



Customer Case: Welsh Ambulance Services NHS Trust and Omda Readiness

Omda Readiness is a simulation software modelling tool that enables the Welsh Ambulance Services NHS Trust (WAST) to model ambulance operations and informs strategic and tactical planning. In conjunction with Omda's embedded analysts, WAST uses Omda Readiness to run scenario modelling for a wide range of operational decisions, including determining ambulance station locations, ambulance shift patterns and vehicle stand-by positions, amongst others.

Over the seven years in which WAST has utilised Omda Readiness, its Assistant Director of Commissioning and Performance, Hugh Bennett, has built a strong and productive relationship with Omda's Lead Modeller and Analyst, Tef Jansma.

This expertise has been instrumental in extracting maximum value from Omda Readiness and is a defining feature of how WAST uses the technology.

Hugh is clear about the central role Readiness plays in WAST's current strategic planning. "For us, Omda Readiness is a game-changer," he explained. "It's now a business-critical process." From Tef's perspective, the software's capacity for complex modelling is particularly suited to the demands of today's demanding healthcare landscape. "Omda Readiness enables Omda customers to use their resources in the best possible way, in an environment that is becoming increasingly challenging."

A rewarding partnership built on industry-leading software and analysis

"Omda Readiness has gone from a useful product that operated on the margins of the organisation to being absolutely essential to what we do."
– Hugh Bennett

WAST first introduced Omda Readiness seven years ago, after seeing the impact high-level modelling had on ambulance services in other regions, WAST felt there was sufficient evidence to justify introducing the technology in Wales.

Three years later, Hugh decided to develop the relationship with Omda by switching to using an Embedded Resource. Though not the case for all customers - some of whom operate the Omda Readiness solution with their in-house analysts - Omda provides WAST with expert analysts. We typically refer to this service as Embedded Resource due to the way Omda analysts work within WAST offices, using Omda Readiness to answer questions and perform modelling on-site. Though the COVID pandemic forced a switch to remote working, our embedded analysts hope to return to an embedded approach in the near future. The switch to Embedded Resource enabled

WAST to make more efficient use of the product by leveraging Tef's considerable modelling expertise. It also gave Tef a deeper insight into the way WAST operates. As Hugh acknowledged, this improves modelling outcomes. "The more the analyst is embedded, and the better they understand your organisation, the more they can fine-tune the model for you."

Optimising resource allocation and justifying further investment

Omda Readiness's primary purpose is optimising resource use and allocation. As Tef explains, "Omda Readiness provides data-driven evidence to help emergency services make more informed operational decisions." For WAST specifically, Omda Readiness enables the service to better meet the needs of patients on the ground. "We know there is a strong link between health outcomes and response times," Tef acknowledged. "Financial and staffing constraints mean many ambulance services are struggling. Omda Readiness enables them to take action within those constraints."

However, Omda Readiness has also played a key role in shifting the nature of those constraints by ensuring WAST can secure new, necessary resources. This was illustrated by WAST's use of the solution during the COVID crisis. Tef provides an illuminating account of how modelling assisted WAST during this period. "When the pandemic began, no one knew what would happen. Specifically, how would demand for ambulances grow? We identified the key variables influencing WAST response capabilities and started rolling out a quarterly forecast detailing the potential impact.

"The seasonal forecasting produced some pretty unpalatable results. Anticipated response times deviated significantly from



patient safety standards and fell well short of government targets,” admitted Hugh.

“The senior stakeholders we presented the forecasts to couldn’t ‘unknow’ those predictions once they had seen them. They had to consider what additional support was available to bolster those services. It drove a lot of tactical investment in the Ambulance Service.”

Omda Readiness modelling has recently helped support the case for additional investment in the Welsh Ambulance NHS Service, including up to 100 new frontline staff members.

“When we’re building business cases for consideration by our commissioners and other stakeholders, there is no doubt that the modelling we can demonstrate from Omda Readiness is a powerful tool in supporting our arguments and helping secure resources to deliver better performance and patient safety”

Making the most of third-party expertise and the Omda community

“Using Omda Readiness means that, when we say we need additional resources, it’s no longer just our view. It can’t be reduced to an opinion. It provides a degree of independence and a high level of statistical sophistication. It changes

the nature of the conversation.”

– Hugh Bennett

One of the most valuable aspects of the Omda-WAST relationship is the expertise Omda provides alongside the Omda Readiness software. Hugh was very positive about the work Tef, and other Omda analysts do. “The analysts we get with Readiness are very high quality. Even if we introduced a full-time, in-house analyst, we would still want to continue working with our Omda analysts. You get so much out of them; their brainpower is invaluable to us.”

The fact that Omda can draw on the work it is doing with other emergency services organisations in the world is enormously beneficial. “Tef and Omda are working globally and are exposed to the latest public safety technologies and ideas,” said Hugh. “With Readiness, you’re not just buying a bit of kit. You’re buying considerable intellectual power, too.”

As well as bringing expertise to the table, the Omda analysts’ status as unbiased, third-party experts is also helpful. “The Omda analysts are independent. It enables them to talk to other parts of the NHS in a way that is not always possible for us. It’s a different relationship dynamic,” noted Hugh. “It allows us to step back and present Readiness’s data as independent and beyond internal politics. That third-party facilitation is remarkably helpful.”



Finally, the Embedded Resource relationship also enables a more iterative approach. This differs dramatically from other one-time, pay-per-report modelling solutions. Tef described how this benefits WAST. “There is less pressure to get the question exactly right the first time around. And getting the question right in the beginning is typically the most difficult part of the process. You don’t know what you don’t know, and it often takes time to figure out what the real question you are trying to ask is.” By utilising an embedded analyst, WAST reduces modelling costs and improves the accuracy of results.

Providing for a more proactive ambulance service

By equipping WAST with the capacity to model healthcare outcomes and plan for various scenarios, Omda Readiness acted as a modernising force. For Hugh, this is expressed in a shift in attitude and capability. “The NHS can be reactive. Omda Readiness allows us, for the first time, to make data-driven predictions to senior stakeholders in advance, providing them with more decision-making time,” Hugh explained.

The switch from relying on reactive responses to pushing proactive planning was particularly noticeable last summer. “We ran forecasts as we felt international travel restrictions and the resulting increase in domestic tourism in Wales would significantly increase demand,” said Hugh. “Our forecasts proved accurate, and when the emergency response situation worsened. We were able to show our stakeholders that we had not only predicted the increase in demand, but modelled and prepared a plan for this eventuality”.

WAST’s use of Omda Readiness and Omda

analysts has not gone unnoticed in other ambulance services and the wider NHS. “I now have to manage NHS demand for the product because people in other areas of the service have seen it in action and realised its value,” stated Hugh. “There’s significant demand from senior managers who want to know how to make the most of the investment they’ve been given.”

A truly transformative solution for resource modelling

Omda Readiness has benefited WAST in multiple ways. Whilst it fulfils its core purpose of assisting WAST make the most of valuable and scarce emergency service resources, it is also helpful in providing the data WAST needs to justify and secure additional funding. Over the past three years, Omda Readiness modelling enabled WAST to demonstrate that their resources were insufficient to cope with expected demand and supply data that detailed exactly what they needed.

WAST also derives significant value from the Omda analysts embedded in the organisation. As well as providing considerable modelling expertise, Tef and his colleagues’ status as independent analysts enables WAST to present their requests and decisions as free from bias and rooted in evidence.

Recognising the solution’s potential, Hugh Bennett and the wider WAST organisation implemented Omda Readiness innovatively and with great success. Over the coming years, we’re excited to see the new ways in which the WAST leverages the power of Omda Readiness and our embedded analysts. We look forward to providing continued support and expertise to ensure Omda Readiness meets the organisation’s needs and enables it to improve emergency healthcare delivery in Wales.