

**Dr Florian Abraham**  
*Sociology / STS*  
*Lille area, Hauts-de-France*

### Education

- 2023 PhD, Sociology, University of Exeter, UK**  
*Materialising a mining project: past, present, and alternative energy futures through the lens of Kvanefjeld*  
Supervisors : Prof. Susan Molyneux-Hodgson (Sociology), Prof. Frances Wall (Geology).  
Examiners : Prof. Andy Stirling (SPRU, Sussex), Prof. Des Fitzgerald (Sociology, Exeter).
- 2012 Master of Science, Sustainability (Environmental politics and policy), University of Leeds, UK**  
*Comparative analysis of wind farms development in France and Germany.*
- 2011 Master of Science, Process engineering, Université de Technologie de Compiègne, France**
- 2007 Bachelor of Science, Measurement sciences, Université de Valenciennes, France**

### Research interests

*Science and Technology Studies (STS); Environmental sociology; Controversy studies; Sociology of risks / agnotology; Sociology of waste.*

### Academic projects

- Since 2024 Faculty of Humanities, Arts and Social Sciences – University of Exeter, UK**  
*Postdoctoral research associate.*
- Follow-up on the work undertaken in past projects (ECOSSENS deliverables, writing of academic articles).
  - Drafting of funding applications (including the submission of a MSCA postdoctoral fellowship application under the supervision of Dr Markku Lehtonen at Universitat Pompeu Fabra in Barcelona).
- 2022 – 2024 Faculty of Humanities, Arts and Social Sciences – University of Exeter, UK**  
*22-month postdoctoral contract funded by UK EPSRC and HORIZON-EURATOM.*
- Collective projects:
- PI for the UK on the European project ECOSSENS (funded by HORIZON-EURATOM)**
- Interdisciplinary project bringing together 12 European partners, aiming to analyse the economic and social issues of the nuclear industry in Europe.
  - Research on the political imperatives influencing energy policy and technological choices made for new nuclear construction in the United Kingdom (conventional reactors, Small Modular Reactors - SMR) (methods: face-to-face interviews, analysis of official documents).
  - Research on the perceptions and views of SMRs in the UK (focus groups, survey, elite interviews).
  - Research on nuclear power perception among climate change activists in the UK (survey).
  - Co-development of methodologies with project partners (methods, ethics).
  - Ethics review.
  - Drafting of three project deliverables.
- Other collective research activities (conducted under UK EPSRC funding)**
- Review of extant academic literature on anti-nuclear movements in the UK.
  - Review of ethical implications of the use of AI in medical uses of ionising radiation: literature review and contribution to the drafting of a guideline for the ethics review of research projects proposals conducted under the EU funded PIANOFORTE project.

- Contribution to the strategic research agenda for the SHARE platform (European platform for social sciences and humanities in ionising radiation research).
- Coordinator for the ‘Nuclear Societies’ research group at the University of Exeter: networking activities; Co-organisation of the ‘Nuclear Futures: Thinking with failure’ seminar (University of Exeter - July 2023).

Personal projects:

**Understanding the nuclearity of uranium mining (conducted under UK EPSRC funding)**

- Transdisciplinary research focused on how uncertainty over scientific knowledge in radioprotection conditions practices observed in uranium mining projects. (Research paper in writing)
- Review of the state of the art in radioprotection and international guidelines (IAEA, ICRP, EURATOM); mobilisation of key analytical concepts: toxicity, risk, uncertainty, agnotology.
- External reviewer for the Energy Research and Social Science journal.

**2017 - 2022 Faculty of Humanities, Arts and Social Sciences – University of Exeter, UK**

*PhD student, funded by UK ESRC (42 months).*

*Materialising a mining project: past, present, and alternative energy futures through the lens of Kvanefjeld*

This thesis analyses the current controversy around the Kvanefjeld mining project in Greenland (uranium and rare earths), and the contribution of this project to the green energy transition in Europe.

- I mobilised the concepts of *nuclearity* (Hecht) and *actor network theory* (Latour) to explain how the current controversy over uranium mining prospects in Greenland can be traced back to Danish energy production choices made in the 1980s.
- I used the *metabolic rift theory* (Marx) to elaborate a critique of the way the extraction of materials necessary for a so-called ‘green economy’ is being envisioned in Europe.
- I used the corpus on *sociology of waste* (e.g., Hetherington) to analyse why alternative REEs streams (e.g., mine waste recovery) are struggling to compete with new REEs mining projects.
- I organised a one-month research expedition to conduct face-to-face elite interviews in Denmark and Greenland (14 respondents, including the mining industry in charge of the project, environmental NGOs, environmental agencies, and academics).
- I analysed the data collected through a thematic coding of interview transcripts (Nvivo), which I complemented with a documentary analysis of a selection of historical studies and official reports.

**2021 Faculty of Humanities, Arts and Social Sciences – University of Exeter, UK**

*Research assistant contract (5 months), funded by UK ESRC et UK EPSRC.*

Collective projects:

Research assistant for the Nuclear Futures project.

- Comparative analysis of the technological disparities observed in disposal choices made in uranium mining projects and in the management of spent nuclear fuel.
- Research on nuclear waste management issues inherent to the development of Small Modular Reactors (SMRs).

**2017 Faculty of Humanities, Arts and Social Sciences – Université d’Exeter, Royaume-Uni**

*Research assistant contract (2 months), funded by UK ESRC.*

Collective projects:

Research assistant for the ‘RRI starter pack’ project, which aimed at creating a package on the State of the Art of Responsible Research and Innovation (RRI), for researchers starting work on embedded RRI projects.

- Review of academic literature on RRI to identify main concepts and ideas.
- Review of existing RRI projects in academic and industrial settings.

**2013 - 2014**      **Department of Human Geography, University of Sheffield, UK**

*PhD student, funded by par UK ESRC (48 months).*

- Only one year completed due to funding issues.
- Research on the political and social challenges of nuclear power plants decommissioning.
- Literature review; review of key concepts within human geography and STS; selection of case studies and qualitative methods; ethics review.

## Publications

### *a. Articles in peer review journals*

*In review*

**2025**      Abraham, F., Silvikko de Villafranca, M. Materialising energy futures through a lens of extraction: conflicting materialities and contingent sociotechnical imaginaries. *Special issue "Energy Futures and Nuclear Infrastructures: Legacies, Fragilities, Imaginaries" - Science & Technology Studies.*

**2025**      Abraham, F., Silvikko de Villafranca, M., Molyneux-Hodgson, S. Accounting for the radioactive and the nuclear: spatialities of radioactive waste disposal. *Environment and Planning D: Society and Space.*

*In preparation*      Abraham, F., Molyneux-Hodgson, S. Uranium tailings: managing an uncertain nuclearity (Submission for peer review expected in early 2026).

Abraham, F., Molyneux-Hodgson, S. UK SMRs and the political making of an acronym.

Abraham, F. Rare earths, innovation, and new geographical spaces.

### *b. Thesis and dissertation*

**2023**      *Materialising a mining project: past, present, and alternative energy futures through the lens of Kvanefjeld.* PhD thesis. University of Exeter. (<file:///Users/flo/Downloads/AbrahamF-2.pdf>).

**2012**      *Comparative analysis of wind farms development in France and Germany.* Master’s Dissertation. University of Leeds (not published).

### *c. Reports*

**2025**      Durdovic, M., et al. (2025) Public attitudes towards small modular reactors. An emerging research field and evidence from six countries. ECOSSENS Deliverable D 1.1.

## Conferences and workshops

**2023**      Co-organisation of the seminar ‘Nuclear Futures: Thinking with failure’. Organised with Karen Bickerstaff and Leila Dawney (Geography department) at the University of Exeter. July 2023.

**2022**      *Materialising energy futures through the lens of Kvanefjeld.* Paper presentation at the workshop « Nuclear Renaissance: Technology, Society and Sustainable Development ». University of Basel (Switzerland). December 2022.

- 2022** *Disposal choices: the construction of risk in the management of nuclear wastes*. Poster presentation at the Ricomet conference. Utrecht (Netherlands). May 2022.
- 2021** *REEs, innovation, and new geographical spaces*. Paper presentation at the AsSIST - UK conference (online). September 2021.
- 2019** *Why is uranium so controversial?* Paper presentation at the Ricomet conference. Barcelona (Spain). June 2019.
- 2019** *Why is uranium so controversial?* Paper presentation at the postgraduate conference. University of Exeter, UK. May 2019.
- 2018** Presentation of the research project (thesis) to the researchers at the Greenland Institute of Natural Resources (GINR). Nuuk (Greenland). November 2018.
- 2014** Presentation of the work to the Material Science and Engineering Department. University of Sheffield (UK). Mars 2014.

### Affiliations

- Since 2017**
- Member of SHARE - European platform for social sciences and humanities in ionising radiation research.
  - Member of EASST - European Association for the Study of Science and Technology.
  - Member of AsSIST-UK - Platform for transdisciplinary collaboration across the social sciences, humanities and sciences in the field of science, innovation and technology.
  - Member and former coordinator (2024) of the « Nuclear Societies » research group at the University of Exeter.

### Academic teaching experience

- 2025** 24h Lectures « Sociology of International Development ». 3<sup>rd</sup> year undergraduates in political sciences, Department of Law, Social and Political Sciences, University of Lille.
- 2024** Exam marking (130 copies) « Social Sciences Theories ». 2<sup>nd</sup> year undergraduates in political sciences, Department of Law, Social and Political Sciences, University of Lille.
- 2014** Exam marking (60 copies). « Introduction to Social and Cultural Geographies ». 2<sup>nd</sup> year undergraduates, Department of Human Geography, University of Sheffield.
- 2014** Project tutor for three groups of six students « Information and Communications Skills for Geographers ». 1<sup>st</sup> year undergraduates, Department of Human Geography, University of Sheffield.
- 2013** 36h Seminars « Environmental Policy and Planning ». 3<sup>rd</sup> year undergraduates, Department of Town and Planning, University of Sheffield.
- 2013** 3x18h Seminars « Doing Quantitative Sociological Research ». 3<sup>rd</sup> year undergraduates, Department of Sociological Studies, University of Sheffield.

### Teaching qualifications

- 2013**
- University of Sheffield Teaching Assistant (STA) training modules**
- Introduction to the academic context and expectations of teaching in Higher Education.
  - Large and small group teaching: designing effective lectures; planning and running seminars; teaching methods.
  - Overview of effective practice in student assessment and feedback.