

Data & Drones workshop

UK Drone Pathfinder Programme

Connected Places Catapult, 5th November 2019



Agenda

10:00 Arrival

10:30 Welcome & Agenda

10:40 **Introduction**

- Callum Harkness, Alicja Karpinska, James Morrison, Ordnance Survey
- Joanne Murray, Craig Roberts, PwC

11:30 **Drone data adding value to business**

- Harry Atkinson, SenSat
- Rebecca Allison, The Oil & Gas Technology Centre
- Rona Mitchell, UK Power Networks
- Owen Graham, Network Rail

12:30 Lunch

13:10 **Drone data adding value to business (cont)**

- Luca Zanotti Fragonara, Cranfield University
- Cherry Jones, Sara Stones, Cefas

14:00 **Panel discussion: when and where is it worth it?**

- Luca Zanotti Fragonara, Cranfield University
- Rebecca Allison, The Oil & Gas Technology Centre

15:00 End of workshop

Objectives

- Learn about the data captured from drones and compare it with other available data sets
- Learn how this data can be successfully integrated into a business and which processes are required to do so
- Discuss what benefits can be derived from it and any barriers and opportunities for its exploitation

Drone Pathfinder Programme

- Part of a wider programme of work, both government led and across the UK's public and private sectors, aimed at enabling integration of drones into UK airspace
- Aims to rapidly drive progress in drone technology and regulation, enabling industry and the public sector to fully exploit this technology
- Identify the commonalities between use cases and facilitate live testing of operational concepts
- Initial Pathfinder projects: BVLOS linear infrastructure surveys across electricity and gas networks, Infrastructure Inspection construction industry

<https://cp.catapult.org.uk/case-studies/pathfinder/>

The Pathfinder objectives and outputs

Pathfinder Programme Objectives

“Articulating the challenges faced in bringing a new BVLOS drone-based service to market in the UK”

1. Routine BVLOS operations in unsegregated airspace
2. Cross-cutting capabilities
3. Safe, secure and sustainable operations

Outputs

- Standard scenario template:
 - Long linear operations in Rural/Remote Locations/Low Population
 - Large area operations in Rural/Remote Locations/Low Population
 - Urban operations
 - One-to-many drone operations
- Common themes/aspects to enable cross-cutting applications
- Safe, robust, resilient, redundant challenges answered



Pathfinder projects



Energy Pathfinder “Above and Beyond”

Objective: Beyond Line of Sight (BVLOS) linear infrastructure surveys across electricity and gas networks

Achievements:

- Consortium brought together with help from the Pathfinder Programme
- Successfully tested four different Concepts Of Operations
- Created standardised operations for maintenance of critical infrastructure for UK gas and electricity networks
- Worked hand in hand with the CAA and stakeholders to help enable routine commercial BVLOS capabilities on network assets



Pathfinder projects



Infrastructure Construction Pathfinder

Objective: Beyond Line of Sight (BVLOS) capabilities to reduce delivery and operational costs in a construction project

Achievements:

- Succeeded in getting a regulator-approved Beyond Visual Line of Sight (BVLOS) methodology and Operational Safety Case
- Gained a deeper understanding of drone BVLOS feasibility and challenges in the context of road infrastructure inspection in the UK
- Strengthened CAA relationships

