and reports, including a policy report, were delivered to disseminate the results of the project and discuss the actions to be implemented to improve the connectivity and accessibility of the remote areas. Also, more than 40 applications were developed to improve transport to, from and within these areas. These are results to be proud of!

The interdisciplinary approach of the project led to a change in mind-set. Technology experts in the fields of IT, wireless broadband and sensor technology were brought together with socioeconomics experts to develop new products and services. Many of the technology experts experienced a changing and growing awareness of the fact that technological innovation does not happen in isolation. They started realizing that for technological innovation to succeed, it must address the needs of the end-users and stakeholders. In other words, it should be demand driven. This also means that to improve the accessibility of a remote area, it is necessary to improve the digital literacy of the people involved and also to provide the necessary digital infrastructure. The limited availability of broadband capacity and facilities in many rural areas limits the economic and social development of these areas. Digital connectivity can significantly augment physical connectivity and accessibility. Currently, the connectivity of EU regions is restricted by different digital standards and regulations. Limited broadband capacity restricts the potential of digital transport services even further. Improving the connectivity of remote areas, as well as empowering Europeans with limited IT skills, are fundamental to improving the

connectedness of these areas. Therefore, it is of paramount importance to put the European Digital Agenda into effect.

As Lead Partner we would like to thank all our other partners and stakeholders for their input and collaboration, leading to the delivery of impressive results by ITRACT. In the coming period, we will peddle these results to stakeholders, such as politicians at the European, national, regional and local levels. We will also involve transport and other relevant companies in discussions of how best to implement the findings of ITRACT in other regions. New ideas for the period after ITRACT are already being discussed by the partners themselves, and the next steps towards improving the economy in remote areas will soon be taken!



Thanks to all!
Theo Miljoen