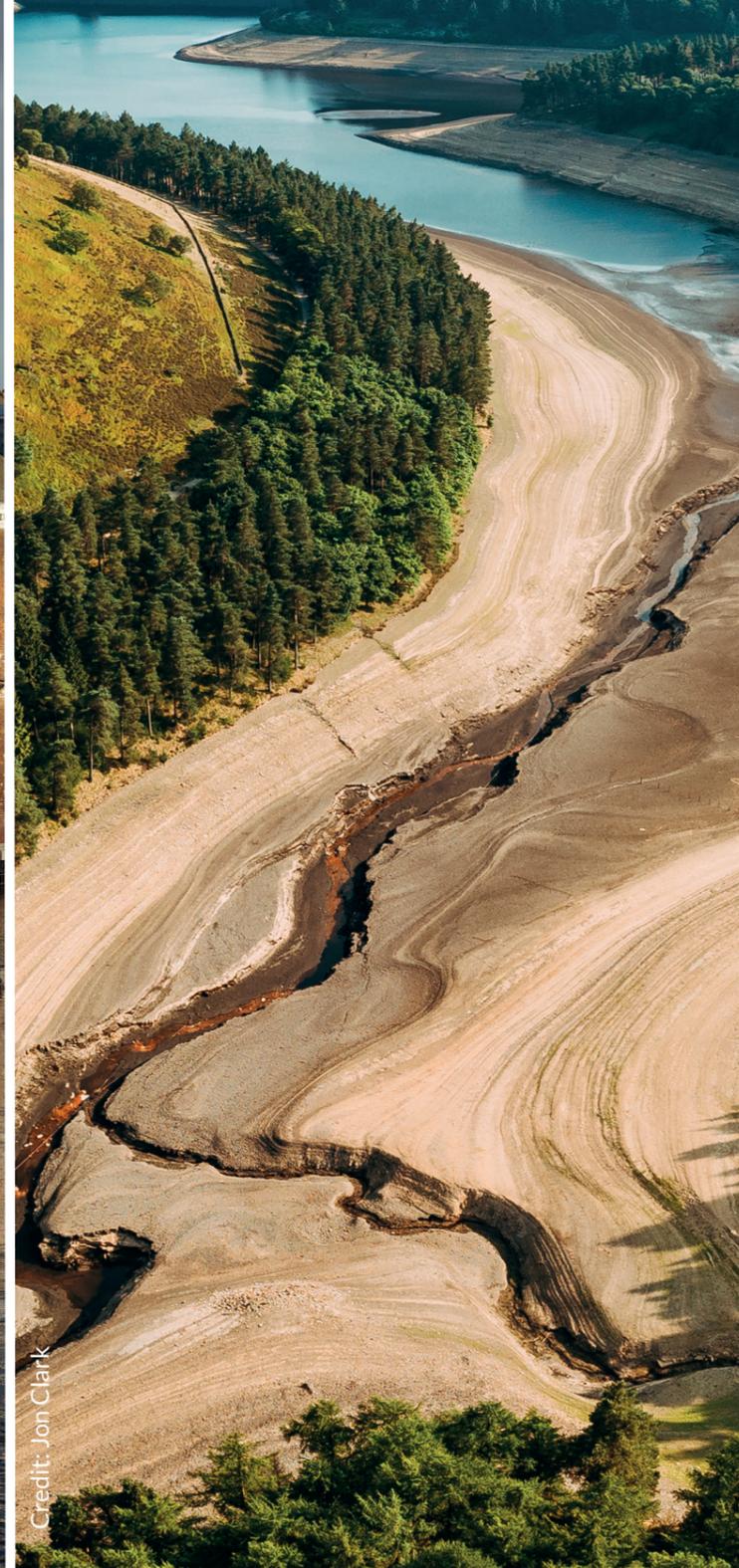




Credit: Michael Warwide



Credit: Jon Clark



Credit: LD Media UK

FLOODS AND DROUGHTS RESEARCH INFRASTRUCTURE (FDRI)

A major new capital investment by the UK Government that will enable essential science and innovation to improve the UK's resilience to hydrological extremes

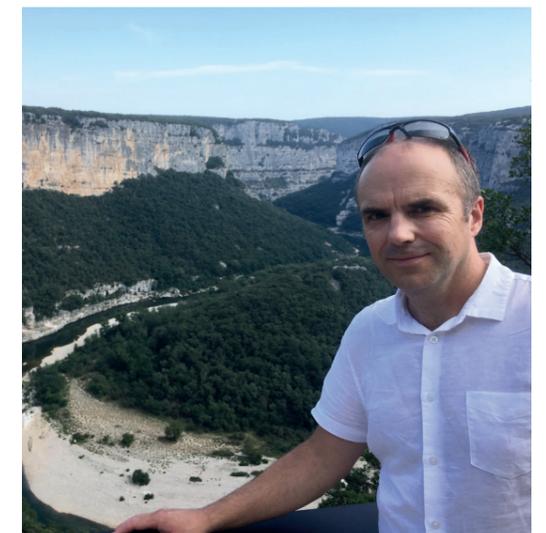
Where?

Up to three FDRI basins will be instrumented and it has been proposed that they will be located in the following UK regions: South East England, mid-Wales and East Scotland. Mobile infrastructure will be available for UK-wide deployment .

Who?

Dr Gareth Old, Principal Investigator

Gareth is a principal hydrologist at the UK Centre for Ecology & Hydrology. His research has focused on catchment hydrology, observing hydrological processes under extreme events to enable their representation in models and an assessment of their ecological impacts. He has worked on projects for Defra and Natural England that have involved the collection and assessment of evidence for the effectiveness of agri-environment mitigation schemes and the specification of appropriate monitoring programmes. His current research focuses on the effectiveness of nature based solutions in mitigating hydrological extremes.





Credit: Chris Hepburn

FDMI will provide a UK-wide, world-leading, digitally-enabled, flood and drought monitoring capability, facilitating technical innovation and providing the focal point for future hydrological research. The FDMI will advance our understanding of how, when and where floods and droughts occur, enabling improved predictions, robust assessment of impacts, and implementation of appropriate mitigation measures.

FDMI will feature:

- A network of basins providing nationally-relevant data, including deployable mobile instrumentation that will meet UK-wide science needs.
- A step-change in data discovery, data access and data integration, enabling more efficient analysis and exciting scientific exploration of a range of environmental data.
- A capacity-building programme to instil a strong culture of community leadership, multi-disciplinary and collaborative working.
- Integrated skills-sharing, training and inclusion thereby cultivating the next generation of world-leading hydrological researchers.
- An innovation programme and test beds that will support and catalyse research and development of the most advanced hydrological monitoring technologies, in line with the UK Innovation Strategy.
- A sustainable infrastructure aligned with the UK's net zero ambitions.



Credit: Thalia nphoto

Why?

Floods and droughts are predicted to increase in intensity, frequency and duration in response to changes in climate and human activity. The need for new science to underpin the UK's preparedness and resilience to these extreme events has never been more pressing.

When?

In June 2022, UKRI announced their intention to contribute £38m towards funding FDMI. Funding confirmation is subject to Business Case approval in late 2023. Implementation is then planned to take place over the following 3-4 years.



Integrated observations in an FDMI basin

