

Saving £2.5-5 million with GIS-led business transformation

Fibrus

The Challenge

- Transform business processes to accelerate and scale up the delivery of full fibre broadband infrastructure

The Benefits

- Cost savings of up to £5 million
- Time savings of 500 hours per week
- Faster delivery of next-generation networks
- Improved cost control and profitability
- Improved collaboration with contractors and clients

The full fibre broadband company Fibrus has transformed the way that it works with external partners and contractors to achieve substantial cost savings of up to £5 million. Using Esri's ArcGIS system, it has created new, streamlined and collaborative processes that save 500 hours per week and accelerate the delivery of next-generation fibre networks.

The Challenge

Soon after it was founded in 2019, Fibrus began to explore new ways to work with its delivery partners and contractors. It wanted to improve information sharing, remove its contractors' dependence on paper maps and accelerate the rollout of full fibre broadband infrastructure.

When the company won the Project Stratum contract from the Northern Ireland Executive to deliver full fibre broadband to 85,000 rural homes and businesses, this planned business process transformation had to be expedited. Without delay, the company needed to establish more efficient, integrated, digital processes for collecting, viewing and sharing information, that would enable it to scale up its operations rapidly and achieve ambitious project milestones.

The Solution

Using Esri's ArcGIS system, Fibrus built a suite of integrated solutions to streamline processes throughout the entire lifecycle of planning, building and maintaining fibre networks. The new ArcGIS-based processes were initially developed for Project Stratum but were subsequently introduced for all of the company's other public sector and commercial projects too, completely eliminating the use of paper maps and forms.

In the planning phase, all network designs, created by different partners, are now integrated into ArcGIS Pro and then standardised, so that the information is displayed in a consistent way. Poles, for example, always appear in one colour when planned and another colour when built, so there is no confusion for people working across multiple projects. All the data is then made available to employees, contractors and subcontractors in contract-specific web apps, which are accessed via an ArcGIS Hub to make it easy for multi-organisation teams to find the information they need.

During the build phase, over 1,000 field operatives, employed by different companies, use a variety of ArcGIS Field Map solutions on mobile devices as part of their day-to-day jobs to view plans on digital maps, collect survey data, record cable and pole installations, share information in real time and flag any issues. If the location of a pole needs to be adjusted during the build process, due to an obstruction or objection, the change is visible instantly and the designer is notified automatically.

To aid the management of ongoing operations and maintenance, Fibrus has created a series of ArcGIS Dashboards. Managers can view these dashboards to see, at a glance, how many connection pathways have been established and monitor progress against project milestones. Any maintenance issues, such as cables that have been accidentally cut or poles that have been damaged in storms are highlighted in ArcGIS, making it easier for Fibrus to plan maintenance visits and implement rapid repairs.

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Cade Wilkinson, Head of Planning, Fibrus

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Riain Garcia, Senior GIS Manager, Fibrus

The Benefits

Cost savings of up to £5 million

Fibrus has achieved considerable, sustainable cost savings from using ArcGIS to improve data accuracy and eliminate time-intensive tasks. “We estimate that we have already saved £2.5-5 million by using ArcGIS to reduce build revisits and by using dashboards to track progress instead of manual processes,” says Cade Wilkinson, Head of Planning at Fibrus. “With the ability to share a single version of the truth with all contractors and clients, issues no longer arise from misinformation that can be expensive and time-consuming to correct.”

Time savings of 500 hours per week

Fibrus estimates that its use of ArcGIS has led to a saving of 500 hours per week across Fibrus, its contractors and its subcontractors. This incredible efficiency gain is particularly evident in surveying, as field operatives now spend less time in the field, gather data using just one device and don't need to return to the office to type up their notes. “When all of the process improvements are taken together, across the whole business, we estimate that we can operate at least 50% more efficiently using ArcGIS,” says Riain Garcia, Senior GIS Manager at Fibrus.

Faster delivery of next-generation networks

By streamlining key processes such as design changes, ArcGIS is enabling Fibrus to roll out full fibre networks and meet client targets far more quickly than before. On Project Stratum, Fibrus completed the first customer connection in just 91 days and then connected over 5,000 rural homes and businesses every month thereafter. “I don't think we would have accomplished the exceptionally high number of connections needed for Project Stratum as fast as we did without ArcGIS,” observes Garcia.

Improved cost control and profitability

Fibrus uses ArcGIS Pro to create accurate cost estimates for new infrastructure designs and maximise the number of potential customers within proposed project areas, to help it optimise its profitability. It also uses information from ArcGIS to verify contractor invoices and approve payments to contractors based on real time information about what has actually been built. “ArcGIS provides far greater visibility of what is happening on the ground, helping us to improve financial control, traceability and accountability,” says Wilkinson.

Improved collaboration with contractors and clients

Significantly, the use of ArcGIS has completely transformed the way that Fibrus works with its contractors, subcontractors, delivery partners and clients. Everyone references the same information and even Fibrus' government clients have direct access to ArcGIS for monitoring contractual milestones. As Wilkinson puts it, “ArcGIS gives everyone a one-stop shop for information on everything to do with Fibrus projects.”

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