

Making it easier for people to walk and cycle

Sustrans

The Challenge

 Make GIS capabilities and data accessible organisationwide

The Benefits

- Greater insight into new opportunities
- Effective monitoring of the charity's impact
- Substantial improvements in business efficiency
- Improved engagement with volunteers
- Clear communication with the public



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The Esri globe and Esri products, services and trademarks mentioned are trademarks of Environmental Systems Research Institute, Inc. Other companies and products mentioned herein are the property of their respective trademark owners. The migration from legacy GIS solutions to Esri's ArcGIS platform has completely transformed the way that the charity Sustrans uses GIS and stimulated innovative new ways of working. In the first twelve months alone, employees created over 400 new GIS solutions, apps and web maps that are now helping Sustrans to achieve its mission to make it easier for people to walk and cycle.

The Challenge

Sustrans had a small GIS team but a big ambition. It wanted to make GIS capabilities and geospatial data much more accessible to employees throughout the organisation, as well as volunteers and stakeholders. This goal was, however, impeded by Sustrans' aging and fragmented GIS systems landscape. The charity had seven different GIS solutions, which stored data in a variety of file formats, were hard to integrate and didn't present a 'single source of the truth.' Some groups of users had to grapple with two or more of these complex legacy GIS systems to do their jobs, whilst the vast majority of employees didn't have access to GIS at all.

The Solution

Sustrans replaced its legacy systems with Esri's ArcGIS platform and set about making geospatial data and GIS capabilities available to all employees throughout the organisation. "It wasn't until we began the transition to ArcGIS that I began to understand just how transformational the solution would be," says Ralph Hughes, GIS Manager at Sustrans. "I realised that we would no longer be an organisation with a GIS team; we would be an organisation using GIS."

More than a third of the organisation's 650 employees now rely on the ArcGIS platform regularly to:

- View, share and maintain the National Cycle Network dataset in ArcGIS Online
- Develop new cycling and walking routes using ArcGIS Online tools and ArcGIS Pro
- Plan and implement new projects, such as making existing paths on the National Cycle Network more accessible for everyone including people using wheelchairs and adapted cycles, with web apps developed with ArcGIS Web AppBuilder
- Collect information in the field about the condition of trees on Sustrans' property using Collector for ArcGIS
- Engage the help of volunteers to survey route signs using Survey123 for ArcGIS
- Present data on the charity's impacts in a visual way to directors and senior leaders via ArcGIS Online Operations Dashboards
- Find the relevant information and details of regional staff to respond to public enquiries using an ArcGIS Online contacts app
- Share information with the general public and stakeholders in engaging and highly visual ArcGIS StoryMaps.

After just twelve months of using ArcGIS, Sustrans' employees had developed 401 GIS web apps, mobile apps, dashboards and story maps. "That's all down to the intuitiveness and ease of use of ArcGIS Online," says Hughes. "With a small GIS team and this very powerful GIS platform, Sustrans can now do a huge amount and have a massive impact. It's phenomenal how much colleagues have done in a short time with ArcGIS – and just how much more we can do."



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The Sustrans Signage Amendment Management Tool

Ralph Hughes, GIS Manager, Sustrans

The Benefits

Greater insight into new opportunities

ArcGIS has empowered Sustrans' employees with the tools to identify the best ways to achieve their dual strategic priorities of creating 'Paths for everyone' and 'Liveable cities and towns for everyone'. For example, the organisation's Research and Monitoring team has recently used ArcGIS Pro to identify potential routes for new 'greenways' in Scotland, that will create safe, accessible and attractive places for people using bikes, wheelchairs, mobility scooters and pushchairs.

Effective monitoring of the charity's impact

Sustrans' directors and senior leaders can now more easily monitor the charity's achievements, in line with its strategic priorities, using a range of ArcGIS Online visualisation tools and dashboards. One dashboard combines Sustrans' own data with UK deprivation data to help the organisation understand what proportion of its projects are being carried out in deprived communities. Directors and senior leaders can also see a visual representation of the National Cycle Network showing 'green' sections that have been successfully adapted to make them more accessible and safer.

Substantial improvements in business efficiency

The migration from seven disparate GIS systems to a single enterprise GIS platform has led to substantial time savings across the organisation and improved the efficiency of key business processes. For example, it used to take the GIS team 30-40 minutes to make a single update to the National Cycle Network dataset and then it could take up to two days for this change to be replicated across all business systems. Now, the GIS team can make changes in ten minutes and the updates are visible to everyone in the organisation immediately, improving decision making.

Improved engagement with volunteers

In an exciting new initiative, Sustrans has used Survey123 for ArcGIS to allow volunteers to identify wayfinding signs that need to be amended, following recent changes to the National Cycle Network. Data collected by volunteers on their smartphones is collated in real time in a central ArcGIS project management tool, giving the signage team the information they need to ensure that signage across the Network is as accurate as possible.

Clear communication with the public

Employees who had little or no experience of using GIS now use ArcGIS Online in a variety of ways to communicate information about key projects. In Scotland, for example, Sustrans has created a well-received ArcGIS StoryMap to explain how proposed street improvements in the village of Killin will make the village centre a more wheelchair-accessible, attractive and sociable community space. The StoryMap embeds a Survey123 form, enabling the project team to capture feedback from the local community and plan the project in a collaborative way.

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