

**CWIC Starter: Transportation**

Thursday 23 March

Hosted by Runway East

This [CWIC Starter](#) is championed by **Paul Ceely** from the [CWIC Committee](#) and the [Automotive & Transport SIG](#).

Venue: Runway East Finsbury, Lower Ground, 10 Finsbury Square, London EC2A 1AF

**AGENDA**

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| <b>10:00</b> | Registration and networking with refreshments   |
| <b>10:30</b> | Introduction to CWIC Starter, <b>Paul Ceely, BT</b>   |
| <b>10:35</b> | Welcome from host, <b>Megan Gubler, Runway East</b>   |
| <b>10:45</b> | Welcome from Sponsor, <b>Stephen Hamilton, Mills &amp; Reeve @selfdrivinglaw</b>  |
| <b>10:55</b> | <b>Session chaired by SIG Champion, John Okas from Real Wireless</b><br><b>'Designing Vehicles for the future'</b><br><b>Julian Turner, Westfield Sportscars @westfieldcars</b><br>Julian will provide a glimpse of the future village, providing an overview of existing vehicle design and what technology is being developed over the coming years on both last mile and M1 Class Vehicles.  |
| <b>11:15</b> | <b>'A roadmap for networks for connected vehicles'</b><br><b>Toral Patel and Dan Talmage, PA Consulting</b><br>As Connected and Autonomous Vehicles (CAVs) proliferate, what are the directions that the communication networks and services which serve them will take? We look at the likely future of autonomous vehicles and what will happen to their connectivity, especially around safety cases and traffic efficiency.   |
| <b>11:35</b> | <b>'Applying Self-Driving Technology to Autonomous Goods Delivery'</b><br><b>Graeme Smith, Oxbotica @oxbotica</b><br>The race to self-driving cars has started with many demonstrators appearing already on the roads. There are many other applications of this same technology in logistics, warehousing, manufacturing that will leverage the same set of core technologies. In this session, Dr Graeme Smith, CEO of Oxbotica will discuss the technology behind self-driving cars and the application of this to fleets of vehicles used goods delivery.   |
| <b>11:55</b> | Q&A for this session  |
| <b>12:00</b> | <b>Session chaired by SIG Champion, Tom Blackie from RealVNC</b><br><b>'What is Wrong with Telematics?'</b><br><b>Richard Robinson, Strategy Analytics</b><br>The connected car market faces challenges from a range of disruptive technology platforms. This presentation will look at what is wrong with current connected-car/telematics business models, as well as looking at how Tier suppliers and vehicle OEM's need to adapt in a world of Big data, FOTA/SOTA and future vehicle autonomy.  |
| <b>12:20</b> | <b>'V2X Communications Options – The Debate'</b><br><b>Roberto Ponticelli, Horiba MIRA</b><br>Vehicle-to-everything communications (V2X) and its associated solutions enable the exchange of information between vehicles and other parties like road network infrastructure, road users, etc. V2X seeks to: improve road safety, increase traffic flow efficiency, reduce the environmental impact of traffic and provide better traveller information services. However, the technologies that will enable and sustain the progress toward these goals are not fully agreed by all the stakeholders and not fully specified by current standards. The debate is fierce and still ongoing. This presentation will explore some of the reasons behind this debate and the current V2X technological trends. |
| <b>12:40</b> | Q&A for this session  |
| <b>12:45</b> | Lunch and networking  |
| <b>13:45</b> | <b>The CWIC Innovation Programme</b><br><b>Ali Nicholl, Iotic Labs</b>  |

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**14:05 Session chaired by Paul Ceely, BT****'Future Mobility Models'****Toby Poston, BVRLA #bvrla**

The automotive sector is undergoing not one but three revolutions. The way we power, use and manage vehicles is changing, and so are the business models driving the industry.

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**14:25 'Car sharing: the future of the car in cities?'****James Taylor, DriveNow @DriveNow\_UK**

As cities try to deal with poor air quality and congestion by introducing measures to reduce car use we ask whether cars have a future in cities? We'll hear how car sharing services like DriveNow can be part of the solution for cities – helping to reduce private car ownership and increase the uptake of more sustainable forms of transport.

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**14:45 'Making Better Places and Routes: Connected and Autonomous Vehicles'****Toby Thornton, WSP | Parsons Brinckerhoff @WSP\_PB\_UK**

How might autonomous vehicles improve our cities and support a new generation of living streets and communities, designed for vehicles, but putting people first? The technology is arriving fast, so we need leadership now at all levels to achieve this vision.

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**15:05 'Large scale mobility analytics and new markets'****Sam Chapman, The Floow @SamChapman / @thefloowLtd**

Telematics has long gathered mobility data for risk analysis, however mass scale behavioural understanding of mobility can also inform wider traffic management and autonomous decision making. This talk outlines new markets emerging from mass mobility understanding with a focus upon traffic management, road safety and autonomous vehicle decision making.

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**15:25** Q&A for this session**15:30** Refreshments and networking**15:55 Session chaired by SIG Champion, Nigel Wall from Climate Associates****Dan Freeman, Direct Line Group**

This presentation will address the challenges of connected and autonomous driving technologies for the motor insurance industry and explore the role of the insurance industry in enabling these emerging technologies.

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**16:15 'Liability, insurance, ethics and other regulatory issues for autonomous vehicles.'****Stuart Young, Gowling WLG @stuart\_young100**

Stuart Young of Gowling WLG will consider and comment upon the liability and related insurance issues arising from the commercialisation of autonomous vehicles. He will look at liability, insurance and how it might evolve, data and privacy issues in commercialising AVs as well as a brief look at how regulation needs to help the market to emerge in the right way.

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**16:35** Q&A for this session**16:40** Panel session with all speakers**17:30 Event closes**

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With the permission of the speakers, presentations will be loaded to the CW website on the day following the event

## Profile of organisers

### Cambridge Wireless (CW)

CW is the leading international community for companies involved in the research, development and application of wireless and mobile, internet, semiconductor and software technologies. With 400 members from major network operators and device manufacturers to innovative start-ups and universities, CW stimulates debate and collaboration, harnesses and shares knowledge, and helps to build connections between academia and industry. CW's 18 Special Interest Groups (SIGs) provide its members with a dynamic forum where they can network with their peers, track the latest technology trends and business developments and position their organisations in key market sectors. CW also organises the annual Future of Wireless International Conference and Discovering Start-Ups competition along with other high-quality industry networking events and dinners. With headquarters at the heart of Cambridge, UK, CW partners with other international industry clusters and organisations to extend its reach and remain at the forefront of global developments and business opportunities.

[www.cambridgewireless.co.uk](http://www.cambridgewireless.co.uk)



## Profile of host

### Runway East

Whether a presentation, a board meeting, or you're looking for a great networking space -we're here to help! Located in the heart of London's tech and financial districts, Runway East has the perfect venues for your events. [runwayea.st](http://runwayea.st)

## Profile of sponsor

### Mills & Reeve

Mills & Reeve is a major UK law firm renowned for its outstanding service to national and international clients, for its collaborative culture and for its deep sector expertise. We have six offices in Birmingham, Cambridge, Leeds, London, Manchester and Norwich. The firm has a strong sector focus with expertise in technology, charities, education, food and agribusiness, health, insurance, private wealth, real estate investment and sport. The legal advisers behind some of the UK's most successful technology businesses, including ARM, Aveva, Bango, Jagex, Ubisense and Xaar. At Mills & Reeve, we pride ourselves on identifying future, technological developments that are likely to be relevant to our clients. A few years ago, we identified that the arrival of driverless cars and automated vehicle technology was likely to have profound implications for organisations involved in infrastructure planning and for those involved in the technology, automotive and insurance sectors. Since then, we have been at the forefront of this technological development and advised on various national projects. Mills & Reeve, working together to achieve more. [www.mills-reeve.com](http://www.mills-reeve.com)

## Profile of CWIC Committee Lead & SIG Champions

### Tom Blackie, RealVNC

Since joining RealVNC in 2009 Tom has lead the mobile division pioneering integration of phones with in-vehicle systems. Prior to RealVNC Tom held executive positions in a number of technology companies providing revolutionary wireless and software products. Including Head of Operations at the Olivetti and Oracle Research Laboratory; Founder and VP Engineering at NASDAQ listed Adaptive Broadband; Managing Director of Audentify (a division of Autonomy Systems PLC); and COO at AIM listed Ubisense. Tom graduated in Electrical and Electronic Engineering from Napier Edinburgh and holds an MBA from Ashridge Business School. [www.realvnc.com](http://www.realvnc.com)

### Paul Ceely, Head of Mobile Network Strategy, BT

Paul has worked in network strategy and IP networking for over 16 years and has held a number of influential roles for market-leading fixed and mobile telecommunication providers. He is currently Head of Mobile Network Strategy for BT, focusing on continuing mobile leadership for the EE network, and now looking at the future opportunities as part of BT, including convergence, 5G and IoT. Paul has been responsible for developing, driving and communicating the medium to long-term Network Strategy for EE since its formation in 2010 from the merger of T-Mobile UK and Orange UK, and was instrumental in the strategy and planning that underpinned EE's highly successful 4G launch in 2012, almost a year before its nearest competitor. Since the launch of 4G, Paul has continued to drive EE's competitive advantage on network coverage and technology, including identifying the opportunity and developing the strategy for the 4G-based Emergency Services Network. Paul joined T-Mobile in 2005 in the UK network transport team, and has been working on LTE since 2008, when he developed the end-to-end transport architecture and strategy as part of the Deutsche Telekom Group programme. [bt.com](http://bt.com)

### John Okas, Real Wireless

John has worked in wireless and telecommunications throughout his career. Initially with Motorola and Racal in engineering and product marketing roles. He was a founding director of NTL (now Arqiva), initially as Business Development Director building and managing the complete commercial organisation. He also managed the R&D Group which developed one of the first commercially available MPEG video compression systems. Then, as Managing Director – Telecommunications, he was responsible for growing NTL's wireless business and entering the fixed telecommunications and satellite services markets. Moving to Pell Frischmann the consulting engineers, he started a telecommunications business and was involved in several large transportation projects including the Highways Agency's NRTS Project which updated the motorway communication systems. Currently he operates as an independent consultant covering technical, commercial and product strategies. He works with other consultancies including Real Wireless, the independent wireless experts, who develop strategy, policy and practical solutions. John has a close interest in the IoT/M2M market within the transport sector; he worked with the Weightless SIG at its formation to help identify market requirements. [www.realwireless.biz](http://www.realwireless.biz)

### Nigel Wall, Climate Associates

Nigel has been involved for over 20 years with Intelligent Transport Systems – "connected cars" he is the Chair of the ITS UK Communications SIG and the Land Navigation & Location Group at the Royal Institute of Navigation: he is the Monitoring Officer overseeing £50+M of Connected and Autonomous Vehicles projects that are being supported by Innovate UK Nigel is a Director of Shadow Creek Consulting Ltd and of Climate Associates Ltd. CAL advises organisations on optimising ICT system design with an understanding the whole life carbon footprint cost of deploying alternative ICT technologies. Climate Associates are partners in a Horizon 2020 project VICINITY that is linking stove-piped IoT ecosystems in order to enable

data sharing to allow novel services to be developed using a diverse range of sensors. CAL are contributing to various standards work in several standards groups to help determine best practice. [www.climate-associates.com](http://www.climate-associates.com)

## Profile of speakers

### **Stephen Hamilton, Mills & Reeve**

Stephen is a partner at leading national law firm Mills & Reeve and the specialist partner in relation to the law and regulation of driverless cars and autonomous road vehicles. Stephen consulted on the subject at the House of Lords, with legal counsel from many of the major automotive manufacturers, with Tier 1 suppliers and with advisers and specialists in relation to road traffic safety and behaviour. Stephen's experience extends wider than the legal, regulatory and insurance issues for driverless cars. Stephen gives expert opinion on how the transformation of our travel networks as a result of the arrival of self-driving vehicles will have a profound effect on the way we live our lives. Stephen looks back at the last great mobility change at the turn of the twentieth century when the car took over from the horse and carriage and predicts how the autonomous vehicle change in transportation brings great opportunities for auto manufacturers and everyone else involved in personal mobility. [www.mills-reeve.com](http://www.mills-reeve.com)

### **Julian Turner, Westfield Sportscars**

Julian Turner is CEO of Westfield Sportscars Limited, the second largest British, family owned, Niche Vehicle Manufacturer, which designs, manufactures, tests, validates and globally distributes a range of specialist vehicles for niche markets under its Low Volume and European Small Series Type Approval. Julian is a Chartered Engineer, PRINCE2 Practitioner, Risk Manager and holds an Honorary Doctorate from Birmingham City University. Julian has vast global experience of working in both the USA for The Boeing Company and Asia Pacific setting up Joint Ventures, he has led several successful programmes to date including MyBoeingfleet.com Supplier Data Portal, setup of the Top Gear Cup with Westfield in Holland, Guinness World Record for Westfield 1600 Sport Reliability Trials, The World's First One Make Pure Electric Race Car, UK Low Carbon Vehicle Demonstrator Project for Electric Vehicle Platform Technology, GATEway Project – The UK's First Connected and Fully Autonomous Vehicle Project, INSIGHT – The UK's first disabled and partially sighted compliant 4D Tactile Display on an Autonomous Vehicle, the UK's first British Rotary Engine Sports Car, the UK's first Hybrid Rotary Engine Sports Car and is leading the development of the first UK automotive application of Graphene Supercapacitors in Autonomous Vehicles. Julian has been involved in the Acquisition, Risk Management and Integration of a number of companies in both the Global Aviation and Automotive Sectors. This includes GTM Cars, HICOM Potenza, Roadster Bil, Aero Inventory and Oxford Aviation Academy. Julian has worked globally throughout his career and across several sectors allowing him to draw down best practice knowledge and cross sector pollination – Julian worked with BAE Systems on A320 Freighter Conversions, Mott MacDonald on the software validation of Electrostar 375 EMU Selective Door Operation, the Astute Class Submarine Safety Case and as Risk Manager on FiReLink – The New Communication System for the Fire and Rescue Service to name but a few. Julian is also CEO of the National Engineering Academy, a Not For Profit Organisation setup with Midlands Universities to develop the next generation, world class, future Engineer, He Chairs the Niche Vehicle OEM Working Group for the UK Niche Manufacturers and is a Non Executive Director of Hardy Transaction Management (Corporate Finance Company). Julian was awarded SME Director of the Year for the Midlands in 2016. [westfield-sportscars.co.uk](http://westfield-sportscars.co.uk)

### **Toral Patel, PA Consulting**

Toral Patel is a senior transport innovation business developer with 20 years' international experience of telecommunications in transport and a wide knowledge of the stakeholders involved, particularly operators, service providers and technology vendors. She has worked on providing internet connectivity on all major transport modes using technologies ranging from Wifi/WiMax/4G to satellite communications. This includes experience of varying aspects of connected vehicles and associated challenges. Toral has also assessed future market opportunities for Location Based Services and transport applications using Global Navigation Satellite Systems (GNSS) in India and China and has a PhD in transport safety. [www.paconsulting.com](http://www.paconsulting.com)

### **Dan Talmage, PA Consulting**

Dan is an engineer and consultant at PA Consulting. He is an experienced signal processing engineer who has delivered the largest scale consumer electronics products successfully. He has worked in GSM physical layer and multimedia (especially imaging) for smartphones. He has over 60 phone type approvals and delivered the cameras for the Nokia N8, Nokia 808 Pureview, Samsung Galaxy S2+, Grand and Mega smartphones. He has also project-managed industrial process machine builds, scientific instrument builds and consumer product developments. [www.paconsulting.com](http://www.paconsulting.com)

### **Richard Robinson, Strategy Analytics**

Richard Robinson has an industry background with over 10 years experience in automotive, where he directed and developed Navigation, Infotainment and Telematics products for the mass market. He has leveraged his industry experience to create highly detailed analysis and forecasts of Automotive systems, semiconductors and service markets. Mr Robinson has a background in car-navigation and Human-Machine-Interfaces (HMI) design. At Alpine electronics he led HMI design breakthroughs including the world's first production automotive-interface using Macromedia Flash (Jaguar XK - 2004), which was also used in the Land Rover Freelander 3 and currently in the Jaguar XF. He was also a key HMI consultant on several award-winning OEM navigation systems for Honda and Acura, including the first navigation head unit with a DVD-Audio drive and surround sound (2004 Acura TL) (JD Power No.1: 2001-2005). Mr Robinson focuses on the strategic issues

and challenges that have been thrown up by the migration of Infotainment/Telematics from the traditional automotive focus of the past, to the highly dynamic consumer and connectivity-lead focus of the future. [www.strategyanalytics.com](http://www.strategyanalytics.com)

#### **Roberto Ponticelli, Horiba MIRA**

Dr Roberto Ponticelli: Following a Degree in Electronic Engineering, an MSc in Systems and a PhD in Systems and Automation (Robotics) as a formal educational path, he has played roles in industrial projects and in academic research, from member of several R&D&i teams to project leader. He has led the Electronics and Embedded Systems Department at several private enterprises both as a hand-on developer and project leader and has collaborated in different European projects as a scientific researcher on robotics and automated systems. At HORIBA MIRA Ltd, he is appointed as Chief Engineer in Intelligent Mobility for the CAV department. [www.horiba-mira.com](http://www.horiba-mira.com)

#### **Graeme Smith, Oxbotica**

Graeme has a substantial track record delivering complex products and services from research and development through to customer launch – primarily in the automotive sector. He has held executive leadership positions in several global start-ups and joint ventures, building and leading international engineering teams in electronic/software product development, service delivery and customer support. These include Director of Ford Motor Company's Telematics Support Services, Executive Director of Wingcast Europe, Managing Director of SEI UK Ltd and Vice President / COO of Connexis LLC. A recognized expert in Advanced Vehicle Control systems and the Connected Car, Graeme holds several patents in the areas of Adaptive Cruise Control and the application of Impulse Radar systems to vehicle systems. Graeme has broad commercial and technical experience spanning all areas required to develop and market new products, including R&D, manufacture, outsourcing and customer support. [www.oxbotica.com](http://www.oxbotica.com)

#### **Ali Nicholl, Iotic Labs**

Focused on communication and engagement working across Iotic Labs' clients and projects, Ali is passionate about enabling and empowering individuals and organisations to experience and exploit the IoT economy. He is focused on collaboration within and amongst communities and the co-creation of transformative services and solutions, bringing disparate organisations together to share data and knowledge to create solutions through community design. He supports individuals and organisations through the flexible design process to generate prototypes swiftly that prove out bottom-up solutions, ongoing revenue generation and new business models and capabilities. [iotic-labs.com](http://iotic-labs.com)

#### **Toby Poston, BVRLA**

Toby Poston is Director of Communications and External Relations at the British Vehicle Rental & Leasing Association. He is a member of the UK Automotive Council's Intelligent and Connected Vehicles working group, sits on the Department for Transport's Road Haulage Forum and is a co-chairman of the London Car Club Coalition. Prior to joining the BVRLA, Toby was a business journalist for fifteen years, spending much of this time as a reporter and editor within the BBC Business and Economics Unit, working across TV, radio and online channels. [www.bvrla.co.uk](http://www.bvrla.co.uk)

#### **James Taylor, DriveNow**

James Taylor is the Head of Marketing for DriveNow UK, the revolutionary new drive-by-the-minute car sharing service from BMWi, MINI and Sixt. James has worked in marketing for over 10 years across a variety of sectors. As Head of Marketing for DriveNow UK, James is responsible for growing the UK membership base and communicating the benefits of car sharing for both customers and cities alike. [uk.drive-now.com](http://uk.drive-now.com)

#### **Toby Thornton, WSP | Parsons Brinckerhoff**

Toby is an Associate within WSP | Parsons Brinckerhoff's Development business who has valuable international experience spanning the UK, Southeast Asia and Caucasus regions on a range of development and infrastructure projects. A certified project manager, he is versed in facilitating stakeholder workshops and advising traffic authorities such as Hong Kong Transport Department and Macau Department of Transport on traffic data and infrastructure projects. Toby has supported the WSP | Parsons Brinckerhoff connected and autonomous vehicles (CAVs) research in collaboration with Farrells. He is passionate about ensuring we are proactive in capturing the placemaking benefits from a future with CAVs and he recently analysed a wide range of CAV options for a study on the strategic highway network. He has spoken on the future of mobility as part of the WSP|PB Future Ready Series and at Northstar's 'Transportation for Future Generations' conference. [www.wsp-pb.com](http://www.wsp-pb.com)

#### **Sam Chapman, The Floop**

Dr Sam Chapman is a co-founder, director, and chief innovation officer at The Floop Limited. The Floop specialise in state of the art mobility risk analytics and telematic service provision to the world's leading insurers and auto companies. Within The Floop Sam is in charge of Innovation and R&D activities in domains such as smart cities, transport modelling, space agency satellite investigations, driverless car programs. Sam is internationally recognised for leading advances in telematics and was the recipient of a queen's award for Innovation. [www.thefloop.com](http://www.thefloop.com)

### **Dan Freeman, Direct Line Group**

Dan has had a varied career in financial services. He has worked in retail banking, life insurance, investment research and is currently part of Direct Line Group's Personal Lines Motor Insurance team. Throughout his career, Dan has looked for opportunities to drive innovation and disruption, with stints as a funeral planning marketeer, an expert network entrepreneur, and most recently, a motor insurance professional. As Director of Motor Development, Dan leads Direct Line Group's telematics activities, broader in car technology initiatives and other areas of product development, across its Personal Lines brands and on behalf of DLG's motor partners. While DLG is a relatively new entrant into the field of telematics, it has made substantial progress in developing and scaling its telematics operation over the last 3 years. Although telematics and new car technology take up the bulk of Dan's time, he is also responsible for developing DLG's new Personal Lines Motor products and services more generally. Dan studied Physics at Bristol University and has an MBA from Manchester University. [www.directlinegroup.com](http://www.directlinegroup.com)

### **Stuart Young, Gowling WLG**

Stuart Young is a partner in international law firm Gowling WLG and head of the firm's automotive group. He is also a member of UK Autodrive, a UK Government funded consortium testing AVs on public roads. He is an author of various reports on AVs and a regular speaker at seminars on automotive technology. [gowlingwlg.com](http://gowlingwlg.com)

