

New Horizons for Warrington

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CASE STUDY

YOTTA
FROM DATA TO DECISIONS

Yotta Helps Warrington Borough Council Optimise Highways Asset Management

“Yotta’s Horizons software has allowed us to take highways asset management to a new level over the past few years. We used it to provide impact analysis, identify optimum planned maintenance budgets; produce evidence-based reporting and develop forward programmes for approval. This process played a key part in preparing a bid for extra government funding and proving the business case for the council to use prudential borrowing to maintain our most valuable asset, our road network.”

Jim Turton, Engineering and Flood Risk Manager, Warrington Borough Council

Warrington Borough Council’s (WBC) highway infrastructure assets consist of approximately 1,137 km of roads and have a total value of approximately £744 million. The council is currently investing more in preventative maintenance in order to maintain the highway network in a condition to enable the safe passage of the travelling public.

To achieve this, WBC has implemented Yotta’s Horizons visualised asset management platform. The council used Horizons to prove the business case for it to use prudential borrowing to invest in infrastructure on a partial ‘invest to save’ basis.

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An evolving relationship

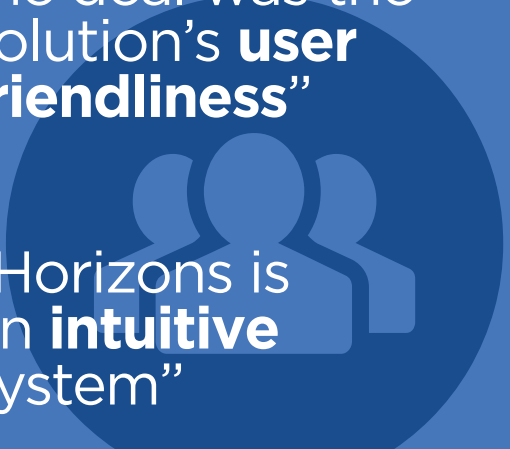
Yotta was initially engaged to run a series of surveys for WBC with the objective (successfully achieved) to generate robust data that could subsequently be relied on as the basis of maintenance decisions together with strategic asset management planning going forward.

As Jim Turton, Engineering and Flood Risk Manager, WBC, explains: “Yotta has undertaken a strong programme of development over recent years and Horizons has been a key focus of that. We needed a solution capable of analysing a wide range of data not only traditional UK PMS intelligence but also maintenance data accident data and records of public complaints. Over time, it became clear that Horizons was the only solution that was able to integrate and analyse all of that data for us in one place. The system is flexible and allows us to add other data to the database including gullies etc.”

“Another critical factor in clinching the deal was the solution’s user-friendliness,” he adds. “Horizons is an intuitive system. My team can quickly access the data to check and identify road and footway condition whenever necessary. Data can be accessed at different levels including network, local area or individual road and footway.

It’s much quicker and simpler than any other system we have tried in terms of identifying the data we need and then using it to deliver enhanced operational and strategic insight.”

“Another **critical** factor in clinching the deal was the solution’s **user friendliness**”

A graphic consisting of three stylized human silhouettes in shades of blue, arranged in a row and slightly overlapping. They are positioned behind the quote text on the right side of the page.

“Horizons is an **intuitive** system”

Jim Turton, Engineering and Flood Risk Manager, Warrington Borough Council

Borrowing bid success

One of the first projects Horizons was deployed on was the council's bid for extra government funding. For WBC, the key was to use the software to clearly demonstrate how much could be saved using the fund to enhance its future management of the highways network.

By investing in preventative maintenance and reducing spend on reactive works such as pothole repairs,

WBC aims to cut the cost to the local economy of road traffic collisions, and therefore show significant savings.

Yotta worked closely with WBC to produce an initial appraisal of the Future Highway Funding Strategies report.

The report, created using Horizons software with support from Yotta's consultants, provided crucial evidence to support the funding bid.

It included impact analysis for different investment strategies and the identification of optimum planned maintenance budgets to prevent further deterioration of the network.

The Prudential Borrowing Strategy Report integrated road survey data within Horizons to produce sample outputs for appraisal and acceptance prior to running the full analysis.

Using Horizons, several scenarios were considered based on Warrington's specific priorities and budget options to identify the best approach with the highest benefit to cost ratio.

These included Steady State Analysis and spend of existing budget, as well as the additional funding needed over three and five year terms. Horizons uses sophisticated algorithms when undertaking scenario analysis in order to produce the most cost effective programme of works.

"This work helped to produce a clear, understandable and robust evidence based report and strategy to enable the asset management team to bid for extra government funding and to prove a business case for the council to use prudential borrowing to invest in infrastructure on a partial 'invest to save' basis," **says Jim Turton.** "With support from Yotta, we could demonstrate the potential savings we can achieve as well as the positive impact this funding would have for residents, businesses and visitors to Warrington. Likewise, we could highlight the potential negative impact for citizens, businesses and the council that would arise without the additional funding."

Gauging the benefits

The data generated from Horizons is now also being widely used - in conjunction with the Warrington Borough Council (WBC) team's own engineering expertise - to inform long-term planning and prioritisation of works specific programmes and support the need for further funding as and when required.

That's where the rich visualisation functionality of the solution really comes into its own. As Jim Turton explains: "Horizons' high-quality visualisation capabilities make it a great presentation tool. We can use it to engage closely with all our stakeholders and clearly show how different options for maintenance will impact on the future condition of the whole network."

WBC has also benefited from being able to drill down into the data quickly and easily to look at everything in detail - from one individual road to the entire highways network - and to answer any queries arising from council members about strategic asset management plans, or specific works programmes, while also addressing complaints from the public.

WBC can use Horizons to demonstrate robust asset management process and the development of forward programmes which helps council members and residents to understand the logic and complexity of scheme selection.

Critically too, the same data analysis capability can also be used to more quickly and easily identify and prioritise future schemes of work. As Jim Turton highlights: "With our previous asset management solution, we had access to all of the data, of course, but it was in a much rawer and less structured format, so trawling through it to find the information we needed was always laborious and time-consuming. The intuitive nature of Horizons allows us to more easily pinpoint and then assess the key information we are looking for."

This ability to manage and then analyse data quickly and efficiently is the basis for any forward looking strategic asset management approach, of course. This, in the view of Jim Turton, also positions WBC well by providing a key requirement in respect of current banding under the Government's current Incentive Fund for highway maintenance.

"It was critical for me to be able to demonstrate to key decision-makers at the council the importance of formal, clear asset management processes to put us in a strong position to keep demonstrating that we are operating those appropriate systems and delivering the kind of strategic approach that enables us to move up the bands and qualify for higher levels of funding moving forward. I see Yotta's Horizons solution as key element to that process." - **Jim Turton**

WBC is also making increasing use of Horizons to pull out the key information it needs to provide a sound legal defence against insurance claims and demonstrate that the organisation is delivering a sound asset management approach.

**“Horizons’
high-quality
visualisation**



can be used to engage with all stakeholders”

Positive outlook ahead

With the initial work completed, firm foundations have been put in place for the evolution of the Horizons approach over time.

WBC now has a calibrated treatment set in place that they are happy with. They can readily upload new data to inform the decision-making process as and when surveys are completed, enabling them to re-run analysis and develop new programmes of work when needed. The system's rich visualisation and presentation capabilities continue to help ensure stakeholder buy-in by clearly demonstrating exactly how assets are being managed and how the budget could be most effectively allocated. Horizons can also be used to run steady state analysis which enables WBC to plan ahead and establish, for example, how much budget it will require to achieve certain goals over a given period of time.

Looking to the future, WBC believes that Yotta's open and flexible attitude will also help to drive the ongoing success of the Horizons implementation. Jim Turton explains: "the more familiar we are with the software, the more knowledgeable we become, and the more suggestions we can provide on potential improvements.

"Yotta have been extremely receptive to this," he continues. "They listen to us, take feedback on board and are happy to make tweaks to further improve the functionality as and when required. It typifies their approach, which is focused on delivering strategic consultation supported by high-quality and innovative asset management software solutions and concentrated on delivering successful outcomes for themselves and their customers."

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