# IAgrE Landwards Conference 2019



## Conference Programme

0930	Arrival, Registration and Networking – Post Graduate Poster Display	
0945	Introductory Remarks – Understanding the Big Data challenge and the opportunities this brings for farmers and the wider supply and support system. Looking at the engineering and technology challenges and opportunities Professor Jane Rickson – President IAgrE	
1000	The role of Big Data in unlocking unimaginable solutions to feeding the world and environmental protection – Agrimetrics provides, connects and analyses complex data to drive greater productivity for agrifood businesses and deliver food sustainably. This session will explore how big data emerging from engineering/machinery-driven applications is transforming and has transformed other industries and therefore where there may be great potential for Agriculture.  Benjamin Turner, Chief Operating Officer, Agrimetrics	
1020	How will Big Data Transform Agriculture – Practical Lessons from the Farm – From Agronomist to Grain Merchant, Farm Manager to Machine operator, the role of data in shaping decisions and improving yields has moved on apace. This session will look at the work of agronomists and the emerging role of Precision Technology advisor and integrator. This session will focus on how the agricultural support network will link technology, knowledge and advice to deliver sustainable farming, linking Technology, Knowledge and Advice to Deliver Sustainable Farming.  Oliver Wood, Precision Technology Manager, Omnia Precision Agronomy	
1040	The next generation CLAAS LEXION Combine Harvester – How data collection can contribute to smarter farming. Optimising machine performance with continuous data access allowing the manufacturer to fine tune the machine "on the move" through simultaneous "access data" and "connectivity" and on board support. In addition, "data delivery" and "data reception" to or from other systems and decision making tools. These tools can be vehicle/fleet related or contribute to the classic precision farming approach enabling an operation to utilise input more effectively - the right amount, at the right place and time.  Dr. Joachim Stiegemann – CLAAS Product Management	
1100	Coffee Refreshment Break – Post Graduate Poster Display	
1130	<b>IoT for Agriculture</b> — The opportunity is now presented for the agricultural industry to take a lead in defining an IoT structure for specific agricultural support that goes beyond the specification of technology and addresses the need for developing a framework for accommodating protocols, standards, the needs for operational governance and open systems infrastructure to assist global application and scalability. This session addresses these challenges and opportunity to realise an industry-lead IoT for Agriculture — an IoAT. <b>Anthony Furness MIAgrE</b> - <b>Visiting Professor, Harper Adams University</b>	
1150	Big Data: Changing the paradigm for small farms - The UK is predominantly made up of small mixed farms, which present very different challenges to large arable farms. Luke Halsey of Farm491, the UK's leading AgriTech incubator, will explore how big data represents an opportunity for smaller farms and how we can create value for farmers by providing valuable insights from data. From Luke's experience working alongside AgriTech entrepreneurs he will discuss lessons learned and potential opportunities for smaller farms, as well as the importance of the business model to enable equitable farmer adoptions.  Luke Halsey – Farm491	

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1210	Digitalisation and Service Journey – the steps on the journey at CNH Industrial on the digitalisation of their machines and journeys.  Filippo Fassino – Customer Contact Service Director CNH Industrial
1230	Panel Discussion: In light of this morning discussion, will data be the great panacea it is claimed to be?  Will "big data" be as revolutionary as the tractor and mechanisation?  Chaired by Andy Newbold FlAgrE – IAgrE Past President
1315	Lunch & Networking – Post Graduate Poster Display

#### Parallel Workshops – Lessons from the Land

Time	Emerging Research and Policy Themes	On Farm Developments
1415	Nick Starkey, Royal Academy of Engineering	Arthur Soames, Hummingbird Technologies
	The role of the Royal Academy of Engineering in developing research and policy themes around emerging technologies which rely on the collection and application of "Big Data" in areas such as autonomous vehicles, drone technologies, data ethics and where the government should invest in digital technologies.	Developments in the use of Artificial Intelligence, imagery and data analytics from satellite, drone, plane, and robot technology, to provide farmers with high-resolution maps of their crops at critical decision-making junctions in the season. Using advanced machine learning and computer vision techniques, delivering actionable insights on crop health directly to the field.
1445	Ron Corstanje MIAgrE, Cranfield University	Mark Rutter, Harper Adams University
	The role of the UK Government Digital Champion.  Developments in Agri-Informatics. The application of big data and data sciences to support grower decision making. Insights into research with multinational Information Technology and Food manufacturers.	Big Data and the Livestock Sector. How can Big Data be collected from the livestock sector? Sensor technologies and the animal including developments at Harper Adams. Thoughts on the ethical dilemmas of collecting data directly from animals.
1515	Rob Simmons MIAgrE, Cranfield University	Simon Pearson FIAgrE, Lincoln University
	Development of a Soil Management Information System for Horticulture.  The Climate Corporation and Gamaya already offer data-driven agricultural insights that take soil type, seed suitability and local weather patterns into account.	The use of Big Data to support autonomous systems and agri-robots. Overview of developments with the Universities of East Anglia and Cambridge.
1545	Conference Review	
	Review of Conference and Next Steps	
1600	End of Conference	