

# THE COMMERCIAL UAV SHOW

6<sup>th</sup> Annual Event

In co-location with the Commercial UUV Show

**12<sup>th</sup>-13<sup>th</sup> November 2019**

ExCeL Centre, London

**AGENDA**

**Organised by**

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# THE COMMERCIAL UAVSHOW

## 12<sup>th</sup> of November (Day 1) Agenda

### Plenary Theatre

### Keynote Sessions

Day 1 Tuesday 12 <sup>th</sup> November 2019	
08:00	Registration opens
<b>Plenary Session</b>	
<i>Chaired by: Jerry Grayson AFC, Pilot, Writer, Director, Keynote Speaker and Drone Tutor, JerryG.co</i>	
09:15	Chairman's Remarks <i>Jerry Grayson AFC, Pilot, Writer, Director, Keynote Speaker and Drone Tutor, JerryG.co</i>
09:20	Opening Keynote Drones – An Indispensable Tool <i>Dr Barbara Stelzner, Director, Marketing &amp; Corporate Communication and Management Committee Member, DJI Europe</i>
09:40	Keynote Presentation 1 <i>Scott Drennan, Vice President of Innovation, Bell</i>
10:00	Keynote Presentation 2 Flying High - shaping the future of drones in UK cities <i>Tris Dyson, Executive Director, NESTA Challenges</i>
10:20	Networking Break

# Roundtables

<b>Day 1</b> <b>Tuesday 12<sup>th</sup> November 2019</b>	
<b>12:10 Roundtable Discussions</b> <i>Roundtables will be running simultaneously</i> <i>Please sign up during the 10:20 Networking Break to one table of your choosing</i>	
<b>1. Large cargo UAV usage and applications</b> <i>Facilitated by:</i> <b>Svilen Rangelov, Co-Founder &amp; CEO, Dronamics</b>	<b>2. Industry and market forecast</b> <i>Facilitated by:</i> <b>Hans Koning, Global Keynote Speaker   Governance Specialist &amp; Business Expert in Nascent Technologies</b>
<b>3. CAA roundtable</b> <i>Facilitated by:</i> <b>Jonathan Nicholson, Assistant Director – Communications Department, CAA</b>	<b>4. UAV delivery – Challenges and opportunities</b> <i>Facilitated by:</i> <b>Olivier Defawe, Director Health System, Village Reach</b>
<b>5. Personal air-mobility – How close are we actually?</b> <i>Facilitated by:</i> <b>Mike Blades, Vice President - Aerospace, Defense, and Security Americas, Frost &amp; Sullivan</b>	<b>6. UTM development and challenges</b> <i>Facilitated by:</i> <b>Jakub Karas, UAS Manager, Czech Unmanned Aerial Alliance</b>
<b>7. Lease the Drone</b> <b>Julian Coleman, CEO, Lease the Drones</b>	<b>8. Smart cities – What is the drone’s role?</b> <i>Facilitator to be confirmed</i>
<b>9. BVLOS and the next-generation communication technologies</b> <i>Facilitator to be confirmed</i>	<b>10. Integrating UAVs in Workplace – Machine-Human Interactions, Costs and Best-Practices – What do you need to know?</b> <i>Facilitator to be confirmed</i>
<b>13:00 Lunch Break</b>	

# Conference Theatres

## Conference Theatre 1 – Aircraft Technology

<b>Day 1</b> <b>Tuesday 12<sup>th</sup> November 2019</b>	
<b>Aircraft Technology</b> <i>Chaired by: Andrew Cox, Engineer &amp; Chief Technology Officer, Windhorse Aerospace Ltd   GoldiLOX Space Ltd</i>	
<b>Improving Endurance</b>	
<b>11:20</b>	Panel: Powering Innovation – new technologies to improve your fleet’s endurance <i>Panel moderator: Timo Lind, Project Manager, VTT Research</i> <i>Panellists:</i> <b>Keith Miao</b> , Co-Founder and CEO, Birdstop Inc. <b>Gonçalo Pereira</b> , Principal Engineer, Altair
<b>11:50</b>	Electric-Hybrid Heavy UAV <b>Seyed Mohseni</b> , CEO and Founder, Samad Aerospace
<b>12:10</b>	Roundtable discussions
<b>13:00 Lunch Break</b>	
<b>Next Generation Aircraft Design</b>	
<b>14:20</b>	Simulation Driving Lighter, Smarter, More Efficient UAVs <b>Gonçalo Pereira</b> , Principal Engineer, Altair
<b>14:40</b>	Designing unmanned aircraft for fleet-level operational efficiency <b>Mathieu Johnsson</b> , CEO, Marble Aerospace
<b>15:00</b>	The Nitty-Gritty of daily UAS operations <b>Bjarki Páll Sigurðsson</b> , Lead UAS Engineer, Aha
<b>15:20 Networking Break</b>	
<b>Flying BVLOs</b>	
<b>16:20</b>	Building from BVLOS and Assuring Autonomy - How do we achieve a step change in UAS capability? <b>William Barnes</b> , UAS Service Lead, Frazer-Nash Consultancy Ltd.
<b>16:40</b>	Overcoming obstacles in BVLO technology, usage and implementation <b>Eszter Kovacs</b> , Project Manager IoT, GSMA
<b>17:00 End of Day One</b>	

## Conference Theatre 2 – Command & Control

<b>Day 1</b>	
<b>Tuesday 12<sup>th</sup> November 2019</b>	
<b>Command &amp; Control</b>	
<i>Chaired by: James Cranswick, Director Consulting, Deloitte</i>	
<i>ATM and control systems of the Future</i>	
<b>11:20</b>	Panel: Air traffic management and control platforms – How will we be controlling drones of the future? <i>Panel moderator: James Cranswick, Director Consulting, Deloitte</i> <i>Panellists:</i> <i>Rikke Carmichael, Head of Air Operations, Network Rail</i> <i>David Guerin, Safety Adviser   ATM Expert, Lake Kivu Challenge</i>
<b>11:50</b>	Government Drones Pathfinder Programme <i>Anna Pages-Maso, Lead Technologist, Connected Places Catapult</i>
<b>12:10</b>	Roundtable discussions
<b>13:00 Lunch Break</b>	
<i>UAV Connectivity and Communication</i>	
<b>14:20</b>	Title to be advised <i>Keith Miao, Co-Founder and CEO, Birdstop Inc.</i>
<b>14:40</b>	5G applications for drone technology <i>Panel moderator: Keith Miao, Co-Founder and CEO, Birdstop Inc.:</i> <i>Panellists:</i> <i>Ayan Gosh, Technology Consultant, Ofcom</i> <i>Justin Pringle, Founder, sUASInnovation.com</i> <i>Adam Schink, Innovation Development Officer, BT</i> <i>Rian Whitton, Senior Analyst, ABI Research</i>
<b>15:20</b>	The role of mobile network to support BVLO flights <i>Victor Fernandez, New Technologies &amp; Innovation Specialist Vodafone Group Technology</i>
<b>15:40 Networking Break</b>	
<i>Flight Planning and Operations</i>	
<b>16:20</b>	Drones, their place in aerial mapping and how they compare to manned aircraft <i>Charlton Bland, Digital Survey Lead, Atkins</i>
<b>16:40</b>	Survey and planning – what tools do I use? <i>Andy Givens, Senior Application Engineer, Topcon Positioning GB</i>
<b>17:00 End of Day One</b>	

# Conference Theatre 3 – Urban Innovation

<b>Day 1</b>	
<b>Tuesday 12<sup>th</sup> November 2019</b>	
<b>Urban Innovation</b>	
<i>Chaired by: Harry McNabb, CEO, DroneLife</i>	
<b>Urban Infrastructure</b>	
<b>11:20</b>	Panel: Are we ready to implement UAVs in our cities? – Technical, logistical and regulatory considerations <i>Panel moderator: <b>Hans Koning</b>, Global Keynote Speaker   Governance Specialist &amp; Business Expert in Nascent Technologies</i>  <i>Panellists:</i> <b>Duncan Walker</b> , Managing Director, <b>Skyports</b> <b>David Tait</b> , Innovation Strategy Lead, <b>CAA</b> <b>Antton Pena</b> , Founder, <b>Flock</b>
<b>11:50</b>	How Anglian Water have used drone technology to deliver a bio-diverse/low carbon project <i>Joint presentation</i> <b>Simon Armitt</b> , Integrated Project leader, <b>Anglian Water @One Alliance</b> <b>Steve Welland</b> , Training Director, <b>iRed</b> <b>Ray Faulkner</b> , Managing Director, <b>iRed</b>
<b>12:10</b>	Roundtable discussions
<b>13:00</b>	Lunch Break
<b>Improving UAV design for the urban environment</b>	
<b>14:20</b>	How drones and robotics are changing the urban environment <b>Maron Kristofersson</b> , CEO, <b>Aha</b>
<b>14:40</b>	City-ATM – Demonstrating Drone Traffic Management in Urban Airspace <b>Bernd Korn</b> , Head of Pilot Assistance, <b>DLR</b>
<b>15:00</b>	Drones for last mile delivery in Urban and Semi-Urban settings <b>Olivier Defawe</b> , Director Health System, <b>Village Reach</b>
<b>15:20</b>	Networking Break
<b>Launch Platforms – types and integration</b>	
<b>16:20</b>	Enabling Advanced UAS Operations in an Urban Environment <b>Nicholas Flom</b> , Executive Director, <b>Northern Plains UAS Test Site</b>
<b>16:40</b>	Urban Vertiports – Landing eVTOLS in Urban Environments <b>Duncan Walker</b> , Managing Director, <b>Skyports</b>
<b>17:00</b>	End of Day One

## Conference Theatre 4 – UAV Data and Workflow

<b>Day 1</b>	
<b>Tuesday 12<sup>th</sup> November 2019</b>	
<b>UAV Data Applications and Workflow</b>	
<i>Chaired by: Paul Jeffs, Founder and Principal, PJ Materials Consultants Ltd.</i>	
<i>Improving your Business Intelligence Part 1</i>	
<b>11:20</b>	Investment: opportunities in the UAV market <i>Panel Moderator: <b>Conor O'Sullivan</b>, Investment Manager, <b>Seraphim Capital</b></i> <i>Panellists:</i> <b>Ed Leon Klinger</b> , CEO, <b>Flock</b> <b>Matthew Jones</b> , Principal, <b>Anthemis</b> <b>Chris Forster</b> , COO, <b>Altitude Angel</b>
<b>11:50</b>	Enterprise UAV Coverage and Data Protection <b>Ed Leon Klinger</b> , CEO, <b>Flock</b>
<b>12:10</b>	<b>Roundtable discussions</b>
<b>13:00</b>	<b>Lunch Break</b>
<i>Policy</i>	
<b>14:20</b>	Panel: Regulation update and discussion <i>Panel moderator: <b>Olaf Cramme</b>, Managing Partner, <b>In Line Policy</b></i> <i>Panellists:</i> <b>Richard Ryan</b> , Barrister, <b>Blakistons</b> <b>James Dunthorne</b> , Director Standards, <b>ARPAS-UK</b> <b>Sophie O'Sullivan</b> , Head of Unmanned Aircraft Systems, <b>CAA</b>
<b>15:00</b>	Privacy by design: a business case for lasers and AIs <b>Anthony Victor MEHL</b> , Sales & Marketing Director, <b>ALTAMETRIS</b>
<b>15:20</b>	Emerging Security and Privacy Policies for effective IT governance of UAVs <b>Joseph Ikhaliya</b> , IT Security and Compliance Manager, <b>Quanta Technology Limited</b>
<b>15:40</b>	<b>Networking Break</b>
<i>Improving your Business Intelligence Part 2</i>	
<b>16:20</b>	Blockchain and UAVs <b>Hans Koning</b> , Global Keynote Speaker   Governance Specialist & Business Expert in Nascent Technologies
<b>16:40</b>	UAV captured 3D data: How to overcome challenges and the reach the full potential <b>Fakhar Khalid</b> , CSO, <b>Sensat</b>
<b>17:00</b>	<b>End of Day One</b>



# The UTM Summit

<b>Day 1</b>	
<b>Tuesday 12<sup>th</sup> November 2019</b>	
<b>UTM Summit – Shared Airspace</b>	
<i>Chaired by: Olivier Usher, Lead, Research &amp; Impact, NESTA Challenges</i>	
<b>11:20</b>	Panel Discussion 1 – Market and Regulation Updates – The Big Picture <i>Panel Moderator: <b>Olivier Usher</b>, Lead, Research &amp; Impact, NESTA Challenges</i> <i>Panellists:</i> <b>Philip Binks</b> , Head of ATM, <b>Altitude Angel</b> <b>Christian Janke</b> , Assistant Professor, Program Chair Bachelor of Science Unmanned Systems Applications, College of Aeronautics, <b>Embry-Riddle Aeronautical University - Worldwide</b> <b>Alan Harding</b> , Head of Information Systems Engineering, <b>BAE Systems – Air</b> <b>Anne-Lise Scaillierez</b> , Director, <b>ARPAS-UK</b>
<b>11:50</b>	Enabling humanitarian operations in remote locations through UTM <i>David Guerin</i> , Safety Adviser   ATM Expert, <b>Lake Kivu Challenge</b>
<b>12:10</b>	Roundtable discussions
<b>13:00</b>	Lunch Break
<b>14:20</b>	Flying High – Development of Drones in UK Cities <i>Olivier Usher</i> , Lead, Research & Impact, <b>NESTA Challenges</b>
<b>14:45</b>	<i>Industry Case Study</i>
<b>15:10</b>	Panel Discussion 2 – Rules and regulations updates and implementation processes, a stakeholder’s point of view <i>Panel moderator: <b>Mark Watson</b>, Manager UTM Strategy &amp; Service Integration, NATS</i> <i>Panellists:</i> <b>Damon Knight</b> , Head of Air Traffic Services, <b>London Southend Airport</b> <b>Richard Ryan</b> , Barrister, <b>Blakistons</b> <b>Nicholas Flom</b> , Executive Director, <b>Northern Plains UAS Test Site</b>
<b>15:40</b>	Networking Break
<b>16:30</b>	A Framework for Harmonisation of UAS Regulations for Common Operating Approvals, EASA Compliant <i>Jamie Sayer CEng MBA SIIRSM RPP</i> , Principal Safety Engineer & UAV Expert, <b>Ebeni</b>
<b>17:00</b>	End of Day 1

# Expo Talks Theatres

## Expo Theatre 1 – Mapping & Surveying

<b>Day 1</b>	
<b>Tuesday 12<sup>th</sup> November 2019</b>	
<b>Mapping &amp; Surveying</b>	
<b>10:30</b>	Pix4Dsurvey: the rise of the digital surveyor <i>Johannes Mendgen, Technical Sales Engineer, Pix4D</i>
<b>11:00</b>	GCP-free Precision Surveying with PPK <i>Alexander Fraess-Ehrfeld, CEO, AIR6 SYSTEMS &amp; Airborne Robotics</i>
<b>11:30</b>	The Adoption Process of UAV in Mapping and Surveying Companies <i>Hamlet Reynoso, PhD Student, Wolverhampton University</i>
<b>12:00</b>	Heritage Special Session <b>Presenting are:</b> <ul style="list-style-type: none"><li>• <i>Jamie Bellinger, Content Producer, English Heritage</i></li><li>• <i>Gary Young, Geospatial Survey Analyst, Historic England</i> "Use of Drones in Geospatial Survey for Heritage"</li><li>• <i>Paul Backhouse, Head of Archive and Digital Asset Management, Historic England</i> "Is it important? Keeping a history of aerial photography."</li></ul>
<b>13:00</b>	Oblique Photography Measuring System <i>Lilian Lee, International Trade Director, Beijing TT Aviation Technology Co. Ltd.</i>
<b>13:30</b>	Blue Marble Geographics Presentation <i>David Mckittrick, Senior Applications Specialist, Blue Marble Geographics</i>
<b>14:00</b>	Surveyance using drone technology – Best-practice case studies <i>Jakub Karas, UAS Manager, Czech Unmanned Aerial Alliance</i>
<b>14:30</b>	UAV-borne LiDAR for surveying: Latest developments and trends "An insight in latest state-of-the-art UAV-based LiDAR acquisition and post-processing steps" <i>Philipp Amon, Manager ULS Business Division, RIEGL Laser Measurement Systems GmbH</i>
<b>15:00</b>	Drone Based Radiation Mapping in the Chernobyl Exclusion Zone <i>Kieran Wood, Senior Research Associate, Bristol University</i>
<b>15:30</b>	Fly Safe and Smart with Better Surface Data <i>Ivan Maddox, EVP Commercial Solutions, InterMap</i>
<b>16:00</b>	End of Day 1

## Expo Theatre 2 – BlueLight & Emergency Services

Day 1	
Tuesday 12th November 2019	
BlueLight & Emergency Services	
10:30	Evolve Dynamics Presentation <i>Mike Dewhirst, Founder, Evolve Dynamics</i>
11:00	Drone Procedure Optimisation: Raising Standards to Save More Lives <i>Gemma Alcock, Founder, Owner &amp; CEO, Skybound Rescuer</i>
11:30	BORDERPOL Presentation <i>Phelim Rowe, Director Event Management, BORDERPOL</i>
12:00	BVLOS UAV Missions in Emergency Situations <i>Alexander Fraess-Ehrfeld, CEO, AIR6 SYSTEMS &amp; Airborne Robotics</i>
12:30	Dronestream: pilot communication and collaboration <i>Harry Howe, CEO, Dronestream</i>
13:00	AIRobot Presentation <i>Jan Leysens, COO, AIRobot</i>
13:30	Enabling opportunities through research <i>Khristopher Kabbabe, Lecturer, Aerospace Systems Group – The University of Manchester</i>
14:00	Development for Maritime SAR Drone Fleet Operations <i>Fredrik Falkman, Innovation &amp; Industrial Design, Swedish Sea Rescue Society</i>
14:30	Aerial Intelligence, at Scale <i>John Mckenna, CEO, Sees.ai</i>
15:00	Elistair Presentation <i>Stephen Allcock, International Business Development, Elistair</i>
15:30	Investigating the use of UAVs and Aerial Multispectral Imaging in combine search strategies for the detection of clandestine graves <u>Joint presentation</u> <i>Amy Rattenbury, Programme Leader in Forensic Science, Wrexham Glyndwr University</i> <i>Mike Parsons, 3<sup>rd</sup> year BSc Forensic Science, Glyndwr University</i>
16:00	End of Day 1

## Expo Theatre 3 – Market Updates & Trends

<b>Day 1</b>	
<b>Tuesday 12th November 2019</b>	
<b>Market Updates &amp; Trends</b>	
<b>10:30</b>	Insuring Your Drone(s), Managing Risk & Protecting Your Business <i>Jess Brown, Marketing Manager, Coverdrone</i>
<b>11:00</b>	Drones & Education: Permissions vs. Competency <i>Ray Faulkner, Managing Director, iRed</i> <i>Steve Welland, Training Director, iRed</i>
<b>11:30</b>	DroneRules PRO: Data privacy for the drone industry <ul style="list-style-type: none"><li>• Privacy and data protection research findings</li><li>• Legal data privacy problems related to commercial drones</li><li>• Presentation of DroneRules PRO resources</li><li>• Purpose of DroneRules PRO project</li><li>• How DroneRules PRO resources help facilitate compliance with privacy and data protection requirements</li></ul> <p><u>Joint presentation:</u> <i>Rachel Finn, Practice Manager, Trilateral Research</i> <i>Panagiotis Loukinas, Research Analyst, Trilateral Research</i></p>
<b>12:00</b>	COMIT Projects Presentation <i>Anthony Shooter, Chair of Drone Technology, COMIT PROJECTS Ltd</i>
<b>12:30</b>	Travelling with drones – Dos and don'ts <i>Steve Timewell, Founder and Editor, Drone User Magazine</i>
<b>13:00</b>	EASA Regulations Update and Analysis <i>James Dunthorne, Director Standards, ARPAS-UK</i>
<b>13:30</b>	ICAReS- European Innovation Cluster Accelerating Remote Sensing <i>Robert Entwistle, Postgrad Researcher, Southampton University/Cascade</i>
<b>14:00</b>	Flock Presentation <i>Ed Leon Klinger, CEO, Flock</i>
<b>14:30</b>	Protecting your Commercial Drone Business from cyber attacks <i>Maria Varela, CEO &amp; Founder, Smaare Consulting</i>
<b>15:00</b>	Title to be advised <i>Theo Carter, Trainee Patent Attorney, Kilburn &amp; Strobe</i>
<b>15:30</b>	
<b>16:00</b>	End of Day 1

## Expo Theatre 4 – 3D & Visual Technologies

<b>Day 1</b>	
<b>Tuesday 12th November 2019</b>	
<b>3D &amp; Visual Technologies</b>	
<i>Speakers and topics to be confirmed</i>	
<b>10:30</b>	UAV Automation Challenges <i>Michael Murray, AI Systems Developer, Motion Robotics</i>
<b>11:00</b>	Sterblue Presentation <i>Speaker to be confirmed</i>
<b>11:30</b>	
<b>12:00</b>	3D from video <i>Mahmoud Abdelrazek, Graduate Student, UCL – Department of Civil Environmental &amp; Geomatic Engineering</i>
<b>12:30</b>	Tree pruning drones with computer vision guidance, a working prototype <i>Kelvin Barnsdale, Senior Research Engineer, UC Drone Lab – University of Canterbury New Zealand</i>
<b>13:00</b>	UAVs to visualise the coast: a Scottish Example <i>(Green, D.R., Mauquoy, D., Smith, A., and Gregory, B.J. - UCEMM/AICSM - University of Aberdeen)</i> <i>David Green, Senior Lecturer and programme Manager, Aberdeen University</i>
<b>13:30</b>	Drones for Indoor Applications <i>Omid Maghazei, Research Associate / Doctoral Candidate, ETH Zürich</i>
<b>14:00</b>	AI-based object detection: Smart Drone <i>Grischa Hauser, Director, Compaile Solutions</i>
<b>14:30</b>	ATLAS: your ideal BVLOS Test Center for RPAS and UAS flights <i>Anastasio Sánchez, Head of ATLAS, FADA-CATEC (Spain)</i>
<b>15:00</b>	Drone Visual Navigation and Control <i>“A description of how insect-based vision is implemented for drone navigation and control”</i> <i>Dr Alex J. Cope, Research Fellow, University of Sheffield</i>
<b>15:30</b>	Hammer Flights Ltd. <i>Varun Sarwal, CEO, Hammer Flights Ltd.</i>
<b>16:00</b>	End of Day 1

## Expo Theatre 5 – Research & Innovation

<b>Day 1</b>	
<b>Tuesday 12th November 2019</b>	
<b>Research &amp; Innovation</b>	
<b>10:30</b>	Urban Air Mobility: A Promising Technology for the Developing World <i>Pamir Sevinçel, Founding Partner, The Aviary Project</i>
<b>11:00</b>	Compound aircraft: Innovative technology for long-endurance combined with high payloads <i>Joint presentation:</i> <i>Daniel Cracau, CEO Alphaslink</i> <i>Alexander Köthe, Post-Doctoral Researcher   CTO, TU Berlin   Alphaslink</i>
<b>11:30</b>	Beyond BVLOS: Resident Drone Systems - The Next Piece of The Drone Ecosystem Jigsaw <i>Jamie Allan, CEO, Allan Panthera</i>
<b>12:00</b>	Tales from the Ocean – Water-landing fixed-wing drones for illegal fishing surveillance and ecology <i>Melissa Schiele, PhD Student, Loughborough University, Wolfson School of Engineering &amp; Zoological Society of London</i>
<b>12:30</b>	Autonomous inspection of wind turbine blades by an UAV <i>Stjepan Bogdan, Ph.D., Full Professor, Laboratory for Robotics and Intelligent Control Systems (LARICS) – University of Zagreb (UNIZG-FER)</i>
<b>13:00</b>	UAV aided communications <i>Yunfei Chen, Associate Professor Warwick University</i>
<b>13:30</b>	CASCADE – Collaborative research and testing of advanced autonomous aircraft by the top five UK Universities <i>Mario Ferraro, CASCADE Project Manager, Southampton University/SotonUAV/Cascade</i>
<b>14:00</b>	Next Generation Autonomy - A Bio-Inspired Approach "An overview of the Brains on Board research project" <i>James A. R. Marshall, Professor of Theoretical and Computational Biology, University of Sheffield</i>
<b>14:30</b>	How IUDRO can propel the drone industry <i>Alejandro Perez-Llabata, Founder &amp; CEO, IUDRO</i>
<b>15:00</b>	Development of Juno, the Graphene Enhanced UAV <i>Darren Ansell, Space and Aerospace Engineering Lead, University of Central Lancashire   Civic Drone Centre</i>
<b>15:30</b>	Making a brick fly – a novel UAV airframe for survey applications <i>Steve Wright, Associate Professor – Aerospace Engineering, University of West England</i>
<b>16:00</b>	End of Day 1



## 13<sup>th</sup> of November (Day 2) Agenda

### Plenary Theatre

#### Keynote Sessions

Day 2 Wednesday 13 <sup>th</sup> November 2019	
<b>08:00</b>	Registration opens
<b>Plenary Session</b> <i>Chaired By: Mark Wharry, Head of Aviation, Martek Aviation Unmanned Aerial Systems</i>	
<b>09:15</b>	Chairman's Remarks <b>Mark Wharry</b> , Director, MW Aviation Consulting
<b>09:20</b>	Opening Keynote Taking Urban Air Mobility from a vision to a reality <b>Andrew Munday</b> , Director of Advanced Engineering and Technology, Atkins
<b>09:40</b>	Keynote Presentation 1 Opportunities in indoor vs. outdoor drones: differences and similarities <b>Patrick Thevoz</b> , CEO, Flyability
<b>10:00</b>	Keynote Presentation 2 Tomorrow's crowded skies ... complex systems of systems <b>Alan Harding</b> , Head of Information Systems Engineering, BAE Systems - Air
<b>10:20</b>	Networking Break

# Conference Theatres

## Conference Theatre 1 – Aircraft Technology

<b>Day 2</b>	
<b>Wednesday 13<sup>th</sup> November 2019</b>	
<b>Aircraft Technology</b>	
<i>Chaired by: <b>Omar Kassim Ariff</b>, Programme Leader-Aircraft Engineering &amp; Lecturer Aircraft &amp; UAS, University of Salford</i>	
<i><b>Flying and Designing Large UAVs</b></i>	
<b>11:20</b>	Panel: Aerospace engineering advances and their impact on the market and industry as a whole <i>Panel moderator: <b>Omar Kassim Ariff</b>, Programme Leader-Aircraft Engineering &amp; Lecturer Aircraft UAS, University of Salford</i> <i>Panellists:</i> <i><b>Theo Carter</b>, Trainee Patent Attorney, <b>Kilburn &amp; Strode</b></i> <i><b>Andrew Munday</b>, Director of Advanced Engineering and Technology, <b>Atkins</b></i>
<b>11:50</b>	Cargo drones and the “last mile” delivery <i><b>Barry Koperberg</b>, Founder and General Manager, <b>Wings for Aid</b></i>
<b>12:10</b>	HALE aircrafts – properties and usage <i><b>Svilen Rangelov</b>, Co-Founder &amp; CEO, <b>Dronamics</b></i>
<b>12:30 Lunch Break</b>	
<i><b>Bespoke Design and Innovation</b></i>	
<b>14:00</b>	Commercialising the stratosphere <i><b>Brent Brakeboer</b>, Solution Architect, <b>Airbus Defence and Space</b></i>
<b>14:30</b>	DronEx: testing drones in extreme environmental conditions <i><b>Andrea Vilardi</b>, senior researcher, <b>TerraXcube</b></i>
<b>15:00 End of Conference</b>	



## Conference Theatre 2 – Command & Control

<b>Day 2</b>	
<b>Wednesday 13<sup>th</sup> November 2019</b>	
<b>Command &amp; Control</b>	
<i>Chaired by: Omid Maghazei, Research Associate and Doctoral Candidate, ETH Zurich</i>	
<i>Control Systems and Connectivity</i>	
<b>11:20</b>	Panel: Command and control systems - implementation and market opportunities <i>Panel moderator: Omid Maghazei, Research Associate and Doctoral Candidate, ETH Zurich</i> <i>Panellists:</i> <b>Nicholas Flom</b> , Executive Director, <b>Northern Plains UAS Test Site</b> <b>Harry Howe</b> , CEO, <b>Dronestream</b> <b>Varun Sarwal</b> , CEO, <b>Hammer Flights Ltd.</b>
<b>11:50</b>	5G– exciting possibilities for the future of UAV connectivity <b>Adam Schink</b> , Innovation Development Officer, <b>BT</b>
<b>12:10</b>	Title to be advised <b>Simon Chester</b> , Communication Lead, <b>The Open Geospatial Consortium (OGC)</b>
<b>12:30 Lunch Break</b>	
<i>Surveying, Sensors and Imaging Tools</i>	
<b>14:00</b>	How UAVs are changing the surveying landscape <b>Paul Lindup</b> , Project Manager, <b>Network Rail Air Operations</b>
<b>14:20</b>	How to effectively gain actionable insight from your visual inspections <b>Ken Isobe Falk</b> , CEO & Founder, <b>Scopito</b>
<b>14:40</b>	Flying in confined spaces <b>Junio Valerio Palomba</b> , Account Manager, <b>Flyability</b>
<b>15: 00 End of Conference</b>	

## Conference Theatre 3 – Urban Innovation

<b>Day 2</b>	
<b>Wednesday 13<sup>th</sup> November 2019</b>	
<b>Urban Innovation</b>	
<i>Chaired by: Jamie Allan, CEO, Allan Panthera</i>	
<b>“Drones for good”</b>	
<b>11:20</b>	Panel: Drones for good – from concept to project realisation, how can we implement drone technology in our communities and change them for the better?  <i>Panel moderator: <b>Jamie Allan, CEO, Allan Panthera</b></i>  <i>Panellists:</i>  <b>Barry Koperberg, Founder and General Manager, Wings for Aid</b>  <b>Gemma Alcock, Founder – Owner &amp; CEO, Skybound Rescuer</b>  <b>Perran Bonner, Drone Manager/Operations Lead/Tactical Advisor Unmanned/Special Operations, Essex Police</b>
<b>11:50</b>	Implementing a National Experimental Test Centre for UAS  <b>Jean Daniel Sulberg, Acting Director, German Aerospace Center, DLR</b>
<b>12:10 Lunch Break</b>	
<b>Assessing, Reducing and Containing Incidents Through Drone Technology</b>	
<b>14:00</b>	Counter-UAS: Systems, Capabilities, and Market Trends  <b>Mike Blades, Vice President - Aerospace, Defense, and Security Americas, Frost &amp; Sullivan</b>
<b>14:30</b>	Drone use for infrastructure inspection  <b>Jon Lorimer, Head of Security, Thames Water Limited</b>
<b>15: 00 End of Conference</b>	

## Conference Theatre 4 – UAV Data and Workflow

<b>Day 2</b>	
<b>Wednesday 13<sup>th</sup> November 2019</b>	
<b>UAV Data Applications and Workflow</b>	
<i>Chaired by: Adam Juniper, Founder, AJPC Publishing</i>	
<i>Data, Mapping and Spatial Analysis</i>	
<b>11:20 Construction and Infrastructure Panel</b>	
<i>Panel moderator: Anthony Shooter, Chair of Drone Technology, COMIT PROJECTS Ltd</i>	
<i>Panellists:</i>	
<i>Mark Lawton, Chief Surveying Engineer, Skanska</i>	
<i>Mark Brueton, Principal Engineering Surveyor, BAM Nuttall Limited</i>	
<i>Karen Holden, Founder &amp; Managing Director, A City Law Firm</i>	
<b>11:50</b>	Exploring applications for line-of-sight surveys, 3D modelling and site inspections
<i>Steve Combes, Strategic Product Manager Drones and Image Recognition, Ericsson Global</i>	
<b>12:10</b>	Media grade, inclusive data for the masses
How drone media grade has been used on the A14 – Cambridge-Huntington bypass – to inform the workforce	
<i>Mark Lawton, Chief Surveying Engineer, Skanska</i>	
<b>12:30 Lunch Break</b>	
<i>Aerial Imaging and Visual Technologies</i>	
<b>14:00</b>	AR, Drones and Real Time Visual Intelligence Technology
<i>Pae Natwilai, Founder and CEO, TRIK</i>	
<b>14:30</b>	How AI can be used to develop a strategic approach to UAV imaging
<i>Elizabeth Traiger, Senior Researcher, DNV - Energy</i>	
<b>15: 00 End of Conference</b>	

# The UTM Summit

<b>Day 2</b>	
<b>Wednesday 13<sup>th</sup> November 2019</b>	
<b>UTM Summit – Security &amp; Counter-Drone</b>	
<i>Chaired by: Andrew Sage, Head of Unmanned Traffic Management, NATS</i>	
<b>11:20</b>	How to safely enable the emerging technology whilst addressing legitimate security concerns <b>Richard Gill</b> , Founder & CEO, <b>Drone Defence</b>
<b>11:40</b>	UTM experiences in ATLAS Flight Test Center <b>Anastasio Sánchez</b> , Head of ATLAS, <b>FADA-CATEC (Spain)</b>
<b>12:00</b>	International framework and strategies overview <b>Claudio Palestini</b> , Officer Counter-Terrorism, Emerging Security Challenges Division, <b>NATO</b>
<b>12:30</b>	<b>Lunch Break</b>
<b>14:00</b>	<u>Industry case study 4</u> <b>Peter Cheetham</b> , Evolution Lead, <b>tIm Nexus</b>
<b>14:20</b>	Laser Based UAV Classification System (LUCS) <b>Dr. Christoph Kolbl</b> , Institute of Technical Physics, <b>DLR</b>
<b>14:40</b>	<u>Industry case study 6</u> <b>Niall Greenwood</b> , Aviation Consultant, <b>Neuron</b>
<b>15:00</b>	<b>End of Summit</b>

# Expo Talks Theatres

## Expo Theatre 1 – Mapping & Surveying

<b>Day 2</b>	
<b>Wednesday 13th November 2019</b>	
<b>Mapping &amp; Surveying</b>	
<i>Speakers and topics to be confirmed</i>	
<b>10:30</b>	Data Capture, Deliverables and Digital Collaboration <i>Andy Givens, Senior Application Engineer, Topcon Positioning GB</i>
<b>11:00</b>	Training Beyond PFCO: Upgrading Your Drone Skills <i>Ray Faulkner, Managing Director, iRed</i> <i>Steve Welland, Training Director, iRed</i>
<b>11:30</b>	Building Condition Assessments using UAV Technology <i>Paul Jeffs, Founder and Principal, PJ Materials Consultants Ltd.</i>
<b>12:00</b>	Are we ready for Hands in the Sky? <i>Timo Mueller, ETH Researcher &amp; Voliro CTO, ETH Zurich/Voliro</i>
<b>12:30</b>	AI Robot Presentation <i>Jan Leysens, COO, AI Robot</i>
<b>13:00</b>	
<b>13:30</b>	Using LiDAR Technology for Alpine Mapping Tasks – Avalanche Documentation <i>Philipp Amon, Manager ULS Business Division, RIEGL Laser Measurement Systems GmbH</i>
<b>14:00</b>	Journey Gaining Permission to Fly Commercial Operational (PFCO) <i>Michelle Saunders, CAD Manager, Glyndŵr University</i>
<b>14:30</b>	Oblique Photography Measuring System <i>Lilian Lee, International Trade Director, Beijing TT Aviation Technology Co. Ltd.</i>
<b>15:00</b>	End of Day 2

## Expo Theatre 2 – “Drones for Good”

<b>Day 2</b>	
<b>Wednesday 13th November 2019</b>	
<b>“Drones for Good”</b>	
<b>10:30</b>	Pix4Dreact: 2D fast-mapping for emergency response and public safety <i>Johannes Mendgen, Technical Sales Engineer, Pix4D</i>
<b>11:00</b>	Dronecoria, open source project for ecological restoration with drones <i>Andreu Ibanez, President and Founder, LleidaDrone Association</i>
<b>11:30</b>	Remote Sampling and Measurement of Volcanic Emissions using Drones <i>Tom Richardson, Senior Lecturer in Flight Dynamics and Control, University of Bristol</i>
<b>12:00</b>	Glyndwr University <i>Jon Laughton, Managing Director &amp; Glyndwr University Alumni, Ad Manum UAS Technologies Ltd</i>
<b>12:30</b>	Flock Presentation <i>Ed Leon Klinger, CEO, Flock</i>
<b>13:00</b>	Drones, Conservation, and Machine Learning <i>Serge Wich, Professor, Liverpool John Moores University</i>
<b>13:30</b>	African Drone Forum: The Lake Kivu Challenge humanitarian drone efforts <i>David Guerin, Safety Adviser   ATM Expert, Lake Kivu Challenge</i>
<b>14:00</b>	Sterblue Presentation <i>Speaker to be confirmed</i>
<b>14:30</b>	Leasing your drone equipment: how can this benefit you financially <i>Julian Coleman, CEO, Lease the Drone</i>
<b>15:00</b>	End of Day 2

## Expo Theatre 3 – Market Updates & Trends

<b>Day 2</b>	
<b>Wednesday 13<sup>th</sup> November 2019</b>	
<b>Market Updates &amp; Trends</b>	
<b>10:30</b>	Evolve Dynamics Presentation <i>Mike Dewhirst, Founder, Evolve Dynamics</i>
<b>11:00</b>	Automation of the Public Health System Thought Cargo-Drone Technology <i>Hamlet Reynoso, PhD Student, Wolverhampton University</i>
<b>11:30</b>	Medecins Sans Frontieres Presentation <i>Raphael Brechard, GIS/EHealth Coordinator, MSF UK</i>
<b>12:00</b>	Support of emergency forces through an AI-based framework <i>Grischa Hauser, Director, Compaile Solutions</i>
<b>12:30</b>	Glyndwr University <i>Rob Bolam, Programme Leader for UAS Technology, Wrexham Glyndwr University</i>
<b>13:00</b>	Drone images with terrestrial laser scans combined – All in one step with RealityCapture <i>Jakub Vanko, Technical Pre-sales expert, Capturing Reality</i>
<b>13:30</b>	
<b>14:00</b>	
<b>14:30</b>	
<b>15:00</b>	End of Day 2

## Expo Theatre 4 – Careers’ Zone Agenda

**Day 2**

**Wednesday 13<sup>th</sup> November 2019**

### **Kick-start your career in the UAV industry**

#### **10:30 Industry and Academia Career Speed Dating**

*Each organisation will have 5 minutes to pitch their career opportunities to the audience*

#### **Pitching are:**

- **10:30 – Aberdeen University**

*Careers in Drones (PART 1)*

**David Green**, Senior Lecturer and programme Manager, **Aberdeen University**

- **10:35 – Royal Aeronautical Society**

**Emily Self**, Membership Development Executive, **Royal Aeronautical Society**

- **10:40 – University of Central Lancashire**

*An introduction to the range of degree programmes offered at the University of Central Lancashire, including Aerospace Engineering and Aerospace Engineering with Pilot Studies*

**Prof. Darren Ansell**, Professor of Aerospace Engineering, **UCLAN**

- **10:45 – BORDERPOL**

**Phelim Rowe**, Director Event Management, **BORDERPOL**

- **10:50 – Class of your own**

**Alison Watson**, CEO, **Class of your own**

- **10:55 – Embry-Riddle Aeronautical University**

*Be prepared for the future of Unmanned Systems with a degree from Embry Riddle Worldwide!*

**Christian Janke**, Assistant Professor, Program Chair Bachelor of Science Unmanned Systems Applications, College of Aeronautics, **Embry-Riddle Aeronautical University - Worldwide**

- **11:00 – Global Air Drone Academy (GADA)**

**Eno Umoh**, Co-Founder, **GADA**

- **11:05 – Glyndwr University**

**Robert Bolam**, Senior Lecturer, **Glyndwr University**

#### **11:15 Women in the UAV industry – Special Session**

*This year we have the pleasure of partnering up with the “Women Who Drone” community to create a special session designed to provide a platform to educate, connect, inspire and empower women within or seeking to join the UAV industry.*

Organised by: **Elena Buenrostro**, Founder & CEO, **Women Who Drone**

#### **Presenting are:**

**Carys Kaiser**, Ambassador, **Women Who Drone**

**Psyona Williams**, Ambassador, **Women Who Drone**

*Further speakers to be announced*



## **12:20 How I Got Started?**

*20-minute interactive best-practice case studies and testimonials from industry leaders exploring how best to get started in the industry*

### **Presenting are:**

- **12:20 – Aberdeen University**

*Careers in Drones (PART 2)*

**David Green**, Senior Lecturer and programme Manager, **Aberdeen University**

- **12:40 – The Royal Aeronautical Society**

**Nicholas Davis**, Employability & Skills Executive, **Royal Aeronautical Society**

- **13:00 – University of Central Lancashire**

*Aerospace Engineering Career's – Illustration of the routes into an aerospace career, including higher education routes.*

**Prof. Darren Ansell**, Professor of Aerospace Engineering, **UCLAN**

- **13:20 – Trilateral Research**

*Working as social scientists and lawyers in the drone market*

### **Joint presentation:**

**Rachel Finn**, Practice Manager, **Trilateral Research**

**Panagiotis Loukinas**, Research Analyst, **Trilateral Research**

- **13:40 – Class of your own**

**Alison Watson**, CEO, **Class of your own**

- **14:00 – ESNO Media**

*Cars, Coastlines & Contracts: Running a commercial drone company at 23*

**Callum Jenkins**, Founder, **ESNO Media**

- **14:20 – Emby-Riddle Aeronautical University**

*How can companies and authorities prepare for the increasing demand of graduates and the competition for skilled employees in the field of Unmanned Systems?*

**Christian Janke**, Assistant Professor, Program Chair Bachelor of Science Unmanned Systems Applications, College of Aeronautics, **Embry-Riddle Aeronautical University - Worldwide**

- **14:40 – Global Air Drone Academy**

**Eno Umoh**, Co-Founder, **GADA**

**15:00 End of Careers' Zone Agenda**

## Expo Theatre 5 – Research & Innovation

<b>Day 2</b>	
<b>Wednesday 13th November 2019</b>	
<b>Research &amp; Innovations</b>	
<b>10:30</b>	Electric Motors for Heavy Lift Drones <i>Dennis Majoe, Founder &amp; Director, Motion Robotics</i>
<b>11:00</b>	Drone Futures: Urban Analytics and Design for Digital Twins <i>Paul Cureton, Senior Lecturer in Design, Lancaster University</i>
<b>11:30</b>	Aerial Robots based HAZMAT monitoring: Information-theoretic Hazardous Source Search and Reconstruction <i>Cunjia Liu, Senior Lecturer, Loughborough University</i>
<b>12:00</b>	Aerial Intelligence, at Scale <i>John Mckenna, CEO, Sees.ai</i>
<b>12:30</b>	Nottingham Trent University <i>Dale Richards, Senior Research Fellow, Nottingham Trent University</i>
<b>13:00</b>	A Bee in Drone's Clothing "Emulating honeybee flight on a quadrotor aircraft" <i>Fadl Isa, Doctoral researcher, University of Sheffield</i>
<b>13:30</b>	SotonUAV- Research update <i>Mehmet Erbil, Research Fellow, SotonUAV</i>
<b>14:00</b>	Blue-sky innovation and patenting: How to patent forward-looking drone innovations <i>Iain Russell, Inventor &amp; Patent Attorney</i>
<b>14:30</b>	Rorigami: How can origami protect a drone? <i>Dr Pooya Sareh, Lecturer in Industrial Design Engineering &amp; Creative Arts   Director of the Creative design engineering lab (Cdel), Division of Industrial Design   School of Engineering, The University of Liverpool</i>
<b>15:00</b>	End of Day 2