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ITS & TRAFFIC MANAGEMENT SUPPLEMENT



ERTICO - ITS Europe's activities in public transport: Taking a holistic approach to mass transit

Hermann Meyer, Chief Executive Officer, ERTICO - ITS Europe

Technologies and components for bus, metro and tram

ITS (UK)

New ITS ecosystem to play remarkable role in future urban transport in Finland

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Chief Executive Officer, ERTICO – ITS Europe

ERTICO – ITS EUROPE'S ACTIVITIES IN PUBLIC TRANSPORT:

Taking a holistic approach to mass transit

Effectively managing traffic on Europe's roads, as well as improving citizens' mobility is vital to the European economy. The free and effective movement of goods and services across the continent provides the foundation of the single market and increasingly close political union. To stay competitive, Europe must ensure that its mobility does not grind to a halt under the pressure of congestion.

In addition to the economic imperative, there is something else at play – the happiness and health of Europe's citizens, especially those living in urban areas. Improving mobility in this context becomes a question of reclaiming public spaces, not simply by managing traffic flows, but by changing the transport mix itself.

At the ERTICO Forum on Urban Mobility, held on 1 December 2011, representatives of both the city of Copenhagen and Brussels spoke about the importance of promoting walking and cycling as well as maintaining a strong focus on public transport. The advent of the congestion charge is also shifting the focus of urban mobility towards these transport modes as the usage of private cars in urban areas has its limits.

The need to reclaim public space from traffic and congestion is felt by more and more citizens. In Brussels, not far from ERTICO's offices in fact, a central square was shut down by a picnic in the streets organised in order to call for more space dedicated to pedestrians and cyclists. Professor Philippe Van Parijs of the University of Leuven explained that "driving around in an urban centre must cease to be the rule and become an

exception" when introducing his plan to picnic in the streets in protest of the city's congestion. How do we balance the wish for mobility alongside the wish for safe, clean and maybe 'undisturbed' public space in the future?

Effective traffic management, then, is no longer simply a question of economics, but one of political survival as citizens begin to realise how mobility impacts their lives. So how can cities and regional authorities hope to improve congestion and keep citizens happy, healthy and mobile? Enter public transport; a vital element of urban transport networks. Intelligent Transport Systems (ITS) will allow for public transport to play an even greater role in Europe's transport mix.

Multimodal transport will also play a much larger role in the realm of European transport. No longer will many citizens see themselves to be limited to the usage of their private cars in cities, instead, with the provision of up to date, reliable travel information, they will be able to make more informed mobility choices. Sometimes that choice will be to take their own car but, increasingly, we foresee a time when taking public transport is no longer seen as a less



In-Time allows travelers to find the most efficient routes using a combination of a variety of transport modes, based on real-time traffic and travel conditions

desirable alternative, but as an effective and convenient means of getting from A to B.

This is a realistic goal. The city of Vienna, where the 2012 ITS World Congress will be held in October, has a goal to reduce the share of private car travel in the city to 25% of the overall transport mix, and to do this, the city has deployed ITS in order to better inform travellers of conditions and provide reliable multimodal travel information. Vienna was a pilot city for the In-Time project the main focus of which was the provision of Multimodal Real-Time Traffic and Travel Information (RTTI) services to drivers and travellers in order to reduce the environmental impact of travel within cities.

In-Time provides users with a multimodal travel planner in the palm of their hand as a software package available on Android, iPhone, Windows Mobile and Nokia smart phones, similar to the standard map applications available on the platforms already. However, In-Time allows travellers to find the most efficient routes within the pilot cities using a combination of a variety of transport modes, based on real-time traffic and travel conditions.

ERTICO's activities within public transport do not tend to focus on it as a standalone concept, but much more as part of a complex

transport mix. If cities – which are the primary markets for mass transit solutions – are to reinvent themselves in terms of how their inhabitants move around them, they cannot focus on single means of transport; they must instead focus on the entire transport network if they hope to overcome the challenges they face.

Much of our work focuses on providing the tools for individuals to make the best possible choice for their mobility. The Instant Mobility project is working to ensure that every journey and every transport movement is part of a fully connected and self optimising ecosystem in

Much of our work focuses on providing the tools for individuals to make the best possible choice for their mobility

which travellers, goods and public transport will benefit from real-time and, crucially, personalised information. ERTICO's involvement in the VIAJEO project is evidence of this commitment. The project is working on the design, testing and deployment of an open platform to facilitate the sharing of real-time data for multimodal information systems.

In addition to the provision of real-time travel information (as well as working on

the systems needed to provide it) cooperative systems have the potential to revolutionise the way public transport, and the urban transport network as a whole, operates. Take, for example, the work being done within the context of the COSMO project. The Gothenburg test site is examining the impact of cooperative systems on the public transport fleet. They are currently testing systems that give buses priority at intersections as well as measures to manage congestion around bus stops.

Two years ago, the ERTICO Partnership implemented the 'ITS for Urban Mobility' initiative, a sphere in which public transport plays a large and growing role. In addition to our work on projects aimed directly at public transport and real-time traffic information, such as In-Time and Instant Mobility, as well as our projects that target public transport more broadly such as FREILOT and COSMO, ERTICO is concentrating on the policy aspects of public transport and urban mobility.

Two forums on ITS for urban mobility have been held over the last year. The first of which focused on cities' needs and how ITS could help city authorities meet their policy goals. The second forum, held on 15 May 2012, was a joint initiative alongside EUROCITIES and the

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European Commission where attendees got a preview of the guidelines on urban mobility produced by the ITS Expert Group.

In addition to this preview, EURO CITIES and ERTICO were invited to give their comments on the draft guidelines with the aim to further develop them.

Ticketing is an area where we have spent some time considering the implications of European policy. We see future approaches to ticketing as being about new technologies and services, modifying relationships between the user and the ticket, changing attitudes and perceptions to public transport and facilitating access for the users to a large variety of services going probably beyond mobility. Indeed, the ITS Expert Group has produced guidelines on ticketing that were discussed at the forum in May.

In the forum, the participating members of the ERTICO Partnership were keen to stress the importance of issues such as fair transactions, reducing leakage and fare avoidance, more efficient operations, accessibility, serving the community and cash based operations. These issues are of vital importance to decision makers within local, regional and national governments and often have large cost and revenue

implications if these issues are not accurately addressed. There are €60 billion worth of ticketing transactions every year, so it is crucial that we ensure any policy guidelines do not have a negative impact on these transactions.

partnership in that it takes a broader view. It does not focus on narrow company or sector interests, but takes a holistic approach. This holistic approach ensures that no element within the transport mix is forgotten and that ITS



In-Time is a smart phone app that provides users with a multimodal travel planner in the palm of their hands

Photo Credit: AustriaTech

Business models and operational issues are increasingly prominent matters in the context of many ITS services. Missing business cases or difficult operational hurdles can lead to policy interventions to 'fill the gap'. There is a need to work more on identifying potential market failures and how they might be fixed. It also needs to be recognised that policy intervention can also damage business cases and lead to unintentional consequences.

ERTICO's work on public transport and urban mobility is focusing on supporting cities to identify appropriate solutions for their goals. The dialogue between city authorities and ERTICO Partners creates mutual understanding between the supply and demand sides and hopefully creates lasting partnerships serving the welfare of citizens.

ERTICO Partners come from many different fields within ITS; vehicle manufacturers, service providers, telecom companies and public authorities. This allows us to look at challenges and ITS solutions of cities from different perspectives, discuss them within our sector platforms and provide input, not just from one group or another, but from a representative slice of the ITS industry. As a result, ERTICO is uniquely placed in its work to help establish a toolkit of ITS deployment that can be used by cities in order to better manage their transport infrastructure. Our work on public transport reflects our

deployment will provide integrated, long-lasting, high value solutions.

ERTICO will be continuing this work, with our Urban Mobility Day at the 2012 ITS World Congress in Vienna. The day will provide high level executive sessions on trends in urban mobility and multimodal information systems. The day will also include demonstrations as well as discussion of the ITS expert group's guidelines on urban mobility and will end with a networking opportunity in order to facilitate cooperation between urban mobility stakeholders.

ERTICO – ITS Europe

ERTICO – ITS Europe represents the interests and expertise of around 100 partners involved in providing Intelligent Transport Systems and Services (ITS). It facilitates the safe, secure, clean, efficient and comfortable mobility of people and goods in Europe and beyond through activities supporting the development and deployment of ITS. Specifically, ERTICO – ITS Europe:

- Provides a platform for its partners to define ITS development and deployment needs
- Acquires and manages publicly funded ITS development and deployment activities on behalf of its partners
- Enhances the awareness of ITS benefits amongst decision makers and opinion leaders
- Contributes to the necessary European framework conditions for the deployment of ITS.

ERTICO – ITS Europe projects are divided into four interconnected activity sectors: CooperativeMobility, InfoMobility, Eco-Mobility and SafeMobility. Each activity sector focuses on different priorities for the development and deployment of Intelligent Transport Systems and Services in Europe.

BIOGRAPHY



Hermann Meyer is currently Chief Executive Officer of ERTICO – ITS Europe, plus the Co-Chair of the Board of Directors of the ITS World Congress, Vice-Chair of the iMobility Forum and a Member of the Coordination Committee of the Network of National ITS Associations. Prior to joining ERTICO, Hermann represented the interests of the Volkswagen Group in the EU institutions in Brussels as Head of the Government Relations Office. He joined Volkswagen in 1995 serving as Manager in the Sustainability Strategy Department and as Head of the Technology and Science Department in the Government Relations Offices in Bonn and Berlin. He was seconded in 1996/1997 to the Principal Policy Department in the German Federal Ministry of Transport and from 2003 to 2006 to the European Car Manufacturing Association (ACEA) as Director of Environmental Policies. Between 2001 and 2003, Hermann headed the Vehicle Technologies Working Group of the Sustainable Mobility 2030 Initiative of the World Business Council for Sustainable Development.

Technologies and components for bus, metro and tram

ITS United Kingdom is the UK's society for all who work in Intelligent Transport Systems (ITS) which can be roughly defined as using IT and communications technologies for surface transport applications. ITS (UK) has a long established Public Transport Interest Group (PTIG) led by Gary Umpleby of Hogia which covers all aspects of using ITS in public transport. This includes information systems, timetabling, safety systems, passenger security, ticketing, fleet management, and much more. The Group enables private and public sector professionals to meet and exchange information and updates in a friendly and open environment, with no selling and no lobbying allowed! Eurotransport asked the PTIG Members for their latest news on technologies and components for bus, metro and tram, and this is what they came up with.

Bus ticket machines smarten up

There is an increasing prominence of smartcard ticketing for public transport which is driving significant investment in new on-bus ticket machines, with public transport authorities and major bus operators taking a leading role in the UK.

Until recently, the on-bus ticket machine was a fairly simple device, but with investment in new technology, ticket machines can now offer real-time bus location and communication capabilities. Although these facilities have been integrated to improve the ticketing service, it now means that Real-Time Passenger Information (RTPI) can be provided without the need for a separate vehicle location unit. The effectiveness of this approach is relatively untested – in particular, using location

information from the ticket machine for traffic signal priority needs evaluating.

The rise of the smart ticket machine creates new opportunities for bus operators and local transport authorities alike, but it also introduces new challenges, operational models and risks. AECOM has been commissioned by Centro (West Midlands PTE) and Metro (West Yorkshire PTE) on behalf of the Passenger Transport Executive Group (pteg) ICT sub-group to engage with the industry and deliver a position statement that will enable the pteg members to be well placed to benefit from these changes in the market and technology.

The position statement evaluates the perceived importance of various technical capabilities and their impact on operations. Because the smart ticket machines do not have

the full functionality of a traditional vehicle location unit, some functions will have to be carried out in different ways and use other facilities within the overall system architecture, but the approach should be more cost effective.

RTPI for rural areas: research at dot.rural Digital Economy Hub, University of Aberdeen

Public transport users require a variety of travel and transport information during the different stages of their journey, such as pre-trip (e.g. planning a journey or just before a journey), en-route and post-trip. Infrastructures, such as Automatic Vehicle Location systems or Variable Message Signs, are required in order to create and provide passengers with this information. However, rural areas often suffer from a lack of such infrastructure, and fewer passengers mean it is not financially feasible for operators or transport authorities to deploy it. However, RTPI is arguably more important in rural and remote areas where the frequency of services is low and passengers tend to make longer journeys.

The Informed Rural Passenger (IRP) project² at the dot.rural Digital Economy Hub, University of Aberdeen, is exploring how advances in mobile communication and technology can help provide users of rural public transport with RTPI. Passengers are at the centre of *GetThere*,



Figure 1: The Informed Rural Passenger project explores how advances in mobile communication and technology can help provide users of rural public transport with RTPI

the RTPI system being developed by IRP, acting as both information providers and receivers. Passengers travelling on public transport can view real-time vehicle locations and be notified of service disruptions, and provide information, including vehicle location, using their mobile phone. For smartphones, the *GetThere* App utilises the phone's GPS (for location) and internet connection (to report and receive disruption information). A version for second-generation phones that will utilise user sent text messages (SMS) is under development.

The information provided by passengers is integrated with open data from various sources (such as government and online communities) using linked data principles. The resulting knowledge base is then analysed by web services and used to provide RTPI to other travellers. The IRP system is scheduled to be deployed in the Scottish Borders region of the United Kingdom during autumn 2012.

Innovative multi-network solution ensures plain sailing in Dorset

The idea of replacing mobile for fixed line appeals as it offers more flexibility, lower initial costs and lower running costs. But improving reliability, security and availability are key, particularly with the increasing demands of RTI, UTM and especially SCOOT.

The ITS (UK) Scheme of the Year 2012 award winner has proven that it is possible to deliver a robust, resilient and cost effective solution. The Dorset CC RTI scheme is able to use all the mobile networks with one SIM, one Private Mobile Network and one set of Fixed IP addresses. This means the best possible multi-network is ready for the Olympics in Weymouth this summer. The system also incorporates billing to the byte, real-time diagnostics, real-time alerts, and SIMs that work reliably wherever the location. This all

means fewer site visits, less data usage and considerably lower revenue costs.

The Vix Technology system is therefore enhanced by using the Mobius Connect SIM and is the first to deploy a true multi-network roaming SIM in the UK. The innovative use of the Connect SIM and the new Vix System led to the ITS (UK) award. Mobius Networks has specialised in delivering high reliability, high security and high availability airtime for the last eight years. With over 40 Local Authorities and four PTE's using their airtime, they were recently



Dorset County Council's RTI scheme won them the ITS (UK) Scheme of the Year 2012 award

the sole awardees of both the RTIG & Centro Framework agreement for airtime in the last six months and are proud members of ITS (UK).

19,000 bus stops in London provide access to RTI

Transport for London (TfL) had a phenomenal advancement in ITS with the introduction of the largest real-time 'Live Bus Arrival' information system in the world, providing passengers with RTI for every one of London's 8,500 buses on 700 routes for all 19,000 bus stops.

The 'Countdown' project capitalised on the iBus system that was fully implemented on buses in 2009. This investment contributed to the substantial improvement in accuracy and availability of bus arrival time predictions. Countdown then ensured that disruption and service information could also be provided and merged with the bus arrival time predictions. The resulting Live Bus Arrival information was to be made available via roadside signs, the fixed and mobile web, text message and as Syndicated Data Feed enabling third parties to develop smartphone Apps.

Following contract award and development of the system, the internet and text message services were officially launched on 17 October 2011 and the Syndicated Data Feed and the rollout of 2,500 new generation roadside signs pan London were completed in June 2012.

The Live Bus Arrival internet and text message service has proved to be a huge success with the public since its launch with many passengers feeling that the information has revolutionised bus travel in the capital forever.

Bus passengers have confidence in the accuracy and availability of predictions with the new system, resulting in passengers spending less time waiting for buses, particularly in times of bad weather or late at night if travelling alone when they can feel vulnerable or exposed.

Countdown has provided RTI in a variety of digital and traditional information channels and has helped remove the uncertainty of bus travel, enabling passengers to make more informed travel decisions.

Staying safe on public transport – the role of technology

Public transport presupposes that people travel in a cooperative manner, and provided everyone does so, individuals should have few fears or concerns for their safety. However, insecurities are introduced and the 'status-quo' undermined as concerns are introduced such as unfamiliar locations, gender, language, time and day, or circumstance (e.g. terrorist or public disorder incidents). This necessitates that authorities take action to provide reassurance through preventative or remedial processes, i.e. security measures and enforcement action.

Technological interventions that supplement human resources are the most efficient and economic means to reassure travellers whilst simultaneously preventing, deterring and detecting offenders. A general awareness of overt and covert detection systems is a major contributor to deterring all but the most determined or reckless offenders, forcing those who are insistent in causing disruption to take elaborate counter-measures to evade detection. In doing so they often expose themselves vulnerable to other detection means; conversely public disorder offenders often render themselves readily identifiable as they fail to hide or adopt a disguise due either to their belligerent attitude, arrogance or drunken ignorance.

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A wide range of ITS technologies such as real-time timetabling, countdown displays at bus stops, the Suzy Lamplugh Trust 'Travel London Safely' App, and 'one-stop-shop' public information booths that are connected to operators at termini help address travellers' fears by offering reassurance and information and also minimising the period when they feel exposed to danger, either en route or waiting

is able to import data in the TranseXChange (TXC) format from a web-based scheduling application for small operators developed for Norfolk CC by Mott MacDonald, as well as from proprietary scheduling packages, for example OmniTIME.

PubTrans™ validates and checks the data for version, consistency and accuracy, before consolidating and outputting in TXC format to

stop displays, on websites and a variety of smartphone applications.

In recent months, Atkins has been working with a number of local authority clients (including Brighton & Hove City Council, East Sussex County Council, Essex County Council, Gloucester County Council and Southampton City Council), with their local bus operators, to design Invest to Save programmes for their RTPI systems for local bus services.

The Invest to Save programmes rely on upfront capital investment to upgrade the current system. This enables system owners to take advantage of some of the newer technologies now being regularly offered by system suppliers. These include the use of GPRS communications and web-based system architectures which allow remote fault management. In addition, the migration by bus operators to ticketing machines with an embodied GPS location is reducing the need for a separate on-bus unit for the RTPI system.

In terms of an Invest to Save programme, these newer technologies allow system providers to offer a reduction in on-going maintenance costs over the contract term, enabling the public to receive an improved service, whilst saving the council money during the lifecycle of the contract.

Such has been the success of the design of these programmes, ITS (UK) are now working with many of these clients to procure and implement their upgraded systems.



for their transport mode to arrive. Supporting these systems are mobile and fixed CCTV systems, many of which are directly inter-linked and are an established feature on most public transport modes.

Sadly, the perceived threat to individuals' safety and security is far greater than the reality and as a consequence the importance that these ITS interventions play in helping influence modal acceptance cannot be underestimated.

Bus registration the 2012 way

Today there is significant pressure on local authorities to process bus registration data from multiple bus operators more efficiently using many different formats. This data needs to be processed into appropriate data formats for the production of timetables and printed bus stop information, downstream travel information systems such as Traveline, and to enable the reliable functioning of RTPI systems.

Working in partnership with Hogia Public Transport Systems AB and Mott MacDonald Limited, Norfolk County Council has deployed a data management solution based on Hogia's advanced data integration and management solution, PubTrans™, which is enabling the Authority to deliver in line with the Government's 'More for Less' agenda.

In Norfolk County Council's case, PubTrans™

third party applications, including the BusNet AVL&RTPI system, bus stop wayside production, electronic display solutions, and web services. Whether static or real-time, the data is consistent being delivered from the single data source.

The solution will also support the delivery of real-time planned deviation from schedule and unplanned service disruption information. Norfolk County Council has realised there are immediate benefits from the solution, including:

- Return on investment of less than three years
- Reduction of 40% in staff time
- Data entry and publication handled in hours rather than weeks
- Significantly greater accuracy in the data available for downstream systems
- Bus tracking increased from 60% to 90%+.

The results are compelling and Norfolk County Council is now able to maintain and deliver the high quality public transport data management services expected by both bus operators and the travelling public, while also delivering the Government's agenda of 'More for Less'.

Invest to Save for bus RTPI systems

RTPI systems enable passengers to have the assurance of when their next bus will arrive by presenting countdown information at bus

References

1. The technical partners for Countdown were: telent Technology Services Ltd and Trapeze ITS with sub-contractors including IVU Traffic Technologies and Trapeze PTS. Roadside signs were provided by Trueform and Vix Acis
2. www.dotrural.ac.uk/irp/

USEFUL CONTACTS:

- Jennie Martin, ITS United Kingdom – jmartin@its-uk.org.uk
- Daniel Hobbs, AECOM – Daniel.hobbs@aecom.com
- Dr. Nagendra Velaga, dot.rural Digital Economy Hub, University of Aberdeen – n.r.velaga@abdn.ac.uk
- Peter Simms, Mobius Networks – peters@mobiustnetworks.co.uk
- The Countdown Team, Transport for London – countdown@tfl-buses.co.uk
- Neal Skelton, ITS United Kingdom – nealskelton@btinternet.com
- Gary Umpleby, Hogia – gary.umpleby@hogia.com
- Gareth Tilley, Atkins – gareth.tilley@atkinsglobal.com

New ITS ecosystem to play remarkable role in future urban transport in Finland

Intelligent Transport Systems and services (ITS) is strengthening its role in urban transport – aiming to establish safe, fluent and environmentally-friendly traffic – to tackle the challenges of this decade’s transport system. Increasing objectives for the environment, productivity and infrastructure management, are causing enormous challenges for transport and traffic – especially in urban regions. Finnish organisations are therefore looking forward to enhance competence in urban ITS solutions with the help of urban ITS development and innovation initiatives to build up new ITS ecosystems. The initiative will also have a target to build up international links – by cross bordering and partnering cooperation.

ITS Finland is a forum for co-operation

Traffic and the development of ITS and services requires teamwork, and the smoothness of co-operation determines the results. ITS Finland brings together experts representing research, administrative and commercial organisations in order to build systems and services based on information and communications technology to improve fluency, safety and the environmental impact of traffic.

ITS Finland’s aim is to initialise the results of research as functional services. The challenges in traffic and the needs of travellers is the basis. The network wants to raise awareness about the possibilities of information and communications technology for solving the problems of traffic and transport.

New future transport system = success of public and private co-operation?

The production and distribution of traffic

information requires functional and transparent public-private partnerships. The development of telematics applications and information services requires active participation of the entire value chain. The information, applications and terminals provided for travellers must be reliable and safe to use.

The future transport system is leaning on cost effective methods to ‘serve regular customers of transport systems’, especially in urban areas. To enable more services, ITS should therefore be placed. This calls for unprejudiced exploitation of information and communication technologies in collecting, processing and distributing traffic information, feed mobility customers by services, vehicles by intelligent infrastructure, etc. Based on future perspectives, it seems that the success of future transport systems is dependent on the success of public and private co-operation in ITS.

Finland: towards a more intelligent transport system

The Government Programme of the Finnish Prime Minister, Jyrki Katainen, emphasises the importance of intelligent transport. The Programme outlines that the Government will promote new intelligent transport services, financial steering, and innovations on the basis of Finland’s Strategy for Intelligent Transport.

The new transport policy report of the Finnish Government aligns that ICT technologies should be considered in future transport solutions. Following the transport policy report the Finnish national ITS strategy will be updated in 2012 by the Finnish Ministry of Transport and Communications. It will define the vision and the principles under which intelligent transport system should be developed.

The existing strategy has already started to shift the focus in transport policy from constructing and maintaining transport infrastructure to smooth travel and transportation. The transport policy report says that in order to fulfil the needs of customers of the transport system and support export of ITS innovations, activities in ITS development and innovation areas should be strengthened.

Finnish ITS ecosystem for flexible solutions

The Finnish ITS network differs from many other

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Governments are increasingly urging passengers to use public transport; but in order to get people off the roads they must offer a truly viable, fully integrated transport network. Scandinavian Urban Transport will discuss this integration and debate what is being done to provide the major cities throughout the Nordic countries with an efficient and user friendly service. From buses to trams, light rail to metro, the expansion of every city network is key to providing a greener environment, reduced congestion and ultimately deliver what the passengers demand – seamless, convenient, affordable transport.

EARLY CONFIRMED SPEAKERS INCLUDE:

Simon Baadsgaard, Traffic Planner, Copenhagen Municipality, **Department of City Development**
Charlotte Wäreborn Schultz, Managing Director, **Swedish Public Transport Association**
Tina Giannopoulos, Project Director, **Malmö City**
Rebekka Nymark, Customer and Business Director, **Metroselskabet**
Gerhard Wennerström, Managing Director, **Samtrafiken i Sverige AB**
Joakim Palmkvist, CEO, **Swebus**
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Ole Sørensen, Project Leader, **Midtrafik**
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countries due to its exceptionally innovative and flexible Public-Private Partnership (PPP) ecosystem. The strength of this network is demonstrated in the rapid deployment of the national ITS strategy in the focused test and development areas and joint solution development projects. We believe that this

is a joint initiative of the city of Tampere, regional and national transport authorities, companies, service providers, as well as research institutions. The target is to provide a highly sophisticated proving, testing and demonstration environment for ITS innovation and demonstration projects. The urban ITS industry also has a

activities are carried out either as commercial Research and Technological Development (RTD) projects, PPP projects or in the unique environment where companies and research entities may benefit from the various activities organised as 'prototyping', 'demonstrating' or directly using hands-on solutions with volunteer



ITS is strengthening its role in urban transport – aiming to establish safe, fluent and environmentally-friendly traffic

network has a lot to offer to other markets too. We are therefore jointly developing and exporting the product portfolio of our current and future ITS solutions and are seeking partners in other countries for cooperation.

Urban ITS development – supported by development and innovation areas

Following the national strategy objectives to highlight the ITS development in Finland, two main development and test environments have been established. One focuses on the smart transport corridor between Helsinki and St. Petersburg in Russia, and the other on urban ITS solutions in the city of Tampere.

The urban development and test area, also known as ITS Factory – Tampere Region ITS Proving and Innovation Arena (www.itsfactory.fi),

favourable role in the region's employment and industrial policy. ITS Factory aims to establish leading facilities and infrastructure for all ITS service chain stakeholders with minimum 'red tape' and administrative bureaucracy.

National and European Projects are welcome to bring their ITS-related ('cooperative transport') Research, Development and Innovation (RDI) activities to the Tampere region. ITS activities are expected to address user, service, technical, environmental, commercial and/or socio-economic aspects. Thus, ITS Factory is considered to provide innovative economical, societal and environmental solutions for urban and extra-urban road transport networks.

Industrial and cooperation initiatives constitute the ITS Factory RDI framework. These

end-users. Together, all these form the unique entrepreneur environment of ITS Factory.

ITS Factory, with its manufacturing elements for innovation, supports Finnish urban ITS development steps towards next generation partnership for more successful solutions in the future ICT labelled transport system – leaning again on PPP and open policy.

Next generation partnership – for ITS innovations

The strong cooperation relationship between ITS research, development and traffic agencies and research centres, up to big enterprises and private SMEs, opens many opportunities to build a next generation partnership for ITS innovations. The management for different goals of stakeholders in the service supply chain



Increasing objectives for the environment, productivity and infrastructure management, are causing enormous challenges for transport and traffic – especially in urban regions

helps to achieve total value at the end, which meets the end-users' needs.

The Finnish way of doing ITS is leading Finland to the next generation's transport system with sustainable ITS solutions based on a well-balanced PPP in the market. The new ITS era is relying on the mixed success of high level education, research and development, partnership and vision. The Finnish way for ITS is built on the backbone elements of the next generation's ITS services and systems.

The four main cornerstones highlighted for the ITS in Finland are:

Open public data

Public data related to transport operations, services and systems is already available and will be more open to enable innovation in the market. The ITS sector will benefit from business opportunities as well as public productivity.

Service oriented business model

A decade ago, it was prevailing for public authorities to invest into systems and services and to manage those by their own personnel. In

the new service oriented business model, the public sector won't use their resources to own systems and services – they will buy the results as a service specified by them. Thus it will result in services to meet their needs and data available to the industrial partners to serve travellers and logistics, for example. The public sector will publish interfaces to their tax paid data for complete productivity.

Innovation in public procurement

The procurement processes which have been used have not taken into account all the possibilities of industrial cooperation and available innovations in markets. With the help of pre-procurement processes, more innovation can gain ground in procurements. Therefore, innovations can be utilised when available, instead of waiting for the next procurement round which could take several years in some cases.

Open policy

Instead of heavy and prolonged processes for infrastructure investments – especially since

there is a limited budget available – all alternative and complementary solutions in transport system development should look after a high productivity of the transport system. ITS has a big role to introduce new solutions with high cost-effectiveness.

Helsinki to be the shop window for ITS in 2014

ITS Finland, together with its partners, will have a good opportunity to show highlights of Finnish ITS when the European ITS Congress will be held in Helsinki in June 2014. The Finnish stakeholders – from private and public sectors – are strongly looking forward to introducing the 'Finnish Way' for innovations and new ITS ecosystems in summer 2014 in Helsinki.

BIOGRAPHY



Kimmo Ylisiurunen has been the Secretary General of ITS Finland since November 2008 and he has been working in the Intelligent Transport Systems arena for 15 years.

Date:
22-26 October 2012Venue:
Vienna, AustriaWebsite:
www.itsworldcongress.com

19th ITS World Congress
Vienna, Austria
22 to 26 October 2012
smarter on the way

Smarter on the way: Connecting seamlessly, serving customers, encouraging sustainability

On 22 October 2012, the doors of the Messe Wien in Vienna will open to host the 19th ITS World Congress. The five-day congress and exhibition will provide the meeting place for experts to learn, discuss, showcase, challenge and advance Intelligent Technology Systems (ITS) worldwide.



Improving the efficiency and safety of public transport will be a key aspect of the ITS World Congress 2012

"The use of Intelligent Transport Systems ensures that our global transport flows safer, in a more environmentally-friendly and efficient manner," says Doris Bures, Austrian Minister of Transport, Innovation & Technology. "ITS is the integrated element that improves safety, guarantees free-flowing traffic and reduces and reduces the negative impact on the environment. In order to achieve this goal it is critical to connect all modes of transport."

ITS has never been more important than now, with the ever increasing sophistication of technology and a global need to connect transport with customers. Transport systems are the backbone of urban societies and as such now is the perfect time for organisations to embrace intelligent technology.

"The 2012 Congress will highlight the need to bring even more intelligence to transport systems, where increasing demand and persisting challenges to safety and sustainability cannot be overcome by more network construction or a 'business as usual' approach,"

explains Siim Kallas, Commission Vice-President responsible for Transport, European Commission.

Austria is the perfect host country for the 2012 ITS World Congress. With an excellent modern transport system already in place, the country is a shining example of what other regions are trying to achieve. In fact, according to a study by American climate strategist Boyd Cohen, Vienna is top in the first global 'smart city ranking', ahead, even, of cosmopolitan cities including New York and Hong Kong. The study was based on indicators such as innovation and sustainability.

mobility, incorporating an array of ITS-related topics ranging from smartphone technology to customer service approaches to e-mobility.

The congress, featuring approximately 1,000 presentations, will be split into five types of session:

- Plenary
- Executive (where high-level industry executives and public officials from around the world will share their perspectives)
- Special interest sessions (which are organised at the request of organisations or experts developing and deploying ITS)

provides countless networking and business opportunities for visitors.

The extensive range of topics to be displayed at the exhibition includes:

- Traffic Information collection and processing
- Multimodal traveller information systems and applications
- E-freight and logistics applications
- Emergency and incident management
- In-vehicle systems and applications
- Vehicle-to-Infrastructure communication, cooperative systems



ITS World Congress 2012 will provide opportunities for showcasing products and solutions

"A capital needs a sophisticated transport system and a well organised mass transit to ensure that it runs smoothly. In Vienna this works so well that public transport is already the preferred means of transport for the Viennese," says Michael Häupl, Mayor of Vienna.

The congress

With over 10,000 visitors expected from around the world over the five days, the congress will provide a hub for experts to share best practices. Following on from this year's theme of 'Smarter on the way', the congress will deal with innovative systems for the improvement of

- Technical/scientific presentations (which are given by international experts on varying ITS-related topics encompassing all technical, economic and societal aspects of ITS)
- Interactive sessions (which are designed to facilitate the exchange of information between speakers and specialists).

The exhibition

The congress is only one half of what makes the ITS World Congress such an important event. The exhibition, featuring more than 300 exhibitors from all over the globe,

- Vulnerable road user aspects
- Road safety and traffic management
- Payment and ticketing
- Tolling and road charging
- Multimodal navigation for travellers
- Eco-mobility and energy efficient transport
- Electro-mobility.

Demonstrations – the future of traffic

Making the most of the Vienna venue, the 2012 ITS World Congress will feature a range of 'real traffic' demonstrations. Organised into five areas, the demonstrations aim to show technical innovations and user benefits in an everyday

transport environment within the city of Vienna. Ranging from traffic jam warnings to hazardous location notifications and in-vehicle signage, these systems will make every day-driving much easier and safer.

The demonstrations are borne out of cooperation between road operators, car manufacturers, communication companies and research facilities – all in a bid to demonstrate the future of traffic. Future cars, for example, will be equipped with diverse sensors, communicating to other cars as well as to road-sensors and traffic control centres. Meaning drivers will be pre-warned about dangerous road conditions ahead and traffic jams will be reduced.

Following a short introduction in the demonstration area within the exhibition hall, participants of the 2012 ITS World Congress will then have the unique opportunity to experience these systems themselves in real traffic in Vienna. The five themes of the demonstrations are:

Cooperative mobility

Cooperative mobility is a major development area of ITS and will be the cornerstone of demonstrations in Vienna. Both of the technical elements car-to-car communication and car-to-infrastructure communication based on EU and worldwide communication standards will be shown in the cooperative mobility demonstrations, which aim to present interoperability of all systems involved. In a bid to improve traffic and road safety, the information exchange between vehicles and the infrastructure installations on urban intersections and motorway variable message signs from different manufacturers enables dynamic traffic information and management.

E-mobility

Taking into account the current condition of the environment, e-mobility is one way to reduce pollution and the consumption of fossil fuels. With many new transport options, including e-bikes and electronic cars, travelling in cities can become faster, cleaner and quieter. And with the number of electric cars on the street rising, it is becoming increasingly important to invent new solutions to incorporate public transport into this group and to help cater for the needs of electric car drivers, particularly with regards to charging stations. The e-mobility demonstration



will focus on products designed specifically for this market.

Navigation

Navigation does not need to be reinvented, but instead the market needs new solutions for lines of business where no current product fills the requirement – e.g. a navigation especially designed for electric cars or for tracking dangerous goods carriers. New navigation systems increase the range of ITS-based technologies and incorporate both satellite position systems and EGNOS.

ITS Network Management

The aim of the ITS Network Management demonstrations are to show how it is possible to combine cooperative and e-mobility technologies. With all ITS technologies together, ITS Network Management can provide the perfect solution for cities or whole countries to improve their traffic and transportation systems. Mobile phone technology is another field of application for ITS Network Management, in which mobile phones can be used as a dynamic 'feedback' loop, allowing the management system to generate a map where the movements of the mobile phones are shown.

Public transport

Improving the efficiency and safety of the public

transport system with ITS is another focus of the demonstrations. ITS can provide solutions which increase the capacity of passengers in stations and optimal arrangement of passengers in the public transport vehicle. There are also solutions for optimising public transport routes and reducing the waiting time between public transport vehicles during rush hours. There is also a solution which offers a multi-modal outdoor routing service, including public transport as an alternative.

Reinhard Pfliegl, Chair of National Organising Committee ITS Vienna 2012, sums up the event: "Intelligent Transport Systems – the dream of mobility without accidents, delays and obstructions. A cooperative system is the keyword for the transport system of the future, which responds to the complexity of managing multimodal traffic systems and provides users with the quality and variety of services necessary to match their mobility demands. This was the motivation to choose 'Smarter on the way' as the leading theme for the ITS World Congress 2012, with a dedicated focus on serving customers, connecting seamlessly and encouraging sustainability."

Alongside the presentations, exhibitions and demonstrations, the ITS World Congress will also feature workshops, a range of ancillary events and technical visits – it's certainly an event not to be missed.

divis

The software for **accounting** and **evaluation** for **associations** and **transport companies**

Monthly accounting is one of the key commercial tasks for associations and transport companies. It is a major instrument for controlling economic success. The capacity of the accounting tools currently being used is often over-utilised. Continuously growing quantities of data, varying data sources and formats as well as the extensions of the integral association structure are among the problems currently being faced and increase complexity, the workload and also the potential for errors.

Accounting with DIVIS enables associations and transport companies to carry out highly efficient, automated accounting and evaluation. This happens quickly and in a completely transparent way. Instead of processing sales figures manually, which is time-consuming and prone to errors, DIVIS generates entire accounts at the touch of a button. DIVIS boasts excellent user-friendliness – precise and effective.

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Profigs AG
Katharina-Sulzer-Platz 8
CH-8400 Winterthur
Phone +41 (0)52 218 10 10
Fax +41 (0)52 218 10 11
www.profigs.ch
kontakt@profigs.ch