

OPEN TECHNOLOGY FORUM

DAY 1 29 NOVEMBER 2005

9.50AM **OPENING ADDRESS** Tony Robinson, CEO, UKIP Media & Events

MODERATOR DCA Design International – Paul Rutter, senior associate

RAPIDLY CHANGING INTERIOR DESIGN AND ITS ROLE IN BUILDING BUSINESS FOR HIGH SPEED, COMMUTER AND MASS TRANSIT

10.00am **Trends in the design of interiors of high speed, commuter and mass-transit trains and the impact that this has on business growth**

ALSTOM Transport – Xavier Allard, design director

The main job of the designer is to integrate and reconcile the requirements of customers and end users with a distinctive and transcending brand identity. Beyond this, designers need to customise standards to fulfil the requirements of individual transport operators – to implement into the interior designs specific travel experience, value proposition, etc. In addition, designers have a train manufacturer's brand goal to reach – creation of a distinctive attraction and emotion across all train designs to secure customer preference and build brand value.

10.25am **Passengers' perception and valuation of train interior and space**

Royal Institute of Technology – Karl Kottenhoff, researcher, Transportation and Logistics

How should train interiors be designed at a reduced cost yet also raise passengers' willingness to pay extra? A few conclusions from over 20 KTH studies show passengers are willing to pay for seating space; many comfort measures are beneficial; wide-body trains are beneficial; commuter trains are often too simple.

10.50am **China – the challenge ahead for the European design and supply industry**

TDI-AVE Design & Engineering Services – Martin Pemberton, design director

The major international vehicle manufacturers are continuing the drive to offer better value for money. As a result, suppliers are addressing the issues of delivering better interiors at more competitive prices. This paper will address some of the evolving issues facing equipment suppliers as they move quickly to more standardised designs and sourcing from lower cost locations.

11.15am **Harmonisation for EUCAB interior design**

Bombardier Transportation – Lutz Gelbert, Dipl-Des

The requirements for European train cabins and special workplaces for drivers have to be changed so new functions defined by TSI have to be considered.

11.40am **Results of European study on comfort and services in mainline trains**

Actima Consulting – Thomas Manthei, managing director

Actima presents results and best practices from its study covering comfort and services in European mainline trains, and presents a concept showing how passengers would like their mainline train of the future.

12.05pm **Refurbished trains for London's Tube**

Metronet Rail – Mick Gadd, project manager

District line passengers are in for a treat on the London Underground. They can now

enjoy a more secure and comfortable journey, thanks to a major improvement programme for the 25-year-old D-Stock trains designed to keep them in top condition until an all-new fleet enters service from 2013. All 75 six-car trains in the fleet will be upgraded. The phased programme will avoid disrupting services while delivering a fleet which is significantly improved in five key areas: passenger information; fire protection; safety and security; access for the disabled and visually impaired; and driver comfort.

12.30pm **Advantages of a modular concept applied to trains**

Temoinsa – Lars Christensen, sales manager

This review will look at the advantages of the concept of a modular approach to interior designs and systems when involving all the different functions, specialities, and responsibilities of both constructors, administrators and operators, and then still being able to fulfil the passenger needs for comfort, intimacy, safety and individuality. The modular concept applied to both new-build and refurbishment projects range from traditional passenger coaches to mass-transport vehicles.

12.55pm **Functional designs to minimise cost and maximise appeal**

Schneller – Dr Brent Larson, senior R&D engineer

Excellence in interior design is attained using functional designs on decorative laminates achieving graffiti resistant and corporate branding objectives. New design trends will also be discussed, including custom designs on durable decorative laminates to establish the railcar interior mood.

1.20pm **Break for lunch**

SEATING ANALYSIS AND DESIGN

2.00pm **'Nouveau design intérieur des TGV Atlantique et Réseau' – a major change in French high-speed train interiors and a significant industrial challenge for SNCF**

SNCF – Alain Scherrer, project manager, Rolling Stock Modifications

In 2005, after three years of studies with both marketing, designers, suppliers and SNCF technical teams, the first train sets are being modified in three SNCF workshops. Modifying the first 92 between 2005 and 2007 is a major challenge for SNCF and its suppliers.

2.25pm **Ergomechanics – connecting a new defined seat comfort with recent biomechanical researches**

Grammer AG Seating Systems –

Daniel Gradl, product manager, Railway

We spend a lot of time sitting down: either at work; at home in our free time; and when travelling by car, plane or train. Providing seat comfort and maintaining health are major factors for seat manufacturers. There are a large number of different, partly interacting, seat comfort factors. A natural need to move exists even while sitting; the body needs to be supported during its movement. This new defined seat-comfort factor perfectly correlates to recent biomechanical research. An accepted fact is that there is no optimum seated position. Moreover, to keep the spine healthy, one has to move and change posture. This presentation gives a scientific but pragmatic overview of relevant biomechanical research and a definition of Grammer ergomechanics®. Looking

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at not only the theoretical combination of ergonomics and biomechanics but also practical ways to fulfil new defined comfort requirements – to support natural movement while sitting.

2.50pm

Novel Rapid Prototyping techniques can lead to massive savings in design time and project risk for interior design projects

Materialise – Janneck Peersman, sales manager

The Rapid Prototyping industry has been one of the fastest-growing high-tech areas of the past decade. This growth has mainly been spurred by the automotive industry, which has recognised the relevance of sharply reduced time to market and minimised project risk. The automotive industry has imposed a significant drive for quality, which has led to visual and functional prototypes that come very close to the mass-series plastic product. This has allowed designers to minimise the risk of design projects at very competitive prices. Other industries have equally enjoyed the benefit from this increased performance level. This paper highlights recent developments in the field of rapid prototyping. A number of unique services are discussed, including a 24-hour service for visual prototypes, dashboard-sized parts ready in less than 10 working days, and a fully integrated online service for part quoting and ordering. Numerous examples are provided to illustrate the basic principles.

3.15pm

Optimised comfort for the train driver

TNO – Prof. Michiel de Looze, Senior Researcher & Consultant

With years of experience in the public transport sector, Savas contacted TNO for a joint project to develop new-generation train driver seats with improved suspension and comfort features. This presentation will give you an insight in the development process and shows you the first test results. Furthermore, it will focus on the integration of cab and seat design: how to adapt a driver's cab to human behaviour to enable optimal human performance.

3.40pm

Short Break

ACCESSIBILITY – ACCESS FOR ALL

3.55pm

Inclusive design of rail vehicles: sensible and viable

RNID/EFHOH – Guido Gybels, director, New Technologies

The presentation will set out why – with millions of disabled people in Europe – it makes economic and moral sense to design vehicles and services in an inclusive way, achieving accessibility and usability policy objectives.

4.20pm

Design of rail interiors for accessibility and mobility

NewRail, Newcastle University, UK – Roberto Palacin, senior researcher and project manager

This paper sets the scenario for the research being carried out leading to the design of safe rail interiors for accessibility and mobility, particularly the increasingly elderly population.

4.45pm

New 'Ambulance' coach for pilgrims

Lourdes Development – Francis Latour, director

Lourdes has a project with SNCF to invest in 20 new ambulance coaches to host heavily handicapped and ill pilgrims to Lourdes City of Brotherhood. Photos and functional specifications will be shown.

5.10pm

Finish

DAY 2 30 NOVEMBER 2005

MODERATOR Tracy Metzger, president and CTO, Abanco International, LLC

THE WIRED TRAIN – WI-FI/SATELLITE/GPRS, ENTERTAINMENT AND PASSENGER INFORMATION ON THE MOVE

9.30am

Strategy for deploying wired trains

Icomera – Frederik Gustafson, CEO

Wi-Fi on trains provides a competitive advantage, but which strategy should you choose when deploying Wi-Fi on trains? It depends on train routes, what services you want to offer passengers and staff, and what infrastructure is available. What are the options from a technical perspective and how do you build a business case for Wi-Fi on board trains.

9.55am

Real-time Internet and multimedia services for trains

QinetiQ Rail – Magnus McEwen-King, CEO

QinetiQ has developed the Odyssey on-train system to deliver a range of high-speed, real-time interactive services to train passengers, as well as operations support to train staff. Passengers are able to connect their wireless-enabled devices through wireless broadband links, keeping in touch with home, office and friends.

10.20am

Internet on trains – Work and entertainment on the move

Lucent Technologies – Witold Handzlik, member of consulting staff

Today, Internet access is available from almost anywhere – even in moving vehicles. Passengers can surf the Internet, connect to corporate networks and watch movies in train carriages. These new services can attract people to prefer one railway operator to another, to prefer travel by rail to plane, car or bus. Delivering media-rich content wirelessly in your rail stock will enhance your passengers' experience, increase revenue and raise your bottom line.

10.45am

Wireless in North American rail industry

Pointshot Wireless – Shawn Griffin, president and CEO

This review will discuss what is happening in the North American rail industry in wireless. The leading provider of wireless services for rail in North America, Pointshot, will share insights into the market and technology.

11.10am

Embracing technology in fare collection, validation and security

San Joaquin Regional Rail Commission – Gregg Baxter, director rail operations

This presentation will show how ACE (Altamount Commuter Express) trains are embracing technology to make ticket fare collection, validation and security a seamless part of the commuter experience.

11.35am

The connected fleet – unlocking the benefits of mobile communications

SCI Solutions Ltd – Peter Kingsland, managing director

Mobile technologies such as Wi-Fi, 3G, satellite and WiMAX are making it possible for passenger and freight train operators to communicate with their fleets and frontline staff in real time. In order to realise the full benefits of mobile communications, train operators need to understand what information is to be accessed and when, where and how this should take place. The presentation references the GNER mobility strategy as a case study.

12.00pm

Carrier provided Internet services on ICE Trains

T-Mobile – Heimo Echenesperger, project manager – Railnet

T-Mobile exclusively provides Internet services on board Deutsche Bahn's ICE trains. A multiradio network system is used to provide good service quality along the pilot track between Cologne and Dortmund. The presentation will cover the business model, the technology used and the experiences reported so far.

3.05pm

Short break

3.20pm

Case study – passenger entertainment on rail-air link

ASA – Gavin Newport, project manager

This review will look at turnkey supply, installation, commissioning and day-to-day programme management of a visual passenger entertainment system on a premier rail-air service.

12.25pm

Creating business value with Wireless LAN on trains

Siemens COM – Ines Clenjans, business development manager

The information society is changing rapidly and this has a high impact on mobility. How is this influencing train operators and what are the challenges imposed by this changing society? How can wirelessly enabled trains help train operators to address these challenges and what is the right strategy to get on track?

3.45pm

Choosing embedded or portable entertainment, what's best for your train?

DigEcor – Web Barth, VP Marketing and Regional Manager

The objective of this presentation is to highlight the differences, 'pros and cons' (including costs), and what is necessary to install and upgrade each platform of entertainment delivery.

12.50pm

Break for lunch

THE WIRED TRAIN – WI-FI/SATELLITE/GPRS, ENTERTAINMENT AND PASSENGER INFORMATION ON THE MOVE (...CONTINUED)

4.10pm

On-line seat reservation for regional trains

Vossloh IT – Friedrich Feistle, senior consultant

Novel online seat reservation systems for regional trains to gain new customers and increase customer loyalty.

1.50pm

Advanced passenger information systems – Digital convergence

ALSTOM Transport – Valentin Scinteie, business development director

Modern passenger information systems are converging to an all-digital, all-IP integrated system covering public address audio communications, LCD/LED/PLASMA displays, next-stop announcement, CCTV, all linked wirelessly to the control centre. Integration is required to minimise costs by deploying a shared infrastructure for train-borne passenger information and security services.

4.35pm

Broadband Connectivity to Trains – Wifi and More

Nomad Digital Ltd - Graeme Lowdon, CEO

Nomad Digital have pioneered the deployment of true broadband connectivity to trains. This presentation deals with the experience of operating on-train wireless internet services in a commercial environment. In addition, Nomad's experience of using broadband connectivity to trains for pioneering applications such as live CCTV backhaul, on-train television integration and Voice over IP are discussed. The presentation will include an insight into both technical implementations on moving trains and railway stations and also commercial business models.

2.15pm

Wireless context – aware services for workforce in public transport

Appear Networks – Johan Magnusson, senior business architect

A world-leading underground Wi-Fi network enables railway staff to send alerts and receive real-time traffic information on their handhelds. Devices are designed to function as 'multitoolboxes' eventually delivering applications such as ticket and fraud control, maintenance and Voiceover Internet Protocol (VoIP). The system is distributed to individual stations and employee-use wireless handheld devices. Faster processing of customer enquiries will enable around a million extra customer interactions per year. The solution is networks agnostic and device independent, facilitating the introduction of public access services. Its awareness of positioning data facilities tailored traffic information and enables staff to trigger safety alarms to direct help to the right area of the station/carriage.

5.00pm

Finish

DAY 3 1 DECEMBER 2005

MODERATOR Tom Hitchings, director, Aerospace & Mass Transit, W & J Tod Ltd

LOGICAL PROGRESSION – PASSENGER SAFETY, SECURITY AND STANDARDS

2.40pm

Volo Interactive on-demand touch-screen in-rail passenger entertainment – it's real!

Creactive Design & Angel Trains – Neil Bates, director & Paul Soor, accounts engineer

This paper follows on from last year where Angel Trains discussed why passengers might want an entertainment system compared to the alternatives. This paper will cover how the Volo system – the first of its kind in the world – was developed and intro-

9.55am

Increased survivability in train accidents involving smoke or fire via improved escape routes

Alert Safety Technologies Limited – Avril McNeil, Director

This paper follows five years of research into the current situation regarding emergency evacuation of trains in the case of a serious accident, particularly one involving smoke or fire. Our conclusions are that current arrangements are grossly inadequate, could put lives in danger, do not comply with legislation and could leave companies or individuals vulnerable to legal liability. There is new technology available to redress this, improve passenger safety and increase survivability.

CONTINUED ON REVERSE →

10.20am	<p>Preventive security and enhanced comfort through real-time communication Alcatel CIT – Christophe Carde, CCTV Solutions director The first goal of any operator is to transport passengers safely on time and to the right place. Once these basics have been met, operators seek ways to provide more security and comfort to their passengers. Security may be achieved, for instance, with ubiquitous CCTV, while new services such as Internet access, TV broadcasting in the train, etc, could assist with enhancing comfort. The key is to have a single, high-quality digital network capable of handling numerous bi-directional flows. The cost of installing and operating communications systems, therefore, will be cut and the quality of the passenger experience enhanced.</p>	12.25pm	<p>Sustainability, maintenance, resources and life-cycle management ALSTOM Transport – Andy Foster, Product Design Manager Operators and maintainers face an increasingly demanding market environment where cost efficiency must combine with availability, reliability and safety while offering high standards of comfort for passengers. Interiors are increasingly converging with maintainability and life-cycle cost, as maintainers can no longer solely rely on the mid-life overhaul makeover for the modernisation and upgrade of rail vehicle interiors.</p>
10.45am	<p>Networked Video Surveillance – a solution for Moscow Metro Telindus Surveillance Solutions Ltd – Dr Ken Sutherland, director, Surveillance Solutions With growing concerns regarding terrorist attacks, the Moscow Metro made the decision to upgrade its existing non-coordinated analogue security system with the latest CellStack surveillance technology. Moscow Metro has over 200km of track, which is used by approximately nine million people every day, thereby creating the largest surveillance installation to date in Russia, covering 170 stations and 10 control rooms.</p>	12.50pm	<p>Strategical Vandalism Protection of DB-Regio AG DB Regio AG – Guillermo Steinhäuser, Strategical Long Term Planning & Requirements This review will look at why vandalism in the public transports' sector is costing several million Euros per year for removing graffiti, tags and scratching. Presented in German</p>
11.10am	<p>Security camera considerations for rail operators Digital Grape – Dave Gorshkov, managing director Rail operators intending to install or improve, their security camera arrangements have very different needs from normal CCTV systems. This paper reviews the operational issues of designing, implementing and operating a high-resolution security system throughout all rail cars based on real-world transit requirements in the USA.</p>	1.15pm	<p>Break for lunch</p>
CATERING AND CONVENIENCE FACILITIES – FOOD ON THE MOVE			
11.35am	<p>Passengers and train design Rail Passengers Council – Anthony Smith, national director This review will look at the early involvement of passengers in train-interior design, recent British success stories, detail matters and the importance of attention to detail, understanding the compromises made during train-interior design and questions for the future.</p>	1.45pm	<p>Assessing the quality of on-train catering offerings Chris de Winter Hebron – author Dining at Speed and contributor Railway Interiors International magazine The wide spectrum of on-train catering available from different TOCs and the segmentation of the rail catering market can make comparisons of the quality of on-train catering offerings as perceived by customers difficult to quantify. This paper describes a non-intrusive method of obtaining such measures, which can be used either to build a picture of a particular TOC's offer as perceived by its customers, or to compare and rank the quality of offerings from several TOCs. Case study examples and suggestions for further development are discussed.</p>
12.00pm	<p>Efficient railway interiors by analysing the passenger behaviour TU-Vienna Institute for Railway Engineering – Bernhard Rüger, research This presentation will look at how the railway industry presently often tries to design efficient rail-cars by maximising the number of seats in each car to minimise the weight and cost per seat. By analysing the reality, this consideration points to the opposite.</p>	2.10pm	<p>Pendolino – breaking the catering mould Virgin Trains – Nick Hebborn, head of Contracts & Business This presentation will look at the vision, design and execution of the onboard catering facilities of the Virgin Pendolino trains' new service on the UK's West Coast Mainline.</p>
		2.35pm	<p>Modular concept of catering facilities International Rail Catering Group – Miroslav Hatluf, executive secretary and international affairs advisor This review will discuss the easy and quick changes of interior arrangement in restaurant and bistro cars for different concepts of catering services.</p>
		3.00pm	<p>Finish</p>

PLEASE NOTE: THIS FORUM PROGRAMME IS SUBJECT TO CHANGE

CONTACT DETAILS

Railway Interiors Expo 2005

UKIP Media & Events, Abinger House, Church Street, Dorking, Surrey RH4 1DF, UK

Tel: +44 (0)1306 743744 Fax: +44 (0)1306 877411 Email: y.casey@ukintpress.com

Register on-line at: www.railwayinteriors-expo.com