

# ADEPT President's Awards 2026

Entry form

**Main contact name** Vicky Jones

**Email** Innovative.Resilience@lincolnshire.gov.uk

**Award category** Deploying Innovation and Technology

**Project Title** Project Groundwater Greater Lincolnshire's hyperlocal flood alarm

**Local authority** Lincolnshire County Council

**Partner/s if applicable** Environment Agency, UDLive

## Headline summary (150 characters max.)

Real-time flood monitoring and community collaboration drive Project Groundwater Greater Lincolnshire's hyperlocal flood alarm system.

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



## Deploying Innovation and Technology: How has this project used digital innovation and/or the imaginative use of new or existing technology? (150 words max.)

PGGL project uses innovative digital technology to transform how flood prone communities understand and respond to risk. Low cost telemetry devices transmit real time data on water levels, rainfall and velocity, enabling continuous monitoring across villages. Sensors are strategically placed using analysis of historical flooding, flow pathways and watercourse behaviour, turning everyday infrastructure such as bridges into smart monitoring points.

Devices feed into a user friendly online dashboard showing live maps, trend graphs, device status and GIS ready data for residents, parishes and authorities. Automated SMS and email alarms provide timely early warnings when thresholds are reached. Cross parish visibility and upstream-downstream data sharing create tailored early alarm networks, offering an accessible, scalable digital solution for local flood resilience.

Krys Szokalo, from The Billingborough Flood Group said "the system not only served to offer warnings but could also be a reassurance for residents worried about a recurrence of the floods".

### **Deploying Innovation and Technology: How has this project shown evidence of improved outcomes for users and communities? (150 words max.)**

The PGGL project has delivered measurable improvements in community flood resilience by giving residents earlier visibility of rising water levels and more time to act. More than 2,000 users across 120 villages now receive real time alarms, enabling faster, better coordinated responses that protect homes, schools and community assets. The Heighington pilot showed immediate impact, providing the first reliable early warning system for a repeatedly affected area and helping residents move vehicles, safeguard belongings and activate flood plans.

Communities report greater confidence in understanding local watercourse behaviour, supported by intuitive dashboards, onboarding sessions and training for parish councils and Community Emergency Resilience Teams. Upstream–downstream data sharing strengthens preparedness and communication with authorities, helping build long term resilience.

“This gives you an early warning – you know how bad a flood is going to be, and how quickly you need to act.”

– Julie Leighton, Billingborough

### **Deploying Innovation and Technology: 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 PGGL project has reshaped flood risk management in Lincolnshire by enabling communities and authorities to act proactively rather than reactively. Real time telemetry and automated alarms reduce the need for manual checks and provide immediate, reliable information, allowing earlier mobilisation and more precise interventions. This has strengthened the role of parish councils and Community Emergency Response Teams, who now operate as informed first responders, complementing official response efforts.

A centralised dashboard has streamlined coordination across district, county and Environment Agency teams, reducing time spent gathering intelligence and improving shared situational awareness. With a low cost delivery model (£1,700 per device) including a 10 year maintenance package, the system offers a sustainable, efficient alternative to traditional monitoring infrastructure.

“When the rain came a few days ago, we were checking the alarm system to see which watercourses were highest, and we could see we didn’t need to worry.” – Julie Leighton

### **Deploying Innovation and Technology: How can the innovation/technology in this project be applied in multiple sectors/areas? (150 words max.)**

The strength of PGGL’s approach lies in its flexibility and adaptability across multiple sectors. By combining modular sensors, cloud based dashboards and automated alarms, the technology can be readily applied far beyond flood monitoring. The same telemetry devices can track drain blockages, reservoir pressures, coastal tides and groundwater trends, supporting flood risk teams, water companies, internal drainage boards and environmental regulators.

Beyond water management, the platform can be used for asset monitoring, such as culverts, pumping stations and sewer networks, and for highways drainage management and agricultural irrigation or waterlogging alarms. Its real time situational data can also support emergency services during severe weather, improving planning and response times.

The systems open data formats and shared dashboards, integrates easily with smart city initiatives, utilities and resilience planning. Scalable, low cost and simple to deploy, the PGGL model is a versatile digital solution suited to any sector requiring early-warning continuous monitoring.

### **Deploying Innovation and Technology: 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.)**

The PGGL project demonstrates strong scalability and long term resilience through its modular technology, low operating costs and future proof design. Compact, battery powered telemetry devices can be quickly installed on existing infrastructure such as bridges and culverts, enabling rapid deployment across large areas. This has already been proven, with the project expanding from a single pilot in Heighington to more than 200 devices across 120 parishes.

The online platform supports unlimited users and locations, allowing new communities to be added instantly while maintaining consistent dashboards, alarms and data standards. Each device includes a

comprehensive 10 year warranty, maintenance package and continuous data collection, ensuring long term reliability with minimal resource demand.

Growing national interest—from Nottinghamshire, Leeds, Leicester, and Norfolk—demonstrates transferability. With low unit costs, risk based deployment and simple integration, PGGL offers a robust, scalable solution suitable for long term, multi area adoption.

**All categories: please add anything else that supports your award entry**

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