

COUNCIL MEETING

Two hundred and eighty sixth meeting of NERC Council
to be held at Alexandra House, Wroughton, Swindon on
Thursday 12 February 2009.

NATURAL ENVIRONMENT RESEARCH COUNCIL

Two hundred and eighty sixth meeting of NERC Council, to be held in the Wroughton Suite, Alexandra House, Wroughton on Thursday 12th February commencing at 09.00.

AGENDA

Introductory items

			Strategic Objective
1	09:00	Chairman's welcome and introduction	Oral
2	09:05	Financial forecast and context	NERC 09/01 (P) 18
3	09:15	Update from DIUS representative	Oral 4

Items for decision

4	09:20	Planning future NERC investment levels	NERC 09/02 (P)	
5	09:50	10 Year Capital Strategy	NERC 09/03	16
	10:20	<i>Break for refreshments</i>		
6	10:30	NERC Ships update		
		(i) Ship Operations Review	NERC 09/04 (P)	13 & 16
		(ii) Update on RRS Discovery replacement	NERC 09/05 (P)	
7	11:45	National Good	NERC 09/06	13 & 16
8	12:05	NERC Citations Study 2008	NERC 09/07 (P)	

Items for discussion

9	12:25	Science in Society – A review of activities	NERC 09/08	3
	12:45	<i>Lunch</i>		
10	13:15	Council Audit Committee:		
		(i) Report of the 42 nd Council Audit Committee meeting	NERC 09/09 (P)	18
		(ii) Annual Report of the Council Audit Committee - 2008	NERC 09/10 (P)	

Standing items

11	13:30	Executive Report	NERC 09/11	18
12	14:15	Science and Innovation Strategy Board report	NERC 09/12 (P)	18
13	14:35	Progress on delivery of NERC's strategic objectives	NERC 09/13	18
14	14:55	Rolling programme of business	NERC 09/14	
15	15:05	Unconfirmed minutes of the 285th meeting of NERC Council		
		i) Minutes of the closed meeting	NERC 09/15 (P)	
		ii) Minutes of the open meeting	NERC 09/16	

Continued overleaf

- 16 15:15 Decisions and Actions and matters arising from the 285th meeting of NERC Council
- i) Decisions and Actions from closed meeting NERC 09/17 (P)
 - ii) Decisions and Actions from open meeting NERC 09/18
- 17 15:25 Any other business Oral
- 15:45 Meeting close

Papers for Information:

- i) Common NERC Acronyms
- ii) Membership of Council 2009
- iii) Attendance at NERC Council 2008
- iv) The Mission of the NERC
- v) Council Policy on Vested Interests
- vi) SMT Top level objectives

NERC COUNCIL

Asset Management Strategy

Background

1. NERC has to provide the Department for Innovation, Universities and Skills (DIUS) with a new 10-year Asset Management Strategy by the end of March 2009. Science advice has been sought through NCAG and SISB and infrastructure advice has been sought through the executive functions culminating in NEB input.

Issue

2. Discuss and provide comments on the Asset Management Strategy and delegate final sign of to the CE.

Person responsible for implementing outcome

3. David Bloomer – Director, Finance and Operations.

Estimated action delivery/completion date

4. DIUS deadline 31st March 2009

Discussion

Purpose

5. To gain Council's agreement on the content, prioritisation and tone of the document to allow it to be sent to DIUS by 31st March 2009.

Work to Date

6. Following November Council a draft strategy was sent to DIUS, no feedback has been received to date. February SISB provided further advice and prioritisation of Science Investments. Work on the supporting estates strategy is progressing to schedule.

Points for Council to Note and Discuss

7. The DIUS expectation is that BBSRC should cover Swindon Estates, and EPSRC to cover the Shared Service Centre (SSC) so these have been excluded from the strategy.
8. The detail required for Estates Management has also been excluded from the text. This will be set out in a full and comprehensive Estates Strategy which is currently being produced for agreement with David Bloomer. The estates spend is based on completion of the CEH restructuring and efficiency investment at BAS and BGS – else little change.
9. The Strategy outlines new major investments, as advised by SISB and NEB. As the total list of priorities was considerably greater than the funding available, an office decision has been made

to include a section on 'Potential Additional Investments' (6.14). This takes a number of the items prioritised by SISB as items NERC are unable to invest in due to lack of resource. It is important to remember that this document is a stake in the ground, and Council can reprioritise at any time.

10. Spend is phased according to financial need and operational needs. Considerable scope exists for rephrasing between items.
11. The major investments set out within the document will be subject to a full business case approval by Council before any significant investment takes place.
12. Some of the major investments support new activities that will require additional near cash running costs, notably the 'omics facility. One constraint for this exercise is that Councils must commit to supporting the capital described from their existing real terms near cash baselines. This implies that reprioritisation would need to be made to afford to run these new facilities.
13. The document addresses the guiding principles agreed at the last Council meeting in the following ways:
 - i) Support exciting science aligned to emerging SR09 bidding / strategic priorities;*
The SISB prioritisation exercise has enabled this, and will be expanded upon at the Council meeting.
 - ii) Support exploitation / impact of science.*
There are no new major investments directly in this area, so currently this section in the strategy doesn't look particularly strong. We will need to think through the impact that could stem indirectly from the new science areas opened up, or re-look at direct investments in items such as the Keyworth science park.
 - iii) Drive an efficiency agenda (including greening);*
Specific ideas are included to improve the performance of the estate in line with Councils initial guidance on environmental strategy.
 - iv) Asks for slightly more baseline funding than we get already, and assumes success in bidding to the Large Facilities Capital Fund (LFCF).*
The current strategy assumes one significant success in each LFCF bidding round and calls for indexation of capital allocation plus £30m across the 10 year period (i.e. £730m in total)
14. It was noted by SISB that a large proportion of NERC investments is within Polar sciences i.e. Ship and Antarctic infrastructure.

Estimated resources required

15. No additional resources are required to complete the Asset Management Strategy.

Communication Plan

16. To be published on the NERC website following DIUS submission.

Action

17. Council is asked to:
 - (i) Discuss and provide comments on the Asset Management Strategy and delegate final sign of to the Chief Executive.

NERC COUNCIL

NATIONAL GOOD

Issue

1. The definition and prioritisation of National Good activities.

Links to NERC business

2. Strategic objectives 13 & 16, relating to current and future National Capability.

Discussion led by

3. Dr Steven Wilson - Director, Strategy and Partnerships

Author of paper

4. Dr Steven Wilson - Director, Strategy and Partnerships

Estimated action delivery/completion date

5. Following decision by Council, the executive will publish the mechanisms by which NERC plans and manages National Good activities.

Estimated resources required

6. Planning and managing National Good is the responsibility of Council and its advisory bodies, the executive and suppliers, and is included in routine operating costs (including NCAG).

Vested Interests

7. None.

Action

8. Council is asked to:
 - (i) **NOTE** the definition of National Good activities (para 8);
 - (ii) **DECIDE** on the criteria for planning and managing National Good activities as part of the NERC portfolio that delivers both science and organisation priorities (para 11).

NERC COUNCIL

NATIONAL GOOD

Background

1. Following a recommendation from the Council sub-group on the mission and sustainability of NERC research centres under FAB, the National Capability Advisory Group (NCAG) was asked to report to Council on how to tension National Good activities against other strategic priorities.
2. Frequently identified examples of National Good work supported by NERC research and collaborative centres include maintaining the UK presence in Antarctica, seal monitoring and support to Government during emergencies, for examples the BGS activities during the outbreak of Foot and Mouth disease.

Issue

3. The definition and prioritisation of National Good activities.

Person responsible for implementing outcome

4. Dr Steven Wilson, Director of Strategy and Partnership.

Estimated action delivery/completion date

5. Following decision by Council, the executive will publish the mechanisms by which NERC plans and manages National Good activities.

Discussion

Characteristics of National Good

6. NERC Council and its advisors (SISB, NCAG, Theme Leaders), the executive and suppliers (research and collaborative centres and others) need to be able to recognise National Good when planning strategic science investments, and to tension societal needs against NERC science priorities.
7. Advice has been sought from NCAG on how to recognise and manage National Good activities. To support this, the Directors of major NERC research centres were asked to provide examples of what they considered to be National Good activity from their current portfolios. From these examples a broad set of National Good characteristics have been identified as shown in Table 1.

Table 1 Characteristics of National Good activity

Characteristic	Commentary
Purpose is to meet societal needs, not to directly support scientific research.	Though it may incidentally contribute to science priorities – see below.
Pervasive - all kinds of Research Centre activity may contribute.	May be currently supported by any or all NERC activities and funding categories.
May be a discrete activity or a diffuse outcome of multiple activities.	Discrete – e.g. UK tide gauge network. Diffuse – e.g. UK presence in Antarctica.
Funding may come from different sources.	Customer pays (External Income – EI) – e.g. UK presence at King Edward Point. NERC Science Budget pays – e.g. BGS core store.
Contribution to NERC science priorities may be low or high.	Low science contribution – e.g. providing UK presence; responding to environmental emergencies. High science contribution – e.g. improving understanding or prediction of natural hazards.
Obligation to deliver may be strong or weak.	Strong obligation – e.g. legal requirement to monitor seal populations; societal need to respond to environmental emergencies; NERC is the unique provider. Weak obligation – e.g. input to enquiries; customer unwilling to pay; other possible providers.

8. Thus, whilst the concept of National Good is relatively easy to recognise, its definition and provision is not straightforward. Apart from meeting societal need, there appears to be no single defining characteristic. In its discussion, NCAG agreed that the definition should be kept as simple as possible, and suggested the following:

National Good, a subset of National Capability, refers to activities where the primary customer is society rather than the research base, and which at the outset cannot be measured by standard scientific metrics. NERC is likely to be the unique provider for the activity.

9. NCAG also noted that the term ‘National Good’ may carry with it the difficulty that scientists consider all their work to be *in the national good*. Other terms have been considered, for example ‘Public Good’ but this has a strict definition in economic terms under which the whole government investment in the science base is included. Suggestions from Council for alternative terminology would be welcome.

Planning and managing National Good

10. Council, with advice from SISB, NCAG and Theme Leaders, is responsible for planning and monitoring strategic investments to deliver NERC science and organisational priorities (including National Good). Research and collaborative centres and other providers are responsible for managing and delivering these strategic activities including National Good.
11. Table 2 illustrates a suggested set of criteria, supported by NCAG, that need to be executed when planning and managing National Good activities. Given the diversity of National Good activities and characteristics, it seems pragmatic to consider two main cases according to the source of funding (NERC Science Budget or External Income - EI). This distinction is helpful because NERC Council and its advisory bodies have an arms-length role in guiding the EI portfolio of centres, whereas they have a strong role in guiding the delivery of strategy through the Science Budget.

Table 2 Criteria for planning and managing National Good activities

NERC Council / advisors / executive	Research or Collaborative Centre
<p>National Good funded by EI</p> <ul style="list-style-type: none"> • Note in National Capability Action Plan (NCAP) – seek to optimise synergy and avoid duplication with SB activities. • Guide centres on risk, liability to NERC. 	<ul style="list-style-type: none"> • Decide whether to undertake, within limits of capacity, resources, risk, liability and relevance to Centre mission. • Undertake if obligation is strong, uniquely positioned to provide and/or science priority is high (subject to limits). • Decline if obligation is weak, other suppliers exist and/or science priority is low (unless short-term capacity-filling).
<p>National Good funded by SB</p> <ul style="list-style-type: none"> • Address in NCAP – seek to tension vs science priorities. • Decline to fund if obligation is weak, other suppliers exist and/or science priority is low. • Guide centres on priorities, limits. 	<ul style="list-style-type: none"> • Agree activity and volume with executive, based on NERC priorities set by NCAP, TAPs, and relevance to Centre mission. • Undertake if obligation is strong, uniquely positioned to provide and/or science priority is high (subject to limits). • Decline if obligation is weak, other suppliers exist and/or science priority is low.

12. In making these decisions, Council and centres need to be able to test the strength of science priorities and of societal obligations.
13. If science priority needs to be judged, the key test of strategic science priority is provided by Council's approved NC Action Plan (NCAP) and RP Theme Action Plans (TAPs). A discrete National Good activity would have high science priority if it clearly leverages or contributes to

the delivery of approved actions. Advice on this judgement could be sought from NCAG and Theme Leaders.

14. Testing the strength of national and international obligation, and agreeing a commensurate level of activity, requires dialogue and negotiation with key stakeholders for National Good. The proposed BGS Government Advisory Panel and BAS Review Group are examples of forums that could advise NCAG on National Good needs, testing the strength of obligation and managing stakeholder expectations.

Estimated resources required

15. Planning and managing National Good is the responsibility of Council and its advisory bodies, the executive and suppliers, and is included in routine operating costs (including NCAG).

Communication Plan

16. Following decision by Council, the executive will publish the mechanisms by which NERC plans and manages National Good activities.

Action

17. Council is asked to:
 - (i) **NOTE** the definition of National Good activities (para 8);
 - (ii) **DECIDE** on the criteria for planning and managing National Good activities as part of the NERC portfolio that delivers both science and organisation priorities (para 11).

NERC COUNCIL

SCIENCE IN SOCIETY: A REVIEW OF ACTIVITIES

Background

1. At its meeting in November 2007, Council asked to be updated periodically on NERC's science in society/public engagement activities.

Issue

2. To inform Council of NERC's science in society activities and to outline a proposed future direction.

Annexes attached

3. Annex A – Examples of Science in Society activities delivered by RCUK SIS Unit, Corporate NERC and NERC research and collaborative centres.

Website Links

4. NERC SIS Policy - www.nerc.ac.uk/about/work/policy/society/policy.asp
RCUK SIS Strategy - www.rcuk.ac.uk/sis/strategy.htm
DIUS SIS Consultation - www.dius.gov.uk/policy/science_society.html

Links to NERC business

5. NERC Strategy - Next Generation Science for Planet Earth

Discussion led by

6. Mrs Timberlake / Dr Wilson

Authors of paper

- 7: Ms Judy Parker and Miss Poppy Leeder, NERC Communications.

Estimated action delivery/completion date

8. Actions will be completed for consideration by Council in November 2009.

Vested Interests

9. None declared

Action

10. Council is asked to:
 - i. **NOTE** the range of NERC's Science in Society activities
 - ii. **CONSIDER** the outline future direction and **ADVISE** on any areas of priority
 - iii. **CONSIDER** ways in which societal impact could be increased

NERC COUNCIL

SCIENCE IN SOCIETY : A REVIEW OF ACTIVITIES

Background

1. At its meeting in November 2007, Council asked to be updated periodically on NERC's science in society/public engagement activities.
2. The key objectives of NERC's science in society (SIS) programme are to be accountable to the public for NERC's investment in environmental sciences and to enable informed debate between NERC and the public about environmental science and NERC's activities.
3. This paper provides an overview of NERC's recent SIS activities and also proposes a possible future direction for Council comment. The review concentrates on SIS work carried out through the RCUK SIS unit, the NERC Swindon Office (corporate) and the four wholly owned centres plus the National Oceanography Centre, Southampton (NOCS). It is recognised that collaborative centres are already delivering some SIS activity, examples of which are given, but that their SIS strategies are still evolving. The wide range of SIS work undertaken by NERC grant holders in Higher Education Institutions (HEIs) is also recognised. Information about this work is not readily available and it is therefore not included in this summary although it is the intention that NERC should work closely with HEIs as SIS delivery partners.

Issue

4. To inform Council of NERC's science in society activities and to outline a proposed future direction.

Persons responsible for implementing outcome

5. Mrs Timberlake / Dr Wilson

Estimated action delivery/completion date

6. Actions will be completed for consideration by Council in November 2009.

Discussion

Context

7. Science in society is a broad concept that is hard to define concisely. Whilst the term science in society is still widely used, 'public engagement' is increasingly being used as an umbrella term that encompasses many kinds of activity including science festivals, centres, museums, cafes, media, consultations, feedback techniques and public dialogues. Defined in this way public engagement is more or less synonymous with science in society. 'Public dialogue' is more specifically defined as a form of deliberative participatory engagement where the outcomes are used to inform decision-making. The various terms are often used quite loosely and interchangeably but for consistency, this paper employs the above definitions which are those currently used by DIUS

8. The Government continues to stress the importance of public engagement. The recently published DIUS consultation document on developing a new Science and Society Strategy for the UK, sets out a vision for a society that is excited by science, values its importance to our social and economic wellbeing, feels confident in its use, and supports a representative, well-qualified scientific workforce.

NERC's Science in Society Activity

9. The NERC SIS activities are increasingly diverse and are delivered through three main channels: the RCUK SIS unit, corporate activity (coordinated by the communications team in Swindon Office) and the NERC research and collaborative centres. Examples drawn from each of these delivery streams are at Annex A.
10. Because the activity is so diffuse, it is hard to define the exact spend on science in society work. The NERC contribution to the £2.5M RCUK SIS unit budget is £308 k per annum. Figures provided for the Economic Impact Reporting Framework report the corporate expenditure as £278 k last year and staff effort as 1300 days. A further 5086 days of effort on SIS activities is reported for research and collaborative centres.
11. Whereas in the past the SIS activities were carried out almost exclusively by communications staff within the organisation, the drive to embed public involvement throughout the work of the Council has meant that growing numbers of staff are becoming involved in delivering SIS activities. Much of the work is now organised by communications staff working in partnerships with knowledge exchange and research teams, with other centres, external partners and with other Research Councils, especially in respect of cross-Council programmes.
12. Although the existing NERC SIS policy was agreed by Council in 2001, many of the principles and aims of the policy remain valid. The policy will be reviewed as part of the process of developing a strategy to focus the corporate SIS activities.
13. With so many players in the same field it is essential that the limited budget is deployed strategically to deliver NERC-specific SIS objectives and to fill gaps in the wider field, rather than duplicating work being done elsewhere eg STEM initiatives. A Science in Society strategy for NERC (including public dialogue and engagement) will be developed during 2009 within the framework of an overarching external communications strategy.

RCUK Science in Society Unit

14. The RCUK SIS unit has been established now for 4 years and is growing in size and budget, delivering an increasing proportion of NERC's overall SIS activity. The work of the unit is guided by the RCUK Science in Society Group (SISG) comprising representatives from all seven Research Councils, which is responsible for providing a strategic overview of SIS activities supported by the Councils.
15. An RCUK SIS Strategy was first published in 2006. A refreshed version is due to be published shortly. The four main strategic objectives remain unchanged as follows:
 - **Aim 1.** Identify public attitudes to be considered in the conduct of research, and foster debate that will enable the public to contribute to Councils' policies and research strategies
 - **Aim 2.** Engage young people with contemporary research to enhance their experience of science, encouraging more to pursue science studies beyond 16 and follow R&D careers, and enabling more to act as informed citizens.

- **Aim 3.** Encourage researchers funded by the Councils to engage with public and to participate in activities that benefit the relationship between science and society, and support and reward those who do so.
- **Aim 4.** Increase public awareness of the developments, achievements and impacts that flow from Research Council funded research.

These four groupings have been used to categorise the examples of NERC's SIS activities in Annex A.

16. The RCUK unit has taken over the sponsorship of schemes such as CREST, Researchers in Residence and Nuffield Science Bursaries on behalf of all Councils and so generated administrative efficiencies. Two major achievements of the Unit in the last year have been the launch of Beacons for Public Engagement, a £9.2 M collaborative initiative with UK higher education funding councils and the Wellcome Trust, aimed at promoting cultural change within universities to create an environment where public engagement is valued and rewarded, and the publication of the Public Attitudes to Science Survey 2008 which is the third in a series of such surveys aimed at monitoring what the public think about science, scientists and science policy in the UK.
17. The unit has also worked together with the RCUK Knowledge Transfer and Economic Impact group to produce a Statement of Expectation for Societal and Economic Impact for all recipients of Research Council funding to ensure that public engagement is recognised as an important part of UK research. Experience in dialogue techniques has been gained from the Energy Research Dialogue undertaken by Ipsos MORI for Research Councils UK.
18. Current priorities for the RCUK SIS unit are focused on revising the schools policy following a review of education activities across the Councils. The unit maintains links with the STEM programme on behalf of the Councils. There is an RCUK member on both the STEM High Level Strategy Group and the 5-19 STEM programme Board, both of which influence the development of national STEM strategy. Research Council school resources are made available through a single online portal that is being reviewed. In addition to these resources, the unit works in collaboration with Science Learning Centres to deliver a range of Continuous Professional Development (CPD) courses providing curriculum-relevant contemporary research updates for teachers.

Corporate SIS activity

19. The corporate SIS work is mainly aimed at meeting our accountability objective by increasing the public's awareness of the outcomes and impacts of NERC-funded research. This is achieved through producing a range of publications, notably the Planet Earth magazine, Annual Report and special publications for the end of research programmes plus formal press releases. The NERC web site receives over 300,000 unique visitors each year and the recently launched Planet Earth Online, a comprehensive news service covering the entire NERC investment, is making NERC-science much more accessible to a wider audience than ever before. The site has attracted wide interest and praise and has received more than 48,000 visitors since it was launched, 40% of them from the UK.
20. Consultations, such as that used to inform the development of the NERC strategy, have been successfully carried out via the web. Online dialogue with the public is less well developed. The online Climate Change Challenge debate in 2007 attracted 365 postings but many of those were from a small group of already well-informed individuals with quite extreme views. The effort involved in supporting the debate did not justify the outcome in terms of widening access

to, and seeking opinion on, an area of NERC science. New ways to involve the public in dialogue are being explored as part of the ongoing development of Planet Earth Online.

21. Dialogue through exhibits and activities at Science Festivals and Conferences has been more successful. An estimated 5000 visitors saw the Polar Meltdown exhibit at the Royal Society Summer Show in 2007 and over a million visitors to Liverpool's waterfront in July 2008 had access to the NERC exhibit, *Sailing over Changing Seas*, highlighting science along the route of the Tall Ships race. Both exhibits were collaborative projects involving different parts of the NERC community. More details of this and other events are at Annex A.
22. With the requirement for all research programmes to take account of societal impact, large programmes such as Living with Environmental Change (LWEC) require a Public Engagement Plan. Because many programmes are being delivered through partnerships, the NERC will not be responsible for all such work. For instance, the ESRC is leading on public engagement for the LWEC programme.

SIS delivered through NERC Centres

23. NERC Research and collaborative centres have autonomy to develop their own approaches to science in society and they carry out a wide variety of SIS work. Numerous examples are listed in Annex A.
24. All centres have their own communication staff and produce publications and most have their own press officer. Science achievements are communicated through the centres' own websites and through Planet Earth Online and there is strong engagement with the media, attracting large audiences. The BGS media campaign surrounding the 'One Geology' project in 2008 attracted significant media attention and BAS estimate that three-quarters of a billion TV viewers and 150 million radio listeners had opportunities to see/hear about BAS science in 2007.
25. Research centres host open days and visits to their sites, give talks and lectures to local community groups and schools, attend science festivals and other educational and careers events and engage in a wide variety of activities for young people, including the provision of educational resources. The scope of the work ranges from local to international. CEH won the award for best educational stand at the Royal Welsh Show in July 2008 and the Ice Station Antarctica exhibit, created in collaboration between BAS and the Natural History Museum (NHM) is now on display in Granada, Spain having been at the NHM for 11 months, receiving 180,000 visitors.

Impact and evaluation of SIS Activities

26. The RCUK SIS unit has produced a comprehensive practical guide to evaluating engagement activities. In reality, there is rarely sufficient resource available to implement anything more sophisticated than media monitoring and the collection of basic statistics such as numbers of people attending events. While these data are useful indicators of potential impact, they do not answer the important questions about the extent to which people's understanding has increased and whether their views or behaviours have changed as a result of a particular engagement activity. To attempt to answer these questions would require greater investment in evaluation.
27. At a national level, the Public Attitudes to Science Survey reflects changing attitudes to science and scientists over time since the first survey in 2000. The latest survey showed general improvement with the UK public now better informed and more confident about science.

Future direction of SIS in NERC

28. Going forward, NERC will continue to participate in cross-Council public engagement activities and will actively support and influence the development and delivery of the RCUK SIS Strategy.
29. In NERC's own SIS work we will continue to support many of the successful SIS activities in which we have experience and expertise. We will encourage sharing of best practice, ideas and resources across the organisation to draw upon this expertise and to showcase subject areas requiring cross-disciplinary input.
30. A corporate Science in Society/Public Engagement Strategy will be developed. This will steer the growing emphasis on activities to engage young people in science and an increased level of public dialogue activity. To grow these activities may require a reduction of effort on some existing forms of public engagement work unless the case can be made for an increase in the overall investment in SIS. There will be a clear strategy to guide prioritisation and to enable a more proactive approach to defining a balanced portfolio of SIS work across the organisation.
31. Engaging young people in environmental science and encouraging the brightest and best to pursue environmental science careers is an objective of the NERC People Strategy as well as being a key component of science in society. Effective delivery will require a collaborative effort across NERC and the environmental science community and willingness to experiment with novel approaches. Related work on providing educational resources will be guided by the emerging RCUK schools policy and will be focused on curriculum-relevant materials that utilise the added value that NERC can offer through access to researchers and research.
32. There is a strong consensus amongst NEB members that the amount of public dialogue activity and the expertise required to carry it out effectively should increase. Experience will be gained through working with initiatives such as Sciencewise and the Beacons for Public Engagement and partnerships will be sought with mass media organisations like the BBC. Increasing use of Web 2.0 technologies will also be explored. We will implement the NEB recommendation that best practice and advice should be shared effectively across the organisation so that the pool of experience grows rapidly and helps bring about the culture change needed to embed public dialogue in all NERC's activities.
33. In all these activities there will be a more rigorous approach to evaluation of SIS work, drawing on best practice within the centres eg BAS, from the experience of other Research Councils and from outside the Research Council family.

Estimated resources required

34. N/A

Communication Plan

35. N/A

Action

36. COUNCIL is asked to:
 - i. **NOTE** the range of NERC's Science in Society activities.
 - ii. **CONSIDER** the outline future direction and **ADVISE** on any areas of priority.
 - iii. **CONSIDER** ways in which societal impact could be increased.

SCIENCE IN SOCIETY : A REVIEW OF ACTIVITIES

Examples of Science in Society activities delivered by RCUK SIS Unit, Corporate NERC and NERC Centres

Strategic Aim 1. Identify public attitudes to be considered in the conduct of research, and foster debate that will enable the public to contribute to Councils' policies and research strategies.

RCUK

- Energy Dialogue <http://www.rcuk.ac.uk/sis/energy.htm>
- Public Attitudes to Science Survey <http://www.rcuk.ac.uk/sis/pas.htm>

Corporate

- NERC Climate Change Challenge
<http://www.nerc.ac.uk/about/consult/debate/climatechange/summary.asp>

Centres

- (BGS) The BGS research strategy for 2009-2014 "Applied geoscience for our changing Earth" was released for public consultation in November.

Aim 2. Engage young people with contemporary research to enhance their experience of science, encouraging more to pursue science studies beyond 16 and follow R&D careers, and enabling more to act as informed citizens.

RCUK

- Fund Researchers in Residence which allows researchers to develop their communication skills through links to secondary schools, and Nuffield Bursaries that help post-16 students to work alongside practising scientists. <http://www.rcuk.ac.uk/sis/linksci.htm>
- Partner in schools science providing resources for schools <http://www.schoolscience.co.uk/>
- Support for BA CREST scheme <http://www.rcuk.ac.uk/sis/activities.htm>

Corporate

- Working with BBRSC lead on RCUK branded touring exhibit engaging young people in science topics related to Darwin as part of the Darwin 200 celebrations

Centres

- (BAS) Award-winning Discovering Antarctica - an online learning resource, developed in partnership with the Royal Geographical Society (funded by FCO) attracted over 130,000 unique visits to the resource during the year.
- (BAS) Examining body Edexcel launched its GCSE Geography B which features British Antarctic Survey's content focused on climate.
- (CEH) Developed an interactive floor game to introduce young people to the key components of the carbon cycle. So far CEH staff have run the game for four groups.
- (BGS) The UK School Seismology Project provides a specially designed seismometer for schools capable of measuring earthquakes anywhere on the Earth. Several schools engaged in the project were interviewed on TV having successfully recorded the 2008 Market Rasen earthquake.
- (BGS) "Seconds from Catastrophe? Living with an Active Volcano" is a role-play exercise developed for schools. The exercise was chosen to help launch the DCSF's 2008/09 STEM Directories illustrating how scientists can act as role models for young people.
- (PML), funded by the European Project on Ocean Acidification, has worked with local schoolchildren to produce an animation to help explain ocean acidification to policy makers and the public.
- (POL) GCSE students from a Liverpool school worked with researchers on nutrient input from the River Mersey into Liverpool Bay. The collaborative project was funded by the Royal Society and the students showcased their results at the Summer Science Exhibition in London (30 June - 3 July 2008).
- (POL) Seven POL scientists participated in three "Climate Change" days organised by SETPOINT on behalf of The Institution of Engineering and Technology (Dec 2007/Jan 2008) Over 1500 12-16 yr olds participated.
- (NOCS) National Oceanography Centre, Southampton's Discover Oceanography programme had a sell-out summer road show in 2008. Sessions take place on the research vessel *Callista* to provide hands-on experience in marine science for schoolchildren and the general public
- (NOCS) The Excitement of Science 2008 which is targeted at school children aged from 13 to 18 years old to increase their interest in STEM subjects was launched in September 2008 . The 2008 theme was oceanography and studying melting ice in the Arctic seas.

Aim 3. Encourage researchers funded by the Councils to engage with public and to participate in activities that benefit the relationship between science and society, and support and reward those who do so.

RCUK

- RCUK Statement of expectation on economic and social impact .This applies to all who receive funding from the Research councils <http://www.rcuk.ac.uk/innovation/rolerc/missionsei.htm>
- Support for Beacons for Public Engagement <http://www.rcuk.ac.uk/sis/beacons.htm>
- RCUK Guidelines for Dialogue with the Public <http://www.rcuk.ac.uk/sis/pubdia.htm>

Corporate

- Communicating Science to the Public Course – communication and dialogue skills training offered to staff and fund holders. Up to 100 people trained each year on this popular course.

Centres

- (BAS) Over 140 members of British Antarctic Survey science and support staff actively engaged in media relations, educational activity and public events during 2008. Media and presentations skills training together with a 'communications toolkit' help facilitate good communication and engagement. SIS work is regarded as a legitimate business activity.
- (BGS) Like many of the Centres, BGS has many staff (c100) who are active Science & Engineering Ambassadors (http://www.stemnet.org.uk/ambassadors_seas.cfm) who participate in a range of activities aimed at schools and the general public. Participation in the scheme is frequently used as evidence in support of promotion and reward cases.
- (CEH) The Centre for Ecology & Hydrology's award-winning stand at the Royal Welsh Show enabled six scientists to engage with the public during the four day event, which attracted over 230,000 visitors.
- (NOCS) Staff and students provide hands-on experience for visitors for spring's Ocean and Earth Day which is part of National Science and Engineering Week.
- (POL) Around 30 POL scientists and technologists participate in various events where they engage with the public. These range from exhibitions to talks to various institutions, radio/TV interviews and articles in the press.
- (SAMS) Researchers have been involved in 'Sharing Science'. Funded by the Scottish Government this project provides public engagement training and involves researchers in designing their own activities and displays for public engagement through the Scottish Science Centres.

Aim 4. Increase public awareness of the developments, achievements and impacts that flow from Research Council funded research.

RCUK

- Produce joint publications and exhibitions for example representing Councils at the BA Festival of Science.

Corporate

- Press Offices across the organisation issue numerous press releases every year highlighting NERC science.
- Planet Earth magazine won the best external magazine award from the Chartered Institute of Public Relations in 2006. Produced quarterly it has a circulation of 18,000 journalists, researchers, policy-makers, politicians and schoolchildren and the general public.
- Planet Earth Online, launched in September 2008 provides online news of science achievements from across the NERC community. The site has been accepted onto Google News. An early highlight was a video of the deepest fishes ever filmed which was featured on the BBC website and also aired on Chinese state news. PE Online received 10,000 hits the day it appeared.

- NERC sponsored the Tyndall Centre Climate Change garden at 2008 Chelsea Flower Show. The exhibit received a silver medal for its portrayal of English gardens from 1950 to 2050 under different climate scenarios. 5000 visitors to the garden were able to engage with researchers.
- Worked with RAPID programme to create a brochure and DVD celebrating the achievements of the programme. Copies of the DVD were supplied to recipients of Planet Earth and stakeholders.

Centres

- (BAS) Two Antarctic media visits - ITV News and BBC World Service Radio - generated both brief and in-depth features about climate change and the importance of the polar regions for understanding global environmental issues. These two initiatives alone reached world audiences of around 180 million homes.
- (BAS) The Wilkins Ice Shelf was seen to be 'hanging by a thread' in March 2008. A joint press release with US colleagues attracted massive world-wide media attention and a video shot by BAS staff of the break-up was broadcast on almost every TV news channel in the world.
- (BAS) A series of talks and lectures to the Cambridge University Programme for Industry and HRH Prince of Wales Climate group (for business) created a greater awareness and understanding of climate change and biodiversity within the business sector.
- (CEH) Published a full analysis of the hydrological aspects of the 2007 Floods. The publication of the report attracted significant media and stakeholder interest. At one point the story was second in the headline ticker on the main BBC website homepage, ensuring it was read by millions of people around the world.
- (CEH) Carries out the UK Countryside Survey on behalf of a partnership of nine Government Departments and agencies. The results of the 2007 survey are being widely communicated to the general public and stakeholders.
- (CEH) Hosts the UK Biological Records Centre which contains millions of records of fauna and flora in the UK collected by a wide range of professional and voluntary recorders eg over 20,000 members of the public have now contributed to the Harlequin Ladybird Survey which tracks the sudden arrival in Britain of the most invasive ladybird in the world.
- (BGS) The BGS website was completely redesigned and relaunched in 2008 to improve access to online navigation. Substantial national datasets, including the 1:625k digital map of Great Britain are now available for free download in a variety of formats, including Google Earth and Google Map formats that will allow users to incorporate BGS scientific information in new websites and mash-ups.
- (NCAS) Has exhibited on several occasions at the Antenna gallery of the Science Museum - a constantly updated series of exhibitions devoted to science news, Examples include 'Storm-Chasers take to the Skies' explaining the Convective Storm Initiation Project, and 'Gone with the Wind' which described the Intercontinental Transport of Orhanis Pollutants Project.
- (NOCS) Monthly Marine life talks free to the public cover subjects from the shoreline to the deep ocean. The 100th talk took place in October 2008.

- (NOCS) A small team of scientists were part of the Cape Farewell voyage across the Greenland Sea to highlight changing conditions in the high Arctic. The expeditions bring together artists such as musicians and comedians with scientists to communicate the seriousness of climate change impacts in the region.
- (POL) In conjunction with the BA Festival of Science in Liverpool (2008) the Permanent Service for Mean Sea Level based at POL held a one day symposium on Sea Level Science.
- (POL) Played a key role in organising the highly acclaimed Oceans2025 exhibit at the Tall Ships race in Liverpool in July 2008. A website supporting the event is at <http://www.sailingoverchangingseas.org/submersibles-science/>
- (SMRU) Produce a range of leaflets about seals for the general public eg Marine mammals as Oceanographers, describing the science behind seal tagging.

NERC COUNCIL

EXECUTIVE REPORT – FEBRUARY 2009

Issue

1. This standing item provides information to Council on key business issues that are not addressed elsewhere in the papers under the following headings:
 - i. Strategy and Partnerships;
 - ii. Science Delivery;
 - iii. People, Skills and Communications;
 - iv. Finance and Operations;
 - v. Health and Safety
 - vi. Halley VI progress
 - vii. SSC Update
 - viii. NERC Research Centres and NOCS;
 - ix. Chief Executive's activities/key issues

Discussion led by

2. Professor Alan Thorpe, NERC CE

Information for paper collated by

3. Samantha Way, Secretary to NERC Council, sway@nerc.ac.uk, 01793 442570

Annexes

4. The following annexes are attached:
 - Annex A – Financial report
 - Annex B – NERC Top Risks

Action

5. Council is invited to **NOTE** the report.

NERC COUNCIL

EXECUTIVE REPORT - FEBRUARY 2009

Items highlighted in grey should be treated as Management in Confidence

I. STRATEGY AND PARTNERSHIPS

a) *Review of Strategy Delivery & Forward Look*

The annual review and forward look of NERC's strategy '*Next Generation Science for Planet Earth*' will be discussed by Council in July 2009. The review will allow Council to consider what elements of the strategy have been delivered so far, and whether this meets expectations. As part of this exercise, Council will be asked to consider a 'light-touch' review of the Strategic Management Tool (SMT) and decide whether it needs any improvements. The discussion will also take a forward look to establish whether NERC's strategy needs to evolve in response to any changes in the external environment and scientific capabilities. A paper will be provided to Council's May 2009 meeting to propose an approach for this review and forward look.

Developing the next theme action plans

- b) NERC Theme Leaders are working with research users, funders and providers to develop the 2009 plans. They are currently considering major cross-theme actions to address: the Arctic; ice sheets; health of the environment; climate change impacts; large scale field studies on marine, terrestrial and freshwater ecosystem sustainability; plus off-shore and coastal renewable energy (eg: impacts on ecosystems, biodiversity, sediments; implications of macroalgae culture alongside wind farms). These and other potential actions will be consulted on through focused workshops and the open NERC Community Events on 21st April (Glasgow) and 24th April (Bristol), ahead of presentation to SISB.

Theme Leader recruitment

- c) In view of Professor Rowan Sutton's forthcoming appointment as Director for Climate for NCAS, and Professor Lloyd Peck's decision to stand down as a theme leader, NERC is currently recruiting for Climate system and Biodiversity theme leaders. Professor Sutton will continue to advance the Climate system theme action plan until a handover with the new theme leader, hopefully by May. In the case of Biodiversity, Professors Georgina Mace (IC), David Raffaelli (York) and Mark Bailey (CEH) have formed an interim advisory group to advance the theme action plan whilst recruitment takes place.

International

- d) NERC Theme Leaders met with members of the Royal Society's Global Environmental Research Committee. They discussed how the UK can be proactive in leveraging the activities of International Council for Science's Global Environmental Change Programmes. The meeting identified areas of synergy between NERC themes and the Global Programmes and follow up activities are planned.

Knowledge Exchange

- e) NERC has been strengthening KE within its research portfolio through the incorporation of KE plans into all research grants and programmes. This approach for individual grants, which NERC

has pioneered, has now been adopted by all the research councils, with a section in the application form, termed “impact plan”.

- f) Dr Simon Jackman joined NERC as Head of KE in November 2008, having directed the Environmental Knowledge Transfer Network (KTN) for the TSB. He is developing a private sector engagement strategy for NERC and is taking forward a number of initiatives with business and TSB, particularly in the insurance and water industries.
- g) NERC is the lead for KE within the Living With Environmental Change (LWEC) programme. As part of this activity, NERC will second up to 5 individuals from key business networks (KTNs and RDA networks) to map out the needs of specific business sectors and to implement KE activities in these areas, working across the LWEC partnership.
- h) NERC has also now commissioned a KE brokerage unit - ‘Linking Innovation in NERC’ (LIN) - which will place KE fellows within HEIs across the UK to enhance the economic impact of NERC-funded research. This is a pilot programme which will work with 6-10 HEIs in its first phase with the potential of being rolled out further later.

II. SCIENCE DELIVERY

Strategy delivery processes

- a) By April 2009 all the new planning and funding mechanisms will be in place (implemented through the FAB project 2005-2009). External reviews focusing on “readiness for service” were carried out during October – November 2008. The FAB project board and NERC Executive Board are addressing the identified recommendations and issues to ensure successful transfer from the project to operational managers.

Delivering theme action plans approved by Council in 2008

- b) Translation of the first theme action plans into new research programmes (RP) is advancing steadily through community workshops and announcements of opportunity. A schedule of planned RP opportunities is available on the NERC website at www.nerc.ac.uk/research/programmes/opportunities.asp. During the next two months NERC will invite proposals for a number of programmes including:
 - Carbon capture and storage £1.55M (plus £1M EPSRC co-funding tbc)
 - Environmental nanoscience £2.0M (plus £0.75M UK and \$4M US co-funding)
 - Land-based renewables £2.4M
 - Methane network £0.3M (Published 26 January)
 - Quantifying uncertainty £1.4M (Published 20 January)
 - Technologies (various actions) £3.5M (Published 23 January)
 - Urban atmospheric science £2.9M (Published 22 January)

Nitrogen fixation in the western English Channel

- c) A discovery made by scientists based at National Oceanography Centre, Southampton and the Plymouth Marine Laboratory (as part of the *Oceans 2025* programme) could overturn present thinking about the role of shelf seas such as the English Channel and North Sea in global nitrogen budgets. Nitrogen is nutrient essential for life, but as elemental gas its value as a nutrient source in the sea is thought to be restricted to a few microorganisms in ocean areas with low nutrient concentrations. Using stable isotopes of nitrogen, the researchers found unexpectedly high levels of nitrogen fixation in the western English Channel, a region characterised by high nutrient concentrations.

d) *Data-mining to study the stratosphere*

Cosmic-rays detected half a mile underground in a disused U.S. iron-mine have been used to detect major weather events (warmings up to 40°C) occurring 20 miles up in the Earth's stratosphere. Published in the journal *Geophysical Research Letters* and led by scientists from the UK's National Centre for Atmospheric Science (NCAS), Oxford University & and the Science and Technology Facilities Council, this study revealed that the number of high-energy cosmic-rays reaching a detector deep underground closely matches temperature measurements in the upper stratosphere. This relationship can be used to identify weather events that occur very suddenly in the stratosphere during the Northern Hemisphere winter. These events can have a significant effect on the severity of winters we experience, and also on the amount of ozone over the poles - being able to identify them and understand their frequency is important for informing our climate and weather-forecasting models to improve predictions.

III. PEOPLE, SKILLS AND COMMUNICATIONS

People and Skills

a) [Management in Confidence]

b) [Management in Confidence]

Communications

Press releases/ briefings

New Year Honours

Action plans to tackle major environmental challenges published (also specific briefing given to THES for full page 'Research Intelligence' article on Theme Action Plans)

Bee probiotic business plan a winner for young entrepreneurs

UK invests in monitoring the health of the planet

UK's biggest ever Countryside Survey: Results published

Publications

National Centre for Earth Observation brochure and leaflet

Planet Earth * Darwin special

NERC Facts 2009

15 Podcasts for Planet Earth Online

National Tide and Sea Level Facility leaflet

Student leaflet

Communicating science to the public course

Events

Launch of the Changing Water Cycle programme. February 5th.

Launch of National Centre for Earth Observation. March 4th.

Launch of Joint Climate Research Programme. March 17th.

SDUK09, NERC are sponsoring a seminar and will have a stand present. March 19th

Community events (Theme action plan consultations) in Glasgow (April 21st) and Bristol (April 24th).

IV. FINANCE AND OPERATIONS

- a) [Management in Confidence]
- b) [Management in Confidence]
- c) [Management in Confidence]

V. HEALTH AND SAFETY

- a) [Management in Confidence]
- b) [Management in Confidence]

VI. SHARED SERVICES CENTRE UPDATE

This update provides information on changes since the last Council meeting.

Project Design, Implementation and Planning.

- a) At the last meeting of Council it was reported that the RCUK SSC Project Board (PB) had agreed a phased start for EPSRC, ESRC and SSC Ltd. The first go-live of Human Resources, Strategic Procurement and the necessary supporting infrastructure is planned for the 23rd of February. This is due to be followed by Payroll in April and the remaining functionality in June/July.
- b) The planning for the remaining Councils' migrations is currently being reviewed. NERC continue to hold the line that NERC will migrate to the RCUK SSC only when we are confident that the necessary quality is available to ensure an acceptable impact on our business delivery. Present planning for NERC go live is autumn of 2009.
- c) The NERC SSC team are preparing the acceptance criteria for NERC migration. These cover a range of areas such as the level and coverage of testing, training provision and the documentation of processes, security and controls. . I will make the decision about go-live for NERC based on advice from my senior team.
- d) Until migration, supporting 'business-as-usual' during the implementation remains a priority. This issue has been discussed by NERC Shared Services Centre Project Board on a number of occasions and is being carefully managed across NERC. For instance, it is in our interests that our staff who will be transferred to the SSC receive adequate training and experience on the new systems but we also need them to help us maintain current business in NERC. This is a delicate balancing act, which at present is being managed. NERC staff are being very flexible and cooperative.
- e) The NERC SSC team are also continuing to work to ensure the successful implementation in each of the Research Centres. Currently, we are preparing for training across NERC. This will start the process of preparing individuals across NERC to work with the SSC, providing high level information on what the SSC will do, how individuals will inter-relate with it etc. This will be an important step and will be offered to everyone affected by what will be significant process changes.

Grants

- f) The Grants element of the project is currently part way through the functional design phase agreed by RCUK Executive Group (the CEO's of the Councils). We are also analysing internal systems development options. At the end of February, before proceeding to the implementation phase, the RCUK EG will re-assess the merits of the alternative solutions.

Budget

- g) [Management in Confidence]
- h) [Management in Confidence]

VII. HALLEY VI UPDATE

- a) Production of the panels in South African has been moving forward satisfactorily and the finish quality is considered to be at an acceptable level. Production rates slowed somewhat because of the Christmas break. Of the blue panels, 103 are complete and 8 are in progress to be completed whilst of the red panels, 6 are complete and 58 are in progress to be completed. A panel completion date of May 2009 is anticipated.
- b) [Management in Confidence]
- c) [Management in Confidence]
- d) [Management in Confidence]

VIII. NERC RESEARCH CENTRES

British Antarctic Survey (BAS)

First Comprehensive Inventory of Life in Antarctica

- a) The first comprehensive "inventory" of sea and land animals around a group of Antarctic islands reveals a region that is rich in biodiversity and has more species than the Galapagos. The study provides an important benchmark to monitor how they will respond to future environmental change.
- b) *First Exploration of Antarctica's Hot Vents*
BAS scientists and colleagues from the NOCS, the Zoological Society of London and Woods Hole Oceanographic Institution in the USA are set to be the first to investigate in detail the creatures living around hot water vents surrounding the coldest continent, Antarctica. The team are onboard the BAS research ship the RRS James Clark Ross on a voyage to locate and explore life around two poorly-understood deep-sea habitats - hydrothermal vents and cold seeps. The five-week NERC-funded project called ChEsSo (Chemosynthetic EcoSystems in the Southern Ocean) is part of a ten-year scientific initiative known as the Census of Marine Life. The research cruise begins on 14 January and finishes on 18 February. They will be reporting regularly on www.classroomatsea.net

British Geological Survey (BGS)

Radioactive waste management

- a) In response to Council's interest in Radioactive Waste Management at the November 2008 meeting, Director BGS has provided a report on BGS current and future activities in this area. The executive summary is as follows:

BGS is currently engaging with the Nuclear Development Authority (NDA), Government departments (Defra, BERR, now DECC) and also with Corwm (new Committee on radioactive waste management) on how best to implement an underground repository. BGS will provide advice to Defra (DECC) on the choice of sites and will ultimately work closely with the NDA and the independent company that would implement the underground repository. At the same time the NDA and the National Nuclear Laboratory will undertake an enhanced programme of research and development which will involve NERC, industry, government and the university sector.

Developing research in this area, BGS has a strong track record in research in gas/fluid migration in geological barriers and artificially engineered barriers. We are currently in the final negotiation phase on a multi European partnership with collaboration from Canada and Japan on a €12million Euratom proposal that will study gas release through corrosion and eventual migration through diffusion in underground repositories. Scaled experiments will be undertaken in our laboratories, and we will use in-situ experiments in the Swedish and French underground repositories.

NERC has provided evidence to CoRWM on a number of occasions in the last 6 months, both with BGS and sister councils, particularly EPSRC. A meeting with Learned Societies held at the Geological Society and a separate meeting hosted by EPSRC for the Research Councils Energy Programme (RCEP) will be referenced in CoRWM published reports. RCEP is itself considering evidence on areas of radioactive waste disposal which need support for strategic research in the future.

NERC has provided lists of funded projects directly referring to nuclear waste (5 current responsive mode projects worth £0.9 million are listed on Grants on the Web) and also pointed towards projects and training in the geosciences which describe rock-fluid processes and transferable skills which can be used by the radioactive waste community.

Under the NERC Environment and Human Health strategy theme a working group is being set up in early 2009 to review the level of field-based research in environmental radioactivity.

Much of the radioactive waste management screening and site selection process will involve BGS National Capability expertise and datasets. It will involve highly technical geosphere site characterisation. The long-term role of research in this field is difficult to quantify. Ongoing generic studies are in applications of known protocols to different natural and artificial rock barriers. BGS and NDA will depend heavily on ongoing research projects around the world in comparable radioactive waste management sites. There is a considerable amount of sharing of best practice in research because all operators understand the need to convince the public of the safety of their radioactive waste management processes. The role for BGS will be in leading, and collaborating in, analogue experiments. BGS will work with academic and industry partners in modelling results from these experiments.

There is a strong role for NERC in training highly skilled professionals (at MSc. and PhD/post-doctorate level) in advanced geology and geophysics applied to radioactive waste management rock repositories. Similar skills and expertise will also be required for carbon capture and storage

(CCS) research as both fields will require comparable detailed characterisation, research and subsequent monitoring.

Centre for Ecology and Hydrology (CEH)

Latest Countryside Survey results for the UK made available

- a) The latest results from the biggest and most comprehensive survey of Britain's countryside and its natural resources were officially launched in London on the 18 November 2008 in the presence of Environment Secretary Hilary Benn and NERC Chairman Ed Wallis. NERC and Defra commissioned the £10 million survey on behalf of a partnership of UK governments, departments and agencies.

Countryside Survey provides scientifically reliable evidence about the state or 'health' of the UK's countryside today. The 2007 findings can be compared against the findings of previous Countryside Surveys from 1998, 1990, 1984 and 1978.

The GB data were collected by 80 scientists from the Centre for Ecology & Hydrology during a detailed survey of 591 one-kilometre square sites in England, Scotland and Wales carried out during the summer of 2007. Squares are chosen to represent all major habitat types in the UK. Surveyors record a range of features including, vegetation plots of different types, broad habitat and priority habitat data, field boundaries and linear features (hedges, walls and fences), freshwater habitats and soil cores.

National Oceanographic Centre, Southampton (NOCS)

- a) *World's first deep sea lab-on-a-chip sensors proved to work*
Innovative marine sensor technologies tested on RRS *Discovery* expedition at depths of 1600 metres are now ready to be developed further for commercialisation.
This is the first generation of miniaturised sensors that will measure the marine environment. Project leaders Dr Matt Mowlem at the National Oceanography Centre, Southampton and Professor Hywel Morgan from the University's School of Electronics and Computer Science are nine months into the four year £2 million EPSRC and NERC funded project.
- b) *Hermes success – 08/12/08*
The European Commission has just published 'Research for Europe' – A selection of EU success stories'. Featured high on the list is the Hermes (Hotspot Ecosystems Research on the Margins of European Seas) project hosted at the National Oceanography Centre, Southampton. Of the 40 projects highlighted, Hermes is only one of four led from the UK.
For further information see www.eu-hermes.net/

Knowledge Exchange and Outreach

- c) Europe's three largest marine research institutes have announced plans to strengthen scientific cooperation in global oceanographic research. The National Oceanography Centre Southampton (NOCS), UK, the French Research Institute for Exploitation of the Sea, Ifremer, and the Leibniz Institute of Marine Sciences (IFM-GEOMAR), Germany have signed a Memorandum of Understanding (MoU).
- d) A delegation from the Socialist Republic of Vietnam, including Mr Ho Xuan Son, Vice Minister for Foreign Affairs, visited the National Oceanography Centre, Southampton recently to sign a contract for a project to be undertaken by UNCLOS (United Nations Convention on the Law of the Sea), headed by Dr Lindsay Parsons.

IX. SELECTION OF CHIEF EXECUTIVE'S ACTIVITIES

a) *LWEC*

The LWEC Partners' Board met in Edinburgh in December with the new Director Professor Andrew Watkinson in attendance. At a very successful meeting a set of 16 research programme activities were agreed either for launch or to be accredited to LWEC. This represents an investment across the Partners of around £100 million. The aim is for the Science Minister, Lord Drayson, to act on behalf of Government to announce these 16 programmes (maybe at the end of January) as a good news story for investment in the critical issues society faces in living with environmental change. It was agreed that NERC would lead on Economic Impact for LWEC. In addition the ESRC has taken the lead on public engagement.

b) *RCUK Chair*

It has been agreed by the Research Councils Chief Executives that their Executive Group will be chaired by Alan Thorpe from October 2009 with a transitional handover period starting in April. Alan Thorpe will also continue as Chief executive Champion for Science and Society for RCUK.

c) *GCSA Core Issues Group*

The Government Chief Scientific Adviser, Professor John Beddington, has created a Core Issues Group of some of the departmental Chief Scientific Advisers that meets periodically with the Research Council Chief Executives. This extended group is meeting to discuss whether there are common priority areas for joint development that would be attractive to Treasury for the next spending review. NERC is strongly involved in this discussion and, with some success, continuing to promote the importance of LWEC as an ongoing area for investment demonstrating cross departmental working on the critical issues facing society.

d) *Engagement with the Science Minister*

Lord Drayson has asked for more frequent meetings with Chief Executives collectively and this is happening on the one day a week he is intending to spend in Swindon. At the first of these days the Minister was briefed by the NERC team on the Discovery replacement procurement project in preparation for his decision on signing off the contribution earmarked from the Large Facilities Capital Fund. He is also spearheading a publicity campaign called "Science – so what?" and this is to be launched by him on 28 January 2009. This is to tell the good news story of how science is helping the UK to innovate to improve economic performance and societal well-being.

NERC COUNCIL

PROGRESS ON DELIVERY OF NERC'S STRATEGIC OBJECTIVES (Q3 2008/09)

Issue

1. For Council to monitor and manage delivery of the NERC strategy and to provide any changes to delivery of the strategy.

Annexes attached

2. **Annex A** – SMT objectives overview sheet
3. **Annex B** – SMT drill-down sheets – current quarter exception reports only

Website links

4. A copy of the SMT guidance notes is available on the Council Member's secure website.

Discussion led by

5. Steven Wilson. Director, Strategy and Partnerships.

Author of paper

6. Peter Hurrell, Delivery Planning and Reporting Team.

Estimated action delivery/completion date

7. Following Council, any comments will be fed back to activity owners by responsible Directors and the commentaries and Red, Amber, and Green (RAG) indicators will be updated accordingly. NEB and SISB have reviewed the quarter three reports and comments from them have been incorporated. This includes an explanation of what action is being taken to resolve exceptions.

Estimated resources required

8. N/A

Vested Interests

9. N/A

Action

10. Council is invited to:

- i) **DISCUSS** commentaries and progress in delivery for each of the amber objectives in the current quarter (paragraphs 6 – 9 and **Annexes A** and **B**) and **DECIDE** if any action needs to be taken.
- ii) **NOTE** the removal of Challenge 15.1 (paragraph 11).

NERC COUNCIL

PROGRESS ON DELIVERY OF NERC'S STRATEGIC OBJECTIVES (Q3 2008/09)

Background

1. In January 2007, Council agreed to improve performance management in NERC through development of the Strategic Management Tool (SMT), which tracks how we deliver and manage the performance of the strategy.
2. The SMT became operational in quarter one 2008/09. Since then, work has continued to develop performance indicators and metrics and to refine activities, including the addition of activities to the science theme objectives derived from the Theme Action Plans.

Issue

3. For Council to monitor and manage delivery of the NERC strategy and to provide any changes to delivery of the strategy.

Person responsible for implementing outcome

4. Steven Wilson, Director, Strategy and Partnerships

Estimated action delivery/completion date

5. Following Council, any comments will be fed back to activity owners by responsible Directors and the commentaries and Red, Amber, and Green (RAG) indicators will be updated accordingly. NEB and SISB have reviewed the quarter three reports and comments from them have been incorporated. This includes an explanation of what action is being taken to resolve exceptions.

Discussion

6. This is the third quarterly report against the Strategic Objectives. The objective overview sheet can be found at **Annex A**. A summary of NERC's performance against the eighteen strategic objectives can be found in Table 1.
7. A full guide to the SMT report is provided on the Council member's secure website. Current definitions of the RAG indicators are Red for "Action required"; Amber for "Plan for action"; Green for "No action required".

Table 1: Summary of performance

Objective Overall Status	July – September 2008 (-1Q)	October – December 2008 (=)	October – December 2009 (+4Q)
Green	10	12	12
Amber	8	6	6
Red	0	0	0
Total	18	18	18

8. During the year, Council decided it would only see exception reports for strategic objectives that were classified as amber or red. Hence drill-down sheets for the six amber objectives in the current quarter are included at **Annex B**. The amber objectives for the current quarter, together with brief explanations of why they have amber status and what action has been taken to address this, are:
- Objective 2 (Collaborative research community): Concern as to whether NERC's new processes provide sufficient information to allow a holistic view of NERC investments and effective management of resources. This is being addressed through managed dialogue between research centre directors and theme leaders.
 - Objective 6 (Biodiversity theme): Concern over the pace of development of the Biodiversity theme is being addressed through acceleration and adaptation of the process for the Ecosystem Stability scoping study to inform the next round of Theme Action Plans;
 - Objective 11 (Technologies theme): Delay in implementing TAP actions, due to staff constraints. To address this, resources are being diverted to this theme as part of an internal prioritisation exercise;
 - Objective 13 (Develop National Capability): Prioritisation of the National Capability Action Plan is a major challenge. Processes are being put in place to further support this work;
 - Objective 14 (Develop skilled people): Concerns with the progress of the skills review and the decision to 'disengage' from consultants. The Board are considering completing the work in-house to meet the original timetable; and
 - Objective 16 (Current National Capability): Operational failures of the ageing RRS Discovery leading to cruise cancellations/postponements. This is being addressed through continuous management of the ship in the context of the Ship Review Board project.
 - Objective 18 (Organisation): Concerns about balancing budget in the remainder of CSR07 partly due to project overspends (e.g. Shared Services Centre).
9. For +4Q (forecast for one year) the amber objectives are numbers 4, 6, 13, 14, 16 and 18 (Drill-down sheets are not provided for +4Q amber objectives. However, as all but objective 4 are also amber in the current quarter, the drill-down sheets at Annex B cover all but one of these objectives). The remaining objectives are forecast as on track (green).
10. Metrics have been reported against for the first time in quarter three, and have informed the RAG indicator status of the objectives to which they belong. Those metrics that have been left blank in quarter three will be reported against in quarter four, as they rely on data collected on an annual or half-yearly timescale.
11. In January, the NEB agreed to remove Challenge 15.1 'Strengthen setting and refreshing of strategic direction', as it was felt that this Challenge was more appropriate to, and covered in, Objective 18.

Estimated resources required

12. N/A

Communication Plan

13. Progress reports have been submitted to DIUS for those strategy activities that form the NERC/DIUS scorecard. The report that goes to DIUS has been made available to NERC staff on the NERC Extranet and is also available on the Council Member's secure website. Feedback from Board discussions on the progress of delivery of the strategy will be incorporated into the annual review of strategy delivery in July 2009.

Action

14. Council is invited to:

- i) **DISCUSS** commentaries and progress in delivery for each of the amber objectives in the current quarter (paragraphs 6 – 9 and **Annexes A and B**) and **DECIDE** if any action needs to be taken.
- ii) **NOTE** the removal of Challenge 15.1 (paragraph 11).

Knowledge & Partnerships

-1Q = +4Q

- 1: Strategic partnerships with key UK and international organisations are supporting research delivery. ■ ■ ■
- 2: Promote collaborative research & a vibrant community throughout the environmental science, engineering & technology base. ■ ■ ■
- 3: Establish a culture of knowledge exchange between NERC and stakeholders and ensure knowledge generated from NERC-funded science, and data and information holdings, are communicated and used. ■ ■ ■
- 4: Build and maintain effective working relationships with DIUS. ■ ■ ■

Resource & Process Management

-1Q = +4Q

- 16: Ensure that NERC's national capability meets the needs of current priorities. ■ ■ ■
- 17: Have skilled people to deliver NERC's strategy. ■ ■ ■
- 18: Run an efficient, effective & flexible organisation to deliver NERC's strategy whilst demonstrating sound governance. ■ ■ ■

Research Outputs


-1Q = +4Q

- 5: Climate system theme: develop risk-based predictions of the future state of the climate on regional & local scales, from days to decades. ■ ■ ■
- 6: Biodiversity theme: understand the role of biodiversity in key ecosystem processes. ■ ■ ■
- 7: Sustainable use of natural resources theme: provide the science to optimise the use of renewable & non-renewable natural resources whilst living within the Earth's environmental limits. ■ ■ ■
- 8: Earth system science theme: increase knowledge of the past & present behaviour of Earth to enable predictions of future change. ■ ■ ■
- 9: Natural hazards theme: increase knowledge to improve the forecasting & mitigation of natural hazards. ■ ■ ■
- 10: Environment, pollution & human health theme: provide science to reduce damaging health effects of pollutants & pathogens. ■ ■ ■
- 11: Technologies theme: develop the tools & technologies needed for cutting-edge environmental science. ■ ■ ■

Future

-1Q = +4Q

- 12: Responsive Funding: Support cutting edge & emerging areas of science through responsive mode research. ■ ■ ■
- 13: Develop NERC's national capability to meet future priorities. ■ ■ ■
- 14: Develop skilled people (to ensure a healthy environmental science base) to meet future science priorities. ■ ■ ■
- 15: Adapting the organisation for strategic risk management – seizing opportunities and mitigating threats. ■ ■ ■

Strategic Objective 2: Promote collaborative research & a vibrant community throughout the environmental science, engineering & technology base.	STATUS -1Q = +4Q
Scope: Covers multi / interdisciplinary working and cross-organisation working. We need to demonstrate that we are enabling researchers to work with each other no matter where they are based and also to encourage and support researchers to work with the user community.	

Challenges	
C 2.1	Encourage coordination and collaboration across the academic community by opening up strategic research funding.
C 2.2	Promote collaboration and strategic focus by engaging theme leaders.
C 2.3	Reduce barriers to collaboration.

Key Activities <small>(Activities shown in bold are not included on the NERC/DIUS Scorecard)</small>		Owner	Deadline
A 2.1	Introduce a new research programme funding mode to build on the capability and capacity provided by research and collaborative centres and universities.	DSP	Q3 2008/09 Ongoing
A 2.2	Manage the introduction of Theme Leaders and the development of their Theme Action Plans.	DSP	Ongoing
A 2.3	With ESRC, continue to jointly fund 20 interdisciplinary (NERC/ESRC) studentships per year at £0.6m per annum. At least 50% of the studentships should help to develop capacity of LWEC.	DPSC	2009/10

Performance Indicators <small>-1Q = +4Q</small>	
PI 2.1:	NERC has a reputation for encouraging collaboration. □ □ □
PI 2.2:	Collaboration is seen as playing an increasing role increasing the impact of NERC science. □ ■ □
PI 2.3:	NERC receives and supports an increased number of collaborative proposals, involving (1) collaborations between NERC Centres & (2) collaborations between NERC Centres and HEIs. □ □ □
PI 2.4:	NERC receives and supports an increased number of multidisciplinary proposals, involving (1) collaborations between different disciplines within environmental science & (2) proposals straddling research councils interest. □ □ □

Commentary
<p>Although all activities for objective 2 have been reported as green in quarter three, progress on delivering the overall objective is considered to be amber as concern has been raised as to whether NERC’s new processes will give sufficient information to allow Council to take a holistic view of NERC’s investments and to allow research directors to plan their resourcing. This is currently being addressed through managed dialogue between research centre directors and theme leaders.</p> <p>The next Theme Action Plans are being developed, and SISB is considering ways to improve the assessment and development process for TAPs. The new TAPs are due by June 2009. Research programme opportunities will be announced in 2009, with the number of new opportunities increasing as existing RP at centres ramps down. Discussions with ESRC are underway to establish the 2009 interdisciplinary studentship competition.</p>

Roles
Resp.Dir: Steven Wilson Cf NEB: Andrew Willmott Cf.Council: Anne Glover Cf.SISB: Andrew Watkinson

Strategic Objective 6: Biodiversity theme: understand the role of biodiversity in key ecosystem processes.

STATUS
-1Q = +4Q



Scope: The huge variety of life provides a multitude of services from providing food & fuel, purifying water, regulating climate, disposing of waste to less tangible benefits that inspire people. This theme is aimed at understanding the role of biodiversity in key ecosystem processes. Environmental change makes this research more pressing because it can lead to loss of biodiversity & biodiversity plays a key role in the resilience of ecosystems.

Challenges

C 6.1	Improve understanding of biodiversity's role in ecosystems: processes, resilience and environmental change.
C 6.2	Develop new tools and techniques to describe biodiversity and its function.
C 6.3	Improve approaches for measuring abundance and distribution of biodiversity and its functions.
C 6.4	Enable society to predict and mitigate effects of biodiversity change on processes that sustain life.
C 6.5	Develop integrated tools for assessing the benefits of biodiversity.

Key Activities

(Activities shown in bold are not included on the NERC/DIUS Scorecard)

Owner **Deadline**

A 6.1	Ecosystem Service for Poverty Alleviation (ESPA): NERC will complete the design, working with DFID and ESRC, of the planned Ecosystem Services for Poverty Alleviation programme. (Challenges 4)	DSD	Q4 2008/09
A 6.2	Biodiversa: NERC will commit £2M to research projects in trans-national policy-relevant biodiversity research as part of a 20M Euro European programme. (C4)	DSD	Q4 2008/09
A 6.3	BAS BIOFLAME: Complete the GSAC phase of a programme to determine the way species evolve and adapt to environmental extremes and how the Antarctic ecosystem operates. (C1)	DSD	Q4 2008/09
A 6.4	CEH Monitoring biodiversity: Complete input to Monitoring Biodiversity review for ERFF Environmental Observation Framework. (C2,3,4,5)	DSD	Q3 2009/10
A 6.5	CEH Countryside survey 2007: Complete and publish country, soil and land cover map, and integrated assessment reports. (C1,3,4)	DSD	Q4 2009/10
A 6.6	Ecosystem stability: Undertake a scoping study on siting and approach to large-scale ecosystem experiment. (C1,2,4,5)	DSD	Q1 2009/10
A 6.7	Valuing biodiversity: Undertake a set of scoping studies (linked to valuation in SUNR theme – see activity 7.4) (C5)	DSD	Q1 2009/10
A 6.8	BAS DISCOVEY 2010: Complete the GSAC phase of a programme to investigate and describe the response of an ocean ecosystem to climate variability, climate change and commercial exploitation.	DSD	Q4 2008/09

Performance Indicators -1Q = +4Q


PI 6.1:	The annual SISB review shows positive progression, in terms of process & science, towards theme outcomes (based on agreed criteria).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PI 6.2:	Stakeholder surveys reveal a positive view of progress against theme outcomes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PI 6.3:	Number of major discoveries (where year 1 counts will form the baseline for subsequent years' targets).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Commentary

Progress against the selected key activities has been good, and all are on track. For example, key CEH and BAS programmes are on track, including the Countryside Survey (UK-wide summary published on 18th November, and country-scale reports due in April 2009). For new actions from the 2008 TAP: the science plan for ESPA is being developed and for DFID's formal financial commitment by spring 2009 (also contributes to several other themes); two scoping workshops have been held as part of the ecosystem sustainability action; scoping study contracts for Valuing Biodiversity are underway. Given Council's previously-expressed concerns on the overall pace of development of the theme, an amber status seems appropriate. A mitigating action is the ongoing acceleration and adaptation of the process for the Ecosystem Stability scoping study, to ensure that it informs the next Biodiversity TAP.




Roles

Resp.Dir: Phil Newton
Cf.NEB: Pat Nuttall
Cf.SISB: Malcolm Press
Cf.Council: Alistair Fitter

Strategic Objective 11: Technologies theme: develop the tools & technologies needed for cutting-edge environmental science.	STATUS
Scope: Technology will play an essential role in enabling solutions to this century’s most pressing environmental challenges. Technologies are used to observe and monitor the environment, provide sophisticated models of environmental processes to predict the future state of the environment and develop mitigation solutions such as carbon capture and storage.	-1Q = +4Q 

Challenges	
C 11.2	Create a framework for NERC technology development.
C 11.1	Improve remote sensing instruments, their reliability and the platforms that carry them.
C 11.3	Deploy intelligent field sensors that work independently.
C 11.4	Deploy novel laboratory/analysis instruments in fields critical fields (e.g. genomics and proteomics).
C 11.5	Make use of the latest developments in computing power and scientific data repositories.

Key Activities		Owner	Deadline
(Activities shown in bold are not included on the NERC/DIUS Scorecard)			
A 11.1	Responsive mode: Devise and implement measures to ensure the NERC community will be confident that NERC’s Responsive Mode schemes will support technology proposals for solutions to this century’s most pressing environmental changes. (Challenges 1)	DSD	Q4 2008/09 and ongoing
A 11.2	Oceans 2025 Technology: Development, trialling and science programming of the 6000m-depth-rated Autosub vehicle. (C2)	DSD	Q1 2010/11
A 11.3	Oceans 2025 Next generation ocean prediction systems: Set up and demonstrate the viability of an unstructured ocean model (ICOM) in a realistic large-scale ocean setting, collaborating with Imperial College. (C5)	DSD	Q4 2009/10
A 11.4	Proof of concept Start programme that creates new opportunities for the support of research at proof of concept stage, with a focus on the early development stage of lower Technology Readiness Levels. (C1,2,3,4)	DSD	Q2 2009/10
A 11.5	Technology clusters: Create and support four technology clusters that will provide a forum for technology dissemination, discussion of best practice and networking. (C1)	DSD	Q1 2009/10
A 11.6	Remote sensing technology for next generation platforms: Commission and complete scoping study to inform potential future proposal. (C 6)	DSD	Q2 2009/10
A 11.7	Sensor network pilot (TAP action, linked to SUNR and EPHH themes): Create and fund a sensor network pilot. (C 2,3)	DSD	tbc
A 11.8	NCEO Informatics: Manage and provide ongoing access to Earth observation data collected for or generated by NERC funded activities. (C 5)	DSD	Q1 2008/09

Performance Indicators		-1Q = +4Q
PI 11.1:	The annual SISB review shows positive progression, in terms of process & science, towards theme outcomes (based on agreed criteria).	
PI 11.2:	Stakeholder surveys reveal a positive view of progress against theme outcomes.	
PI 11.3:	Number of major discoveries (where year 1 counts will form the baseline for subsequent years’ targets).	




Roles

Resp.Dir: Phil Newton
 Cf.NEB: Stephen Mobbs
 Cf.SISB: New member being sought
 Cf. Council: Paul Curran

Commentary

The activities delivering aspects of *Oceans 2025* are on track, and processes are being introduced to provide parity of technology-led proposals with others in responsive mode. Progress has been slower than planned for the commissioning of most of the TAP actions, owing to staff constraints. Hence, the current amber status. Although plans were effected during Q3 to resolve the consequent resource shortages, the solution has been confounded by additional staff loss. Resources are accordingly being diverted to this theme as part of a reprioritisation exercise. These changes should enable the proof-of-concept and next-generation platform actions to be delivered to target, but delays to technology clusters and the pilot sensor network are likely. As the extent of this mitigating action is resource-limited, and partly depends on recruitment, the RAG status at +4Q has been changed from green to amber.










Strategic Objective 13: Develop NERC’s national capability to meet future priorities.

STATUS
 -1Q = +4Q
  

Scope: Includes full range of National Capability, but not administrative infrastructure, looking 5-20 years in advance.

Challenges	
C 13.1	Establish a coherent framework for horizon scanning future NC requirements.
C 13.2	Identify pathways to supporting new requirements working with national and international partners.
C 13.3	Build consensus on future NC priorities.
C 13.4	Identify the concept of lifecycle within existing National Capability, identifying where appropriate NERC’s exit strategy.

Key Activities <small>(Activities shown in bold are not included on the NERC/DIUS Scorecard)</small>		Owner	Deadline
A 13.1	The National Capability Advisory Committee NCAG to agree horizon scanning methodology.	DSP	Apr 2009
A 13.2	Council to approve the annual National Capability (NC) plan.	DSP	Q4 2008/09
A 13.3	NCAG to conduct Marine and EO sector portfolio analyses.	DSP	Q3 2008/09
A 13.4	NCAG to conduct Atmosphere, Earth, Ecology and Hydrology, and Polar sector portfolio analyses.	DSP	Q4 2008/09
A 13.5	First NCAG horizon scanning discussion.	DSP	Q1 2009/10

Performance Indicators		-1Q = +4Q
PI 13.1:	NERC knows what national capability is needed to meet future science priorities & national good needs.	  
PI 13.2:	Development pathways for new national capability are agreed.	  
PI 13.3:	Research not impeded by available facilities and equipment	  

Commentary

Although all activities for objective 13 have been reported as green in quarter three, progress on delivering the overall objective is considered to be amber as prioritisation of the National Capability Action Plan is a major challenge. Processes are being put in place to support this work but at this stage there is not enough clear information to determine priorities.

Sector portfolio analyses in marine and Earth observation have been completed and those in atmosphere, earth, ecology and hydrology and polar areas are on track for completion in February 2009. Completion of the NC Action Plan is on track for approval by Council in late 2009, as planned. Horizon scanning methodology has been discussed with a view to identifying future NC requirements and will be discussed summer 2009.

Roles

Resp.Dir: Steven Wilson
 Cf.NEB: Andrew Willmott
 Cf.SISB: David Fowler
 Cf.Council: Marjorie Wilson

Strategic Objective 14: Develop skilled people (to ensure a healthy environmental science base) to meet future science priorities.

STATUS
-1Q = +4Q



Scope: Skills development of the environmental science, engineering and technology communities, including NERC staff, to prepare for future challenges.

Challenges

C 14.1	Determine NERC and the UK's training priorities and address future skills gaps.
C 14.2	Improve the role NERC plays in encouraging young people into environmental science.

Key Activities (Activities shown in bold are not included on the NERC/DIUS Scorecard)

		Owner	Deadline
A 14.1	Conduct review of NERC & the UK's training priorities and identify future skills gaps.	DPSC	Q4 2009/10
A 14.2	NERC Council to agree a plan for NERC to influence the next generation of environmental scientists.	DPSC	Q3 2008/09
A 14.3	Develop and agree with SISB a plan to resolve the training gaps and surpluses.	DPSC	Q4 2009/10
A 14.4	SISB to agree a method of demonstrating the long-term effectiveness of NERC's investment in training.	DPSC	Q2 2009/10
A 14.5	CE to agree a programme to grow the next generation of scientific leaders in NERC & the wider science community.	DPSC	Q4 2008/09

Performance Indicators -1Q = +4Q


PI 14.1:	Reduction in the identified gaps from ERFF skills audit.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PI 14.3:	Return on NERC's training investment is increased.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Commentary

Two of the five activities for objective fourteen are amber. The others are green. The Project Board for the ERFF skills review has decided to disengage from consultants following rejection of phase 1 report as unfit for purpose. The Board will now consider the in-house option to continue work, with the aim of meeting the original timetable. This has implications for SISB discussion of skills issues. The Leadership for NERC programme has been successfully re-launched, with new Induction and Personnel/ Professional Impact modules proving successful. Work to develop a plan for NERC to influence the next generation of environmental scientists will begin in early 2009.



Roles

Resp.Dir: Janice Timberlake
Cf.NEB: Michael Brooker
Cf.SISB: Dave Raffaelli
Cf.Council: Sara Parkin

Strategic Objective 16: Ensure that NERC’s national capability meets the needs of current priorities.	STATUS -1Q = +4Q 
Scope: Includes research facilities & infrastructure, but not administrative facilities and infrastructure looking at a 0-5 year period.	

Challenges	
C 16.1	Develop a joined-up approach to infrastructure by sharing skills and knowledge of what is available across the UK and internationally.
C 16.2	Maintain a Distributed Portfolio – ensuring that it is flexible and responsive, to the extent practicable, to the needs of the NERC science programme.
C 16.3	Establish an organisational framework for oversight of science infrastructure.
C 16.4	Develop and maintain a range of ownership models that is responsive to NERC needs and science priorities.

Key Activities <small>(Activities shown in bold are not included on the NERC/DIUS Scorecard)</small>				Owner	Deadline
A 16.1	NERC will set-up a National Capability Advisory Committee (NCAG) to maintain an overview of NERC’s portfolio of National Capability (NC) and horizon scan future NC needs and opportunities.			DSP	Q1 2008/09
A 16.2	Implement annual NC plan to deliver NC needs of current priorities.			DSD	Q1 2009/10 and ongoing
A 16.3	Council to agree a definition of national good and prioritise areas of national good relevant to NERC.			DSP	Q4 08/09
A 16.4	NCAG to conduct Marine and EO sector portfolio analyses.			DSP	Q3 2008/09
A 16.5	NCAG to conduct Atmosphere, Earth, Ecology and Hydrology, and Polar sector portfolio analyses.			DSP	Q4 2008/09

Performance Indicators <small>-1Q = +4Q</small>	
PI 16.1:	NERC national capability meets the needs of NERC’s science priorities. 
PI 16.2:	NERC’s public good national capability meets stakeholders priorities. 

Commentary

Pilot sector-portfolio analyses in marine and Earth observation have been undertaken (more work is underway on the EO analysis, at NCAG's behest). These analyses, as well as ones in atmosphere, earth, ecology and hydrology and polar areas, are on track for completion in February 2009. Discussions to agree a definition of national good and prioritise areas of relevance to NERC are on track, as is work to implement an annual NC plan. The new NC-related processes are at such an early stage that objective 16 should be considered at significant risk until a full cycle through a National Capability Action Plan has been completed. Operational failures of RRS Discovery have led to three cruise cancellations/postponements, with the cancellation leading to a time-series interruption. The ship failures are a consequence of the aging vessel, for which replacement is in hand. Managing the ship until replacement is an ongoing corporate mitigating action, set in the broader context of the Ship Review Board project (due to report to Council in February 2009).

Roles

Resp.Dir: Phil Newton
 Cf.NEB: Andrew Willmott
 Cf.SISB: David Fowler
 Cf.Council: Sara Parkin

Strategic Objective 18: Run an efficient, effective & flexible organisation to deliver NERC’s strategy whilst demonstrating sound governance.	STATUS -1Q = +4Q
Scope: ‘Day-to-day’ running of NERC, including business processes and structures we need to have in place e.g. peer review system, SSC interactions, finance, Gershon, IT infrastructure, estates management, greening, Health & Safety.	

Challenges	
C 18.1	Strengthen Setting and Refreshing of Strategic Direction and effective resource deployment.
C 18.2	Deliver Improved infrastructural capability to support science delivery.
C 18.3	Align the role and funding of Centres to ensure sustainability.
C 18.4	Ensure Financial Sustainability of NERC.
C 18.5	Build better working systems across the NERC family.
C 18.6	Increase Efficiency in Support Services and Systems.

Key Activities		Owner	Deadline
<small>(Activities shown in bold are not included on the NERC/DIUS Scorecard)</small>			
A 18.1	With other councils, implement the Shared Services Centre (inc. HR, IT, finance & procurement). - £11.2M over the CSR period. Successfully migrate services to SSC followed by SSC Grants services to be migrated.	DFO	Q3 08/09 Grants in 09/10
A 18.2	Produce a plan to reduce the environmental impact and running costs of NERC’s activities, including development of a Travel Policy. Plan by Q2 2008/09. Travel Policy by Q3 2008/09	DFO	Q3 08/09
A 18.3	Submit capital allocation process to DIUS, clearly linking to the need to maintain world class science infrastructure and estate by end 2008.	DFO	Q4 2008/09
A 18.4	Define and enact the Comprehensive Spending Review Value for Money (CSR VFM) savings plan.	DFO	Q1 2008/09 + on-going
A 18.5	Swindon Office and Research Centres to refine governance and management structures and processes that provide a coherent framework for delivering national capability and clearly identify activities and value them appropriately.	DFO	Q4 2008/09
A 18.6	Complete Centre for Ecology and Hydrology (CEH) restructuring plan to specified time/budget/quality - £17M over the CSR period.	D,CEH	Q4 2008/09 Q1 2010/11
A 18.7	Complete construction of Halley VI science base in the Antarctic - to support polar environmental research. £45m-£50m over the project life.	D, BAS	Q4 2009/10
A 18.8	Deliver the ship to replace the RRS Discovery £70M investment over the period 2008-13.	DFO	Q3 2011/12
A 18.9	Council to carryout an annual review of performance against strategy to consider the update of the NERC Strategy.	DSP	Q2 ongoing
A 18.10	Implement new NERC strategy delivery (FAB) mechanisms.	DSD	Q4 2008/09

Performance Indicators		-1Q	=	+4Q
PI 18.1:	NERC Centres are sustainable.			
PI 18.2:	Effective and efficient operations.			
PI 18.3:	NERC is compliant with legislative requirements relating to H&S, Data Protection, Fol, employment & diversity legislation.			
PI 18.4:	NERC’s impact on the environment reduced.			
PI 18.5:	NERC is financially sustainable and demonstrates sound governance.			

Commentary

Two activities for this objective are red, one is amber and seven are green in quarter three. Both construction of Halley VI and NERC’s migration to the Shared Services Centre are red. For Halley VI, panel production continues, and the technical issues linked to this have been resolved. There is, however, no agreement on how the increased costs will split between NERC and Galliford Try. Chief Executives will meet to discuss this in December. SSC migration is now expected to be in late 2009 for NERC, with grants following in 2010. Progress on the replacement of the RRS Discovery is on track, as are delivery of the CEH Transition and Integration restructuring programme and the FAB implementation project. NERC had achieved its VFM savings target as of the end of quarter three.

Risk: Halley VI is NERC’s top risk, followed by the NERC’s participation in the SSC initiative. The RRS Discovery replacement project, FAB implementation, and the CEH transition and integration project are also top risks for NERC. Concerns about balancing budget in the remainder of CSR07 partly due to overspends (e.g. Shared Services Project).

Roles

Resp.Dir: David Bloomer
Cf.NEB: Nick Owens
Cf.Council: Paul Curran

NERC COUNCIL

ROLLING PROGRAMME OF MEETINGS AND BUSINESS

Background

1. This paper sets out the proposed business for the meeting of Council on 14th May 2009, at the Melia Whitehouse in London, as well as further board meeting information for 2009. The 2009 Council Business Whiteboard is presented at annexes A and B.

Issue

2. Council is asked to discuss possible items of business for the meeting of Council on 14th May 2009, consider whether any further items of business should be added to the Council Business Whiteboard and note the board meeting information provided.

Annexes attached

3. Annex A, Mapping of Council business against responsibilities
Annex B, 2009 Council Business Whiteboard

Discussion led by

4. Chairman

Author of paper

5. Samantha Way, Secretary to NERC Council, sway@nerc.ac.uk, 01793 442570

Action

6. Council is asked to:
 - i) **DISCUSS** any additional items of business for the Council meeting on 14th May 2009,
 - ii) **DISCUSS** whether any further items of business should be added to the 2009 NERC Whiteboards.
 - iii) **NOTE** 2009 Council information and SISB dates.

NERC COUNCIL

ROLLING PROGRAMME OF MEETINGS AND BUSINESS

Background

1. This paper sets out the proposed business for the meeting of Council on 14th May 2009, at the Melia Whitehouse in London, as well as further board meeting information for 2009. The 2009 Council Business Whiteboard is presented at annexes A and B.

Issue

2. Council is asked to discuss possible items of business for the meeting of Council on 14th May 2009, consider whether any further items of business should be added to the Council Business Whiteboard and note the board meeting information provided.

Persons responsible for implementing outcome

3. Samantha Way, Secretary to Council

Discussion

4. In addition to standing items, provisional agenda items for the May Council meeting are as follows:

- RRS Discovery
- Review of Environmental Management
- Science Information Strategy
- BAS mission statement
- Update on review of strategy
- Evaluation Programme 2009/10
- Spending Review 2009
- Marine National Capability
- Open Council discussion

2009 Council meetings

5. Dates, venues and pre-dinner presentations for the 2009 Council meetings are as follows:
 - Thurs 14th May (presentation and dinner on 13th) - London
Pre-dinner speaker – Mr Tony Rachwal, Chair of NCAG
 - Thurs 16th July (presentation and dinner on 15th) – BAS, Cambridge
Pre-dinner speaker – Professor Nick Owens, Director, BAS

- Thurs 15th Oct (presentation and dinner on 14th) – London
Pre-dinner speaker – Professor John Beddington, GCSA
- Thurs 26th Nov (Presentation and dinner on 25th) – venue to be confirmed.
Pre-dinner speaker to be confirmed.

6. 2009 SISB meeting dates

Dates of 2009 SISB meetings are:

Tues 31st March – Wed 1st April - London
 Tues 16th – Wed 17th June - To be confirmed
 Tues 22nd – Wed 23rd September - Swindon
 Tues 17th – Wed 18th November - To be confirmed

Council members who would like to attend a SISB meeting as an observer should contact Council secretary in the first instance.

Communication plan:

7. The outcome of this paper will be communicated to the NERC Business Coordination team and appropriate NERC staff.

Action

8. Council is asked to:
 - i) **DISCUSS** any additional items of business for the Council meeting on 14th May 2009,
 - ii) **DISCUSS** whether any further items of business should be added to the 2009 NERC Whiteboards.
 - iii) **NOTE** 2009 Council information and SISB dates.

Row	Council responsibilities:	NERC's Strategic Objectives **	2008			2009			2010					
			November	February	May	July	October	November	February	May	July	September	November	
1	<p>• To advise on new scientific opportunities, scientific direction and user needs, in line with NERC's charter.</p> <p>• To establish the Mission and Strategic Plan and approve the Delivery Plan (including the strategy, use of resources and key performance indicators and targets).</p> <p>• To ensure that Council's views are reflected in the pursuit of RCUK objectives and to be informed of their views of RCUKEG and the JSG</p> <p>• To maintain high standards of corporate governance, and through reports from the Executive and advisory boards :</p> <p>i) ensure that Council's decisions and actions are followed through effectively</p> <p>ii) monitor risk management and progress of high risk projects</p> <p>iii) ensure proper use of public funds and that NERC does not operate outside of the limits of its delegated authority</p> <p>iv) receive and reviewing regular financial information concerning the performance of NERC.</p> <p>v) comply with all relevant employment legislation, adopt management practices which use resources in the most economical, efficient manner and ensure that NERC staff have appropriate access to relevant advice and training opportunities.</p> <p>vi) ensure that Council and advisory boards are fit for purpose and that Council makes use of the independent audit committee.</p> <p>• To ensure that action is taken to inform the Secretary of State, DGS1 and DIUS of any changes impacting on the delivery of the Strategy and Delivery Plan, and any measures put in place to address these.</p>	<p><u>Research Priorities and Partnerships:</u></p> <p>i. Strategic Partnerships with key UK and international organisations supporting research delivery (Obj 1)</p> <p>ii. Promote collaborative research and vibrant community throughout the environmental science, engineering and technology base (Obj 2)</p>	International Strategy			Living With Environmental Change								
2														
3		iii. Decide on funding priorities within NERC's Strategic science themes (Obj 5 -11)		Planning future NERC investment levels (also fits into RM funding and NC)					Transitional Phase- Theme Action Plans 2009					Steady State phase - Theme Action Plans 2010
4		<p><u>Sustainability:</u></p> <p>i. Responsive funding: Support cutting edge & emerging areas of science through responsive mode research (Obj 12)</p>	Development phase - Responsive Mode Action Plan						Transitional Phase- Responsive Mode Action Plan					Steady State phase - Responsive Mode Action Plan
5			Peer Review College Evaluation											
6		ii. Ensure that NERC's National Capability meets current priorities and that it is developed to meet future priorities. (Obj 13 & 16)	Research and Collaborative Centre Mission Statements	National Good			Review of NCEO status		Development phase - National Capability Action Plan					Transitional phase - National Capability Action Plan
7			10 year Capital Strategy	10 year Capital Strategy				High Performance Computing?	High Performance Computing?					
8			Replacement of RRS Discovery		Replacement of RRS Discovery									
9				Ship Operations Review										
10					Marine National Capability									
11		iii. Recruit and develop skilled people to ensure a healthy environmental science base, deliver NERC's strategy and meet future science priorities. (Obj 14 & 17)					Action plan for people element of Strategy					Action plan for people element of Strategy		
12		<p><u>Economic and Public Policy impact:</u></p> <p>i. Establish a culture of knowledge exchange between NERC and stakeholders and ensure knowledge generated from NERC-funded science, and data information holdings, are communicated and used. (Obj 3)</p>		Science in Society overview				Knowledge Exchange Delivery Plan	Science in Society					Transitional phase - Knowledge Exchange delivery Plan
13					Science Information Strategy					Annual Review of Science Information Strategy				
14			<p><u>Efficiency and effectiveness:</u></p> <p>i. Run an efficient, effective and flexible organisation to deliver NERC's strategy whilst demonstrating sound governance. (Obj 18)</p> <p>ii. Build and maintain effective working relationships with DIUS (Obj 4)</p> <p>iii. Adapt the organisation for strategic risk management -seizing opportunities and mitigating threats (Obj 15 - future perspective).</p>	<p>Council receives the following reports as standing items:</p> <ul style="list-style-type: none"> Executive Report * Update from DIUS representative Rolling programme of business Minutes and Decisions and Actions Reports from Science and Innovation Strategy Group and Council Audit Committee Financial forecast and context Progress update on delivery of NERC's objectives 										
15					Environmental Management Policy									
16				Spending Review 2009		Spending Review 2009	Spending Review 2009							Spending Review 2011
17						Update on Strategy and SMT review	Annual Delivery Plan	Annual Health and Safety and Security reports			Annual Delivery Plan	Annual Health and Safety and Security reports		
18				Annual Look at Future Council Business	Annual Report of Council Audit Committee	SISB Self-Assessment Exercise	Annual Review of current NERC Strategy and Strategic Management Tool	Council Self Assessment Exercise	Annual Look at Future Council Business	Annual report of Council Audit Committee	Annual review of current NERC Strategy and Strategic Management Tool	Council Self Assessment Exercise	Annual Look at Future Council Business	
19						Open Council discussion								
				Environmental Management Policy	Evaluation Programme 09/10	Meeting of Council sub-group - Senior Staff Salaries Review Committee					Evaluation Programme 10/11	Meeting of Council sub-group - Senior Staff Salaries Review Committee		

Blue - Strategy Red- Action Plans Green - update Grey - Review Purple - Housekeeping

* The Executive Report includes, amongst other adhoc issues, updates on: Swindon Office based Directors' areas of responsibility; NERC's Risk Register; Halley VI, SSC and any other high risks projects; Health and Safety; Research Centre activity and key issues highlighted by Chief Executive.

** The groupings of Strategic Objectives in this document are based on the headings in the NERC/DIUS Scorecard 2008/09.

COUNCIL Agenda Overview 2009

NERC 09/14 Annex B

No.	Task	Main Statement					
			12-Feb	14-May	16-Jul	15-Oct	26-Nov
1	Advise on new scientific opportunities, scientific direction and user needs	MS	As Required				
2	Establish the Mission and Strategic Plan and approve the Delivery Plan	MS	As required				
3	Ensure that action is taken to inform Sec of State, DGSI and OSI of any changes impacting on the delivery of No. 2	MS	As necessary				
4	Satisfy itself of the proper use of public funds and that NERC operates within its limits of delegated authority	MS	As required				
5	Receive and review regular financial information concerning the performance of NERC	MS	√	√	√	√	√
6	Ensure Council's views are reflected in pursuit of RCUK objectives and to be informed of the views of RCUKEG and JSG	MS	As necessary				
7	Maintain high standards of corporate governance, including making use of the audit committee	MS	As necessary				
8	Approve minutes from previous meeting and receive update on progress of matters arising		√	√	√	√	√
9	Receive report from Chief Executive on agreed areas		√	√	√	√	√
10	Receive rolling programme of Council business		√	√	√	√	√
11	Receive report from Chairs of SISB and Audit Committee on previous meeting(s)		√	√	√	√	√
12	Annual Report from Audit Committee on its activities		√				
13	Receive Annual Report on Health and Safety and Security in NERC					√	
14	Consider Annual Forward Look of agenda and business for following year						√
15	International strategy						√?
16	Progress on delivery of NERC's strategic objectives (SMT update)		√	√	√	√	√
17	Theme Action Plans 2009					√?	√?
18	National Capability Action Plan						√
19	Responsive Mode Action Plan - update						√
20	Knowledge Exchange Plan - update					√	
21	RRS Discovery			√			
22	Evaluation Programme 2009/10			√?			
23	Spending Review 2009			√	√?	√?	√?
24	Annual Delivery Plan				√		
25	10 Year Capital Strategy		√				
26	NCEO				√?		
27	Annual review of NERC Strategy				√		
28	Ship Operations Review		√				
29	Review of Strategic Management Tool			√?	√		
30	Refreshing the dynamic strategy				√		
31	Citations Study		√				
32	BAS mission statement			√			
33	Marine National Capability			√			
34	Review of Environmental management			√			
35	Science Information Strategy			√			
36	Planning future NERC investment levels		√				
37	Science in Society		√				
38	National Good Discussion		√				
39	Open Council discussion			√			
40	High Performance Computing					√?	√?
41	Horizon scanning exercise					√?	√?

NERC COUNCIL

CONFIRMED OPEN MINUTES OF THE TWO HUNDRED AND EIGHTY FIFTH MEETING OF NERC COUNCIL HELD AT THE MET OFFICE, EXETER ON 27TH NOVEMBER 2008.

Issue

- 1: To confirm that the unconfirmed open minutes of the 285th meeting of NERC Council are a true and accurate record of the meeting.

Discussion led by

- 2: Chairman

Annexes attached

3. Annex A – Questions and answers from the November 2008 Council Open Forum

Author of paper

4. Miss Samantha Way, Secretary to NERC Council.

Action

5. Council is invited to **CONFIRM** the open minutes of the 285th meeting.

NERC COUNCIL

CONFIRMED OPEN MINUTES OF THE TWO HUNDRED AND EIGHTY FIFTH MEETING OF NERC COUNCIL, HELD AT THE MET OFFICE, EXETER ON 27TH NOVEMBER 2008

Members Present:

Mr E Wallis (Chairman), Professor AJ Thorpe (CE), Professor PJ Curran, Professor HC Davies, Mr R Douglas, Professor AH Fitter, Professor LA Glover, Professor C Godfray, Professor AN Halliday, Professor M Lockwood, Professor TR Meagher, Professor JFB Mitchell, Mrs S Parkin, Professor A Watson, Professor BM Wilson.

Apologies: Mr PF Hazell, Professor R Watson, Ms J Parker (Head of Communications).

Representative of the Secretary of State: Mr PJ Williams, Department for Innovation, Universities and Skills

NERC Directors: Mr NFD Bloomer (Finance and Operations), Dr P Newton (Science Delivery) Mrs JE Timberlake (People, Skills and Communication), Dr SHS Wilson (Strategy and Partnerships).

Other Attendees: Professor DJ Wingham, Chairman of Science and Innovation Strategy Board – all items.
Dr R Boumphrey, Head of International Strategy – item 16
Dr H Butler, Peer Review College Manager – items 17 & 18

Secretary: Miss SJ Way

19 members of the public attended the Open meeting.

15. Chairman's welcome and introduction - Oral

- 15.1 Chairman welcomed members and public attendees to the Open Council meeting, explained that a number of items had been discussed in a closed session due to confidentiality and confirmed that an open forum would be held mid-afternoon.

16. Developing International aspects of NERC's Strategy - NERC 08/72

- 16.1 Chairman welcomed Dr Ruth Boumphrey, Head of International Strategy, to the meeting. Dr Boumphrey confirmed that the draft International Plan Council was asked to discuss was intended to be high level rather than detailed, cover all aspects of NERC's work, clarify NERC's position in the international arena and identify barriers and opportunities.
- 16.2 Council noted the main areas discussed by SISB, particularly SISB's preference for a targeted approach to partnerships, giving reasons for collaborations rather than having priority partner countries. Professor Wingham confirmed that SISB's comments on the emphasis and priorities in the plan had been taken into account. Council also noted that the high level strategic document would be followed by a more detailed action plan focussing on delivery.

- 16.3 Dr Boumphrey explained that the EU is a priority area for NERC and that, whilst NEB had previously discussed ways of influencing the European Commission, UK scientists tend to engage successfully through their research, rather than top down lobbying. Council was informed that NERC had been very influential in developing the EU Framework Programme, the objectives of which are almost identical to NERC's Strategic Objectives, and has strong links with the UK Research Office in Brussels.
- 16.4 In further discussion Council suggested that:
- i. further reference should be made to links with the Government Science and Innovation network and reducing barriers and risk of double jeopardy in international peer review.
 - ii. opportunities to support international visitors with NERC funding needed to be more clearly publicised.
 - iii. Existing international networks such as the Worldwide Universities Network (WUN) should be borne in mind as an influential framework for international collaboration (eg Diversitas)
 - iv. SISB preferred a more targeted approach to partnerships and the plan should give specific examples , particularly for countries where RCUK have offices.
- 16.5 Council agreed that the plan should be finalised by the Executive and decided to continue the current level of international funding until the end of financial year 2009/10, with an expectation of continuing beyond that period, pending consideration of international National Capability (NC) funding within the National Capability Action Plan (NCAP).

17. Responsive Mode Action Plan – NERC 08/73

- 17.1 Chairman welcomed Dr Helen Butler, Peer Review College Manager, who joined Council for items 17 and 18.
- 17.2 Dr Newton provided a high level definition of Responsive Mode (RM) and confirmed that the Responsive Mode Action Plan (RMAP) will be revised on an annual basis, similar to the Theme Action Plans. As well as providing a clear vision for the funding stream, analogous to the Theme and National Capability Action Plans, Dr Newton highlighted that the RMAP aims to provide a level playing field to ensure that certain types of proposal are not disadvantaged, for example those with strong elements relating to knowledge exchange, policy or technology, or those that are interdisciplinary, risky or capital intensive.
- 17.3 Professor Wingham commented that SISB had considered two earlier drafts of the RMAP and the main issue raised was that NERC should evaluate the overall output and success of RM. Council pointed out that evaluation criteria would need to be broader than the number of publications and citations. Whilst it was recognised that RM should enable adventurous and innovative research, Council expressed the view that SISB should consider 'lessons learned' for grants that do not produce the expected output, as part of their evaluation of the RM options.
Action: Director, Strategy and Partnerships
- 17.4 The Executive confirmed that a recent Citations study had provided statistics on outputs and impact resulting from environmental research, broken down by funding streams. Council noted that the Citations Study would be presented at the February 2009 Council meeting and would be a starting point in evaluating the success and impact of NERC's RM grants.
- 17.5 It was highlighted that certain statements in the plan may cause confusion regarding the relationship between RM, Research Programmes (RP) and National Capability (NC). Dr Newton agreed to amend the relevant sections accordingly.
Action: Director, Science Delivery
- 17.6 Professor Halliday commented that the Research Assessment Exercise (RAE) revealed the strong positive impact of the Joint Infrastructure Funding (JIF) investments on environmental science. Professor Wingham noted the potential importance of such evidence and suggested that SISB could reflect on the relative

benefits of capital investment through RM and RP funding streams. **Action: Director, Science Delivery**

- 17.7 Council agreed the RMAP, noting that feedback from the discussion would be fed into the final version, and agreed that this should then be published on the NERC website.

18. Peer Review College Evaluation – NERC 08/74

- 18.1 The item was introduced by Dr Butler who gave a presentation on the aims of the Peer Review College (PRC) evaluation, methodology, consultation approach, overall recommendations and SISB advice. Professor Wingham confirmed that SISB agreed with the recommendations and had placed particular emphasis on improving confidence in the system and ensuring high quality moderation. SISB hoped that the recommendation to adopt a standing pool of moderating chairs will help to raise standards.
- 18.2 Council questioned the use of referees' comments and the issue of these sometimes being overruled by moderating panels. Professor Wingham advised that improved standards of moderation and a pool of experienced moderating Chairs should ensure appropriate practice. Regarding the quality of panels, it was suggested that panel member appointments should be shorter initially, with extensions for those who wish to continue and are performing effectively. It was also suggested that Panel members would benefit from further training on the Peer Review process.
- 18.3 Professor Wingham stressed that the status of Panel members should be elevated, particularly the role of the chairs. Council suggested that the panel chairs should be engaged more fully with NERC's business and involved in the process from an earlier stage.
- 18.4 Council agreed the recommendations of the evaluation and felt that the value of the work justified the requested additional resource of 1 FTE each for RMAP and PRC (items 17 and 18) to take forward implementation and provide ongoing support for the new processes.

19. Open Executive Report – NERC 08/75

Strategy and Partnerships

- 19.1 Council noted that Lord Drayson, appointed as the new Science Minister in October 2008, attends Cabinet and chairs its new sub-committee, the Science and Innovation Committee, which should enable further cross-departmental collaboration.
- 19.2 Dr Wilson informed Council that the new Head of Knowledge Exchange, Mr Simon Jackman, previously led the TSB's Environmental Knowledge Transfer Network and that his appointment to NERC should present opportunities for engagement with key business stakeholders.

Science Delivery

- 19.3 Dr Newton highlighted the CEH research on future river flows as an example of successful collaboration between NERC, the Environment Agency and the Met Office. Professor Wingham commented on NERC's research on Arctic sea ice and the use of satellite data to demonstrate widespread thinning of the ice last winter.

People, Skills and Communication

- 19.4 Council was reminded that the NERC Strategy outlines four people- related challenges. Mrs Timberlake advised that a People Action Plan had been produced to address these challenges, consisting of 21 actions covering the wider science community, for example in the Environment Research Funders' Forum (ERFF) skills review, as well as NERC staff.
- 19.5 In terms of engaging young scientists, it was highlighted that Lord Drayson is encouraging interaction

with schools, particularly in promoting more choice between science disciplines. Council members advised that a number of Universities are involved in relevant activities, as are Kew Gardens in partnership with the Wellcome Trust. Mrs Timberlake will ensure that these activities are taken into account in determining NERC's role. It was suggested that Lord Drayson would be keen to hear of NERC activities in this area.

Action: Director, People, Skills and Communication.

British Antarctic Survey (BAS)

- 19.6 Professor Thorpe reported that he met the new Secretary of State for Energy and Climate Change, Rt Hon Ed Miliband MP, on his recent visit to BAS. Council suggested that it might be appropriate to have a representative from the Department of Energy and Climate Change as a member of NERC Council. Chairman will consider this suggestion.

Action: Chairman

British Geological Survey (BGS)

- 19.7 Council was informed that a three week consultation on the draft BGS Strategy "Applied geosciences for our changing Earth" was launched on 11th November 2008 and members were encouraged to participate.
- 19.8 Professor Wilson had been approached by CORWM (Committee on Radioactive Waste Management) regarding deep geological storage of radioactive waste and asked whether NERC would be willing to take a leadership role on this subject. Council considered that there is a role for NERC science in this area.
- 19.9 The issue should also be fed into the ERF Skills Review in case of future training requirements.
- Action: Director, People, Skills and Communications**
- 19.10 Professor Thorpe will discuss NERC's approach to this issue with Director, BGS and report back to Council.
- Action: Chief Executive**

20. Open Forum - Oral

- 20.1 Attendees of the Open Council meeting were given an opportunity to ask Council questions in a 30 minute Open Forum, facilitated by Mrs Timberlake. Questions and answers are attached at Annex A to the November Open Council minutes.

21. Progress on delivery of NERC's objectives – NERC 08/76

- 21.1 Council noted the second quarterly report from the Strategic Management Tool and verbal updates were provided for several activities. Council was informed that:
- i. the activity relating to the Joint Climate Research Programme (Objective 1, activity 1.9) is currently amber in status but positive progress has been made on solutions for Intellectual Property Rights and on the joint supercomputer.
 - ii. concerns regarding Knowledge Exchange (Objective 3) should be addressed by the February 2009 Council paper on Science in Society and by possible links with TSB through the new Head of KE.
 - iii. although there were initial concerns about how quickly Biodiversity actions (Objective 6) would be progressed, actions such as the Ecosystems Sustainability scoping study are broadly on track.
 - iv. a different approach will be taken to phase 2 of the ERF Skills Review (Objective 14, Activity 14.1) responding to feedback from phase 1.

22. Update on Wakeham Physics Review- Oral

- 22.1 Dr Wilson outlined the Wakeham Physics Review recommendation that NERC, supported by an appropriate level of funding, should take responsibility for the areas of Solar Terrestrial Physics most relevant to its mission. He advised that the Executive have been working closely with the Science and Technology Facilities Council (STFC) on how the transfer might be implemented.
- 22.2 Professor Lockwood provided an update on areas of Solar Terrestrial Physics (STP) that could possibly be transferred to NERC, clarifying that activities most relevant to NERC's mission are those where the primary goal is to understand the Earth's environment.

23. Research Centre Missions – NERC 08/77

- 23.1 Council was reminded of the background to this work on the Research Centre Mission Statements and of the need to understand Centres' remit and contribution to National Capability, particularly as they move from receiving 5 year allocated programmes to actively competing for RP funds.
- 23.2 The Executive explained that the BAS mission would be updated in line with the forthcoming BAS Polar Science Strategy but Council did raise several queries. Council also commented that the Swindon Office Mission should include Knowledge Exchange.

24. Any other business - Oral

- 24.1 Council Secretary drew Council's attention to a mentoring scheme run by the UK Resource Centre for Women in Science, Engineering and Technology which encourages women to apply for NDPB board vacancies. Male and female Council members who would like to become a mentor were invited to send expressions of interest to Council Secretary. Professor Glover and Mrs Parkin encouraged other members to support the scheme this year given their experience of the scheme last year. **Action: Council members**

Open Forum held during the Open meeting of NERC Council – 27th November 2008

Question	Response and discussion
<p>1. Given the uncertainties involved in environmental research, why does NERC Strategy put so much emphasis on prediction at a range of temporal and spatial scales instead of understanding?</p>	<p>It was recognised that prediction and understanding are both central to NERC’s mission and Professor Davies explained that the understanding element pervades much of the work set out in the NERC Strategy.</p> <p>It was suggested that the perceived emphasis on prediction is partly due to constant change in the environment, resulting in a need to predict future changes and calibrate levels of understanding by testing predictions. Another explanation was that predictions may be seen as more tangible outputs than general understanding.</p> <p>The individual posing the question felt it important that NERC recognises the limitation of predictions at a regional and local scale and manages expectations accordingly. Mrs Parkin agreed the need to understand limitations but emphasised that this scale of prediction is essential in determining how to mitigate potential environmental changes.</p>
<p>2. "UNESCO has the World Network of Biosphere Reserves to serve as laboratories for learning about sustainable development, ranging from understanding how best to work with ecosystem services, monitoring of global change, socio economic dimensions including ecosystem services and poverty alleviation. With 530 sites in 105 countries, (8 in the UK) how do the BRs develop a role with NERC as being sites for excellent science and supporting the development of good policy based on sound science?"</p>	<p>To set the context, Professor Glover explained that Biosphere Reserves (BR) were initially set up to address conservation of biodiversity.</p> <p>The Ecosystems Services & Poverty Alleviation Programme was given as an example of how NERC science could benefit from the worldwide network of BRs. It was pointed out that the BRs could be named as facilities in project proposals where appropriate.</p> <p>The functional links that a re-launched Biosphere Reserve Network would encourage between the environment and the lives of local people would be clearly relevant to the LWEC programme and several LWEC partners are already participating in BRs eg Natural England.</p> <p>The attendee who posed the question highlighted the importance of consulting key stakeholders such as farmers when developing synergies between the socio-economic and environmental research functions of the BRs.</p>
<p>3. How will the roll out of the theme action plans, particularly long term plans be communicated to the NERC community?</p>	<p>It was highlighted that several actions in the 2008 TAPs will require further refinement and that opportunities for the scientific community to get involved will be communicated on the NERC website.</p> <p>Dr Newton confirmed that summaries of the TAPs were published on the public NERC website following Council’s approval in July 2008. The full TAPs will follow by mid December 2008.</p> <p>Information regarding the development of actions and announcements of opportunity — including a forward schedule from end December —will be available on the NERC website and individuals can register to receive updates on specific areas.</p>

Question	Response and discussion
<p>4. What will the future processes be for funding new facilities and for funding National Capability?</p>	<p>Dr Newton set out what National Capability (NC) means for NERC, including infrastructure, long term surveying, monitoring and expertise. He confirmed that the NC Advisory Group had been established to identify the NC that NERC has and advise Council on an NC Action Plan to inform investment and portfolio decisions.</p>
<p>5. In the light of the WMO's (World Meteorological Organisation) acceptance this summer that Space Weather is an area of interest (though not an area of activity unless additional funding is granted) and the tabled Wakeham discussion, any update on a possible strategic response by NERC will be of interest.</p>	<p>Following Council's discussion regarding the Wakeham Physics Review, a query was raised regarding NERC's strategic position on Solar Terrestrial Physics (STP) once activities transfer from STFC.</p> <p>It was pointed out that NERC would want to allow time for new activities to bed in and for any individuals transferring from STFC to be appropriately welcomed and settled before developing strategy in this area.</p>
<p>6. There currently appear to be no consequences when funding proposals are too optimistic and projects fail to produce the expected output. Should post programme reviews be introduced to encourage more honesty and accuracy at the proposal stage?</p>	<p>The individual asking the question clarified that the issue was about issues such as lack of planning at the proposal stage rather than the inherent risk in exciting science.</p> <p>Professor Glover expressed a view that post project reviews previously undertaken had resulted in an inordinate amount of work and that improving the standard of reviewing and moderating would be a better use of resource.</p>
<p>7. How do NERC evaluate the impact of project outputs over a number of years?</p>	<p>Dr Wilson explained that a more tailored approach to evaluation of projects has been developed, stating clearly at the outset what the purpose of the evaluation is and aiming to use additional metrics eg citations, evidence of economic impact, policy relevance etc.</p> <p>It was recognised that, in some cases, the impact is not evident until 5-10 years after the project. Professor Meagher pointed out that whilst NERC's Research Outputs Database (ROD) captures evidence of impacts, there may be a need to add further information at a later date.</p>
<p>8. Does NERC take opportunities to work with developing countries in areas such as Biodiversity Conservation?</p>	<p>Council recognised that there are many potential opportunities for British scientists in working with developing countries. However, a view was expressed by Council that primary responsibility for building scientific capacity in these countries lies with DFID.</p> <p>An attendee voiced a concern that DFID do not appreciate the value of fundamental science in developing scientific capacity. It was accepted that NERC may have a role in persuading DFID of the potential benefits.</p>

NERC COUNCIL

DECISIONS, ACTIONS AND MATTERS ARISING FROM THE OPEN MINUTES OF THE 285TH NERC COUNCIL MEETING HELD ON 27 NOVEMBER 2008

Issue

1. The open meeting of NERC Council on 27 November 2008 resulted in a number of decisions and actions. This paper reports on progress made on the decisions and actions recorded in the minutes that are not addressed elsewhere on the agenda.
2. To provide Council with an opportunity to discuss any matters arising from the meeting from the open decisions and actions.

Discussion led by

3. Chairman

Author of paper

4. Miss Samantha Way, Secretary to NERC Council, sway@nerc.ac.uk, 01793 442570

Action

5. Council is invited to:
 - **NOTE** the progress of the decisions and actions from the open meeting and any matters arising.
 - **DISCUSS** any matters arising from the open meeting.

NERC COUNCIL

OPEN DECISIONS AND ACTIONS ARISING FROM THE MEETING OF NERC COUNCIL HELD ON 27 NOVEMBER 2008

Item No.	Minute Ref	Decision/Action	Person responsible for communicating decision:	Person responsible for Action	D Or A	Progress Update
16	16.6	DEVELOPING INTERNATIONAL ASPECTS OF NERC'S STRATEGY – NERC 08/72 Council agreed that the draft international plan should be finalised by the Executive and decided to continue the current level of international funding until the end of financial year 2009/10.	Director, Strategy and Partnerships		D	Decision communicated. Action ongoing.
17	17.3	RESPONSIVE MODE ACTION PLAN (RMAP) – NERC 08/73 SISB should consider 'lessons learned' for grants that do not produce the expected output, as part of their evaluation of the Responsive Mode options.		Director, Strategy and Partnerships	A	To be considered when RM evaluation is taken forward.
	17.5	Sections of the RMAP that Council highlighted as potentially misleading will be amended.		Director, Science Delivery	A	Complete.
	17.6	SISB should reflect on the relative benefits of capital investment through responsive mode and research programme funding streams.		Director, Science Delivery	A	Ongoing.
	17.7	Council agreed that the RMAP should be finalised by the Executive and published on the NERC website.	Director, Science Delivery		D	RMAP to be published by mid February 2009.

Item No.	Minute Ref	Decision/Action	Person responsible for communicating decision:	Person responsible for Action	D Or A	Progress Update
18	18.4	PEER REVIEW COLLEGE (PRC) EVALUATION – NERC 08/74 Council agreed the recommendations of the evaluation and felt that the value of this work justified the requested additional resource of 1 FTE each for RMAP and PRC (items 17 and 18).	Director, Science Delivery		D	Publication scheduled for mid February 2009.
19	19.5	OPEN EXECUTIVE REPORT – NERC 08/75 Activities by other organisations to engage young scientists should be taken into account in determining NERC's role.		Director, People, Skills and Communication	A	Complete.
	19.6	The possibility of recruiting a member of the new Department of Energy and Climate Change to NERC Council should be considered.		Chairman	A	Considered by Chairman. Not necessary at present.
	19.9	The issue of deep geological storage of radioactive waste should be fed into the Environment Research Funders' forum Skills review in case of future training requirements.		Director, People, Skills and Communication	A	Complete.
	19.10	Professor Thorpe will report back to Council after discussing NERC's approach to deep geological storage of radioactive waste with Director, BGS and Professor Wilson.		Chief Executive	A	Further update provided by BGS in Executive Report (NERC 09/10)
24	24.1	ANY OTHER BUSINESS (OPEN) – ORAL Members who would like to participate in the mentoring scheme for women in Science, Engineering and Technology should contact Council Secretary.		Council members	A	Complete.

COMMON NERC ACRONYMS

AEDC	Antarctic Environmental Data Centre	ERFF	Environment Research Funders Forum
AFI	Antarctic Funding Initiative (Research Programme)	ES	Ecosystem Sustainability
AHRC	Arts & Humanities Research Council	ESF	European Science Foundation
APPRAISE	Aerosol Properties, Processes and Influences on the Earth's climate (Research Programme)	ESFRI	European Strategy Forum on Research Infrastructure
BADC	British Atmospheric Data Centre	ESPA	Ecosystem Services and Poverty Alleviation(Research Programme)
BAS	British Antarctic Survey (NERC)*	ESRC	Economic and Social Research Council
BBSRC	Biotechnology and Biological Sciences Research Council	ESA	European Space Agency
BERR	Department for Business Enterprise & Regulatory Reform	EuroHORCs	European Union Research Organisations Heads of Research Councils
BGS	British Geological Survey (NERC)*	EYF	End of Year Flexibility
BNSC	British National Space Centre	FAB	Funding Allocation and Budgeting Project
BODC	British Oceanographic Data Centre	FOG	Finance and Operations Group
BPM	Business Performance Management	FP	Framework Programme
BPMF	Business Performance Management Framework	FREE	Flood Risk from Extreme Events (Research Programme)
BREEAM	Building Research Establishment Environmental Assessment Method.	GCSA	Government Chief Scientific Adviser
CASE	Collaborative Awards in Science and Engineering	GERB	Geostationary Earth Radiation Budget Experiment (Research Programme)
CEOI	Centre for Earth Observation Instrumentation**	GMES	Global Monitoring for Environment and Security
CEH	Centre for Ecology and Hydrology (NERC)*	HEC	High End Computing
CEE	Centre for Environmental Evidence	HEFCE	Higher Education Funding Council for England
CPB	Centre for Population Biology**	HEFCW	Welsh Higher Education Funding Council
CSA	Chief Scientific Adviser	HEIs	Higher Education Institutions
CSR	Comprehensive Spending Review	HIRDLS	High Resolution Dynamics Limb Sounder (Research Programme)
CWC	Changing Water Cycle	HPC	High Performance Computing
D4RP	'Discovery for Replacement' project	IODP	Integrated Ocean Drilling Program
DCLG	Department of Communities and Local Government	IMP	Individual Merit Promotion
DEFRA	Department for Environment, Food and Rural Affairs	IPY	International Polar Year
DfID	Department for International Development	ISG	Information Strategy Group
DfT	Department for Transport	ITAG	Information Technology Advisory Group
DGSR	Director General Science and Research (formerly DGSI)	ITT	Invitation to Tender
DIUS	Department for Innovation, Universities and Skills (formerly OSI)	Je-S	Joint electronic-Submission
DMAG	Data Management Advisory Group	JSG	DIUS/RCUK Joint Strategy Group
EA	Environment Agency	LWEC	Living With Environmental Change
EIC	Environmental Information Centre	MBA	Marine Biological Association
EC	European Commission	MRC	Medical Research Council
EHFI	Ecology and Hydrology Funding Initiative	NC	National Capability
EHH	Environment and Human Health	NCAG	National Capability Advisory Group
ENI	Environmental Nanoscience Initiative (Research Programme)	NCAS	National Centre for Atmospheric Science*
EO	Earth Observation	NCEO	National Centre for Earth Observation**
EOF	UK Environmental Observation Framework	NDGC	National Geosciences Data Centre
EPA	Environmental Protection Agency	NE	Natural England
EPSRC	Engineering and Physical Sciences Research Council	NEB	NERC Executive Board
ER	Environmental Radioactivity	NEODC	NERC Earth Observation Data Centre
ERC	European Research Council	NGO	Non-Governmental Organisation

* NERC Research Centre ** NERC Collaborative Centre

Updated 19/09/2008

NIC	NERC Investment Committee	TAP	Theme Action Plan
NMF	National Marine Facilities	ToR	Terms of Reference
NMF-SS	National Marine Facilities – Sea Systems	TSB	Technology Strategy Board
NOCS	National Oceanography Centre, Southampton	TSEC	Towards a Sustainable Energy Economy (Research Programme)
OGC	Office of Government Commerce	UAI	Urban Atmospheric Infrastructure
OPMs	Output and Performance Measures	UKCDS	UK Collaborative on Development Sciences
OSG	Operations Strategy Group (RCUK)	UKERC	UK Energy Research Centre
PAG	Personnel Advisory Group	UKIODP	UK Integrated Ocean Drilling Program
PCSG	Personnel Corporate Strategy Group	UKPOPNET	UK Population Biology Network (Research Programme)
PGP	Post-Genomics and Proteomics (Research Programme)	UKRO	UK Research Office (Brussels)
PML	Plymouth Marine Laboratory**	UKSOLAS	Surface-Ocean/Lower-Atmosphere Study (Research Programme)
POL	Proudman Oceanographic Laboratory*	UKSB	UK Space Board
PQQ	Pre-Qualification Questionnaire (Procurement)	VO	Virtual Observatory
PSG	Pay Strategy Group	WAG	Welsh Assembly Government
PSN	People and Skills Network		
QR	Quality related (in context of HEI funding)		
QUEST	Quantifying and Understanding the Earth System (Research Programme)		
RAE	Research Assessment Exercise		
RAPID-WATCH	Rapid- Will the Atlantic Thermohaline Circulation Halt (Research Programme)		
RCIAS	Research Councils' Internal Audit Service		
RCUK	Research Councils UK		
RELU	Rural Economy and Land Use (Research Programme)		
RM	Responsive Mode		
RMAP	Responsive Mode Action Plan		
ROD	Research Outputs Database		
RP	Research Programme		
SAHFOS	Sir Alister Hardy Foundation for Ocean Science		
SAMS	Scottish Association for Marine Science**		
SEBCC	Science and Engineering Base Co-ordinating Committee		
SEPA	Scottish Environment Protection Agency		
SHEFC	Scottish Higher Education Funding Council		
SISB	NERC Science and Innovation Strategy Board		
SMRU	Sea Mammal Research Unit**		
SMT	Strategic Management Tool		
SOFI	Strategic Ocean Funding Initiative		
SoR	Statement of Requirements		
SPA	Sector Portfolio Analysis		
SRG	Services Review Group		
SSC	Shared Service Centre		
STAR	System for Targets and Risks		
STFC	Science and Technology Facilities Council (formerly PPARC and CCLRC)		

A full list of NERC Research Programmes can be found on the NERC website at: www.nerc.ac.uk/research/programmes/

* NERC Research Centre ** NERC Collaborative Centre

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MEMBERSHIP OF COUNCIL 2009

Mr Edmund Wallis	Chairman
Professor Alan Thorpe	Chief Executive and Deputy Chairman
Professor Paul Curran	Vice-Chancellor University of Bournemouth
Professor Huw Davies	Institute for Atmospheric and Climate Science, ETH Zurich
Mr Rowan Douglas	Managing Director, Willis Analytics for Willis Re
Professor Alastair Fitter	Department of Biology, University of York
Professor Anne Glover	Chief Scientific Advisor for Scotland, School of Medical Sciences, University of Aberdeen
Professor Charles Godfray	Professor of Zoology, University of Oxford
Professor Alex Halliday	Head Mathematical Physical & Life Science Division, University of Oxford
Mr Peter Hazell	Chairman of the Argent Group. Chairman of the Audit Committee for: BRIT Insurance PLC, Smith & Williamson and UK Coal PLC. Member of the Competition Commission.
Professor Michael Lockwood	STFC & University of Southampton
Professor Thomas Meagher	Chair of Plant Biology, University of St Andrews
Professor John Mitchell	Met Office
Mrs Sara Parkin	Forum for the Future
Professor Andrew Watson	Professor at the School of Environmental Sciences, of East Anglia University
Professor Robert Watson	Chief Scientific Advisor, DEFRA
Professor Marjorie Wilson	School of Earth & Environment, Leeds University
Secretary to Council	
Miss Samantha Way	01793 442570, e-mail sway@nerc.ac.uk

The Mission of the Natural Environment Research Council is:

The Natural Environment Research Council delivers independent research, survey, training and knowledge transfer in the environmental sciences, to advance knowledge of planet earth as a complex, interacting system. Our work covers the full range of atmospheric, earth, biological, terrestrial and aquatic sciences, from the deep oceans to the upper atmosphere, and from the poles to the equator. Our mission is to gather and apply knowledge, create understanding and predict the behaviour of the natural environment and its resources, and communicate all aspects of our work.

In fulfilling its mission, NERC will:

- support high quality research and technology and maintain long-term capability to understand and predict the environment, natural resources and their response to change;
- foster the health and vitality of the UK environmental science skills base through education, training and career development;
- collect, manage and supply environmental data and provide information to meet the needs of users;
- provide objective, independent expert scientific advice and information to underpin national and international policy and sustainable growth;
- provide specialist scientific facilities and services to meet the needs of UK environmental sciences;
- work in partnership with users and other science suppliers and promote effective knowledge transfer;
- encourage public understanding of environmental issues and the role of science;
- ensure openness, accountability and value for money in the delivery of the NERC mission.

NATURAL ENVIRONMENT RESEARCH COUNCIL

COUNCIL POLICY ON VESTED INTERESTS

1. **Introduction:** NERC uses the expertise, knowledge and advice of the international academic and research community, government agencies, industry and elsewhere. Their involvement is an essential contribution to the Council's decision-making processes, many of which lead to the allocation of public funds.
2. **Issue:** NERC needs to set out clearly how it expects its Council and Committee members to behave, in order to reduce the risk of improper conduct of business or allocation of funds. It is therefore also important that Council's procedures are documented and easily understood, to allay public concern. This can be done by following HM Treasury's guidelines for publicly-funded agencies. All members of NERC Committees who have a vested interest should therefore follow the arrangements below. Vested interest is defined as:
 - the committee member being associated with an institution, department or individual that has submitted a funding proposal or that would otherwise benefit from a decision;
 - being involved, in any way, in the development, or implementation of proposals seeking Council funds or in the evaluation of research investments, or otherwise standing to benefit from a decision.
3. **General Expectation:** If it is not obvious or immediately apparent, Committee members must inform the NERC official acting as Secretary to the Committee, or the Chairperson, of the exact nature of their vested interest. This applies in all instances where a decision could result in the allocation of NERC funds or other resources, or otherwise provide benefit.
4. **Standards:** It is Council policy that:
 - On taking up their appointments, all Council members must declare any private, professional or commercial interests that could conflict with NERC's interests. These interests may be direct or indirect, monetary or non-monetary, which the public might reasonably think could influence the Council members' judgment.
 - NERC will register the declarations of interest centrally and update them every year. Members should, however, provide updated information as changes occur. NERC will put the register on its website so the public can inspect it, and the website detail will be published in the NERC Council's annual report.
 - The chairperson of a meeting will be briefed on interests using the register, and will draw attention to any possible conflicts of interests before the meeting starts.
 - Normally, members with vested interests should leave the meeting while the proposal or issue is being discussed or considered.
 - If the Committee agrees, the Chairperson may use their discretion to allow members with vested interests to remain in the meeting, if their absence will compromise the Committee's expertise, or if they are invited to speak on 'matters of fact'.
 - NERC will remove all papers and background information relating to a vested interest from the respective member's meeting papers.
 - All Committee members are expected to abide by the *in confidence* nature of much of

the business conducted at meetings.

- All vested interests declared, and actions taken, should be recorded in the Committee minutes, ensuring a proper audit trail.

The meeting Chairperson must ensure that the above procedures are followed.

(*) For the purposes of this statement Committees is the generic term used for any group convened by, or acting on behalf of, Council or the Chief Executive.

NERC STRATEGIC MANAGEMENT TOOL: Council Overview of Strategic Objectives

Knowledge & Partnerships

- 1Q = +4Q
- 1: Strategic partnerships with key UK and international organisations are supporting research delivery
- 2: Promote collaborative research & a vibrant community throughout the environmental science, engineering & technology base.
- 3: Establish a culture of knowledge exchange between NERC and stakeholders and ensure knowledge generated from NERC-funded science, and data and information holdings, are communicated and used.
- 4: Build and maintain effective working relationships with DIUS.

Resource & Process Management

- 1Q = +4Q
- 16: Ensure that NERC's national capability meets the needs of current priorities
- 17: Have skilled people to deliver NERC's strategy
- 18: Run an efficient, effective & flexible organisation to deliver NERC's strategy whilst demonstrating sound governance

Research Outputs

- 1Q = +4Q
- 5: Climate system theme: develop risk-based predictions of the future state of the climate on regional & local scales, from days to decades
- 6: Biodiversity theme: understand the role of bio-diversity in key ecosystem processes
- 7: Sustainable use of natural resources theme: provide the science to optimise the use of renewable & non-renewable natural resources whilst living within the Earth's environmental limits
- 8: Earth system science theme: increase knowledge of the past & present behaviour of Earth to enable predictions of future change
- 9: Natural hazards theme: increase knowledge to improve the forecasting & mitigation of natural hazards
- 10: Environment, pollution & human health theme: provide science to reduce damaging health effects of pollutants & pathogens
- 11: Technologies theme: develop the tools & technologies needed for cutting-edge environmental science

Future

- 1Q = +4Q
- 12: Responsive Funding: Support cutting edge & emerging areas of science through responsive mode research
- 13: Develop NERC's national capability to meet future priorities
- 14: Develop skilled people (to ensure a healthy environmental science base) to meet future science priorities
- 15: Adapting the organisation for strategic risk management – seizing opportunities and mitigating threats.

