



Just a few words about NERC's Investments in Big Data

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Vision



To place environmental science at the heart of responsible management of our planet.

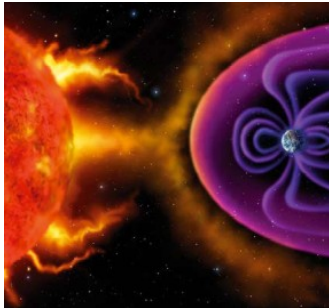
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Meeting societies needs



Benefiting from Natural Resources
Using natural resources sustainably to support a growing world population and economy



Resilience to Environmental Hazards
Making vulnerable people, infrastructure and business more resilient to environmental hazards and emergencies



Managing Environmental Change
Making informed choices about our impacts on the environment and how we respond to environmental change

Making it happen

ESA

Investing in world-class research, innovation and impact

- Discovery science, Postgraduate training, Strategic research, National capability
- Partnerships with business

Investing in **world-class facilities** and world-class scientists, amongst which:

- Technological innovation to meet the ever-growing demand for (& to exploit) environmental information.
- Work across Research Councils UK to share (the delivery of) internal services such as information technology.



People and Skills



#1: Modelling:

#2: Multi-Disciplinarity

#3: Data Management

Looking into what that means, we see words like:

- Model interrogation and interpretation
- Spatial Analysis
- Working with multi-disciplinary teams and outputs
- Work at the interface of science and engineering
- Interrogating large datasets
- Large scale data manipulation

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Working with partners - JWCRP



The “Joint Weather and Climate Research Programme”



Two major elements.

- Joint commitment to sustaining and growing the UK's national capability and research in observing, understanding, modelling and predicting weather and climate, **along with the infrastructure** required to deliver that national capability and research.
- Align major research initiatives and programmes to ensure the most effective impact of the research and pull-through into the delivery of services to government and business.

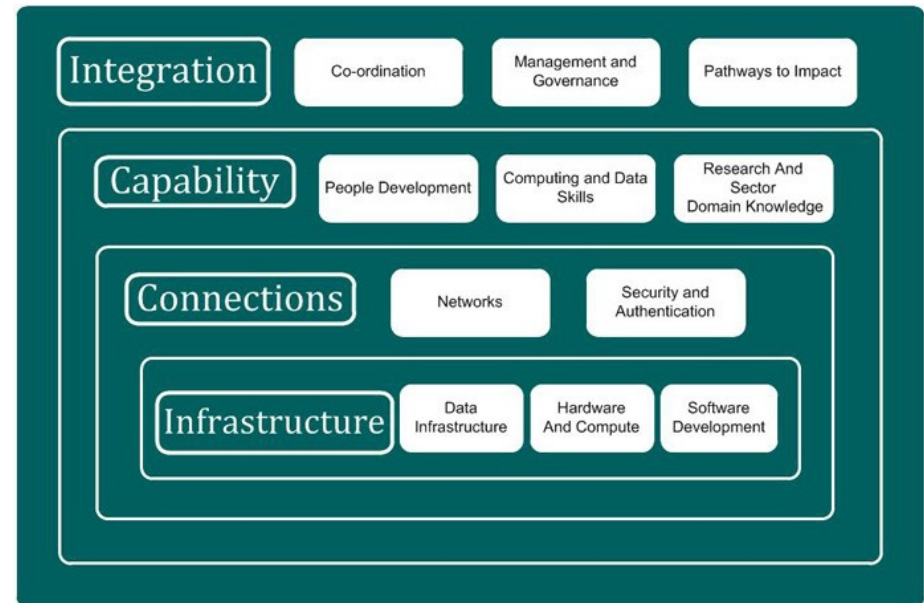
JASMIN

the “Joint Analysis System”



Delivering on the NERC strategy

- World class facility providing a platform for scientific innovation and information exploitation.
- Part of a joined up national e-infrastructure: Funded by NERC, delivered by STFC, linked to national HPC (EPSRC and Met Office)



E-Infrastructure (courtesy of EPSRC)