

# The role of homogenization in the licensing process in Finland



# Background

- In Posiva's construction license application homogenisation in KBS-3 assessed only with computer simulations (code\_bright (BBM) and Plaxis)
- "Validation" within EBS task force and Theresa
  - only poor options available

⇒ Develop a validated method to assess homogenisation

# Objective

- justify how "heterogeneous" design parameters\* can be used

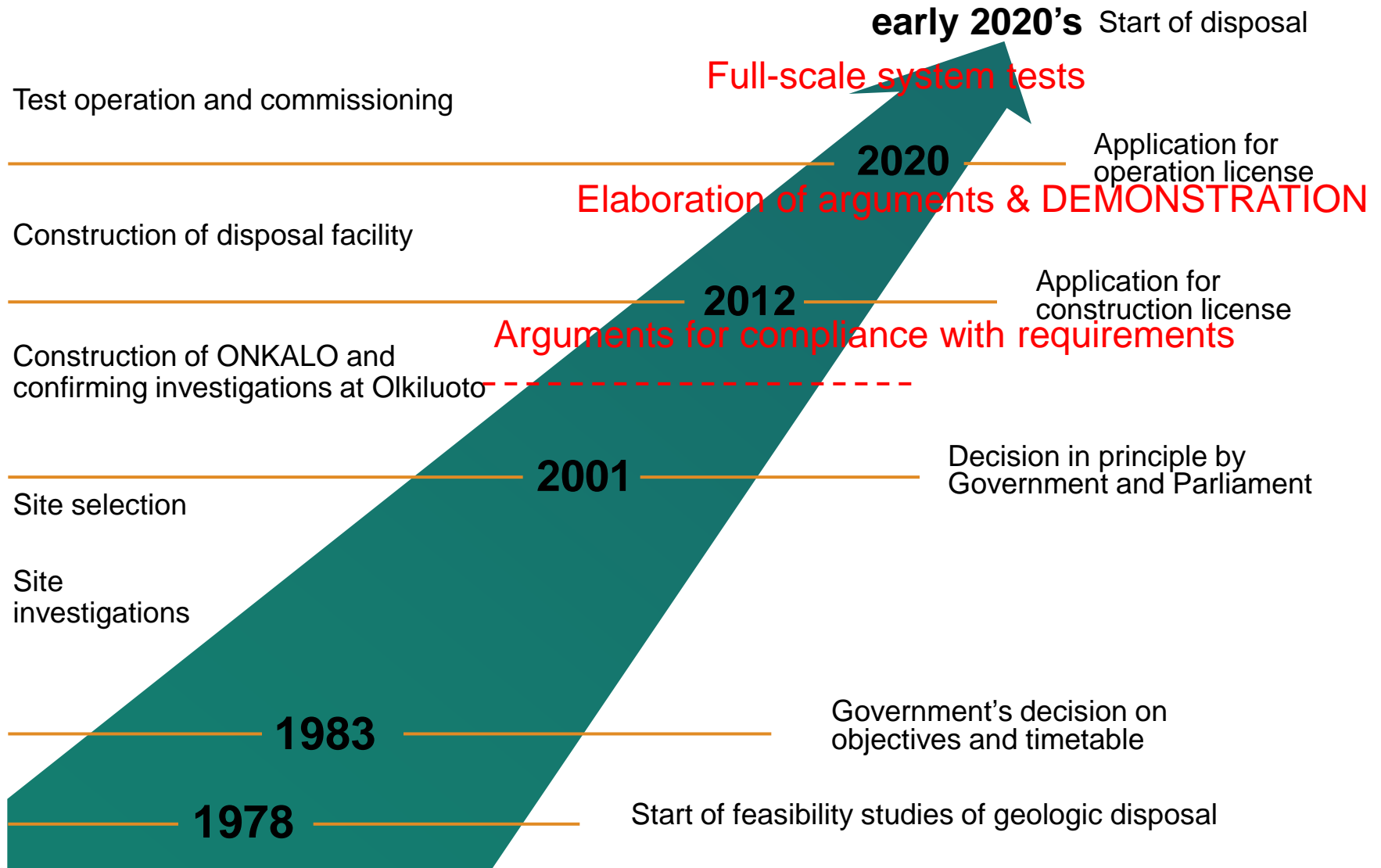
\*design parameters for blocks and pellets:

- montmorillonite content
- density
- block filling ratio
- thickness of pellet filled slots

# Scope

1. Define prototype
  - define what needs to be solved
2. Conceptual models
  - review conceptual models available
3. Experimental work
  - prototype performance, missing parameters, validation data
4. Computer simulations
  - use existing software implementations
5. Justify guidelines for design parameters
  - formulation of scaling principles
  - industry standard method to assess homogenisation of heterogeneous systems
  - feedback to design parameters

# Schedule – 1/2



# Schedule – 2/2

- Work can begin on 4.1.2016
- Results need to be published by mid-2020

Kiitos  
Thank you

