



THE POST

College:	College of Life and Environmental Sciences
Post:	Postdoctoral Research Fellow
Reference No:	P70641
Grade:	F
Reporting To:	Dr Jean-Francois Mercure

The above full-time post is available from 1st March 2020 for a period of 3 years in the College of Life and Environmental Sciences.

The post holder will divide their time between two related research initiatives. The first is the Horizon 2020 NAVIGATE project (Next generation of AdVanced InteGrated Assessment modelling to support climaTE policy making). This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 821124. The second is contributing to the University membership of the Earth League (<https://www.the-earth-league.org/>). This international alliance of prestigious institutions work together to respond to some of the most pressing issues faced by humankind. The post holder will work in modelling quantitatively the earth system with a focus on socio-economic, policy and technology developments. The post holder will work in close collaboration with other modellers in partner institutions. The candidate will have a PhD or equivalent experience/qualifications in related fields, including quantitative modelling of socio-economic or earth system data, non-linear dynamics and programming.

The post will be based at the Streatham campus of the University of Exeter, in the Geography department within the Global Systems Institute.

Job Description

Main purpose of the job:

We are seeking an outstanding, highly motivated and committed Postdoctoral Research Fellow to provide quantitative research capacity in the NAVIGATE project and contribute to projects as part of the Earth League. NAVIGATE is a €7m multi-institutional research project led by the Potsdam Institute for Climate Research (PIK) in Germany, involving partners based across Europe (incl. PBL Netherlands, IIASA, CMCC, CIRED) and internationally. The project seeks to improve existing Integrated Assessment Models (IAMs) used to inform climate change mitigation scenarios and climate policy-making, including to generate data for the Intergovernmental Panel on Climate Change (IPCC).

The Earth League is an alliance of world class research institutions, led by PIK. The alliance focuses on managing anthropogenic global change according to the principles of sustainable development. The Earth League assesses and synthesizes existing information, conducts research to fill critical gaps in our knowledge, and communicates its findings to decision makers and stakeholders. It emphasizes a holistic approach to complex system analysis and real-world problem solving through strategic and scientifically underpinned planetary management for the advancement of human wellbeing and equity.

A core element of the project is to develop, improve and use the global macroeconomic and evolutionary model E3ME-FTT, in collaboration with the research institution and consultancy Cambridge Econometrics, in relation to structural economic change in the context of scenarios of emissions reductions, reduction of fossil fuel use and climate change. The role will also involve the use of land-use models and broader earth systems models, in order to improve our understanding of the broader human and environmental implications of possible future policy choices. The post will involve writing research articles, delivering scientific presentations, and engaging with different types of stakeholders, academic and non-academic. The

post holder will travel to project meetings and to work alongside fellow scientists in different institutions. The post holder will also apply for funds for furthering this area of research as appropriate and in collaboration with his line manager.

Main duties and accountabilities:

1. To undertake research as appropriate to the field of study. The responsibilities may include all or some of the following:
 - Developing research objectives, projects and proposals;
 - Conducting individual or collaborative research projects;
 - Identifying sources of funding and contributing to the process of securing funds;
 - Extending, transforming and applying knowledge acquired from scholarship to research and appropriate external activities;
 - Writing or contributing to publications or disseminating research findings using media appropriate to the discipline;
 - Making presentations at conferences or exhibiting work in other appropriate events;
 - Assessing, interpreting and evaluating outcomes of research;
 - Developing new concepts and ideas to extend intellectual understanding;
 - Resolving problems of meeting research objectives and deadlines;
 - Developing ideas for generating income and promoting research area;
 - Developing ideas for application of research outcomes;
 - Deciding on /following research programmes and methodologies, often in collaboration with colleagues and sometimes subject to the approval of the head of the research programme on fundamental issues.
2. To contribute to teaching and learning programmes in the School and to supervise postgraduate research students.
3. To act as research team leader including:
 - Mentoring colleagues with less experience and advising on their professional development;
 - Coaching and supporting colleagues in developing their research techniques;
 - Supervising the work of others, for example in research teams or projects;
 - Developing productive working relationships with other members of staff;
 - Co-ordinating the work of colleagues to ensure equitable access to resources and facilities;
 - Dealing with standard problems and help colleagues to resolve their concerns about progress in research.
4. To routinely communicate complex and conceptual ideas to those with limited knowledge as well as to peers using high level skills and a range of media and to present the results of scientific research to sponsors and at conferences.
5. As determined by the nature of the project and at the direction of the PI, to plan, co-ordinate and implement research programme activity including:
 - Managing the use of research resources and ensuring that effective use is made of them;
 - Monitoring and reporting on the use of research budgets;
 - Helping to plan and implement commercial and consultancy activities;
 - Where appropriate, to plan and manage own consultancy assignments.

This job description summarises the main duties and accountabilities of the post and is not comprehensive: the post-holder may be required to undertake other duties of similar level and responsibility. Please visit the Human Resources website to view the Research Fellow role profiles.

Person Specification

Competency	Essential	Desirable
Attainments/Qualifications	PhD or equivalent qualification/experience in a related field of study.	Be a nationally recognised authority in the subject area.
Skills and Understanding	Possess sufficient specialist knowledge in the discipline of large complex models in the context of human-environment problems, and their development.	Possess sufficient specialist knowledge in the discipline of integrated assessment modelling and their development.
Prior Experience	Experience of managing research projects and research teams, and publishing results.	Experience in publishing high impact research articles.
Behavioural Characteristics	Excellent written and verbal communication skills. Able to communicate complex and conceptual ideas to a range of groups. Evidence of the ability to collaborate actively within the Institution and externally to complete research projects and advance thinking. Able to participate in and develop external networks. Able to balance the pressures of research, administrative demands and competing deadlines.	Able to identify sources of funding, generate income, obtain consultancy projects, or build relationships for future activities.
Circumstances		

Informal Enquiries

Before submitting an application you may wish to discuss the post further by contacting Dr Jean-Francois Mercure, Senior Lecturer in Global Systems, telephone (01392 725344) or email j.mercure@exeter.ac.uk.

Terms & Conditions

Our Terms and Conditions of Employment can be viewed [here](#).

Further Information

Please see our [website](#) for further information on working at the University of Exeter.