

Digital connectivity will empower people to restore our planet

Comment piece by Paul Coffey, CEO, The Scotland 5G Centre

Six years on from Paris and the world is still getting warmer. We are now seeing first-hand the impact of climate change - the floods and fires alone are biblical. However, the number of innovative solutions and sense of urgency brings hope and optimism as Glasgow prepares to host COP26.

As Chief Executive at The Scotland 5G Centre, I am leading the charge to support the Scottish Government's Digital and Net Zero Economy. Climate change is among the greatest challenges facing mankind and digital technology is one part of the solution.

Watching David Attenborough and Prince William announcing the first winners of the Earthshot prize I was struck by the innovation, collaboration and partnership taking place around the world to make significant changes.

Digital technologies can help decarbonise Scotland's economy and help people and planet. However, to achieve this we need more action and intervention. The green-growth recovery needs involvement across public and private sector. These sectors need to tap into the integrated funding and support to work at pace and create jobs and opportunities.

A recent report by Vodafone showed it also has the potential to create greenhouse reductions in transport, agriculture and manufacturing of as much as 17.4 million tonnes - or nearly a quarter of Scotland's current emissions. Optimising energy and resource consumption is one of the biggest ways to reduce emissions and 5G capability and connectivity is an exciting way to help repair the planet.

Digital technology has strong potential to reduce emissions across the whole of the country. In city centres, 87% of the digital tech savings will come from transport, whereas in the countryside 38% of the savings will come from its use in agriculture.

Whilst 5G can help efficiency, enhanced connectivity also offers new opportunities to speed up energy transition and offer tailored services based on differing needs and requirements, to enable smart grid services.

5G can support rural areas. Bringing these communities connectivity can allow businesses to innovate and explore new ways of homeworking. Additionally, it can offer access to high quality health care and education.

The entrepreneurial spirit in Scotland is vibrant. We are working across the country in rural and urban areas to help test innovative ideas that will have long term environmental possibilities. Test beds are being used for use cases in healthcare, agritech, gaming and environmental healthcare. The aim is to invest in 5G ideas that pave the way for a lower carbon way of life.

At our hub in the Forth Valley, we are working in partnership with Scotland's International Environment Centre, part of the University of Stirling, collecting environmental information to build a green data recovery platform. This 'digital twin' allows a virtual model to be used to look at ways to protect precious resources.

Infrastructure is the platform for innovation. At the meeting of minds in Glasgow, world leaders, environmentalists and policy think-tanks alike will all agree that smart, wirelessly-connected appliances, factories, cities, and transportation grids will be able to optimise and reduce their power consumption and help support the necessary net zero targets.

My hope for COP26 is that 5G's significant environmental benefits of improving energy efficiency and reducing emissions are recognised. 5G offers a meaningful contribution to global efforts to mitigate climate change and Scotland is at the forefront of efficient environmental management.

We are not about to scoop the Earthshot prize, but I am confident 5G technology will make transformational improvements to the green agenda and will give the planet a fighting chance.