

# Previsico predict and prevent flood risk

## Mitigating flood impacts through state-of-the-art forecasting and sensor solutions.

### Challenge

Changes in the climate and the way we use land are escalating flood impacts – particularly in areas previously unaffected by flooding. Although warnings are available for river and coastal flooding, they rarely (if at all) exist for surface water flooding, which is catching people off guard.

Surface water flooding occurs when drainage systems are overwhelmed, typically due to intense rainfall in urban areas. It poses a wider flood risk than coastal or river flooding, impacting thousands of residential and commercial properties.



### Solutions

Previsico's algorithmic technology draws on several leading data sources, including best available weather nowcasts and forecasts, satellite imagery, ground sensors, LiDAR elevation data, land cover, drainage and geology. This state-of-the-art technology predicts surface water and ordinary water course flooding – perils not covered by existing warning systems.

- **Flood dashboard:** Displays predicted time and depth of flooding up to 48 hours in advance. Scroll and zoom to see predictions for a street/property anywhere in the UK.
- **Email notifications:** Automated email warnings when districts and properties are at risk.
- **API feed:** Automated real-time forecast data and warnings that integrate with existing systems.
- **Previsico sensors:** Located on and around critical infrastructures. Flood warnings are designed to work together, giving customers both the confidence and time to act in a flood event.

### Benefits

- **Unique:** Previsico is the only provider of flood warnings for surface water and small watercourses.
- **Reliable:** Proven, best-in-class technology, underpinned by over two decades of published research in partnership with the Cabinet Office and emergency services.
- **Preventative:** Accurate, advanced warning enables flood action plans to be implemented, assets moved or protected and flood risk reduced. Large scale disruption can be avoided and clean-up/repair costs can be significantly reduced.

## The growing flood problem...

1. 1 in 5 properties are at risk of surface water flooding.\*
2. 33% of UK commercial properties are at risk from flood.\*
3. 75% of businesses don't include climate risks in their business continuity plans.\*
4. Flood losses are expected to increase five-fold by 2050.\*
5. Long-term mental health problems are up to nine times more likely for flood victims.\*

### \* References



Most flood impacts are avoidable. With actionable flood warnings showing depths and timings of events, people and organisations have the tools they need to mitigate loss.



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