

NEA Workshop
on
Digital Safety Case Integration
for
Radioactive Waste and Geological Disposal

DRAFT PROGRAMME OVERVIEW

23-24 April 2025

NEA premises, Boulogne-Billancourt, France

The workshop will be divided into sessions, including facilitated break-out sessions where specific topics can be discussed in more detail. Each session will have a Chair (e.g. a member of the Programme Committee) and will include 3-6 presentations of 20-30 minutes duration, followed by an opportunity for questions from the audience.

The working language will be English.

The programme outlined below is intended for *illustration only*. A detailed final programme, including a clear definition of the scope of each session and the presentations that will be included within it, will be developed by the Programme Committee.

Day 1

- Registration
- Introduction
- Session 1: TBC - What does a holistic consideration of a digital safety case mean?
 - Key note presentation – what integration means in different fields?
 - Reminder of outcomes from 1st digital SC workshop in Berlin
 - Use cases of different actors
- Session 2: TBC - How can digital technologies help coordinate change management for safety cases?
 - Managing changes consistently across multiple toolsets
 - Parallels between source code source control and branches (e.g. in Git) and safety case changes
 - Is a live digital safety case possible (or desirable)?

- Session 3: TBC - Regulating safety in an increasingly digital world
 - Thoughts from the NEA Regulators' Forum on this issue
 - How can digital systems be used to aid communication between regulators and RWMOs (e.g. digital submission and tracking of comments/issues)?
 - Should an RWMO move away from 'document'-based submissions?
 - What new issues are introduced by the use of digital submissions?
 - What level of Quality Assurance is needed for digital systems?
 - etc.

Lunch

- Session 4: TBC - The developing role of systems engineering and requirements management
 - Systems engineering as a philosophy for repository development
 - Potential applications and key challenges
 - Requirements management at different levels of maturity
- Session 5: Discussion session (content TBC)

Day 2

- Session 6: TBC - Relevant Developments in underlying domains (part 1)
 - Site characterisation
 - Common data and modelling environments
 - Digital Inventory and waste package records
- Session 7: TBC - Relevant Developments in underlying domains (part 2)
 - Digital engineering and Building Information Modelling (BIM)
 - Linking research to the safety case

Lunch

- Session 8: TBC - Moving toward a digital safety case
 - Expanding the Safety case ontology
 - Safety case ontology and process flowcharts (e.g. NEA/IGSC's MeSA flowchart) and the digital toolsets that support them
 - Case study: FEP screening
 - Case study: Scenario development
 - Case study: Data and Model Management
- Session 9: Discussion session (content TBC) and conclusions