

# NUCLEUS FIELD TRIPS: METHODOLOGY

*Deliverable 4.1*



**NUCLEUS**

## DELIVERABLE DESCRIPTION

This document outlines the methodology, topics, basic schedule, leading questions, and data collection information to be used for the NUCLEUS Field Trips.

## DELIVERABLE

Deliverable: D4.01 Field Trip Methodology  
Version: V2.  
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Submission Date: 05\_04\_2017  
Reviewer: Annette Klinkert, HSRW

## DISSEMINATION

Dissemination Level:  Public  
 Confidential, only for the consortium and Commission  
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 All Consortium Members (Open Access)  
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## PROJECT

NUCLEUS is a four-year, Horizon 2020 project bringing Responsible Research and Innovation (RRI) to life in universities and research institutions. The project is coordinated by Rhine-Waal University of Applied Sciences. For more information, please visit the NUCLEUS website, follow our social media, or contact the project management team at [info@nucleus-project.eu](mailto:info@nucleus-project.eu).

## NUCLEUS ONLINE



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**FUNDING** This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 664932.

**CONSORTIUM PARTNERS** Beijing Association for Science and Technology · Bielefeld University · China Research Institute for Science Popularization · City of Bochum · Delft University of Technology · Dublin City University · European Science Events Association · European Union of Science Journalists' Associations · Ilia State University · Mathematical Institute of the Serbian Academy of Sciences and Arts · Nottingham City Council · Nottingham Trent University · Psiquadro · Rhine-Waal University of Applied Sciences (Coordinator) · Ruhr University Bochum · Science City Hannover · Science View · South African Agency for Science and Technology Advancement · University of Aberdeen · University of Edinburgh · University of Lyon · University of Malta · University of Twente · Wissenschaft im Dialog

## **EXECUTIVE SUMMARY**

This document outlines the methodology used for the NUCLEUS Field Trips. It describes the goals, participants, and coordinators for six field trips focused on different 'cells' of stakeholders relevant to RRI: Universities and Research Institutions, Public Engagement, Civil Society, Media, Public Policy and Economy.

The methodology also outlines a basic structure for the field trip schedule, leading questions for local partners, and information on how data will be collected and stored.

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## 1 WHAT DO WE WANT TO ACHIEVE?

We want to achieve better understanding and learning from various localities around the world around the interpretation and implementation of RRI so that it pervades the practice of a range of stakeholders and perhaps most importantly, those institutions pursuing research and creating new knowledge.

*“Responsible Research and Innovation is a transparent, interactive process by which societal actors and innovators become mutually responsive to each other with a view to the (ethical) acceptability, sustainability and societal desirability of the innovation process and its marketable products (in order to allow a proper embedding of scientific and technological advances in our society).”*

von Schomberg, Rene (2011) ‘Prospects for Technology Assessment in a framework of responsible research and innovation’ in: *Technikfolgen abschätzen lehren: Bildungspotenziale transdisziplinärer Methode*, P.39-61, Wiesbaden: Springer VS

## 2 HOW WE WILL DO THIS?

We will visit six places, each themed around a specific ‘cell’ of the NUCLEUS narrative. Further details of these locations and foci are detailed below.

*As discussed by Rene von Schomberg, Responsible Research and Innovation features both a **product** and **process** dimension. **Products** should be evaluated and designed with a view to their normative anchor points: high level of protection to the environment and human health, sustainability, and societal desirability.*

*With **Process** the challenge is to arrive at a more responsive, adaptive and integrated management of the innovation process. A multidisciplinary approach with the involvement of stakeholders and other interested parties should lead to an inclusive innovation process whereby technical innovators become responsive to societal needs and societal actors become co-responsible for the innovation process by a constructive input in terms of defining societal desirable products. The product and process dimension are naturally interrelated.*

In each place, we will bring together stakeholders who have an influence in RRI. These will include journalists, representatives from local research institutions, representatives from local governance, politicians and the public. Together with the NUCLEUS partners, the understanding of RRI will be explored in these geographically and culturally diverse environments. The trips will investigate barriers and capture new ideas and approaches to the embedding of RRI principles into tangible interventions and practice (new knowledge).

## 3 HOW IT WILL INFLUENCE THE NUCLEUS IMPLEMENTATION PLANS?

An important stage of the NUCLEUS project is the installation of 10 institutionalised NUCLEI (test beds for embedded RRI practice) around Europe, China and South Africa. These NUCLEI will be setup in accordance with an Implementation Road Map which

itself takes in two major work strands. The field trip learnings from one of these inputs. The second is the benchmarking study being carried out by Work Package 3.

#### **4 WHO'S DOING WHAT, WHEN AND WHERE?**

There are six field trips within the first year of the project, each to a different place and organised by different members of the consortium. These are summarised below:

##### **4.1 CELL 1: UNIVERSITIES AND RESEARCH INSTITUTIONS**

**Main Partner:** University of Edinburgh

**Consortium Partners:** University of Twente, China Research Institute for Science Popularization, Lyon University, Nottingham Trent University, Ruhr University Bochum, University of Aberdeen, Delft University of Technology, Dublin City University, University of Edinburgh, University of Malta, Rhine-Waal University, Mathematical Institute of the Serbian Academy of Sciences and Arts, Ilia State University, Bielefeld University, Science View

**Field trip Cell 1:** Edinburgh, Scotland (December 2015)

The capacity building “field trip” of Cell 1 will visit the Beltane Public Engagement Network in Edinburgh, one of the leading protagonists representing strategies to engage scientists with the public on the national and the international stage (see below). The field trip will focus on innovative governance models and structural approaches to embed RRI in the culture of academic institutions.

##### **4.2 CELL 2: PUBLIC ENGAGEMENT**

**Main Partner:** University of Aberdeen, Scotland

**Consortium Partners:** European Science Events Association, Psiquadro, University of Malta, Beijing Association for Science and Technology, University of Aberdeen, China Research Institute for Science Popularization, South African Agency for Science and Technology Advancement, Wissenschaft im Dialog, City of Bochum, Rhine-Waal University

**Field Trip Cell 2:** Beijing, China (September 2016)

The capacity building field trip of Cell 2 will visit the Beijing International Science Festival with the associated public engagement activities, such as international roundtable conferences and international public engagement symposia. The group will be hosted by the Beijing Development Center of Popular Science. This field trip will help to understand and reflect socio-cultural differences and will support the development of NUCLEI in Chinese academic institutions.

### **4.3 CELL 3: CIVIL SOCIETY**

**Main Partner:** University of Aberdeen

**Consortium Partners:** Université de Lyon (with associated PERARES-Partners), Ilia State University, Rhine-Waal University, Science City Hannover, Nottingham City Council, Center for the Promotion of Science, South African Agency for Science and Technology Advancement, University of Aberdeen, Wissenschaft im Dialog

**Field Trip Cell 3:** Pretoria, South Africa (February 2016)

The capacity building field trip of Cell 3 will visit the South African Agency for Science and Technology Advancement. SAASTA aims to advance public awareness by identifying certain needs in the involvement of and interaction with citizens of different origin. Therefore, this field trip will offer valuable insight into creative and innovative RRI approaches that go beyond European standards. It offers a precious cultural perspective in terms of ethics and gender questions and contributes special expertise in addressing indigenous groups. The field trip will allow partners to gain an understanding of how to embed RRI in different socio-political contexts.

### **4.4 CELL 4: MEDIA**

**Main Partner:** Dublin City University

**Consortium Partners:** European Union of Science Journalists' Association, Center for the Promotion of Science, Rhine-Waal University, China Research Institute for Science Popularization, University of Malta, Dublin City University, Science View, Wissenschaft im Dialog

**Field Trip Cell 4:** Budapest, Hungary (November 2015)

The capacity building field trip of Cell 4 will visit Budapest, Hungary. The field trip will be combined with the EUSJA Annual Conference and form the official launch of the European RRI Journalists Network for which EUSJA is responsible within NUCLEUS. The political situation in Hungary regarding the governmental confinement of the freedom of press would provide an excellent framework to discuss the overall structural crisis of science journalism in Europe and its long-term impact on RRI at large. The field trip will also help to understand RRI and media in the context of challenging political settings.

### **4.5 CELL 5: PUBLIC POLICY**

**Main Partner:** University of Edinburgh

**Consortium Partners:** City of Bochum, Science City Hannover, Psiquadro, Nottingham City Council, Delft University of Technology, Beijing Association for Science and Technology, University of Edinburgh, Rhine-Waal University, Nottingham Trent University

**Field Trip Cell 5:** Nottingham, UK (May 2016)

Field Trip 5 will visit one of the UK “Science Cities”: Nottingham provides insights into developing deeper links between business and the sciences with the aim to enable science, technology and innovation to drive economic growth. The field trip will focus on city-wide partnerships including local universities, city councils, science communication specialists, local businesses and schools. The partners will develop RRI recommendations based on alliances between local administration, regional economy and higher education institutions.

#### **4.6 CELL 6: ECONOMY**

**Main Partner:** Dublin City University

**Consortium Partners:** University of Aberdeen, Science City Hannover, City of Bochum, South African Agency for Science and Technology Advancement, Dublin City University, Rhine-Waal University, Science View

**Field Trip Cell 6:** Dublin, Ireland (June 2016)

This field trip will visit Dublin City University. The partners will focus on developments such as “Societal Impact Platform” at DCU, which has set out, among its goals for 2016, to develop a defined RRI protocol toolkit by translating science and technology studies (STS) and science technology and innovation (STI) policy research standards, to validate internal research hubs for socially robust, responsible research and innovation (RRI) output. At the same time DCU has set out to develop a ‘RRI Validation’ system for innovation programmes (with an initially voluntary sign-up). The field trip will discuss on whether this RRI validation can be extended to economic standards and applications, including extra levels of engagement and transparency at each stage of business-related research and innovation. Discussions will be held with business representatives and members of the DCU Research Ethics Committee.

### **5 THE FIELD TRIP PROGRAMME\***

Each field trip will involve several different elements in order to gather local case studies, an understanding of barriers to RRI and best practice and recommendations. Logistics will be determined locally between the field trip coordinator and the field trip host but all field trips should follow this same basic structure.

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\* The Budapest field trip will follow the standard programme with slight variances in Day 2 depending on setup and availability of EUSJA conference participation.

Timeline	Objective	Method
Day 1: Session 1	Setting the scene (for partners, hosts and invited guests)	An icebreaker/introduction session for everyone who is participating in the field trip  A general introduction session to RRI and the theme of the field trip led by the NUCLEUS team  An introduction to the local hosts (could take the form of a keynote address)
Day 1: Session 2	Exploration	Field trip participants gather information from local partners. This information gathering will take the form of: <ul style="list-style-type: none"> <li>recorded interviews/meetings</li> <li>facilitated sessions e.g. ‘world cafes’</li> </ul> <p>(questions to be discussed/answers detailed below)</p> <p>The exploration section of the field trip will focus on:</p> <p><b>Innovation Inclusion:</b> build institutionalised bridges between the research community, stakeholders and the general public</p> <p><b>Debates:</b> catalyse ongoing debates about the role of science in open societies develop, nurture and support new forms of transdisciplinary research including RRI principles in the scientific community</p> <p><b>Cocreation:</b> stimulate co-responsibility of all actors involved in the process of research and innovation</p> <p><b>New forms of communication:</b> question and redefine prevailing notions of “recipients” and “agents”</p> <p><b>NUCLEUS Phase 2:</b> the context, possibilities and types of activities for mobile NUCLEI as part of Phase 2</p>
Day 2: Session 1	Coming together of thoughts from Day 1 and further exploration	Analysis of local and partner processes and governance. This will be guided by an RRI analysis tool (to be developed by the NUCLEUS consortium). This will be similar to the ‘EDGE’ tool developed for analysing public engagement provision by the National Coordinating Centre for Public Engagement in the UK. The EDGE tool will be used at the Edinburgh field trip.
Day 2: Session 2	Reflection	Each partner to provide insight into barriers and opportunities that have been explored during the field trip. This reflection and evaluation will be verbal but also collected on paper to feed into the Field Trip report and RRI implementation roadmap.

## 6 QUESTIONS FOR FIELD TRIP PARTNERS AND HOSTS

These four questions will form the basis of interviews and questions for local hosts and partners on the field trips. Although these will form the backbone to each field trip content they will be modified to reflect the main focus of the field trip (e.g. public engagement/civil society).

### 6.1 LEADING QUESTIONS:

- 1) Are you involved with the initiation, planning and management of research projects?
- 2) What does “Responsible Research and Innovation” mean to you?
- 3) RRI has been defined by von Schomberg as outlined below. If you think about this meaning, how does your current practice fit into this?
- 4) Please describe any “opportunities” and “barriers” you can identify
- 5) Are there local issues that you think differentiate your practice compared to other places?

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## 7 DATA COLLECTION AND STORAGE

The field trip organising group will be responsible for the organization and collection of data. Data is expected to consist of written transcripts, videos, audio recordings, images and PowerPoint presentations.

This information will feed into the production of the field trip report. Each report will consist of these main sections:

- Overview of local organisation and their relation to research production
- Local schemes and structures which support RRI
- Local barriers to RRI
- Recommendations to the NUCLEUS consortium to be integrated into the implementation roadmap

A NUCLEUS Working Group on “Linking the NUCLEUS Field Trips with the Study” will reflect the outcomes of the Field Trips to the consortium members responsible for the study, to ensure an ongoing knowledge transfer.