

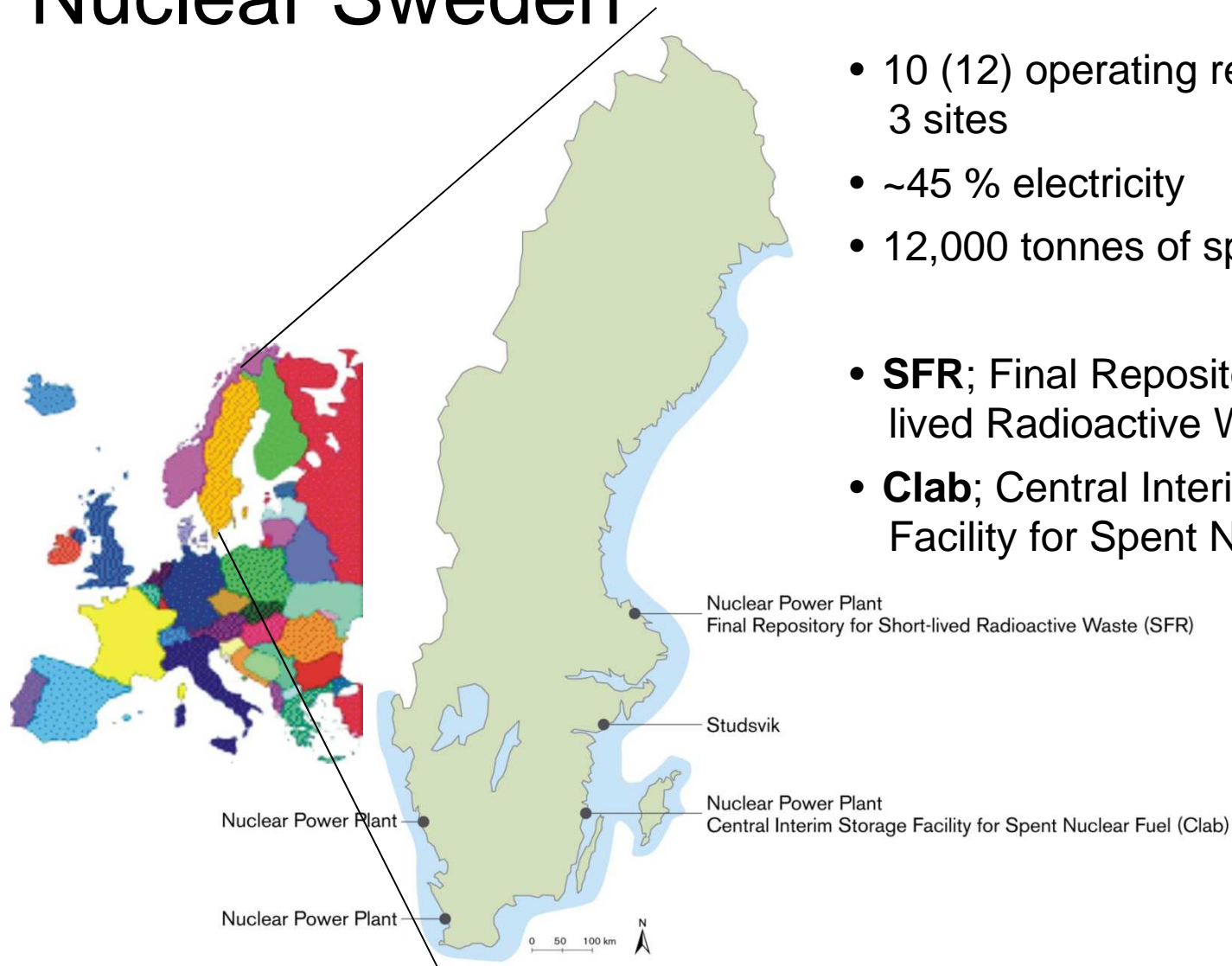


# Current status of waste management in Sweden

Olle Olsson

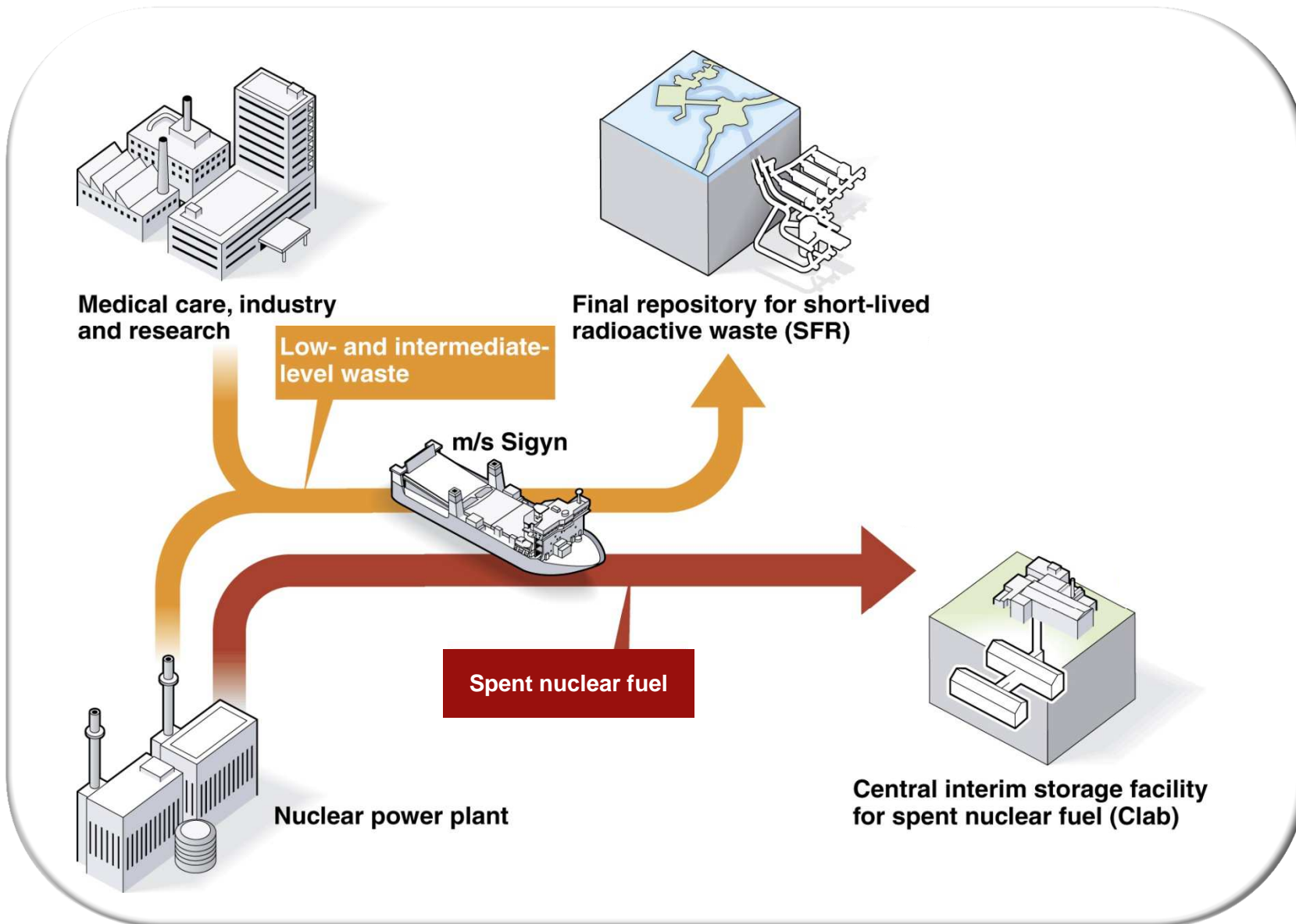


# Nuclear Sweden

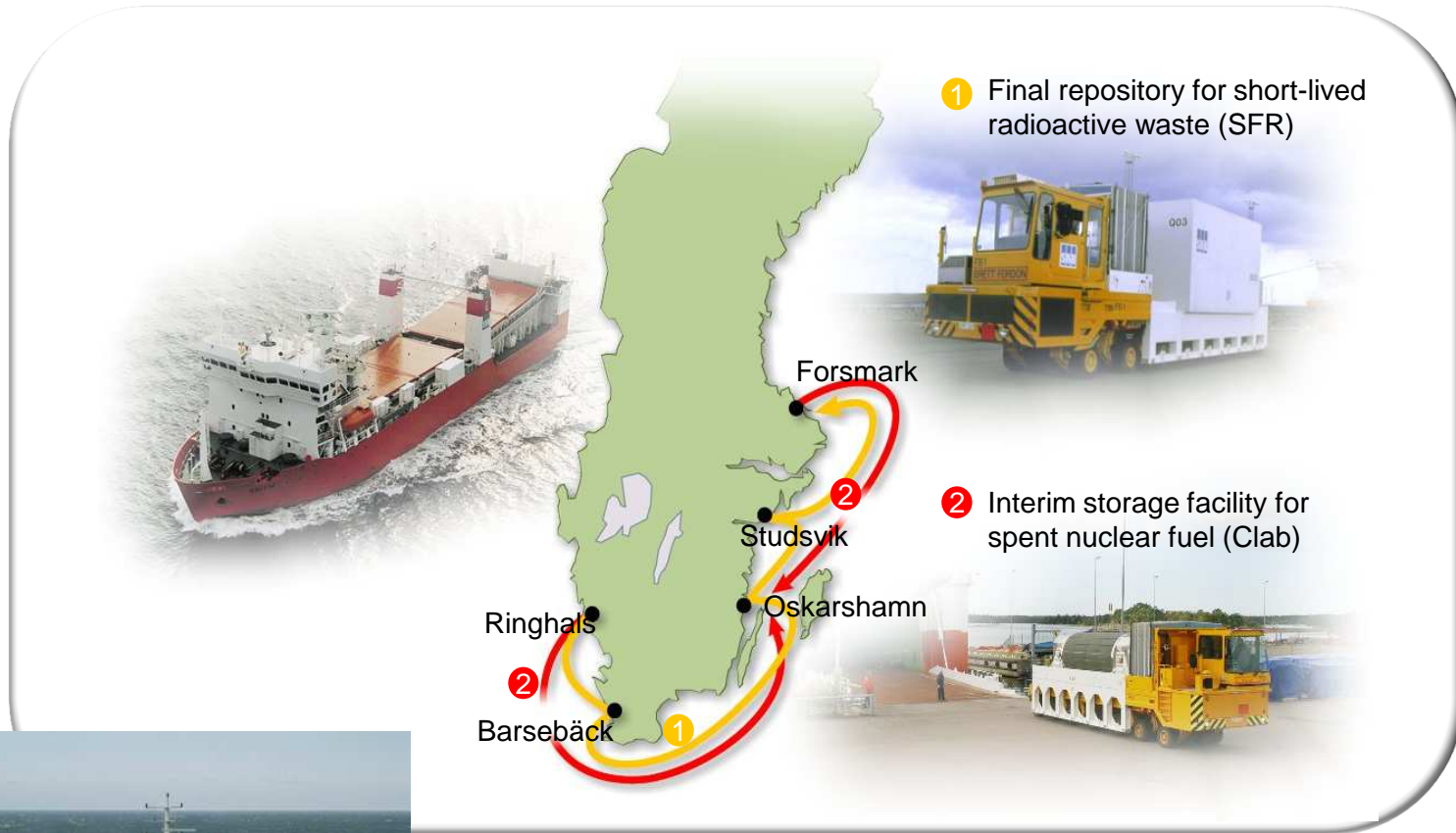


- 10 (12) operating reactor units at 3 sites
- ~45 % electricity
- 12,000 tonnes of spent fuel
- **SFR**; Final Repository for Short-lived Radioactive Waste
- **Clab**; Central Interim Storage Facility for Spent Nuclear Fuel

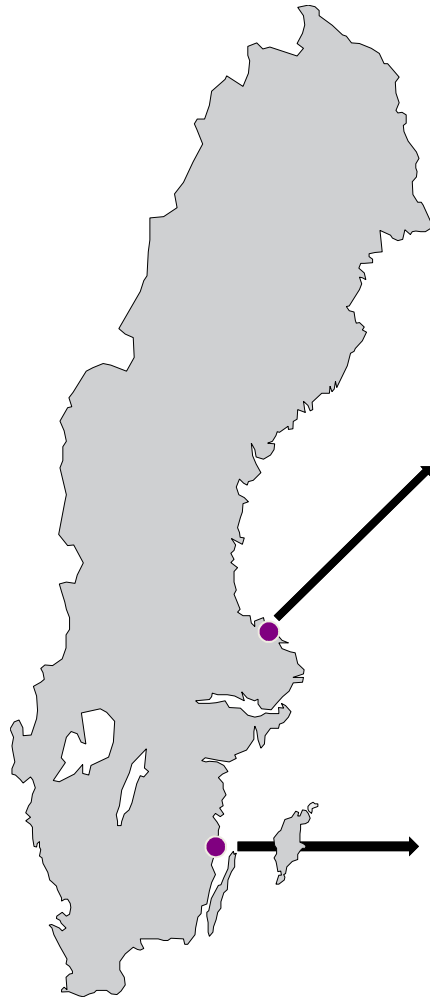
# Present waste management system in operation



# Transport system



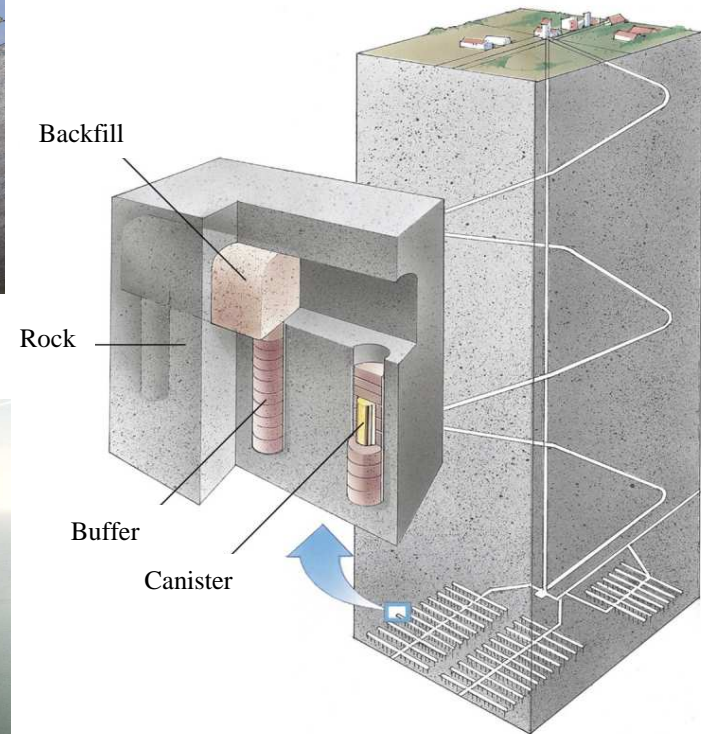
# License application submitted March 2011 for



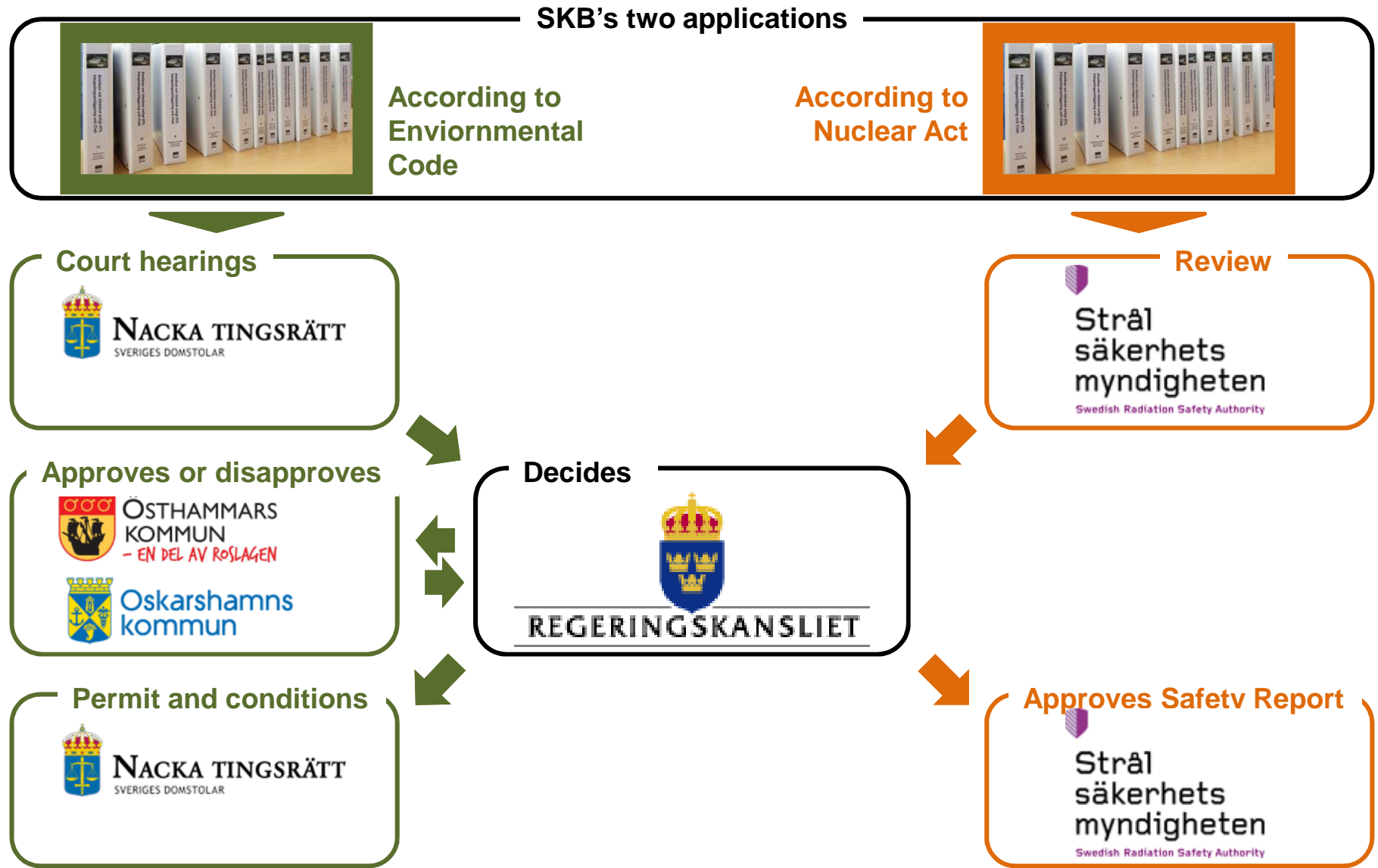
Spent Fuel Repository at Forsmark



Encapsulation plant in Oskarshamn



# Licensing review according to Nuclear Act and Environment Code



# The reviewing of SR-Site

- The Swedish Radiation Safety Authority, SSM, is carrying out a comprehensive review of SKB's licence application and in particular of SR-Site
  - A statement from SSM to the Government is expected in 2015, at the earliest
- The Swedish government has requested an independent NEA review, focused on SR-Site, to support SSM's review
- The NEA review is now completed
  - “From an international perspective, SKB's post-closure radiological safety analysis report, SR-Site, is sufficient and credible for the licensing decision at hand. SKB's spent fuel disposal programme is a mature programme - at the same time innovative and implementing best practice - capable in principle to fulfil the industrial and safety-related requirements that will be relevant for the next licensing steps.”
  - “Another challenge for the future will be to both enhance and broaden the basis for the scientific evidence supporting long-term safety. To that effect, additional research and more detailed calculations will be needed for the safety cases supporting the next licensing steps.”

Michael Sailer,  
Chairman of the  
NEA review team



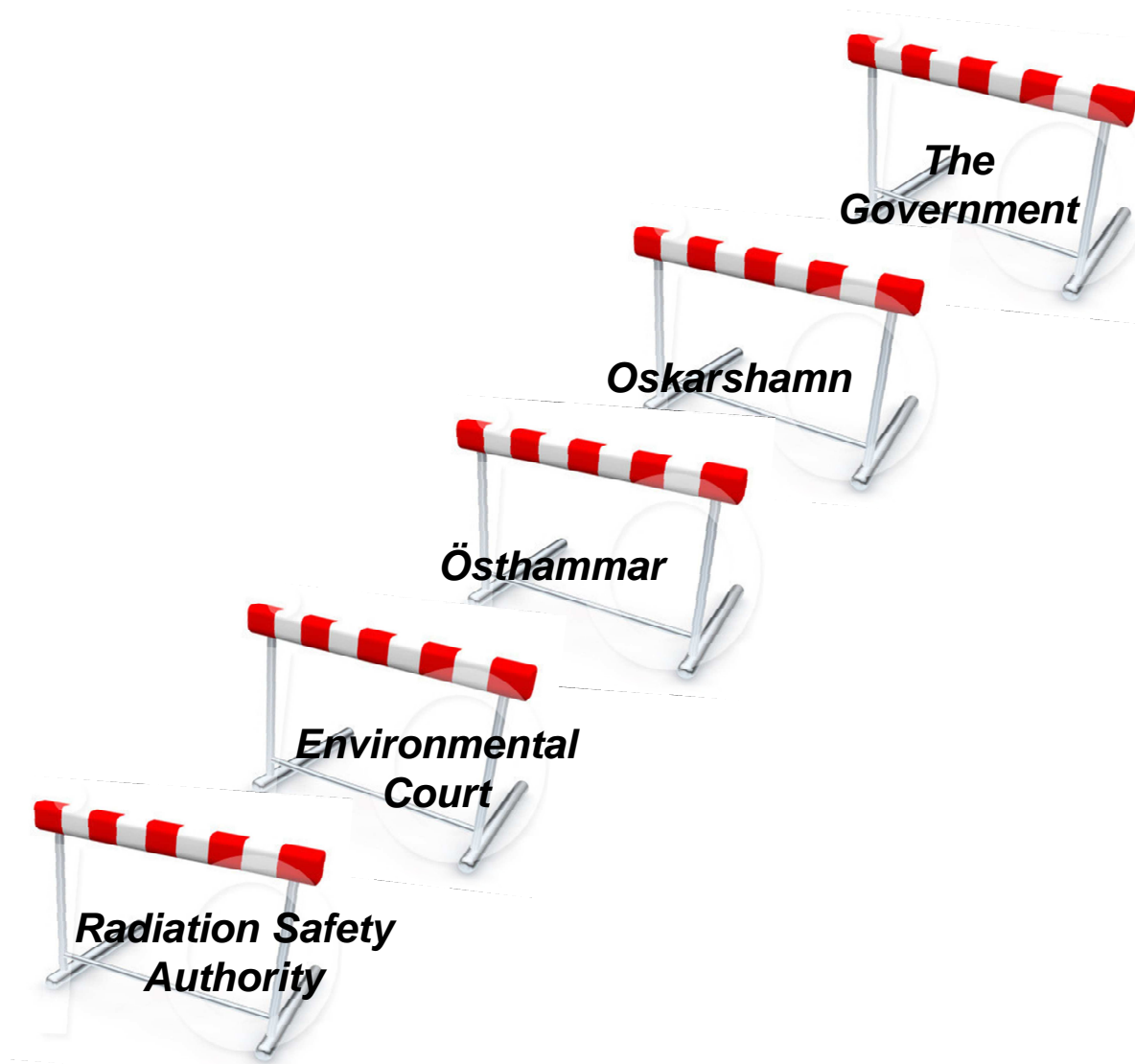
# Main review comments on SKB applications

- Scope of Environmental Impact Assessment
  - Level of detail with respect to nuclear safety issues
- Demarcation between Environmental Code and Nuclear Act
- Alternative methods
  - Deep boreholes
  - Spent fuel as a resource
- Siting
  - Close to nuclear power plants
  - Best site?
- Long term safety issues
  - Canister integrity
- “Conventional” environmental consequences





# SKB needs 5 Yes to start repository construction



# SFR

## Final repository for short-lived radioactive waste

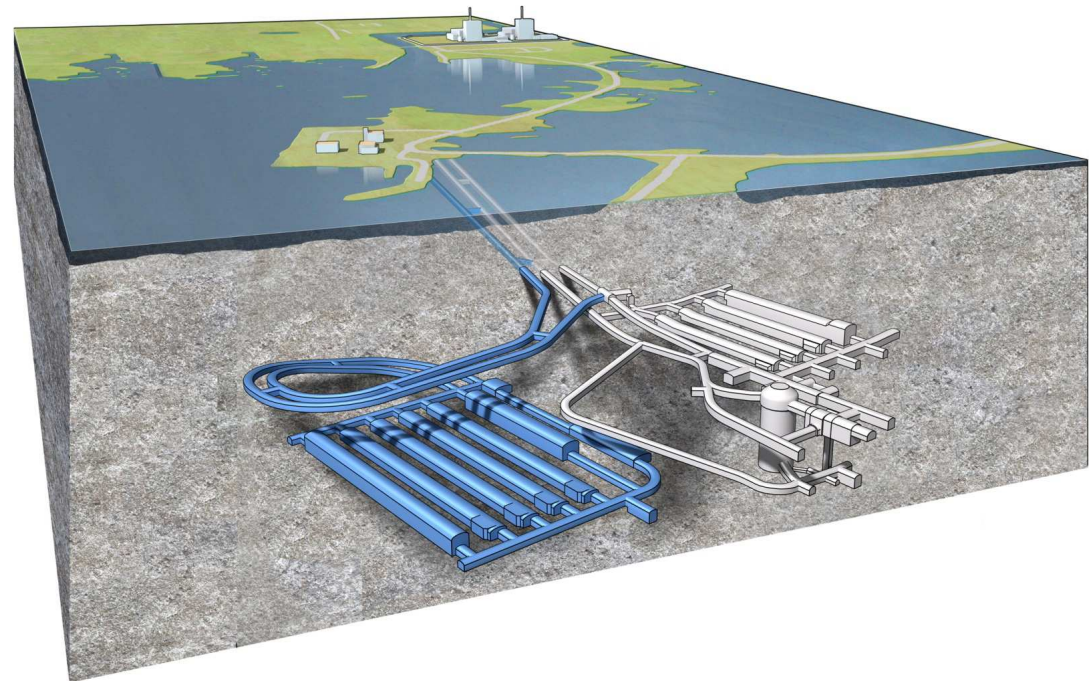
Integrated facility after extension

License application in 2014

Start of construction in 2017

Start of operation in 2023

Approximately 130 000 m<sup>3</sup>  
of which 50 000 m<sup>3</sup> ILW



# Next steps towards implementation

- Main items of work
  - Construction of the facilities
    - Build-up of organization in Forsmark
  - Continued technology development
    - Detailed design
    - Industrialized production and control system
  - Further strengthening the scientific basis on processes of importance for long term safety
  - To keep and develop public confidence

