Ethical, Legal and Social implication in Research Infrastructures and Core Facilities

MODULE CO-ORDINATOR

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OVERVIEW

Working in a RI /CF means being exposed to, apart from technical questions, ethical, legal and social issues of science, at times even complicated by the international environment they work under, open accessibility, relationships with national or international institutions, companies and citizens.

CONTENT

Either starting from a theoretical introduction of ethical, legal, societal implications in science (ELSI) or from case studies inspired by real life in a RI/CF, during the course the participants will cover the following aspects:

- Importance of **research integrity**, identification of key actors for research integrity in the domain where the participant is active. How EDI (**Equity, Diversity, Inclusion**) can benefit an organisation, EDI frameworks and examples of successful implementations in CF/RI.

- Key benefits of **open science**, open science requirements from major research funders (EC) and how this is translated into research practices. FAIR principles and how this would be applied within the different domains. Examples of supporting initiatives.

- Introduction to **GDPR** requirements on the general operations of RI/CF and how this affects business processes and communications. Role of the major actors (e.g. EDPB). Case studies of compliance monitoring in RI/CF.

- Benefits and challenges of engaging the different stakeholders in the RI/CF activities, from public to private sector. Examples of **Citizen Science**, which actively involves the public in scientific research, to bring together all the social actors (academia, administration, RIs, companies and citizens) tackling real challenges.

LEARNING OBJECTIVES

The programme covers the following topics organized in four chapters:
1. Research Integrity: definitions, field of application, European instruments
2. Equity, diversity and inclusion: definitions, principle of non-discrimination, instruments for diversity management, opportunities stemming from a diverse environment, how to build an inclusive research infrastructure
3. Open data and science: introduction to open science, FAIR principles and their application, GDPR framework introduction, rights of interested parties, different roles in GDPR process
4. Public engagement and citizen science: definition of public engagement and citizen science, approaches and practices, impact, examples in different domains

LEARNING OUTCOMES

The module is designed to provide the Learners with:

CHAPTER 1 – RESEARCH INTEGRITY

1) Research Integrity
   a) Understand the definition of research integrity (RI)
   b) Apply RI principle in the research infrastructures (case studies and examples):
      i) RI in the relationship with colleagues
      ii) RI in mentoring
      iii) RI in recruitment
      iv) RI in the lab
      v) RI in the publication process
   c) Describe the European instruments for research integrity

CHAPTER 2 – EQUITY, DIVERSITY AND INCLUSION

   a) Describe the principle of non-discrimination
   b) Comprehend the definition of diversity and definition of inclusion
   c) List the grounds of discrimination: gender, disability, ethnic or geographic origin, culture, religion, …
   d) Compare the instruments for diversity management
   e) Identify the opportunities stemming from diversity
   f) Analyze how to implement an inclusive research infrastructure environment
   g) Discuss how to do inclusive research

CHAPTER 3.1 – OPEN DATA AND SCIENCE

   a) Have received an introduction to the principles of open data and science - this covers aspects such as:
      i) What are the principles?
      ii) What are the FAIR principles

> **iii)** How to implement/reach the principles (theoretical & practical advice)? Do we need a cultural change & and how can it be reached?
>
> **b)** Have a set of minimal requirements for RI staff to operate in the space of open data and science
>> **i)** This also includes open material, e.g. training materials and others

CHAPTER 3.2 – GDPR GENERAL FRAMEWORK

> **a)** Be introduced to the foundations of the lawfulness of GDPR
> **b)** Aware of rights of interested parties (access, cancellation-oblivion, limitation of processing, opposition, portability)
> **c)** Know about the roles of data owner, manager, person in charge of processing and their respective accountability

CHAPTER 4 – PUBLIC ENGAGEMENT & CITIZEN SCIENCE

Public Engagement
> **a)** Know what Public Engagement is, the stakeholders
> **b)** Compare current approaches and practices for Public engagement actions
> **c)** Analyse the impacts of public engagement
> **d)** Discuss examples in different domains

Citizen science
> **a)** Describe the history and definition of citizen science
> **b)** Compare types of citizen science activities within different domains
> **c)** Discuss examples of citizen science projects
> **d)** Discuss how RIs can enable (or inadvertently hinder) citizen science through their operating principles and design

TARGET AUDIENCE

Managers and operators of RIs and Core Facilities

LEARNING MODEL

- SHORT COURSE-INTRODUCTION VIDEO
- (PRE-READING) ONLINE MATERIAL
- Introductory lectures
- USE-CASE BASED HANDS-ON ACTIVITIES / BREAKOUT ROOM SESSIONS/EXPERIENCE SHARING

ASSESSMENT

It will be based on an individual assessment.