

Horizons Telford & Wrekin Council

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CASE STUDY

YOTTA
FROM DATA TO DECISIONS



Yotta Helps Transform Telford & Wrekin Council's Approach to Highways Asset Management

“When we assessed Horizons, we quickly saw its potential to help deliver a truly holistic approach to asset management in line with the Department for Transport’s (DfT) emerging standards. Moreover, we clearly saw the opportunity to bring together a wide range of highways management data sets to inform strategic decision-making and to generate lifecycle planning scenarios that help us optimise highways maintenance and maximise the funding we receive from government to deliver it. Horizons has lived up to our expectations in every respect.”

Gareth Pegg, Highway Asset Management & Capital Programme Team Leader, Telford & Wrekin Council.

Telford & Wrekin's highways network is the single most valuable asset that the Council owns, valued at just over £1.3bn. As such it is vital that the network is resilient and able to cope with the future pressures that it is likely to be placed under, particularly as the Borough continues to grow.

As a New Town, Telford was designed for the car and has a high capacity road network which means currently there is relatively little congestion in the area, in itself an attractive incentive for encouraging business investment.

Driven by the need to optimise its valuable highways infrastructure assets, the council has been using the Horizons visualised asset management system from technology company, Yotta, to provide organisation-wide access to essential highways data, informing decision making and forward planning. Telford & Wrekin took the decision to implement Horizons when it reached the end of its contract with its previous system and decided not to renew.

Prior to the implementation of the Yotta solution, the council had tended to use a "worst first" approach to highways asset maintenance. And while this approach enabled it to pinpoint areas of network deterioration, the council was nevertheless struggling to understand the reasons why, or what the long-term prognosis might be.

"Our existing system had limited functionality and was quite restricted in what it could do, so we decided not to extend the contract," explained Gareth Pegg, Highway Asset Management & Capital Programme Team Leader, Telford & Wrekin Council. **"When we assessed Horizons, we quickly saw its potential to help deliver a more holistic approach to asset management in line with the Department for Transport's (DfT) emerging standards. Moreover, we clearly saw the opportunity to bring together a wide range of highways management data sets to inform strategic decision-making and to generate lifecycle planning scenarios that help us optimise highways maintenance and maximise the funding we receive from government to deliver it."**

The Borough continues to grow

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Valued at just over £1.3bn

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Scoping out the Solution

Having bought and implemented Horizons, the council set about leveraging it to manage its highways assets more intelligently, using techniques like



lifecycle planning and deterioration modelling.

These approaches enable Telford & Wrekin to

• **plan more**
• **proactively.**

To take a typical example, using Horizons, the highways team at the council feed data, generated by scanner and coarse visual surveys carried out on the network, into the system. They can then run different scenarios based on this data.

They could, for instance, **project the likely deterioration of a road surface, if no money was spent on it; they could develop an unlimited funding scenario and see how that might play out over time**, or they could ask the system: **‘if we raise the funding of classified roads, what will be the impact on the unclassified routes?’**

Such is Horizons’ flexibility that it allows the council to look at what is going to happen in the short-term but then over the longer term also.

All this helps drive more informed decision-making about which future schemes of work to pursue. It also helps Telford & Wrekin understand how much money it can spend on schemes over the next twelve months and compiles a list of sites that could be recommended for treatment during that year based on available funding.

Further to this, the use of Horizons has identified a funding shortfall for the highways department and allowed the team to bid for more money going forward.

The best practice approach to asset management that Horizons supports also positions the council strongly to rapidly move up the bands within the Government’s Incentive Fund, (which allocates different levels of financial support to authorities depending on their ability to demonstrate high levels of asset management efficiency).

The use of Yotta’s Horizons and complementary consultancy was instrumental in enabling **Telford & Wrekin to move from being a Band One authority to a Band Two** one. The new holistic approach to asset management that Horizons supports will be even more important in moving them from Band Two to Band Three over time.

As Sukalpa Biswas, senior consultant, Infrastructure Asset Management, Yotta points out:

“Using Horizons enables the council to manage the data they gather more effectively, analyse lifecycle costings and whole life modelling and develop a longer-term approach. So, it really ticks a lot of boxes that are fundamental to the Incentive Fund.”

One of the other key capabilities that Horizons delivers is the ability to draw on multiple different data sets beyond survey data.

The council can start to leverage other economic, environmental and social data sources to further inform the planning process.

Multiple different data sets beyond survey data



They can bring in information like accident data and SCRIM survey data, for example. And in line with that, they have tapped into additional consultancy from Yotta over a period of around a year to update their skid resistance policy.

This has provided the council with a targeted list of safety issues for investigation. By enabling them to combine information on accident history with SCRIM data on skidding resistance, the approach allowed the council to hone down a list of around 100 sites that may possibly be a cause for concern to just 17 where safety is a particularly urgent issue.

In addition to this, the council is also increasingly using the visualisation capability of Horizons to educate council members on asset management. Previously, most members have bought in to the 'worst first' approach to maintenance. The highways department sought to educate them away from that viewpoint, however, by using the lifecycle planning element of Horizons to show them how the network could potentially deteriorate over time and how different strategies and different funding options could impact it in various ways in the future.

As Tim Evans, senior asset management engineer, Telford & Wrekin Council puts it:

“it’s a great tool to educate our members on how we do things, or how we should be doing things, moving forwards.”

Over and above the direct benefits that the council has achieved from working with the Horizons software, Telford & Wrekin is also reaping the rewards of being able to make use of Yotta’s high-quality infrastructure asset management (IAM) consultancy which has been key in enabling them to leverage the more complex analytical capabilities of the visualised asset management software.

IAM consultancy support has been key in establishing best practice approaches to asset management, gleaned in part from lessons learned from previous experience. It has also been instrumental in helping the council choose sites for treatment or potential treatment going forward and critically too in helping to rewrite the council’s skid resistance policy.

Looking back... and ahead

As the council reviews the successes it has achieved so far with Horizons and looks ahead to further successes in the future, it is clear that the solution has proved to be a great learning tool both for the highways department and the council more generally.

According to Tim Evans:

“Horizons has helped the highways team move from a ‘worst first’ methodology to a much more strategic approach to asset management. It has enabled us to visualise to the public, our members and ourselves exactly where the problem points are on the network. Moreover, it has made us question decisions we have made in the past and it is enabling us to spend our money more strategically, using the data we have available.”

Yotta’s Sukalpa Biswas concludes:

“The software, support and consultancy that we provide is enabling Telford & Wrekin to make use of a wide range of data to enhance the decisions they are making in terms of asset management, long-term planning and maintenance of highways assets so that they can deliver better value for money and make more effective use of limited budgets. We look forward to working with them long into the future.”

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