



ENVIRONMENTAL PROTECTION AGENCY
An Ghníomhaireacht um Chaomhnú Comhshaoil

Climate Change Research Programme (CCRP) 2007 – 2013

Technical Description

**EPA Call for Research Proposals
in the areas:**

- 1: Greenhouse Gas Emissions and Sinks,**
- 2: Impacts and Adaptation**
- 3. Socio-economic Analysis and Technologies**
- 4. Air quality and trans-boundary air pollution**
- 5. Research Fellowships**

**Climate Change Research Programme
(CCRP) 2007-2013**

EPA Call for Climate Research Proposals 2013

This document provides the Technical Description for the Call for Research Proposals in the areas of

- 1: Greenhouse Gas emissions and sinks**
- 2: Impacts and Adaptation**
- 3: Socio-economic Analysis and Technologies**
- 4: Air Quality and trans-boundary air pollution**

Applicants should read the following carefully and also consult the other documentation provided (i.e. *Guide for Applicants, Terms and Conditions for support of grant awards*).

Table of Contents:

1. Introduction	1
Theme 1: GHG Emissions, Sinks and Mitigation	3
1.1 Assessment of Agricultural Activity on Drained Organic Soils.....	3
Theme 2: Impacts and Adaptation	5
2.1 Climate Information Platform for Ireland, Phase 2	5
Theme 3: Socio-Economic Analysis and Technologies	7
3.1 Sectoral and Cross Sectoral Modelling of Greenhouse Gas Emissions....	7
Priorities:	
Error! Bookmark not defined.	
3.2 Integrated Assessment Modelling of Transboundary Pollutants	9
Theme 4: Air quality and trans-boundary air pollution	11
Research Fellowships	12
FS-5 Research specialist: Greenhouse Gas Emissions, Sinks and Management Systems	12
FS-6 Research specialist: Socioeconomic and Technology Solutions and Transition Fellowship.....	14
FS-7 Greenhouse Gas and Transboundary Air Pollution Observation systems Site Development Fellowship	16
2. Indicative Timeframe	18
Indicative Timeframe for Project Based Awards & Fellowships Only	18
3. Further Information	18
4. Freedom of Information Act	18

List of Additional Documents (available on: www.epa.ie)

- **STRIVE/CCRP Guide for Applicants**
- **STRIVE/CCRP Guide for Grantees**
- **STRIVE/CCRP Terms and Conditions for support of grant awards**
- **Quick Guide to the EPA Grant Application Portal**

1. Introduction

Introduction

The National Climate Change Strategy (NCCS), 2007 (www.environ.ie) highlights climate change research as an important element of the overall national response to climate change. The Environmental Protection Agency's Climate Change Research Programme is developing and progressing climate research and is acting to coordinate research activities with other state agencies and government departments. The aim is to support the development of policy response and actions through the provision of integrated scientific analysis of issues related to climate change as outlined in the NCCS. This should also contribute to understanding of these issues at national, EU and wider international levels. The 2013 call is part of the development of the Climate Change Research Programme.

Climate Change Research Programme Structure

The CCRP is structured around four thematic areas and a cross-cutting element. The structure of the programme and thematic areas are shown in Figure 1. Further information on the programme can be found on the CCRP web pages at <http://www.epa.ie/whatwedo/climate/climatechangeresearch/>

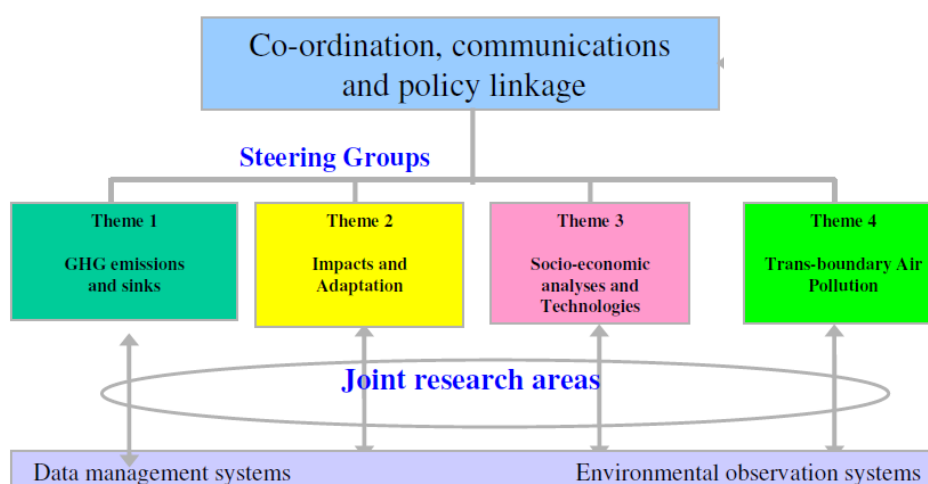


Figure 1: Organisational structure of the Climate Change Research Programme

This call is focused on advancing research within all of these thematic areas.

Application Process

Making an application on-line:

Applications must ONLY be made on-line <https://epa.smartsimple.ie>.

Guide to the EPA on-line application system:

The guide to the EPA on-line application system, '2013 Quick guide to the EPA on-line portal (making an application)', is available for download at www.epa.ie.

What to include in the application form:

To make the best application possible, it is recommended that you read the '2013 STRIVE guide for applicants' before drafting and submitting an application, available at www.epa.ie.

To make an application under any of the topic areas:

Applicants must use the correct **Call Topic Reference**, as indicated in this document, from the drop down menu on the EPA on-line system e.g. Climate Change Call Project 1

It is the responsibility of the Applicants to ensure:

Proposals are submitted before the **call deadline**, and of the relevant Grant Authoriser (i.e. Research Offices / Managing Directors for companies) to ensure that the proposals are authorised before the **organisation approval deadline**.

Theme 1: GHG Emissions, Sinks and Mitigation

Introduction:

Research undertaken under this thematic area aims to improve understanding of greenhouse gas emissions and sinks thereby providing better information to support actions to mitigate emissions and enhance sinks. Research in this area contributes to improving inventory methodologies for estimation of emissions and sinks of GHGs.

The estimation of emissions and sinks of GHG from agriculture and land use remains a key uncertainty within Land Use, Land Use Change and Forestry, LULUCF. The dynamic of land use within Ireland is not well understood, particularly the exchange of land areas within agriculture. Ireland is facing critical decisions with regard to the options for management of degraded peatlands. Analysis is required to assess the potential of this activity on a national scale.

The 2013 Theme 1 call is focused on elements of this work.

1.1 Assessment of Agricultural Activity on Drained Organic Soils.

(Medium scale study)

To make an application under this topic area, you must use the following:

Call Topic Reference: [Climate Change Call Project 1](#)

Under the United Nations Framework Convention on Climate Change, (UNFCCC), Ireland makes an annual report on greenhouse gas emissions related to agricultural land management. Although grassland is the dominant land use type in Ireland, cropland areas are significant in certain parts of the country, and have an important impact on soil properties.

The current analysis of emission and sinks of GHG gases due to agricultural impact on soils based on default IPCC guidelines and emission factors. This level of analysis has high uncertainty and fails to capture the complexity of actual farming practices and does not reflect the potential for mitigation of emissions and enhancement of sinks. In this context, the drainage of organic soils for use as cropland is of particular interest, due to the potential for high carbon losses.

The EPA seeks to maximise the use of existing data systems in the analysis of GHG emissions and sinks from soils. In particular, the EPA would like to cross reference findings from GIS analysis based on spatially referenced data against remote sensing and in-situ observations of agricultural activity on drained organic soils.

At present, Ireland reports that there is negligible tillage activity on organic soils, based on expert opinion. However, analysis based on land parcel and soils data indicate that there are potential "pockets" of activity in certain areas. Verification of these findings will be the focus of this study.

Project Description:

The EPA invites proposals for a medium scale study focused on an assessment of agricultural activity on drained organic soils. Of particular interest is an assessment of the accuracy and validity of analyses based existing spatial data for the detection of tillage on organic soils.

This includes liaison with EPA and DAFM in development of a robust methodology to verify the GIS analysis including use of remote sensing data and a limited field campaign/survey. Note, it is **not** envisaged that the field survey involve detailed soil sampling.

Expected outputs include a project report of key findings, a robust methodology to establish tillage activity on organic soils using existing data, including uncertainty analysis; recommendations for future activity data requirements and an outline of research activities undertaken during the project, and data products where relevant.

Project Structure:

This is seen as **Medium Scale Study** to run for up to **9 months**.

Indicative award €70k (which includes 2% for post-completion publicity/dissemination¹ please refer to 2013 Guide for Applicants for further details).

¹ For example, a €70,000 grant award is made up of €68,600 for project, and €1,400 for post-completion publicity

Theme 2: Impacts and Adaptation

Introduction

Research under this thematic area aims to provide information on future climate conditions in Ireland and their impacts. This information can inform actions and approaches to increase Ireland's resilience and reduce susceptibility to the adverse impacts of climate change and to take advantage of potential opportunities.

The objective of Theme 2 is to make Ireland resilient to the consequences of climate change. In recent years, research has progressed on climate modelling, climate analysis, development of observation systems and indicators. This has included analysis of potential impacts for Ireland, as summarised in the State of Knowledge Report (Desmond et al., 2009). Work under this thematic area is designed to support the objectives of the National Climate Change Adaptation Framework and support sectoral and local level planning and decision making in the context of climate change. At a broader scale it also develops a basis for provision of future climate services as envisaged in the outcomes of the Third World Climate Conference (2009). This 2013 Theme 2 call aims to advance aspects of work in the area.

2.1 Climate Information Platform for Ireland, Phase 2

(Medium Scale Study)

To make an application under this topic area, you must use the following:

Call Topic Reference: [Climate Change Call Project 2](#)

On-going availability of information on climate change is required to inform response options. A climate change information platform is envisaged as an important component of an climate change information system. It should provide access to data and analysis of on-going and future climate scenarios, the potential impacts of these at various spatial and temporal levels for sectors and stakeholders. This is a key communication and support tool for analysis of adaptation options or other response options. A web-based approach is required in order to increase accessibility to existing information e.g. from EU Ensembles project. The system should be suitable for supporting the development of adaptation policies actions or plans.

It is recognised that a range of groups and organizations have information that is of value in understanding climate change and its potential impacts. The aim is therefore to build a partnership approach in order to facilitate sharing of information between data providers, end users and sectoral practitioners. The system will, thus, aim to provide access to a shared pool of information for decision makers and avoid duplication of effort.

It is considered that the system will evolve and become a long term resource. The development of the system will be progressed in a phased manner. A 'Discovery' web presence has been piloted. The aim is to build and develop this approach. It

may involve a more interactive interface, level data interrogation and analysis tools.

This work will link to the EU Clearing House for Climate change Impacts and Adaptation and inform planning for the National Adaptation Framework. It will be strongly driven by user requirements and needs. This will require some flexibility within the project to address these objectives and to facilitate further development.

Project description

The EPA invites proposals to advance on developments that have been carried out during a pilot climate change information platform. Objectives would include: to create a shared information and existing data resource for decision makers; facilitate information use, avoid duplication of effort in terms of data provision and/or provision of analysis; identify knowledge gaps; facilitate dissemination of scientific information; support assessments of climate change impacts, vulnerability, and adaptation planning. The project will develop targeted information and provision of user supports, and advance data management and interface systems to facilitate access to these data and decision making tools.

The project will entail work with stakeholders and data providers to identify and assess availability of information. Data quality control mechanisms will be established to assure the providence of the data and the project will work with providers in making their data available through the platform and ensure compliance with INSPIRE.

The project will also entail working with end users with a view to understanding and analyzing needs, capacities and resource availability.

Expected outputs include a project report of key findings, including recommendations for

- IT architecture and systems, and
- management plan for an operational information platform, and
- additional research and development needs.

An outline of research activities undertaken during the project, and data products where relevant should also be provided.

Project Structure

This is envisaged as a **Medium Scale Study**, which will run for up to **24 months**.

Indicative award €275k (which includes 2% for post-completion publicity/dissemination² please refer to 2013 Guide for Applicants for further details).

² For example, a €275,000 grant award is made up of €269,500 for project, and €5,500 for post-completion publicity

Theme 3: Socio-Economic Analysis and Technologies

Introduction

The aim of research under Theme 3 is to advance knowledge and support policy making for climate solutions particularly for mitigation but also for adaptation and international climate finance requirements. This call focuses on directing research towards opportunities in the Green Economy. The call is focussed on identification of cost-effective way to achieve mitigation and climate finance targets.

3.1 Sectoral and Cross Sectoral Modelling of Greenhouse Gas Emissions

(Medium Scale Study)

To make an application under this topic area, you must use the following:

Call Topic Reference: [Climate Change Call Project 3](#)

There is a strong need for high quality, reliable data and analysis that could inform climate and energy policy development and aid associated decision making. This project aims to build the modelling and analytical capacity for environmental and energy assessments as an aid to inform policy development, particularly in the context of proposals for 2030 mitigation targets and longer term national planning towards 2050.

The project should build on existing research and contribute to cross-institutional modelling capacity in Ireland. The key project outputs are;

- The development of a range of technology cost options and alternatives for the Irish energy system
- The identification of actions to meet the various energy and mitigation targets over a range of scenarios,
- An analysis of the role of agriculture and land-use in meeting Irish mitigation targets,
- A consideration of the economy-wide feedbacks of the scenarios and sensitivity analysis.

Pathways consistent with greenhouse gas neutrality for Ireland by 2050 will be assessed as well as potential linkages to European policy schemes including the integration of the electricity market, the EU Emissions Trading System and EU renewable energy targets as well as agricultural and land use policy. Macro- and micro-economic effects should also be considered as part the project.

The project will involve close cooperation with the EPA and Sustainable Energy Authority Ireland (SEAI). All input data sets will be made available to both SEAI and EPA.

This work is required to:

- Underpin emissions projections and improve the robustness and quality of emissions assumptions,
- Enable a comparison of various policies across all end uses that can provide insights to the development of an overall cost optimal policy mix to reach Ireland's overarching targets.
- Provide the analytical methods and tools for quantifying emissions reductions from a range of policies and measures.

- Provide the analytical methods to determine the effort that should be applied in each sector to reach Energy Efficiency, Renewable Energy and GHG reduction targets by 2020, 2030 and 2050.
- Inform EU effort sharing negotiations by identifying implications and opportunities across the economy
- Examine the feedbacks to the Irish economy of the technology deployment across the scenarios

Priorities:

- Utilising a whole system approach, develop robust analysis to assess alternative mitigation pathways to 2050
- Detailed consideration of demand side technology options for energy demand reduction (energy efficiency) and within the analysis.
- Provide a modelling tool for use by policy makers making modelling capacity available to the EPA, SEAI and relevant Government organisations as appropriate
- Improve and develop capacity to model future energy demand across a range of economic sectors focussing in particular on transport, residential, industry and commercial services.
- Develop short to medium term detailed sub-sectoral projections of energy demand under a range of policy scenarios. The approach should allow for the analysis of specific changes in low carbon and energy efficiency technology or policies
- Outline how this work will complement and interact with ongoing Irish energy and emission modelling research.

The project should also add value by addressing some of the following issues;

- Interface with other modelling activity in Ireland e.g. to look at potential co-benefits of policy and scenario options
- Improving representation of behavioural measures
- Improving representation of land use options and implications for mitigation targets
- Improving understanding of interactions between sectors
- Interface with EU modelling of energy scenarios, in particular regarding the potential for cost-savings through international carbon and/or energy transactions

Expected outputs include a project report of key findings, recommendations and an outline of research activities undertaken during the project, and data products where relevant.

Project Structure

This **Medium Scale Study** will run for up to **24 months**.

Indicative award €275k (which includes 2% for post-completion publicity/dissemination³ please refer to 2013 Guide for Applicants for further details).

³ For example, a €275,000 grant award is made up of €269,500 for project, and €5,500 for post-completion publicity

3.2 Integrated Assessment Modelling of Transboundary Pollutants

(Medium Scale Study)

To make an application under this topic area, you must use the following:

Call Topic Reference: [Climate Change Call Project 4](#)

Integrated assessment modelling for atmospheric emissions allows the analysis of current and future socio-economic developments, their potential impact on pollution levels together with analysis of abatement technologies, strategies and their associated costs in relation to meeting specified environmental and health objectives. Integrated assessment models have been developed in Europe to support a range of regional agreements and to inform efforts to control pollutant emissions e.g. the IIASA Regional Air Pollution Information and Simulation (RAINS) and the Greenhouse gas and Air Pollutions Interactions and Synergies (GAINS) models.

Whilst there is significant activity at a pan-European level in developing integrated assessment modelling as a tool, it is important to ensure that integrated assessment modelling analysis is accurate and robust for Ireland.

Project proposals are requested to advance integrated assessment modelling for Ireland to support analysis of key sectors and parameters in the context of analysis under the UNECE Convention on Long Range Transboundary Air Pollution (CLRTAP). The aim is to ensure that the highest quality analysis and information are available in relation to meeting environmental and sustainable development objectives for Ireland.

This work should where possible build on existing capacity and address emerging issues in this arena e.g. actions to control black carbon and PM. It should also determine synergies and tensions between transboundary air pollution and climate change mitigation measures and provide analysis in relation to these issues.

Project description

Project proposals are requested to advance integrated assessment modelling of transboundary air pollutants for Ireland. The aim should be to provide a modelling framework approach that provides policy relevant information and data on activities and resultant emissions at a national level, which interfaces with EU CAFÉ, UNECE CLRTAP, and other relevant regional and global groups working on this area. Proposals should outline the following:

- how integrated assessment modelling would address policy relevant analytical needs within Ireland
- how this work would link to systems and tools being used at EU and wider international levels
- how the research would be communicated to policymakers
- how policy makers will be provided additional tools for analysis based on IAM capacity
- how to disseminate analysis and contribute to building capacity in the EPA and relevant policy makers including through workshops and seminars

Expected outputs include;

- A policy report on the synergies and trade-offs between air quality and climate change policy measures in Ireland

- An assessment of the marginal damage cost of transboundary air pollutants for Ireland
- Scenario development to support policy makers in EU and international processes
- A final project report of key findings, recommendations and an outline of research activities undertaken during the project, and data products where relevant

It anticipated that this work will interface with key national activities in relation to emission inventory and projections development, and key sectors such as energy, transport and agriculture. These should enable a consistent and coherent approach is developed in relation to the use of key underpinning data and assumptions.

Project Structure

This **Medium Scale Study** will run for up to **24 months**.

Indicative award €275k (which includes 2% for post-completion publicity/dissemination⁴ please refer to 2013 Guide for Applicants for further details).

⁴ For example, a €275,000 grant award is made up of €269,500 for project, and €5,500 for post-completion publicity

Theme 4: Air quality and trans-boundary air pollution

Introduction

The objectives for the 2013 call are to improve national capacity in the assessment and analysis of environment impacts of air borne pollutants, particularly observation and analysis of the transport of pollutants, with linkages to the topics in the project call in Theme 3.

Research Fellowships

FS-5 Research specialist: Greenhouse Gas Emissions, Sinks and Management Systems

To make an application under this topic area, you must use the following:

Call Topic Reference: [Climate Change Call Project 5](#)

Provision of knowledge about greenhouse gas (GHG) emissions and sinks, and of options to reduce emissions to the atmosphere is fundamental to actions to address the causes of climate change. This activity will address all sectors responsible for significant emissions of GHG within Ireland and will require interaction with both national and international research groups on provision of analysis and assessments of these emissions. The role will include management of EPA funded research under this programme, as well as complementary research funded by other bodies such as the Department of Agriculture and Food, Sustainable Energy Ireland, Teagasc and COFORD. This is an important role in co-ordination and management of research activities, synthesis and communication of research findings.

The research specialist role involves:

1. Contribution to the development of the research strategy for the period to 2020.
2. Implementation and management of thematic research activities and projects to achieve strategic goals and
3. to contribute to EPA activities that address requirements emerging from national and EU policy processes.
4. Effective Synthesis and communication of key research findings and data through preparation of discussion documents, reports and workshops

Tasks will include, integration of outputs from research with national GHG emissions inventory analysis i.e. moving these data to higher levels of analyses, provision of support for the utilisation of these data in emissions projections and liaison with research project coordinators. The role will entail development and provision of structures for further analysis, integration and distribution of research findings and provision of advice on the development of research in this area.

Applications

It is envisaged that the successful candidate will have experience in analysis of GHG emissions and removals and the work of the IPCC in this area. Knowledge or experience of a number of the following issues is required.

- GHG emissions inventory development
- UNFCCC reporting and Kyoto Protocol accounting requirements
- Emissions and removals processes within key sectors e.g. agriculture, energy, transport and Land Use
- Large emissions sources and technologies for emissions abatement
- Modelling of GHG emissions and projections development
- Measurement, Reporting and Verification systems requirements
- Development of decision support tools in relation to mitigation options

- Key international agreements and processes informing policy development

Applicants should have a PhD or equivalent experience in a relevant discipline e.g. science, engineering, and have at least 5 years experience or proven understanding of actions to address climate change. Applicants are required to provide curriculum vitae detailing their background and relevant experience.

It is anticipated that this person will work closely with experts in these areas within the EPA and other state agencies and government departments, with links to international processes.

Fellowship Structure

The fellowship award will be on **two-year basis**, with the potential for an additional year.

Awards will be made in line with the Irish Universities Association recommended salary scales, and to include (which includes 2% for post-completion publicity/dissemination⁵ please refer to 2013 Guide for Applicants for further details).

It is recommended that Fellowship applicants identify a host organisation and supervisor prior to submission of completed proposals.

In the event that a host organisation cannot be identified by the submission deadline, the applicant may **register** on the EPA Grant Application & Project Management Portal under the organisation entitled: **“Organisation to be confirmed”**. A suitable host organisation must be identified during the review stage. **Failure to do so will disqualify the application.**

⁵ For example, a €130,000 grant award is made up of €127,400 for project, and €2,600 for post-completion publicity

FS-6 Research specialist: Socioeconomic and Technology Solutions and Transition Fellowship

To make an application under this topic area, you must use the following:

Call Topic Reference: [Climate Change Call Project 6](#)

The recently published report by the National Economic and Social Council (NESC), "Ireland and the Climate Change Challenge: Connecting 'How Much' with 'How To'" set out a vision for a carbon neutral Ireland by 2050. This is connected to the green economy and transition to sustainable development. Analytical insights on domestic and international policy and economic frameworks will be required to support government's role in enabling and managing the transition. It is recognised that a suite of policies and technologies are required to achieve transition to a low carbon economy encompassing behavioural change, transformed investment patterns and technology development and deployment.

International climate policy is in transition and there is growing emphasis on a 'whole economy' transition approach. This reflects the analysis of the IPCC's 4th Assessment Report that deep cuts in GHG emissions are required by 2020 and 2050 to limit climate change to at most 2 degree Celsius above pre-industrial levels. The global transition presents challenges and opportunities to Ireland. Developed countries need to lead the way in cutting emissions and support developing countries' in their response to climate change. The global transition also creates a higher demand for the green economy which may lead to falling technology costs and potentially new technological solutions.

EU policy is also at a crossroads as rules for a second commitment period of the Kyoto Protocol are agreed, reform of the EU Emissions Trading System is considered and negotiations are about to begin on 2030 emission reduction targets.

The research specialist role involves:

1. Contribution to the development of the research strategy for the period to 2020.
2. Implementation and management of thematic research activities and projects to achieve strategic goals and
3. to contribute to EPA activities that address requirements emerging from national and EU policy processes.
4. Effective Synthesis and communication of key research findings and data through preparation of discussion documents, reports and workshops

This fellowship is required to digest and analyse Irish, European and International research and policy development to identify options, opportunities and challenges for Irish transition to a low carbon climate resilient economy. Building on these elements, outputs of this fellowship are expected to include;

- Analysis of potential for an Irish green economy
- Analyses of options to support transition in behaviour and investment
- Analysis of links of Irish objectives to international policy development
- Analysis of potential mitigation options for Ireland, including sinks, behaviour change and technology solutions
- Contribute to the development of the climate change research strategy for the period to 2020.

- Implementation and management of thematic research activities and projects to achieve strategic goals and to address requirements emerging from national and EU processes.
- Effective Synthesis and communication of key research findings and data through preparation of discussion documents, reports and workshops

Applications

Applicants should have a PhD or equivalent experience in a relevant discipline e.g. science, engineering, or economics and demonstrate expertise in climate change policy and economics including carbon pricing and market mechanisms. Experience in working with emission projection models would be desirable. It is anticipated that this person will work closely with experts in these areas within the EPA and other state agencies and government departments.

Applicants are required to provide a CV detailing their background and relevant experience. Applicants are required to complete the relevant fellowship application form

Fellowship Structure

The fellowship award will be on two-year basis, with the potential for an additional year.

Awards will be made in line with the Irish Universities Association recommended salary scales, and to include which includes 2% for post-completion publicity.

It is recommended that Fellowship applicants identify a host organisation and supervisor prior to submission of completed proposals.

In the event that a host organisation cannot be identified by the submission deadline, the applicant may **register** on the EPA Grant Application & Project Management Portal under the organisation entitled: **“Organisation to be confirmed”**. A suitable host organisation must be identified during the review stage. **Failure to do so will disqualify the application.**

FS-7 Greenhouse Gas and Transboundary Air Pollution Observation systems Site Development Fellowship

To make an application under this topic area, you must use the following:

Call Topic Reference: [Climate Change Call Project 7](#)

Ireland is party to the UN Framework Convention on Climate Change (UNFCCC) and the UNECE Convention on Long Range Transboundary Air Pollution (CLRTAP). Ireland also fully supports EU actions to address climate change and its programme on Clean Air For Europe (CAFÉ). As part of this process the EPA in conjunction with other stakeholders has developed national Transboundary air quality monitoring sites under the European Monitoring and Evaluation programme (EMEP)⁶. A Greenhouse Gas (GHG) monitoring infrastructure has also been developed under the Integrated Carbon Observation System (ICOS).

The ICOS project is a pan European project funded under Framework Programme 7 (FP-7). The EPA has installed relevant GHG monitoring instrumentation at Mace Head in Galway, Carnsore Point in Wexford and Malin Head in County Donegal as well as supporting a number of ecosystem flux measurements sites. The long term vision is to develop full ICOS capacity at sites in Ireland. This will provide necessary data for analysis of GHG emissions and removals on a national and regional scale.

Fellowship description

This fellowship aims to maintain and develop the existing Transboundary and GHG observation sites and manage the data and instrumentation associated with them. In particular the fellowship should help to develop the Integrated Greenhouse gas Observing System for Ireland (IGOS-I). IGOS-I is established as Ireland's contribution to the European ICOS. IGOS-I envisages integration of capacity in the areas of ambient atmospheric observation, ecosystem scale flux observations, local and regional scale modelling, including inverse modelling and improvement of methods deployed in national assessment of GHG emissions and removals. The fellowship will also contribute to scientific analysis of transboundary air quality issues and cross cutting issues.

The successful applicant will be required to undertake the following tasks:

- Analysis of Transboundary and GHG data from the existing observation network.
- Submission of relevant quality controlled datasets to relevant international bodies (e.g. ICOS, EMEP)
- Identify gaps in the existing observing infrastructure, in terms of atmospheric monitoring, modelling and ecosystem research.
- Assess the IGOS-I programme in terms of national and international requirements. Liaise with research groups to ensure strong links with ICOS members.
- Assess the level of commitment required to achieve the Operational Phase of ICOS, 2012–2031, for national benefit from participation as well as enhancing the overall function of ICOS. This includes identifying the optimum number and location of atmospheric sites and optimum number and ecosystem types of flux sampling sites
- The successful applicant will be required to attend national and international meetings and workshops associated with the transboundary and GHG monitoring networks.

Applications

⁶ See Leinert et al, 2008 <http://www.epa.ie/pubs/reports/research/air/ercreport10.html>

Applicants are expected to hold a PhD or equivalent experience in a relevant research field e.g. Atmospheric physics, Atmospheric chemistry.

Applicants will be expected to have strong competence in instrumentation, data analysis and model development, project management, report writing and networking.

Applicants are required to complete the relevant fellowship application form

Fellowship Structure

The fellowship award will be on two-year basis, with the potential for an additional year.

Award scales will be inline with 2013 Guide for Applicants for further details and include 2% for post-completion publicity/dissemination).

It is recommended that Fellowship applicants identify a host organisation and supervisor prior to submission of completed proposals.

In the event that a host organisation cannot be identified by the submission deadline, the applicant may **register** on the EPA Grant Application & Project Management Portal under the organisation entitled: **“Organisation to be confirmed”**. A suitable host organisation must be identified during the review stage. **Failure to do so will disqualify the application.**

2. Indicative Timeframe

Indicative Timeframe for Project Based Awards & Fellowships Only

11th June 2013	Announcement of funding opportunity via national newspapers, EPA website and College Research Officers, HEANET & ESAI list server.
23rd July 2013 at 5pm	Deadline for submission of applications for authorisation by Research Offices (Managing directors for companies)
30th July 2013 at 5pm	Organisation Approval Deadline for authorisation by Research Offices.
August 2013	Evaluation Process
September 2013	Negotiation ⁷
October/November 2013	Grant Award of Successful Projects

Further Information

3. Further Information

Further information on current research projects being supported by the programme is available in the Research Section of the EPA web site (www.epa.ie). For further information on this call, please contact: CCRP Research at the following email (climateresearch@epa.ie).

4. Freedom of Information Act

Information supplied to the Environmental Protection Agency may be disclosed in response to a request under the Freedom of Information Act, 1997 and Freedom of Information (Amendment) Act, 2003. Should you wish that any of the information supplied by you in this application should not be disclosed because of its sensitivity, you should, when providing the information, identify the same and specify the reasons for its sensitivity. The Environmental Protection Agency will consult with applicants about this information before making a decision on any Freedom of Information request received.

⁷ The EPA may consider calling the shortlisted applicants for interview at this stage.