

Call for Expressions of Interest in participating in the National Geophysical Survey

British Geological Survey (part of the Natural Environment Research Council (NERC))

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Background

The near surface and deeper subsurface are an important national resource that requires effective management to enable the most appropriate use. The many new and existing uses of the subsurface require ever more detailed understanding of the ground beneath our feet and the relationship between the subsurface and the environment. Recent developments and new proposals for the use of the subsurface include:

- geothermal energy
- resources (conventional and unconventional oil and gas, minerals)
- groundwater
- underground storage (hydrogen, carbon dioxide, compressed air)
- disposal of wastes (including radioactive waste)
- environment (fluid leakage, contaminant management)
- infrastructure (tunnels and shafts)
- geohazards (landslides, groundwater flooding, sinkholes)

Current geological maps and models are in many cases based on very sparse subsurface data. In some areas the most detailed data are regional scale (potential field- gravity and/or magnetic) surveys or disparate (site investigation boreholes). In the offshore there are economically significant regions covered by 3D seismic data. In other offshore areas and across much of the onshore there is a variable network of 2D seismic lines with only a few small areas of 3D survey. Much of the data are held in confidence and only rarely freely available, often excluding more recent reprocessed versions, resulting in a significant uncertainty of the subsurface geology in such areas.

Increasing commercial activity and the environmental and geohazards response to those activities requires an improved understanding of the geology and geological processes active in the subsurface. The acquisition of new areas of detailed 3D seismic and other data is required to improve the existing subsurface geological characterisation.

A [National Geophysical Survey](#) (NGS) will generate better data over a wider area and make it accessible to industry, academics, regulators and the public. It is envisaged that research undertaken using the data will provide a step-change in geological understanding of the United Kingdom.

This proposal provides a mechanism for providing support to gradually develop the survey targeted in areas with particular commercial or environmental interests.

Following a seminar at BGS Keyworth (4th April 2016) announcing the National Geophysical Survey, BGS would like to invite expressions of interest for participation in the scheme.

We welcome expressions of interest from potential partners or groups who will collaborate in:

- Funding the acquisition of the first survey areas
- Defining the project areas of interest

- Defining the geological targets which will need to be broadly in line with the science case published by [BGS](#)
- Input into the survey parameters and processing of the survey

We expect that interest in the scheme will come from a range of potential users, including those involved with:

- onshore oil and gas exploration & production (conventional and unconventional)
- gas storage (natural and CCS)
- geothermal schemes
- groundwater management
- management of contaminated land and the development of contaminant transport models
- radioactive waste management
- regulators and legislators concerned with appropriate management of the subsurface and its interaction with surface processes
- local and national planners

The National Geophysical Survey and the new geological understanding that it will deliver will support BGS in its strategic aims to help society use its natural resources responsibly and be resilient to environmental hazards. The National Geophysical Survey will form part of NERC's long term strategic approach to integrated environmental observation and data science to deliver the NERC Strategy, drive innovation and growth and bring us closer to achieving a "full model of the environment". It will contribute to the UK's leading position in environmental science and underpin societal and economic impacts for businesses, government and the public

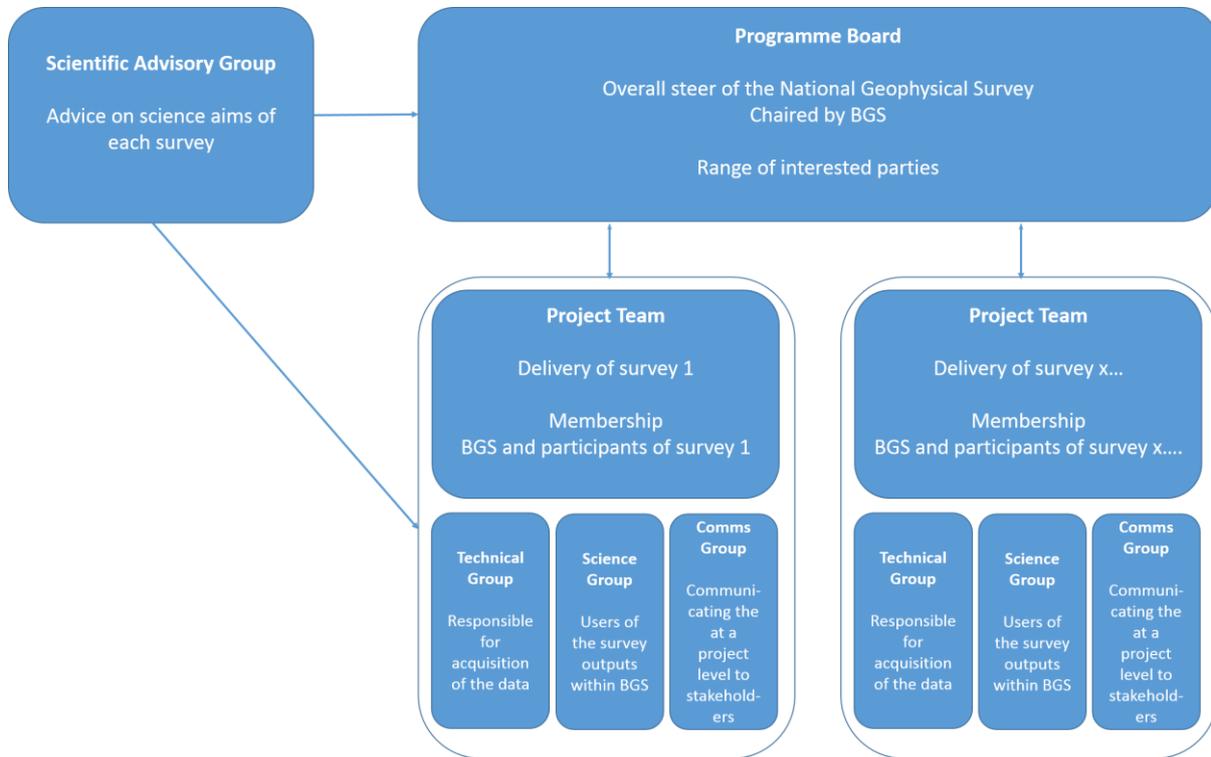
More details can be found at:

<http://www.bgs.ac.uk/research/energy/NationalGeophysicalSurvey.html>

Overview of the review process

To enable the selection of areas of interest for the initial surveys in the scheme and establishment of potential consortia the BGS invite interested parties to submit an expression of interest. BGS will review the expressions of interest, identify common priorities, and then bring the interested parties together to discuss potential for collaboration under the scheme and develop plans for working together.

A BGS project management team will be formed once collaborations are established. The overall governance of the scheme will be by Programme Board (once the project collaborations have been formed) which will take advice from a Scientific Advisory Group, the governance structure is outlined below.



Review of the EoI and selection of participants

Due to the nature of the call, the BGS does not expect expressions of interest from fully formed consortia (although applications from consortia would be welcome) in the first instance. Once an EoI has been received, BGS will carry out an initial review. When this is complete the BGS will then facilitate negotiations between invited organisations to encourage collaboration where appropriate, and to establish project teams for each agreed survey area in the first phase of the programme.

The BGS review of each EoI received will be based on the following considerations:

1. The viability of the proposed survey plan and its clarity in terms of dimensions, location and geological targets;
2. Any barriers/dependencies described that may delay or halt the project, or risk the reputation of BGS;
3. That the EoI confirms an in principle commitment to contribute funding to delivery of the NGS, subject to negotiation and contract.

Following this initial review the BGS will issue a formal invitation to successful applicants to participate in further negotiations led by the BGS. These negotiations will formulate agreements, plans and project teams to deliver the first phase of the NGS. Membership of the Programme Board will then be

finalised once teams and a programme have been agreed and the Programme Board will be active after the selection of the first phase projects.

Following the issue of formal invitations to participate, the successful EoI will be reviewed by the Scientific Advisory Group. This review will inform the subsequent negotiations with NGS programme participants by identifying the following opportunities that would be presented by the proposed surveys:

1. The scope for scientific advancement and discovery that could be followed up by targeted research calls or grants once data has been released
2. How the data can help address uncertainties in knowledge of the subsurface environment that would benefit a breadth of industry and government stakeholders concerned with development and regulation of the subsurface
3. The potential for combining or extending proposed survey areas, and/or modifying the survey design, to maximise the scientific and public good benefits of the data.

Process



Cost of participation

Individual organisations participating in the National Geophysical Survey will share the costs of the survey and management of the project by BGS.

Indicative Timeframe*

Activity	Indicative dates
Proposal for a NGS launched	4 th April 2016
Call for expressions of interest published	8 th June 2016
Call closes	4 th July 2016
Review and evaluation and collation of expressions of interest by BGS	22 nd July 2016
Notification to successful participants in the expression of interest and invitation to begin consortia negotiations.	1 st Aug 2016
Advice and comments fed into project formulation discussions by Scientific Advisory Group	Aug 2016
Selection of lead organisation.	Aug 2016
Technical specification developed	Aug 2016
Final sign off by all parties	End Aug 2016

* All parties may agree to work quicker than this timetable

Frequency

This is the first call for expressions of interest for participation in the National Geophysical Survey. If the first project/s within the scheme are successful it is intended that the further rounds of calls will be issued.

Roles and responsibilities

The lead organisation will be responsible for procurement and managing costs of the required seismic acquisition services and a broad outline should be given in this call for interest. The lead organisation alongside the seismic acquisition contractor will be responsible for all negotiations with landowners and the application of any required permits. Communication of the aims and practical details of the National Geophysical Survey will be the responsibility of the BGS.

Costs will be shared by the lead organisation and other funding parties as agreed in the survey agreement.

Data release principles

Raw geophysical data ("field data") acquired as part of the National Geophysical Survey will be made available to the BGS and NERC immediately after data collection. This raw data is then quality assured or 'processed' by the seismic contractor; all processed data acquired, as part of the National Geophysical Survey, will be provided by the seismic contractor to the BGS and NERC as soon as the processing of field data is complete. Prior to Public Release, both the field data and processed data ("the Specified Data") will remain confidential and for the exclusive use of both BGS and the funder.

Data acquired during the National Geophysical Survey will be subject to early Public Release. Data will be released on expiry of a Confidentiality Period, which will be half the duration specified in the Onshore Oil and Gas Licensing Round under which the data was acquired, and will be no longer than two years. The Confidentiality Period starts at the end of the calendar year in which data acquisition was completed.

During the Confidentiality Period, BGS from time to time may use the specified data to publish reports of a general nature but not release or display the Specified Data itself without prior authorisation from the funder.

At the end of the Confidentiality Period, the Specified Data will be made available for general Public Release through the UK Onshore Geophysical Library (UKOGL). This is in recognition of the national need for this type of data, but retains an element of exclusivity to allow the funder and public sector collaborators to use the data for their respective purposes.

In recognition of the early release of information, if any of the field data is released by UKOGL for reprocessing by a third party then the results of the reprocessing must be provided to BGS and made available through UKOGL as soon as that reprocessing is completed.

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