'When Networks Collide: Merging of Terrestrial and Non-Terrestrial Networks'
Hosted by University of Surrey
Delivered by The Cambridge Wireless Non-Terrestrial Networks & Radio Technology SIG's.
Tuesday 29th October 2024

Venue: Institute for Communication Systems, James Clerk Maxwell Building, University of Surrey, Guildford, Surrey, GU2 7XH

Agenda

11:00	Registration and networking with refreshments
11:30	**Welcome from Cambridge Wireless** **Paul Crane, Cambridge Wireless Board Member & University of Surrey**
11:35	**Welcome from our event host, University of Surrey** **Professor Rahim Tafazolli FREng, Head of the Institute for Communication Systems (ICS)**
11:40	Session Chair & CW SIG Champion, **Stewart Marsh, Head of Aerospace, Cambridge Consultants**
11:45	**'The key markets for Satcom / Telecoms convergence'** **Dr Mike Short CBE, Chief Architect, Satellite Applications Catapult** Convergence has already started with Applications, International Roaming and Positioning / Navigation and Timing (PNT) and these will all continue to evolve with technology and new satellite-based solutions. The interest in Satellite backhaul for Mobile networks is growing with greater needs of reach and resilience. The new market of Direct to device is showing a lot of interest, for existing and new devices. And we have so much to learn from how the earth can be viewed from Space whether Weather, Net Zero, Shipping, Environmental change or wider Earth Observation. And NTN based convergence will need to build on all this well before 6G.
12:05	**'How will satellite connectivity be integrated into Mobile networks?'** **Rowan Chesmer, R&D Future Technologies Researcher, Vodafone** Satellite technology is evolving rapidly with a variety of distinct use cases each with their own advantages and disadvantages. Although it will never replace terrestrial networks entirely, the future of telecoms will rely on a blend of terrestrial and non-terrestrial networks allowing connectivity to be provided to everyone, everywhere. Mobile network operators will be using satellites to allow expansion and further resilience of our current networks, using them for backhaul, IoT and direct to device services.
12:25	**'Non-Terrestrial Networks (NTN) from 5G to 6G'** **Professor Barry Evans, Professor of Satellite Communications, Institute for Communications Research (ICS) and 6GIC at the University of Surrey** The convergence of satellite communications with terrestrial networks has taken a step forward with the emergence of Direct-To-Device (D2D) demonstrations in the form of Direct-To-Cell demonstrations. This new and disruptive service is likely to predominate in the 5G advanced era up to 2030. However there are many challenges to be solved in areas of standards and spectrum before it becomes a reality. The 6G era is upon us with first standards meetings in 3GPP commencing in 2025 and again NTN faces challenges in ensuring that it is not locked out by a unified standard that cannot cope with the mobility of large satellite constellations. The convergence of NTN and TN raises additional problems of how flexible we can make the 6G architecture to allow a range of different business models.
12:45	Lunch and networking
13:35	Session Chair & CW SIG Champion, **Peter Kibutu, 5G NTN Market lead, TTP plc**
13:40	**'Spectrum for NTNs. A regulator's perspective'** **Richard Moore, Principal, Spectrum Policy & Analysis, Ofcom** Access to spectrum and effective management of radio interference are vital to the success of NTN. As the UK's spectrum manager, Ofcom is responsible for authorising access to spectrum in the UK and leading our engagement with the ITU and other organisation to agree how spectrum is used internationally. With NTN satellite operators targeting spectrum beyond that allocated for mobile and fixed satellite services, new approaches to spectrum authorisation and spectrum sharing need to be considered.

14:00	**'Can NTN D2D be used to further extend outdoor mobile coverage beyond what the Shared Rural Network will provide?'** **Damian Bevan, Wireless System Analyst, Real Wireless** The four UK Mobile Network Operators (MNO) and the UK government have jointly committed (in March 2020) to a project called the 'Shared Rural Network' (SRN). Around £500M of MNO investment, plus a matching amount of government investment, has been committed to deploying additional (shared) terrestrial infrastructure. The aim is to improve so-called coverage 'partial not-spots' (PNS) and 'total not-spots' (TNS), particularly in remote rural regions such as much of Scotland, Wales, North Eastern England and Northern Ireland. In this talk we will first of all introduce the UK's SRN programme, before going on to assess whether or how interventions like SRN would benefit from future NTN and D2D capabilities. Perhaps this technology can be exploited by the MNOs and government to close even more post-SRN coverage gaps, to bring the U.K. closer towards full 100% UK (outdoor) geographical coverage of mobile services with improved costs due to network convergence.
14:20	**'The future of NTN in GEO, MEO and LEO'** **Glyn Thomas, Payload Product Manager and Senior Expert and Oriol Vidal, Airbus Defence & Space** The future vision for Non-Terrestrial Networks leveraging satellite connectivity in LEO, MEO and GEO orbits. The technology challenges and roadmaps to ensure satellite is able to form a fundamental enabling part of future 5/6G systems.
14:45	Refreshment break
15:15	Session Chair & CW SIG Champion, **Stewart Marsh, Head of Aerospace, Cambridge Consultants**
15:20	**'Modern Antennas for 5G NTN User Terminal Applications'** **Nima Razavi-Ghods, Senior Consultant, RF and Antenna Technologies, TTP plc** We discuss the challenges around modern antennas for 5G Non-Terrestrial Networks (NTN) to meet the requirements of key applications which include handsets, IoT, automotive and fixed broadband. We will look at some of the key antenna technologies for mobile handsets optimised for seamless mobile connectivity, high-performance broadband Ku/Ka-band arrays and innovative designs like transparent antennas that unobtrusively integrate into devices.
15:40	**'Network Automation for NTN'** **Stephane Remy, Director of Connectivity, Cambridge Consultants** When discussing important and influential technologies affecting the market right now, it's impossible not to mention AI, with remarkable capabilities that are progressively placed at the core of many systems. For NTNs, the potential of AI is endless, offering up the dynamic control and proactive optimization that could previously only be dreamed of. Next-generation AI-enabled ecosystems are set to become increasingly responsive, with advances in edge AI making systems smaller, faster, cheaper, greener, and more agile.
16:00	**Panel Session: 'Bursting the hype'** **With all speakers and additional panellist:** • **Peter Kibutu, TTP Group** • **Steve Clarke, Wyld Networks**
16:30	**Closing remarks & Event ends**

With the permission of the speakers, presentations will be available upon request following the event

Profile of organiser

Cambridge Wireless www.cambridgewireless.co.uk

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 over 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 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 major conferences 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.

The CW Radio Technology Group - https://www.cambridgewireless.co.uk/special-interest-groups/radio-technology.html
The Radio Technology SIG aims to increase the awareness of the scientific and engineering limits on radio communications; and the opportunities that could be exploited to improve the state-of-the-art. It is championed by:

- Mark Beach, University of Bristol **www.bristol.ac.uk/engineering/research/csn/**
- Brian Collins, BSC Associates - **www.bscassociates.co.uk**
- Paul Harris, VIAVI Solutions – **www.viavisolutions.com**
- Peter Kibutu, TTP plc - **www.ttp.com**
- Peter Topham, Qualcomm Technologies International - **www.qualcomm.com**

The CW Non-Terrestrial Networks Group - https://www.cambridgewireless.co.uk/special-interest-groups/non-terrestrial-networks.html
The Non-Terrestrial Networks Group convenes engineers, technologists and commercial specialists interested in the technology of, and business case for, the use of satellites in telecommunications. It is championed by:

- Kieran Arnold, Satellite Applications Catapult - **https://sa.catapult.org.uk**
- Steve Clarke, Wyld Networks Ltd - **https://wyldnetworks.com**
- Stewart Marsh, Cambridge Consultants - **www.cambridgeconsultants.com**
- Paul Morris, EnSilica plc - **www.ensilica.com**
- Dr Jaime Reed, CGI - **www.cgi.com**
- Dr Cyril Valadon, MediaTek - **www.mediatek.com**

Profile of Event Host

University of Surrey- **www.surrey.ac.uk**
The University of Surrey is a world-class, research-led university committed to research excellence. Our research seeks to answer global challenges, drive innovation and deliver real-world impact. **The Institute for Communications Systems (ICS)** is home of the 5G/6G Innovation Centre (5G/6GIC), and one of the largest and most renowned academic research centres in Mobile and Satellite Communication Systems. Established for over ten years as one of a number of autonomous research centres at the University of Surrey, it now houses some 160 researchers including over 90 undertaking a PhD, post-doctoral researchers and academic staff. ICS research is focussed on future communication systems including mobile and wireless communications, satellite communications, networking (management, protocols and security).

Profile of Speakers

Dr Mike Short, Chief Architect, Satellite Applications Catapult - https://sa.catapult.org.uk
Dr Mike Short leads a portfolio career in research & innovation including Chief Architect at the Satellite Applications Catapult. He examines new coverage approaches with converged Mobile/Satellite services and supports the adoption of new technologies including AI and Quantum. He chairs advisory boards for both the UK Telecoms Labs (NPL) and the UK Telecoms Innovation Network and is a Visiting Professor at the University of Surrey and UCL. Mike was appointed Chief Scientific Adviser for DIT (now DBT) in 2017, where he led technical aspects of the department and worked on UK engineering exports and inward investment. He represented DIT on HMG committees for Telecoms, Space, Health and Quantum, and led overseas delegations to international trade events such as MWC Barcelona and CES Las Vegas. He was an active member of GoScience as a CSA, and Board member at Innovate UK (part of UKRI). His 30-year tenure at Cellnet/O2 UK/Telefonica Group included launching 2G (GSM) and 3G mobile technologies, winning mobile licenses overseas, and later led international research and standards (including 4G / 5G) for Telefonica. He also ran trials for Mobile TV, Smart metering, Driverless cars, Digital Health, and IoT, and managed the company EU office in Brussels. Mike is a former Chairman of the international GSM Association, the UK Mobile Data Association, EM3 LEP , and was President of the Institution of Engineering and Technology in 2011/ 2012. Board roles have also included ETSI, Innovate UK, UK 5G, Phonepayplus, and Trustee of the Archives of IT.

Rowan Chesmer, R&D Future Technologies Researcher, Vodafone - www.vodafone.com
Rowan is an experience R&D engineer, helping design and develop the future of communications and technology, including pioneering satellite solutions, 6G and IoT solutions. He is Vodafone's technical lead for direct to device, IoT and LEO fixed satellite solutions, working with key players such as AST SpaceMobile and Amazon's Project Kuiper

to help develop and integrate their solutions while also ensuring they meet all relevant regulations and customer demands. Rowan holds a Masters in Engineering from the University of Durham.

Professor Barry Evans, Professor of Satellite Communications, Institute for Communications Research (ICS) and 6GIC at the University of Surrey -www.surrey.ac.uk

Barry is Professor of Satellite Communications in the Institute for Communications and 6GIC at the University of Surrey. At Surrey he founded the Centre for Communication Systems Research, now the Institute for Communication Systems and 6G Innovation Centre, and was a founding Director of Surrey Satellite Technology Ltd. He served as Dean of Engineering and Pro Vice Chancellor for Research and Innovation but has now returned to research full time to head up the satellite communications area in ICS/6GIC. His earlier research pioneered mobile communications from satellite constellations and now he is involved in several projects integrating 5G and 6G networks with satellite systems and NTN-TN coexistence. He has recently been appointed chair of UKTIN's Expert Working Group on NTN to develop UK R&D strategy for the UK. Barry is also founding Editor of the International Journal of Satellite Communications and Networking and a Fellow of the UK Royal Academy of Engineering.

Richard Moore, Principal, Spectrum Policy & Analysis, Ofcom - www.ofcom.org.uk

Richard has 30 years' experience working in technology, strategy and policy roles in industry, regulation and government. In Ofcom, he is leading work to understand the radio spectrum requirements of next generation wireless technologies, such as 6G and direct to device satellite services. Richard has an MBA from the University of Bath and an engineering degree from the University of Cambridge.

Damian Bevan, Wireless System Analyst - https://real-wireless.com

Damian enjoys developing mathematical and computer simulation models in order to solve complex problems in radio science and engineering. He has worked extensively at the forefront of wireless systems technology R&D within Nortel (until 2010), Aceaxis (until 2023) and since 2013 as both an associate and as a member of staff with Real Wireless. Damian specialises in development and modelling of novel wireless adaptive signal processing algorithms, including nonlinear interference detection and mitigation. Damian is experienced in the use of Object Orientated approaches within software models, typically using languages such as Matlab and Python. He has undertaken patent analysis and expert witness work for legal clients including reviews of patent portfolios, claims mappings and prior art. Over the course of his career, Damian has authored or co-authored over 25 open publications, and has over 30 granted patents.

Glyn Thomas, Payload Product Manager and Senior Expert, Airbus Defence & Space - www.airbus.com

Glyn is a Senior Expert in flexible, processed and HTS payloads for both commercial and governmental applications. Glyn is responsible for overall payload strategy within Airbus Defence and Space covering GEO, MEO and LEO. Glyn holds a number of patents in the domain of flexible telecommunications payloads covering active antenna, analogue and digital processing. Glyn is currently leading the design and definition of airbus 3rd generation of flexible satellite payload. This payload will be a scaleable multi-orbit design with the satellites in each orbit being essentially network hubs leveraging each orbit to its fullest extent and according to the specific needs of the data traversing the network. Glyn was deputy chief engineer for Airbus Defence and Space payload equipment's division during the period 2010 to 2014. Glyn previously managed research and development where he generated a number of key patents in the fields of flexible communications payloads. Prior to this Glyn worked in both systems engineering and microwave design roles on the RADARSAT 2 Synthetic Aperture RADAR system. Glyn graduated from St. Andrews University with a degree in Theoretical Physics and also holds a Master's degree in Microwave Solid State Physics

Nima Razavi-Ghods, Senior Consultant, RF and Antenna Technologies, TTP plc - www.ttp.com

Nima Razavi-Ghods is a senior consultant at TTP with over 20 years of experience in the radio technology sector, having previously worked at Cavendish Laboratory, University of Cambridge. His expertise encompasses novel antennas, phased arrays and front-end system design, including low-noise receivers, as well as RF metrology. In recent years, he has helped develop software-defined radio platforms focusing on applications like 5G Non-Terrestrial Networks (NTN).

Stephane Remy, Director of Connectivity, Cambridge Consultants -www.cambridgeconsultants.com

Stephane leads all commercial activities and oversees next stages of development of connectivity across multiple market sectors at Cambridge Consultants. He sets the future strategy for connectivity to help clients create breakthrough innovations. Stephane has taken innovations in 5G, IoT, AI, and more to create innovative solutions for customers, developed and implemented innovative portfolio and technology strategies and help transformed

organizations and maximize value with innovation. Stephane has worked for mobile operators and blue-chip companies including BT, KDDI, O2, and Sky.

Delegate List

Name	Organisation	Profile
Jason Abbott	Iridium	
Chris Adams	Virgin Media O2	
Ahmad Latif Ali	University of Surrey	
Sam Atungsiri	Sony Europe B.V.	Sony manufactures audio, video, communications, and information technology products.
Sophie Barc	Anritsu EMEA Ltd	
Paul Bearpark	42T	
Damian Bevan	Real Wireless	Real Wireless is a wireless consulting company.
Dejan Bojic	Department for Science, Innovation and Technology (DSIT)	Driving innovation that will deliver improved public services, create new better-paid jobs and grow the economy. DSIT is a ministerial department supported by 15 agencies and public bodies.
Richard Carter	CCWW	
Sabrina Cavallini	CGI	We're a leading provider of IT and business consulting services with 90,000 consultants and professionals across 400 offices worldwide.
Charles Chavi	Satellite Applications Catapult	The Satellite Applications Catapult is an independent innovation and technology company created to foster economic growth for the United Kingdom
David Cherrill	Independent	
Rowan Chesmer	Vodafone	Vodafone Group Plc is one of the world's leading telecommunications groups.
Michael Cheung	Vicinity Technologies Limited	
Steve Clarke	Wyld Networks Ltd	Wyld Networks, founded in 2016 in Cambridge, UK, is a pioneering company at the forefront of sensor-to-satellite IoT connectivity solutions.
Peter Claydon	RANsemi	
Simon Clement	Liberty Global	
Brian Collins	BSC Associates	Consultancy services relating to radio systems, antennas and propagation.
Philip Cooper	National Physical Laboratory	Founded by the Royal Society in 1st January 1900, NPL is one of the UK's leading science and research facilities
Ged Cowan	MBNL	MBNL is jointly owned by EE and Three, two of the UK's leading and most innovative mobile operators.
Paul Crane	Cambridge Wireless	The leading community for companies in wireless, internet, semiconductor and software technologies.

James Crawshaw	Omdia	
Sam Darwish	VIAVI Solutions	Viavi Solutions helps network operators address their toughest network, application, and service performance challenges and successfully deploy the networks of tomorrow.
Phil Davies	UL Solutions	UL Solutions is a global leader in applied safety science and delivers testing, inspection and certification services, together with software products and advisory offerings.
Andy Dawes	Laser 2000 UK	Laser 2000 UK is a leading provider of cutting-edge solutions, which cover all aspects of Photonics and Telecommunication networks.
Yeberlin De-Lira	Laser 2000 UK	Laser 2000 UK is a leading provider of cutting-edge solutions, which cover all aspects of Photonics and Telecommunication networks.
Tom Dinsdale	MBNL	MBNL is jointly owned by EE and Three, two of the UK's leading and most innovative mobile operators.
Fariborz Entezami	Clarus Networks	We provide high-speed, low latency connectivity, anywhere in the world. Our services include Starlink, Private 5G, Cellular Coverage, and 4G / 5G solutions.
Barry Evans	University of Surrey	The Institute for Communications Systems (ICS) is home of the 5G/6G Innovation Centre (5G/6GIC), and one of the largest and most renowned academic research centres in Mobile and Satellite Communication Systems.
Horst Fellner	Viavi Solutions	
Ross Galvin	MediaTek	MediaTek is a fabless semiconductor company.
Joe Gardiner	Global mobile Suppliers Association	
Robert Gardner	Scottish Futures Trust	
Zahid Ghadialy	3G4G	3G4G is a Mobile Telecoms Advisory and Consultancy focussing on Technology, Strategy, Analysis and Consulting.
Trevor Gill	Department for Science, Innovation and Technology (DSIT)	Driving innovation that will deliver improved public services, create new better-paid jobs and grow the economy. DSIT is a ministerial department supported by 15 agencies and public bodies.
Renato Goodfellow	Commercis	
Peter Gould	Multiple Access Communications	MAC Ltd is an independent privately-owned contract research and development organisation.
Paul Harris	VIAVI Solutions	Viavi Solutions helps network operators address their toughest network, application, and service performance challenges and successfully deploy the networks of tomorrow.
Martin Harris	Tumika	
Tomoko Hatori	Cambridge Consultants	The deep tech powerhouse of Capgemini
Samantha Hayward	University of Surrey	

Eric Hewitson	Wyld Networks Ltd	Wyld Networks, founded in 2016 in Cambridge, UK, is a pioneering company at the forefront of sensor-to-satellite IoT connectivity solutions.
Gareth Hewlett	Flying River	
Tao Huang	Satraka	
Mark Hunter	Plextek	Plextek's technology specialists can solve your hardest challenges in smart sensing, advanced communications & intelligent data insight. Our people provide solutions to give you the market edge.
Matt Hutfield	Calnex Solutions	
Laura Mejuto Iglesias	Department for Science, Innovation and Technology	Driving innovation that will deliver improved public services, create new better-paid jobs and grow the economy. DSIT is a ministerial department supported by 15 agencies and public bodies.
Mateja Ilic	University of Sussex	
Richard Jacklin	Plextek	Plextek's technology specialists can solve your hardest challenges in smart sensing, advanced communications & intelligent data insight. Our people provide solutions to give you the market edge.
Val Jervis	Plum Consulting	Plum is a leading independent consulting firm.
Christos Kasparis	EnSilica Plc.	EnSilica plc (LON:ENSI) is a leading fabless chip company focused on custom ASIC supply for OEMs and system houses. We develop RF, mmWave and communications chips in advanced technology node.
Konstantinos Katsaros	Digital Catapult	Digital Catapult is the UK authority on advanced digital technology. Through collaboration and innovation, we accelerate industry adoption to drive growth and opportunity across the economy.
Clare Kettle	Cambridge Wireless	The leading community for companies in wireless, internet, semiconductor and software technologies.
Charles Khoury	University of Bristol	
Peter Kibutu	TTP plc	TTP is an independent technology company where scientists and engineers collaborate to invent, design and develop new products and technologies.
Selcuk Kirtay	Plum Consulting	Plum is a leading independent consulting firm.
Victor Kwan	Vicinity Technologies Limited	
Tim Lane	INVISIBLINQ LTD	Supporting the innovative application of connected technologies in the transportation industries.
Andrew Lewis	Globalymbe Limited	
Ying Li	Multiple Access Communications	MAC Ltd is an independent privately-owned contract research and development organisation.
Peter Maddigan	CGI	We're a leading provider of IT and business consulting services with 90,000 consultants and professionals across 400 offices worldwide.

Simran Mardhani	Archangel Lightworks Ltd	
Stewart Marsh	Cambridge Consultants	The deep tech powerhouse of Capgemini
Miguel Angel Matatoros	IFG Consulting Europe	IFG Consulting Europe is a leading business growth consultancy representing promising software providers selling to the Telecoms, Enterprise and Mobile markets in Europe.
Pat Molloy	Digital Catapult	Digital Catapult is the UK authority on advanced digital technology. Through collaboration and innovation, we accelerate industry adoption to drive growth and opportunity across the economy.
Richard Moore	Ofcom	Ofcom is the communications regulator. We regulate TV and radio, fixed line telecoms and mobiles, plus the airwaves over which wireless devices operate.
Paul Morris	EnSilica plc	EnSilica plc (LON:ENSI) is a leading fabless chip company focused on custom ASIC supply for OEMs and system houses. We develop RF, mmWave and communications chips in advanced technology node.
Dave Muirhead	Honeywell Aerospace Technologies	
Amit Nagpal	Aetha Consulting	Strategy consultancy specialising in the telecoms industry
Muhammad Waqas Nazam	MBNL	MBNL is jointly owned by EE and Three, two of the UK’s leading and most innovative mobile operators.
Chris Nokes	Ofcom	Ofcom is the communications regulator. We regulate TV and radio, fixed line telecoms and mobiles, plus the airwaves over which wireless devices operate.
Sami Noor	MBNL	
Obilor Nwamadi	VIAVI Solutions	Viavi Solutions helps network operators address their toughest network, application, and service performance challenges and successfully deploy the networks of tomorrow.
John Okas	Real Wireless	Real Wireless is a wireless consulting company.
Gerard O'Neill	Angetech Consultants	Provider of cellular based wireless communications networks
Poonam Parihar	bandarlog.dev	
Warren Parkinson	MBNL	MBNL is jointly owned by EE and Three, two of the UK’s leading and most innovative mobile operators.
Frank Puranik	Calnex Solutions Plc	
Mostafa Rahmani Ghourtani	University of York	
Adeel Raja	Cellnex Telecom	
Ali Raza	Satellite Applications Catapult	
Nima Razavi-Ghods	TTP plc	TTP is an independent technology company where scientists and engineers collaborate to invent, design and develop new products and technologies.

Stephane Remy	Cambridge Consultants	The deep tech powerhouse of Capgemini
Eva Ribes Vilanova	Keysight Technologies	Whatever your use case, when you are designing, emulating, measuring, or testing your next engineering breakthrough, Keysight has a solution to help you innovate faster and with more confidence.
Matthew Rigby	MBNL	MBNL is jointly owned by EE and Three, two of the UK's leading and most innovative mobile operators.
Richard Rudd	Plum Consulting	Plum is a leading independent consulting firm.
Asanga Samaratunga	MBNL Ltd	
Ayyangar Satalluri		
Anand Sharma	Cambridge Consultants	The deep tech powerhouse of Capgemini
Mike Short CBE	Satellite Applications Catapult	The Satellite Applications Catapult is an independent innovation and technology company created to foster economic growth for the United Kingdom
Susie Siouti	SmartViser	
Andrew Smith	National Physical Laboratory	Founded by the Royal Society in 1st January 1900, NPL is one of the UK's leading science and research facilities
John Smith	UniVirtua	
Kevin Spalding	IoTAS	IoTAS help the wireless community (5G / 4G / 3G / 2G / NB IoT / Cat M1 and Satellite Receivers) to place their products on the market and ensure they perform as expected.
Theo Spathopoulos	Nokia	
Andrew Stirling	Larkhill Consultancy	
Peter Story	42 Technology	
Abhaya Sumanasena	Real Wireless	Real Wireless is a wireless consulting company.
Rahim Tafazolli	University of Surrey	The Institute for Communications Systems (ICS) is home of the 5G/6G Innovation Centre (5G/6GIC), and one of the largest and most renowned academic research centres in Mobile and Satellite Communication Systems.
Niall Tanner	Cambridge Consultants	The deep tech powerhouse of Capgemini
David Taylor	Alpha Micro Components	Founded in 1995, Alpha Micro Components is a successful independent franchised distributor of components for telematics, M2M and IoT.
Glyn Thomas	Airbus Defence and Space	At Airbus, we pioneer sustainable aerospace for a safe and united world.
Ben Timmons	Qualcomm Technologies International	Qualcomm Technologies Inc is the world leader in next-generation mobile technologies.
Paul Tindall	TTP plc	

Walter Tuttlebee	WTIS Ltd - Wireless Technology Innovation & Strategy	
Mert Uygun	3Cell Innovative Solutions	3Cell was established in 2009 and have provided multinational telecom projects for network planning/design/optimisation of 2G/3G/4G/5G for operators and vendors.
Cyril Valadon	MediaTek	MediaTek is a fabless semiconductor company.
Oriol Vidal	Airbus Defence and Space	At Airbus, we pioneer sustainable aerospace for a safe and united world.
Dallin Vines	Avanti Communications	
Jon Wakeling	BT	Leading UK fixed line operator, ISP and telecoms supplier
Abdulhame Waraiet	University of York	
David Williams	Page White & Farrer	Page & White Farrer is a leading firms of specialist patent and trade mark attorneys in Europe.
Joshua Willson	Richardson RFPD	Richardson RFPD, is an Arrow company.
Martin Wren-Hilton	MWH.ME	
Evangelos Xenos	University of Bristol	The Communication Systems & Networks Group was formed in 1985. It performs fundamental academic research with strong levels of industrial application.
Edmond Yeap	RF Channel	RF, Microwave & Mmwave components and solution provider.
Neill Young	RANsemi	