

Proactively managing assets to reduce costs and improve public safety

Colas Ltd

The Challenge

- Improve Colas Ltd's efficiency in planning and implementing asset repairs

The Benefits

- Deeper understanding of the condition of assets
- More strategic and proactive asset maintenance
- Greater public safety
- Survey Inspection data shared with employees, partners and clients online



Colas Ltd's maintenance team resurfacing the pavement

The civil engineering business Colas Ltd uses solutions from Esri's ArcGIS platform to help it undertake pre-emptive maintenance of thousands of assets over a 480km network of roads in Portsmouth. This proactive and strategic approach to asset management helps the company to reduce costs, improve public safety and deliver a high quality of service for Portsmouth City Council.

The Challenge

Colas Ltd is responsible for the management and maintenance of Portsmouth's highway infrastructure through a Private Finance Initiative (PFI) with Portsmouth City Council. Under the terms of this contract the company has to uphold the quality of more than 480km of roads, 16,000 street lights and 84 structures, and carry out extensive roadworks, ranging from the resurfacing of major junctions to the clearing of drains, until 2029.

Committed to sustaining a high quality road infrastructure for people living, working and travelling in Portsmouth, Colas Ltd wanted to be able to focus on more than just implementing reactive repairs. It aimed to build an optimised and efficient process that would allow it to identify and implement asset repairs on a more proactive basis. The company had previously invested in Esri's ArcGIS platform to help it manage and visualise assets, not only for the Portsmouth PFI contract, but across all its projects and joint ventures in the UK and Ireland. So, pushing ahead from this solid foundation, it elected to make ArcGIS a key element of its proactive asset management solution.

The Solution

Every year, Colas Ltd carries out a comprehensive survey of the highways assets in Portsmouth, in which the asset condition is graded from good to unsatisfactory. In the proactive asset maintenance process, this information is now loaded into Esri's Collector App for ArcGIS, to enable Colas Ltd's own team of specialist highways inspectors to visit and check all those assets graded poor or unsatisfactory. Using the Collector App, the inspectors can take accurate location references, upload pictures, verify the condition of assets and add supplementary information, all while in the field.

There is no need for inspectors to take notes on paper and, consequently, no need for them to waste time typing up survey reports back in the office. All the Service Inspection information collected is automatically transferred from the Collector App to ArcGIS Server in the company's head office and visualised on interactive maps. Office-based employees can then perform analysis, improve their understanding of maintenance requirements across an area of more than 40km² and use this insight to prioritise and plan proactive maintenance activities.

Colas Ltd makes its Service Inspection data available to over 120 employees using Esri's ArcGIS Online web portal, so that everyone working on the Portsmouth PFI has access to the latest and most accurate asset information.

Finally, Colas Ltd also provides a login to ArcGIS Online for Portsmouth City Council, which helps the two organisations to maintain a co-operative working relationship.

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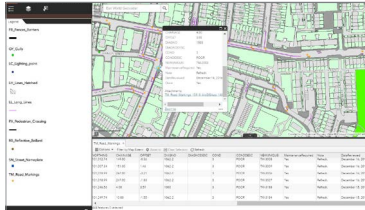
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Dan Winslow, ICT Product Development Manager, Colas Ltd



Office based app user interface for proactive maintenance platform

Benefits

By using ArcGIS for its proactive maintenance process – to collect, visualise, analyse and share data – Colas Ltd has gained a number of operational advantages including:

A shared understanding of asset quality

Colas Ltd now has far more accurate and extensive data available about the condition of old and deteriorating assets within the highways network in Portsmouth. Each asset graded poor or unsatisfactory can be quickly and efficiently surveyed in the field, and up-to-the-minute information about more than 70 different categories of assets can be made instantly available to employees, contractors and the council online. “The use of ArcGIS for our Service Inspections has helped us to become an asset driven business,” says Dan Winslow, ICT Product Development Manager at Colas Ltd. “We can also share our asset knowledge with Portsmouth City Council, which helps us deliver a transparent and high quality of service.”

More efficient business operations

Only repairing assets when they cause problems on the network can be very ineffective, as faults may occur anywhere in the city, at any time of the day or night – and often need rapid attention. By using ArcGIS Server to visualise and analyse its Survey Inspection data, Colas Ltd can now plan maintenance activities more strategically, by location. “Our proactive repairs process allows us to work in a smarter, more agile way than we did before,” Winslow says. “We can make better informed decisions about which assets to maintain and when, on a proactive basis, which ultimately helps us to improve services for citizens.”

The ability to ensure public safety

Significantly, Colas Ltd’s proactive asset maintenance process plays a key role in helping the organisation to maintain public safety in Portsmouth. “The process enables us to address issues that may not currently be causing issues to traffic or pedestrians, but that due to their evolving condition, could become safety concerns in the future,” Winslow explains. “By using ArcGIS to collect data and inform our maintenance scheduling process, we can get to and repair assets before they become a safety issue.”

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