

# **NERC Strategic Research Development and Funding Structures**

Water JPI Alignment Workshop

22nd October 2014

# Background



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- UK's largest public funder of independent environmental science, training and innovation, delivered through universities and research centres (£330m pa).
  - NERC is funded mainly by the Department for Business, Innovation & Skills, but also other government departments, private and public-sector partners.
  - 3000 scientists and 1000 PhD students.
  - 1000 research projects and 60 UK or international programmes.
  - 55 universities and 20 research institutes.
  - UK environmental research capability including four ships, seven aircraft, six polar stations, six data centres and 32 research community facilities.

# Meeting societies needs

## Discovery Science

Discovery science can support pure, applied, technology-led or policy-driven research, but it must address - or provide the means to address - clearly-defined scientific questions, includes Standard, Large and Urgency grant schemes

## Strategic Research : *tackling society's 'grand challenges'*



### **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 businesses 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

# Strategic research – three mechanisms

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## i. Strategic Programme Area

For large-scale complex programmes that take time to develop and deliver. Similar to current large Research Programmes (e.g. *UK Droughts and Water Scarcity*, *Flooding from Intense Rainfall*, *Storm Risk Mitigation*, *Biodiversity and Ecosystem Service Sustainability*, *Changing Water Cycle*, *Macronutrients*). – £5-10m progs. Circa £35m currently committed to Water JPI-related Research Programmes.



## ii. Highlight Topics

For smaller scale programmes, similar to current Research Programme large grants (e.g. *Cloud to Coast*) – typically £1.2m to £3.7m with a duration of up to five years.



## iii. Joint Strategic Response

For investments with partners to be agreed over shorter timescales. Most likely in response to opportunities presented by partners to allow NERC to join initiatives (e.g. *Unlocking the Potential of Groundwater*).



**NB** - Also National Capability provided by NERC Centres and Surveys

# Strategic research – ideas process

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## For **Highlight Topic** and **Strategic Programme Area** ideas:

- Community (academic and user) encouraged to self organise and generate ideas
- Call for Ideas
- Ideas filtered and prioritised by the new Strategic Programme Advisory Group
- Within six months - Highlight Topics first call for proposals
- Within 12 months – Strategic Programmes Areas first calls

# Multi-lateral/Bi-lateral Initiatives

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- Belmont and roles in Future Earth/IGBP etc
- Bi-lateral agreements eg. Newton Fund with China and India, MoU with NSF.
- Links between individual programmes, eg Changing Water Cycle (Indian MoES)
- International collaborations through FP7 and H2020
- Links of component institutes with wider networks (eg. EURAQUA and PEER)
- Involved in JPI Water, Climate, Oceans