

# Modernising railway examinations

In 2014 leading infrastructure asset management company Amey won a second five-year term as Network Rail's (NR) sole external supplier of civil examinations, and retained a major footprint in rail structures assessments. The company inspects and reports on the condition assets in the utilities, highways and rail sectors, including over 100,000 assets that make up the vast majority of the UK's rail network.



## The challenge

To modernise railway examinations Amey needed a paperless solution to record asset data in real time, but any mobile device would need to be compatible with the company's bespoke in-house developed android apps, be lightweight and be able to cope with the rigours of being out in the field.

## Investing in technology solutions

After a detailed trial of various devices, Amey's Asset Engineering team ran a pilot with ten Samsung Galaxy Tab Active ruggedised 8" tablets. With a positive response from the examiners on-site the company has invested in almost 300 of the new tablets, revolutionising their asset examinations approach.

## A step-change in examinations

This new technology has the potential to virtually eliminate manual processes for typing up hand written notes and data entry, making the whole examination process vastly more efficient and effective.

The company's database of asset information is continually updated in real-time from sites where the examinations are taking place and in-house developed bespoke android apps ensure that all the information needed is captured during a detailed examination.

## Did you know?

Amey examines 100,000 railway assets each year. There are two types of examination – the first is an annual visual inspection, which is conducted from a position of safety to determine if any major defect has deteriorated or to verify that action has been carried out to repair a previous issue. The second is a detailed examination, which is carried out generally every six years. To conduct this examination, the railway has to be closed and there may be road closures too. Planning for this type of work is often very complex, especially in or around major stations and depots, some of which can be open 24/7. Specialist access equipment is frequently required, ranging from roped access and hoists to viaduct inspection units to waterborne craft with safety boats in attendance.

## About the team

Amey's team of 450 highly skilled asset management specialists identify asset condition and capability for structures ranging from small culverts, bridges, viaducts, stations, tunnels and earthworks, to iconic assets such as the Forth Rail Bridge, supporting Network Rail in making informed decisions regarding the safety and operation of the rail infrastructure in the UK. The teams also provide a 24 hour rapid response service in the event of bridge strikes, severe weather and other incidents affecting the safety of the railway. Their asset engineering expertise and aptitude for applying technology is providing benefits in the rail domain as well as other sectors with critical assets including utilities and highways structures.