

CASE STUDY

Wigan Council



Yotta Helps Wigan Council Optimise
Highways Asset Management

YOTTA
FROM DATA TO DECISIONS

“Yotta’s strategic consultancy has been key to shaping our whole approach to highways infrastructure and asset management. We use Yotta and its asset management software solutions, Mayrise and Horizons, across all aspects of our highways operations, from scheduling safety inspections to defending insurance claims to bidding for government funding. Since we started working together 10 years ago, we’ve recorded an increase in claims repudiation rates and a reduction in highway claims generally in addition to efficiencies in timeliness of completing scheduled highway safety inspections, which helps defend claims more successfully.”

John Williams
Highway Asset Manager
Wigan Council

Wigan Council’s highway infrastructure assets have a total value of around £1.6bn, primarily forming 1,160km of adopted highway networks. The council is currently focusing on delivering a major programme of investment in developing its highway network to open up key areas to support economic, social and environmental renewal. At the same time, as the highway authority, the council has a statutory duty to maintain the highway network in a condition to enable the safe passage of the travelling public.

In order to achieve this, Wigan Council has implemented Yotta’s Mayrise asset management suite. The council uses Mayrise as its main highways asset database and employs it to schedule safety inspections. This technology also acts as a full audit system for the council whose insurance team use it to defend claims resulting from injuries incurred on the highway.

Expanding the Approach

While the systems Wigan Council uses are critically important, the data it gathers is vital also – and, over time, the council has commissioned Yotta to undertake a variety of data collection exercises.

Wigan Council worked closely with Yotta on the development of one of the country’s first ever gulley silt level surveys. The council has used the data from the survey carried out by Yotta to help provide silt depth trends over a three-year period to help determine how frequently road gullies may need emptying.

By collaborating on these highways surveys, the two organisations developed a close working relationship, which has strengthened over time, ultimately resulting in Wigan Council choosing to invest and utilise the new Horizons Asset Management solution.

John Williams, Highway Asset Manager of Wigan Council, explains the reasoning behind the decision: “we were quick to see the benefits of using a high-quality mapping tool like Horizons to visualise, manage and optimise our asset management strategies all in one place. Once we had implemented

Horizons, we worked with Yotta to upload the silt depth survey results into the software which meant that we could see the results spatially. This has given us a much greater insight into the data than we would otherwise have achieved. Additionally, it has enabled us to begin to explore different maintenance strategies and various kinds of approaches.”

Prior to implementing Horizons, Wigan Council carried out most of their highways analysis using a Pavement Management System and excel spreadsheets. It was typically a slow and cumbersome approach. Multiple road conditioning indices (RCIs) had to be entered manually into the sheets. Any attempt at whole lifecycle planning was arduous.

The implementation of Horizons changes the game completely for Wigan Council and drives a raft of operational efficiencies. “One of the great benefits is its flexibility,” explains John Williams. “Carriageways deteriorate at different rates in different parts of the country, depending on usage, age and local conditions and that obviously impacts the kinds of treatment sets that would be best suited for different stretches of the network. Working directly with the Yotta team, we have been able to develop the



models used in Horizons to provide more bespoke treatment sets. It has given us confidence in Yotta’s Horizons along with their consultancy expertise around highway asset management.

“We are already seeing the tangible benefits of this,” he adds. “With the use of Horizons, we have witnessed an improvement in condition performance for the same spend and we are fine tuning deterioration models for our

highway network that have produced a long term planned programmes of work. The deterioration modelling offered by Horizons really helped Wigan Council to submit a very comprehensive bid for the DfT’s Challenge Fund., of which Wigan Council was successful in winning two bids.

The Horizons tool is used by Wigan Council to help attain a band three in the Government new self-assessment

HORIZONS

will assist Wigan achieve band 3 in the Government New Self Assessment Incentive Scheme, for highways funding likely to be around

£2.7m

incentive scheme for highway funding. To get its full funding entitlement, likely to be worth some £2.7 million to the council over the course of the next five years alone, Wigan Council needs to be deemed a band three authority. Horizons is a strategic decision/financial support tool that can help councils determine robust investment priorities. As one of the key areas of the assessment is lifecycle planning, having Horizons embedded will certainly strengthen Wigan Council's position in attaining the band three position around deterioration modelling and life cycle planning.

Williams says: "Horizons is a full lifecycle planning system, so we

have commissioned Yotta to do a comprehensive key asset lifecycle plan for footways, carriageways, street lighting and bridges. Whilst these life cycle plans are still a work in progress, we are confident that when they are complete and validated, they will put us in a good place having the evidence in place and having demonstrated innovation and collaboration. We have a strong partnership with Yotta and in the form of Horizons, we have an accredited system in place that we understand is well thought of in the industry.

Looking to the future, Wigan Council is also set to become more innovative in the way it uses the Mayrise asset management software suite. The authority has just recently got a business case agreed to purchase 12 handheld personal digital assistant (PDA) devices to use with the Mayrise software. Williams explains the benefits of using Mayrise on mobile devices in tandem with Horizons.

"We are now going mobile on the street with Mayrise," he says. "We will be taking photographs of defects and logging them electronically and then the resulting 'reservoir' of GIS data can be imported straight into Horizons, so we can see where the defects are on each

street, how many there are and when they occurred.

The new approach enables us to move away from the old time-consuming process of the on-site inspector manually taking notes and transferring the data onto the Mayrise static system from home. With Yotta's Mayrise Mobile solution in contrast, everything is conducted in real time which speeds up the whole process. Everything is time and date stamped as well, which enables the council to evidence when inspectors and repair teams were on site and thus to more effectively defend against insurance claims. The mobile approach also enables the council to more effectively monitor inspectors in real time, on site and intervene to provide help where necessary if they are in danger of missing their targets.

Mayrise's ability to act as a works ordering system also brings significant benefits to Wigan Council. If an inspector is using Mayrise consistently over time to plot defects in a particular road, it may be worth placing that road on a resurfacing programme because the total being spent on addressing defects on an ad hoc basis far outweighs the cost of resurfacing the whole road.

As a visualisation tool, Horizons can help further by mapping out specific areas that need working on and by 'hot spotting' where there are multiple defects in a small area, all of which may need addressing.

Wigan Council believes that one of the biggest areas of time and cost savings that the use of Mayrise will bring is in the manual processing of work tickets. Currently, Wigan Council prints off an average of 15,000 work tickets each financial year with a processing time of five minutes per ticket, leading to an estimated saving over a 12-month period of £17,000.

The council has been using the Mayrise Street Lighting module since 2006, primarily to generate and manage

planned maintenance; electrical testing schedules and works orders, which can all be issued directly through Mayrise to their Direct Labour Organisation (DLO) or external contractors.

"It's a streamlined and efficient process," says Nick Gee, Street Lighting, Wigan Council. "It's also a huge benefit, enabling us to reduce costs and save operational time, to have all of this capability embedded within a single software solution. Details of faults can be issued directly to the contractor via Mayrise and updates made from the site when work has been completed; which gives management an up-to-date 360° view of the status of street lighting faults and schedules at any one time. This in turn is supporting fast and accurate decision-making. This far outstrips any capability we have previously had in place."

One of the biggest savings for Wigan Council comes from reduced paper usage. As Gee explains, "before implementing Mayrise, the street lighting maintenance team would return from their rounds and typically have to manually complete 60-100 sheets of A4 paper and then manually input that information onto the system. Today, all

of that process can be handled digitally."

Wigan Council has also been impressed by the module's mapping capability, which allows for simple visualisation of all of its street lighting stock. Maintenance teams out on site can use the mapping function to find units quickly while out on site.

The council is also using the Mayrise waste management module to drive efficiencies in refuse collection. Currently, Wigan Council is using the tool for special collections of large and bulky items like sofas and white goods. According to Ben Foster, Waste Management Officer, Wigan Council, "we receive around 30 calls every day, requesting these special collections. Using Yotta's Mayrise module allows

MAYRISE

Savings of

£17,000

across 1 year with Yotta's Mayrise Mobile Solution.

MAYRISE

Waste Management allows Wigan Council to process every special collection request within 24 hours.



us to manage these in a highly efficient manner, enabling us to process every request within 24 hours. Residents calls can be immediately logged by the Mayrise scheduler and a job ticket issued to be distributed in real-time to one of two teams, covering either the east or the west of the region. Once the collection is completed the supervisor logs it onto Mayrise and the job is then closed down.

“Another key benefit is we can run reports using the Mayrise module which can also show us in which areas of our region demand is strongest, enabling us to plan future resourcing accordingly.”

Impressed by the capabilities of Mayrise Waste Management, Wigan is now considering extending its use to more general waste collections and also upgrading to the in-cab mobile version of the software, whose benefits include

the ability to update records in real-time and improve response times to householder enquiries.

The use of Mayrise has also enabled Wigan Council to be more flexible in the way that it plans highways inspections, enabling routes to be changed to take account of the latest data on the age of the road; recent resurfacing operations; incidence of potholes and other defects and consequently, the overall risk factor.

Positive Prospects

Delighted with the benefits that both Horizons and Mayrise have brought it so far, Wigan Council is already actively planning to expand both its relationship with Yotta and its usage of the two core software tools. According to Williams, “Both solutions give us the flexibility and

versatility we need to plan for the future. Combining Horizons and Mayrise gives us the chance to photograph defects and link them and the repair back to the same work ticket in real time, which will allow us to defend compensations claim more robustly and successfully. We also

see Horizons as the ideal tool for lifecycle planning, enabling us to determine what our budgets need to be to achieve the conditions both we and the public want for Wigan’s highways network. Thanks to Yotta and its versatile solutions, we can look to the future with confidence.”

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