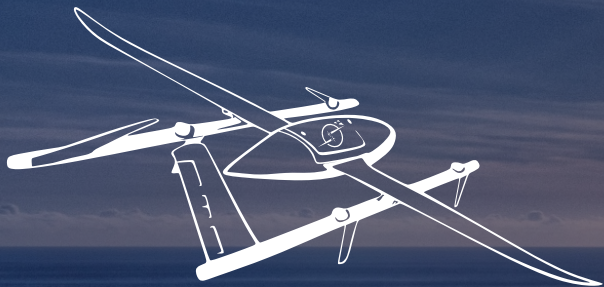




UK Research and Innovation

# OPEN SKIES CORNWALL



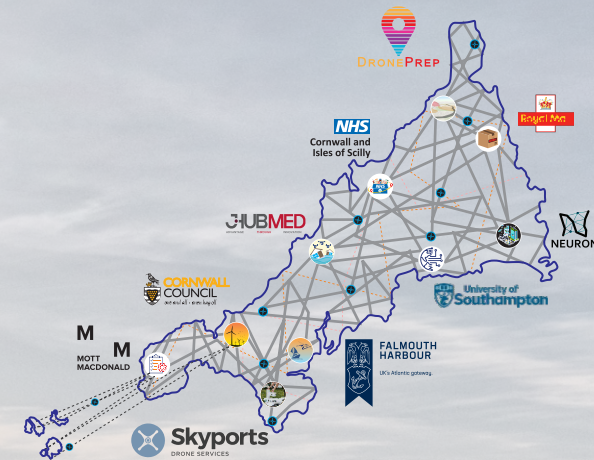


# OPEN SKIES CORNWALL

In 2020, The Future Flight Challenge Phase 2 (FFC2) project united two drone delivery partners, advanced the BVLOS / medical compliance agenda and made England's first meaningful drone delivery demonstrations for Medical Delivery (NHS) and Parcel Delivery (Royal Mail).

The project exceeded all expectations, embedded links and trust were formed between our team, Cornish communities, the NHS, Royal Mail and CV19 Biotech companies. Together we were united in adopting the best drone capabilities available at that time to showcase to the people of Cornwall how our sector could rise to CV19 challenges faced by healthcare providers and use drone delivery to keep remote communities connected during a time of crisis.

Fast forward to 2022 and we now have a new £2.4m funding mandate from UK Research and Innovation (UKRI) via Future Flight Challenge Phase 3 (FFC3) funding to continue our work and Open the Skies of Cornwall with new and existing technology providers and end users. Our main motivation for FFC3 is to build on the success and relationships made by our team during FFC2 so that we may all explore together how we can better use drones on a permanent basis to support remote communities and to open up opportunities for synergy with new markets.





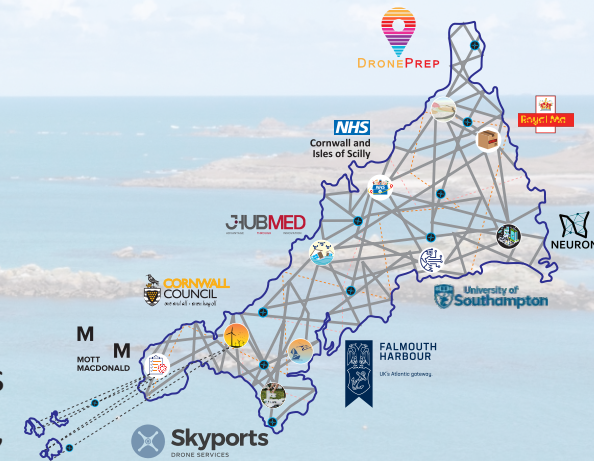
# OPEN SKIES CORNWALL

The Open Skies Cornwall project will connect end users, stakeholders, regulators, innovators and drone technology providers both within and outside the project to overcome regulatory, infrastructure, airspace and logistical barriers to achieve the conditions necessary for end user service adoption, expansion and a clearer route to commercialisation.

R&D innovation projects tend to be tech lead this can create a disconnect between the tech provider and their emerging market as the tech solutions can be technically perfect but not actually pass regulatory approval or answer a business/community need.

Open Skies Cornwall's approach is different and is driven by End User focus. Our project kicks off with a Cornish Community and Business consultation, underpinned by the DronePrep Drone Delivery Register so we can better use the technical capabilities and funding investment to provide enabling infrastructure and flight time to support flights for real world end users within the Cornwall Region.

Our team members can be split into two categories 'End Users' and 'Technology Providers'. Each End User provides connections to markets and new use cases, whilst each Enabling Technology Provider caters for the development of a novel technology that can underpin development toward project milestone. The following pages explore our core team.





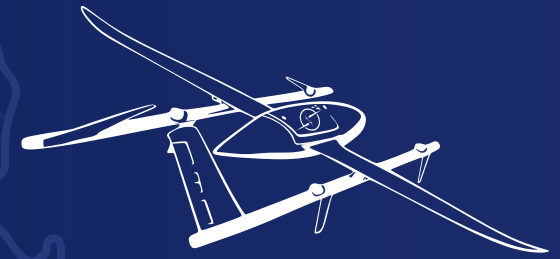
# OPEN SKIES CORNWALL



**CORNWALL  
COUNCIL**  
*one and all • onen hag oll*



# OPEN SKIES CORNWALL



Cornwall Council provides a wide range of services to the approximately half a million people who live in Cornwall. It has a budget of more than £1 billion and is the biggest employer in Cornwall, with responsibility for schools, social services, rubbish collection, roads, planning and more. Cornwall and the Isles of Scilly is a rural, remote region where people are affected by a lack of connectivity, which can lead to isolation and poor healthcare outcomes.

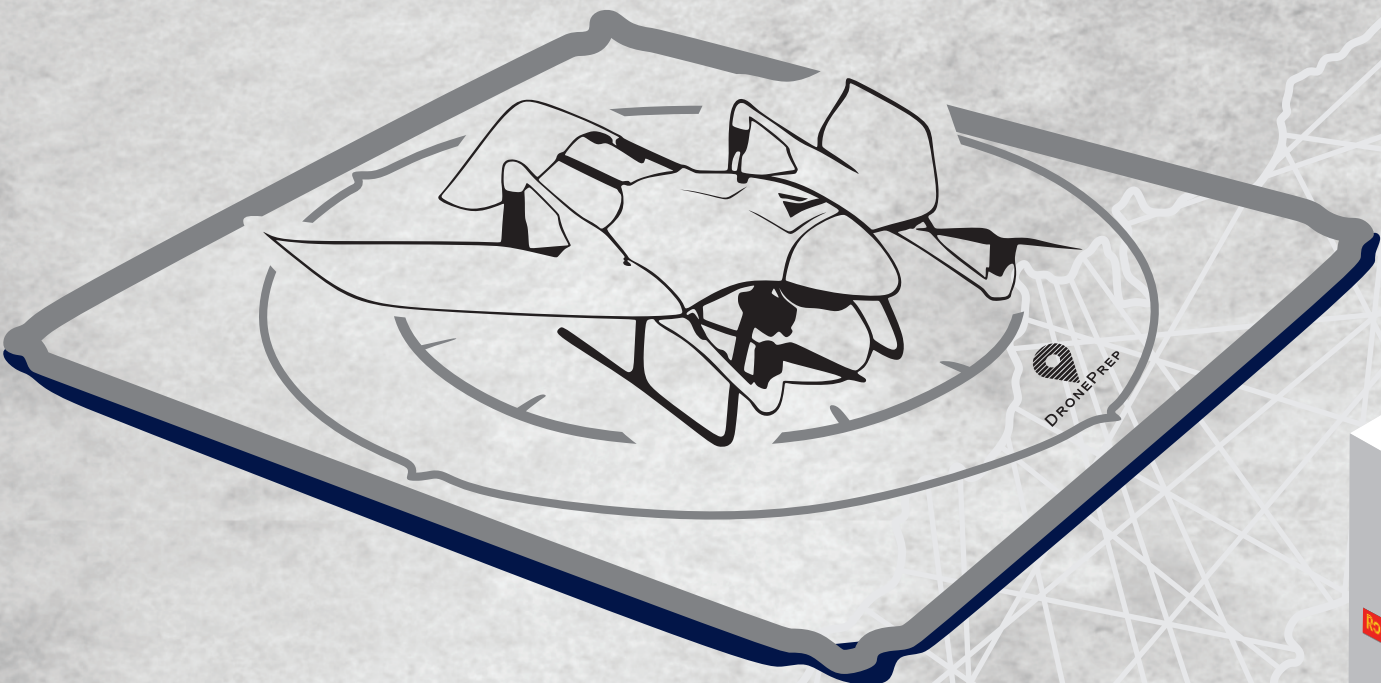
As a partner on the Open Skies Cornwall project, Cornwall Council is both an end user and a facilitator. As a land owner and an asset owner we will support the demonstration activity by identifying locations with the DronePrep Drone Delivery Register which can be used as take off and landing sites and assets which can be used to host Neuron's navigation beacons and communications systems. We will draw on our extensive network to facilitate dialogue between stakeholders within the region and to attract new players to collaborate with the Open Skies Cornwall project partners. We will engage local people whose quality of life could be improved by using innovative technology designed around their needs. The Council aims to use more drones in the delivery of public services; In so doing the Council hopes to be a customer of the services developed through the Open Skies Cornwall project.



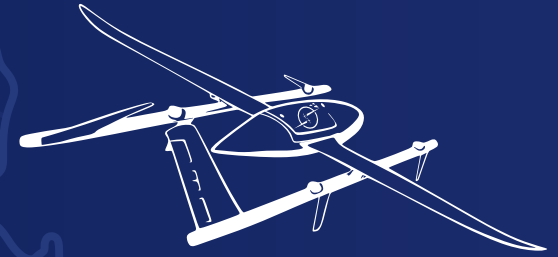
*“Cornwall and Isles of Scilly is known for its hospitality so we welcome everyone to come and work with us on the Open Skies Cornwall project.”*  
*- Cornwall Council Spokesperson*



# OPEN SKIES CORNWALL







# OPEN SKIES CORNWALL

Royal Mail is the largest carrier in the UK, delivering over 1bn parcels and 7bn letters each year to 31m addresses, through its trusted network of 85,000 feet on the street. It has been operating for over 500 years and has a long record of adapting to changes in society, in order to remain relevant. Royal Mail's recent UAV trials are a prime example of this, with the business conducting four trials to date in the Hebrides, Isles of Scilly, Orkney Isles and Shetland Isles.

The UAVs due to be tested by Skyports as part of the Open Skies Cornwall project are expected to be fully electric, fitting nicely with Royal Mail's plans to reduce their emissions per parcel from the 205g today to 50g, as part of their Steps to Zero carbon reduction strategy. The roll out of the DronePrep Drone Delivery Register and Open Skies Cornwall public consultation in Cornwall will help us better understand customer demand as well as identify where drones can do jobs that other technologies cannot to help serve remote communities.



**Royal Mail**

*“Royal Mail is really excited to be part of Open Skies Cornwall and to have the opportunity to go back to the Isles of Scilly to build on the success of those initial trials. With consumers ordering goods later in the evening and still expecting them to be delivered next day, UAVs potentially offer a more reliable and timely way of connecting to the remote communities which Royal Mail serves through its Universal Service Obligation.”*

*- Chris Paxton, Strategic Insight and Innovation Manager, Royal Mail.*



# OPEN SKIES CORNWALL



**NHS**

**Cornwall and Isles of Scilly**



# OPEN SKIES CORNWALL

We are proud to be a member of the consortia, representing Royal Cornwall Hospitals NHS Trust (RCHT) and NHS Cornwall and Isles of Scilly Integrated Care Board. Our involvement in the Open Skies Cornwall project is to explore the use of Unmanned Aerial Vehicles (UAVs) in the transport and delivery of pathology and pharmacy services, such as samples/blood products, point of care equipment and consumables including drugs. Our focus will be to evidence the benefits of using UAVs for transport and delivery, to provide a reliable service to remote areas and communities and benefit the quality of diagnosis. Due to the geographical and transport infrastructure constraints of Cornwall and the Isles of Scilly, this project will aim to support and enhance traditional transport methods, enabling us to comply with national targets and 'getting it right first time' (GRIFT) initiatives like blood cultures

Our goal is to boost the quality of diagnostic samples from remote and rural areas to prevent repeated sampling due to adversely affected samples. We hope to provide these areas with a robust and reliable service that ensures the best quality of care for all patients, regardless of where they live. We also hope that using UAVs in this way will help RCHT in its goal of achieving carbon net zero status by 2030.



**Cornwall and  
Isles of Scilly**

*"The NHS sees the Open Skies Cornwall Project as an opportunity to embrace new technologies to transform and support outstanding patient care for one and all."  
-John Groom, NHS Cornwall and Isles of Scilly Integrated Care Board.*



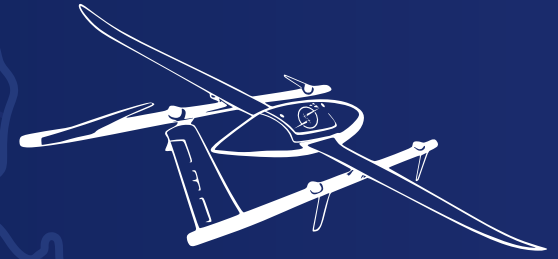
# OPEN SKIES CORNWALL



**FALMOUTH  
HARBOUR**

UK's Atlantic gateway.

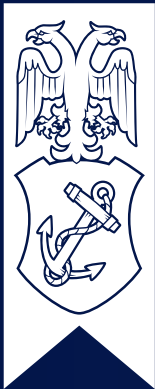




# OPEN SKIES CORNWALL

Falmouth Harbour is a vibrant, vital Harbour for the UK, with a thriving marine cluster. It is fast becoming a focus for blue growth around new marine and environmental technologies and will become a key part of Cornwall's low-carbon future

Falmouth Harbour is proud to be the testbed for Open Skies Cornwall and the first Harbour authority to be amending its governing Harbour Order in order to accommodate the future of flight, giving operators one of the best maritime areas in the UK and beyond to trial and refine the technologies of tomorrow. Falmouth Harbour will play a key role in the project, providing vessels and means of access to the water, enabling controlled trials to take place in the marine environment.



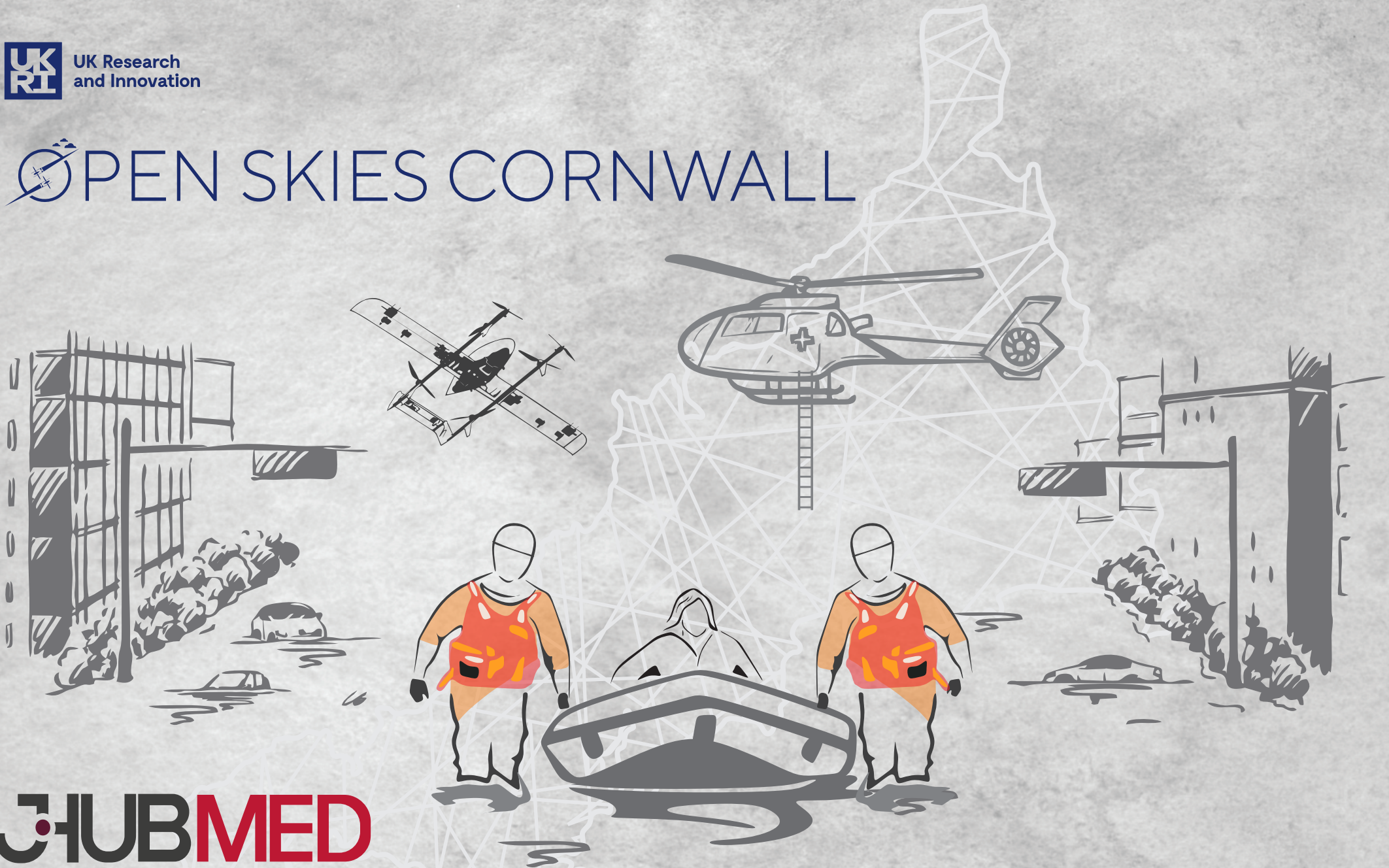
## FALMOUTH HARBOUR

UK's Atlantic gateway.

*“As the UK’s Atlantic Gateway, Falmouth Harbour has always had a global outlook, strategically positioned as the first and last major Harbour next to the Atlantic Ocean. We can offer access to a unique operating environment, in which future technologies can be tested and proven safely. Falmouth harbour is targeting new opportunities as a necessary future step for the Harbour’s long-term sustainability. We are really excited to be part of this project which will help define future connectivity to remote communities, between the land and offshore vessels. Falmouth Harbour is very proud to be providing the test ground for Open Skies Cornwall, and to be the first Harbour revising our Harbour legal framework so we can better accommodate the future of flight in a safe way.” - Miles Carden, Falmouth Harbour CEO.*



# OPEN SKIES CORNWALL

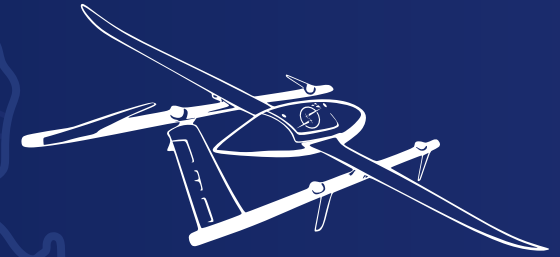


# HUBMED

ADVANTAGE THROUGH INNOVATION



# OPEN SKIES CORNWALL



JHUBMED is Strategic Command's medical innovation team, connecting world-class technology and talent with users across internal aid teams. Through our network of innovation scouts, we also build relationships and unearth the most exciting and fast-moving technology and innovative medical solutions available to our team. Whichever side of the model a project begins, we effectively act as a brokerage between problem and solution, managing the process to unlock new capabilities and value.

On Open Skies Cornwall we are exploring how JHUBMED can trial and adopt a medical drone service to help connect UK first responders in the event of Military Aid for Civilian Authorities call by central government or to help connect NGOs in their efforts to provide aid during humanitarian crisis .

"JHUBMED has been designed to help UK Strategic Command seek out the world's most innovative solutions that will help overcome specific medical first responder challenges when extra support is called in by the UK Government to support Civilian Authorities.

*"By working with Civilian First Responders on Medical drone delivery concepts within the Open Skies Cornwall project we're hoping to expedite the process of our capability of supporting the UK's response to flooding events and to help link NGOs overseas during times of humanitarian crisis, natural disaster or epidemics". - JHUBMED Spokesperson.*





# OPEN SKIES CORNWALL

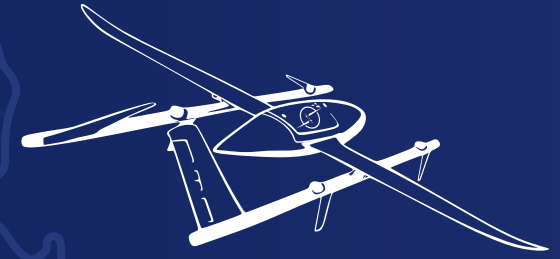


**DRONEPREP**





# OPEN SKIES CORNWALL



DronePrep is a government backed software platform and R&D project architecture company which is helping drone companies, end users, stakeholders and regulators unlock new possibilities in low-level airspace to enable new dynamic Drone use cases. Leading the Open Skies Cornwall project is the DronePrep Innovation team consisting of Gareth Whatmore (CEO) and Karina Nasretdinova (CIO) whose mission is to scour the planet for the best tech solutions and receptive end users to create new multi-partner pioneering projects that can accelerate growth, overcome technical and regulatory challenges, to create viable growth opportunities for tech providers and end users.

In 2020-22, DronePrep led collaborative Innovation projects, have enabled the England's first medical drone deliveries for the NHS, the first scheduled, multi-operator, parcel UAV delivery service for Royal Mail. We have also brokered the UK's first airspace leases to enable drone flight in low-level airspace and to provided support the UK's first 'drone enabled' fully autonomous Farm.



*On Open Skies Cornwall we are adopting and co-ordinating our End User consultation and delivery approach, supported by the roll out of the Drone Delivery Register, to support the production of intelligent Flight Plans and enabling infrastructure that will be tailored more suitably to the actual requirements of the project end users and the Cornish Community. This is our Biggest Innovation Project yet and it is a privilege to be driving this agenda forward with, and drawing on the expertise of, our talented, mission driven Open Skies Cornwall project partners. - Gareth Whatmore, DronePrep CEO.*



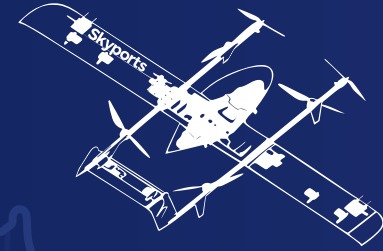
# OPEN SKIES CORNWALL



**Skyports**  
DRONE SERVICES



# OPEN SKIES CORNWALL



Headquartered in London Skyports has projects operating across four continents including Asia, North America, South America, and Europe. Skyports Drone Services specialises in beyond visual line of sight (BVLOS) drone services for deliveries, survey and surveillance. Skyports are experts in the operation of autonomous flight for a multitude of use cases including ship-to-shore maritime applications, medical and dangerous goods deliveries and AI-driven surveys for the agriculture/infrastructure sectors. Skyports Drone Services is committed to elevating business potential, connectivity, and access to critical supplies through the application of drone services.

Skyports is the funded drone operator partner flying within the Open Skies Cornwall project where we will collaborate and assist a variety of end users in our ambition to establish commercial drone operations in Cornwall. Within the Open Skies Cornwall programme Skyports will work with our project partners to launch multiple flight campaigns with the Royal Mail, NHS, Falmouth Harbour and JHUBMED where they will assist in providing logistical support through the skies.

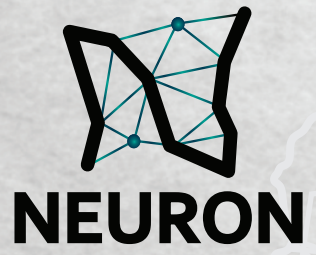
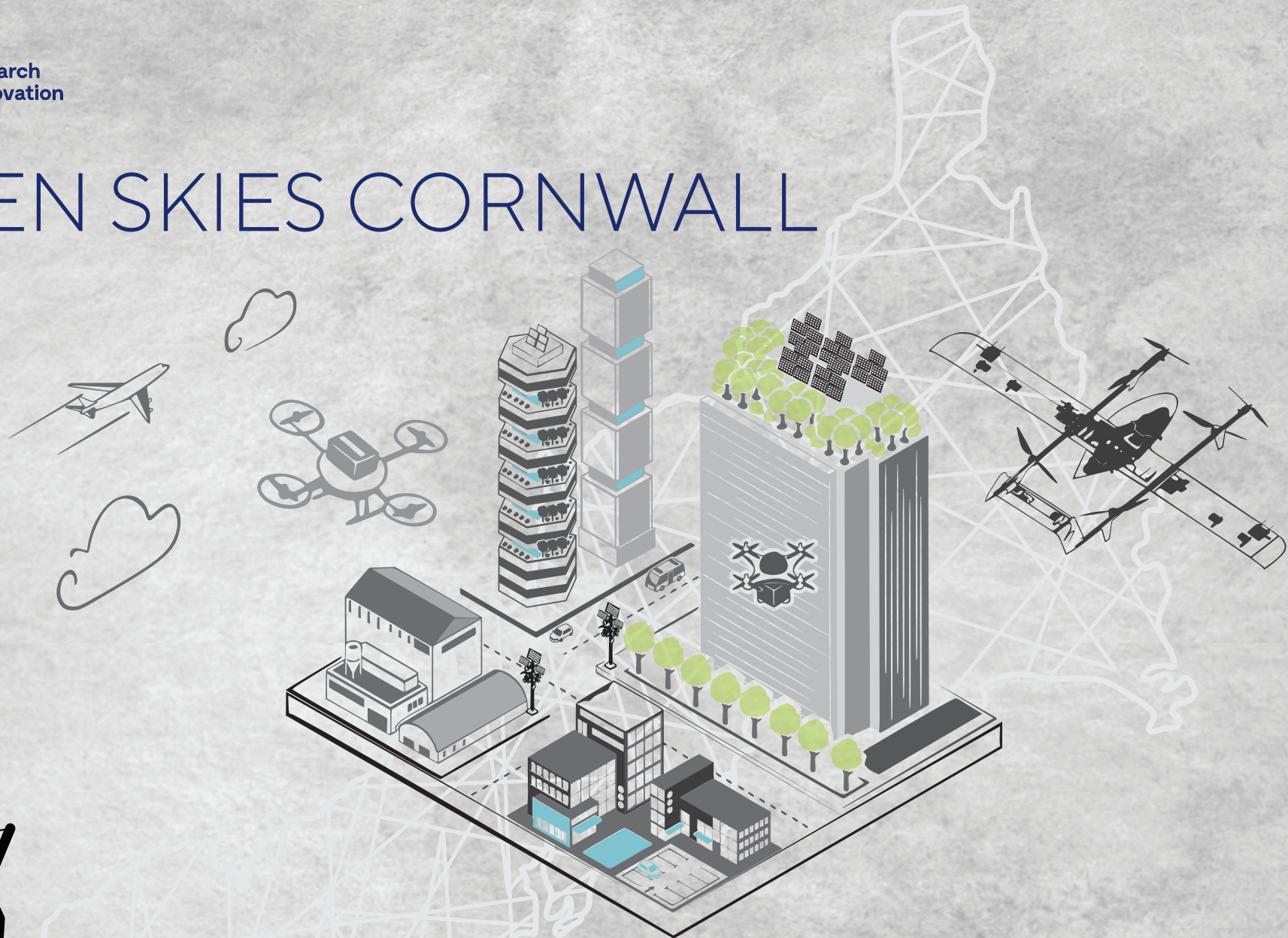
*“As the drone operator for Open Skies Cornwall, Skyports will demonstrate the vast benefits that drone logistics can bring to communities, businesses, and individuals. This project is particularly compelling as it enables us to explore multiple use cases that will have a direct and positive impact on communities by uplifting critical services across the region. We're pleased to be continuing our work with the NHS and Royal Mail to build and expand on previous projects and initiate new operations with the likes of Falmouth Harbour and Cornwall Council.” - Skyports Drone Services Spokesperson.*



**Skyports**  
DRONE SERVICES

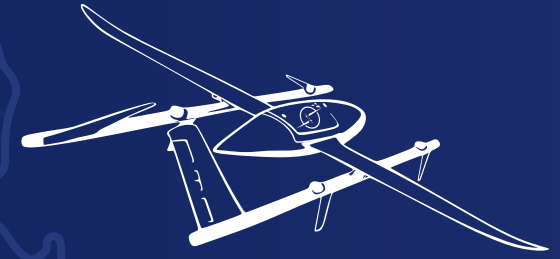


# OPEN SKIES CORNWALL





# OPEN SKIES CORNWALL



Neuron is a technology company that provides drone operators, UTM service providers and ANSPs, with a recognised air traffic environment feed that helps them to mitigate airspace risks. Its sensor modelling platform, provides assurance around sensor coverage, to evidence to the regulator that the sensors that are installed will be able to detect all cooperative traffic within the airspace. Neuron provides these services via a series of APIs and UIs, and supports companies with sensor installation, regulatory consultancy and airspace change proposals, to deliver a full end to end solution to mitigate air risks and enable BVLOS drone flights.

Neuron's Open Skies Cornwall team is led by Niall Greenwood, with support from Alejandro Canca Mancera and James Dunthorne respectively. In this project, the company will be testing a number of sensors to compare a series of parameters affecting performance and reliability. The aim of this work is to optimise sensor coverage and performance, in order to reduce costs, improve safety and availability of data.



*"The companies ambition is to provide consortia partners with a recognised air traffic environment at key locations in Cornwall to enable the use cases being targeted. The OSC project is helping to bring together both technology partners and end users to deliver on some ground breaking use cases. We are delighted to be part of the project, and demonstrate our capabilities to deliver open and integrated skies."*  
- James Dunthorne, Neuron CEO

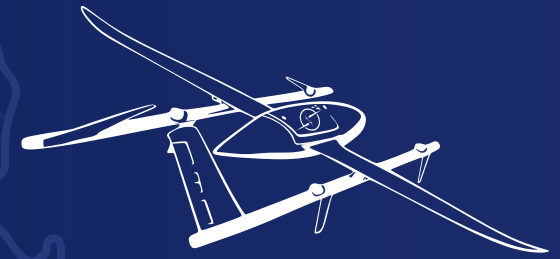


# OPEN SKIES CORNWALL





# OPEN SKIES CORNWALL



The University of Southampton is a public research university in Southampton, England. Southampton is a founding member of the Russell Group of research-intensive universities in the United Kingdom, and ranked in the top 100 universities in the world.

The University incubates a UAV research team consisting of academics, staff, post-graduate researchers and undergraduate students. We design, manufacture and fly uncrewed aerial vehicles (UAVs) from a research perspective. From an application perspective our main research areas include: Understanding and improving the distribution of goods and management of freight vehicles in urban areas, including the supply of goods to hospitals and the use of consolidation centres.

Using smartphones to manage transport operations. Understanding and improving the distribution of goods and management of freight vehicles in urban areas, including the supply of goods to hospitals and the use of consolidation centres.

*We have a well funded programme of work to explore advancements in UTM and medical logistics (as an unfunded partner) we will work on the Open Skies Cornwall programme with our fellow end user partners and tech providers to help progress consultation, testing and adoption of nationally significant concepts and procedures."*  
*- University of Southampton Spokesperson.*





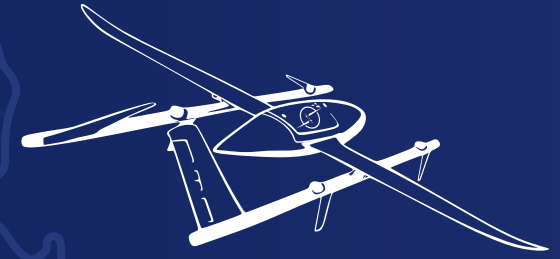
# OPEN SKIES CORNWALL



**M**  
**M**  
**MOTT**  
**MACDONALD**



# OPEN SKIES CORNWALL



Mott MacDonald is drawing on more than 40 years' experience in the aviation sector across infrastructure design, modelling and consultancy to provide project management expertise to DronePrep on the Open Skies Cornwall project.

Our role involves providing management support to the project leadership team in all aspects of the project, including scheduling, risk identification and management, spend monitoring, reporting, forecasting, user requirements and stakeholder engagement to deliver the project to plan. Open Skies Cornwall is a key part of Mott MacDonald's advanced air mobility workstream and our ambition to accelerate future flight technologies in the UK and globally.

**M**  
**M**  
**MOTT  
MACDONALD**

*“The opportunity that drones represent is one that must be taken advantage of: they can allow the quicker delivery of medicine and goods to hard-to-reach places and vulnerable communities, while minimising environmental impact and carbon emissions. We're proud to be able to bring our expertise to bear on a project right at the bleeding edge of the future of flight and one that has the potential to benefit people around the world.” - John Reavy, Director of Airports and Aviation, Mott MacDonald.*



# OPEN SKIES CORNWALL

The Open Skies Cornwall Project brings together the brightest and best minds in the UAS sector from across academia/aviation/meditech/innovation/infrastructure/software and new technologies and joins them to a diverse range of eager end users from healthcare providers, parcel logistics providers, maritime ecosystems, agriculture, mining and tourism.



**DronePrep** - will provide landowner engagement, Detect and Avoid trial support, stakeholder, strategic engagement via the Drone Delivery Register;

**Skyports** - will provide a fleet of certified drones, experience of Beyond Visual Line of Sight (BVLOS) operations and a new Detect and Avoid solution;

**University of Southampton** - will test their VHF/Sonata/Class Airspace Lima project concepts for Detect and Avoid to progress the UTM agenda;

**Neuron** - will provide ground-based sensors to support Detect and Avoid trials and provide access to the shared airspace council.



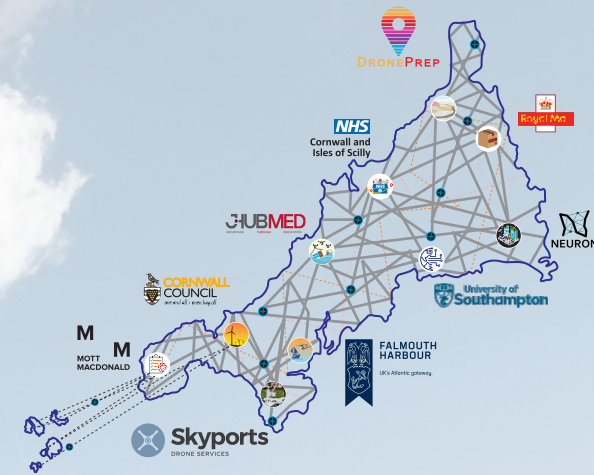
Subconsultants and Third Parties - will develop flight risk datasets to inform Detect Avoid trials, provide lab testing for medical transit tests and conduct tests for Wireless Charging Hubs and Flying Defibrators.



# OPEN SKIES CORNWALL

The Open Skies Cornwall programme channels £2.4m funding to open up low level airspace for regular drone operations including monitoring and delivery use cases both on and offshore. Some of our funding for infrastructure and flight operations can be invested directly for a new Cornish end user or to support you as a member of the public via helping Cornwall Council, NHS, Falmouth Harbour and Royal Mail deliver essential services.

We are launching the UK's first UAS friendly harbour environment in Falmouth Harbour, supporting the testing of Civilian #dronesforgood for new aircraft providers and to test Ocean BVLOS use cases at the 5500sq mile Lizard Range. We are also setting up a time critical end to end and middle drone delivery network here in Cornwall in Angus, which will soon allow essential goods and medical items to be delivered directly to Royal Mail/NHS/Cornwall Council assets and other eligible locations. Last year, we already ran a small drone delivery trial with Royal Mail for delivery to remote locations. This year to 2024, we aim to improve on our progress and trial drone delivery to more homes and businesses in Cornwall. For this, we really need your help so we can identify the best locations to trial our service and learn how we can best help you through drone delivery.



The DronePrep Drone Delivery Register is an app where you can choose a precise drone delivery location within the boundary of your property. Register your drone delivery location and you may be eligible to receive a delivery during our initial trials or support our Open Skies Cornwall mission.



[www.dronedeliveryregister.com](http://www.dronedeliveryregister.com)



# OPEN SKIES CORNWALL

