



Posiva Oy Company presentation

DOPAS Training Workshop 2015

Marjatta Palmu, Posiva Oy
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Posiva Oy – from RD&D to implementing

- Posiva's mission: Final disposal of spent nuclear fuel of the owners and other tasks of expertise within nuclear waste management
- Established in 1995, start of operations 1996
- Ownership:
 - Teollisuuden Voima Oyj 60%,
 - Fortum Power and Heat 40 %
- The funds for nuclear waste management are collected in advance
- Staff about 90 persons
- Turnover 66,2 M€ (2014)
- Posiva applies the Swedish KBS-3 concept in crystalline rock for geological disposal of spent fuel



Figure of spent fuel waste container, the canister with fuel element, cast iron insert, and copper overpack (Posiva 2013, p. 87)

Nuclear waste management incl. disposal of spent fuel of Finland's operating NPPs



TEOLLISUUDEN VOIMA OYJ (TVO)



Olkiluoto power plant OL1-2



Interim storage of spent nuclear fuel (OL1-2)



In the future



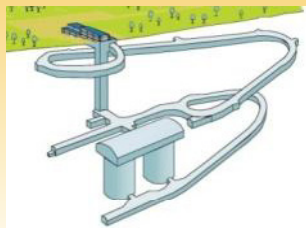
FORTUM POWER & HEAT



Interim storage of spent nuclear fuel



Loviisa power plant (LO1-2)

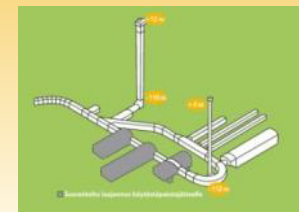


Operating waste repository

POSIVA OY (Olkiluoto)



Final disposal of spent nuclear fuel – our focus

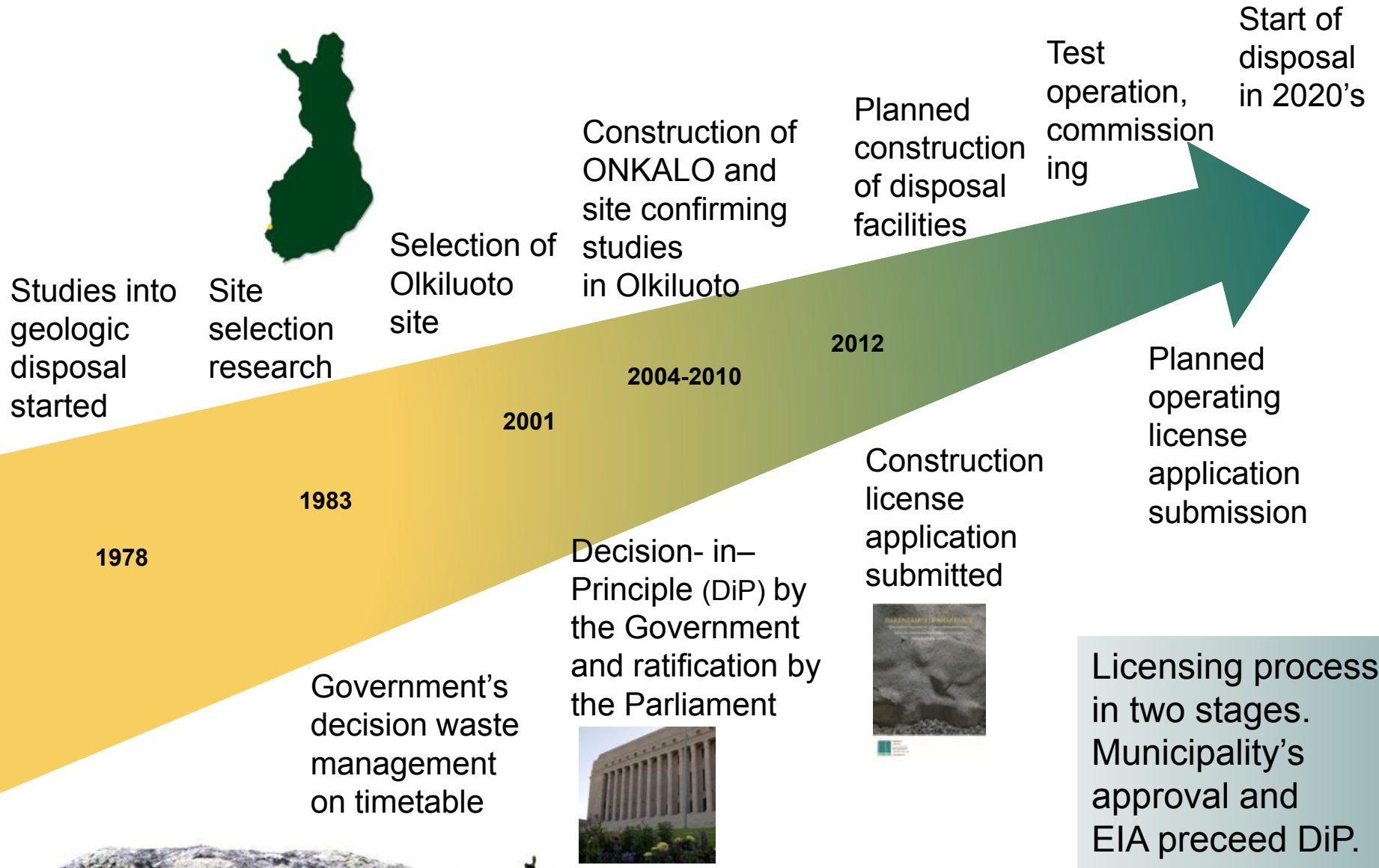


Operating waste repository



Source: Posiva Oy

Over 40 years' effort

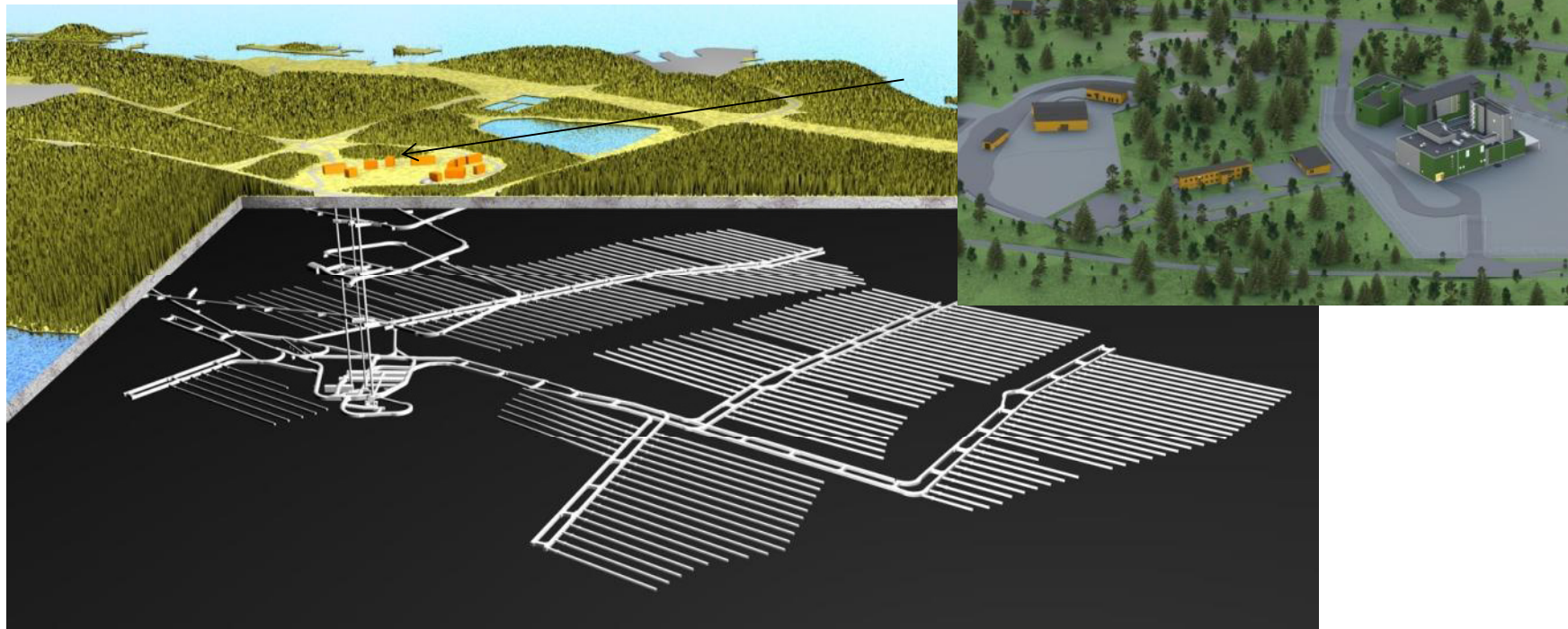


ONKALO site, June 2014



Posiva's disposal facility around 2120's

- Containment and isolation of spent fuel relies on passive safety through primary pillars consisting of a high quality waste container and predictable and stable site conditions at sufficient depth (depth of the tunnel system -420...-450m) supported by robust design and other engineered barriers.
- Applied for repository capacity of 6500 tU^{*)} with a construction and operating time approximately 100 years



References

- Posiva. 2008. EIA08. Expansion of the Repository for Spent Nuclear Fuel. Environmental Impact Assessment Report.
- Posiva. 2013. WR 2012-66 Facility Description 2012. Summary Report of the Encapsulation Plan and Disposal Facility Designs. October 2013.

Further reading about Posiva's programme

- Posiva's application for construction license
<https://www.tem.fi> and search for Olkiluodon_kapselointi- ja_loppusijoituslaitoksen_rakentamislupahakemus.pdf
- Posiva YJH-2012 Nuclear Waste Management ... Plans for 2013-2015
 - available at
http://www.posiva.fi/en/databank/publications/other_publications#.Vd3RUJ3yVmN

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Thank You.

Please note that public visits to the VLJ-cave are possible by contacting TVO communications.

