



## UKRI policy fellowships 2025: fellowship position

Fellowship title: Scottish Government coastal change fellowship

Fellowship type: Natural Hazards and Resilience fellowship

Host organisation: Scottish Government

Host team: Scottish Government's Water Resource Planning and Coastal Erosion Team, Environmental Quality and

Resilience Division, jointly with the Rural and Environmental Sciences and Analytical Services Division

**Summary:** the development of Scotland's National Coastal Change Monitoring Programme: appraisal, evidence and guidance. This fellowship will develop approaches for coastal change monitoring and assessment in Scotland to support the Scottish National Adaptation Plan (SNAP3) and other related policy areas (such as planning, transport, flooding and biodiversity)

Policy topic: this fellowship will be relevant to climate change adaptation and resilience, coastal erosion, coastal

change monitoring, biodiversity, planning, flooding

Research Council: UKRI

Academic discipline(s): geo-sciences, data science, nature and resilience sciences

Research career stage: open to early and mid-stage career researchers

## Fellowship structure

#### Inception phase:

Estimated start date: February 2026. Exact date to be confirmed by the host depending on onboarding and

security clearance requirements

**Duration:** three months

**FTE:** 0.4 FTE

# Main placement phase:

**Duration:** 12 months **FTE:** 0.6 to 1 FTE

### Knowledge exchange phase:

**Duration:** three months

**FTE:** 0.4 FTE

### Work arrangements

**Location requirements**: the fellowship hosts are based in Edinburgh and there may be a requirement to travel to other departmental and agency offices (including but not limited to Edinburgh, Glasgow, Aberdeen and Inverness)

**Hybrid working:** ideally the fellow will be expected to work a minimum of one day a week in Edinburgh during the main placement phase. During the inception phase the fellow will be expected to meet in person in Edinburgh at least once a month. Eligible Travel and Subsistence costs are supported in the main UKRI grant. Please see full call text and guidance for more details

**Security clearance:** Basic Personnel Security Standard (BPSS) checks usually takes around six weeks. We would expect the successful applicant to start the security clearance application process, with support from the host team, as soon as their fellowship has been confirmed by UKRI. BPSS must be granted before the fellow can access any Scottish Government systems. Ideally the security clearance process would be completed before the inception phase begins. This process requires having a valid Disclosure Certificate, and, if a new certificate is required a cost will be incurred. Please see <a href="National security vetting: clearance levels">National security vetting: clearance levels</a> for more information

### Fellowship description

## Policy challenges:

The Scottish Government is committed to Tackling the Climate Emergency. Appropriate evidence to inform action on climate impacts and adaptation is crucial to effectively achieve this outcome. This is particularly the case in coastal areas given the extent and diversity of Scotland's coastline. However, the Committee on Climate Change recently highlighted that Scotland is currently lacking a dedicated coastal monitoring and assessment programme. This fellowship has been developed to help fill this evidence gap. Outputs developed from this fellowship will directly support a number of Scottish Government policy areas including: Coastal Change Adaptation (CCA) and the 24 forthcoming local authority CCA plans, SNAP3 commitments and reporting, National Planning Framework Policies, Local Authority Local Development Plans, Flood Risk Management strategies and plans with respect to coastal erosion enhanced flooding and the Scottish Biodiversity Strategy.

High level overview of indicative research areas:

The fellow will use their own research experience to review UK and relevant international settings via three indicative Research Areas (RA):

RA1: review existing best practice approaches for coastal change monitoring<sup>1</sup> and appraise forthcoming novel methods to monitor coastal change (such as Earth Observation using optical satellite data, free and paid for), Synthetic Aperture Radar; targeting topographic change across the coastal zone such as hinterland, coastal edge, intertidal and near-shore, to include broad discernible habitat changes)

RA2: briefly appraise existing approaches for monitoring marine and coastal processes that influence coastal change (for example, sea level, tidal, wave and wind monitoring)

RA3: develop and help deploy a bespoke approaches and methodologies for Scotland, that blend original and novel approaches to coastal change monitoring.

Original research will be required to: explore nested approaches to blending and analysing available data from various sources, identify methods to quantify coastal change and develop indices which separate meaningful change from seasonal noise.

Within the project scope we would also welcome any new ideas for novel data collection and analysis that the fellow may wish to develop, although we expect the fellow to make full use of existing unprocessed and new Light Detection and Ranging (LiDAR) data collected in 2025 or 2026.

The fellow will also be expected to identify successful approaches to disseminate and support improved policy delivery and promote sustainable decision-making.

Although these indicative RAs have been outlined, we welcome the fellow's input in codesigning the project and reshaping the RAs.

## **Expected outcomes:**

The fellowship will develop and help deploy methodologies in this science-policy space. As such, the expected outcomes include clear recommendations to guide the development of Scotland's National Coastal Change Monitoring Programme, including:

- A potential nested approach of various techniques to monitor coastal change across Scotland, using traditional and novel methods
- 2. Quantification of these techniques to diagnose meaningful change from seasonal noise, for various coastal features
- 3. Dissemination approaches suitable to inform strategic national and regional and local policy outcomes, including local community interests and the public. Where appropriate the fellow would be encouraged to publish their work in academic journals, this will be seen as enhancing the scientific robustness of the developed approaches and recommendations

### Governance opportunities:

With the Scottish Government's support, the fellowship provides a unique opportunity to connect across multiple agencies and organisations while providing the opportunity to input science and evidence directly to policymakers. Key partners include Scottish Government departments, local authorities, and agencies including NatureScot, Scottish Environment Protection Agency (SEPA), Scottish Water, Network Rail and Historic Environment Scotland.

<sup>&</sup>lt;sup>1</sup> Coastal change monitoring principally focussed on topographic changes across the coastal zone (focussing on the physical processes of erosion and accretion etc), rather than ecological or other system changes.

### Team working:

The fellow will be embedded within the Environment and Forestry (EnFor) Directorate working closely with policy officials in the Water Resource Planning and Coastal Erosion team and Science Advisors in the Rural and Environmental Science and Analytical Services Division (RESAS). There will also be opportunities to work with the Chief Scientific Advisors for Environment, Natural Resources and Agriculture (CSA ENRA) and Marine (CSA Marine), in addition to colleagues in the Marine Directorate and NatureScot (Scotland's Nature Agency). The fellowship will provide a good balance of experience between policy development and science advice in government.

## Person specification

Applications will be assessed by UKRI panel assessment against the following essential opportunity-specific requirements in addition to the generic eligibility and call criteria:

### **Essential criteria:**

- Proven subject matter expertise on coastal processes and change analysis at regional or national scales (coastal erosion and accretion)
- Experience or demonstrated potential on the use of Geospatial and Earth Observation data to inform coastal change
- Experience of data analysis and statistics relating to coastal change or a related environmental science discipline
- Experience of communicating (both written and verbal) complex, technical ideas clearly to stakeholders from different backgrounds from those with no scientific or engineering expertise, to different specialists at conferences or industry contacts
- Proven record of effective Project Management from project conception through to delivery

Applicants shortlisted from the panel assessment will be assessed at the host led interview selection process against the following desirable opportunity-specific requirements:

### Desirable criteria:

• Knowledge of the Scottish policy landscape with respect to climate change, biodiversity, flood resilience and other policy areas related to coastal change

## Processing personal data

If applicants are shortlisted by the UKRI assessment panel UKRI will need to share the application and any personal information that it contains with the host for the host led interview selection process.

Your personal data will be handled in line with UK data protection legislation and managed securely. If you would like to know more, including how to exercise your Rights, please see the UKRI <u>privacy notice</u>.

The Scottish Government's privacy notice can be found here: <u>Scottish Government privacy notice</u>. Hosts will delete your data at the end of the selection process unless you are successful, in which case we will retain your data as an independent data controller.