

NEA Workshop on Preparedness for Post-Nuclear Accident Recovery

Radiological Protection
2022

Building a Framework for Post-Nuclear Accident Recovery Preparedness

National-Level Guidance

The Sixth International Nuclear Emergency Exercise (INEX-6)

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Contents

- **Background**
 - The INEX Series
 - Approach to planning INEX6
- **Objectives, scope and format**
- **Preparing and delivering INEX6 modules in Countries**
 - Nominating a ‘National Exercise Organiser (NEO)’ and ‘National Planning Committee (NPC)’
 - How to deliver INEX6 modules
- **Timeline**
- **Post-Exercise Questionnaire and Workshop**

Background – History of the INEX series

Since 1993, the OECD-NEA develops, organises, evaluates and analyses the International Nuclear Emergency Exercise (INEX) series to address best practices and identify areas for improvement in nuclear/radiological emergency management systems.



Development of the INEX Series

INEX Series	Exercise Objectives	Year
INEX-1	Early phase; Communication; Decision making process in national responses; Food safety; Emergency assistance	1993
INEX-2	Decision making in uncertain conditions; Real time communication; Public and media interactions	1996-1999
INEX 2000	Monitoring and data management strategies for nuclear emergencies; International coordination; Aspects of the Convention on Third Party Liability	1999-2001
INEX-3	Consequence management; Long-term issues; Decision making in the medium- and longer-term	2005-2006
INEX-4	Post-crisis emergency management; Response to widespread radiological contamination of the urban environment	2010-2013
INEX-5	Notification and communication aspects; Transboundary aspects; Interfaces; Identifying and obtaining resources	2015-2016
INEX-6	Long-term recovery phase	2023-2024

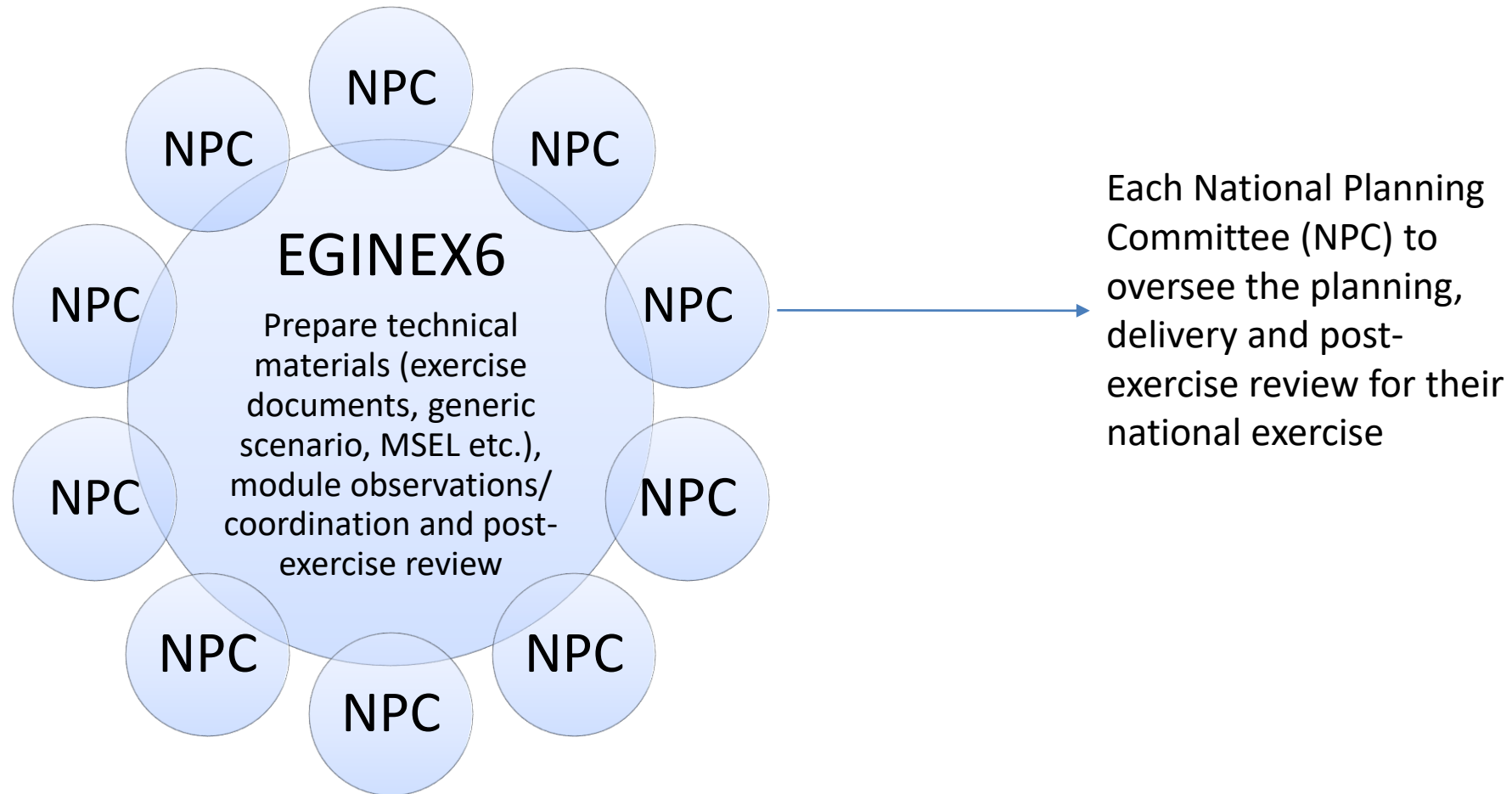
INEX-6 Development

- 2021 – INEX-6 Preparatory Task Force (PTF) established to identify possible options for the objectives, scope and format of INEX-6. Recommendations presented to the Working Party on Nuclear Emergency Matters (WPNEM) in November 2021
- WPNEM established an Expert Group to take forward the formal planning
- The Expert Group for the Sixth International Nuclear Emergency Exercise (EGINEX6) started in May 2022
- Membership: Canada (Chair), USA (Vice-Chair), UK (Vice-Chair), Belgium, Bulgaria, Chinese-Taipei (invited experts), France, Germany, Japan, Portugal, Slovak Republic, Switzerland
- Key Drivers for INEX-6:
 - focus on long-term recovery/existing exposure situation (after termination of the emergency)
 - test key areas of EGRM's Framework for Recovery Preparedness
 - identify improvements to enhance national and international preparedness for recovery

INEX-6 Planning Approach

- Adapting the planning approach used for INEX-5
 - Central/international exercise planning delivered by EGINEX6 supported by ‘National Planning Committees (NPCs)’ within each of the participating countries
 - Exercise materials (scenario, injects, documentation) developed by EGINEX6, with country-specific objectives incorporated as required
 - Countries to run independent table-top modules/exercises, which are compared after the event through INEX-6 questionnaire and NEA hosted post-exercise evaluation workshop
- Documents:
 - INEX-6: General Information (summary briefing document)
 - INEX-6: Guide for National Planning Committees
 - INEX-6: Guide for Exercise Players
 - INEX-6: Exercise Slidepack
 - INEX-6: Exercise Evaluation Questionnaire

INEX6 Planning and Delivery



Objectives

1. Test preparedness for recovery, including organisational structures, roles and responsibilities, stakeholder engagement, as well as mechanisms for international cooperation to assess the adequacy of current arrangements and identify potential gaps against the [EGRM's Framework for Recovery Preparedness](#);
2. Test the decision-making process for the implementation of longer-term protective actions, including the justification and optimisation of such actions considering both radiological and non-radiological issues;
3. Test the adoption of an all-hazards approach to recovery management, utilising skills, knowledge and capabilities from outside of the nuclear field.

Scope (1/2)

The Sixth International Nuclear Emergency Exercise (INEX6) will:

- be delivered individually by participating countries as a Table-Top Exercise(s) using the same exercise scenario(s) in order to draw comparisons between countries
- involve a series of ‘modules’ focussing on key topical issues associated with long-term recovery management
- be prepared as a package that enables countries to re-use the exercise materials after completion of INEX6, including a methodology that allows for additional long-term recovery modules to be added at a later stage following the same format (NB: further INEX6 exercises could be held in later years to test additional long-term recovery issues)
- involve a scenario(s) that begins after termination of a radiological or nuclear emergency, i.e. an existing exposure situation

Scope (2/2)

Continued – The Sixth International Nuclear Emergency Exercise (INEX6) will:

- be open for all countries to participate regardless of their current level of preparedness for recovery
- maintain a direct link with the NEA publication ‘Building a Framework for Post-Nuclear Accident Recovery Preparedness’ to test implementation of the guidance
- build on experience from previous INEX exercises

The Sixth International Nuclear Emergency Exercise (INEX6) will not:

- test all elements associated with long-term recovery
- be built upon a very technically detailed accident scenario description, but rather on a more narrative or semi-quantitative one
- be based on an accident in a specific geographic location

INEX-6 Modules



1. Health Aspects

(covering issues such as Mental Health and Psychosocial (MHPSS) issues, medical follow-up, medical surveillance)



2. Food Safety

(covering issues such as food monitoring, food restrictions, international and domestic food trade)



3. Remediation and Decontamination

(covering issues such as remediation of natural and built environment, contaminated land, access control)



4. Waste Management

(covering issues such as storage, treatment, characterisation, transport, disposal)

Cross-Cutting Issues: Stakeholder Engagement, Communications, International Cooperation, Socio-Economics

Preparing and Delivering INEX6 within Countries

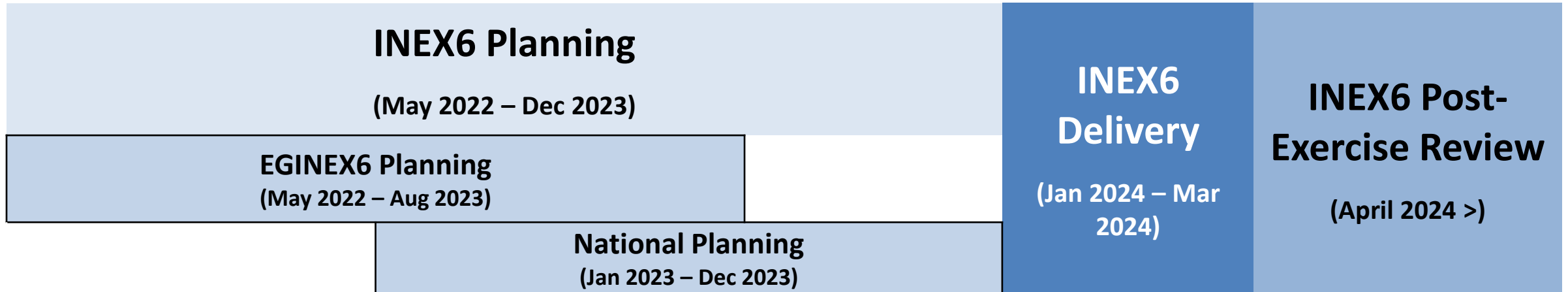
Roles to be Assigned:

National Exercise Organiser (NEO)	The individual or organisation who “owns” the exercise and has overall responsibility for ensuring efficient exercise delivery and that all participating organisations are involved from the beginning of the exercise development process.
National Planning Committee (NPC)	The collective group of representatives from responsible organisations (see Exercise Planning Representative), chaired by the National Exercise Organiser, with the overall responsibility for delivering the national table-top or workshop exercise.
Exercise Players	Participants in the exercise that are required to respond to the exercise scenario in accordance with existing policies, protocols, and emergency preparedness and response plans/procedures.
Exercise Moderator	The individual(s) with responsibility for maintaining the efficient conduct of a national INEX6 exercise. The Exercise Moderator is responsible for ensuring that the exercise play and discussions progress smoothly according to the exercise framework, and that Exercise Players are provided with all necessary technical materials and driving inputs according to the exercise timeline.
Exercise Evaluator/Recorder	The individual(s) with the responsibility for ensuring that exercise activities in support of exercise objectives are effectively recorded to support the completion of the INEX6 Exercise Evaluation Questionnaire and any other exercise reporting.
Exercise Observer	Individuals invited to observe the exercise with no responsibility to contribute to exercise play or the organisation

Delivering INEX6 modules

- Prior to the exercise each country will be issued with a module ‘slidepack’ containing the scenario, a series of topic specific questions and injects
- National Planning Committees (NPCs) **may** opt to insert additional information and injects into the ‘slidepack’ according to their country-specific objectives
- NPCs responsible for:
 - Selecting the dates and venues for each of the modules
 - Organising the Exercise Players
 - Adding country-specific information/injects into the generic ‘slidepack’ as required
 - Ensuring the post-exercise evaluation questionnaire is completed and returned to the NEA by the agreed date
- The Exercise Moderator will be responsible for presenting the ‘slidepack’, moderating discussions, and summarising the final response to the questions on the day of the exercise

Timeline



- Invitations to be sent for countries to participate in the exercise (~January 2023)

Post-Exercise Questionnaire and Workshop

- Questionnaire to be completed for each module (basis of international comparisons)
- Post-Exercise Evaluation Workshop hosted by NEA for participating countries and interested parties

INEX-6 Modules Interactive Discussion

Peter Wright (EGINEX6 Chair)
Holly Arrigoni (EGINEX6 Vice-Chair)
Selwyn Runacres (EGINEX6 Vice-Chair)

NEA Workshop on Preparedness for Post-Nuclear Accident Recovery
28th October 2022

Interactive Discussion on INEX-6

- The following interactive session will give you an opportunity to share thoughts and ideas on the key issues which could be tested in each of the recovery modules. EGINEX6 will integrate your feedback into the exercise planning
- We will briefly introduce the 4 modules and then open the floor for discussion
- Please consider:
 - Are there any other issues you would like to see tested in the modules?
 - Are there any cross-cutting issues you would like to see built into the modules?
 - Are there any suggestions to test international collaboration?

Module 1: Health Aspects



1. Health Aspects

(covering issues such as Mental Health and Psychosocial (MHPSS) issues, medical follow-up, medical surveillance)

Focus on the long-term health aspects, including both radiological and non-radiological issues. Some issues currently under consideration for testing include:

- Mental Health and Psychosocial Support (MHPSS)
- Medical follow-up
- Health Surveillance
- Others??

Module 1: Health Aspects



1. Health Aspects

(covering issues such as Mental Health and Psychosocial (MHPSS) issues, medical follow-up, medical surveillance)

Option: *Test the guidance developed by the Expert Group on Non-radiological Public Health Aspects of Radiation Emergency Planning and Response (EGNR) (publication in early 2023)?*

- 29 key actions to mitigate MHPSS impacts, summarized in a table and completed by 13 detailed action sheets for actions that require R/N-specific guidance beyond existing MHPSS guidelines;
- Examples of action sheets:
 - Undertake a MHPSS needs assessment
 - Develop an effective MHPSS coordination plan
 - Include information on mental health and psychosocial risks and support in information/ education materials
 - Develop a staff and volunteer support policy/protocol for managing stress during an incident
 - Provide MHPSS in local primary health care centres
 - Incorporate MHPSS considerations into decision-making protocols
 - Develop a public communication strategy that includes MHPSS
 - Distribute information/education materials to the community on MHPSS and self-help
 - Ensure referral mechanisms between primary care and specialized MHPSS are operational
 - Addressing MHPSS in temporary relocation
 - Observe effects of emergency on social determinants of mental health

Module 2: Food Safety



2. Food Safety

(covering issues such as food monitoring, food restrictions, international and domestic food trade)

Focus on food safety. Some issues currently under consideration for testing include:

- Food Monitoring, Sampling and Surveillance
- Implementing, managing and lifting food restrictions
- Agriculture – Livestock and Crops
- Food Waste
- International and Domestic Food Trade*
- Consumer trust*
- Others??

* Output from INEX-6 in these areas could feed into the ongoing work by the Expert Group on a Post-Accident Food Safety Framework

Module 3: Remediation and Decontamination



3. Remediation and Decontamination

(covering issues such as remediation of natural and built environment, contaminated land, access control)

Focus on Remediation and Decontamination. Some issues currently under consideration for testing include:

- Buildings and Infrastructure – Demolition, Cleansing, Tie-down etc.
- Contaminated Land
- Natural Environment – Vegetation
- Access Control
- Site Remediation and Decommissioning (NPP accident scenario)

Module 4: Waste Management

Focus on Waste Management. Some issues currently under consideration for testing include:

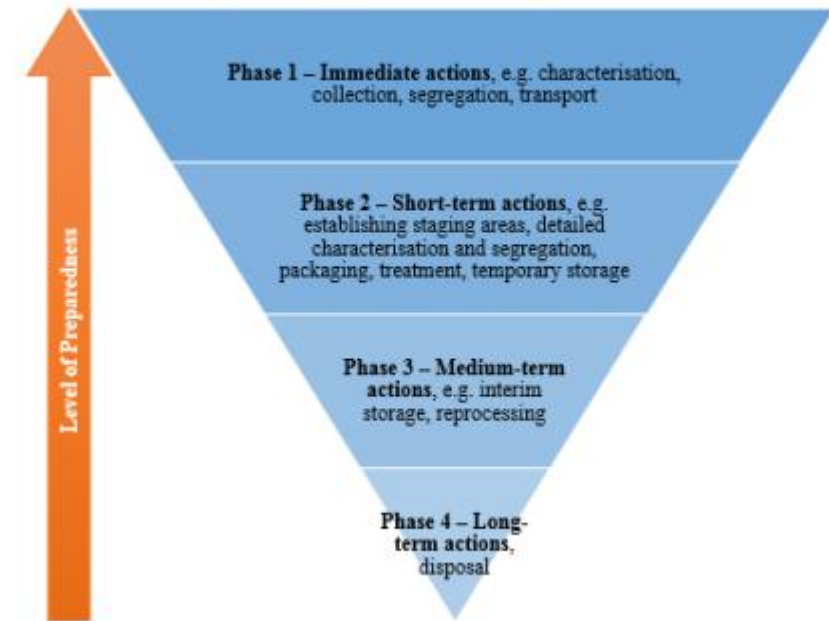
- Characterisation
- Establishing Staging Areas
- Packaging
- Transport
- Temporary Storage
- Treatment
- Processing
- Interim Storage
- Disposal



4. Waste Management

(covering issues such as storage, treatment, characterisation, transport, disposal)

Figure 6: Waste management preparedness: suggested breakdown into phases



Source: EGRM Report

Interactive Discussion on INEX-6

Please share your thoughts and ideas!

Thank you for your attention



All NEA publications and institutional documentation available at
www.oecd-nea.org

