

The logo features a white plus sign centered within a stylized white crosshair. This crosshair is overlaid on a background of three concentric, semi-transparent white arcs that resemble signal waves or a stylized 'C' shape. To the right of this graphic, the text 'Borderlands' is written in a large, bold, white sans-serif font, and '5G Innovation Region' is written below it in a slightly smaller, bold, white sans-serif font.

# Borderlands 5G Innovation Region

## Introduction

Welcome to the latest edition of the Borderlands 5G Innovation Region programme newsletter — and it's fair to say the momentum is building.

The network is now live at four venues, and we're already seeing valuable insights emerge. Live data is flowing in from our first use cases, with new visitor-counting cameras and environmental sensors already helping to build a clearer picture of visitor patterns and environmental conditions, which will support more informed decisions and future investment in the area.

From video analytics that count people, bicycles, and cars to sensors monitoring air and water quality, these early deployments are powerful examples of how advanced wireless and Internet of Things (IoT) can support local authorities and communities in meaningful, practical ways.

As always, we're actively looking for more use cases and encourage partners to build on the Borderlands 5GIR network to unlock funding, drive digital adoption, and bring fresh investment into the region. Whether it's improving services, creating better tourism experiences, making people safer, protecting the region's natural capital or strengthening a funding bid, our infrastructure is here to be used. If you've got an idea or opportunity, get in touch - we'd love to explore it with you.

Thanks again for following our progress, and please do share this newsletter with others who may benefit from staying connected to the programme.

*Jonathan Harris, Programme Director, Connecting Cumbria*

The logo features a stylized white cross centered within a series of concentric, semi-transparent purple arcs that resemble signal waves or a compass rose. To the right of this graphic, the text "Borderlands" is stacked above "5G Innovation Region" in a clean, white, sans-serif font.

# Borderlands 5G Innovation Region

## Project Updates

While work continues to secure full planning permission for the permanent mast installations, our supplier AWTG has been busy setting up radio equipment on temporary structures across our venues.

We're also excited to share that B4RN is in the thick of rolling out fibre backhaul to connect the radios into the wider Borderlands 5G network and the internet. While that work is being undertaken, AWTG has deployed Starlink connections to ensure uninterrupted service until the fibre is switched on.

Across the venues, cameras and environmental sensors are now being deployed, making the most of the new connectivity. These are already capturing valuable data and feeding into the shared Borderlands Data Platform.

Behind the scenes, we've been working on the Borderlands app, which is progressing well and currently undergoing testing with stakeholders, who are actively providing and refining content for each venue. The app will play a key role in enabling stakeholders and visitors to connect to the network securely and with ease.

And because that's not enough, at Windermere, the Ferry team is preparing to deploy new payment terminals, which will benefit from resilient connections via both the 5G and existing 4G networks. These terminals will link to a new payment management service, improving reliability, operational efficiency and security.

More is happening every day – read on to see what we're planning to tackle next.

# Destination Tweed



## Laying the Foundations for a Future-Ready Network

*“We’re incredibly grateful to the venue teams and stakeholders who’ve helped us get to this point. Deploying 5G in the challenging conditions of the Borderlands has taken real commitment and creativity, and we’ve learned a huge amount about building the network and how it can deliver real value through use cases. Thanks to everyone’s hard work, we’re in a strong position to build on these foundations and make even more of the opportunities ahead.”*

*Jonathan Harris, Programme Director, Connecting Cumbria*

Destination Tweed is now live on the temporary 5G network, delivering high-capacity private connectivity across key sections of the trail and surrounding infrastructure. It will enhance digital capacity along key points of the route, enabling smarter management of visitor flows, environmental data collection, and local engagement. This investment is about more than connectivity. It’s about creating a digital foundation that supports sustainable tourism, public service delivery, and lasting community benefit across the Tweed Valley.

## What’s Already Installed?

The deployment team, working with local venue stakeholders, has installed the following equipment:

A temporary 10-metre tower, mounted on a trailer and located in a field close to the Crook Inn, enclosed by Heras fencing and accompanied by a small cabinet alongside. This tower supports multiple components:

- Starlink dish providing satellite-based internet backhaul for resilient connectivity

- Customer Premises Equipment (CPE) router enabling public Wi-Fi access in the surrounding area
- Wi-Fi access point to extend Wi-Fi coverage more broadly across the site
- 5G radio and antenna delivering high-speed private 5G network coverage
- A Long Range Wide Area Network (LoRaWAN) gateway to support long-range, low-power communication with IoT sensors

Additional smart infrastructure is now active across the venue:

- At The Crook Inn, a smart camera is configured for anonymised people and vehicle counting to support visitor analytics.
- Two smart cameras at The Wee Crook and another at Tweedsmuir Village Hall provide further monitoring of visitor movement and traffic patterns along the trail.
- An air quality sensor at The Wee Crook will monitor environmental conditions, detecting the presence of various pollutants and gases in the air.
- A water level sensor on the River Tweed will provide continuous monitoring of water levels for safety and environmental data collection.

Much of this equipment will be reused in the permanent network, ensuring the progress to date continues to create lasting value as the site evolves.

Subject to planning approval, the temporary infrastructure will soon be replaced by a permanent installation, offering greater resilience, coverage, and capacity. On-site civils work to support the transition to the permanent network is planned for early July 2025, during which the build team will work to minimise disruption to the local area over the approximate eight-week period.





*Example of typical temporary equipment installed at Windermere*



The logo features a white crosshair centered on a dark purple background. The crosshair is composed of two thick white lines. Surrounding the crosshair are several concentric, semi-transparent white arcs that resemble signal waves or a stylized '5' shape. To the right of the graphic, the text 'Borderlands' is written in a large, bold, white sans-serif font, and '5G Innovation Region' is written below it in a slightly smaller, bold, white sans-serif font.

# Borderlands 5G Innovation Region

## Future Look

As we move into the busy summer tourism season across our iconic visitor destinations, we're excited to see how 5G infrastructure can handle seasonal surges and help deliver smoother, smarter visitor experiences. From rich data capture to enhanced on-site services, we're putting the network to work right where demand is highest.

Cumberland Council is already exploring how it might extend the value of the programme within its area. As the network and use cases mature, there may be growing opportunities for local partners to build on this foundation and unlock further impact.

This next phase will give us fresh insight into how advanced connectivity can directly support local tourism, and how those benefits might scale across the region. We'll be sharing results in future editions - stay tuned!

## In Case You Missed It

We've published the first in a new series of Borderlands 5GIR blogs.

*"Reimagining Rural Connectivity: Why Borderlands Needs a New Approach"* explores why mobile connectivity still falls short across the region, not just in remote areas, but in the very places where people live, work and visit. Jonathan Harris, Programme Director, sets out how the programme is creating a scalable, shared model for advanced wireless infrastructure.

Read the full blog: <https://www.borderlandsgrowth.com/post/the-borderlands-5gir-programme-blog>