Met Office

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Case Study

Building resilience across Northern Ireland's school estate with Met Office data

Overview

The Education Authority (EA) is one of Northern Ireland's largest public sector organisations, responsible for education services and a large, complex school estate. This includes thousands of buildings of varying age, type, and condition across diverse geographic and environmental settings. Keeping these assets safe, resilient, and operational is central to EA's mission and statutory obligations.

To support this, EA has invested in digital platforms that enable smarter estate management and evidence-based decision-making. The Planon Integrated Workplace Management System (IWMS) acts as the primary system for managing buildings, assets, maintenance, and compliance. The EA ArcGIS Enterprise Portal adds secure mapping, spatial analysis, and location-based intelligence. Together, these systems are increasingly strengthened by external, real-time data that improves situational awareness and operational responsiveness.

How we help

Integrating Met Office National Severe Weather Warning Service (NSWWS) data into the EA ArcGIS Enterprise Portal and Planon supports a more proactive, intelligence-led approach to severe weather management. Met Office NSWWS data provides authoritative, time-sensitive warnings on hazards such as high winds, flooding, snow, ice, and extreme temperatures, all of which can affect school buildings, transport, and daily operations.

In ArcGIS Enterprise, NSWWS warnings are mapped against the EA school estate so teams can quickly see which schools and assets fall within warning areas and assess the likely scale and severity of potential impacts. These insights link directly to Planon, where asset condition, maintenance records, and operational workflows are managed.

This integration helps EA prioritise inspections, deploy resources early, and flag higher-risk sites based on the nature of the weather warning and known asset vulnerabilities. The result is a more targeted, risk-based response.

Our impact

Combining Met Office NSWWS data with Planon and ArcGIS Enterprise delivers clear operational and strategic benefits. Operationally, EA can respond faster and more accurately to severe weather, reducing the risk of asset damage, unplanned closures, and health and safety incidents. Teams can be directed to the highest-risk areas, improving efficiency and resilience.

Strategically, the integration strengthens EA's role in multi-agency severe weather planning and response. In meetings with emergency services, local councils, and government departments, EA can share clear map-based evidence of affected schools and assets, the risks involved, and the mitigation actions underway. This improves shared situational awareness and supports coordinated decision-making in line with wider regional plans.

Over time, the combined datasets also reveal recurring weather-related risks, helping to inform long-term investment planning, asset adaptation, and climate resilience strategies across the estate.

Looking ahead, EA plans to extend the use of NSWWS data by giving school leaders access to relevant, location-specific information. The aim is to support earlier, more confident decision-making on closures and operational changes during severe weather.

With timely, clear intelligence linked to national warnings and local asset context, school leaders can act earlier instead of responding at the height of an event. Earlier decisions improve safety for pupils and staff, reduce disruption to transport and services, support clearer communication with parents and carers, and ease pressure on emergency and operational teams.

Giving schools the right information at the right time is a key step towards a more resilient education system. It helps ensure decisions are consistent, informed, and safety-focused, while reinforcing the value of integrated data platforms in delivering joined-up, proactive public services.

> *" Severe weather events that lead to school closures create significant disruption for pupils, families and school staff. Parents must make alternative childcare arrangements, transport and catering services often need to be cancelled, and sites may require securing depending on the conditions. At the same time, we need to be prepared to respond quickly to any damage so schools can reopen safely. By integrating NSWWS data directly into our systems, we can make faster, more informed decisions on closures and improve our planning and preparation, helping to reduce risk to both young people and the staff who support them."*
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> ***Rory Dunne,***
> *Lead Data Analyst, Education Authority Operations and Estates*

To find out more:

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