

# Strategies for Radiological Characterisation in Decommissioning of Nuclear Facilities

**Key findings of the TGRCD - a task group of the  
Working Party on Decommissioning and Dismantling  
(WPDD)**

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Waste Management Symposia 2015

## Background

- Characterisation is considered as one of the most important activities in decommissioning of nuclear facilities
- NEA WPDD decided in late 2010 to form a project on *“Strategies for Radiological Characterisation in Decommissioning of Nuclear Facilities”*
- The project **(Phase I)** completed in 2013 by the publication of the final report
- In 2014 a new mandate **(Phase II)** was given to the task group on the topic *“Strategies for optimisation of the nuclear facility characterisation in a waste and materials end-state perspective”*

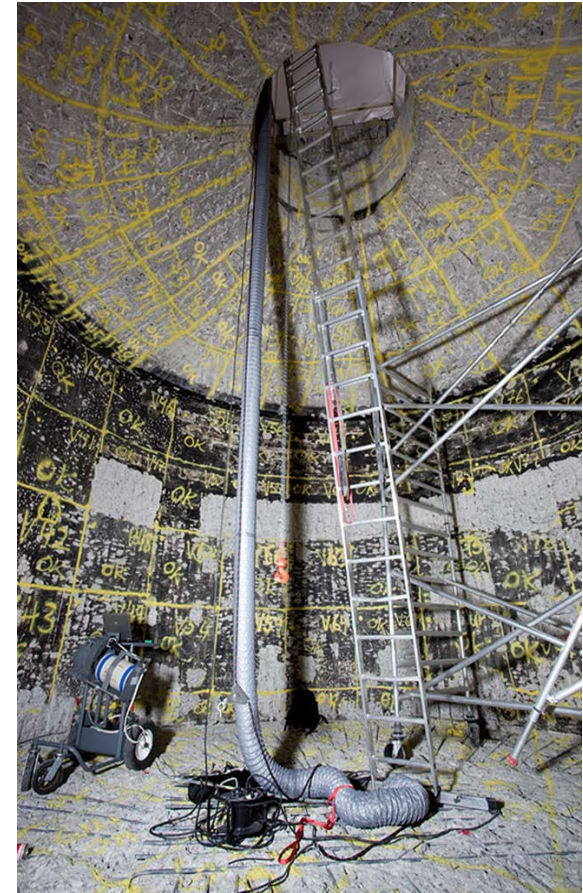


Photo: F Ekenborg, AB SVAFO

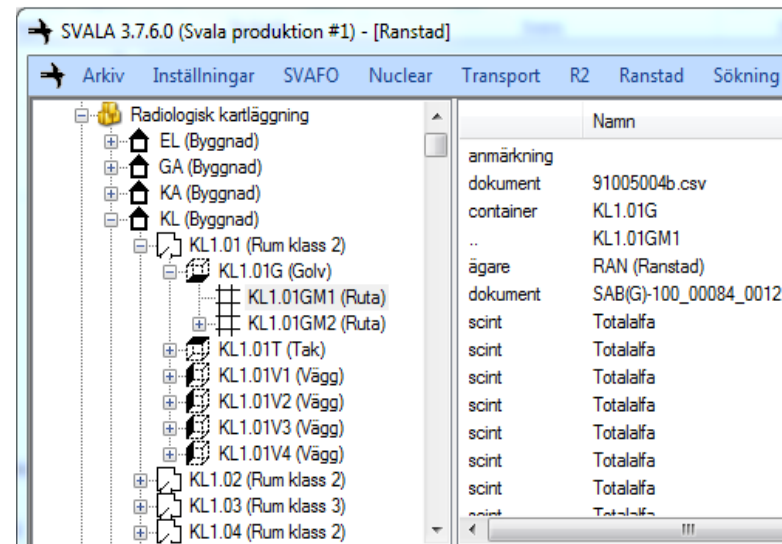
## Overview of the presentation

- Summary of findings and conclusions in Phase I
- Program and activities of Phase II
- Invitation to contribution

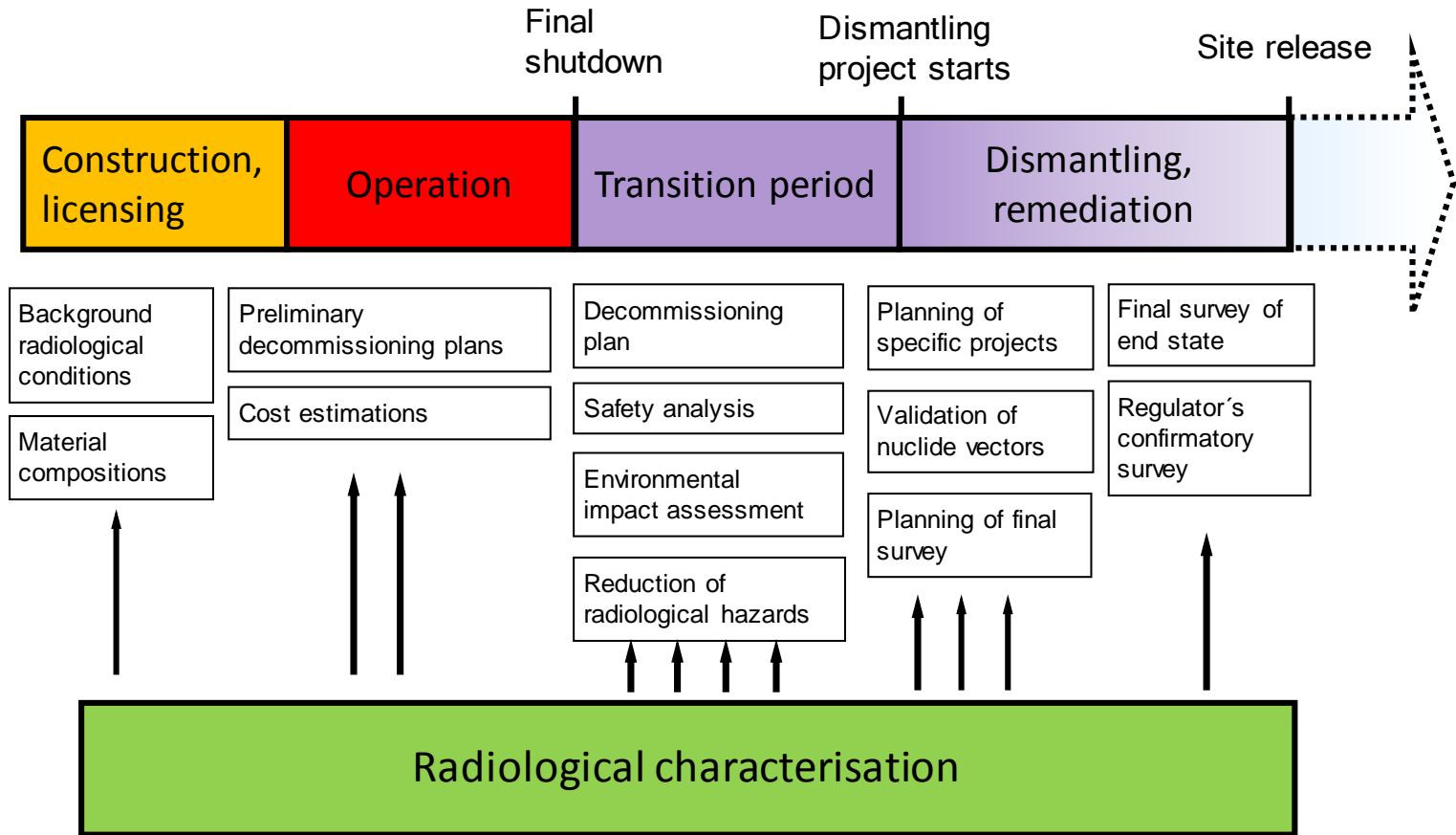


## Phase I (2011-2013)

### Overall strategies General characterisation issues

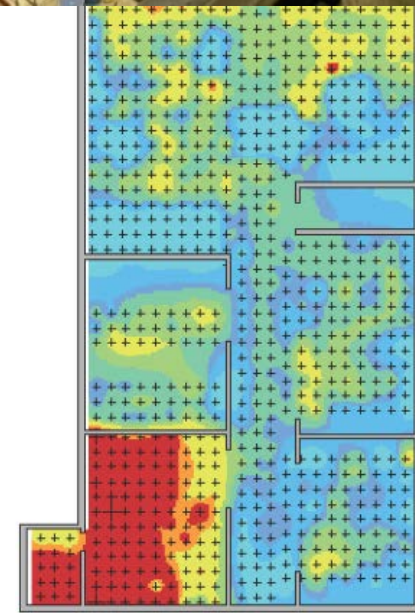
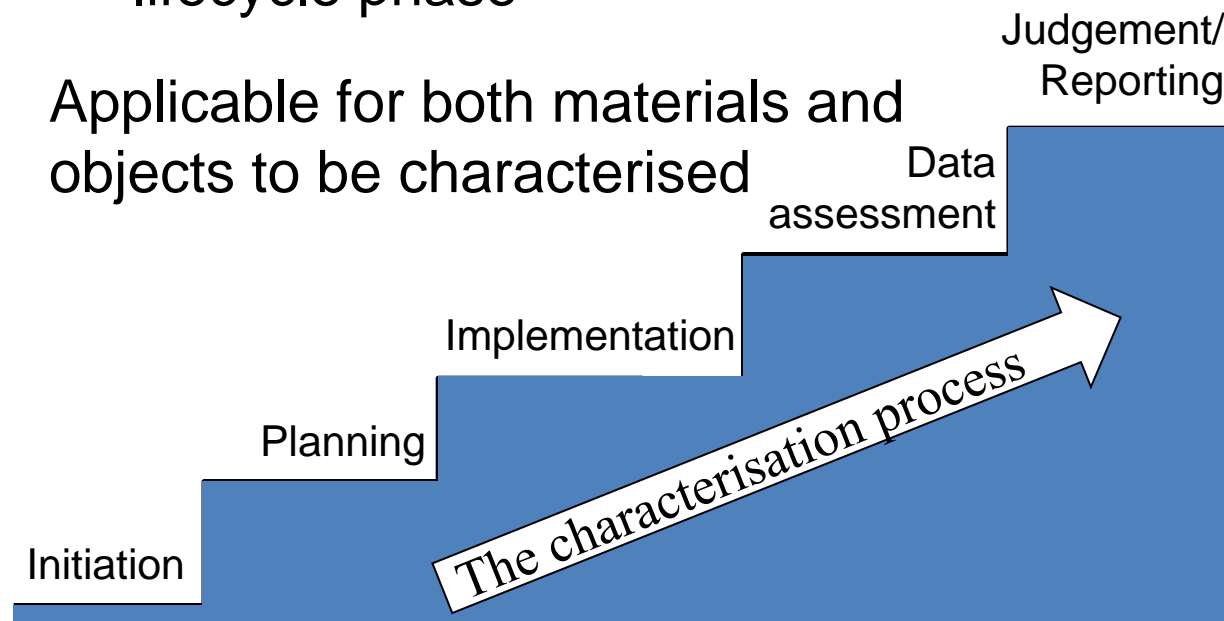


## Characterisation – in a life cycle perspective



## The characterisation process

- Generic steps exist
  - relevant for all characterisation projects
  - independent of size
  - independent of the nuclear facility lifecycle phase
- Applicable for both materials and objects to be characterised



## Performed external activities during Phase I

- Questionnaire spread within OECD-NEA member countries
  - Operating plants
  - Plants in transition phase
  - Ongoing decommissioning projects
- RCD Workshop 2012 in Studsvik, Sweden
  - More than 120 delegates
  - 23 countries represented
  - Sessions on:
    - General decommissioning issues
    - Materials and systems
    - Rooms and buildings
    - Land & Groundwater
    - Software, record keeping, QA
  - Proceedings available – <http://www.oecd-nea.org/rwm/wpdd/>



## The final report (NEA WPDD Status Report)

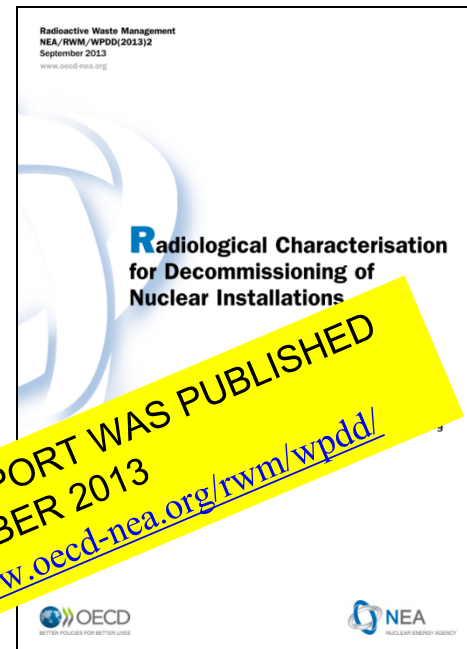
**Focus:** Strategic approaches and issues – no detailed descriptions  
**Target group:** Decision makers, executives and others looking for an overview

### Aim

- Identify and present the best practice at different stages of decommissioning
- Point out areas that could or should be developed further via international cooperation and coordination.

### Table of contents

- Role and significance of radiological characterisation in decommissioning
- Key activities
- Management aspects and selection of strategies
- Experiences/lessons learned





# Phase I – summary and conclusions

- Well defined objectives and a structured approach is essential.
- Radiological characterisation is a key activity in all phases of decommissioning
- Characterisation activities to support the future decommissioning should start very early
- Gathering and appropriate evaluation of historical data and knowledge is crucial. Do not wait initiating this process.
- Do not get lost in technical details when forming strategies and plans
- Thanks to good pre-planning, focused experts and good support by NEA secretariat the project was completed in time
- **Read the report** – gives a good overview of identified Best Practice

## Phase II (2014-2016)

### Strategies for optimisation of radiological characterisation in a waste and materials end-state perspective



## Objective Phase II

Identify strategic approaches, good practice, issues and risks related to disposal of radioactive waste and clearance of materials, like

- what information should be collected (type, quality, quantity), considerations variations etc.
- why the information is needed
- how the information could be gathered and managed
- when the information could/should be gathered

**Focus areas:**

- Strategic approaches
- Issues and risks (threats and opportunities)
- Observations of good practice

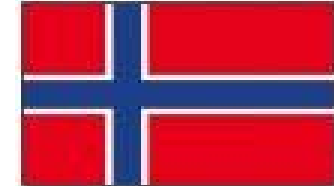
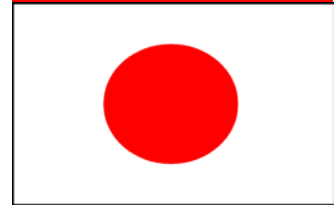
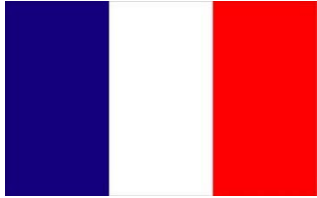
**Target groups:** technical managers of decommissioning projects, waste management agencies, regulators

## Presentation of task group

Task group composed of:

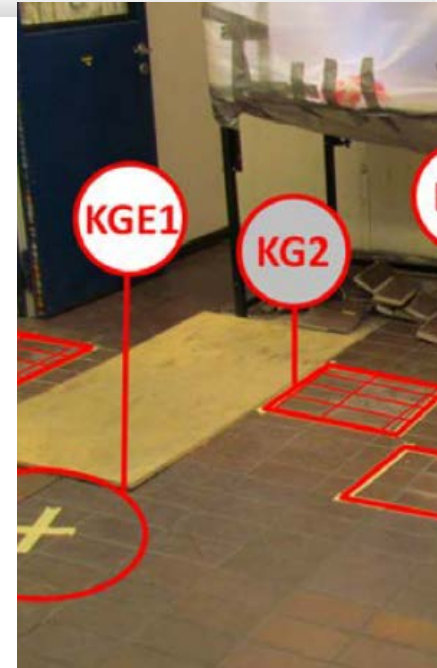
- Independent experts
- Decommissioning organisations
- Regulators
- Repository organisations
- Specialist consultants
- Utilities
- Waste Management organisations

Representatives from 11 countries



## Main activities – Phase II

- Perform a Questionnaire - survey to gather experiences and examples
- Collect and analyse regulations, standards and guiding documents
- Identify current strategies and practices for
  - defining objectives and perform planning
  - Implementation of characterisation program
  - managing and analysing of data and other information
  - reporting results
  - Knowledge management (up to disposal of the waste)
- Case studies
- Define best practice and areas of further development
- Arrange an international workshop
- Development of NEA WPDD status report



## Phase II – current status and way forward

- Task group work in progress
- The **questionnaire** will be distributed early April 2015  
**First results** will be published at GLOBAL 2015 in Paris, France (21-25 September 2015) and at WPDD-16 (November 2015)
- An **international symposium** is scheduled for 16-18 February 2016 in Lyon, France  
Jointly hosted with WPDD Task Group on *“Preparing for Decommissioning during Operation and after Final Shutdown”*
- The **final report** is intended to be published late 2016

## THANK YOU FOR YOUR ATTENTION !

### Welcome to contribute by

- Responding to the questionnaire
- Participate in case study
- Attend the planned symposium

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