

Community Engagement

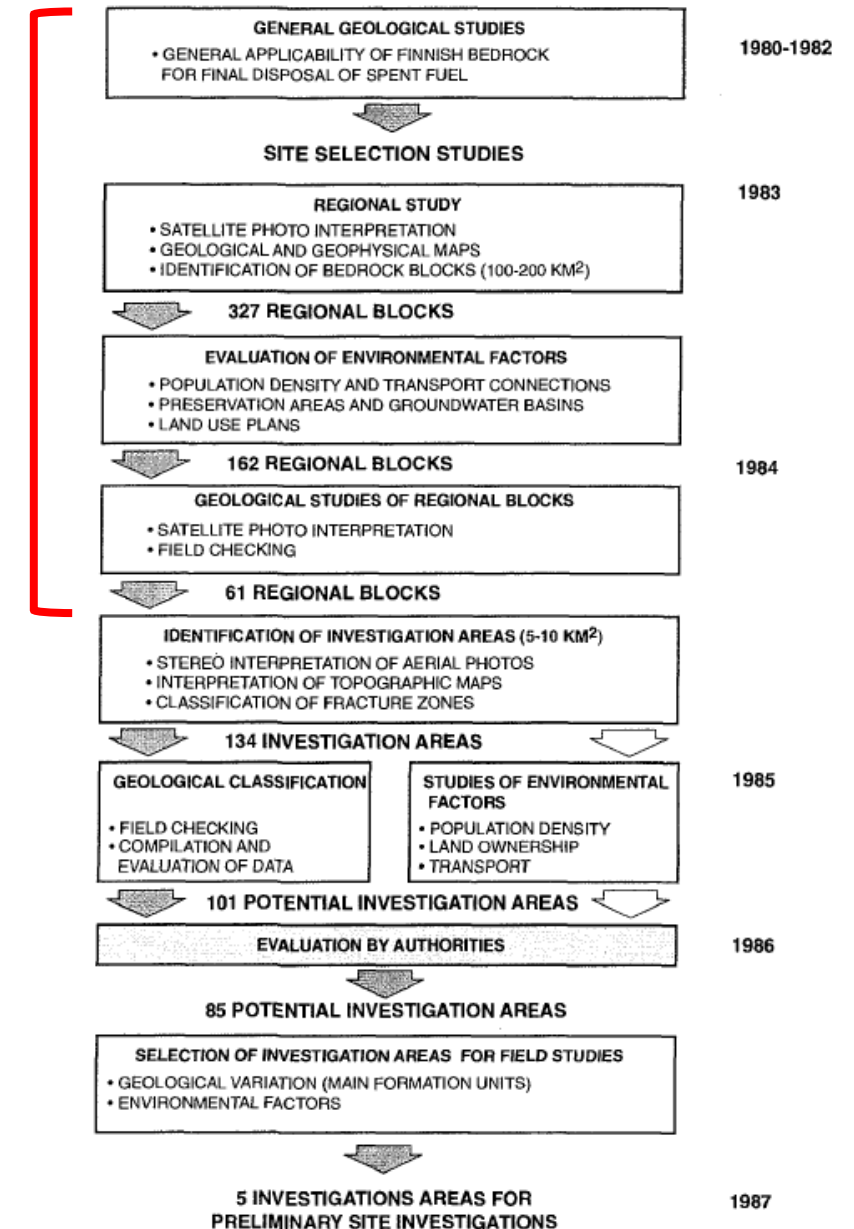
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Early Stages of the Site Selection Process

- 20-year site selection process spanning from 1980 – 2000
- Site identification surveys were used instead of an express of interest approach
- Initial site identification focused mainly on geological factors such as fracturing, faulting, seismic activity, topology, and erosion
 - 327 regions of large tectonically stable blocks of rock were identified
- Next, environmental and transportation factors were applied to narrow the search
 - Groundwater controlled areas, population density, environmentally protected areas, presence of cultivated areas, and transportation routes were considered
 - This criteria narrowed the search to 61 regional blocks

[1 – page 5-8]

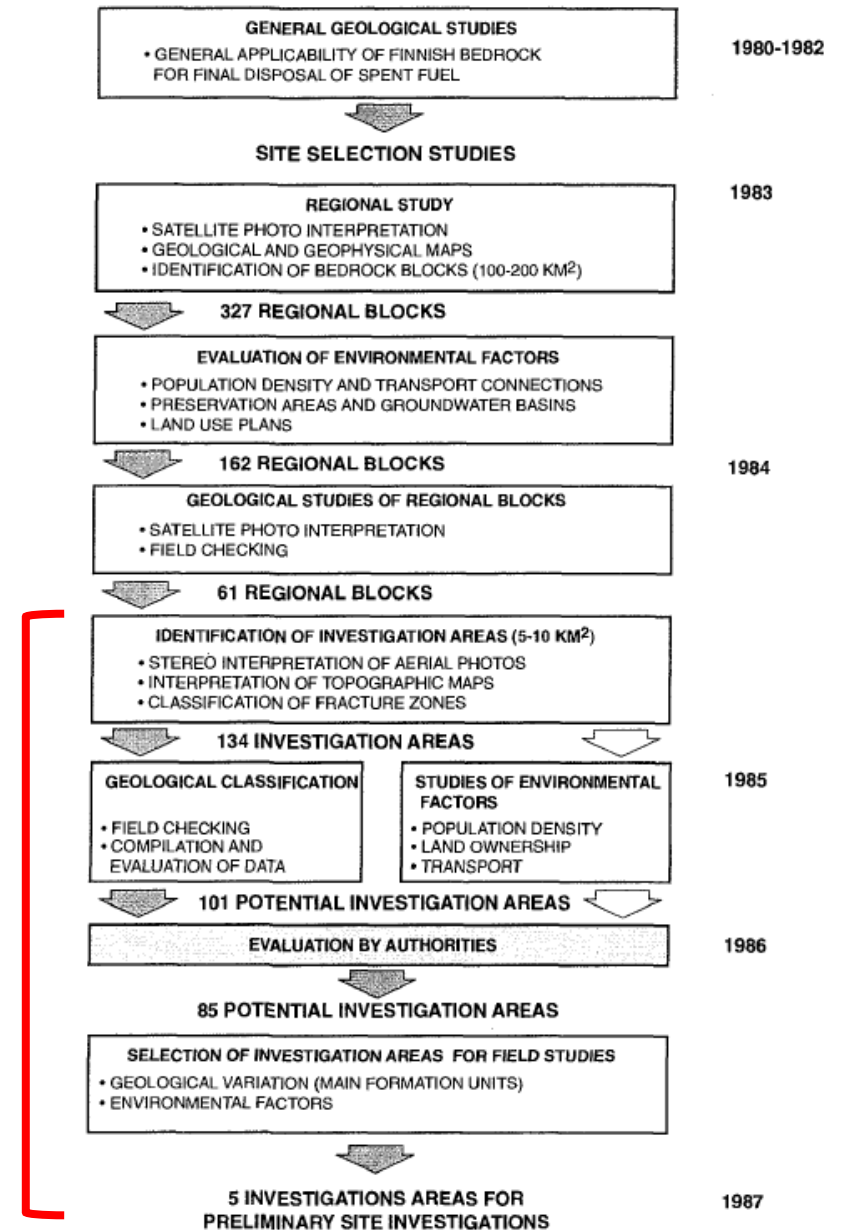


Early Site Selection Outline
[1 – page 7]

Early Stages of the Site Selection Process

- The selected 61 regional blocks were divided into 134 individual areas of interest
 - Additional geological analysis and environmental assessments were carried out eliminating 33 locations were eliminated
- In 1985, the Teollisuuden Voima Oyj (TVO) safety assessment was published which stated that the geological conditions of all remaining potential sites offered the possibility of safe disposal.
 - Therefore, the site selection emphasis shifted to other attributes such as public acceptance, and land ownership
 - It was at this point in the site selection process that municipalities were contacted to discuss willingness.
 - Presentations were made to the municipalities outlining site investigations, timelines, local employment and other potential socio-economical benefits
- 5 sites selected in 1987
 - Borehole drilling began in ~ 1997 [2 – page 3]
 - Environmental Impact Assessment ~ 1997 [2 – page 4]

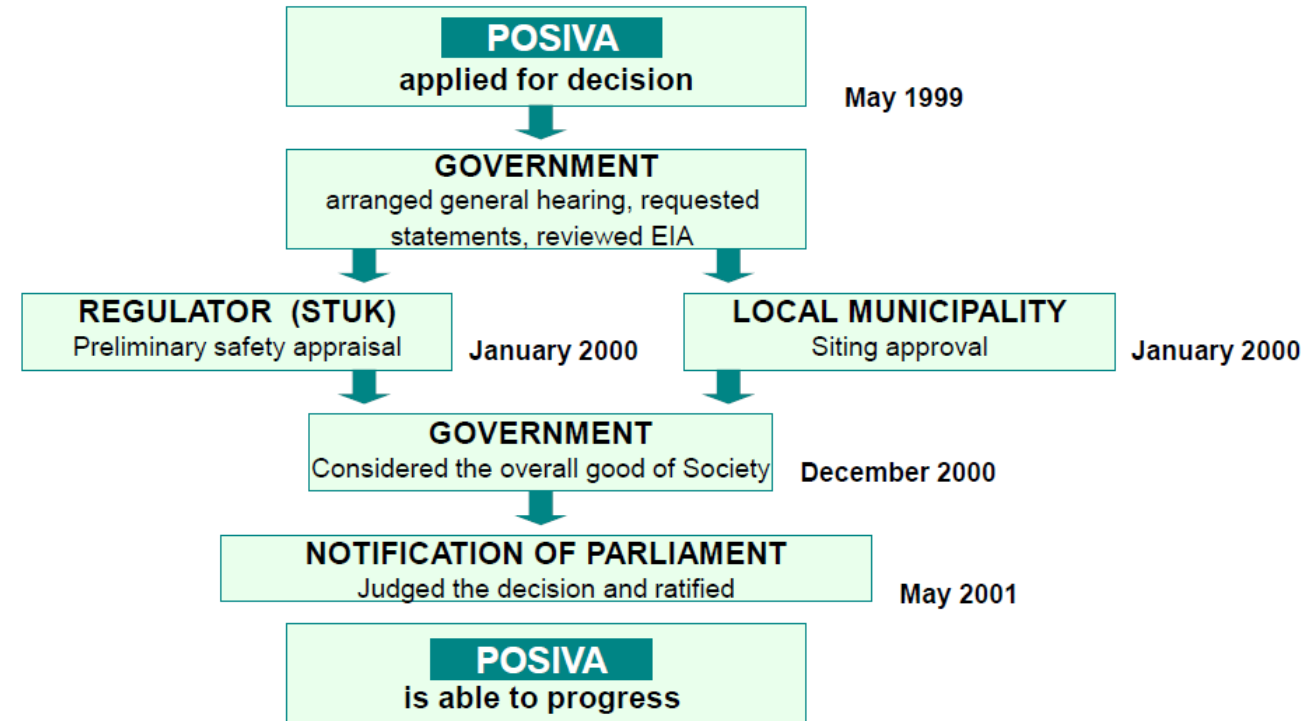
[1 – page 8 - 10]



Early Site Selection Outline
[1 – page 7]

Early Stages of the Site Selection Process

- TVO believed that at this stages the site selection would be driven by two main factors:
 - Simple geology
 - Impact on the local community and the available labour force
- Olkiluoto, Romuvaara and Kivetty, were selected for detailed site investigations over the period 1993-2000
- In 1999, Posiva submitted an application for the Government's Decision in Principle requesting to proceed with Olkiluoto as the host site
 - Report included the characterization, evaluation, and safety assessment of the site
- The local municipality, Eurajoki, had veto rights over the Government's Decision in Principle



Political Decision-Making Flow-chart
[3]

How the Community was Engaged

- Site selection occurred prior to Social Media
- Engagement tools included [2 – page 5]
 - In-person public open houses
 - Press conferences / Information events
 - Exhibitions
 - Bore-hole site and Nuclear power plant tours
 - Newspaper advertising
 - Brochures
- Different Liaison Committees were established throughout the site-selection process [4]
 - Liaison Committees were established in the municipalities of the 5 chosen sites
 - Liaison Committee between TVO, Posiva, and Eurajoki was established after the municipality was selected to be the host site



LOCAL INFORMATION ACTIVITIES

- **Cooperation with local decision-makers**
 - **Bilateral contact groups**
 - **Information events to local councils and governments**
- **Interaction with the public**
 - **Open houses at drilling sites and Posiva local offices**
 - **Exhibitions**
 - **Lectures to local groups**
- **Visits to the nuclear power plants and waste management facilities**
- **Press conferences**
- **Distribution of information material**
 - **Brochures, periodicals**
 - **Supplements in local newspapers**

References

- [1] T. McEwen and T. Aikas, Posiva Oy, Helsinki, Finland, December 2000. Accessed. 23 July 2023. [Online]. Available: <https://inis.iaea.org/collection/NCLCollectionStore/ Public/32/030/32030717.pdf>

- [2] V. RyhSnen, Posiva, Helsinki, Finland, 11 October 1997. Accessed. 23 July 2023. [Online]. Available: <https://inis.iaea.org/collection/NCLCollectionStore/ Public/29/009/29009926.pdf>

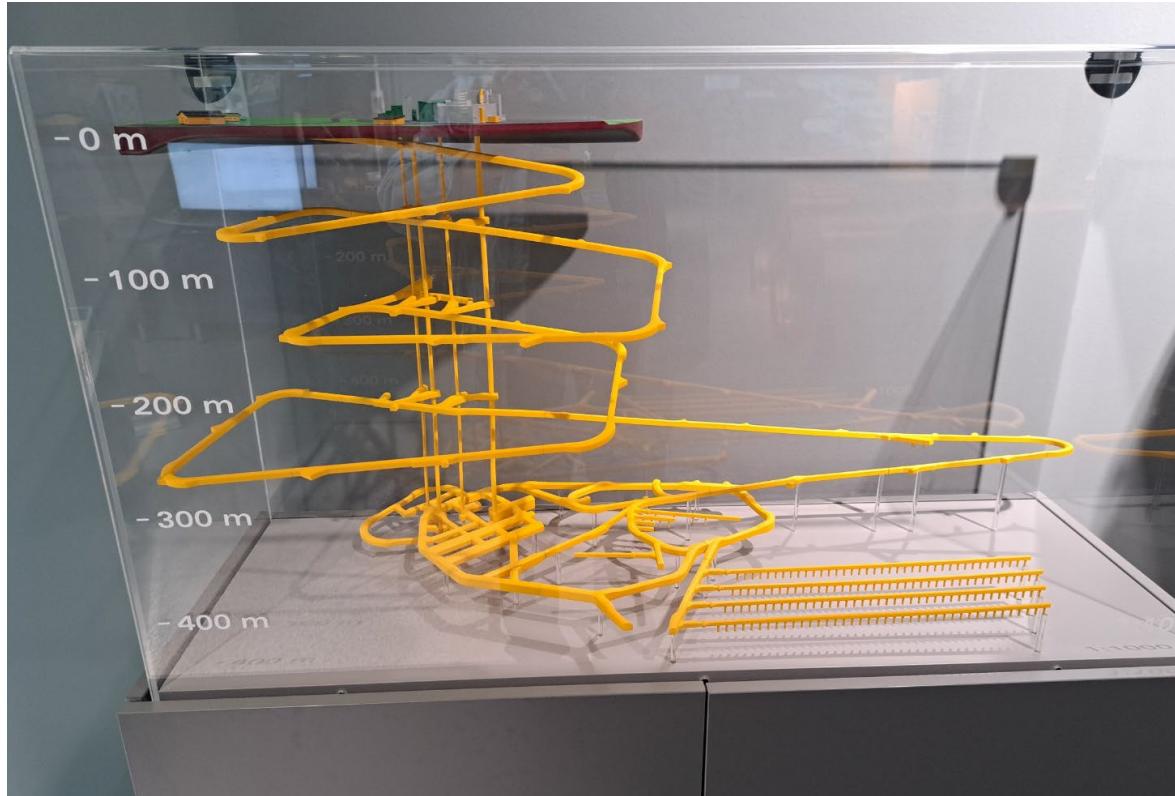
- [3] V. Lakaniemi, (2023), Eurajoki Local Community Involvement. [PowerPoint]

- [4] M. Karki, M. Kojo and M. Lehtonen. "Role of the host communities in the final disposal of spent nuclear fuel in Finland and Sweden." ScienceDirect. 21 January 2021. Accessed 23 July 2023. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S0149197021000044#bib24>

Determining Community Willingness

- **Background** – Finland, as well as Sweden are two countries considered to have the most advanced strategies to siting a location for final disposal of spent nuclear fuel. They both approached the goal of acquiring social license or host community willingness by using a partnering approach, informing the community on all technical aspects of a deep geological repository (DGR), and above all building trust between Eurajoki and
- In our meeting with the mayor of host community Eurojoki he emphasized the ongoing trust Posiva continues to maintain with the municipality and how they go out of their way to inform all stakeholders on all aspects of the DGR.

Determining Community Willingness



In Posiva's continued effort to inform the public of how spent fuel will be disposed of, it has opened an elaborate visitor's centre.

Pictured above is a model of the Onkalo dgr winding some 450 meters below crystalline rock.



Some 15,000 visitors annually visit the centre.

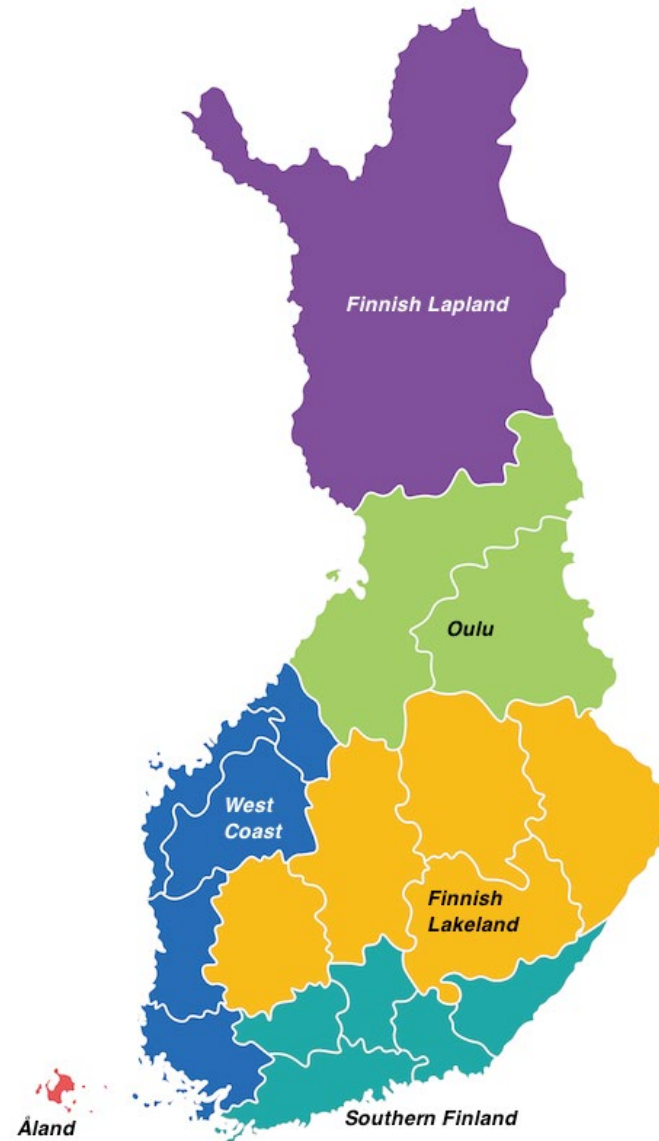
Including some from as far away as Canada.

How Final Willingness was Determined

- **National consensus** -It should be noted that the people of Finland are considered to be “**a consensus-driven high trust society.**” And in the municipality of Eurojoki, where close to 60% of the area residents work in the nuclear industry it could be assumed that the trust level was even higher. Along with the geological makeup of the area, community acceptability of the nuclear industry was a major factor in choosing Eurajoki. The national consensus was later reflected in a vote by **Finland’s parliament 195-5 in support of the DGR.**
- **No referendum held**- Unlike the current strategy for South Bruce the vote to determine willingness came by way of the local municipality **council vote of 20-7.** However, in the presentation by the mayor he emphasized that this only came after years of surveys done in the community which showed a continuous 60-65% response in favour of the DGR He also noted no organized opposition within the community was a factor. As well the decision came after the municipality was provided the results of a full environmental assessment.
- *Quote from: “Role of the host communities in final disposal of spent nuclear fuel in Finland and Sweden” – Progress in Nuclear Energy 133, 2021*

Regional Government

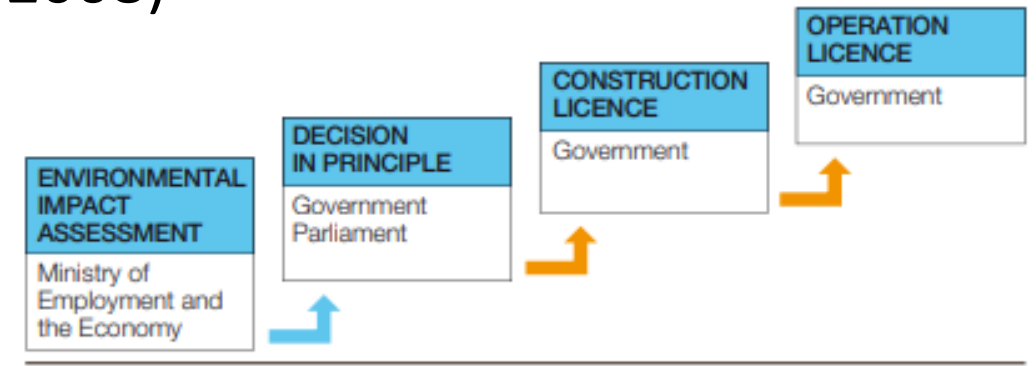
- Six Regional State Administrative Agencies
- Provide:
 - Basic Public Services
 - Legal Permits
 - Environmental Permits



Legislation and Oversight

- National Parliament – Nuclear Energy Act (June 2008)

- Safety Regulations
- Physical Protection
- Emergency Preparedness
- Safety of the Final Disposal of Nuclear Waste
- Issue the Construction and Operating Licenses



- STUK (Radiation and Nuclear Safety Authority)

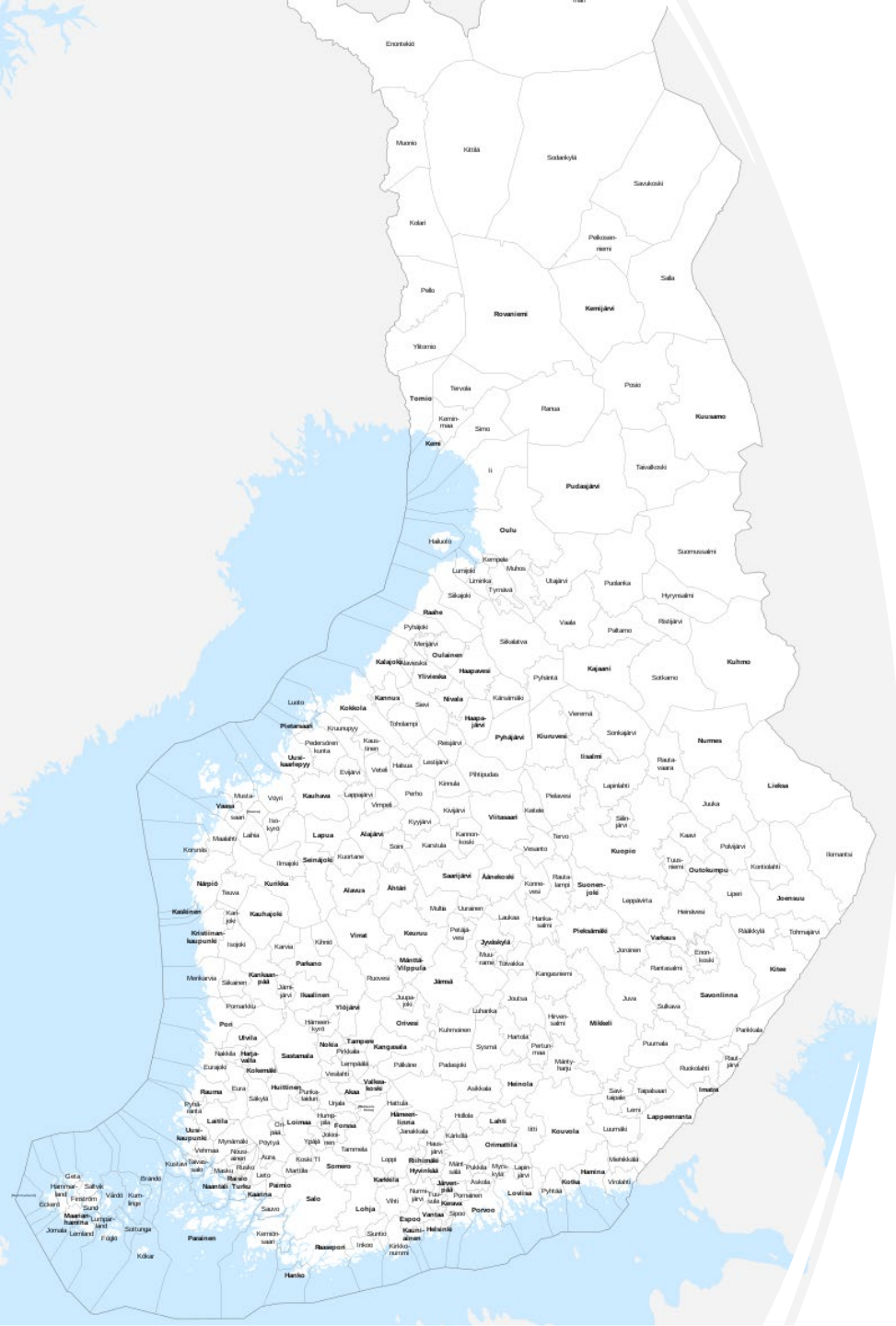
- Supervise all activities from design to decommissioning
- Nuclear materials in Finland are also controlled by the EU and IAEA

- Ministry of Employment and the Economy

- Overall supervision and use of nuclear energy and associated waste

Municipal Government

- 310 municipalities
- Self-governing
 - Support 2/3 of public services (education, healthcare, roads, water, ...)
- Council size is relative to population
- Tax:
 - Income (Flat tax of 16-22% on all residents)
 - Property (3.6% of income)
 - 0.32-0.75% of net value of permanent residence
 - 0.5-1% of net value of leisure properties
 - Corporate income = 3.8% of income



Municipal Rights

- Veto against new facilities
- Local consultation with residents
- Consultation with neighboring municipalities
- Works collaboratively with STUK, Ministry of the Economy and Employment as well as the Federal Government

