



National Centre for Research Methods call for Methodological Research Projects

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Introduction

The ESRC is pleased to invite proposals for projects that will undertake cutting-edge methodological research in one or more of the following strategic areas:

- Digital devices and mobile technologies for data collection
- Participatory approaches
- Analysis of online digital and Big Data
- Bio-social data analysis
- Policy relevant research synthesis
- Small area estimation

The call is issued in partnership with the Department for International Development (DFID) which will co-fund in the Policy Relevant Research Synthesis area.

The research projects will be part of a programme of research coordinated by the National Centre for Research Methods (NCRM) (<http://www.ncrm.ac.uk/>) and will work with the Director and Co-Directors to achieve the Centre's strategic objectives. The projects will run for up to 36 months, **commencing 1 January 2016**. A total of £5 million (100 per cent fEC, with ESRC contribution £4 million) is available. The maximum budget for an individual research project is £825,000 (100 per cent fEC, with ESRC contribution £660,000) over a maximum of 36 months.

Background to NCRM

The ESRC established NCRM in 2004 to address long-recognised problems of methodological under-capacity in the UK social science research community. The Centre's aim is to increase the quality and range of methodological approaches and techniques used by UK social scientists, across all sectors and career stages, through training and capacity building (TCB) and by driving forward methodological development and innovation through its research.

The Centre has been successful in achieving these objectives during its first ten years of funding, delivering a research portfolio that the 2012 ESRC review of NCRM concluded was 'of very high quality and probably unique in the world', alongside a comprehensive and highly rated programme of TCB in advanced research methods.

In October 2014 NCRM adopted a new structure, in order to ensure that the UK social science community is equipped with the tools and skills to deal with emerging challenges and opportunities. The Centre now comprises a collaborative partnership, between the Universities of Southampton, Manchester, and Edinburgh which undertakes a portfolio of methodological research, provides a strategic co-ordination function and delivers face-to-face and online TCB.

NCRM's substantial programme of TCB comprises short courses delivered at accessible locations throughout the UK, as well as development and hosting of a diverse range of online learning resources.

The commissioned research projects will be integrated within NCRM and be expected to complement, enhance and extend NCRM's existing research and activities. The Centre's current research programme (<http://www.ncrm.ac.uk/research/>) is organised under two thematic strands: methods for the analysis of complex data with linked and time-dependent structures, and the pedagogy of methodological learning.

Scope of the call

NCRM's core objective is to provide innovative methodological insights and solutions to substantive research problems within a rapidly changing social, economic, policy, and technological landscape. It is also responsive to the ways in which longstanding areas of methodological investigation are themselves transformed over time.

NCRM has recently carried out a consultation with its stakeholders, to identify areas of methodological research need, in order to inform its future research strategy. Based on the consultation (<http://eprints.ncrm.ac.uk/3744/>) and the need to align with ESRC's strategic approach to creating and maximising data infrastructure, six areas of methodological research need have been identified as of particular importance. Proposals are invited which

fall within the six areas which are described below. While some areas are explicitly quantitative (eg small area estimation) and others largely qualitative (eg participatory approaches), the majority of the topic areas are related to forms of data and therefore enable a range of quantitative, qualitative and mixed-method approaches.

Applicants will need to make sure their proposal fits within one or more of the strategic areas of methodological research need. Please note that the different research approaches provided under each of the six steers are examples only and are not meant to be prescriptive or an exhaustive list. Proposals which address other specific topics or questions under each of the six headings are welcome.

Digital devices and mobile technologies for data collection

Keeping pace with technological advances is vital for UK social science research. The most frequent response to NCRM's consultation related to research into the use of new digital technologies - particularly mobile and 'smart' web-based and 'wearable' devices for quantitative, qualitative, and mixed-methods research designs. This theme also covers the use of these new and emerging devices, as part of a mixed-mode data collection strategy in surveys.

Further research into these new modes of data collection is particularly valuable, as research methods need to reflect societal changes and public expectations, to reduce costs, and to enable new types of data collections; particularly with more frequent points of data collection over shorter time periods than with conventional approaches support. Current barriers to realising the potential of new digital technologies for data collection, both standalone and in a mixed-mode context include a currently under-developed framework for understanding and assessing data quality and a lack of consensus and guidance on best practice.

Participatory approaches

Participatory research is characterised by the involvement of research participants across various (and potentially all) stages of the research process, and is seen as particularly important for research involving 'hard to reach' populations, marginalised groups, and those with communication difficulties. This area supports the ESRC's desire to encourage more co-designed and co-produced research. There is also huge potential in this area, particularly around the use of new technology to encourage innovation.

There is a broad range of participatory research methodologies. Those identified by consultation responses as areas where research is needed were: participatory action research; participatory mapping; and co-production/co-creation.

The research needs in relation to participatory action research were identified as managing the tension between scholarship and activism, and the need to define good practice in use of the method.

Participatory mapping - which is an approach used to generate shared understanding of issues in a particular geographical area - was identified as an area where considerable development is needed, as critical perspectives on methodology in this field are lagging behind those in similar areas.

In the area of co-production - where researchers and community partners work together to develop new knowledge - the need to describe methodologies more precisely and draw on methodological traditions from the arts and humanities were identified as important. The consultation also identified the importance of participatory approaches to research methods more broadly, particularly in the context of exploring and describing public views.

Analysis of online, digital and big data

Possibly the most significant developments in social science research methods and data in the past five to ten years relate to various forms of digital and web-enabled research. However, capacity issues in this area have been highlighted in a number of reports and it was a commonly expressed view in the consultation that the volume and complexity of digital and online data assemblages, often referred to as 'Big Data', have rapidly outstripped our ability to handle and analyse them.

We are defining 'Big Data' in this context to mean: 'naturally occurring', high-volume digital data which are often available in 'real-time' and which are not produced with social scientific research as an objective. The consultation identified the need to develop methods to capture and analyse various forms of 'Big Data', particularly relating to social media (eg Facebook and Twitter) and commercial/transactional data from for example loyalty cards and ambient meters. Particular highlighted areas were linking datasets, visualisation of data, analysis of data in 'real-time', the ethics of using different forms of personal and potentially disclosive data for research, dealing with 'missing' data, representativeness and causal inference.

The ESRC has made substantial recent investment in facilities such as the Administrative Data Research Network (ADRN) (<http://www.esrc.ac.uk/research/major-investments/Big-Data/BDN-phase1.aspx>) and the ESRC Business and Local Government Data Research Centres (<http://www.esrc.ac.uk/research/major-investments/Big-Data/BDN-Phase2.aspx>) which are altering the ways in which new and traditional data forms can be accessed; linked to other data sources; and analysed. It is therefore fundamental that new methods are developed to exploit this opportunity and to open up new and genuinely transformative possibilities for social science researchers across all disciplines.

Bio-social data analysis

The ESRC is committed to growing the emerging biosocial research agenda. The Framework to Enable Biosocial Research (<http://www.esrc.ac.uk/research/major-investments/biosocial.aspx>) sets out the ESRC's ambitions for this interdisciplinary science. The ESRC has invested in a rich and diverse range of data resources for biosocial research and recognises the need to ensure that their huge potential is realised by the social science community. Social scientists must continue to develop and apply appropriate methods, as well as explore novel technologies, if they are to be at the forefront of this emerging area.

Recent growth in biosocial research has highlighted the potential to increase the academic and societal impact of ESRC funded research. Early social-scientific work in the biosocial area has progressed biological data collection from cohorts and surveys. The current focus is to further develop analytical approaches examining the interplay between the biological and the social, and how these relationships shape individual level outcomes in policy domains such as health, education, and wellbeing. To achieve this it is essential that social scientists work together with biological and medical scientists.

The NCRM consultation identified the need to develop new approaches to the analysis of biosocial data integrating biomarkers with more traditional social and psychological indicators. Potential areas for further work include new analysis methods for current and emerging types of biological data. Also ripe for development are new statistical techniques which integrate aspects of biological and social science analyses and can address transformative research questions using new kinds of biosocial data. Finally, there are exciting opportunities for the development of 'digital devices and mobile technologies' throughout the biosocial research and data arena.

Policy relevant research synthesis

The project we commission in this area will be jointly funded with DFID. This reflects our shared interest in developing methods which effectively evaluate policy interventions. For the ESRC supporting further methodological advances in this area complements our role as a major funder and administrative partner in the What Works Initiative (<http://www.esrc.ac.uk/collaboration/public-sector/what-works-evidence-centres.aspx>), For DFID it provides the opportunity to look specifically at the application of social science research methods within the context of international development policy.

Applications are therefore invited which develop methods for policy evaluation and research Synthesis, and apply them within the context of international development policy. The following areas are of particular interest and where the applicant(s) must demonstrate expertise:

- Exploring the range of policy-relevant rigorous research synthesis methods and the relative effectiveness of different approaches
- Developing alternative rigorous synthesis approaches to address policy-relevant questions for non-experimental research methods
- Progressing the application of systematic review methods within the social sciences
- How to design evaluations and research projects in ways that facilitate subsequent synthesis
- How to undertake real-time rigorous synthesis of on-going evaluations.

The successful applicants will be expected to work closely with DFID to ensure that the funded project has applied and practical focus, with a clear path from the methodological development to how it will be used by policymakers. DFID and the ESRC hosted a webinar on 27 April 2015, to provide the opportunity for potential applicants to discuss the call with them and their output expectations. FAQs arising from the webinar are available on the call web page.

Small area estimation

Small Area Estimation (SAE) describes a range of methodological techniques for the estimation of population characteristics at small area levels from survey and administrative data, where (survey) data do not currently exist, or are too sparse for the production of robust estimates. There is already a high demand for small area statistics and the ability to produce small area estimates of high quality is likely to become increasingly important if the census changes from its current form.

The consultation identified the need to develop new analytical approaches for SAE, better understanding of the validity of SAE estimates, and the way in which estimates using different methodological approaches compare to one another. Other suggested areas were multivariate and non-parametric estimation in the context of missing data. The development of approaches which yield more robust and useful measures of error in SAEs is also important.

Project requirements

The ESRC seeks proposals for NCRM Research Projects in the six strategic areas identified. As there is a degree of overlap, applications may fit within one or more of these areas. It is expected that the projects will focus on innovative methodological development, within the context of a substantive research problem. Explicit connection between methodological developments and the social scientific questions, data, and theory they relate to will be vital. Methods will be developed and evaluated to address specific needs in the social sciences, not to extend methodological fields as an end in itself.

As the projects will be part of a programme of research coordinated by the NCRM, they will need to operate alongside the Centre's grant which ends in 2019. Therefore the maximum duration of a project is 36 months and grants must commence on **1 January 2016**.

Associated studentships (formerly known as grant-linked studentships and referred to as 'project students' in Je-S) can only be included in proposals if the grant is for a three year duration, the student is based at an ESRC Doctoral Training Centre and is studying on an accredited pathway. Applicants considering including a doctoral studentship in their proposed research project must discuss this in advance with the relevant DTC. It is a requirement that written confirmation from the DTC Director is received, to confirm they are happy to accept the studentship(s) see:

<http://www.esrc.ac.uk/funding-and-guidance/postgraduates/dtc/dtc-guidance/index.aspx>

Applicants are particularly encouraged to focus their research in ways that are likely to add value to existing data resource investments, for example the ESRC's administrative and longitudinal datasets.

It is a requirement that all applicants specify:

- A demonstrable commitment to the application of the specified area of research methodology, within more than one social science discipline (<http://www.esrc.ac.uk/funding-and-guidance/applicants/proposal-classifications-ESRC-disciplines.aspx>) or to interdisciplinary research. The focus of a research project should not duplicate, or otherwise be redundant with the Centre's existing programme (<http://www.ncrm.ac.uk/research/>) of methodological research, or with existing ESRC investments (<http://www.esrc.ac.uk/research/major-investments/index.aspx>).
- How they will proactively engage and where appropriate, collaborate with international networks of researchers in the research project's area(s) of methodological research. NCRM aims to promote and foster formal links with overseas experts and centres of methodological excellence. From 2015 NCRM will

be running an International Visitor Exchange Scheme, with calls for proposals being issued on an annual basis. The scheme will provide funding for overseas scholars of international standing to make visits to UK research organisations for periods of up to three months. The scheme will also provide funding for visits by UK methodologists to visit overseas Centres of methodological excellence. Researchers funded under the scheme (both incoming and outgoing) will be expected to undertake methodological research and contribute to NCRM's research and TCB activities. Applicants are encouraged to use the International Visitor Exchange Scheme as a part of their strategy for international engagement. International co-investigators are also eligible (<http://www.esrc.ac.uk/funding-and-guidance/applicants/international-co-investigators.aspx>).

- Proactive engagement and where appropriate, collaboration with research users such as the statistical agencies, civil society organisations, business and government departments.

In preparing their proposal applicants will need to:

- Provide a clear account of the methodological research they propose to undertake, describe how the research develops from or improves on existing methodological approaches, and set out how the proposed developments can be applied to advance knowledge in substantive settings.
- Outline how the proposed Research Project will contribute to increasing the quality and range of methodological skills and techniques used by the UK social science community, and how it will enable new or existing social science research questions to be addressed more effectively. Methodological development should not be an end in itself.
- Set out a clear strategy for ensuring take-up and use of the proposed methodological development by social scientists. Where appropriate this should involve developing, making available and promoting tools which facilitate the use of their methodological developments by the social science research community. Additional funding may be available from NCRM to support the development of promising software applications. Research Projects are not expected to develop their own websites and will instead contribute to NCRMs website.
- State a clear commitment to the Centre's TCB activities. This will primarily be through contributions to the NCRM short courses (eg running two courses - two days each - over the duration of the grant) and the production of online learning resources, but may also involve participation in other Centre activities. Applicants should clearly state their willingness to contribute to NCRM's TCB activities. Applicants should not however include costs for TCB contributions in their proposals. Funding for TCB contributions will be managed under separate arrangements between NCRM and successful applicants.
- Describe through the Impact Summary and Pathways to Impact attachments, how the research project is likely to deliver impact, by providing methodological

innovation, solutions, insights, or tools which will enable genuine advances in key substantive research areas.

- Provide a clear impact and communications strategy to ensure maximum impact of the work and engagement with appropriate research users, such as the statistical agencies, civil society organisations, business and government departments. For example, DFID have indicated interest in a number of the areas outside of Policy Relevant Research Synthesis area that they are co-funding. The plan should set out where the work has been developed in collaboration with other organisations/ESRC initiatives.
- Applicants to the Policy Relevant Research Synthesis area must clearly set out how they will work with DFID to design and develop their project to ensure it has practical application.
- Demonstrate that the proposed work will engage with international experts in relevant areas.
- If appropriate, explain how the research project will add value to existing social science data resources.
- Provide a clear management structure, with lines of communication both internally within the research project and externally with NCRM.

Contribution of research projects to NCRM

In addition to the criteria set out above each research project must be willing to contribute to the overarching aims of the Centre aims in the following ways:

- **Distinctive contributions to NCRMs aims** - research projects will be expected to engage with key research users as appropriate to their methodological focus. These include the statistical agencies, civil society organisations, business and government departments. Contributions may include adding value to other methodological and substantive ESRC initiatives; strengthening networks of researchers with common methodological interests; or raising the profile of UK social science methodology among parts of the international research community.
- **Research events** - in addition to research events planned as part of the research project, it is expected that project teams will contribute to the range of research events organised by NCRM. These include the Research Methods Festival, the annual Centre meeting, NCRM seminars and symposia, and the ESRC Festival of Social Science.
- **Contribution to TCB** - It is expected that Research Projects will contribute to the delivery of NCRM TCB activities.
- **Support NCRM communications** - research projects will be expected to contribute to the NCRM website and provide input to the Centres publicity materials including the NCRM newsletter, podcasts, videos and blogs. Research projects should not plan to develop their own websites unless this is integral to the

programme of work to be undertaken. The web presence for the research projects will be delivered centrally through the main NCRM website. Projects will be expected to contribute to the content of the NCRM website in a timely manner when requested.

Costs and staffing

The maximum total budget available from the ESRC for the support of the NCRM research projects is £5 million (100 per cent fEC, with ESRC contribution £4 million). The maximum budget for an individual research project is £825,000 (100 per cent fEC, with ESRC contribution £660,000) over a maximum of 36 months.

The budget is expected to cover part of the salary costs for a principal investigator and other directly allocated staff costs; costs for supporting administrative, technical and research staff; and the costs of equipment, travel and subsistence, and project specific consumables. Standard ESRC (fEC) funding rules apply.

Applicants should include costs of £3,000 to cover attendance at NCRM research events, such as the Research Methods Festival.

Associated studentships can only be attached to grants with a three year duration. These studentships will be subject to the same terms and conditions as a standard DTC studentship outlined in the ESRC's Postgraduate Training Guidelines (<http://www.esrc.ac.uk/funding-and-guidance/postgraduates/esrc-students/index.aspx>).

How to apply

Proposals must be submitted by **16.00 on 16 June 2015** through the Research Councils' Joint Electronic Submission (Je-S) system (<https://je-s.rcuk.ac.uk/>). See the application guidance notes for further details, available on the ESRC website at:

<https://je-s.rcuk.ac.uk/Handbook/pages/SystemRequirementsFormatsandSa/SystemRequirementsFormatsandSa.htm>

If you are not currently Je-S registered and intend to apply, please ensure that you allow sufficient time for registration as no extensions to the deadline will be permitted. Hard-copy, faxed or emailed proposals will not be accepted.

Applicants must be based at a research organisation eligible for research council funding; see the RCUK website for a list of eligible organisations <http://www.rcuk.ac.uk/funding/eligibilityforrcs/>.

All applicants should consult the ESRC Research Funding Guide (www.esrc.ac.uk/rfg), which sets out the rules and regulations governing funding. The 'Guidance notes for applicants' document provides details on the information that applicants will require to submit as part of their proposal.

Assessment of proposals

Once the minimum number of peer review comments required have been received proposals will be sent to the applicant for comment, along with the reviewer assessments. Proposals, along with the reviewer comments and grades and the applicants' responses will

then be assessed by a specially convened commissioning panel. This panel will agree final grades and make funding recommendations to the ESRC.

Applicants will be informed of decisions in October 2015.

Eligible proposals will be assessed by reviewers and panel members against the following criteria:

- Scientific excellence – proposals should demonstrate cutting-edge methodological research development in the identified areas of strategic need.
- Fit to the scope of the call (set out in the ‘Scope of the call’ and ‘project requirement’ sections above).
- The potential impact of the funded research.
- Value for money.

Commissioning timetable

- Call open 7 April 2015
- **Deadline for submitting proposals - 16.00 on 16 June 2015**
- Panel assessment – September 2015
- Decisions to applicants – October 2015
- Projects start – 1 January 2016

Contact details

Please address any queries relating to the call in the first instance to the ESRC Investment Manager:

- Suzanne Mills
Policy Manager (Skills and Methods Cluster)
Email: suzanne.mills@esrc.ac.uk
Telephone: 01793 413126

Applicants wishing to discuss the scope of the call or the contribution of the projects to NCRM’s activities should contact the NCRM Director:

- Professor Patrick Sturgis
Email: p.sturgis@soton.ac.uk

Applicants wishing to discuss DFID’s requirements for a project in policy relevant research synthesis should contact:

- Laura Koch
Email: l-koch@dfid.gov.uk
- Jonas Heirman
Email: J-Heirman@dfid.gov.uk