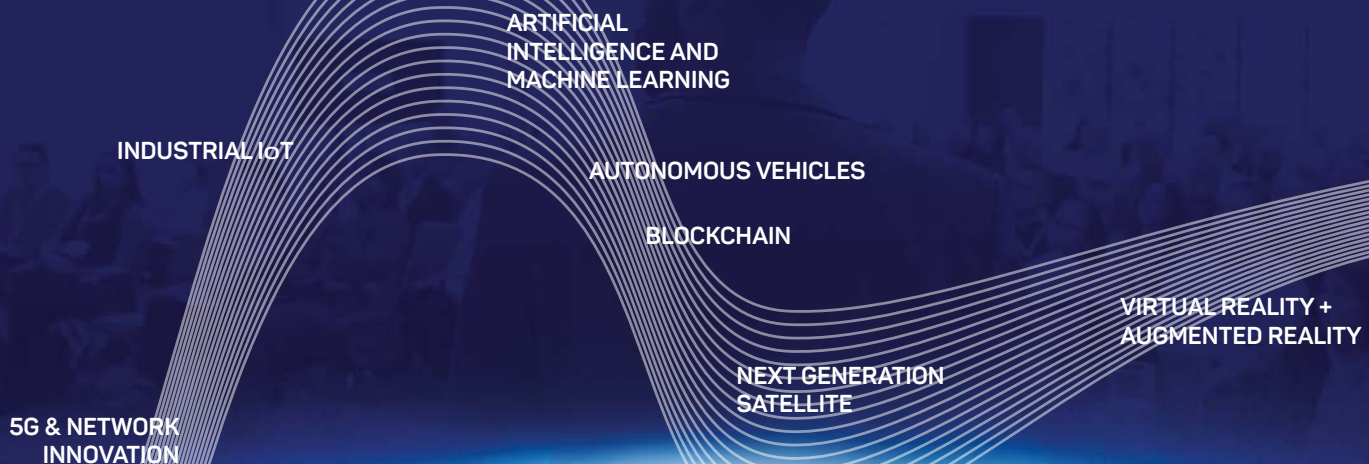


THE 10TH CW INTERNATIONAL CONFERENCE

# THINKING BEYOND THE HYPE

/ 4TH JULY 2018 /



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SEE THE BACK PAGE  
FOR SITE MAP



# USEFUL INFORMATION

## CONFERENCE LOCATIONS

**Registration and help desk**  
Exhibition Space

**Plenary sessions**  
Francis Crick Auditorium

**Track sessions**  
Francis Crick Auditorium / Rosalind Franklin Pavilion

**Refreshments and lunch**  
Exhibition Space

**Drinks reception**  
Chestnut Suite

**Gala dinner**  
Chestnut Suite

## WIFI

Complimentary Wi-Fi internet access is available in the venue. To access the free Wi-Fi simply join the '**ConferenceGuest**' network. Follow the on-screen instructions to register up to 5 devices for 7 days of free Wi-Fi access. To complete registration please ensure you validate your email address from the message you receive.

## SMOKING

We operate a no-smoking policy in all campus buildings. The smoking area is on the left-hand side of the Conference building.

## LOST PROPERTY

Any lost property should be handed into the reception of the Conference centre.

## FILMING AND PHOTOGRAPHY

CW photographers and film crews will be present throughout the conference and footage and photos may be used by CW in future marketing. If you do not wish to be filmed/photographed, please make them aware.

## CONFERENCE FEEDBACK

We value your feedback as this will help us to shape the agenda for future conferences. You can provide your feedback at [www.surveymonkey.co.uk/r/CWIC18](http://www.surveymonkey.co.uk/r/CWIC18). This will be sent to you via email at the end of the conference.

# TO BE OR NOT TO BE?

What better way of celebrating CWIC's tenth anniversary than taking a look at a broad range of current technology trends and asking whether they will just be hype or become winners. CW has a solid reputation for stimulating debate and collaboration, for harnessing and sharing knowledge and for helping to build connections that generate results, and it is on this basis that CW delivers today's programme.

'Thinking Beyond the Hype' emanates from Gartner's Hype Cycle which has become a key reference in marketing and technology reporting, with many businesses using it to guide technology decisions in accordance with their level of comfort with risk. Enabling members to think, and therefore move their technology, beyond the hype that surrounds technological innovations is at the heart of what CW does.

Over the course of today, we're going to be looking in depth at how to 'Think Beyond the Hype' – with the scene set by our keynote speakers we then delve into seven areas covered by a selection of our very own special interest groups: **5G and Network Innovation; Artificial Intelligence and Machine Learning; Blockchain; Mobility into the Future; Industrial IoT and the Connected Enterprise; Mixed Reality, and Satellites.**

The CWIC organising committee has intentionally selected this year's speakers to offer a variety of perspectives, with the objective of the entire event working like a typical CW debate – this is your event so please agree, disagree, question, interact and shape the discussion during sessions but also while networking with our sponsors and partners.

So by the end of the day (and be warned, I am going to ask you!) what will your opinions be? Will you be spurred on for a proof of concept? Are your expectations over inflated? What do you think is heading for the trough of disillusionment? Just how many of today's topics will enlighten you and what technologies do you think will become the winners of tomorrow?

**FAYE HOLLAND**  
Chair, CWIC organising committee



P.S. I must say a huge thank you to the CWIC organising committee members for months of Thursday calls and meetings, to the SIG Champions who keep inspiring great content, and also to the CW Team who are the glue behind everything we do.

## CONFERENCE ORGANISING COMMITTEE

**FAYE HOLLAND**  
Cofinitive  
Chair of Conference  
Organising Committee



**SIMON FLETCHER**  
Real Wireless



**DAVID CRAWFORD**  
Ravensbourne



**ROBERT DRIVER**  
CW (Cambridge Wireless)



**DEREK LONG**  
Cambridge Consultants



**ABHI NAHA**  
CW (Cambridge Wireless)



**GEOFF VARRALL**  
RTT



**PETER WHALE**  
Vision Formers





08:30 – 09:30	Registration   Exhibition Space		
KEYNOTE   FRANCIS CRICK AUDITORIUM			
09:30 – 09:40	WELCOME TO THE CONFERENCE Faye Holland, Founder & Director, Cofinitive Ltd. Dr David Cleevely, Chairman, Raspberry Pi Foundation		
09:40 – 09:50	WELCOME FROM OUR PLATINUM SPONSOR Ian Simmons, Vice President, Business Development, R&D, Magna International		
09:50 – 10:30	KEYNOTE: THINKING BEYOND THE HYPE Matt Hatton, VP of Research, Gartner Rosalind Singleton, Managing Director, UK Broadband & Chair, UK5G		
10:30 – 11:00	Break   Exhibition Space		
	TRACK 1:   FRANCIS CRICK AUDITORIUM	TRACK 2:   ROSALIND FRANKLIN PAVILION	
11:00 – 12:00	INDUSTRIAL IoT AND THE CONNECTED ENTERPRISE Abhi Naha, CCO, Cambridge Wireless, (Chair) Ian Stewart, GM Performance Solutions, Finning UK & Ireland Dr Juan Nogueira, Sr. Director, Connectivity Center of Excellence, Flex Graham Burnett-Hall, Partner, Marks & Clerk Nicolas Devillard, Senior Product Manager, Arm	BLOCKCHAIN Dr Derek Long, Head of Telecoms and Mobile, Cambridge Consultants (Chair) Peter Busch, Senior Expert Connected Mobility / Leader Automotive Blockchain, Robert Bosch Group Alison Davis, Lead Industry Solutions & Business Development Consultant, Telco, Media & Entertainment, IBM Joshua Daniel, Principal Research Scientist, BT TSO Toby Simpson, Chief Technology Officer, Fetch.AI	
PLENARY SESSION 1   FRANCIS CRICK AUDITORIUM			
12:05 – 13:05	SATELLITES Kieran Arnold, Head of Domains, Satellite Applications Catapult (Chair) Rupert Pearce, Chief Executive Officer, Inmarsat Meir Moalem, CEO and Managing Director, Sky and Space Global Dan Mercer, Vice President & General Manager EMEA & Russia, Iridium		
13:05 – 13.10	A WORD FROM OUR LUNCH SPONSOR – MILLS & REEVE		
13:10 – 14:10	Lunch   Exhibition Space	13.50	LIGHTNING TALK James Martin, Senior Cyber Security Manager, Darktrace
	TRACK 3:   FRANCIS CRICK AUDITORIUM	TRACK 4:   ROSALIND FRANKLIN	
14:10 – 15:25	MOBILITY INTO THE FUTURE Ian Simmons, Vice President, Business Development, R&D, Magna International (Chair) David Gilmour, Vice President, Business Development, BP David Goosey, Managing Director, NEXCEL Neal Sunners, Senior Vice President Innovation and Emerging Technologies, Avis Budget Group Dr Steve Marsh, Founder & CTO, GeoSpock	MIXED REALITY – AR/VR AND UX/UI Prof David Crawford, Universities of Essex & Ravensbourne (London), (Chair) Dr Tom Carter, CTO & Founder, Ultrahaptics Dr Brigitta Zics, Deputy Head of Postgraduate Studies, Ravensbourne Tamas Czuper, Sound Designer, Producer and Musician, Ravensbourne Dr Jennah Kriebel, Chief Operations Officer, MotaWord Priya Prakash, Founder, Design for Social Change	
PLENARY SESSION 2   FRANCIS CRICK AUDITORIUM			
15:25 – 16:25	ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING Peter Whale, Founder, Vision Formers (Chair) Max Heinemeyer, Director of Threat Hunting, Darktrace Monty Barlow, Director of Machine Learning, Cambridge Consultants Prof Neil Lawrence, University of Sheffield & Amazon Amelia Armour, Principal, Amadeus Capital Partners		
16:25 – 16:55	Break   Exhibition Space		
PLENARY SESSION 3   FRANCIS CRICK AUDITORIUM			
16:55 - 17:55	5G AND NETWORK INNOVATION Simon Fletcher, CTO, Real Wireless (Chair) Anne Leino, Head of Spectrum Affairs, Nokia Dr Dritan Kaleshi, Lead Technologist, Future Networks, 5G Fellow, Digital Catapult Trevor Gill, Consultant, Department for Digital, Culture, Media and Sport (DCMS) Dean Bubley, Founder, Disruptive Analysis		
17:55 – 18:00	CLOSING REMARKS Faye Holland, Founder & Director, Cofinitive Ltd		
18:00 – 18:45	Reception drinks   Exhibition Space		
18:45 – 21:30	GALA DINNER   RESTAURANT		
	Robert Driver, CEO, CW (Cambridge Wireless) Adrian Hillier, Technology Consultant, TTP plc Dame Wendy Hall, Regius Professor of Computer Science and Pro Vice-Chancellor (International Engagement), University of Southampton		

# SESSIONS

FULL BIOGRAPHIES FOR ALL CHAIRS AND SPEAKERS CAN BE FOUND ON PAGE 13.

## Welcome to the Conference

📍 FRANCIS CRICK AUDITORIUM  
🕒 09:30 - 09:40

**FAYE HOLLAND**

Founder & Director, Cofinitive

Master of Ceremonies

**DAVID CLEEVELY**

Chairman, Raspberry Pi Foundation

## Welcome from our Platinum Sponsor

📍 FRANCIS CRICK AUDITORIUM  
🕒 09:40 - 09:50

**IAN SIMMONS** Vice President, Business Development, R&D, Magna International

## Keynote: Thinking Beyond the Hype

📍 FRANCIS CRICK AUDITORIUM  
🕒 09:50 - 10:30

We live in a world in which proponents of new technologies claim that they have the potential to dramatically change our lives, and these technologies seem to emerge on an almost weekly basis. Some go on to become massive market successes whilst others fail to meet expectations. At CW, we always aim to think beyond the hype, identifying genuine technology game-changers and finding those characteristics which ensure market breakthrough.

CHAIR / **FAYE HOLLAND** Founder & Director, Cofinitive

**MATT HATTON**

VP of Research, Gartner

### Hyperbole and Hyperventilation: the Hype Cyclist's Perspective on Technology

For years Gartner's Hype Cycle has been a mainstay of understanding technology trends. Matt recently joined Gartner when it acquired his technology research and consulting firm Machina Research in 2016. In this session Matt will examine the various big technology trends to be covered in the day's sessions, with a particular focus on technology triggers and hype.

**ROSALIND SINGLETON**

Managing Director,  
UK Broadband and Chair, UK5G

### Between the Peaks; Innovation Outside the Hype Cycle

The Hype Cycle doesn't always reflect needs of businesses, or consumers. By its very nature it has to be futuristic, leaving a gap of real services needed now. How do we see those needs and wants, and encourage innovators to satisfy them?

SPEAKERS

## TRACK 1

📍 FRANCIS CRICK AUDITORIUM

🕒 11:00 - 12:00



## INDUSTRIAL IoT & THE CONNECTED ENTERPRISE



In order to compete in the future the enterprise must undergo radical change. Efficient factories may well be more closely described as fully automated and networked machines that manufacture, test and then deliver products through a logistics process which is little more than the extension of the production line and with relatively low numbers of personnel involved. Once in service these products can be monitored by wide area connectivity with the enterprise ensuring that the products are used in accordance with their design and warranty criteria, as well as the enterprise being able to feedback usage data into the next generation product development process.

CHAIR / **ABHI NAHA** Chief Commercial Officer, CW

### IAN STEWART

GM Performance Solutions,  
Finning UK & Ireland

#### Finning Performance Solutions. Digital Acceleration in the Construction Industry.

This talk will look at how the role of technology in the heavy construction industry is being redefined. Connected equipment, IoT, AI, analytics and eCommerce are fuelling a breakthrough in equipment and customer operations performance. This digital transformation of the Construction sector has data at its core, but this presentation will focus on the importance of information driven products and services working seamlessly with people and process to power unparalleled operational insights and performance breakthroughs for customers.

### DR JUAN NOGUEIRA

Sr. Director, Connectivity Center  
of Excellence, Flex

#### 5G: The Ultimate Enabler of I4.0

This talk will focus on how the three cornerstones of 5G, namely enhanced Mobile Broadband (eMBB), ultra-Reliable and Low Latency Communications (uRLLC) and massive Machine Type of Communication (mMTC), will come together to allow the long-time promised I4.0 to finally take off.

### GRAHAM BURNETT-HALL

Partner, Marks & Clerk

#### IoT Without Borders – How to stop Cherry-picking of Your IoT Model after Brexit

This session will discuss how to protect ownership of your product-as-a-service business model, addressing how to work with third parties to provide your IoT ecosystem, and how to leverage your intellectual property to protect cross-border IoT-based revenue.

### NICOLAS DEVILLARD

Senior Product Manager, Arm

#### The Security Considerations of Connected Devices and their Relationship with the Cloud

The Internet of Things opens new doors for connected devices, including a new world of the Industrial Internet of Things (IIoT). The future of IIoT hangs on authenticity, confidentiality and integrity, enabling high quality data which can inform operational and energy efficiencies, plus the reduction of costs to the bottom line. In order to make sensible data-based decisions, you need to have complete trust that the IoT deployment is working correctly, has not been tampered with and that the received data has not been modified in transit. As IIoT devices will have long lifecycles, with multiple stakeholders, you also need to ensure that everyone in the value chain, has correct read/write access, reflecting their trusted status. Some of these security-based decisions can seem complex and difficult to tackle, but with proven technology, scalable solutions, and a broad ecosystem, security implementation is more accessible to industrial companies than ever before. This session will discuss how to define security requirements, plus the various approaches you can take for securing your devices, your data and your business. You will learn about the need for security in industrial IoT; how this translates into device and data security and how Arm makes this achievable.

SPEAKERS

## TRACK 2

📍 ROSALIND FRANKLIN PAVILION

🕒 11:00 - 12:00



## BLOCKCHAIN

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Blockchain's initial impact has been most keenly felt in the world of finance however the increased level of trust provided by the distributed encrypted databases that blockchain technology provides can benefit many other areas of industry and society. One example is in the Internet of Things in which the integrity and lifetime of a product can be irrefutably monitored in a blockchain based database hence ensuring ownership as well as warranty conditions. The security this provides will be an important enabler for the connected enterprise ensuring trust between customers and vendors who may be geographically located on other sides of the planet and yet wish to do business.

CHAIR / **DR DEREK LONG** Head of Telecoms and Mobile, Cambridge Consultants**PETER BUSCH**

Senior Expert Connected Mobility / Leader Automotive Blockchain, Robert Bosch Group

**How Blockchain May Disrupt the Automotive Industry – An Insider's View**

This session will look at the main disruption factors of blockchain technologies and the impacts on the Automotive industry shown in three dimensions including data usage, market mechanics and cooperation models, with special recognition of Bosch's strategy on the IoT challenges the automotive industry is facing currently.

**ALISON DAVIS**

Lead Industry Solutions &amp; Business Development Consultant, Telco, Media &amp; Entertainment, IBM

**The Power of Blockchain. A Case Study of the Advertising Industry**

This session will outline how blockchain could be the foundational technology that enables much needed transformation in the advertising industry. With a focus on how industries are already adopting blockchain, and a case study of how IBM and Unilever are working together to bring transparency and trust back to the media buying supply chain, this session will help educate on the practicalities of adopting blockchain and where it does, and doesn't apply.

**JOSHUA DANIEL**

Principal Research Scientist, Research &amp; Innovation, BT TSO

**Blockchain in Telecommunications – Our Experience So Far and Opportunities Ahead**

This session will look at the various use cases that we are exploring as a Telco, the logic of selecting use cases and the challenges behind building and operating the POCs. The application areas will cover core Telecom operations, Billing, Cyber Security, IoT and Financial networks. The session will also cover the major technical challenges in adopting blockchain technologies and discuss the innovation required to progress its adoption.

**TOBY SIMPSON**

Chief Technology Officer, Fetch.AI

**Blockchain & Autonomous Agents: A Match Made in Heaven**

Imagine a future where autonomous agents, powered by AI, can communicate and transact with one another seamlessly. A world where this swarm of intelligent agents collaborate in order to solve our problems before they even happen. This is the future Fetch.ai is building and it's all been made possible by advances in decentralised computing and blockchain. Join us to hear how AI, ML and Blockchain combine to help create a more effective digital economy.

SPEAKERS



## PLENARY 1:



## SATELLITES

📍 FRANCIS CRICK AUDITORIUM

🕒 12:05 - 13:05

In addition to the increasing capabilities of terrestrial networks it is becoming clear that both the internet and the Internet of Things are becoming 3 dimensional with the announcement of a number of initiatives to provide data connectivity by satellite. Satellites have the capability of providing connectivity to areas which previously were difficult to connect and at the same time providing solutions to improve spectrum utilisation. The promise of these platforms is accompanied by challenges such as low capacity and complex link characteristics, but these are challenges that will surely be overcome on the route to enhancing the digital platform of the 21st Century.

CHAIR / **KIERAN ARNOLD** Head of Domains, Satellite Applications Catapult

**RUPERT PEARCE**  
CEO, Inmarsat

#### The Role of Satellite Communications in Delivering 5G – Why Satellite Communications will Define the Future of Mobility/Mobile Communications?

The advent of 5G brings a wealth of exciting innovation and growth for our industry. An unprecedented demand for global, mobile “anywhere, always on” network capacity. There will be a higher expectation than ever to deliver security and resilience for mission critical applications over billions of devices. We have a responsibility to ensure that more capacity does not generate more emissions, creating sustainable energy solutions. However all of these opportunities will not be realised by the mobile operators acting alone. It will shape a new direction in collaboration and innovation within the satellite industry and how we address legacy issues.

**MEIR MOALEM**  
CEO and Managing Director, Sky and Space Global

#### Cube SATS

Sky and Space Global share their view on the roll out rate of the new generation of potentially autonomous high-count Cube SAT constellations and the projected cost and performance capabilities of these new LEO networks both in terms of their standalone performance and their ability to add value to other space, sub space and terrestrial narrow band and broadband networks including IoT and voice messaging applications.

**DAN MERCER**  
Vice President & General Manager EMEA & Russia, Iridium

#### New LEO Capabilities

LEO constellations have been providing connectivity to mobile users for over twenty years and are presently being upgraded with more powerful satellites supporting new voice and data services combined with imaging, sensing and positioning. Iridium is now very close to completing the fastest constellation refresh ever achieved in the satellite industry, using Space X as their launch partner. Dan Mercer of Iridium reviews what their ‘NEXT’ constellation delivers in terms of an upgraded service capability and how the LEO sector in general is evolving both in terms of capability and scale.

## Lunch Sponsor Speaker

📍 FRANCIS CRICK AUDITORIUM

🕒 13:05 - 13:10

Mills & Reeve

**MILLS & REEVE**  
Achieve more. Together.

## Lightning Talk

📍 FRANCIS CRICK AUDITORIUM

🕒 13:50 - 14:05

**JAMES MARTIN**  
Senior Cyber Security Manager, Darktrace

#### The Future Impact of AI in Cybercrime

James will cover the upcoming and prominent changes in cybersecurity, and the rise of automation, self-

learning machines and improving AI.

- How AI has a profound impact on our future internet, and the potential for it to enable digital criminals
- The complexity of business and protection, and how current defenders are being outpaced

- Machine learning and advanced mathematics as tools for handling complexity
- Real life examples and applications of attacks
- Inevitable rise of data theft and how best to protect yourself



## TRACK 3

📍 FRANCIS CRICK AUDITORIUM

🕒 14:10 - 15:25



## MOBILITY INTO THE FUTURE



The coming disruption in the mobility and automotive space is driving the most significant technology development demands in its history. 1,700 new companies have entered the industry. The advent of a sharing economy is having an impact and creating the opportunity for services to displace vehicle ownership as well as the potential to disrupt the overall industry business model. The demands for innovation to support this potential revolution requires technology application from other verticals, in-house development and partnership with innovative third parties. The future mobility ecosystem with autonomous technology for ride sharing, local massed transit, delivery services and new modes of mobility will present opportunities through connectivity for a wide array of innovation applied to mapping, real-time localisation, advanced sensors and efficient computing.

**CHAIR / IAN SIMMONS** Vice President, Business Development, R&D, Magna International

### IAN SIMMONS Vice President, Business Development, R&D, Magna International

#### Introduction to Mobility into the Future

Magna is a global mobility technology company providing highly technical systems and building complete vehicles. Mobility as we know it is on the cusp of major change, and so is the industry that supports it. Ride sharing, autonomous shuttles, new mobility concepts, connectivity features is driving rapid change into the ecosystem. Congestion and cities imposing future restrictions on internal combustion engines will influence transport and smart infrastructure. Future challenges in business cases, legislation, how we pay for mobility services and how industry is compensated will have a disruptive impact on the car companies and major suppliers. Mobility is changing, consumers expectations are changing and so is Magna.

### DAVID GILMOUR Vice President, Business Development, BP

#### Creating New Value from Convergence

All oil companies face a dual challenge – deliver the world's growing demand for energy and cut emissions. Growth in supply of hydrocarbons is required both to build economies and to underpin electrification, a global megatrend that may appear to disrupt incumbents like BP. But the convergence of electrification with other trends, like convenience, autonomy and the sharing economy, also creates opportunities for companies like BP. And we are taking both an outside-in and inside-out approach to create some advantage. BP Ventures is investing in high growth, disruptive start-ups, like StoreDot, FlyVictor and Drover that

may one day play a key role in BP's future. We are also spinning out innovation, like Nexcel, into the market to create new value, as well as play a role in building the circular economy. While the future of mobility may not yet be clear, it will include BP.

### DAVID GOOSEY Managing Director, Nexcel

#### Closing the Loop on the Connected Car

Nearly all of us enjoy the convenience a car provides whether we own one ourselves or hire one to get where we need to be. That convenience comes at a cost. The car needs regular service and maintenance and that requires taking it off the road which is a hassle. The convenience of a car also comes at a cost to the environment. Most cars today and in the future, rely on a petrol or diesel engine to provide its power and generating that power creates carbon dioxide – a greenhouse gas. Servicing a car produces 4 or 5 litres of waste oil every time... which, if recovered responsibly, has to be safely disposed of. Nexcel is an exciting new digitally-enabled automotive technology which is helping the automotive transport industry and policy makers responding to these challenges globally.

### NEAL SUNNERS Senior Vice President Innovation and Emerging Technologies, Avis Budget Group

#### The Future of Mobility – the Avis Budget Group Perspective

The world of mobility is evolving daily with automotive companies, technology giants and others making steps to bring new products to markets including Connected Cars, Autonomous Vehicles and more.

However much of that work also needs to start with the consumers who increasingly look to on-demand services to get around.

Avis Budget Group is completely engaged in this shift for both consumers and business and this presentation will provide insights into how we are reinventing rental and digitising our business in preparation for the future of mobility on a global scale across the 180 countries in which we operate.

### DR STEVE MARSH Founder & CTO, GeoSpock

#### Mobilising the Future with Contextual Intelligence

When it comes to making smart decisions context is king, and location data is the king of context. We are progressing, rapidly, towards a world of unfathomable amounts of data. This "tsunami of data", remains, unfortunately, siloed due to the complexity of serving a small subset of discrete use cases. At GeoSpock we bring our expertise of space & time big data engineering to unlock the hidden value in data silos. We aim to build up a holistic and complete contextual understanding of the world, in particular, the M2M physical data world. Our approach starts to bridge the worlds of SmartMobility, SmartInfrastructure, SmartCity, SmartEnergy and SmartHealth. We are creating the fundamentals of DataEconomy 2.0. In doing so, we allow the costs of data generation to be amortised over many applications, opening up new business models and monetisation opportunities – bringing value to all players in the digital value chain and enabling true mobility in the future.

## TRACK 4

📍 ROSALIND FRANKLIN PAVILION

🕒 14:10 - 15:25



## MIXED REALITY – AR/VR AND UX/UI

As products become more capable we are seeing an ever-increasing requirement for more natural interaction including voice, image and gesture. Our children and grandchildren may find the concept of pressing buttons and clicking icons quaint when their main mode of interaction is to talk to machines and to have the machines add information to the visual environment of the user. Such new interfaces not only require new interface technologies and increased intelligence of the underlying service but will have a huge impact on our lives as it becomes easier and faster to have machines perform more and more complex activities on our behalf.

CHAIR / **PROF DAVID CRAWFORD** Universities of Essex & Ravensbourne (London)

**DR TOM CARTER**  
CTO & Founder, Ultrahaptics

### The Role of Touch in Mixed Reality

If you've ever seen someone experiencing virtual reality, you'll notice they almost always do one thing: they reach out to touch the digital content in front of them. Our sense of touch provides us with an enormous amount of information about our environment. As such, the field of haptic technology, simulating the sense of touch, is developing at pace. Ultrahaptics has created a technology which enables users to reach out and feel digital content by projecting tactile sensations through the air onto the user's bare skin, using ultrasound. This talk will cover what this technology brings to mixed realities.

**DR BRIGITTA ZICS**  
Deputy Head of Postgraduate  
Studies, Ravensbourne

**TAMAS CZUPER**  
Sound Designer, Producer and Musician,  
Ravensbourne

### 3D Spatial Sound for MR – an Immersive Experience!

What are the limitations of 'high fidelity' audio systems that have developed within the consumer electronics marketplace? ... can technology recreate a realistic spatial sphere of sound around us, as we experience in our normal lives, and then synchronise this seamlessly with our mixed reality worlds? How does this sound map change when we move our body/head? All will be revealed ... hearing is believing!

**DR JENNAH KRIEBEL**  
Chief Operations Officer, MotaWord

**PRIYA PRAKASH**  
Founder, Design for Social Change

### Panel Discussion: Where is Mixed Reality on the Gartner Hype Cycle?

Rather than using a panel of industry players to comment in turn on questions such as the above, this year we are going to stimulate discussions which will involve the audience, and thereby tap into a significant pool of knowledge, experience and expertise. Two distinguished 'mover-shakers' from the world of new technology and its adoption are going to facilitate the discussions and challenge the delegates with some interesting thoughts and hypotheses.

The Gartner Hype Cycle for Emerging Technologies, published in 2017, places AR in the 'Trough of Disillusionment', and VR just emerging and entering the 'Slope of Enlightenment'. But beyond improving applications like gaming, are there some fundamental acceptance problems for mixed reality technologies in the consumer marketplace? Are we in danger of creating MR technology solutions, and then trying to reverse-engineer them for applications in areas such as education/social media/entertainment; should we use a more human-centered design approach?

SPEAKERS

## PLENARY 2

📍 FRANCIS CRICK AUDITORIUM

🕒 15:25 - 16:25



# ARTIFICIAL INTELLIGENCE & MACHINE LEARNING



In this session we look beyond the hype that suggests that the power of AI is vested in sophisticated new algorithms. In the field of AI it has been said that: "It's not who has the best algorithms who wins, it's who has the most data". Is there a new arms race to own and control the largest data sets, and is this a significant barrier to adoption for new AI entrants? How much of a valuation of an AI business is associated with the data assets that they have control of or access to? How critical for enterprises adopting AI are the data infrastructures where data is stored, processed, manipulated and combined? Do enterprises need more help in unlocking the value of the data they have – without loss of control of that data?

**CHAIR / PETER WHALE** Founder, Vision Formers

**MAX HEINEMEYER**  
Director of Threat Hunting, Darktrace  
(Panellist)

**MONTY BARLOW**  
Head of Artificial Intelligence,  
Cambridge Consultants

## Practice Makes Perfect: Training AI Without Data

In recent years, big data has advanced machine learning, leading to AI breakthroughs such as reliable voice recognition. However, as dynamic applications start to demand more flexible AI, this data-heavy approach is running out of steam. This talk reveals a new way of training AI – learning from real-world experience instead of being limited to pre-prepared data. We'll showcase the latest AI system from Cambridge Consultants' Digital Greenhouse AI research lab, which has learned to see through obstacles that humans cannot.

**PROF NEIL LAWRENCE**  
University of Sheffield & Amazon

Data vs Algorithms - Discuss

**AMELIA ARMOUR**  
Principal, Amadeus Capital Partners

## Data or Algorithm? Which Generates Value in an AI Startup

A consideration of whether access to data is more important to an AI startup than high quality algorithms.

The session will culminate with an interactive debate involving the audience around the relative importance and nature of the roles of better data versus better algorithms in bringing AI services to market.

SPEAKERS





## PLENARY 3

📍 FRANCIS CRICK AUDITORIUM

🕒 16:55 - 17:55



# 5G AND NETWORK INNOVATION



5G is known as the next big step of network, and in particular mobile network, technological change. The reality is, however, that new capabilities are already being added to and are enhancing 4G networks. For example, 4G networks are already capable of Gigabit/s speeds whilst simultaneously being able to support massive machine type communications with NB-IOT. When the 3GPP 5G specifications, beginning with the upcoming standard for New Radio, are implemented and rolled out, the capabilities they bring will further enhance our ability to provide a higher level of automation, perhaps leading to autonomous machines and even autonomous enterprises. The capacities enabled in both the mobile and in the wireline networks will provide a powerful infrastructure for the society of the 21st Century.

CHAIR / **SIMON FLETCHER** CTO, RealWireless

## ANNE LEINO

Head of Spectrum Affairs,  
Nokia

### New Capabilities in 5G Networks

5G includes new capabilities like low latency, extremely high bitrates and active antenna systems including MIMO. These new capabilities facilitate new innovations for MNOs and verticals.

## DR DRITAN KALESI

Lead Technologist,  
Future Networks, 5G Fellow,  
Digital Catapult

5G and Innovation

## TREVOR GILL

Consultant, Department  
for Digital, Culture, Media  
and Sport (DCMS)

### DCMS 5G Programme Strategy & Structure

An overview of the DCMS 5G  
TestBeds and Trials Programme.

## DEAN BUBLEY

Founder, Disruptive Analysis

### Is 5G Really Revolutionary, or is it 'Just Another G'?

This talk will challenge the 'received wisdom' and look at a broad range of opportunities (for example private enterprise networks), challenges (such as indoor coverage) and myths (such as self-driving cars as a killer application for 5G).

SPEAKERS

## Closing Remarks

📍 FRANCIS CRICK AUDITORIUM

🕒 17:55 - 18:00

## FAYE HOLLAND

Founder & Director,  
Cofinitive Ltd

📍 CHESTNUT SUITE, HINXTON HALL

🕒 18:45 - 21:45

## Gala Dinner



## ROBERT DRIVER

CEO, CW (Cambridge Wireless)

## ADRIAN HILLIER

Technology Consultant, TTP plc

## DAME WENDY HALL DBE, FRS, FRENG

Regius Professor of Computer Science and Pro-Vice Chancellor,  
University of Southampton; Executive Director, Web Science Institute

After dinner speaker



# SPEAKER & CHAIR BIOGRAPHIES

**Amelia Armour**  
*Plenary AI*



## Principal, Amadeus Capital Partners

Amelia Armour joined Amadeus Capital Partners Limited in 2009, she serves as a Principal in the Early Stage Funds with an investment focus of Autonomous Systems, AI & Machine Learning, Digital Health and Medical Technology. Prior to Amadeus, she worked at Barclays Investment Bank as a manager in the structured capital markets team with responsibility for running a portfolio of multi jurisdiction transactions. Amelia has also worked in structured finance at the Commonwealth Bank of Australia. She qualified as a chartered accountant with Deloitte in the corporate tax department. Amelia holds a BSc in Chemistry and Biology from Durham University.

Being based in Cambridge she has a particular interest in supporting and nurturing spin-outs from the University and is an active observer on the boards of Cambridge Touch Technologies, a company developing the next generation of force touch for mobile phones and tablets, machine learning company prowler.io and Paragraf, the graphene technology development company.

**Kieran Arnold**  
*Plenary Satellites (Chair)*



## Head of Domains, Satellite Applications Catapult

Kieran acquired a BSc (H) in Avionic & Communications systems at Cranfield University and MSc in Telecommunication at University College London. He has held various senior technical and executive roles over the past 30 years which included R&D Chief Technical Officer for Orange / France Telecom R&D. In 2009 Kieran joined Airbus Space & Defence, formerly EADS Astrium, as their Head of Payload Systems Engineering running the telecommunications payload engineering division, the group was responsible for the design and delivery of advanced communications satellites. Kieran joined the Satellite Applications Catapult in 2013 as head of domains and 5G subject matter expert.

**Richard Baker**  
*Track 3 Mobility*



## Chief Executive Officer, GeoSpock

Richard serves as Chief Executive Officer of GeoSpock, as well as serving as Non-Executive Director for Falcon Media House, a London Stock Exchange listed global Internet Media Group. He is the Chairman of TAB U.K. Ltd, a Data Science company based in Cambridge.

Formerly, Richard was the joint founder and CEO of Cleartrade Exchange (CLTX), incorporated in Singapore, an electronic execution exchange for cash-settled, cleared derivatives and futures contracts. CLTX is regulated by the Monetary Authority of Singapore (MAS) as a Recognised Market Operator (RMO) and as a Foreign Board of Trade (FBOT) in the USA by the CFTC. CLTX provides a specialised order matching engine giving access to an anonymous central limit order book and block traded futures across multiple asset classes and contracts. CLTX was subject to a 100% majority acquisition by the European Energy Exchange, a Deutsche Bourse company in late 2016.

Richard has held several senior executive positions in technology, media and telecommunications. He has served as a non-executive board member in the internet technology solution sector and has directed and co-founded a digital media consulting services firm.

Richard has a passion for people, innovation, driving high standards and achieving high results. Richard holds qualifications in technology and communications and is a frequent speaker at conferences and roundtables.

**Monty Barlow**  
*Plenary AI*



## Head of Artificial Intelligence, Cambridge Consultants

Monty Barlow leads the machine learning capability at Cambridge Consultants, with a particular focus on the practical application of artificial intelligence to industrial problems. Throughout his career he has sought challenges which require high performance computation and algorithms to solve, in diverse domains such as telecommunications, security, transport and healthcare. In 2014, he founded a research lab within Cambridge.

**Dean Bubley**  
*Plenary 5G*



## Founder, Disruptive Analysis

Dean Bubley (@disruptivedean) is the Founder of Disruptive Analysis, an independent technology industry analyst and consulting firm. An outspoken analyst & futurist with over 25 years' experience, he specialises in communications, mobile, and telecoms fields. He is one of the leading market observers covering network infrastructure & software, telecom business models, voice/video communications and broadband/spectrum policy. He is known as a contrarian and visionary, often with challenging opinions that go against industry consensus.

His present focus is on 5G network technology, WiFi, spectrum policy, blockchain & distributed ledgers, the "future of voice and video", mobile broadband, developer platforms and contextual communications. He also advises on trends in telco service creation & monetisation, mobile devices, IoT, applications ecosystems, broad futurism and telecoms regulation/policy.

He provides clients with advice and analytical opinion on topics such as business model validation, technology innovation and go-to-market strategies, "addressable market sizing", planning and due diligence. His clients include many of the world's leading telecom operators, vendors, regulators and industry associations.

Mr Bubley was formerly an equity analyst, covering communications stocks, with the UK arm of investment bank Robert W. Baird. Prior to that, he spent eight years at UK research firm Datamonitor, where he co-founded the company's Technology business, managed the Internet & Networking area and custom consulting operations, with roles of Chief Analyst & Director of Consulting. He holds a BA in Physics from Keble College, Oxford University.

**Graham Burnett-Hall***Track 1 Ind IoT***Partner, Marks & Clerk**

Graham advises on all aspects of intellectual property law, with a particular emphasis on patent litigation and dispute resolution in areas with a high level of scientific or technical content. He advises clients in a wide range of fields, including the electronics and telecommunications, biotechnology and pharma, medical device and chemical sectors. He frequently acts in multi-jurisdictional disputes, co-ordinating and working with legal teams in Europe and the United States. He is one of the few UK practitioners with first-hand experience of running patent litigation in China.

Graham's patent work in the telecommunications and electronics sectors has covered standard essential patents, electronic program guides, transmission systems (including applications of LTE and video streaming using CDNs), radio frequency identification devices and encryption methods. In the life sciences, biotech and health care sectors he has focussed on antibodies, small molecule drugs, pharmaceutical formulations, insulin-like growth factors and binding proteins, omega-3 fatty acids, stent valves and occluders, and wound dressings. Other matters have covered technologies as diverse as artificial sweeteners and flow meters. His cases include leading authorities on priority rights and contributory patent infringement.

He also conducts proceedings relating to other IPRs, such as designs, trade marks, trade secrets and confidential information, including emergency injunction applications, opposition proceedings and infringement and validity disputes, as well as advising on commercial and transactional matters.

Graham is recommended in the IAM Patent 1000 guide, which describes him as a "cross-border whizz", and is also listed as an 'IP Star' by Managing Intellectual Property. He has been included in Legal 500, and listed as an expert by Who's Who Legal for his "reputation as a trouble-shooter for cases with unusually complex technical aspects".

**Peter Busch***Track 2 Blockchain***Senior Expert Connected Mobility / Leader Automotive Blockchain, Robert Bosch Group**

Peter is Senior Expert for Automotive Integration -an Automotive think tank for the board of management of Robert Bosch. He has 25+ years of experience in international project management, coaching and training in SW/HW development. He holds a diploma in computer science and business administration and worked i.e. for JP Morgan, Sun Microsystems and the BOSCH Group. His current interests and responsibilities are Connected Mobility and IoT technologies and the respective business models and ecosystems for all engineering disciplines.

**Dr Tom Carter***Track 4 MR***CTO and Founder, Ultrahaptics**

Ultrahaptics' breakthrough technology creates the sensation of touch in mid-air - shapes and textures that cannot be seen but can be felt. It enables customers to harness the extraordinary power of haptics, and expertly supports them to deliver immersive, intuitive, innovative and often magical experiences across a range of sectors. The company has raised £30m in funding, and employs around 100 people worldwide with offices in Bristol, Palo Alto, Munich and Seoul.

Tom started exploring ultrasound technology during a study in the final year of his Master's degree in Computer Science at the University of Bristol. He further developed the initial concept to form the basis of his PhD studies, during which time he published numerous papers and filed various patents. Recognising the technology's commercial viability, Tom founded Ultrahaptics in November 2013.

**Dr David Cleevely***Welcome***Chairman, Raspberry Pi**

David Cleevely is an entrepreneur who has founded a series of companies including Abcam, Analysys, 3waynetworks and others. Dr Cleevely is the Chairman of Raspberry Pi, founding Chairman of the Cambridge Science Centre and the Founding Director of the Centre for Science and Policy, University of Cambridge as well as acting as a government advisor. He also co-founded Cambridge Network, Cambridge Wireless, Cambridge Angels and the award winning restaurant Bocca di Lupo.

**Prof David Crawford***Track 4 MR (Chair)***Universities of Essex & Ravensbourne (London)**

David Crawford is a Professor at the University of Essex and at Ravensbourne in the UK, with interests in next generation networks and 'beyond HD' multimedia services. He is well-known in the engineering and business fraternities, having worked for over 40 years in the telecoms and broadcast industries and academia. David lectures on 'ICT', 'Networks' and 'Broadcast Technology', and is Director of a small high tech start-up in France. He also runs his own technical Consultancy Company, TTL, and chairs and presents regularly at technical and business conferences. David is a Member of the Royal Television Society, an ex-Board and Council Member of the Institute of Engineering & Technology (IET), and has been the Executive Producer for the annual IBC Multimedia Conference in Amsterdam for many years.

**Tamas Czuper***Track 4 MR***Sound Designer / Music Producer, Ravensbourne**

Tamas Czuper is a sound designer, producer and musician. He has worked with a wide range of professionals from live music band recordings to advertising companies. Tamas has created sound design and music for advertisements such as Lacoste, Speedo, Berghaus and Canterbury. He has been working on numerous documentaries, feature films, animation films, shorts movies and commercials. Over the course of 12 years, he has done live audio multi-track recordings.



**Dr Joshua Daniel**  
*Track 2 Blockchain*



### Principal Research Scientist, BT TSO

Dr Joshua Daniel is a Principal Research Scientist at the Security Futures Practice of BT TSO. He has expertise on Blockchain technology, Distributed systems architecture, IoT Security, Semantic Web, Cloud Computing and Information Security. Joshua has been leading the introduction of Blockchain technology into BT Radianz, the world's largest secure financial network and further exploring use cases of Blockchain technology in IoT Security and Identity management in a post-password world. He has filed more than two-dozen patents in securing Blockchain and utilising such technologies for service integration, risk based access and identity management, secure code distribution and secure data sharing techniques. Joshua have also contributed to the introduction of cloud-based, secure application, data and email protection services with the cloud service stores on BT's Cloud Incubator and BT Cloud Compute platform. He has a PhD and BEng from the University of Southampton UK and has also worked for Rolls-Royce, UK.

**Alison Davis**  
*Track 2 Blockchain*



### Lead Industry Solutions & Business Development Consultant, Telco, Media & Entertainment, IBM

Alison is a seasoned advertising, digital media & entertainment and telecommunications professional with over 20 years' experience. Having worked for, firstly, M&C Saatchi and then Virgin Media, she joined IBM in 2016 to use her in-depth industry knowledge to help bring their transformative technology to enterprise clients across the industry. Alison is an expert in the application of emerging technology to power business growth and is currently focusing on three main areas: AI, Blockchain and AR/VR.

**Nicolas Devillard**  
*Track 1 Ind IoT*



### Senior Product Manager, Arm

Nicolas Devillard is a Senior Product Manager at Arm, managing security for Mbed OS. A software engineer, he has 15 years of experience working with smart cards, trusted execution environments, public-key infrastructure, and network security. His main focus is making security the path of least resistance for the designers and inventors of billions of connected objects. He lives in Paris France, where he graduated in 1994 as an Electronics Engineer, specialising in Signal Processing.

**Robert Driver**  
*Pre-Dinner Welcome*



### CEO, CW (Cambridge Wireless)

Bob joined CW in May 2015 with a focus on leading the development of the organisation, broadening its reach with other sectors and clusters, while retaining the unique culture and dynamism of the CW community. Working with the Events team, Bob is strategy lead for a number of Special Interest Groups (SIGs) and recently joined the editorial panel for the company's latest venture; CW Journal, a quarterly publication advocating strong tech thought leadership within the wider CW community. Prior to working at CW, Bob was Director for Technology at UK Trade & Investment [UKTI] where he successfully led teams helping UK tech companies to access overseas opportunities as well as attracting technology inward investment into the UK. He also coordinated the UKTI science and innovation agenda and was responsible for the delivery of UKTI events from small missions to large trade fairs.

**Simon Fletcher**  
*Plenary 5G (Chair)*



### CTO, Real Wireless

Simon joined Real Wireless in January 2016 as Chief Technology Officer, taking overall technical and technical strategy responsibility across the company. He has chaired various conference committees including the Cambridge Wireless Annual International Conference and is recognised as a regular speaker at industry events. He is a Small Cell SIG Champion. His long-standing association with the UK innovation eco-system through roles such as Director of mVCE and the Innovate-UK ICT-KTN brings a wealth of practical knowledge on open innovation to accelerate product and services delivery. Simon spent the past 20 years working in telecoms infrastructure systems and product development. In NEC Corporation he played a key role in the formation of Joint Ventures for development of 3G and 4G products and established a core team that developed the first-generation of technology for 4G systems culminating in a Steering Board position in the LTE SAE Trials Initiative (LSTI). In recent times he has directed projects on future cities, the application 5G and IoT in industry verticals with an event horizon towards 2030. His long participation in Common Public Radio Interface (CPRI) and then directing Real Wireless engagement in H2020 5G-NORMA, 5G-MoNArch and the 2016 NIC study on Future Comms infrastructure brings great foresight on a range of architectural evolutions underway in 5G architectures.

**Trevor Gill**  
*Plenary 5G*



### Consultant, Department for Digital, Culture, Media & Sport (DCMS)

Trevor Gill graduated from Cambridge University in 1977 and joined Racal Electronics to work on development of military radio systems. In 1983 he was part of the small team which helped to choose the technology of the analogue cellular network launched by Racal Vodafone in 1985. He initiated the design of the world's first GSM mobile phone before moving to Vodafone to lead development of radio planning software. In Vodafone R&D he steered the subsequent development of 3G, 4G and the beginnings of 5G technology. He was recognised as a Vodafone "Distinguished Engineer" in 2012. He is now an independent consultant and trustee of two charities which encourage young people to take up careers in engineering.

**David Gilmour**  
*Track 3 Mobility*



### Vice President, Business Development, BP

After graduating with MA, D.Phil in Inorganic Chemistry from Oxford University in 1986, David joined ICI Paints as a chemist formulating paint for use in the automotive crash-repair industry. David moved into product and brand management and into key account management with the major automotive companies. In 1996, David joined Burmah Castrol to run the Marine lubricants business in the UK and stayed for the next 12 years as the business became the leading player in the marine lubricants industry. During this time David held a number of different roles as Marketing and Technology Director, Strategy Director, Performance Unit Leader and Global Sales Director.

In 2009, David joined Air BP as Chief Operating Officer, overseeing major transformation, including driving innovation through new partnerships and venturing. In 2016, David joined group technology, with responsibility for BP Ventures, technology commercialisation & strategy, planning and communications. David has been instrumental in BP's strategic decision to increase its venturing activities in support of the company's transition to lower carbon and is now accountable for venturing investments. David is married to Amanda and has three children, Matthew, Jonathan and Natalie and is based in Windsor, UK.



### David Goosey

*Track 3 Mobility*



#### Managing Director, Nexcel

David is the Managing Director of Nexcel, a new business venture within Castrol's lubricants business. The business is developing and marketing unique technology which will improve vehicle servicing flexibility and efficiency for owners and operators, reduce the environmental impact of waste oil and reduce vehicle CO2 emissions.

The business has ambitious growth plans and the potential to become a significant contributor to BP's future.

David has over 30 years of global B2B experience including, agriculture, automotive coatings and lubricants and shipping in roles with ICI Paints, PPG and Castrol / BP. David is married with two grown up children. He is a keen sailor and mountain walker and trustee of a woodland charity.

### Dame Wendy Hall

*After-Dinner Speaker*



#### DBE, FRS, FREng, Regius Professor of Computer Science and Pro Vice-Chancellor (International Engagement) at the University of Southampton, and Executive Director of the Web Science Institute

Dame Wendy Hall, DBE, FRS, FREng is Regius Professor of Computer Science and Pro Vice-Chancellor (International Engagement) at the University of Southampton, and is the Executive Director of the Web Science Institute.

With Sir Tim Berners-Lee and Sir Nigel Shadbolt she co-founded the Web Science Research Initiative in 2006 and is the Managing Director of the Web Science Trust, which has a global mission to support the development of research, education and thought leadership in Web Science.

She became a Dame Commander of the British Empire in the 2009 UK New Year's Honours list, and is a Fellow of the Royal Society.

She has previously been President of the ACM, Senior Vice President of the Royal Academy of Engineering, a member of the UK Prime Minister's Council for Science and Technology, was a founding member of the European Research Council and Chair of the European Commission's ISTAG 2010-2012, and was a member of the Global Commission on Internet Governance.

She is currently a member of the World Economic Forum's Global Futures Council on the Digital Economy, and is co-Chair of the UK government's AI Review, which was published in October 2017.

### Matt Hatton

*Keynote*



#### Research Vice President, Gartner

Matt Hatton is a widely respected technology analyst with 20 years of experience and is a foremost industry expert on the Internet of Things. Mr. Hatton is a member of Gartner's IoT Group where he spends his time helping vendors and enterprises understand the implications and opportunities presented by the growth of the Internet of Things. Matt was previously the Founder and CEO of Machina Research, a boutique research firm focused on IoT, which was acquired by Gartner in November 2016.

### Max Heinemeyer

*Plenary AI*



#### Director of Threat Hunting, Darktrace

Max is a cyber security expert with over eight years' experience in the field specializing in network monitoring and offensive security. At Darktrace, Max works with strategic customers to help them investigate and respond to threats as well as overseeing the cyber security analyst team in the Cambridge UK headquarters. Prior to his current role, Max led the Threat and Vulnerability Management department for Hewlett-Packard in Central Europe. He was a member of the German Chaos Computer Club, working as a white hat hacker in penetration testing and red teaming engagements. Max holds a MSc from the University of Duisburg-Essen and a BSc from the Cooperative State University Stuttgart in International Business Information Systems.

### Adrian Hillier

*Dinner Sponsor*



#### Adrian Hillier, Technology Consultant, TTP plc

Adrian Hillier is a Technology Consultant with more than 20 years of experience leading cutting-edge developments in the mobile communications sector, spanning cellular, LPWAN and satellite systems. At TTP, he assists the Wireless Communications Group in developing business opportunities with clients in the satellite IoT and smart antenna arenas. Adrian previously spent a significant part of his career in the consumer semiconductor industry, developing disruptive modem IP for some of the biggest players in the cellular industry.

### Faye Holland

*Master of Ceremonies*



#### Founder & Director, Cofinitive Ltd

Faye Holland is founder of Cofinitive Ltd, a communications and engagement company based in Cambridge, UK. Faye has launched, transformed (and retired) dozens of projects and, as an experienced communicator, works cohesively at all levels of organisations and their stakeholder communities. Prior to founding Cofinitive, Faye ran the European and Asia-Pacific operations of a global media company. She worked at IBM on numerous emerging technology projects including wireless e-business, wireless broadband solutions and RFID. Faye started her career locally at PIPEX, where she was responsible for UK and Ireland marcomms for direct and indirect sales and launched the first iteration of PIPEX Dial.

Faye is locally recognised as chair of the Connectivity Group in Cambridge Ahead and spearheaded the #CambsNotspotter campaign, in which some CW members have also been involved.

Faye has recently been shortlisted in numerous awards, locally and nationally, including Unsung Hero and Women Entrepreneur of the Year.



**Dr Jennah Kriebel**  
Track 4 MR



### Chief Operations Officer, MotaWord

Dr Jennah Kriebel completed a PhD in 2006 on enabling technologies underlying quantum computing, from Harvard University. A thought leader and respected voice on the business of emerging technologies, she focuses especially on the similarities across different industries of the digital/physical interface. She has especially enjoyed advising the CEO of a Forbes-Global top 50 company on emerging future-tech strategy with the Boston Consulting Group, positioning attentive investors to win in security data analytics by entering a stealth startup at the ground floor, designing an AI-track session for SXSW, and building and testing in zero gravity a space-ready medical lab-on-a-chip with N.A.S.A.

**Dr Dritan Kaleshi**  
Plenary 5G



### Lead Technologist, Future Networks, 5G Fellow, Digital Catapult

Dritan Kaleshi is an experienced technologist, with over 20 years R&D experience in communication networks, distributed systems, their interoperability and system integration. He is Lead Technologist for Future Networks and 5G Fellow at Digital Catapult, where he leads the 5G Future Networks program, focusing on national coordination of 5G activities and how to best link advanced digital infrastructure R&D with digital innovation to deliver economic impact. Prior to joining Digital Catapult, Dritan was with University of Bristol, where he led a 15-strong team researching in advanced wireless and fixed networks, system architectures and protocol design with leading practical implementations in smart energy, cities and healthcare, including large scale demonstrator platforms (SPHERE and Bristol Is Open). He has represented the UK in international standardisation bodies, holds several patents, has edited two international standards, and has more than 70 publications. He was a member of the UK Future Communications Challenges Group, and is a member of the UK5G Advisory Board.

**Prof Neil Lawrence**  
Plenary AI



### University of Sheffield/Amazon

Neil Lawrence leads Amazon Research Cambridge where he is a Director of Machine Learning. He is on leave of absence from the University of Sheffield where he was a Professor in Computational Biology and Machine Learning jointly appointed across the Departments of Neuroscience and Computer Science. Neil's main research interest is machine learning through probabilistic models. He focuses on both the algorithmic side of these models and their application. He has a particular focus on applications in personalized health and computational biology, but happily dabbles in other areas such as speech, vision and graphics. Neil was Associate Editor in Chief for IEEE Transactions on Pattern Analysis and Machine Intelligence (2011-2013) and is an Action Editor for the Journal of Machine Learning Research. He was the founding editor of the Proceedings of Machine Learning Research (2006) and is currently series editor. He was an area chair for the NIPS conference in 2005, 2006, 2012 and 2013, Workshops Chair in 2010 and Tutorials Chair in 2013. He was General Chair of AISTATS in 2010 and AISTATS Programme Chair in 2012. He was Program Chair of NIPS in 2014 and was General Chair for 2015. He is one of the founders of the DALI Meeting and Data Science Africa.

**Anne Leino**  
Plenary 5G



### Head of Spectrum Affairs, Nokia

Anne Leino was born in Salo, Finland. She received Master of Science degree from the University of Technology, Espoo, in 1991. Ms. Leino joined Telecommunications Administration Centre, Finland, in 1991, working with spectrum topics related to the regulation of public mobile networks. She changed to Nokia Networks in 1997 to work as a frequency manager covering, especially, the frequency arrangements related to the IMT-2000 networks. She was the head of spectrum regulatory and ITU-R team in Nokia Siemens Networks and continued the same work in Nokia Networks (as re-established in 2014) with a new title Head of technical spectrum regulation.

She has participated in IMT related regulatory groups within CEPT and ITU-R and in a number of IMT industry groups. She used to be the chairman of UMTS Forum Spectrum Aspects Group (SAG) in 2003-2008. Ms. Leino is Coordinator for the CEPT region for the GSA Spectrum Group.

**Dr Derek Long**  
Track 2 Blockchain (Chair)



### Head of Telecoms and Mobile, Cambridge Consultants

As head of telecoms and mobile at Cambridge Consultants, Derek leads the company's collaboration within the sector. Central to Derek's role at Cambridge Consultants is helping create breakthrough innovation that transforms the delivery of high-performance communication for their partners; from mobile carriers and ISPs, to vendors and component manufacturers. With over 20 years' experience in mobile technology, Derek has held a range of multinational senior management roles and has a wealth of expertise across all generations of mobile and broadband technology, including LTE-A and 5G. Derek holds a PhD in telecommunications from the University of Bristol.

**Dr Steve Marsh**  
Track 3 Mobility



### Founder & Chief Technology Officer, GeoSpock

A technology entrepreneur, Steve graduated from The University of Cambridge with a PhD in Computer Science in 2013. Steve's PhD research led him to build custom supercomputer architectures for the real-time simulation of human brain function. It was his extensive PhD research that inspired GeoSpock's revolutionary technology.

An Information Age UK Data Entrepreneur of the Year 2017 winner, Steve is a member of Forbes' 30 under 30 2016, and an alumnus of the Techstars Winter 2014 cohort in London. He is also a past winner of Information Age's UK Data Entrepreneur of the Year and an affiliate of TechCity's Upscale programme for high-growth businesses.

While reading his PhD at Cambridge University, Steve founded Collide, a location-aware mobile application (iOS and Android), winning both the 'Silicon Valley Comes to the UK' Cambridge Appathon, and Cambridge University Entrepreneur of the Year 2012. Steve also holds an MEng in Computer Science from The University of Manchester.

Steve has secured \$13.2 million funding for GeoSpock to date, having recently raised an additional \$6.6 million, which closed GeoSpock's Series A funding round and will help to expand the business into new regions around the world.

**James Martin***Lightning Talk***Senior Cyber Security Manager, Darktrace**

James' career began working with IBM and EMC in big data infrastructure where he addressed audiences alongside customers such as Red Bull and Bosch, before moving into artificial intelligence and cyber defence. At Darktrace, James is a Senior Manager working with our most high profile blue chip clients across industry sectors including one of the UK's leading retailers. He has spoken in front of a vast array of audiences internationally. James' specialism lies in the application of AI and machine learning in order to futureproof and protect an organization's core business assets against cyber threat.

**Dan Mercer***Plenary Satellites***Vice President & General Manager EMEA & Russia, Iridium**

Dan Mercer is Vice President for Europe, Middle East, Africa & Russia at Iridium Communications, the only satellite communications constellation that offers truly global voice and data coverage, currently in the midst of the most technologically advanced and largest satellite network replenishment programme – Iridium NEXT. Dan is responsible for expanding and managing Iridium's business activities across the region, having just short of 30 years of experience with a variety of technology businesses & customers, 15 of those years being with Iridium. Dan holds a First Class Honours Degree in Mechanical Engineering, from Kingston University, UK.

**Meir Moalem***Plenary Satellites***CEO & Managing Director, Sky and Space Global**

Mr. Meir Moalem is a co-founder of Sky and Space Global Ltd and serves as its Managing Director and CEO since November 2015. Mr. Moalem is a jet fighter pilot, Lt. Col (Res.) of the IAF. He has over 20 years of experience in management, R&D and operation of state-of-the-art projects in Space Systems and Unmanned Aerial Systems, among those acting as a deputy sq. commander and leading the MEIDEX experiment on Space Shuttle Columbia (STS-107) as the project manager for Israel's first astronaut flight, Managing Israel's satellite projects (such as Ofeq, Tecsar) and more. He has also received the Israel National Defence award in 2009. Mr. Moalem has a B.Sc. in Physics and computer sciences (with honours) and an M.A. from the Diplomacy and National Security executive program (with honours). Currently he is working on his PhD in national security and space programs in Tel Aviv University, Israel. Meir has also received the Israel National Defence award in 2009.

**Abhi Naha***Track 1 Ind IoT (Chair)***CCO, CW (Cambridge Wireless)**

Abhi has a long heritage with CW having previously founded the CW Handset Special Interest Group (SIG) in 2008, now called Future Devices. Prior to CW, Abhi studied Electronics and Electrical Engineering, has a MBA in International Marketing and interestingly, was approached by Cambridge University Press (alongside a colleague at the time) to write a book on Mobile Handset Design which was successfully launched in New Delhi.

20 years in the ICT industry, it's fair to say Abhi has built up an enviable network of contacts, to the great fortune of CW! He joined the team in June 2015 as Head of Marketing before landing his current role as CCO. Abhi is responsible for commercial operations, engagement with the start-up community, and is a key driving force behind CW Unplugged; an initiative aimed at the younger generation. A strong advocate of digital inclusion and diversity within the technology industry, Abhi champions this across all areas within CW and actively mentors several young CEO Founders.

**Dr Juan Nogueira***Track 1 Ind IoT***Sr. Director, Connectivity Center of Excellence, Flex**

Dr. Nogueira is Sr. director of the Center of Excellence for Wireless and Connectivity at Flex. In this role he is defining technology roadmaps, evaluating new innovative solutions, establishing strategic collaborations with partner companies and leading internal research programs in the field of wireless communication in general and Internet of Things in particular.

Prior to working at Flex, he was Lead System Architect of Advanced Development and System Architectures first at Robert Bosch GmbH and then at Bosch Connected Devices and Solutions GmbH (BCDS) in Reutlingen (Germany). In this position he defined the connectivity technology roadmap that later concluded with the foundation of BCDS as the Bosch subsidiary focused in connectivity and IoT.

Before that, he worked in corporate R&D for wireless communication and sensing systems at Sony Corporation in Stuttgart (Germany) where he held the positions of Senior System Engineer and Principal Engineer.

Dr. Juan Nogueira holds a PhD in Telecommunications Engineering from the University of Vigo (Spain). He subsequently became an associated professor at the University of Vigo in the Electronic Technology Department, collaborating with industry on projects in the area of industrial field buses. He has written numerous articles and holds 20+ patents in the area of communication protocols and wireless sensor networks.



## Rupert Pearce

Plenary Satellites



### Chief Executive Officer, Inmarsat

Rupert Pearce is Chief Executive Officer of Inmarsat and a member of its Board of Directors. He has held the position of CEO since January 2012 and prior to that was an Executive Director. A lawyer by profession, Rupert initially joined Inmarsat in 2005 as Group General Counsel and also held the role of Senior Vice President of Inmarsat Enterprises from 2009 to 2011.

Before joining Inmarsat, Rupert spent five years at private equity firm Atlas Venture and also spent 13 years specialising in corporate finance and M&A at multinational law firm, Linklaters, where he became a partner.

In a non-executive capacity, Rupert chairs the EMEA Satellite Operators Association, is part of the Broadband Commission for Sustainable Development and is a member of the Steering Committee of the Smart Africa Initiative as well as sitting on the board of techUK.

Rupert holds a first-class Master's degree in Modern History from Oxford University, studied at the Georgetown University Law Centre in Washington DC and is also a visiting fellow of the Imperial College Business School in London.

Outside of the office Rupert is married with 3 children and is a sports enthusiast who enjoys cycling, swimming, sailing, cricket and rugby.

## Priya Prakash

Track 4 MR



### Founder, Design for Social Change

Priya Prakash is designer-founder of London based award-winning D4SC – Design for Social Change Ltd – The applied urban innovation studio develops collaborative products and services combining human and machine intelligence to co-create smarter cities with people.

Changify #SmarterStreets D4SC's intelligent people- powered decision making platform to improve public infrastructure got awarded by Innovate UK to pilot in Plymouth with Amey Ferrovia. It resulted in reducing average road inspection costs by 22%, increasing citizen satisfaction and contractor responsiveness by 19.8% and is being scaled across UK and Asia. Prakash is on 'Tech City Insider 100', IBM's People for Smarter Cities and featured in FT, Sunday Times, BBC, Wired, Guardian and the Queen's 2017 Honours list for award winning work in Chinese smart cities using data to improve public safety.

Prior to D4SC, Priya was Head of Mobile Phone User Experience at Nokia where she led the global design team to launch affordable smart phones – Nokia Asha in 144 countries. At BBC, she was lead-designer and co-inventor of iPlayer with joint patents.

## Ian Simmons

Sponsor Welcome /  
Track 3 Mobility (Chair)



### Vice President Business Development, Corporate Engineering and R&D, Magna International Inc.

Ian has served as Vice President Business Development, Corporate Engineering and R&D since 2012 and is responsible for identifying and developing new business opportunities with start-ups, universities, venture capital companies and entrepreneurs. As a result of his work in the last 12-15 months, Magna has entered into partnerships with more than 15 companies and invested over \$90 million.

Ian joined Magna in 2003 as Executive Director Sales and Program Management for Magna Steyr North America. In 2008 he was promoted to General Manager, and in 2010 this role was expanded to President of Magna Steyr North America.

Ian, who has worked in the automotive industry for more than 35 years, began his career in 1976 with student training at the Ford Motor Company in the U.K. Upon leaving Ford in 1982 he undertook engineering assignments in Europe with Volkswagen and DAF Trucks.

In 1990 Ian held the position of Manager of Business Development for Hawtall Whiting Plc. in the U.K., where he was responsible for sales activities throughout Europe. In 1993 he accepted a transfer to the company's U.S. operation to become Vice President of Sales. In 1995 Ian became Vice President of Operations for the Hawtall Whiting technical center in Sterling Heights, Michigan.

Ian returned to the U.K. in 1997 as Director of Business Development for TWR Ltd supporting TWR Group sales and operational tasks for the technical services division. He subsequently returned to the U.S. in 1999 and joined Porsche Engineering Services as Head of Sales in 2000. Ian holds dual U.S. / U.K. citizenship.

Ian has been a member of the Society of Automotive Engineers for over 20 years.

## Toby Simpson

Track 2 Blockchain



### CTO, Fetch.AI

Toby brings with him over a quarter of a century of experience in software architecture and development and more than a decade as CTO across three companies. As a software developer and manager, he's built and directed several successful computer games including producing the highly successful Creatures series in the 90s. Armed with a fresh, biologically inspired approach to managing software complexity and creating digital intelligence he went on to become Head of Software Design at DeepMind and to construct a shared virtual world architecture called Alice, which powered the world's most complex online 3D real-time strategy game.

## Rosalind Singleton

Keynote



### Managing Director, UK Broadband & Chair, UK5G

Rosalind Singleton is a telecoms CxO, mentor and angel investor with over 25 years experience in the industry.

Rosalind joined UK Broadband in 2013 and has been Managing Director since 2017. She has previously held senior roles at BT, Cable and Wireless, Vodafone, various VNOs, and other international operators from start-ups to incumbents.

Most recently Rosalind has been appointed as the inaugural Chair of the UK5G Advisory Board. UK5G is the national innovation network dedicated to the promotion of research, collaboration and the commercial application of 5G in the UK, providing advice to and working closely with the Department for Digital, Cultural, Media and Sport (DCMS).

She is an active angel investor and mentor, focussing on businesses with a female founder. Her investments span wearables, software, big data and blockchain amongst others. She is an experienced speaker and panellist on the role of women in early stage investing and telecoms innovation.

UK Broadband delivers wireless broadband to customers across the country through retail and wholesale services as Relish, and delivers wireless solutions to critical national infrastructure providers and local government customers across the UK.

## Ian Stewart

Track 1 Ind IoT



### GM Performance Solutions, Finning UK & Ireland

Ian joined Finning UK (Ltd) in 2017 as GM Performance Solutions. He leads Finning Managed Services (FMS) and SITECH with a focus on transformation of Finnings Performance solutions organisation and solution capability.

With a background of Innovation value creation and strategy in Digital Technologies across Computing, Telecoms and Machine to Machine solutions, Ian has led technical and commercial teams in a range of digital transformation and new business creation spanning a wide range of enterprise sectors and critical national infrastructure sectors globally.

Ian has worked in the Digital and Telecommunications sector for over 20 years and formerly held senior Marketing, Product and Commercial positions at Arqiva, O2, Telefonica, Microsoft, Sony Ericsson and Blackberry, with leadership responsibilities for Proposition, Portfolio Management, Partnerships and Sales. Ian holds an MBA from Henley Management School.



**Neal Sunners***Track 3 Mobility***Senior Vice President Innovation and Emerging Technologies, Avis Budget Group**

Neal Sunners is Senior Vice President of Innovation and Emerging Technologies at Avis Budget Group, a leading global provider of mobility solutions.

In this role, Neal is responsible for the Company's new technology and start-up incubator activities and its related corporate partnerships. His role also includes developing new technology platforms and solutions, supporting new and disruptive technologies and emerging service initiatives, such as the next-generation of ancillary products, chauffeur drive and the assessment of evolving technologies for potential new partnership and investment opportunities.

Prior to joining the Company, Mr. Sunners had a successful career at the board level of start-up companies, with roles such as Chief Information Officer, Chief Operating Officer and Managing Director across a variety of industries. Among the start-ups, Neal worked at Rubicon, Travelnet, and Aerotech, where he helped establish global organisations and at Global Corporations such as AT&T, Capita and Travelport. He is highly experienced in shaping and delivering major business and technology-driven change programmes within the e-commerce sector, specialising in both business-to-business and business-to-consumer.

Mr. Sunners attended management courses at both Wharton University and Henley Business School and holds Alumni positions with both.

He is based at the Avis Budget Group's Bracknell office in the United Kingdom.

**Geoff Varrall***Conference Committee***Director, RTT**

Geoff Varrall joined RTT in 1985 as an executive director and shareholder to develop RTT's international business as a provider of technology and business services to the wireless industry. He co-developed RTT's original series of design and facilitation workshops including 'RF Technology', 'Data Over Radio', 'Introduction to Mobile Radio', and 'Private Mobile Radio Systems' and developed 'The Oxford programme', a five day strategic technology and market programme presented annually with the Shostek Group. Over twenty years, more than five thousand senior level delegates attended these programmes. A co-author of the Mobile Radio Servicing Handbook (Heinemann Butterworth, UK), Data Over Radio, (Quantum Publishing, Mendocino, USA and 3G Handset and Network Design (John Wiley, New York), Geoff's fourth book, Making Telecoms Work – from technical innovation to commercial success (John Wiley) was published in early 2012, his fifth book, 5G Spectrum and Standards was published in 2015 and his sixth book, 5G and Satellite Spectrum, Standards and Scale will be available from Artech House in May 2018. In 2018 he will be presenting workshops in the Caribbean, Asia and Australia. As a past Director of Cambridge Wireless, Geoff is actively involved in a number of wireless heritage initiatives that aim to capture and record past technology and engineering experience. In his spare time, Geoff plays Jazz trumpet semi-professionally and is a keen marathon and ultra-runner.

**Peter Whale***Plenary AI (Chair)***Founder, Vision Formers**

Peter is founder of Vision Formers, a specialist consultancy that helps visionary technology startups and scaleups get product to market and turn their ideas into reality. Peter has a long track record of conceiving, developing and marketing successful technology-based solutions, deployed at scale, globally. Innovative products Peter has brought to market in digital, cloud, AI, consumer electronics and telecommunications have been used by countless millions of people on a daily basis globally, badged by the world's leading digital and technology brands.

Peter is a board member of CW (Cambridge Wireless), and co-leads its Artificial Intelligence special interest group. [www.visionformers.com](http://www.visionformers.com)

**Dr Brigitta Zics***Track 4 MR***Deputy Head of Postgraduate Studies, Ravensbourne**

Dr Brigitta Zics is an award-winning artist who creates works with visual and material sensitivity that seeks to fashion new experiences. She works on the convergence of art and science and explores mixed-media forms combining various techniques and emerging technologies. Her recent interests embrace experiential art, human perception and art, and the aesthetics of data and algorithms.

She has graduated from Hungarian University of Fine Art and subsequently from the Academy of Media Arts Cologne receiving scholarships from DAAD, Eötvös State Grant and Ludwig Award. Her works has been exhibited at Budapest, Berlin, London, Los Angeles, Monaco and Cologne and published at Leonardo Journal (MIT press) and other academic journals (Springer, Taylor & Francis). In 2004 her work was nominated for the International Media Art Award at ZKM, in 2005 she was selected for one of Europe Best Multimedia Artists.



# CONFERENCE SPONSORS & EXHIBITORS

PLATINUM SPONSOR  
& GOLD SPONSOR –  
MOBILITY INTO THE FUTURE TRACK



**MAGNA INTERNATIONAL**

## EXHIBITING ON POD B

Magna is a leading global automotive supplier with 327 manufacturing operations and 100 product development, engineering and sales centers in 29 countries. Magna has over 161,000 employees focused on delivering superior value to its customers through Innovation and World Class Manufacturing and Processes. At Magna, we take great ideas and develop them from invention to commercialization. We also know that great thinking happens outside our four walls, and that our ability to commercialise great ideas benefits inventors, founders, entrepreneurs, customers, and ultimately all who share the road.

GOLD SPONSOR – BLOCKCHAIN



**FETCH.AI**

## EXHIBITING ON STAND 29

Fetch.AI is based in Cambridge, UK with development talent across the globe. Fetch breathes life into machines, data, services and infrastructure with digital representatives that can trade autonomously and unsupervised. Fetch delivers a unique, decentralised digital world that adapts in real-time to enable effective, friction-free value exchange. Powered by innovations such as the world's first Smart Ledger, Fetch has digital intelligence at its heart: delivering actionable predictions, instant trust information and enabling the construction of powerful collaborative models. With unrivalled performance and scalability, Fetch is the missing critical infrastructure for tomorrow's digital economy.

POD SPONSORS



**BP VENTURES**

## EXHIBITING ON POD A

BP Ventures identifies and invests in private, high growth, game-changing technology companies, accelerating cutting edge innovations across the entire energy spectrum. Since 2006, BP Ventures has invested over \$400 million in corporate venturing and has 42 active investments in its current portfolio. In 2017, we invested more than \$90m in five technology companies as diverse as acetylated wood, biojet fuels and artificial intelligence.

Our venture portfolio is focused on emerging technologies in oil and gas exploration and production and downstream conversion processes. In addition, we have a renewed strategic focus on five key areas: bio & low carbon products, carbon management, power & storage, advanced mobility and digital transformation. These support BP's commitment to advance the energy transition, balancing the world's growing demand for new energy with the need to reduce emissions.

GOLD SPONSOR –  
5G & NETWORK INNOVATION



**DIGITAL CATAPULT**

## EXHIBITING ON STAND 30

As the UK's leading advanced digital technology innovation Centre, Digital Catapult is driving early adoption of technologies to make UK businesses more competitive to grow the country's economy.

We connect large established companies, startup and scaleup businesses and researchers to discover new ways to solve big challenges in the manufacturing and creative industries. Through this collaboration businesses are supported to develop the right technologies, increase productivity and discover new markets.

As well as removing barriers to technology adoption, our work de-risks innovation for large enterprises and uncovers new commercial applications in immersive, future networks, and artificial intelligence technologies.

GOLD SPONSOR –  
ARTIFICIAL INTELLIGENCE  
AND MACHINE LEARNING



**CAMBRIDGE CONSULTANTS**

Cambridge Consultants develops breakthrough products, creates and licenses intellectual property, and provides business consultancy in technology-critical issues for clients worldwide. For more than 50 years, the company has been helping its clients turn business opportunities into commercial successes, whether they are launching first-to-market products, entering new markets or expanding existing markets through the introduction of new technologies. With a team of more than 700 staff, including engineers, scientists, mathematicians and designers, in offices in Cambridge (UK), Boston (USA) and Singapore, Cambridge Consultants offers solutions across a diverse range of industries including medical technology, industrial and consumer products, digital health, energy and wireless communications.

GOLD SPONSOR –  
INDUSTRIAL IoT AND  
THE CONNECTED ENTERPRISE



**MARKS & CLERK**

## EXHIBITING ON STAND 11

Marks & Clerk are committed to providing exceptional intellectual property advice around the world, helping you to navigate the complexities of IP, patents, trade marks and design protection. Innovation is the life-blood of business and it's vital that you do not overlook the need to protect your intellectual property. From the capture of an idea, to the enforcement or defence of rights in disputes Marks & Clerk is your expert partner to ensure your IP is protected and fully exploited. Today's local is tomorrow's global – and with our diverse team of practitioners, you're always supported by a network of experts.

SILVER SPONSOR -  
ARTIFICIAL INTELLIGENCE  
AND MACHINE LEARNING



## DARKTRACE

### EXHIBITING ON STAND 6

Darktrace is the world's leading AI company for cyber security. Created by mathematicians from the University of Cambridge, Darktrace's Enterprise Immune System uses AI algorithms that mimic the human immune system to defend enterprise networks of all types and sizes. Our self-learning approach is the first non-consumer application of machine learning to work at scale, across all network types, from physical, virtualized, and cloud, through to IoT and industrial control systems.

By applying its unique, unsupervised machine learning, Darktrace has identified 63,500 previously unknown threats in over 5,000 networks, including zero-days, insider threats and subtle, stealthy attacks. Darktrace is headquartered in San Francisco and Cambridge UK, and has 32 offices worldwide.

SILVER SPONSOR -  
MOBILITY INTO THE FUTURE



## GEOPOCK

### EXHIBITING ON STAND 10

GeoSpock® provides analytics, builds insight, and enables prediction across space and time. Their proprietary data integration platform visualises extreme amounts of contextual data in milliseconds. Its architecture has the ability to analyse trillions of geospatial and temporal data points in sub-second response time with its high performance, cloud-based services – infin8™, illumin8™, and extrapol8™. Conceived by Dr Steve Marsh while reading for his PhD in Computer Science at Cambridge University and founded as a business in 2013, GeoSpock is the future of big data management, providing extreme-scale, high volume-ingest, ease of use, and interactive results.

SILVER SPONSOR -  
5G AND NETWORK INNOVATION



## HUAWEI TECHNOLOGIES

### EXHIBITING ON STAND 7

Huawei is a leading global information and communications technology (ICT) solutions provider. Driven by a commitment to sound operations, ongoing innovation, and open collaboration, we have established a competitive ICT portfolio of end-to-end solutions in telecom and enterprise networks, devices, and cloud technology and services. Our ICT solutions, products, and services are used in more than 170 countries and regions, serving over one-third of the world's population. In the UK Huawei has R&D centres in Cambridge (HQ), Bristol, Ipswich and London. With 180,000 employees, Huawei is committed to enabling the future information society, and building a Better Connected World.

GALA DINNER SPONSOR



## TTP PLC

### EXHIBITING ON STAND 21

TTP plc has been a trusted partner in wireless technology and connected product innovation since the development of the first digital mobile phones. Today, we are helping our customers to create new technologies that enable connected enterprise, technologies that enhance mobility through connectivity, new interfaces between humans and technology, and technologies that learn and communicate. From understanding a market opportunity, through concept generation to detailed realisation, we undertake all stages of technology, product and service development. Our customers – both multinationals and start-ups – benefit from the experience gained through 30 years of successful project delivery in fields as diverse as body-implanted devices; critical communications for emergency services; IoT solutions for industry transformation; broadband to aircraft and satellite communication systems. Choose TTP to create the next generation of connected products and services.

SILVER SPONSOR -  
INDUSTRIAL IoT AND  
THE CONNECTED ENTERPRISE



## ARM

### EXHIBITING ON STAND 12

Arm defines the pervasive computing that shapes today's connected world. Realized in 10 billion silicon chips and counting, Arm's device architectures orchestrate the performance of the technology transforming our lives – from smartphones to supercomputers, from medical instruments to agricultural sensors, and from base stations to servers. Every day thousands of Arm partners embed more than 45 million Arm-based chips in products that connect people and enhance the human experience, to serve today and architect tomorrow.

LUNCH SPONSOR



## MILLS & REEVE

### EXHIBITING ON STAND 13

National law firm Mills & Reeve is renowned for its outstanding service, collaborative culture and deep sector expertise. But more importantly it is the legal advisors behind some of the UK's most successful technology businesses including ARM, Aveva, Bango, Jagex, Ubisense and Xaar, to name a few.

Our strong reputation is built on understanding our clients' businesses. Whether you are an entrepreneur looking for seed investment or a multinational plc negotiating a strategic deal, we can help. We take the time to get to know you, and you benefit from our wide ranging experience and advice focused on your needs.

## CONFERENCE BAG SPONSOR



### RN ELECTRONICS LTD

#### EXHIBITING ON STAND 8

RN Electronics Ltd. is a leading independent EMC, Radio and Safety test laboratory. UKAS accredited for testing wireless products to the Radio Equipment Directive (RED) for the EU market and an FCC Conformity Assessment Body for the US market. We can assess your products compliance with the RF, EMC and safety requirements of the Radio Equipment Directive.

RN Electronics test products for many different industries including; telecoms, automotive 'E' marking, military, aerospace and medical. We support the worldwide accreditation of electronic products, including FCC certification for US and ISSED certification for Canada.

## REFRESHMENTS SPONSOR



### SAMSUNG

We develop the core silicon and software technology for Bluetooth, Bluetooth Low Energy and Wi-Fi technology and the team has over a decade of experience in shipping connectivity chips to tier 1 customers for multiple applications. Working with the BT SIG, the IEEE and the WFA, we take future standards and implement them using highly efficient, flexible architectures and utilising the Samsung's advanced semiconductor manufacturing processes. The market demand for connectivity technologies has never been higher, with the widespread propagation of smart products such as smartphones, tablets and wearables being complemented by the emerging demand for IoT (Internet of Things) devices. This makes the Samsung Cambridge and Samsung Aalborg technology an important part of Samsung's overall portfolio.

## LANYARD SPONSOR



### IC RESOURCES

#### EXHIBITING ON STAND 19

IC Resources is the recognised recruitment partner to the global technology community. We help our clients succeed in today's competitive marketplace by identifying skilled and talented individuals for key hiring requirements. We offer candidates well-informed career advice and introduce them to career-enhancing opportunities. Since 1999, we've been a key business partner to hundreds of ambitious wireless technology companies needing to grow their teams efficiently and cost effectively. For our team of 60 consultants, it's an honour to be part of the wireless community and a pleasure to work with intelligent, committed professionals who are shaping the future every day.

## DRINKS RECEPTION SPONSOR



### INMARSAT

Inmarsat is the world's leading provider of global mobile satellite communications, offering an unrivalled portfolio of satellite communications solutions and value-added services to keep organisations and individuals connected at all times; on land, at sea and in the air. Set up by the International Maritime Organization (IMO) in 1979 to ensure safety at sea, Inmarsat's customers now range from governments and humanitarian aid agencies to ship owners and airlines, to name but a few.

## Exhibition Tables



Anglia Ruskin  
University

### ANGLIA RUSKIN UNIVERSITY DEGREES AT WORK

#### EXHIBITING ON STAND 2

We create and deliver innovative work-based learning.

The Digital and Technology Solutions Degree Apprenticeship course is a cost-effective way for you to attract, develop and retain a highly-skilled workforce, and maximise the Apprenticeship Levy. Create your own talent pipelines for in-demand roles including software engineers and cyber security analysts in partnership with Anglia Ruskin - experts in work-based learning.



### IoTAS

#### EXHIBITING ON STAND 20

IoTAS specialise in Live Network Testing solutions for cellular 3GPP 4G/3G/2G technologies as well as NB-IoT/CatM1 test solutions. With over 14 years of device testing experience, regulatory approvals and helping clients develop their products for market, IoTAS offer proven testing solutions with a global footprint and regional offices across UK, Europe, Australia, Japan, USA and LATAM.

As the UK's only ISO17025 accredited Global Certification Forum (GCF) Recognised Test Organisation (RTO) with Assessment Capable Entity (ACE) status, we are not only able to support companies requiring GCF Field Testing, Browsing, MMS and Video Telephony IOP testing, but are also able to enable 'non-GCF' companies to achieve GCF Certification approvals.



## IRIDIUM

### EXHIBITING ON STAND 17

Iridium is the only truly global voice and data satellite communications network that connects people, organizations, assets, government and relief agencies with "on-the-move" availability. Together with its ecosystem of partners, Iridium delivers essential, reliable communications with an easy-to-integrate platform and service for improved efficiency. With more than 20 years of experience, Iridium will soon be launching the next-generation of connectivity, Iridium CertusSM – the most versatile global broadband service with improved speeds to satisfy the critical need to send and receive communications when traveling by land, sea or air.



## RS COMPONENTS

### EXHIBITING ON STAND 5

We offer more than 500,000 products through the internet, catalogues and at trade counters to over one million customers, shipping more than 44,000 parcels a day.

Our products, sourced from 2,500 leading suppliers, include electronic components, electrical, automation and control, and test and measurement equipment, and engineering tools and consumables.

DesignSpark is RS' web-based resource centre for engineers and online community of over half a million members. The DesignSpark website hosts a comprehensive range of free-of-charge software design tools, technical data and development resources.



## S TECH

### EXHIBITING ON STAND 9

S-Tech Insurance Services, based in Cambridge, was founded in 1982. Today it is a large independent insurance broker. Our team of more than 70 industry professionals work together to provide a full range of insurance and risk management solutions to a wide customer across the UK.

Our customer service is personal and of a first-class standard. Our work is both efficient and accurate, meaning that we get things right, saving you time and money from the start.

We work with global insurers to provide our clients with the best insurance products available, including many tailor-made policies designed to meet their specific needs.



## MPA GROUP

### EXHIBITING ON STAND 16

The MPA Group is a team of highly experienced, specialist industry analysts and business tax accountants. Specialising in the R&D Tax Credit and Patent Box schemes, they understand every step of the journey an innovative business takes, offering advice on challenges faced along the way such as raising vital funds, intellectual property protection, recognising and retaining key skilled staff, grants and tax incentives, exit strategy and planning.

MPA Group has a history of working in the tech industry, with a team of technical analysts who can speak in technical terms with developers to identify the best options for their business. Having secured over £131million in tax credits for innovative UK companies to date, MPA Group have a proven track record of success in this arena.



## SATELLITE APPLICATIONS CATAPULT LTD

### EXHIBITING ON STAND 18

#### Westcott Business Incubation Centre & 5G Step-Out Centre

Situated in the heart of the Westcott Venture Park near Aylesbury, Buckinghamshire, the Westcott Business Incubation Centre (BIC) has been created to support ambitious businesses developing next-generation technology, with a key focus on terrestrial and satellite 5G communications. To help accelerate their development and get their products to market faster, businesses we work with receive business and technical support and access to specialist test facilities. In addition, companies benefit from our established network of potential partners, customers and investors. The Westcott BIC is funded by the European Regional Development Fund and supported by Rockspring Hanover Property Trust, Buckinghamshire TVLEP and the UK Space Agency.

The newly established 5G Step-out Centre (SoC), located opposite the Westcott BIC, will

give platform and applications developers access to the latest 5G equipment without the need to invest in expensive infrastructure. This will allow them to rapidly prototype and commission new products and services under representative real-world conditions ahead of market roll-out. The 5G SoC testbed infrastructure brings together a range of technologies and solutions from Juniper, Affirmed and Saguna Networks, including routing, switching, security and software-defined networking, as well as network functions virtualization (NFV), mobile edge computing and software orchestration in the core.

The Westcott BIC and Westcott 5G SoC are managed and operated by the Satellite Applications Catapult, a technology and innovation company seeking to transform the way the world uses satellite technology and data. The Catapult supports businesses to accelerate their growth, aids research and academia in commercialisation of ideas, and explores new areas of potential for satellite applications.





UKESF

### EXHIBITING ON STAND 3

In the UK, the Electronics sector is big, valuable and growing; however, the demand for capable, employable graduates is currently outstripping supply. The UK Electronics Skills Foundation (UKESF) is an educational charity that operates collaboratively with major companies, leading universities and other organisations to tackle the skills shortage.



### LA PLAYA SCIENCE & TECHNOLOGY: INSURANCE WITH INTELLIGENCE®

Does your insurance broker really 'get' what you do you? From IP to IPO, La Playa's specialist Science & Tech team can help you protect your business with smart, flexible, high-performance insurance – with a friendly human UI. We've got your back.

We understand the risks and pressures you face – and we speak your language.

Advice you can trust from an expert who understands you:

- Specialist insurance
- UK and US offices
- Independent professional advice
- Relationship-based service: your advocate in a claim
- Registered broker at Lloyd's
- Key Person insurance & Employee Benefits

## CONFERENCE SUPPORTER

In partnership  
with UK5G



### UK5G

UK5G is the new national innovation network dedicated to the promotion of research, collaboration and the commercial application of 5G in the UK.

CW is the lead partner of an industry-driven consortium which includes the Knowledge Transfer Network (KTN) and the TM Forum, supported by many Associate Partners, and an influential Advisory Board. This consortium has been chosen by the UK Government, to create and deliver the national 5G Innovation Network.

UK5G is required to

- Support the development of the UK5G ecosystem, nurturing an active community drawn from both the supply and demand side;
- Manage information about 5G activities and learning;
- Promote the capabilities of UK 5G internationally.
- UK5G brings together and markets the UK's 5G eco-system – including the Department of Digital, Culture Media and Sport's extensive 5G Testbed & Trials programme.

UK5G will also work alongside the Department of International Trade (DIT) to support overseas partners wishing to invest in UK 5G.

You are invited to register your interest and involvement on [www.UK5G.org](http://www.UK5G.org)  
Send any queries to [hello@UK5G.org](mailto:hello@UK5G.org)

## CW CAMBRIDGE WIRELESS EVENTS SCHEDULE

12 JULY

### Joint Future Devices & Technologies and Security SIG Event 'Drones: The Good the Bad and the Scary' – Cambridge

Unmanned Aerial Vehicles, UAVs or Drones have captured peoples imagination in recent years due to their increasing use in multiple industries and easy accessibility for consumers. What are drones being used for and what are the risks?

18 JULY

### Business SIG Event 'Seeking Investment and Funding to Grow Your Business? Sharing Stories Together...' – Cambridge

Do you want to know more about the many options for funding your ambitions? Would you like to hear from entrepreneurs about their own funding journey? Would you like to know what they learned along the way? Would you like to hear from investors on how they make investment decisions?

19 JULY

### CW Tech Training Event – Cambridge

This intensive 1/2 day course is ideally designed to provide a high-level technical overview of 5G technology: looking at requirements, end-to-end architecture & applications. The course leader is Zahid Ghadialy, Senior Director at Parallel Wireless.

## DISCOVERING START-UPS 2017 FINALISTS EXHIBITING AT #CWIC2018

### CODEPLAY SOFTWARE



Codeplay Software is a world pioneer in acceleration technologies for enabling AI, having developed some of the first tools for complex machine learning software accelerated using graphics processors. Codeplay connects AI to silicon, providing application developers with a familiar C++ programming platform hosted on popular processor architectures. Codeplay works with the biggest technology companies to build AI into devices such as smartphones, IoT and self-driving cars. [www.codeplay.com](http://www.codeplay.com)

### TG0



Keyboards, tablets, car dash panels, gaming consoles and almost all electronic product controls have the same limitation: bundles of on/off buttons that are uninspiring to use and expensive to manufacture. TG0 created a platform technology replacing all electronic sensor complications with one flexible touch-sensitive material, producing 3 dimensional controls that are ergonomic, intuitive and engaging. The patent-pending technology leaps into exciting applications: making tactile gaming consoles robust and fun to use; making effortless car interior controls with appealing finishes; creating ergonomic computer peripherals solving repetitive strain issues; and even making interactive products accessible for the visually impaired. [www.tg0.co.uk](http://www.tg0.co.uk)

### ZIFISENSE



Founded in Cambridge UK, ZiFiSense is a fast growing IoT product and solution provider and has developed a unique low power wide area network (LPWAN) technology – ZETA – which enabled low cost, long range and ultra-low power smart city, smart community and connected lighting applications. Together with its partners, ZETA network has become the largest license-free LPWAN rollout in China and is continuing to grow. ZiFiSense also provide end-to-end property management solutions based on ZETA AIoT technology integrating sensing, networking, visualising, learning and predicting capabilities onto a single platform for superfast identification and diagnostics of variety of facility issues, aiming to save management cost and enhance residential experience. The company is based in the UK and China and has been funded by some of the top global investment groups including Fortune Capital and Plug and Play. Its partners and clients include large corporations such as mobile operators, government bodies, infrastructure providers as well as many small/medium size Enterprises across the globe. [www.zifisense.co.uk](http://www.zifisense.co.uk)

## Discovering Start-Ups 2018: Developing the Next Generation of £1bn Tech Businesses

Are you a start-up seeking investment? Or a decision maker interested in shaping the technology of tomorrow?

Now in its 9th year, Discovering Start-Ups provides an unparalleled opportunity for potential investors, technology experts and digital enthusiasts to meet the upcoming generation of aspiring entrepreneurs and explore solutions that will replace today's cutting edge products.

This year the theme is Connecting the Digital World and the Discovering Start-Ups Final Exhibition will shine a spotlight on those organisations innovating in the field of connectivity, across any industry.

The call for entrants is now open. Shortlisted finalists will have the opportunity to pitch to dozens of senior business leaders and technology investors at the interactive Discovering Start-Ups Final Exhibition in September.

**Entries Close:** 6 August

**Final Exhibition Date:** 17 September, 3:30pm to 8pm

**Location:** CMS HQ, London

**Sponsors:** Contact [sponsorship@cambridgewireless.co.uk](mailto:sponsorship@cambridgewireless.co.uk) to learn about sponsorship opportunities



## CW Technology & Engineering Conference 2018

What role can artificial intelligence play in delivering more reliable, secure and better performing networks?

Communications networks are perhaps the most complex machines on the planet. They use vast amounts of hardware, rely on complex software, and are physically distributed over land, underwater, and in orbit. They increasingly provide essential services that underpin almost every aspect of life.

Is the AI community aware of the challenges facing network providers? Are the network operators and providers aware of how the very latest developments in AI may provide solutions?

The conference will aim to bridge the gap between the AI/ML and communications network communities, making each more aware of the nature and scale of the problems and the potential solutions.

**Conference Date:** 27 September, all day

**Location:** Computer Laboratory, University of Cambridge

**Sponsors:** Contact [sponsorship@cambridgewireless.co.uk](mailto:sponsorship@cambridgewireless.co.uk) to learn about sponsorship opportunities

# CW CAMBRIDGE WIRELESS

CW (Cambridge Wireless Ltd) is the leading international community for companies involved in the research, development and application of wireless, mobile, internet, semiconductor and software technologies. Our goal is to stimulate debate and collaboration, harness and share knowledge, and help to build business connections between member companies.

CW is a vibrant not-for-profit that is driven by its members, with a governing board that is elected by the membership of around 400 companies drawn from all parts of the wireless enabled world, from securely connected devices, networks, smartphones and applications, through to data analytics, content delivery, telecommunications, and satellites.

Our 19 Special Interest Groups (SIGs) provide members with a dynamic and impartial forum where they can network with their peers, track the latest technology trends and position their organisations in key market sectors. CW delivers around 50 events per annum including the annual CW International Conference, an engineering conference called CW-TEC, the national Discovering Start-Ups competition and prestigious founder member dinners hosted in the beautiful Cambridge Colleges.

With headquarters in Cambridge, CW's ecosystem includes some of the world's largest technology organisations and it partners with international industry clusters to remain at the forefront of global developments and business opportunities.

## SPECIAL INTEREST GROUPS

- Academic & Industry Group
- Artificial Intelligence Group
- Automotive & Transport Group
- Business Group
- Connected Devices Group
- Digital Delivery & Content Group
- Future Devices & Technologies Group
- Healthcare Group
- Industrial IoT Group
- Legal Group
- Location Group
- Enhanced Mobile Broadband Group
- Radio Technology Group
- Security Group
- Small Cell Group
- Smart & Intelligent Cities Group
- User Experience Group
- Virtual Networks Group
- Wireless Heritage Group

## CW JOURNAL

Through 16 years of technology industry events, the CW network has become a go-to hub for industry news and insight. The CW Journal collates and publishes this knowledge, keeping its readers informed with high-quality analyses of topical issues from acknowledged experts in their field. Governed by a high-calibre Editorial Board, the Journal supports CW's aim of promoting innovation in wireless, mobile, internet, software and related technologies.

Subscribe to the CW Journal online at [www.cambridgewireless.co.uk/about/cw-journal/](http://www.cambridgewireless.co.uk/about/cw-journal/)

The Journal actively solicits articles by members of the CW community. Those interested in contributing should contact [submissions@cwjpress.com](mailto:submissions@cwjpress.com).

If you have a product or service which you'd like to advertise to around 5,000 of the most influential people in the wireless industry please contact [advertising@cwjpress.com](mailto:advertising@cwjpress.com).





# SITEMAP

## STANDS

1. Conifal
2. Anglia Ruskin University
3. UKESF
4. Defence and Security Accelerator
5. RS Components
6. Darktrace
7. Huawei Technologies Research & Development (UK) Ltd
8. RN Electronics
9. S Tech
10. Geospock
11. Marks & Clerk
12. Arm
13. Mills & Reeve
14. Codorus
15. First Ascent Group
16. MPA Group
17. Iridium
18. Satellite Applications Catapult Ltd
19. IC Resources
20. IoTAS
21. TTP
22. Beyond Media
23. Ansys
24. Codeplay Software Ltd
25. Ziffisense
26. TGO
27. Girls In Tech
28. Cambridge Science Centre
29. Fetch.AI
30. Digital Catapult

JAMES WATSON  
PAVILION



## PODS

- A. BP Ventures
- B. Magna