Radioactive Waste Management



Claes Thegerström

Independent Non-Executive Director



Common challenges

• The radioactive waste exists and it is dangerous

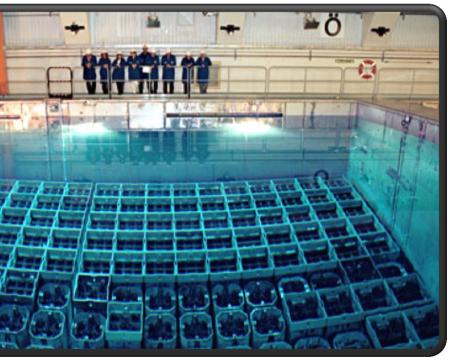
• Its management has ethical, scientific, social and political aspects

• Safe final disposal is a multigenerational project



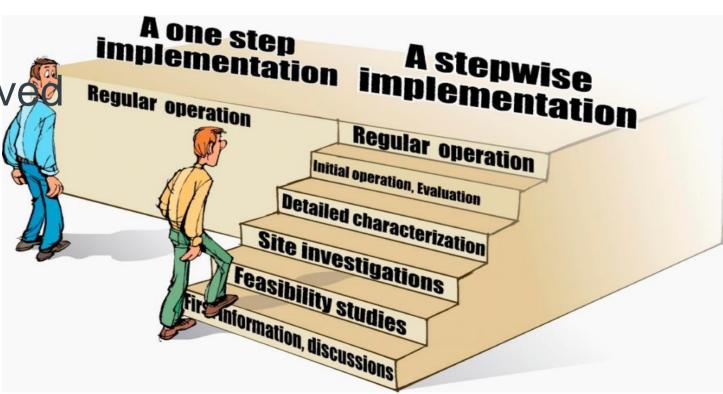






Internationally shared principles

- Deep geological disposal
- Necessity of social dialogue
- Step-wise decision processes
- Host community must be actively involved and should get national recognition









USA

• Yucca Mountain, Nevada. 1987 – 2009, 15 Billion \$

- 2010 Obama Blue Ribbon Commisson.
- Responsibility with US Dept. of Energy









Germany

- Gorleben 1980 2000
- Phase out of nuclear
- New siting process
- •??

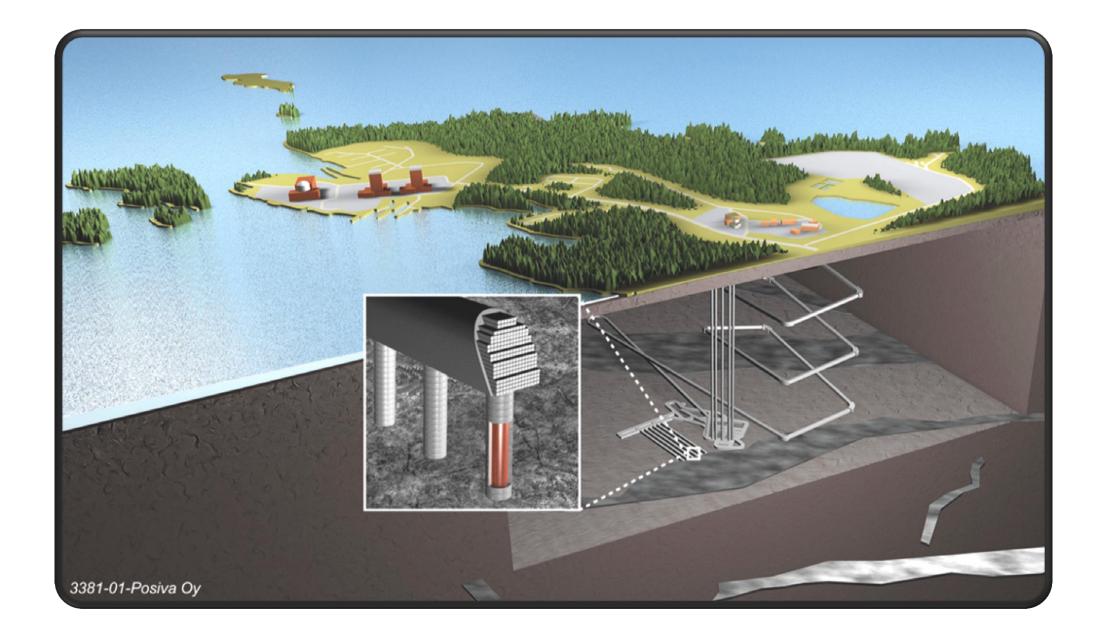






Finland

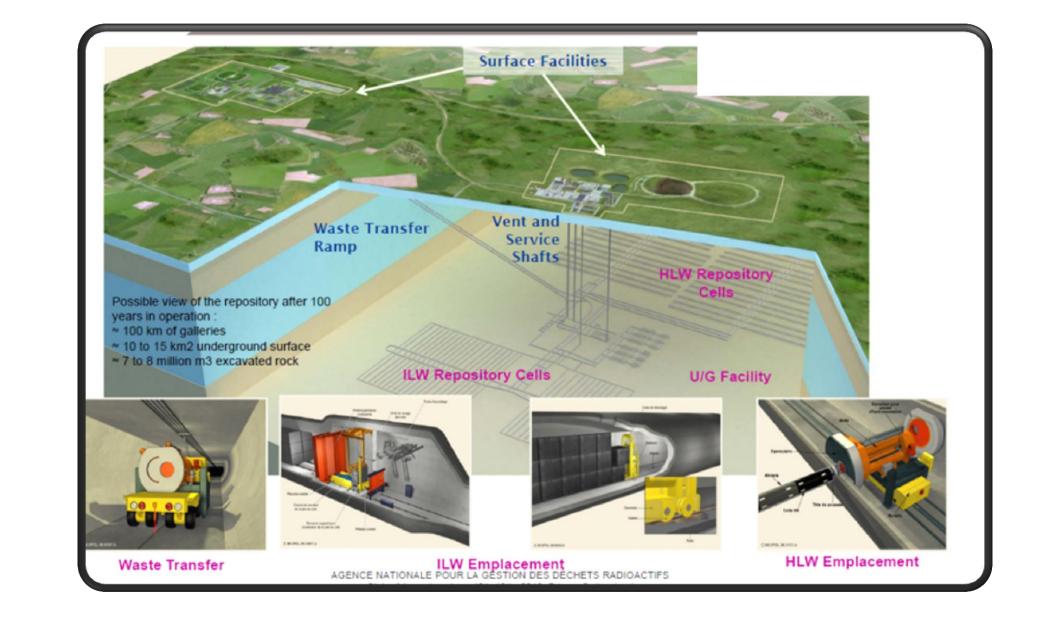
- Finnish Government has granted Posiva construction licence 2015
- First spent fuel disposal facility project (KBS3)
- Final disposal due to start in 2020s





France

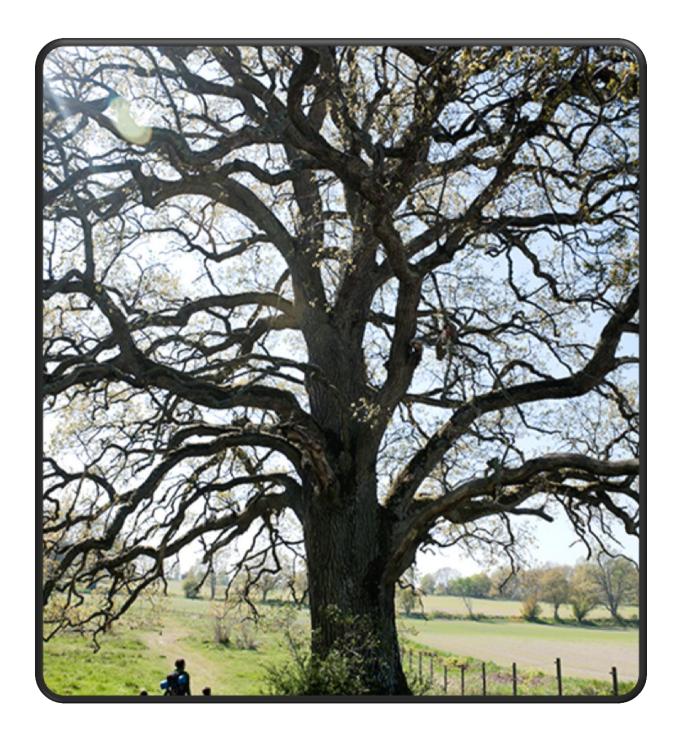
- Site selected near Bure in north east France
- Underground
 research ongoing
- Licence application planned for 2018
- Initial operating phase 2025





SKB's mission

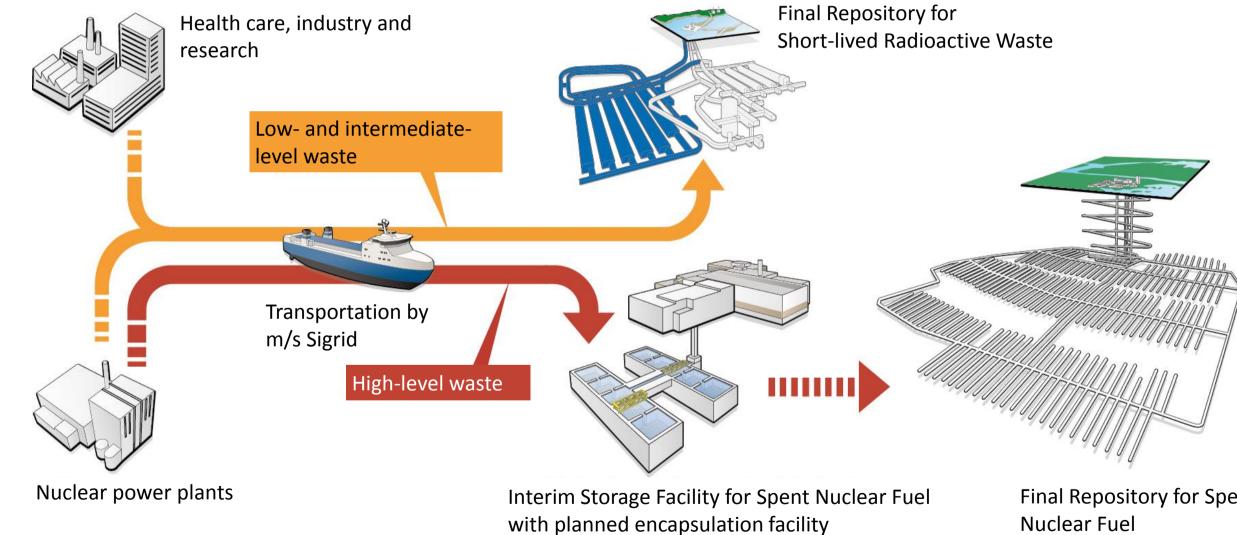
- Regardless of the future of nuclear power, nuclear waste exists today from the Swedish nuclear power plants.
- This waste must be taken care of to protect people and the environment.
- This task is so extensive that we regard it as one of Sweden's most important environmental protection projects.





Our operations

The Swedish system

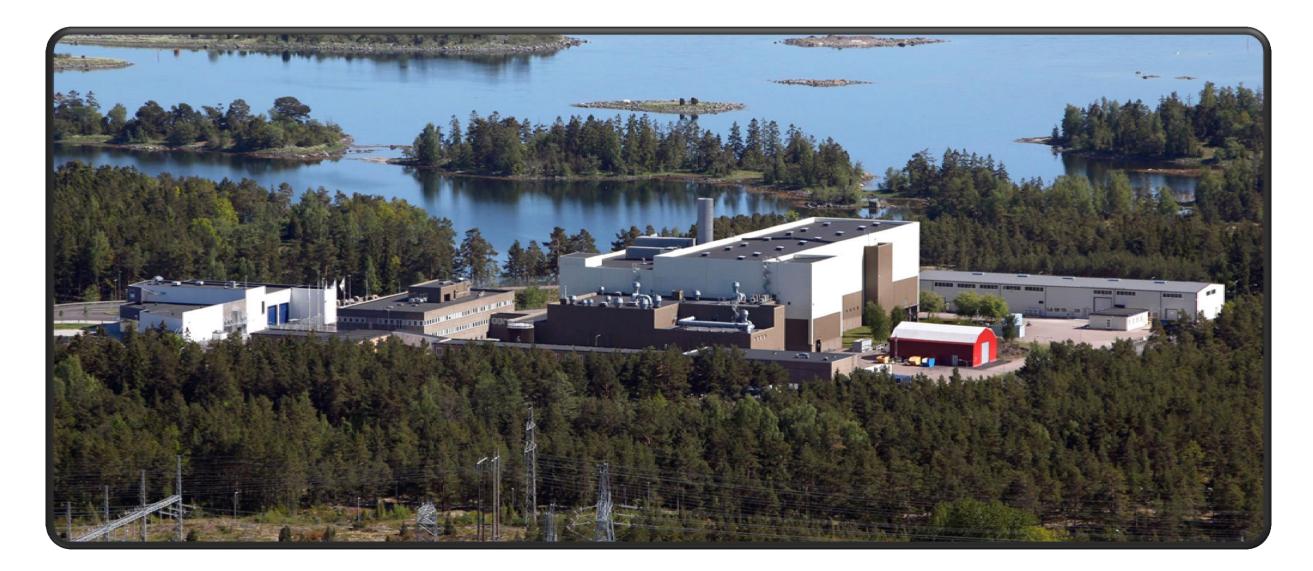




Final Repository for Spent Nuclear Fuel

Our operations

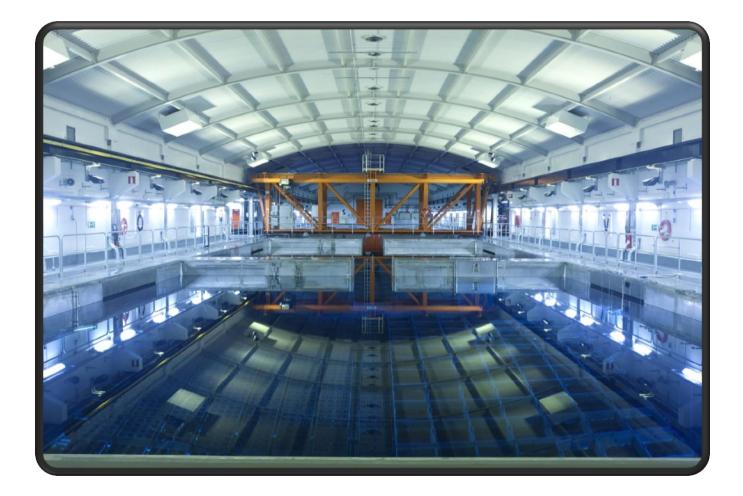
Central Interim Storage Facility for Spent Nuclear Fuel, Clab

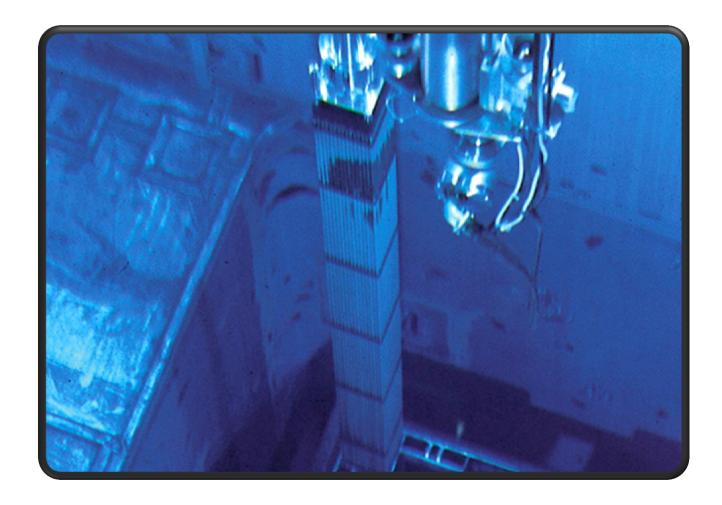




Our operations

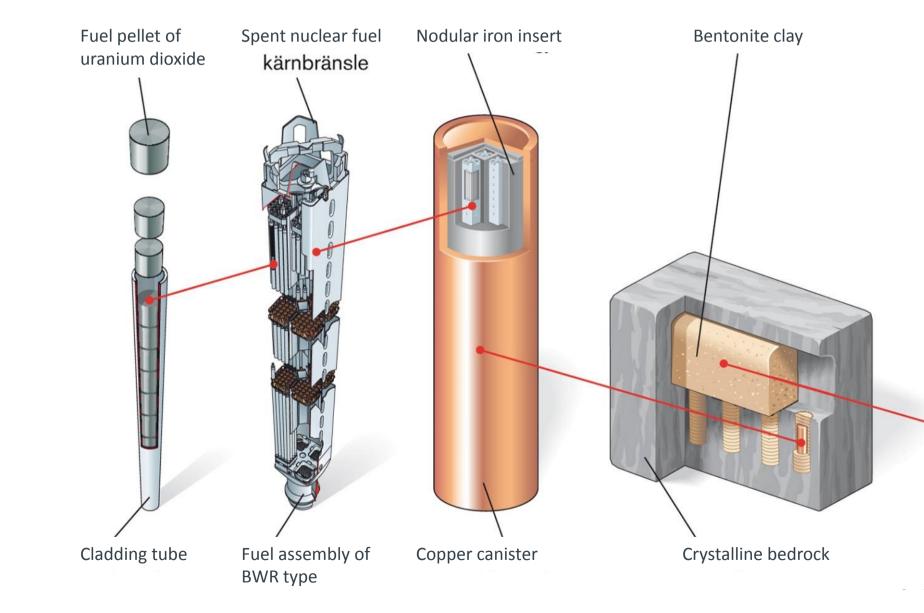
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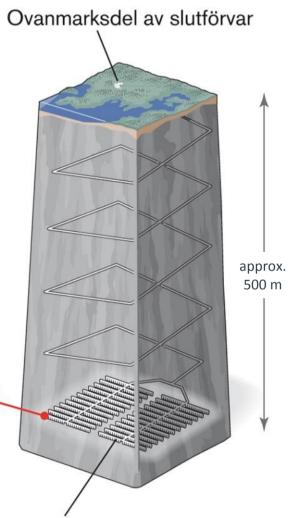




SKB's method

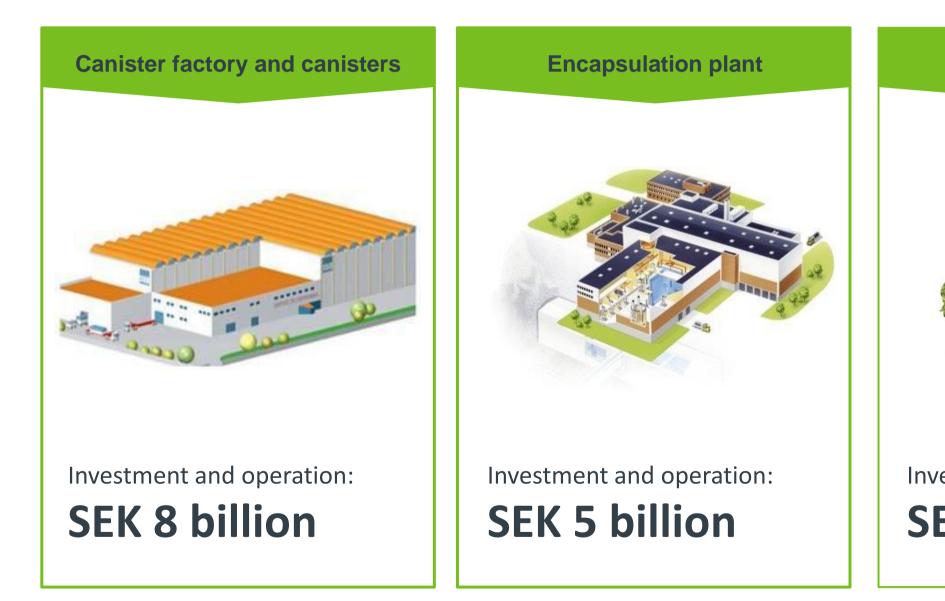






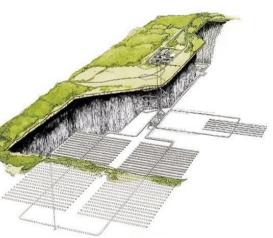
Undermarksdel av slutförvar

Planned facilities





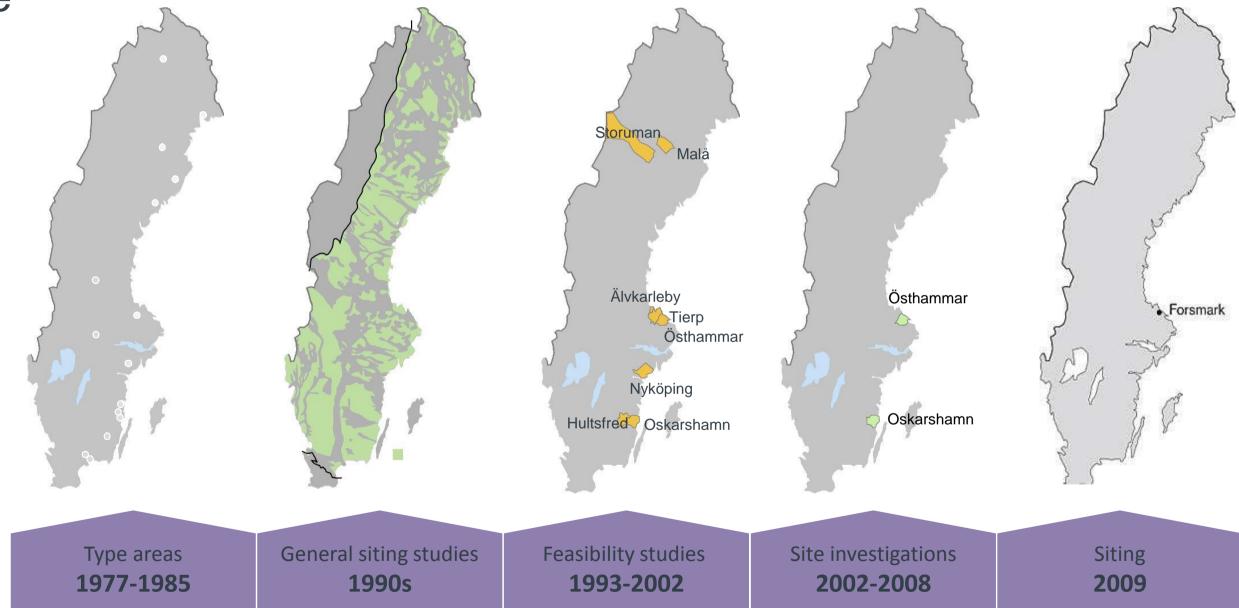
Spent Fuel Repository



Investment and operation: **SEK 24 billion**

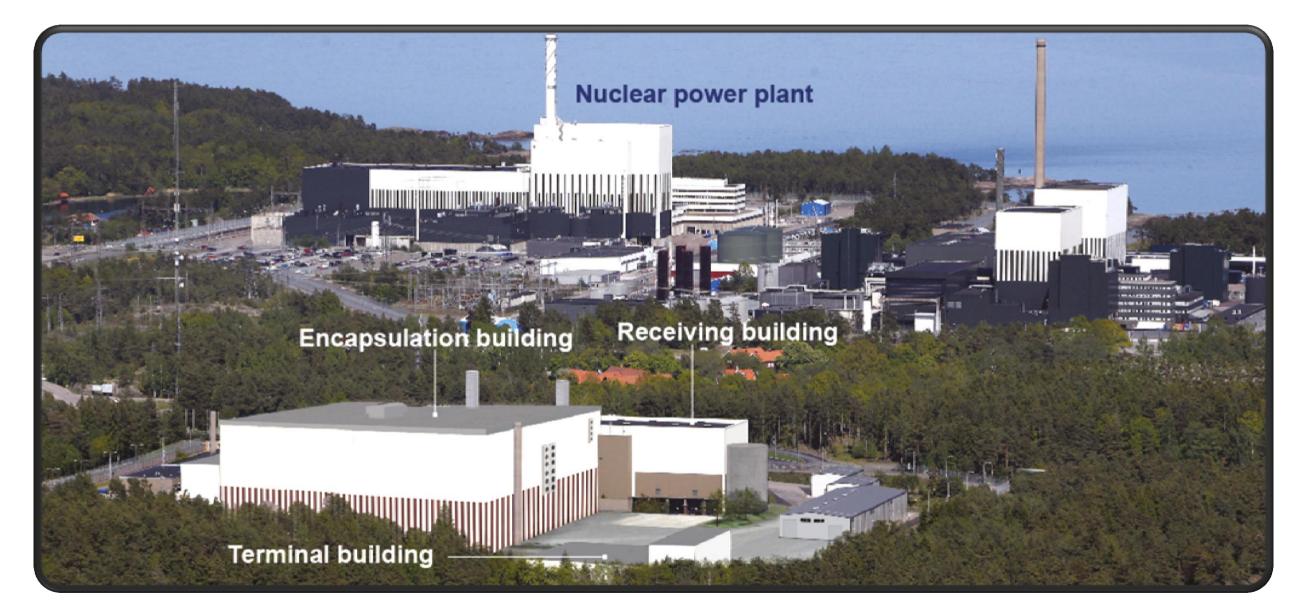
Our mission

Finding a site





Encapsulation plant

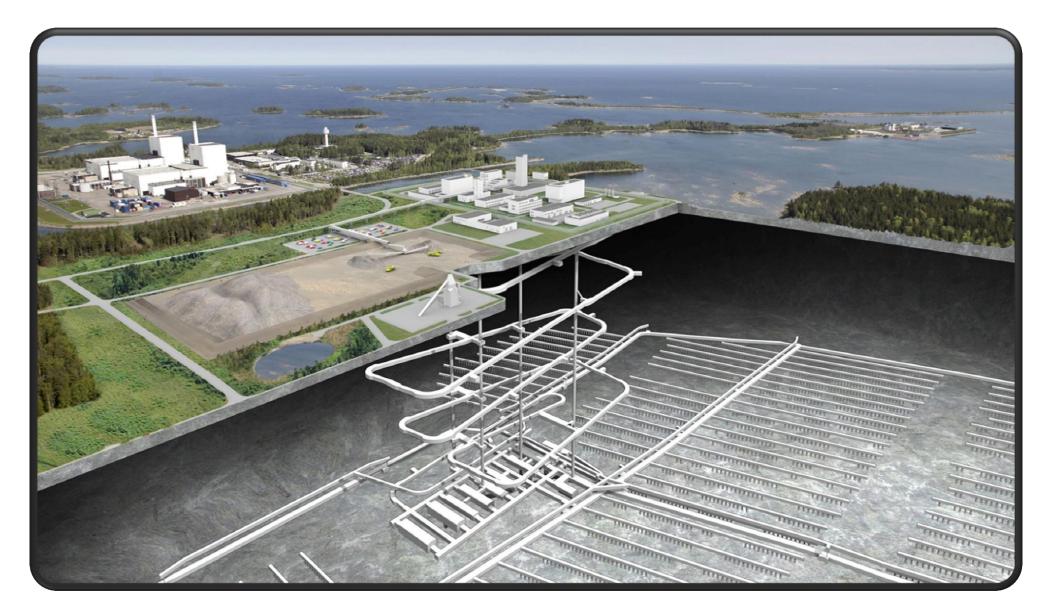








The Spent Fuel Repository at Forsmark





Dialogue and openness

Facility visits

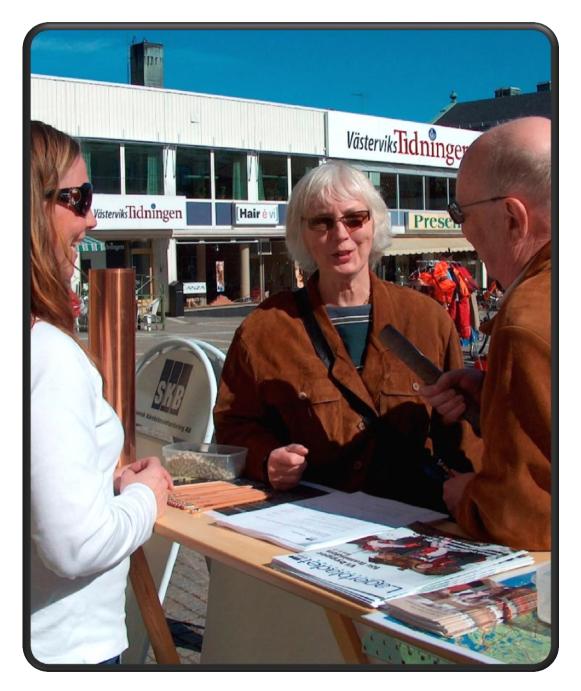








Dialogue and openness

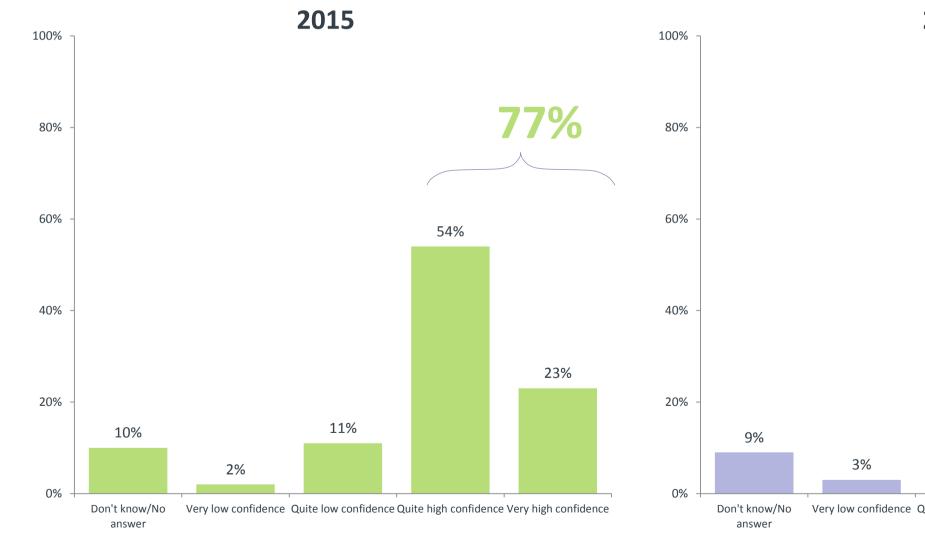






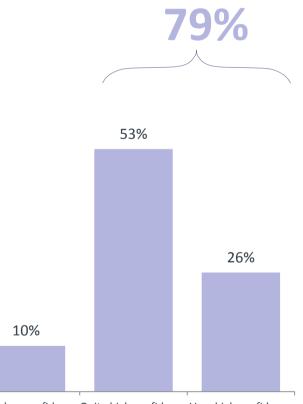
Dialogue and openness

Osthammar: What degree of confidence do you have in the company Svensk Kärnbränslehantering AB, SKB?





2016



Very low confidence Quite low confidence Quite high confidence Very high confidence

Local activities

SKB's work continues – both in Östhammar and in Oskarshamn

Municipality of Oskarshamn

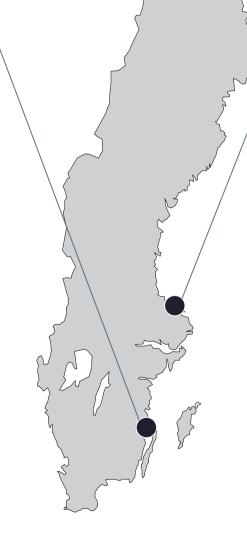
Äspö Hard Rock Laboratory and the Canister Laboratory

Clab

Encapsulation plant (planned) Investment: SEK 2.3 billion Operation and maintenance SEK 2.8 billion

Added value investments Added value in the municipality of SEK 1.5 billion SEK 150 million year 2010-2015 infrastructure investments

Canister factory (planned) Investment: SEK 200-300 million Operation and maintenance: SEK 8 billion



Municipality of Östhammar

SFR

Extension SFR (planned) Investment: SEK 1 billion Operation and maintenance: SEK 2.3 billion

Spent Fuel Repository (planned) Investment: SEK 12 billion Operation and maintenance: SEK 12 billion

Added value investments The ambition is for added value in the municipality of SEK 500 million.

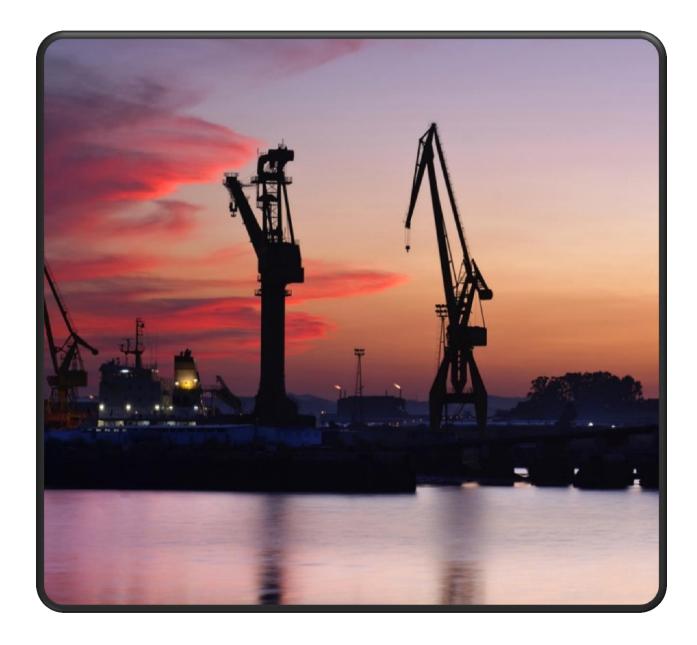


Local activities

Added value areas

- Education
- Spin-off/support for innovation systems
- Infrastructure
- Visitor's facility
- Labour market expansion
- Special investments in the energy field
- Head office functions
- Further development of SKB's laboratories in Oskarshamn





Local activities

Priorities – SKB Nu AB

- Small and medium-sized companies
- Knowledge-intensive companies
- Women as entrepreneurs
- Businesses with limited requirements for investments in plant
- Entrepreneurs with local roots
- Businesses offering new employment opportunities with a long-term perspective
- Businesses which strengthen SKB's provision of resources in the long term



