

THE POST

College:	College of Engineering, Mathematics and Physical Sciences
Post:	Industrial Impact Fellow (Postdoctoral Research Fellow – Environmental Growth for Business Project)
Reference No:	P60175
Grade:	F
Reporting To:	Dr Xiaoyu Yan (Senior Lecturer in Energy and Environment)

The post holder will lead in the development and delivery of a **Business-focused environmental sensor network** and have practical experience and/or a research background in a related field of study (examples of which are outlined below). The post holder will also be able to derive business benefit from such skills and knowledge, specifically working with micro, small and medium sized enterprises. The post holder will work closely alongside project partners and the wider project delivery team. The post holder may have a PhD (or nearing completion) OR equivalent qualification/experience in a related field/industrial (including being from an industrial background) in a related field.

A full time applied / action-orientated research post is available from 1st February 2018 on a fixed term basis until 31 January 2021. The post will work full-time on the Environmental Growth for Business (EG4B) project. The post will be a member of the Environment and Sustainability Institute (ESI), based at our Penryn Campus in Cornwall. The post will be required to work closely and effectively with external project partners and wider project colleagues based within the University's Business School, Biosciences department and Impact, Innovation and Partnership Directorate.

Job Description

Main purpose of the job:

We are seeking an applied researcher who has experience of working at the interface of environment and businesses (specifically but not exclusively Small and Medium Sized Enterprises, SMEs) and is wanting to address the issue of how we support the business community to transit from a paradigm of environmental degradation to one of environmental growth and developing real-world circular economics.

The post holder will lead in the development of a **Business-focused environmental sensor network**, which will necessitate close working with the project partners including Cornwall Council, Cornwall Wildlife Trust (including the Environmental Records Centre for Cornwall and Isles of Scilly, ERCCIS), Cornwall Development Company and Cornwall's small and medium sized business community.

It is anticipated that the post holder will have advanced skills and/or applied research experience in some of the following areas: **low cost environmental sensor networks; sensor development, instrumentation and communications; environmental data; remote sensing; data exploitation/manipulation and modelling; data visualisation and commercialisation.**

The post holder will also be expected to lead in other areas of the project aligned to their specific skills and experience and where relevant integrate their activities with other components of the Environmental Growth for Business project.

The post-holder will actively contribute to team decision making and use creativity to analyse and interpret research data to generate original ideas and impact for participating partners, stakeholders and businesses. This will require the post holder to play clear roles within the delivery of business-led 'environmental challenge networks,' supporting new business opportunities from the exploitation of environmental data and

payment for ecosystem services trials. Additionally the post holder will facilitate business engagement with the EG4B grant programme and Cornwall Sustainability Awards. The outcome of such work will potentially lead to the publication of research of international standing and quality and/or the contribution towards Impact Case Studies.

Background to the Environmental Growth for Business Project:

Environmental Growth for Business is an exciting project seeking to innovatively integrate 'ecosystem services' and 'circular economics' approaches to drive business innovation, resource efficiency and contribute to Cornwall's long-term environmental growth. EG4B will work and support small and medium sized enterprises (SMEs) in Cornwall and Isles of Scilly to identify opportunities for increased productivity and economic resilience through improvements in resource efficiency alongside business-led opportunities that contribute to the delivery of Cornwall's Environmental Growth Strategy (2015 – 2065).

EG4B is a partnership project led by the University of Exeter and involving Cornwall Council, Cornwall Development Company and Cornwall Wildlife Trust (including the Environmental Records Centre for Cornwall and Isles of Scilly). The project is supported by funding from the European Structural Investment Funds (ESIF) and as such business support and engagement is fundamental to its delivery and a key aspect of all posts within it.

EG4B has multiple integrated work streams: including the development and implementation of an environmental growth focused business support toolkit, a business-led grant and environmental challenge fund and environmental open innovation networks. The EG4B project will also develop an environmental sensor network and 'natural capital information and management hub' and integrate closely with existing initiatives such as the Cornwall Sustainability Awards.

Industrial Impact Fellow (Postdoctoral Research Fellow – Environmental Growth for Business Project)

Main duties and accountabilities:

1. To undertake impact-orientated research as appropriate to the field of study. The responsibilities may include all or some of the following:
 - Acting as principal investigator on research projects;
 - 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 work effectively as a member of a wider research/project delivery team. Responsibilities may include:
 - lead and contribute to the delivery of wider project activities, outputs and outcomes
 - Ensure exemplary levels of project compliance and eligibility
 - lead and support project reporting, including liaison with project partners, funders, stakeholders and beneficiaries
 - lead and support the development of research impact activities (including evaluating and evidencing) appropriate to the field of study, project and activities undertaken

3. To contribute to teaching and learning programmes in the School and to supervise postgraduate research students.
4. 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.
5. 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.
6. As determined by the nature of the project and at the direction of the PI, to plan, co-ordinate and implement research and impact 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 (including industrial background) in a related field of study	Be a nationally recognised authority in the subject area.
Skills and Understanding	Possess sufficient specialist knowledge or experience in the discipline to develop/follow research or impact programmes and methodologies. Record of research output in high quality publications and/or demonstrable experience of project delivery in an appropriate field or industrial setting.	Evidence of research activity and published research. An ability to identify opportunities whereby the integration of 'ecosystem services' and 'circular economic' approaches can support business innovation and resource efficiency.
Prior Experience	Demonstrable experience in environmental sensors, network development, management and data processing. Experience of managing research or delivery projects and research/project teams.	Experience of working directly with businesses, specifically but not exclusively with SMEs, and stakeholders. Experience of working at the interface of business and the environment and/or exemplified knowledge of in some of the following areas: low cost environmental sensor networks; sensor development, instrumentation and communications; environmental data; remote sensing; data exploitation/manipulation and

		modelling; data visualisation and commercialisation. Experience of working with collaborative projects with multiple partners.
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. Ability to communicate and engage with non-specialist audiences and communities
Circumstances		Flexible working opportunities will be considered

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.