The ART of STORAGE

Ewoud Verhoef

COVRA, the Netherlands
OUTLINE

- Time for storage
- Different examples?
- Design & operation
- Emotion
TIME for STORAGE

Time renders radioactive waste harmless

Radioactive Waste Management is Time Management
TIME for STORAGE

Keep radioactive waste in a safe place
TIME for STORAGE

Isolate, Control & Monitor

Storage connects all steps in time
EXAMPLES SF/HLW

wet storage – SKB Sweden
EXAMPLES SF/HLW

dry/cask – ZWILAG Zwitserland
EXAMPLES LLW

Bátaapáti PURAM Hungary
EXAMPLES LLW

Belgoprocess - Belgium
EXAMPLES LLW

Dansk Decommissioning – Denmark
EXAMPLES LMLW

COVRA – The Netherlands
DESIGN & OPERATION

- Immobilization
- Small units
- Repairable
- No surface contamination

Conditioning
DESIGN & OPERATION

- Passive safety
- Defence in depth
- Proven technology
- Simple, robust storage buildings
- Minimal equipment
- Easy decontamination
- Humidity control
PASSIVE COOLING

air in

air out
DESIGN & OPERATION

Size matters?

• Safety and Security
• Emplacement and Retrieval
• Shielding (and Cooling)
• Monitoring and Inspection
EMOTION
EMOTION
EMOTION
The ART of STORAGE

TIME to CONSIDER

SAFE is BEAUTIFUL