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DAFNI NEWSLETTER, SEPTEMBER 2026



Dear {{ contact.FIRSTNAME }}

Welcome to the DAFNI September 2026 newsletter!

It was a pleasure to welcome so many of you to our annual conference on 10th September, this year held at Rhodes House, University of Oxford. The event celebrated a year of innovation, collaboration, and impact across the DAFNI community. We extend our sincere thanks to all our speakers for bringing this year's themes of climate and security resilience, government strategies and clean energy to life.

Our fantastic line-up included keynote speaker, **Margaret Read of NISTA** who gave an intriguing talk on improving infrastructure resilience and the importance of asset management. Fellow keynote, **Professor Jim Hall of University of Oxford & Chair of DAFNI's Strategy Board,** discussed how DAFNI can help navigate the trilemma of affordability, security of supply, and environmental impacts, the evolution of DAFNI since its inception, and the unique possibilities for DAFNI's future.

Our invited speakers gave fascinating insights into the latest on **UrbanAIR**, **CReDO+**, and **ENSIGN**, whilst the DAFNI team updated us on all the significant developments achieved by the technical team over the last year.

The DAFNI Fellows gave insightful lightning talks on their research and endeavours for the next year. Finally, **Professor Robin Preece, representing Supergen Energy Networks Hub** led an interactive workshop on Clean Energy where delegates from across infrastructures, academia, government and industry considered how we can work better together in the future.

We have been overwhelmed by the extremely kind reflections on the conference received so far. Please do take a moment to complete our feedback form if you have not yet done so.

Please save the date for our 2027 conference, which will be held on 9th September at the Science and Industry Museum, Manchester. We would be delighted to welcome you again next year.

Dr Brian Matthews, DAFNI Programme Lead

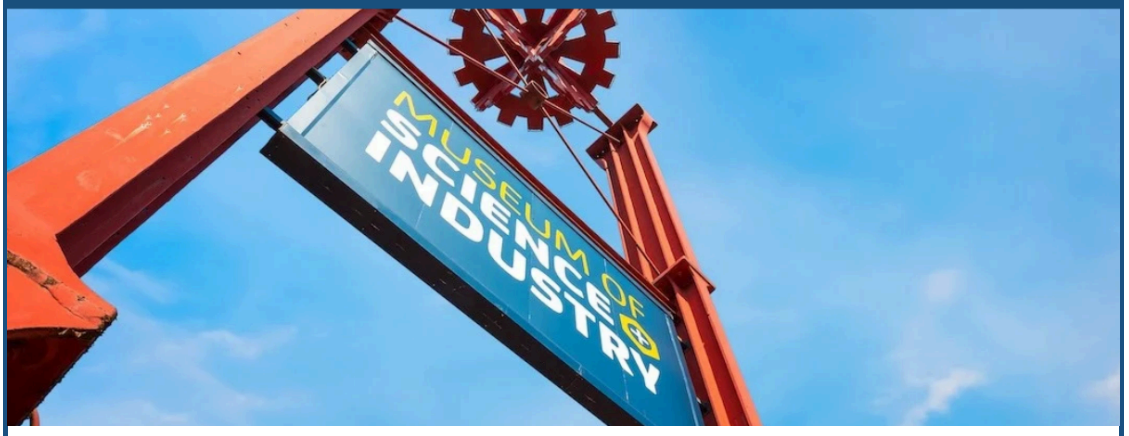
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DAFNI

ANNUAL CONFERENCE

9 September 2027

Manchester



News from our central team



CASE STUDY

SOFRAMODE: Data sharing to enhance flood modelling with DAFNI-DINI

Dr Vassilis Glenis, Senior Lecturer in Hydroinformatics in the School of Engineering at Newcastle University, with Co-Investigator Dr Claire Walsh, Professor of Water Security at Newcastle University

Introduction

The SOFRAMODE project (Sewer Overflow Flood Risk Analysis MOdel Dafni Enabled) took the existing CityCat hydrodynamic model and developed it. The enhanced model facilitates better understanding of surface water flooding and high-profile storm overflow events, allowing town planners, academics and policymakers to plan detailed mitigation measures related to any town or city, in the UK or overseas.

A key component of the project is the creation of an optimisation tool that strategically positions Blue Green Infrastructure (BGI) features. This allows users, including communities and local authorities, to assess flood and combined sewer overflow (CSO) risks and explore cost-effective management options for a range of scenarios.

The visualisation and application of the drainage network (surface flow and pipe network) for analysing results can enhance community and stakeholder engagement as well as facilitate more effective design and risk assessments.

The quality of the data coming into the model directly affects the quality of the outputs. To discuss challenges around data sharing, the SOFRAMODE team held several one-to-one meetings and practical workshops with stakeholders.

This DAFNI-DINI (Data Infrastructure for National Infrastructure) project focused on the benefits and barriers to data sharing, discussed sources of data, and captured lessons learnt and subsequent recommendations.

SEPT 2026 DAFNI Data & Analytics Facility for National Infrastructure 1/6

SOFRAMODE DINI: Data sharing to enhance flood modelling with DAFNI-DINI

The original DAFNI-SOFRAMODE project enhanced the CityCat hydrodynamic model to help planners, researchers and policymakers better understand and manage surface water flooding and storm overflow risks. It also developed a tool to identify the most effective locations for Blue Green Infrastructure (BGI), supporting cost-effective flood management.

The SOFRAMODE-DINI project specifically addressed data-sharing challenges by working with stakeholders and Northumbrian Water to convert proprietary datasets into open, accessible formats. This has improved data reuse, strengthened collaboration between organisations, and supported better flood risk planning.

Providing real-time measurement of flow depth in the pipe network and combined sewer overflows, for example, could provide a host of benefits to the water company, including:

- Inform interventions to reduce the volume of flows reaching wastewater treatment plants
- Reducing costs
- Reducing risk of fines from spills

- Ultimately the benefits of insights into real time combined data could reduce pollution whilst enhancing company profits and public perception.

The SOFRAMODE-DINI team:
Dr Vassilis Glenis, Senior Lecturer in Hydroinformatics in the School of Engineering at Newcastle University, with Co-Investigator **Dr Claire Walsh**, Professor of Water Security at Newcastle University, plus researcher **Dr James McKenna**, Research Associate in Hydrodynamic Modelling at Newcastle University.

Click to read the full case study

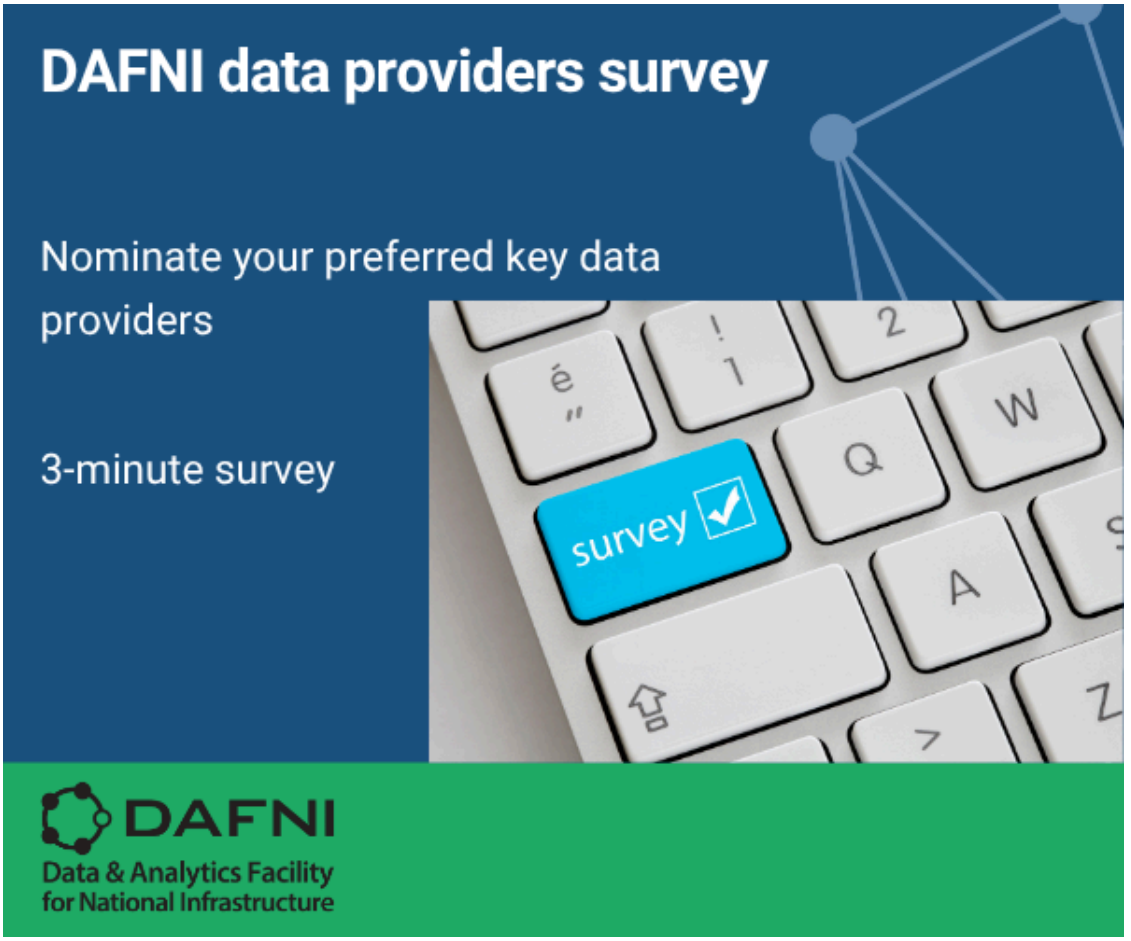
User liaison news

The CROSSEU project was launched in response to growing societal needs for effective climate action and stronger socio-economic resilience

CROSSEU uses a cross-sectoral approach to address emerging socio-economic risks and improve our grasp of climate change's economic impacts. It aims to equip decision-makers with tools and insights for informed decisions, climate risk adaptation, and impact mitigation. By integrating complex data and modelling, CrossEU assesses socio-economic risks and develops a climate-sensitive framework including a ready-to-use Decision Support System (DSS). The project will contribute to advancing the understanding of the socio-economic risks and response options associated with climate change impact inEurope in different timeframes.

Members of the DAFNI user liaison team & technical team are currently working hard to support the CROSSEU project as the project moves into its final stages. The datasets, models, and results produced by the various CROSSEU case studies are currently being deployed on DAFNI, where we will fully integrate them into the CROSSEU Decision Support System (DSS), a bespoke visualisation and policy tool designed for the CROSSEU project.

Next month we hope to bring you more about the CROSSEU project, and how it will help European countries adapt to anticipated changes in our climate.



Share your data preferences with us!

DAFNI is requesting nominations for key data providers from our user community so that we can investigate ways to better support you.

Take the 3 minute survey now: Key data providers – Fill in form

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Partnership news

The DAFNI conference was a great opportunity to connect with members of the DAFNI community and September has been a busy month with conferences.

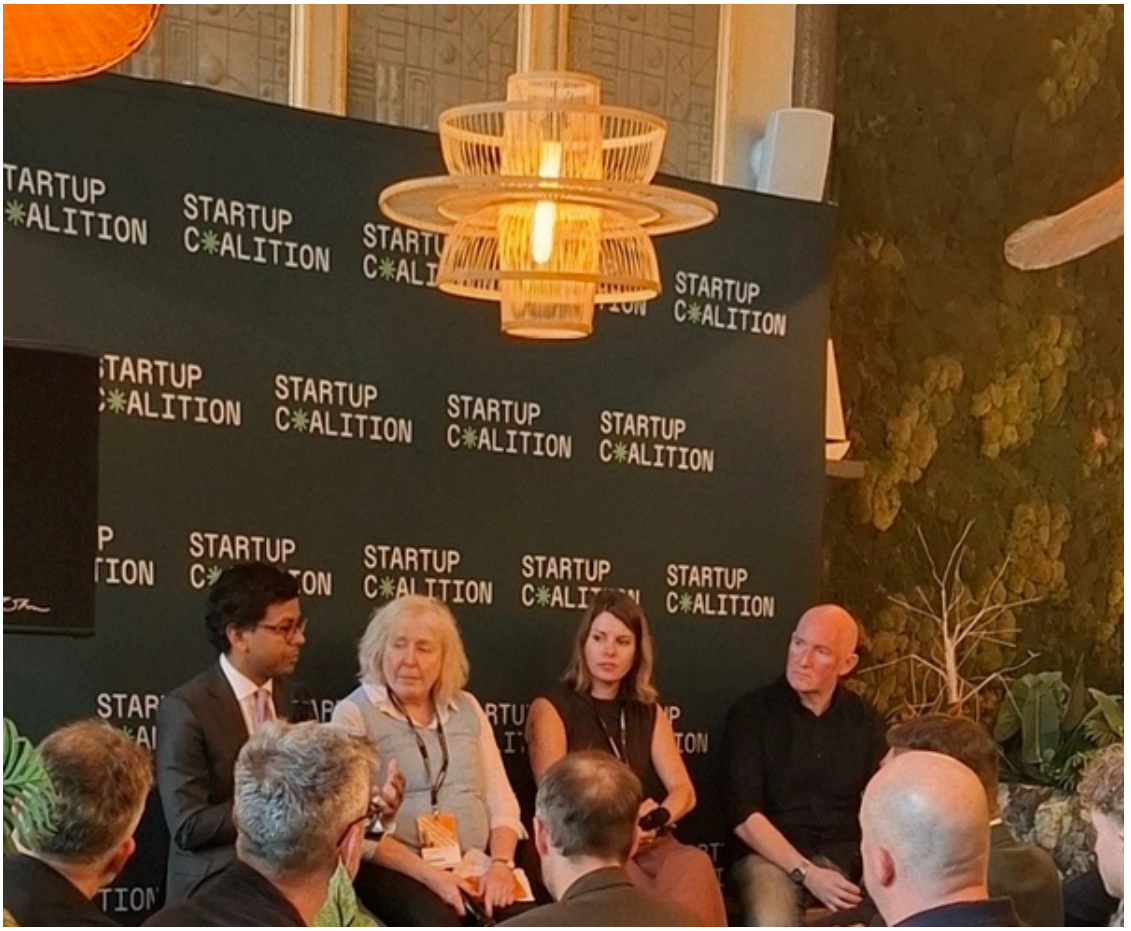
The first of which was the **Loughborough University 'Air Quality and Transport Emissions Symposium'** AQRTE 2026 – Air Quality Digital Twin. The workshop's presentations included work on air quality policy to the development of testing air quality on tyre emissions. Presentations from the event can be found here Day 1 and 2 Presentations – Air Quality Digital Twin

At the **Institution of Civil Engineers (ICE),** a panel debate "*Can we afford to delay climate readiness*" marked the release of the ICE policy paper "Making resilience count: The economic value of climate readiness" https://www.ice.org.uk/media/yizd4e01/making-resilience-count-sept-2026-final.pdf Key themes of the debate included how the climate adaptation sector is rapidly growing and opportunities for UK companies. Also how policymakers have to re-evaluate how they identify the economic impact of investments that they make was considered, so that the economics around climate risk at a local level is taken into account.

Working out of the Daresbury Lab in Warrington after work gave our Science Lead, **Tom Kirkham**, the opportunity to visit some of the fringe events at this year's Labour party conference. A key theme of the conference was "good growth in every postcode". One interesting event was a panel sponsored by Startup Coalition and UK Tech Group that included the Minister for AI, **Kanishka Narayan** (pictured far left), and regional representatives.

The discussion focused on how Sovereign AI is a catalyst for not only UK control over technology and outputs but also how future infrastructure can be a catalyst for investment. An example was given in Anglesey where the AI industry is funding the next-generation nuclear power station at Wylfa to power a data centre (North Wales growth AI zone).

Mention was given to the PM's position on the UK's role in AI as an "honest broker" citing its position on cyber security and AI testing. This work aligns well with the work of researchers in the DAFNI community increasingly utilising AI, and the DAFNI platform enabling the work to be made open with the publication of the data and models used alongside outputs.



DAFNI platform features and updates

This month the DAFNI technical team has been working on a selection of updates and new features for the platform. We have now fully released our **Reference Models** feature following the release of **Reference Datasets** in August. These additions now allow for users to upload metadata-only entries into our Model and Data catalogues, making it possible to more accurately represent workflows even if restrictions don't allow actual code or data to be uploaded into DAFNI.

Work is still ongoing upgrading our web application into a new framework as demonstrated at the conference. This month saw the release of updates to metadata field names to improve clarity, and updates to page layouts to make metadata easier to understand. Our focus is now on finishing the final

area of the platform not yet upgraded: the workflow builder. More updates on when you can expect to see this in action will be available in next month's newsletter.

We have an ongoing programme of continuous improvements to our monitoring and automated testing.

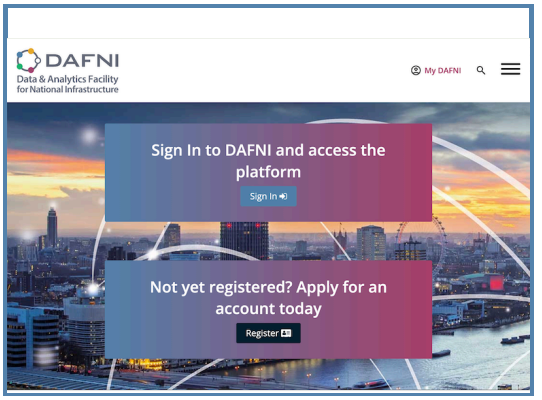
We have also welcomed a new computing apprentice onto the team this month as part of their degree.

Looking to the future
We are starting to investigate **bringing parts of the platform outside of our login wall** to enable easier sharing of results and project outputs. If this is something that would be of interest to you please do get in touch, we welcome any feedback from the community as we begin this work. Contact us at info@dafni.ac.uk



Access our help
If you are a user of the platform and have any feedback or platform requests, please contact support@dafni.ac.uk

Standard and expert user accounts are available - find out more at the foot of this email.



DAFNI technical training



If you would like to attend a DAFNI Technical Training Event covering how to best use DAFNI to complement your work and projects, please visit our Eventbrite page to register your interest. We plan to run a training session very soon, so now would be an ideal time to register.
.
https://www.eventbrite.co.uk/o/dafni-31793198351

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DAFNI researchers' news

DAFNI Fellows' lightning talks and poster presentations at the DAFNI Conference



Our thanks to all our DAFNI Fellows for their lightning talks and poster presentations at the DAFNI Conference in September!

[View their posters on our LinkedIn page.]

[Discover more about our Fellows]



Find out how the DAFNI publications policy can help you increase awareness of your research

Your research doesn't end when the paper is published.

For researchers using DAFNI, connecting publications with the research, data and models behind them can help others understand, discover and build on the work.

DAFNI brings together data, models and workflows that support research into complex infrastructure systems. When research using these resources is published, good publication practice helps strengthen the link between the research output and the resources that supported it.

If you're preparing a paper, report or other research output that uses DAFNI, take a moment to check the policy and make sure your work is properly connected.

Read the DAFNI Publications Policy:
https://www.dafni.ac.uk/publications-policy/



Community news

Innovate UK Business Connect is supporting Canal & River Trust to find innovative, low-cost methods for detecting leaks and seepage that may not be visible at the surface.

Successful applicants may be invited to pitch to Canal & River Trust, with selected solutions potentially considered for pilot trials at relevant canal locations.

Opportunity closes 27 October 2026

Learn more and apply here: https://iuk-business-connect.org.uk/opportunities/ix-challenge-identifying-leaks-and-seepage-in-cana?

Visit our publications page



Watch our past webinars

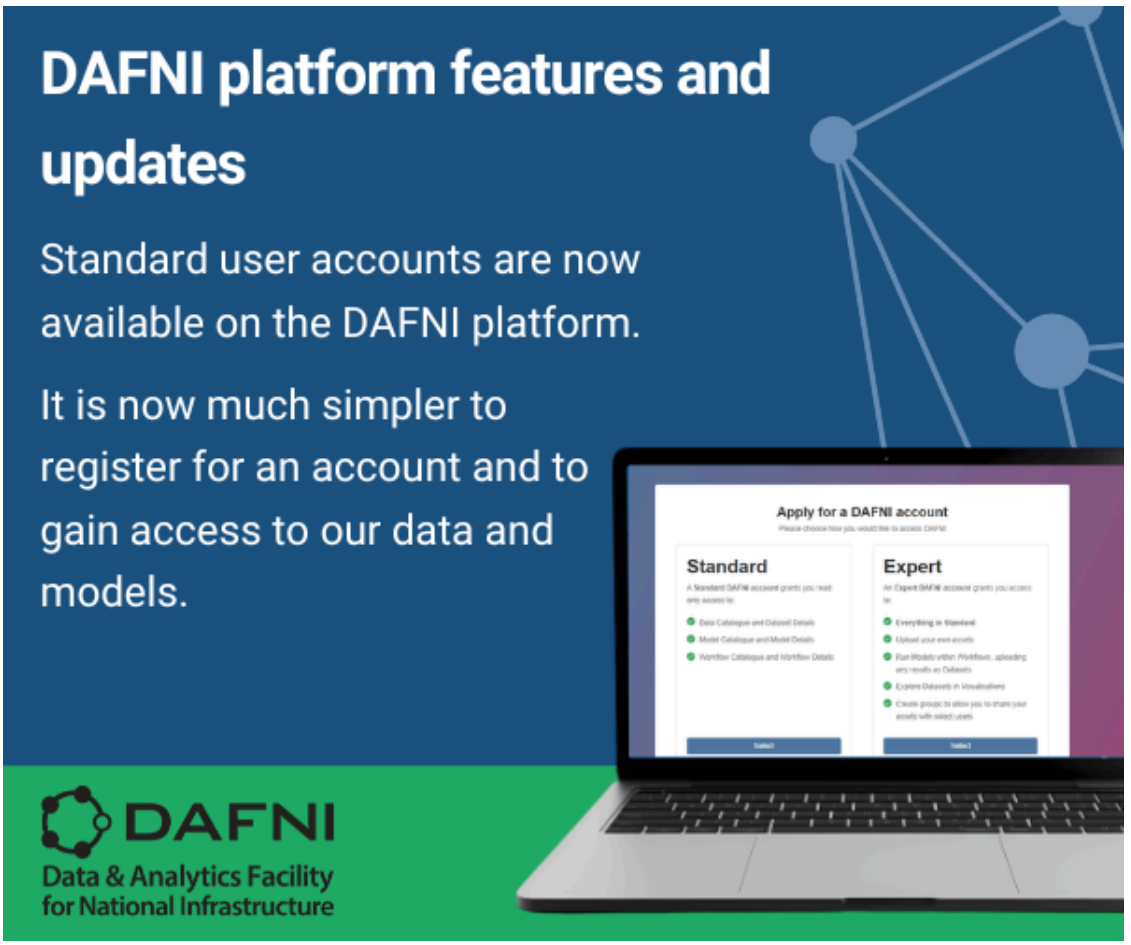
View recordings of past webinars at https://www.dafni.ac.uk/news-events/events/webinars/

DAFNI YouTube channel: catch up on conferences and interviews

Visit https://www.youtube.com/@dafnifacility118

Access our help

Please contact us directly for any assistance on info@dafni.ac.uk



Apply for a DAFNI account: interested in working with infrastructure data, models and analytics? Creating an account on the Data & Analytics Facility for National Infrastructure (DAFNI) is the first step.

DAFNI offers two account options depending on how you want to use the platform:

🔎 Standard account
Provides instant read-only access to explore:
• Data catalogue and dataset details
• Model catalogue and model details
• Workflow catalogue and workflow details

⚙️ Expert account
Includes everything in the Standard account, plus the ability to:
• Upload your own assets
• Run models within workflows and upload results as datasets
• Explore datasets through visualisations
• Create groups to share assets with selected collaborators

Whether you want to explore infrastructure datasets or actively run models and collaborate, DAFNI provides the tools to support research and innovation in national infrastructure.

Visit: https://www.dafni.ac.uk/my-dafni/

About DAFNI

The DAFNI platform supports research that aims to provide the UK with a world-leading infrastructure system that is more integrated, efficient, powerful, reliable, resilient and affordable. It is enabling the community to conduct research that is able to generate new insights at a higher level of detail and accuracy than ever before.

DAFNI was originally funded by an £8 million EPSRC investment in the UK Collaboratorium for Research in Infrastructure and Cities (UKCRIC) and a £1.2m grant under EPSRC's Resource Only Strategic Equipment. Its aim has been to become the national platform to satisfy the computational needs in support of data analysis, infrastructure modelling and visualisation, and encourage whole-system thinking for the UK's infrastructure research needs.

In March 2023 UKRI awarded £4m to STFC Scientific Computing to establish a national Centre of Excellence for Resilient Infrastructure Analysis, and move the Data & Analytics Facility for National Infrastructure (DAFNI) into its new phase.

To find out more about DAFNI, visit: www.dafni.ac.uk

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DAFNI
Rutherford Appleton Laboratory,
Harwell, Oxford,
Didcot,
OX11 0QX
W: www.dafni.ac.uk
E: info@dafni.ac.uk

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