

Photos placed in horizontal position  
with even amount of white space  
between photos and header

# DECOVALEX Crystalline Model domain

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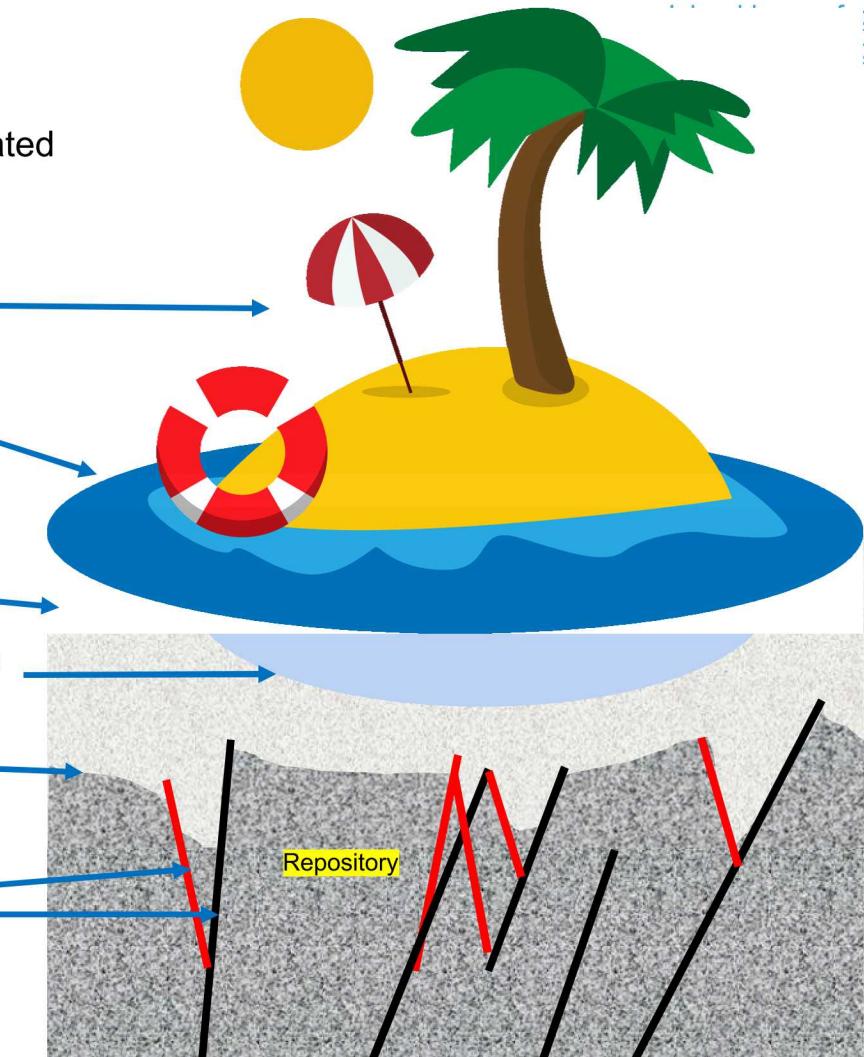
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# End member 1:

Blue: to be included  
Red: previously eliminated

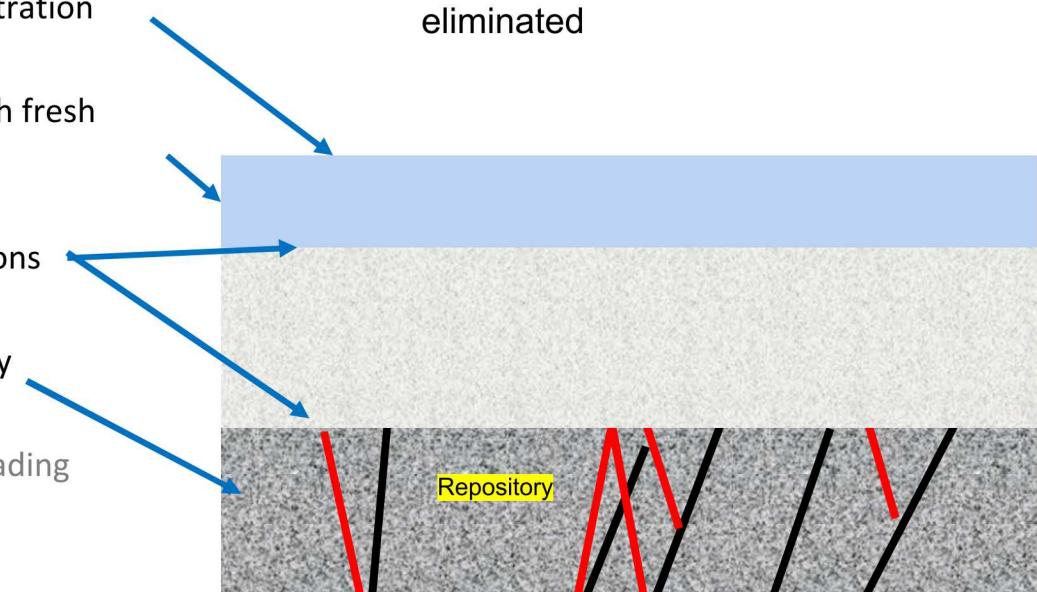
- Biosphere
- Infiltration of surface water, **erosion, sedimentation**
- Soft overburden sediment
- Potential transients in salt/fresh water interface
- Complex topography of crystalline rock with overburden
- Multiple fracture sets
- Pressurization due to glaciation could be different on and off shore



# End member 2:

- No Biosphere or surface water infiltration
- No water table, no interactions with fresh water, no interaction with ocean
- Flat interfaces between all formations
- Fractures do not impact topography
- Glaciation as uniform loading/unloading

Blue: to be included  
Red: previously eliminated



# What we want to do will be between the two

- We've already decided:
  - No biosphere
  - Simple (not necessarily flat) interfaces between formations
  - Forsmark or Olkiluoto DFN which do not extend into overburden
  - No erosion or sedimentation
- To be discussed separately:
  - Glaciation
  - Forsmark or Olkiluoto DFN and how to model them

# Island domain

- Must include option to reduce complexity
- Infiltration?
  - Uniform or uneven? (e.g. Sea water rate vs surface water rate)
- Fresh/salt water interface?
- Planar or curved interfaces between formations?
  - Flat or sloped? (especially important if infiltration is included)

# Rectangular domain

- Simpler and for some the only option
- Include infiltration?
- With or without surface topography?
  - Simple sloped surface?
  - Curved surfaces?
- With/without water table?
- Uniform flux across domain?

# Input file format

- What would teams need to create a complex domain?
- What would teams need to create a box domain?

