

Peter Fitzgibbon, Editor

## Come hell AND high water



Parts of the UK found themselves inundated as Storms Ciara and Dennis rampaged across the country in mid-February. And once again, MPs were queuing up in the Commons for reassurances that we would be better prepared for floods in the months and years to come.

Better forecasting is certainly welcome, and here, Steve Ramsdale, Chief Meteorologist at the Met Office, has some good news: "Our confidence in the forecast means we have been able to issue severe weather warnings well in advance, giving people time to prepare for potential impacts of the storm."

On the other hand, the £600 million spent annually on flood defence and

alleviation measures is being outpaced by the increased frequency and intensity of rainfall, exacerbated by urban sprawl, poor drainage maintenance and rising sea levels. But even as defence measures are implemented at one point, weaker points elsewhere come under added strain. Political and economic considerations will doubtless influence many decisions, but predicting the knock-on effect is still important to local communities,

Which is where flood risk mapping and modelling enters centre stage as an important tool for planners, developers, mortgage lenders, insurers and home owners alike. This discipline is likely to gain added impetus from recent ground-breaking

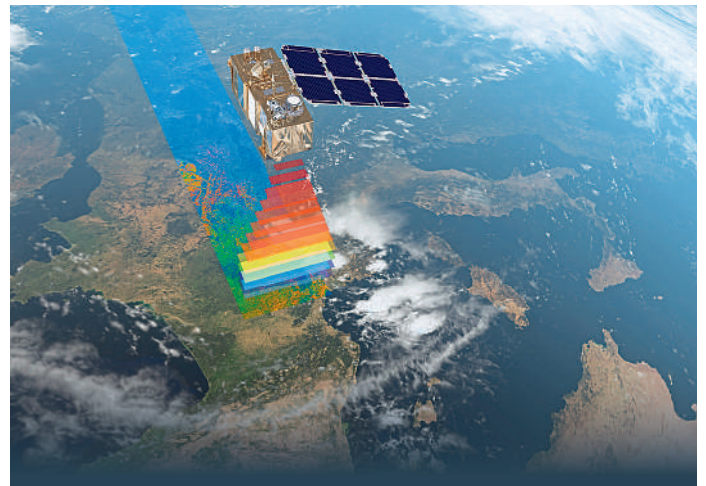
projects that apply Machine Learning and AI techniques to high resolution DEM-based flood hazard models.

One such initiative, with funding from Innovate UK, has seen flood risk assessment specialists Ambiental teaming with AI solutions provider DataJavelin to develop a new generation of simulation tools that accurately reflect reality. And for those who fear ML will displace hydrologists and others, Dr. Philip Rooney, CEO of DataJavelin, offers reassurance: "It provides experts with the ability to carry out experimentation that they just couldn't do before. The idea is to give them a powerful tool so they can do their job even better."

NEWS EXTRA

## Bluesky International Launches MetroVista 3D City Models Online

Highly accurate, UK city wide 3D models are now available to view and download from **Bluesky International's online Mapshop**. The geographically accurate, photo realistic **MetroVista mesh models** are available in a variety of formats ready for use in 3D GIS, CAD and other modelling software as well as visualisation, gaming and Virtual Reality workflows. Captured using Leica's world's first large format imagery and LiDAR hybrid airborne sensor and generated in **Skyline's PhotoMesh software**, the Bluesky MetroVista datasets of major UK cities are available online offering a compelling alternative to traditional photogrammetrically produced models. MetroVista mesh models are generated using data captured by **Bluesky's CityMapper sensor**. Specifically designed for 3D city modelling and urban mapping, the system includes a traditional vertical camera as well as survey-grade oblique cameras. The CityMapper also includes high performance LiDAR technology to accurately collect elevation data – even into the shadows which are common in urban environments and can make photo-based collection difficult. [www.bluesky-world.com](http://www.bluesky-world.com)



## New Satellite Services Company 4 Earth Intelligence Launches

Advances in technology for observing the earth from space have resulted in the formation of a new company which will bring a range of innovative satellite intelligence and data services to market. **4 Earth Intelligence (4EI)** has pioneered the use of satellite data for smart monitoring and analysis creating city, region and countrywide data solutions for applications such as air quality, asset management, ecology and urban heat monitoring. With offices in **Bristol, UK** and in **Abu Dhabi, UAE**, 4 Earth Intelligence has been established to focus on new sectors and technical innovations using machine learning and Artificial Intelligence to provide smart data - in particular for global environmental applications. [www.4earthintelligence.com](http://www.4earthintelligence.com)

## MGISS and vGIS Take a Geospatial View of Augmented Reality

The development of **Augmented Reality** as a tool to manage and visualise hidden infrastructure assets has taken a major step forward following the announcement of a partnership between two technology companies. **MGISS**, a UK geospatial specialist, has partnered with Canada based **vGIS** to transform traditional GIS, BIM and CAD data into stunning **Augmented Reality visualisations**. Augmented Reality provides an **interactive experience** of an

environment where objects that reside in the real world, such as underground pipes, are displayed and enhanced with additional intelligence such as attribute information and maintenance records. By combining authoritative survey grade positions and associated data with consumer grade hardware **MGISS** enables users of **vGIS** to access Augmented Reality visualisations from any suitable smart device. [www.mgiss.co.uk](http://www.mgiss.co.uk)

