

## 5G RURAL PROJECT: UNIVERSITY OF STRATHCLYDE

- S5GC has invested over £1.9 million of funding with an ROI of £2.5 million.
- The rural connectivity project is finding ways of using shared spectrum to deploy 5G to support energy management, fishing, tourism and next-generation communications to residents to sustain and support rural communities.
- Engineers from the University of Strathclyde built a custom private shared spectrum 5G standalone network to showcase the powerful benefits that 5G can bring to broadcasters.

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The key aim of this project is to bring new 5G technological solutions to rural communities and businesses throughout Scotland. They are currently working in locations including Loch Lomond and the Orkney Islands, developing a new operational model introducing neutral hosting and private 5G networks. This can lead to improved connectivity for remote communities and businesses, contributing to a new 5G ecosystem across Scotland and driving new business opportunities and inward investment.



## RURAL CONNECTIVITY

Strathclyde University has created a rural environment to develop 5G radio access networks (RAN) and software defined radio (SDR) capability across all UK shared bands, suitable for the operation of shared spectrum private networks over various use cases.



As part of the 5G New Thinking project, Strathclyde has created a Rural shared spectrum 5G RAN on Orkney, connecting Westray and Flotta to Wave 1 5G Cisco Core.

They have also designed and built a rural testbed on Loch Lomond, with access to a variety of shared spectrum technologies, radio access networks, and 5G core connections to the University of Strathclyde's main 5G labs.

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## GLOBAL 5G-ENABLED PROJECTS

In September 2021 at the MotoGP and Grand Prix, Strathclyde worked in partnership with BT Sport, Vislink and Dorna to present a world first in live 5G sports production, using Scottish engineering 5G solutions from their testbeds.



The team has also set up international industry partnerships, and collaborative 5G shared spectrum projects with partners in Ireland, New Zealand, Thailand, USA, Denmark, France, Kenya and the Faroe Islands.