

# 4. Stakeholder engagement for regional geoscientific surveying: the Tellus Border communications campaign

MAIRÉAD GLENNON,<sup>1</sup> MARIE COWAN<sup>2</sup> AND RAY SCANLON<sup>1</sup>

How to cite this chapter:

Glennon, M.M. and Cowan, M.T. and Scanlon, R.P., 2016 'Stakeholder engagement for regional geoscientific surveying: the Tellus Border communications campaign' in M.E. Young (ed.), *Unearthed: impacts of the Tellus surveys of the north of Ireland*. Dublin. Royal Irish Academy.  
DOI: <https://doi.org/10.7486/DRI.w089fr763>

Visible publicly funded projects are obliged to communicate to taxpayers – at community, constituency, regional or national levels – the issues, benefits and potential risks associated with project operations and findings. As part of the EU INTERREG IVA-funded Tellus Border Project, a comprehensive programme of stakeholder engagement was implemented to support survey operations and to assist the realisation of project benefits. Communications measures were planned appropriate to different stakeholder groups. The successful implementation of these measures ensured that the surveys were completed without major incident and that the value of the work was demonstrated both to taxpayers and to government, thus facilitating funding for subsequent programmes.

## OBJECTIVES OF THE COMMUNICATIONS PROGRAMME

The communications programme aimed to support the activities of the Tellus Border Project, to promote the project to a range of stakeholders, to promote the value of geoscience to the economy and how it informs environmental protection, and to demonstrate the proactive role of the EU in funding environmental projects.

Specifically, the objectives of the communications campaign were to:

- plan and execute a programme of activities that satisfied the needs of the stakeholder groups;
- maximise public interest in the work and ultimately heighten awareness of environmental protection issues and management;
- warn landowners, farmers and local interests in the survey area of the survey operations, which some might regard as intrusive, and explain the need for the work;

<sup>1</sup> Geological Survey of Ireland, Dublin.

<sup>2</sup> Geological Survey of Northern Ireland, Belfast.

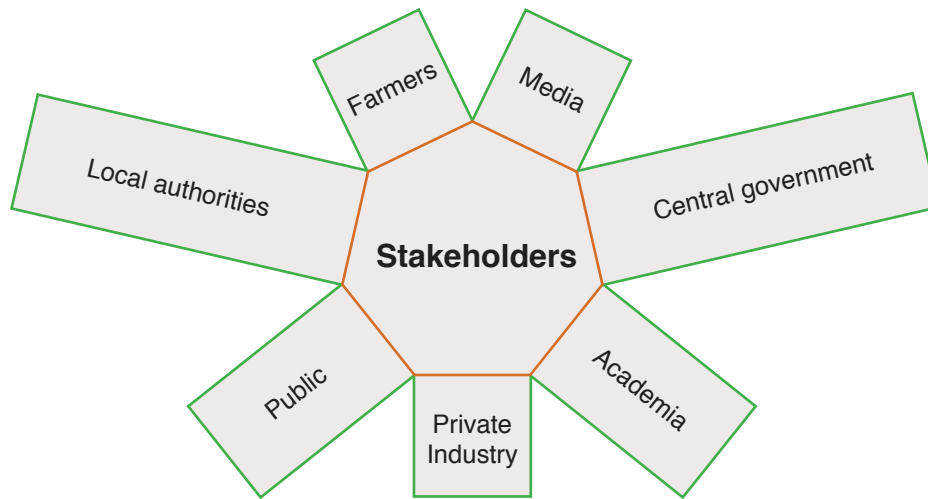


Figure 4.1. Stakeholder groups.

- inform relevant regional and national organisations of the value of the work, particularly to encourage collaboration with organisations that have an environmental or technical interest;
- inform government, academia and industry of the value and availability of the information and encourage these sectors to use the new data to improve environmental management in the project area; and
- inform the public of the proactive role played by the EU and government in promoting an environmental survey of such national importance.

The communications programme was an essential condition of the award of the INTERREG IVA grant by the Special EU Programmes Body and of the Irish Aviation Authority licences for low-level aerial surveying. Resources and personnel were dedicated to design, implement and continually develop the communications programme throughout the lifetime of the project.

The communications programme was modelled on that of the Tellus Project in Northern Ireland, completed by the Geological Survey of Northern Ireland (GSNI) in 2007 (Young and Donald, 2013). The Communications Lead, based at the Geological Survey of Ireland (GSI), had responsibility for publicity and information activities for Tellus Border, in consultation with the Project Managers in the GSNI and the GSI. In May 2011, in advance of the commencement of survey operations, Morrow Communications was appointed, under an open competitive tender process, as public relations consultant to the project. Morrow Communications provided communications advice to Tellus Border and assistance with the identification of relevant stakeholders, awareness-raising activities, media engagement and the handling of enquiries and complaints. Kantar Media provided a media monitoring service from July 2011 to December 2013, monitoring national and regional press, radio and television for Tellus Border coverage.

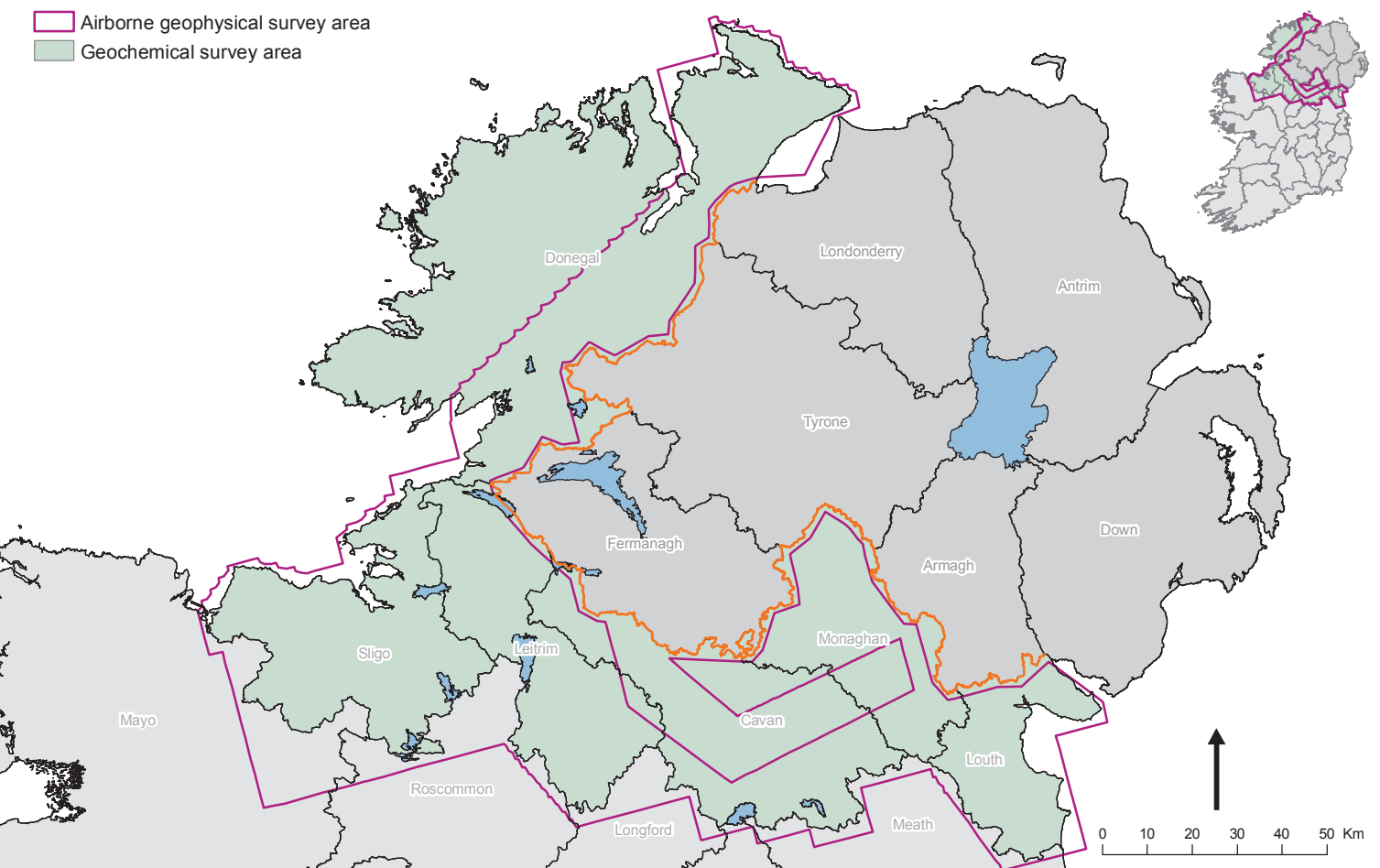


Figure 4.2. Airborne and geochemical survey areas covered by the operational communications programme (from Glennon and Cowan, 2014).

## STRATEGY FOR STAKEHOLDER ENGAGEMENT

The stakeholder engagement strategy was developed from the following questions.

- Who needs to know about the project?
- What is the message for each stakeholder group?
- What level of engagement do we need to convey our message?
- What outcome are we seeking from contact with each stakeholder group?

On the broadest level, stakeholders included everyone who lived or worked in the survey region that would be affected by survey operations, and everyone who might use the data – the general public, farmers, central and local government, academia, the media and industry (Fig. 4.1). For each of these categories, subcategories were defined and a plan was developed for making and managing contact on local, regional and national levels as required.

## PUBLICITY AND INFORMATION MEASURES TO SUPPORT SURVEYING

The survey, which extended over 18% of the Republic of Ireland, covered an area with a population of 468,000 people and some 29,000 farms engaged mostly in small-scale beef production (Fig. 4.2). Over the course of the survey, geochemical samples were collected

**TABLE 4.1. COMMUNICATIONS MEASURES UNDERTAKEN IN SUPPORT OF SURVEYING (DATA FROM GLENNON AND COWAN, 2014)**

Measure	Stakeholder	Metrics
Flyer drop to households	General public	240,000 people
Posters in public buildings	General public	20 towns
Public information notices	General public	Published in 10 newspapers
Freephone information line	General public	143 calls answered
Website	General public	75,536 page views from 15,160 people
Dedicated email address	General public	172 enquiries received
Web information pack	Local authorities	To six local authorities
Letters	Special interest groups (equine, air sports, etc.)	3178 letters sent
Text messages	Farmers	Approximately 160,000 Irish Farmers' Association members reached
Phone calls	Horse owners	111 'first contact' calls made
Traffic alerts	General public	Digital signage on M1 reached up to 300,000 road users. AA Roadwatch broadcast reached up to 500,000 listeners.
Weekly flight plan mailout	Special interest groups (equine, air sports, etc.)	Sent to 56 interested parties each week

from an area of 12,339 km<sup>2</sup> and the geophysical survey aircraft flew 63,000 line kilometres across the region – a distance equivalent to one and a half times around the world (Glennon and Cowan, 2014).

Flying at a low altitude of 56 m, the survey aircraft had the potential to cause alarm to people and animals on the ground. It was necessary to alert the general public to the low-flying activities and reassure them that the work was being carried out safely in accordance with an Irish Aviation Authority permit. In the case of livestock, horses, pedigree cattle, deer, poultry and sheep-in-lamb were considered to be at high risk of taking fright from low-flying aircraft with potential to cause economic loss to farmers. Particular consideration was given to the potential risk of startling horses since there are many private and commercial riding, livery and breeding stables in the survey area. In addition, those involved in local air sports, which typically operate outside controlled airspace, had to be engaged and continually informed about our aircraft movements.

Communications measures undertaken to reach identified stakeholders included the design and dissemination of an information flyer and poster, public information notices

**TABLE 4.2. COMMUNICATIONS MEASURES UNDERTAKEN IN SUPPORT OF DATA DISSEMINATION (DATA FROM GLENNON AND COWAN, 2014) DURING TELLUS BORDER (2010–2013)**

Measure	Metrics
Briefings	45 meetings held
Newsletter	Six editions circulated to 800 stakeholders
Map viewer	28,974 page views from 2918 people
Data downloads web page	Data sets were downloaded 2016 times
Data release notifications	Email notifications sent to 800 stakeholders on five occasions
Magazine articles	Articles placed in six geological magazines/newsletters
Stakeholder events	Six major events held
Presentations at scientific conferences	28 conference presentations reaching c.2500 delegates

in newspapers, mailing and telephoning special interest groups, sending text messages via umbrella organisations and broadcasting information via media engagement, email marketing and traffic alerts. The scale of these activities is summarised in Table 4.1. A free information phone line was established and managed by Morrow Communications to take enquiries about the survey. This number was prominently promoted in all publicity materials and media work. A social media strategy was also considered for public engagement; however, at the time of the project, government policy could not accommodate a social media presence for Tellus. Subsequent Tellus phases based at the GSI developed a social media presence in line with new government policy.

During survey activities, the project team established an ‘on-call rota’ to make sure that there was always someone available to coordinate contact with local stakeholders about the airborne survey. Daily duties of the person on call included liaising with landowners who were to be notified of a flight or whose land was to be avoided for certain flight lines, maintaining contact with animal owners who were keeping animals indoors in anticipation of a flight, and taking calls on the information line out of hours.

The geochemical survey was undertaken by a team of samplers working in pairs. Permission to enter land and take samples was sought on the day of sampling. Publicity and information measures were put in place to alert the rural community to the presence of Tellus Border samplers in the field. Ground-based geophysical work was additionally carried out at two test line sites in north County Leitrim and at Sliabh Beagh in counties Monaghan and Armagh, in support of the airborne geophysical survey and the soil carbon research project. Focused local outreach was carried out on a door-to-door basis for these and other research project sites, with the support of community groups where possible.

#### SUPPORTING DISSEMINATION AND APPLIED USES OF TELLUS DATA

In order to achieve the objectives of informing stakeholders of the value and availability of the data and to encourage collaboration with relevant organisations, a programme of continuous stakeholder engagement accompanied and followed the surveying phases. Events, briefings, newsletters, data release notifications and media engagement ensured strong recognition of the Tellus Border project and considerable interest in its outputs among identified stakeholders. Communications activities with prospective data users, including central government, local authorities, academia and geological organisations, are summarised in Table 4.2.

Four major stakeholder events were held over the duration of the project, as well as two photocalls with funding body representatives at key milestones in the project (Fig. 4.3), as follows.

- Project announcement, February 2011: Photocalls were held with co-funding government department Ministers (Department of Enterprise, Trade and Investment (Northern Ireland) and Department of Communications, Energy and Natural Resources (Republic of Ireland)).
- Project launch, July 2011: Survey operations were formally launched in Cavan by the Minister for Communications, Energy and Natural Resources. The event attracted 78 stakeholders from local authorities, government departments, the agricultural sector, universities, community groups and the private sector, and received national radio coverage.
- Airborne survey open day, March 2012: Tellus Border hosted a Family Fun Open Day at St Angelo Airport, Enniskillen, which attracted over 700 local people who had the opportunity to see the survey plane, meet the pilots and take part in educational geoscience activities.
- Last geochemical sample field visit, June 2012: The Minister of State for Natural Resources, along with local school pupils, took the last sediment sample of the geochemical surveys in County Louth.
- Data launch, February 2013: 86 stakeholders attended an event opened by the Minister of State for Natural Resources, to showcase the release of the Tellus Border airborne geophysical survey data in Dublin.
- Project closure conference, 24 October 2013: The outputs of Tellus Border were presented to 134 delegates, including the Assembly Private Secretary to the Northern Ireland Minister for Enterprise, Trade and Investment, at the Tellus Border Results and Research Conference held in County Monaghan. Coverage of the Project Closure conference was significant, with considerable interest nationally in the project outputs, particularly in the gold in stream sediments map.

At major stakeholder events, the opportunity was taken to survey attendees, providing useful indicators on the sectoral interests of Tellus Border stakeholders. At the Tellus Border





Figure 4.3. Tellus Border stakeholder engagement events.

Results and Research Conference, 52 delegates identified themselves across 14 different sectors (Fig. 4.4), and provided feedback on quality of events and of project outputs.

Tellus Border took an innovative approach to data delivery to stakeholders, such that data were released incrementally as they became available, were provided online free of charge without the need for data licensing, and were visible fully merged with the Tellus data of Northern Ireland. Using this approach, which stakeholders saw as extremely successful, the project created multiple communications opportunities to reinforce the Tellus Border approach, data and stakeholder interest (PA Consulting, 2014).

Tellus Border was fundamentally a data acquisition project; however, demonstrating real-world applications of the data was critical to satisfy funding requirements, secure future funding and demonstrate societal and economic benefits of the work to stakeholders. Engagement with higher education institutions and industry in order to encourage the development of applied outputs was undertaken by way of a research call, which funded ten short projects during 2013. The research outputs spanned a wide range of sectors, reaching beyond the anticipated mineral exploration applications into environmental, agricultural and health applications of the data.



Figure 4.4. Word cloud showing the relative significance of stakeholder sectors as represented by attendees at the Tellus Border Results and Research Conference.

#### MEDIA ENGAGEMENT

Press releases were consistently well reported by regional newspapers and radio stations, resulting in 192 newspaper articles and 60 radio items over the project duration (Table 4.3). On average, there were eight print articles and three radio interviews or reported items per press release. The ‘opportunity to see’ figure for print media coverage was over 7.5 million people and the listenership for radio coverage was estimated at over 2.3 million. The Tellus Border team featured in five television programmes, also reaching 2.3 million. The total number of individual opportunities to see or hear about the project in the media amounted to 12.2 million.

#### PUBLIC RELATIONS CHALLENGES

Geoscientists perceive many challenges in communicating geoscience, including the lack of communications training in third-level education and at professional level, lack of time and resources required to engage effectively with stakeholders, and inadequate public understanding of geoscience. The public often first encounters geoscience at times of crisis (e.g. the Deepwater Horizon accident) or controversy (e.g. ‘fracking’) (Stewart and Nield, 2013), leaving geoscientists wary of the pitfalls of speaking out on such issues. The Tellus Border team had to be ready to engage with the media closely in order to pre-empt misinformation and negativity about the project and to convey the importance of the geoscience sector to Ireland’s economy, environment and society. A studio-based media training course undertaken by the Tellus Border team at the start of the project proved very beneficial, helping the team to improve the clarity of messages, to gain confidence in the delivery of project information and to be tested on challenging examples.

We have seen with major infrastructure and natural resources projects on the island of Ireland in recent years that although the necessary planning and legal permissions may be granted in support of a project, this is by no means a guarantee of the consent or approval of the local community. ‘Social licence to operate’ (SLO), or a community’s perception of the acceptability of a project (Thomson and Boutilier, 2011), is a concept that should be



**TABLE 4.3. MEDIA COVERAGE SUMMARY (DATA FROM GLENNON AND COWAN, 2014)**

Press releases	24
<b>Print media</b>	
Print articles	192
Average print articles per press release	8
Average print readership per press release	125,813
Publications	63
Print press and publications circulation	3,019,519
Opportunity to see (×2.5)	7,548,798
<b>Broadcast coverage</b>	
Radio items/interviews	60
Listeners	2,300,786
Average radio items per press release	3
Average listenership per press release	48,537
<b>Television coverage</b>	
Television features	5
Viewers	2,310,900
<b>Total opportunity to see: Print opportunity to see + radio listeners + television viewers</b>	<b>12,160,484</b>

taken into account from the inception of a project in order to mitigate the possibility of rejection at a local level. For community stakeholders who may potentially be affected by the project, the project must be viewed as legitimate, credible and trustworthy in order to be accepted (Thomson and Boutilier, 2011).

For Tellus Border, a well-resourced communications programme, involving early and recurrent engagement with local communities, was an essential means of conveying these attributes in order to support the development and maintenance of SLO for survey operations, which some may perceive as intrusive. SLO is rarely gained on the basis of providing material benefits to a community – clear information, two-way dialogue, inclusion and meaningful participation are more important (PDAC, 2009). The Tellus Border team put considerable time and effort into face-to-face meetings with stakeholders at all levels (Fig 4.3). Notably, the project achieved an unprecedented level of acceptance among the agricultural sector by working closely with the Irish Farmers' Association, which alerted its members about the survey by text message on behalf of Tellus Border, and through the role of experienced agricultural consultants OCAE Ltd in undertaking field-based sampling.

For regional and national stakeholders, communication activities concentrated on conveying tangible benefits of the project outcomes, often tailored for high-level non-scientific

audiences. Significant value has been realised by stakeholders from the Tellus Border data, though there continue to be a number of challenges to both quantifying this value and ensuring that full benefits are realised in the long term (PA Consulting, 2014). The maintenance of clear, jargon-free communication was critical for these audiences, with many requesting the information further condensed into a planning tool, policy or guideline in order to meet their objectives. Over time, applications of Tellus Border data are developing; for example, Tellus airborne geophysical data are now feeding into the National Radon Control Strategy in Ireland and a number of research outputs have showcased diverse applications of the data across various sectors, as illustrated by several chapters in this volume.

## CONCLUSIONS

The Tellus Border communications programme facilitated the success of the survey operations by helping to ensure a high degree of stakeholder acceptance. There were no major public relations or safety incidents and the number of complaints involving disturbance or injury to animals was minimised. An independent post-project evaluation of Tellus Border by PA Consulting Ltd (2014) found on the basis of a stakeholder survey that the communications campaign was considered 'exemplary' and 'best practice', with consultees strongly supporting extending the data coverage geographically to a national level. The communications campaign undertaken by Morrow Communications and the Tellus Border team won two awards for excellence in communications at the Northern Ireland Chartered Institute of Public Relations in October 2012: gold in the Community Relations category and silver in the Public Sector category. These successes have paved the way for a strategic plan for Tellus that has seen the Department of Communications, Energy and Natural Resources provide exchequer funding to GSI to continue Tellus nationwide on a phased basis.

## ACKNOWLEDGEMENTS

This chapter is published with the permission of the Director of the Geological Survey of Ireland and the Executive Director of the British Geological Survey (NERC).

## REFERENCES

- Glennon, M.M. and Cowan, M.T., 2014 *Tellus Border Project: Communications Programme Report*. Geological Survey of Northern Ireland/Geological Survey of Ireland joint report. Belfast and Dublin. Available at <http://www.tellusborder.eu/Library.htm>.
- PA Consulting Ltd, 2014 *Post-project Evaluation of the Tellus Border Project*. Report to the Department of Communications, Energy and Natural Resources. Dublin. Available at <http://www.tellusborder.eu/Library.htm>.
- Prospectors and Developers Association of Canada (PDAC), 2009 *Excellence in Social Responsibility e-toolkit (ERS)*. Toronto. Available at <http://www.pdac.ca/programs/e3-plus>.
- Stewart, I.S. and Nield, T., 2013 'Earth stories: context and narrative in the communication of popular geoscience', *Proceedings of the Geologists' Association*, 124, 699–712.

- Thomson, I. and Boutilier, R.G., 2011 *Modelling and Measuring the Social License to Operate: Fruits of a Dialogue between Theory and Practice*. Melbourne. International Mine Management conference.
- Young, M.E. and Donald, A.W. (eds), 2013 *A Guide to the Tellus Data*. Belfast. Geological Survey of Northern Ireland. Available at <http://nora.nerc.ac.uk/509171/>.

# Table of Contents:

## **Prelim**

DOI: <https://doi.org/10.7486/DRI.b851k323d>

## **Chapter 1**

The Tellus geosciences surveys of the north of Ireland: context, delivery and impacts

DOI: <https://doi.org/10.7486/DRI.st74s528d>

## **Chapter 2**

The Tellus airborne geophysical surveys and results

DOI: <https://doi.org/10.7486/DRI.t148tx96z>

## **Chapter 3**

The Tellus geochemical surveys, results and applications

DOI: <https://doi.org/10.7486/DRI.t722wq645>

## **Chapter 4**

Stakeholder engagement for regional geoscientific surveying: the Tellus Border communications campaign

DOI: <https://doi.org/10.7486/DRI.w089fr763>

## **Chapter 5**

Mineral resources and Tellus: the essential balance

DOI: <https://doi.org/10.7486/DRI.wd37kb12s>

## **Chapter 6**

Gold exploration in the north of Ireland: new targets from the Tellus Projects

DOI: <https://doi.org/10.7486/DRI.wh24m696v>

## **Chapter 7**

Using soil geochemistry to investigate gold and base metal distribution and dispersal in the glaciated north of Ireland

DOI: <https://doi.org/10.7486/DRI.wm11n3806>

## **Chapter 8**

Critical metals for hightechnology applications: mineral exploration potential in the north of Ireland

DOI: <https://doi.org/10.7486/DRI.wp98p0649>

## **Chapter 9**

A natural laboratory for critical metals investigations in the Mourne Mountains granites

DOI: <https://doi.org/10.7486/DRI.cc08ww45f>

## **Chapter 10**

Geothermal potential of granitic rocks of the Mourne Mountains

DOI: <https://doi.org/10.7486/DRI.ff36jm09f>

## **Chapter 11**

Shape and intrusion history of the Late Caledonian Newry Igneous Complex, Northern Ireland

DOI: <https://doi.org/10.7486/DRI.2v248822m>

## **Chapter 12**

Using Tellus data to enhance targeting of volcanogenic massive sulphide mineralisation in the Tyrone Igneous Complex

DOI: <https://doi.org/10.7486/DRI.5x226w262>

## **Chapter 13**

The geological significance of electrical conductivity anomalies of the Ordovician- Silurian Moffat Shale Group, Northern Ireland

DOI: <https://doi.org/10.7486/DRI.6m31f4149>

## **Chapter 14**

Faults, intrusions and flood basalts: the Cenozoic structure of the north of Ireland

DOI: <https://doi.org/10.7486/DRI.90205h306>

## **Chapter 15**

Information for agriculture from regional geochemical surveys: the example of soil pH in the Tellus and Tellus Border data

DOI: <https://doi.org/10.7486/DRI.dv14c8060>

## **Chapter 16**

An ecohydrological investigation of wetlands in the border counties of Ireland: a framework for a holistic understanding of wetland systems

DOI: <https://doi.org/10.7486/DRI.hd775d90j>

**Chapter 17**

Assessing nutrient enrichment risk to groundwater-dependent ecosystems in the border counties of Ireland  
DOI: <https://doi.org/10.7486/DRI.k356pk18j>

**Chapter 18**

Mapping the terrestrial gamma radiation dose  
DOI: <https://doi.org/10.7486/DRI.k930rb86z>

**Chapter 19**

Soils and their radiometric characteristics  
DOI: <https://doi.org/10.7486/DRI.mp495t62g>

**Chapter 20**

Modelling in-house radon potential using Tellus data and geology to supplement inhouse radon measurements  
DOI: <https://doi.org/10.7486/DRI.ns06hm86z>

**Chapter 21**

Determining geochemical threshold values from the Tellus data sets: the examples of zinc and iodine|  
DOI: <https://doi.org/10.7486/DRI.r2087418g>

**Chapter 22**

Identification of the geochemical signatures of diffuse pollution in the Tellus Border soil data set, using source apportionment  
DOI: <https://doi.org/10.7486/DRI.wh24m698d>

**Chapter 23**

Stream sediment background concentrations in mineralised catchments in Northern Ireland: assessment of 'pressures' on water bodies in fulfilment of Water Framework Directive objectives  
DOI: <https://doi.org/10.7486/DRI.x633tf86g>

**Chapter 24**

Mapping metallic contamination of soils in the Lower Foyle catchment  
DOI: <https://doi.org/10.7486/DRI.9k42bv355>

**Chapter 25**

Refining the human health risk assessment process in Northern Ireland through the use of oral bioaccessibility data  
DOI: <https://doi.org/10.7486/DRI.9p29cr199>

**Chapter 26**

Combining environmental and medical data sets to explore potential associations between environmental factors and health: policy implications for human health risk assessments  
DOI: <https://doi.org/10.7486/DRI.9s16dn03n>

**Chapter 27**

Mapping a waste disposal site using Tellus airborne geophysical data  
DOI: <https://doi.org/10.7486/DRI.9w03fh87q>

**Chapter 28**

The use of aero-magnetics to enhance a numerical groundwater model of the Lagan Valley aquifer, Northern Ireland  
DOI: <https://doi.org/10.7486/DRI.9z90gd711>

**Chapter 29**

Carbon sequestration in the soils of Northern Ireland: potential based on mineralogical controls  
DOI: <https://doi.org/10.7486/DRI.b277h9556>

**Chapter 30**

Spatial distribution of soil geochemistry in geoforensics  
DOI: <https://doi.org/10.7486/DRI.b564j6392>

**End matter**

DOI: <https://doi.org/10.7486/DRI.bc38m007j>



Unearthed: impacts of the Tellus surveys of the north of Ireland

First published in 2016 by the

Royal Irish Academy

19 Dawson Street

Dublin 2

[www.ria.ie](http://www.ria.ie)

Copyright © 2016 Royal Irish Academy

ISBN: 978-1-908996-88-6

The articles in this book are open access and distributed under the terms of the Creative Commons Attribution 4.0 licence, which permits unrestricted use, distribution and reproduction in any medium, provided the original authors and source are credited. To view a copy of this licence, visit <https://creativecommons.org/licenses/by/4.0/>



Except where noted:

Geological mapping for Northern Ireland / Tellus data are provided by the Geological Survey of Northern Ireland.

Geological mapping for Ireland / Tellus Border data are provided by the Geological Survey of Ireland.

Topographic mapping for Northern Ireland is derived from Land and Property Services Open Data and contains public sector information licensed under the Open Government Licence v3.0. (<http://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/>).

Topographic mapping for Ireland is derived from Ordnance Survey of Ireland Open Data (<https://creativecommons.org/licenses/by/4.0/legalcode>).

While every effort has been made to contact and obtain permission from holders of copyright, if any involuntary infringement of copyright has occurred, sincere apologies are offered, and the owner of such copyright is requested to contact the publisher.

British Library Cataloguing-in-Publication Data. A catalogue record is available from the British Library.

Design: Alex Donald, Geological Survey of Northern Ireland.

Index: Brendan O'Brien.

Printed in Poland by L&C Printing Group.