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

DECOVALEX Crystalline Model domain

Tara LaForce
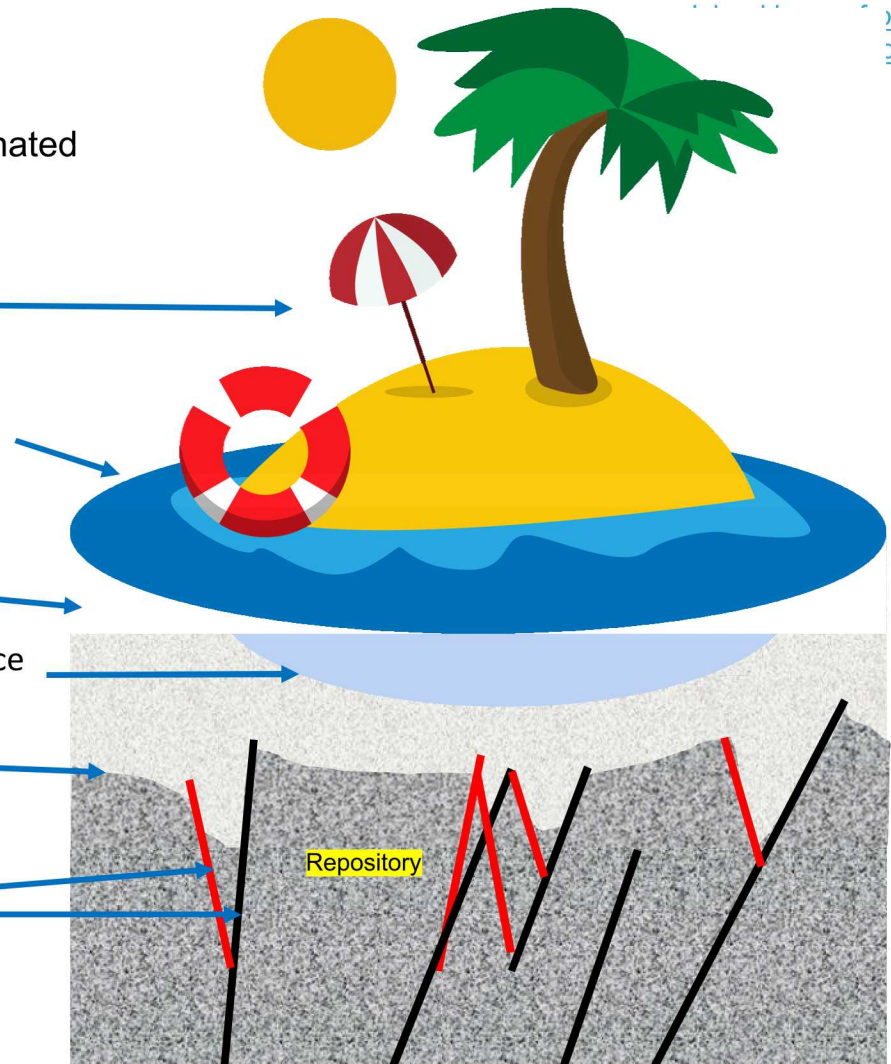
End member 1:

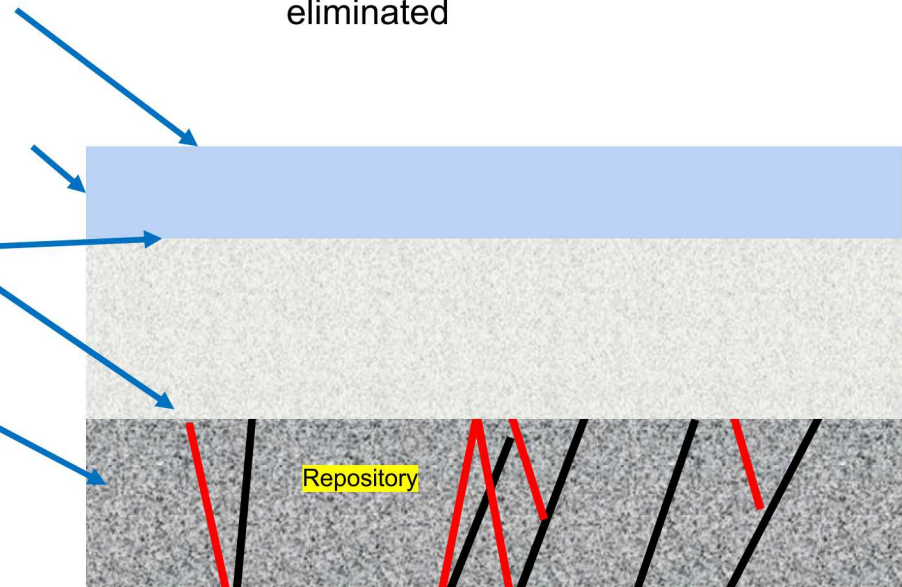Blue: to be included
Red: previously eliminated

- 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

Repository

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

Repository

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?