GB-Hartpury, Gloucestershire: Tender reference 2024/S 000-019576 - **River Severn Partnership Advanced Wireless Innovation Region Mobile Connectivity Facility**

Open Procedure Contract Notice

1. Title: GB-Hartpury, Gloucestershire: Reference 2024/S 000-019576 - River Severn Partnership Advanced Wireless Innovation Region Mobile Connectivity Facility

2. Awarding Authority: Hartpury University and Hartpury College, Hartpury House, Gloucester GL19 3BE United Kingdom

Email: ben.thompson@hartpury.ac.uk

Contact: Ben Thompson, Head of Projects and Business Engagement (Agriculture)

3. Contract Type: Services

4. Description: The River Severn Partnership Advanced Wireless Innovation Region (RSPAWIR) aims to encourage the adoption of advanced wireless technologies by businesses and organisations in the catchment area of the River Severn.

Hartpury University has been awarded funding by the RSPAWIR to deliver a Roadshow programme capable of demonstrating a variety of wireless Agri-tech use cases in a range of locations throughout the River Severn Catchment area, principally at local agricultural shows across Gloucestershire, Herefordshire, Monmouthshire, Powys, Shropshire, Telford and Wrekin, Warwickshire and Worcestershire.

In order to facilitate this, a Mobile Connectivity Facility is required which can utilise satellite backhaul wherever it is located and can provide various forms of connectivity to devices (procured separately) that demonstrate a range of applications.

While not on the road, and primarily beyond September 2024, this facility will be located at Hartpury University's Digital Innovation Farm where it should be capable of connecting to the fixed broadband service and providing wireless connectivity to a wide variety of devices on the farm.

There is an extremely tight timescale for the project to become operational and consequently, Hartpury University is keen to receive bids from suppliers who are either able to supply the facility out-right, in as short a timeframe as possible or, where lead times may be relatively long, to loan equipment of equivalent specification in advance of providing a new facility.

High Level Requirement

The Mobile Connectivity Facility should provide the following:

- a portable, towable Private Network (PN) solution that can easily be transported to support events and Use Cases in locations where public network connectivity cannot be guaranteed or is non-performant.

- a 5G cloud connected PN solution as standard and support LoRaWAN and Wi-Fi

5. Main Site or Location of Works, Main Place of Delivery or Main Place of Performance: Hartpury University campus near Gloucester and principally at local agricultural shows across Gloucestershire, Herefordshire, Monmouthshire, Powys, Shropshire, Telford and Wrekin, Warwickshire and Worcestershire.

6. Reference Attributed by the Awarding Authority: reference 2024/S 000-019576

7. Estimated Value of Requirement: £150,000 - £300,000 (including VAT)
Currency: GBP

8. Deadline for Expression of Interest: 22/07/2024 12:00:00

9. Address to which they must be sent:

United Kingdom Email: ben.thompson@hartpury.ac.uk

Contact: Ben Thompson, Head of Projects and Business Engagement (Agriculture)

10. Other Information:
The facility should be;

- powered by both an 'Off-Grid' environmentally friendly power source and from a plug-in electricity supply
- user friendly to allow "plug and play" deployments to support rural shows and use cases
- able to safely and securely operate in the open air
- capable of being remotely managed

Detailed Functional Requirements

Private Network (PN)

The 5G PN must have provide the following capabilities:

- N77 Stand Alone
- Operate in the frequency range of UK shared spectrum in 3.8GHz – 4.2GHz
- SIM Provisioning and Management for up to 40 SIMS as a minimum (and options for additional packs up to 120 SIMS)
- IP66 Rated and Ruggedised
- Support Quality of Service
- Customer orchestration through a web portal
- Provision of a Local Server
- All solution Cabling – all cabling to the mast head must be internal
- Omni Antenna and mast (mast height variable up to a minimum of 8m)
- Rack mounting for all PN local equipment

The LoRaWAN enablement should provide:

- Local Gateway mounting for mast attachment
- Cabling
- Local Private LoRaWAN Gateway

The Wi-Fi connectivity enablement should provide:

- An access point mounting for mast attachment
- Cabling
- Rack space for a local router

Cloud / Broadband Connectivity

The mobile capability must support the following connectivity to the Cloud:

- Satellite cloud connectivity to a commercial operator on a pay as you use service
- Satellite antenna stored and then deployed from the portable solution
- As an option the ability to connect to a fixed terrestrial broadband service
- As an option the ability to connect to a mobile / Wi-Fi broadband service

Power

The mobile capability must support the following power configurations:

- Off Grid. Operate standalone using environmentally friendly power source(s)
- On Grid. Operate connected to an AC standard single-phase 220v power source
- Battery. Operate for up to 30 minutes on batteries. Batteries are to be rechargeable from the Off Grid and On Grid solutions.
- Both. Connect to both Off-Grid and On-Grid supplies and to auto switch between supplies.

Environmental

The mobile capability must be able to operate in the open in temperatures from -25 Degrees Centigrade to +50 Degrees Centigrade.

Mast fully extended to operate at up to 100 km/h windspeed (no guying)

Suitable for VCO: Yes
Procedure Type: OPEN
Period of Work Start date: 06/08/2024
Period of Work End date: 31/03/2025
Is this a Framework Agreement: No