

ADEPT President's Awards 2025

Entry form

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Award category Innovation in Place-shaping

Project Title Using technology to improve weather forecasting and winter highways response

Local authority entrant Westmorland and Furness Council

Partner/s if applicable we have worked with a number of partners

Headline summary (150 characters max.)

we are responsible for one of England's most geographically diverse areas. we have now implemented an innovative weather forecasting system.

Please note we need at least one supporting image per award submission. Upload your image/s below.



Weather Stations appendix.pdf

Innovation in place-shaping: How has this project used digital innovation and/or the imaginative use of new or existing technology? (150 words max.)

The council commissioned a climatological and topography report with MetDesk in 2023 which revealed a vast and varied landscape divided into distinct climatic zones, each with unique features influencing weather conditions and road maintenance. Based on the findings from the review, Westmorland and Furness Highways has now implemented real time digital innovation weather forecasting systems using new and existing technology to enhance the precision and coverage of winter road maintenance across the network that will in turn reduce environmental impact.

Weather stations are strategically positioned to minimise gaps in the network and ensure that no part of the road network lies more than 10km from a weather station.

This upgrade of stations aligns with MetDesk's ideal recommendation of having two weather stations per domain or route, maximising the accuracy and reliability of forecasts.

Innovation in place-shaping: How has this project shown evidence of improved outcomes for users? (150 words max.)

This innovative approach brings significant value to W&F Highways by enabling more detailed and localised weather forecasting. Previously, the large size of the weather domains meant gritters were often deployed across entire areas when it was unknown if conditions required treatment in every part.

With the new approach the council can make more precise decisions about where and when to send gritters, reducing unnecessary deployments and saving valuable resources.

This approach has also led to a decrease in vehicle movements, resulting in lower fuel consumption and

reduced wear and tear on the fleet. Additionally, it minimises the use of raw materials like salt. By optimising operations through better forecasting, the council can achieve significant cost savings while also reducing its environmental impact, improve the efficiency of its highways teams and crucially the new approach helps us keep drivers safe and communities moving - even in the most challenging weather conditions

Innovation in place-shaping: How has this project shown evidence of the transformation of a service/department/organisation by changing behaviours, delivering savings or improving ways of working? (150 words max.)

The new climate and weather stations approach has brought significant value to W&F Highways by enabling more detailed and localised weather forecasting it has transformed the way that the councils winter service is deployed. The council can now make more precise decisions about where and when to send gritters, reducing unnecessary deployments and saving valuable resources. It has changed work patterns, delivered savings and contributed to improved ways of working.

Innovation in place-shaping: How can the innovation/technology in this project be applied in multiple sectors/areas? (150 words max.)

This innovative system not only reinforces forecasting accuracy, but also strengthens the council's ability to maintain safe and effective winter road operations across its extensive area. As a model it can be easily applied to other councils' and it shows the strength of using intelligent data to underpin service delivery and service improvement

Innovation in place-shaping: How does this project demonstrate scalability and resilience - the ability to use technology in a wider scope and in a way that encourages longevity of use? (150 words max.)

This approach can be scaled up or down depending on the geographic area being covered. The use of multiple cameras provides resilience and its benefits and ROI will support its longevity of use