



# Implementation of the Radioactive Waste Directive and other on-going studies on radioactive waste management

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*Euratom event (RTD-ENER-JRC)*

*The safe management of spent fuel and radioactive waste in the small inventory Member States*

# OUTLINE

- Council Directive 2011/70/Euratom
  - a Community framework for the responsible and safe management of spent fuel and radioactive waste
  - state of play and reporting
- EP Pilot Project



# Council Directive 2011/70/Euratom

a Community framework for the responsible and safe management of spent fuel and radioactive waste

# SUBJECT MATTER

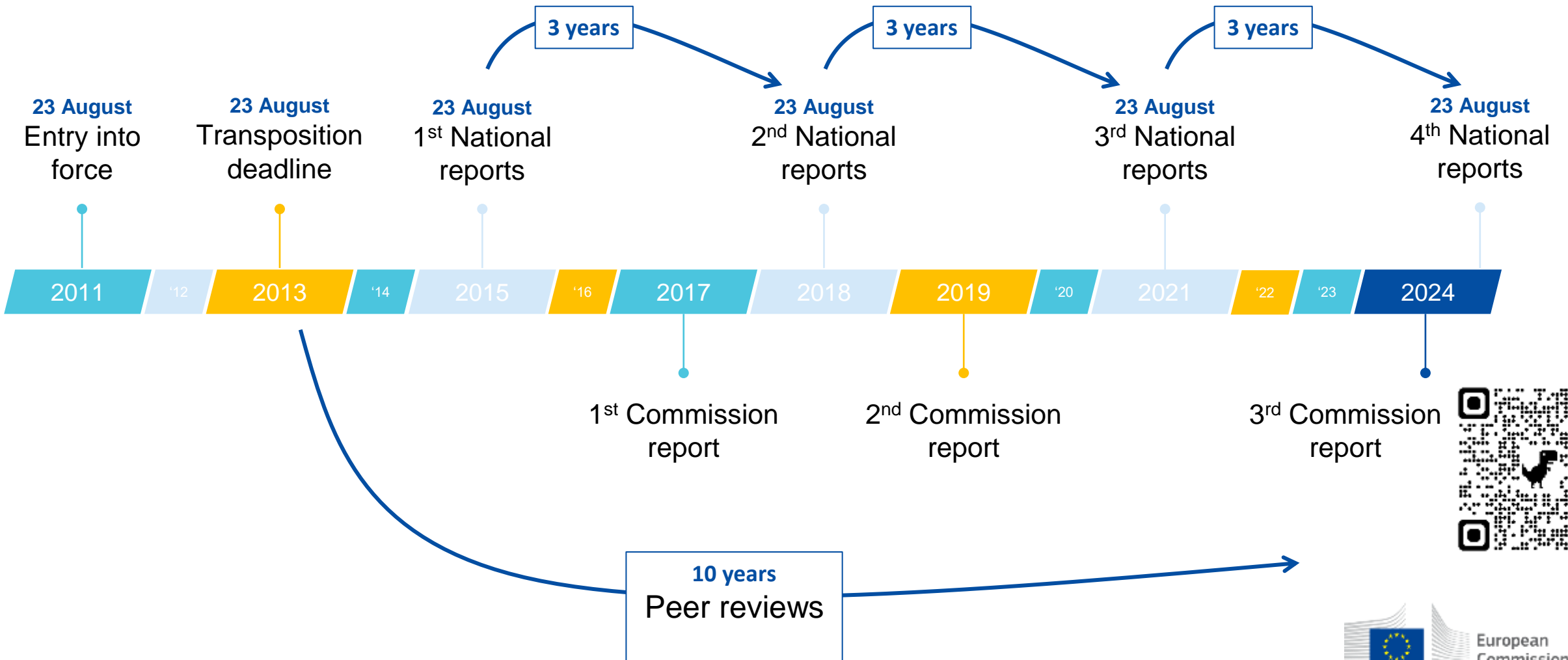
## (Article 1)



- Establishes a Community framework to **avoid imposing undue burdens on future generations**
- Ensures **appropriate national arrangements for a high level of safety** to protect workers and the general public against the dangers arising from ionizing radiation
- Ensures the provision of **necessary public information and participation** while having due regard to security and proprietary information issues
- Supplements the basic standards referred to in **Art. 30 of the Euratom Treaty** as regards the safety of spent fuel and radioactive waste

# TIMELINE

(Articles 13, 14, 15)



# NATIONAL FRAMEWORK

## (Article 5)



Control, inspections, documentation and reporting

System of licensing

National programme

Responsibility and coordination

National arrangements

Transparency

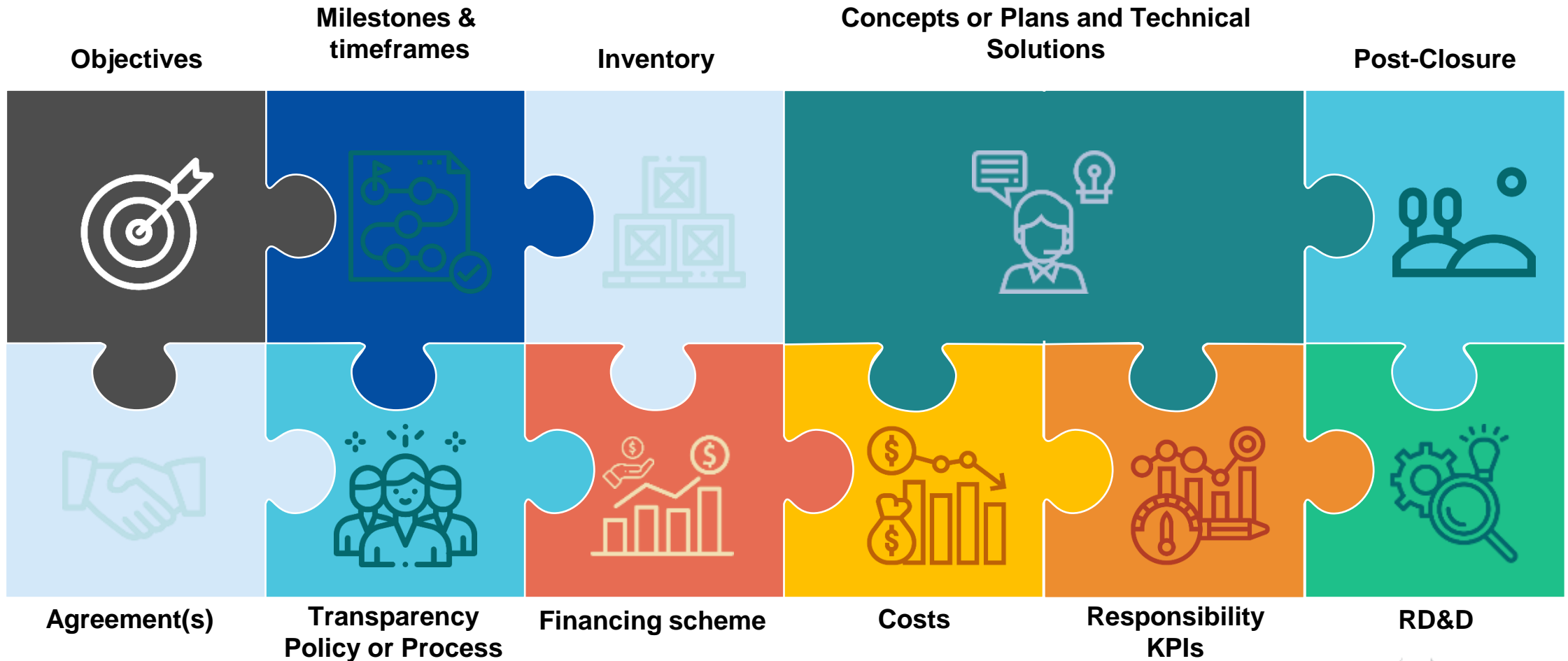
Enforcement

Financing scheme



# NATIONAL PROGRAMMES

(Articles 11, 12)



# Council Directive 2011/70/Euratom

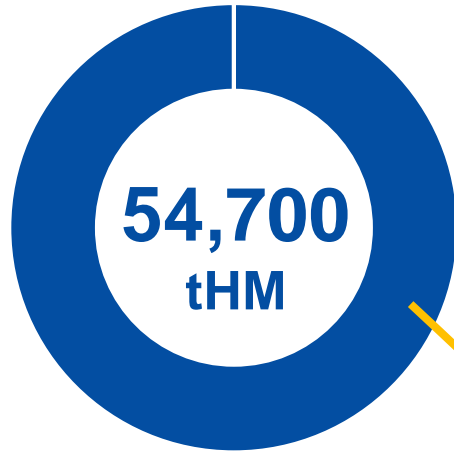
state of play and reporting





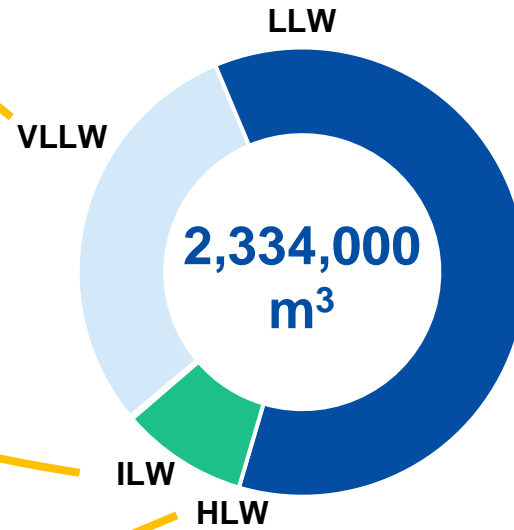
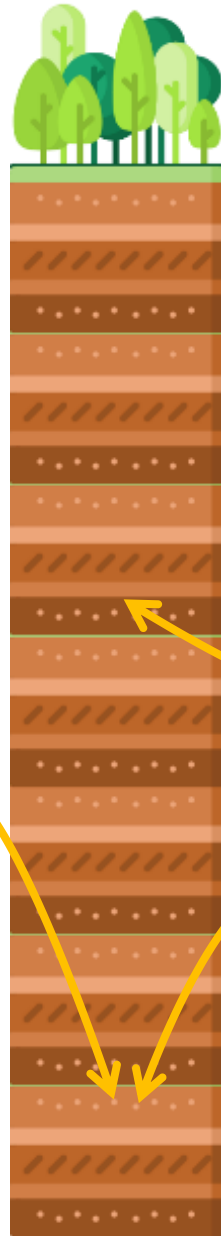


# INVENTORY



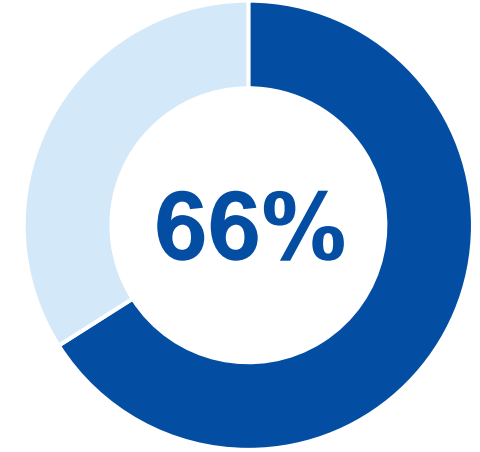
## Stored spent fuel

**Very-Low-Level** and **Low-Level** can be disposed of in surface facilities.



## Total amount

Largest amount of waste is **Very-Low-Level** and **Low-Level** (>90%); **High-Level** waste is 0.2% in volume.



## Waste disposed of

**Very-Low-Level** and **Low-Level** can be disposed of in surface facilities. Increased by 8% in the period 2016-2019.

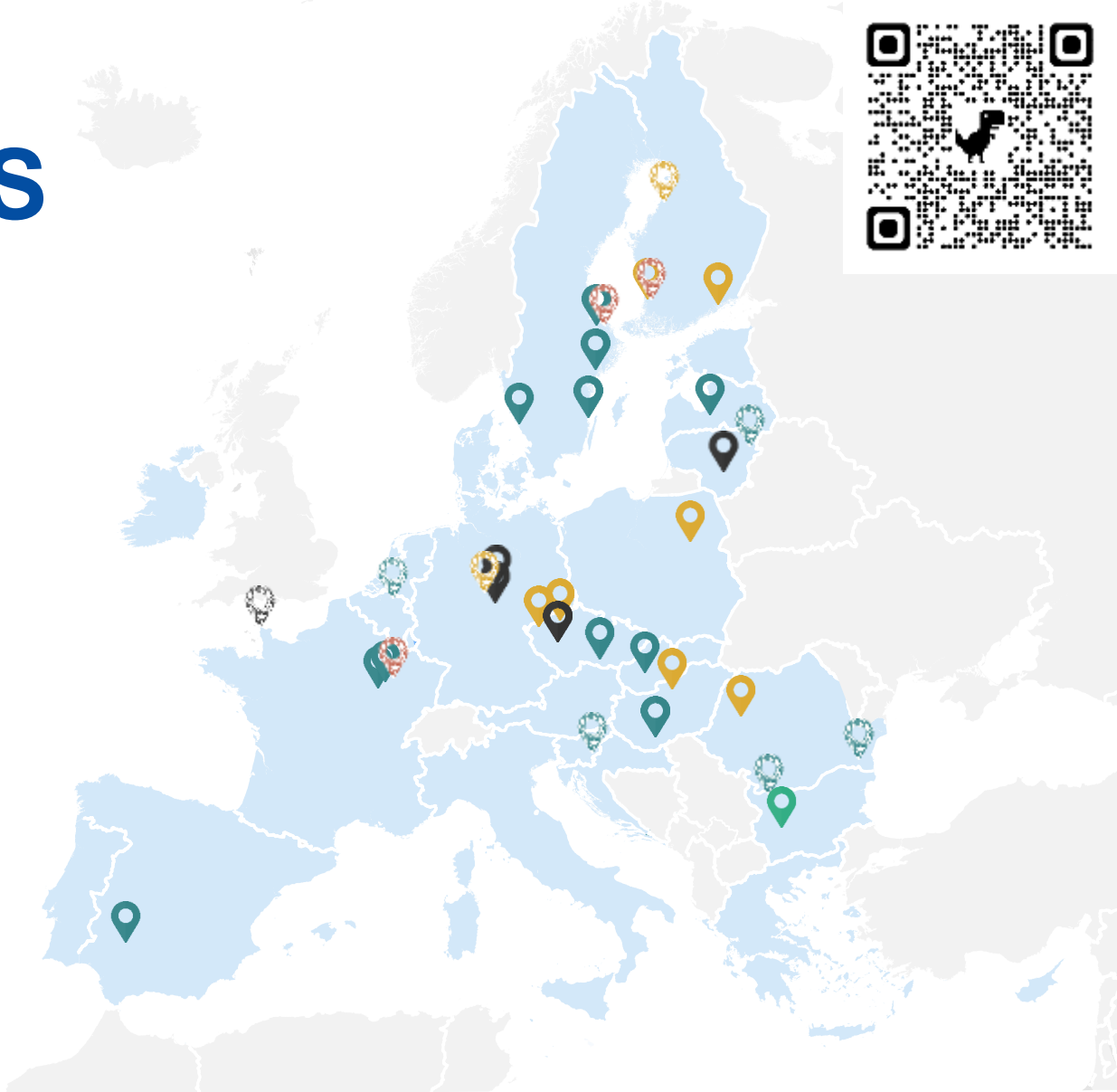


# DISPOSAL FACILITIES



## Deep Geological Repositories

Finland (2025), France (~2035) and Sweden (~2035) are forerunners on a global scale



PHASE	SURFACE	NEAR SURFACE	DEEP
Operation			
Realisation/Planned			
Closed			

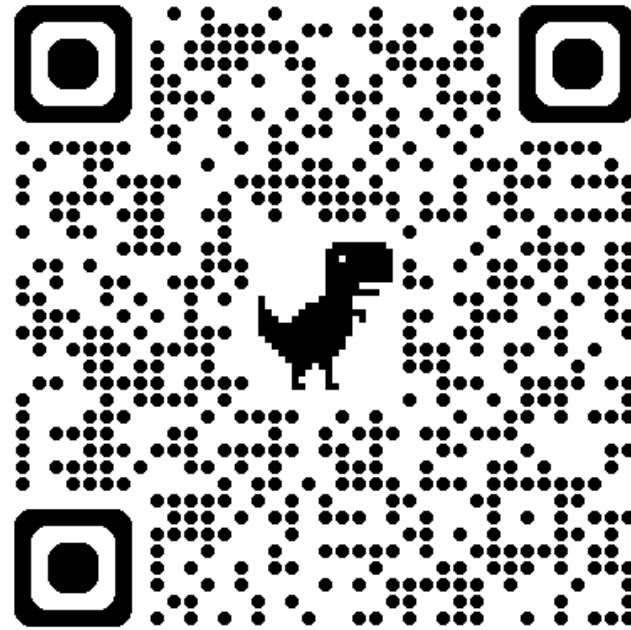
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# INTERNATIONAL PEER REVIEWS

- Obligation
- Every 10<sup>th</sup> year
- Public outcome



The IAEA integrated peer review service provides a cross-cutting peer review service for Member States worldwide, as well as in relation to the peer review obligations from the EU Directive on waste management.



# SUMMARY



- + **National programmes** in place and established in a **transparent and participative** manner
- + Radioactive waste and spent fuel **managed safely** in the Member States in the reporting period
- + Increasing amounts of **disposed waste**
- + The system of **self-assessments** and **international peer reviews**
- Several Member States did not further define **national policies for the long-term management of all** their radioactive waste
- The targets set in some national programmes are **not sufficiently ambitious**
- Programmes' **control** and **funding**, incomprehensive **assessment of costs**
- Weak application of **key performance indicators**

# CONCLUSION



*“As the 10<sup>th</sup> anniversary of the transposition deadline of the Directive into national legislation has passed, overall, a general conclusion can be drawn that the transposition and implementation of the Directive in the Member States have not to date fully achieved the Directive’s objectives for all categories of radioactive waste. This calls for a more **thorough evaluation** of the Directive’s effectiveness in ensuring responsible management of spent nuclear fuel and radioactive waste in the EU and avoiding the transfer of any undue burden to future generations.”*

# EP Pilot Project

Joint European approach towards radioactive waste

# Joint European approach towards radioactive waste (Pilot Project)

- The **European Parliament** launched “in cooperation with DG ENER, a **pilot project** and, if successful, a possible continuation through a **preparatory action**”.
- Project in the “form of a **feasibility study on a deep geological nuclear waste repository of common European use**”.
- DG ENER response to the initiative:
  - ✓ Creation of a compendium of knowledge.
  - ✓ Consultation for possible concepts, processes and further cooperation forum.

# Consultation process



## Objectives

Consultation and discussion platform around **shared disposal and predisposal** of radioactive waste, with a view to **practical multinational cooperation initiatives** if feasible and valuable.



## Focus

In-depth analyses of related specific questions to feed into the discussion by the contractor – wide variety of topics, to be adjusted if necessary.



## Participation

Stakeholder Group with representatives of ministries, nuclear safety regulators (ENSREG), waste management organisations, ERDO, civil society.



# Thank you



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