

Technological demonstrators of construction, operations and closure of deep geological disposal

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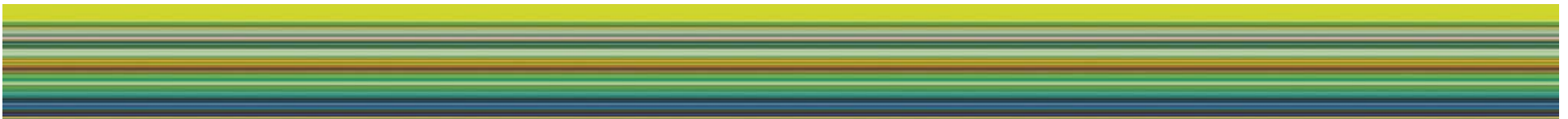


International Atomic Energy Agency Scientific Forum
**RADIOACTIVE WASTE:
MEETING THE CHALLENGE**
Science and Technology for
Safe and Sustainable Solutions
23–24 September 2014, Vienna, Austria

Content

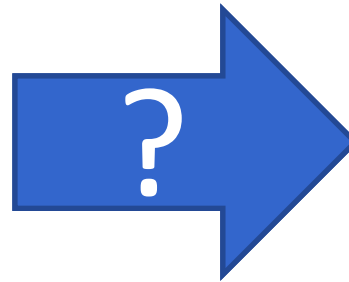
- Why?
- What?
- When?

→ Lessons learnt

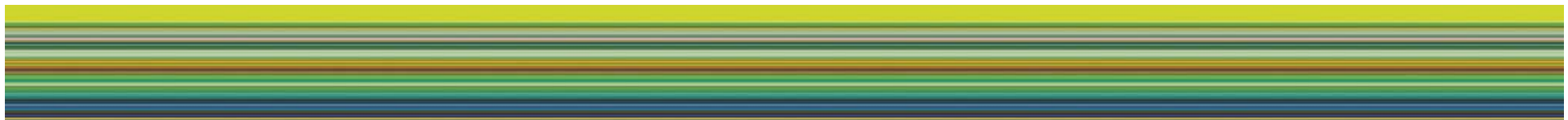


General Challenge for RWM

Dealing with existing Radwaste

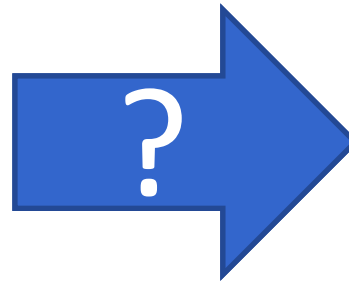
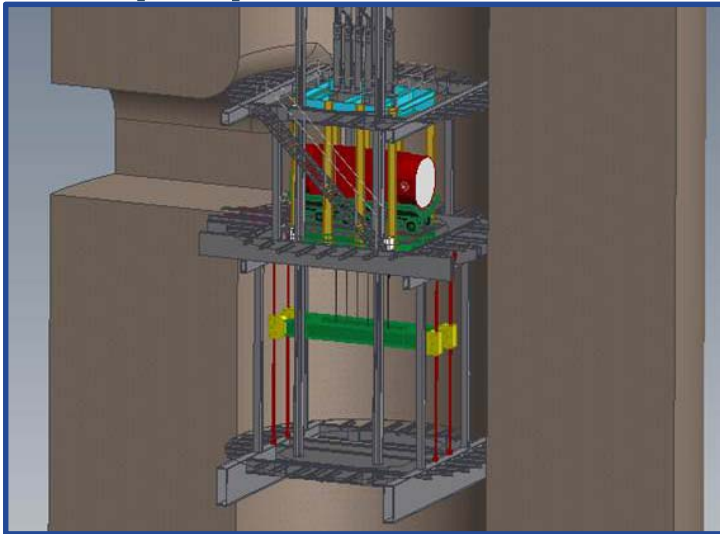


Generally country specific, unique solutions only

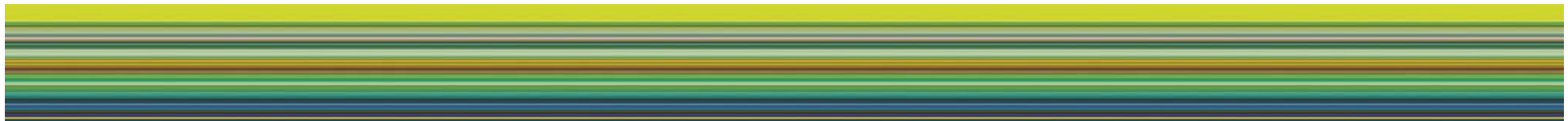


Specific Challenge

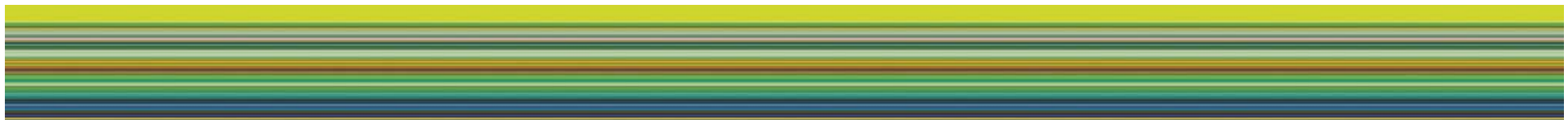
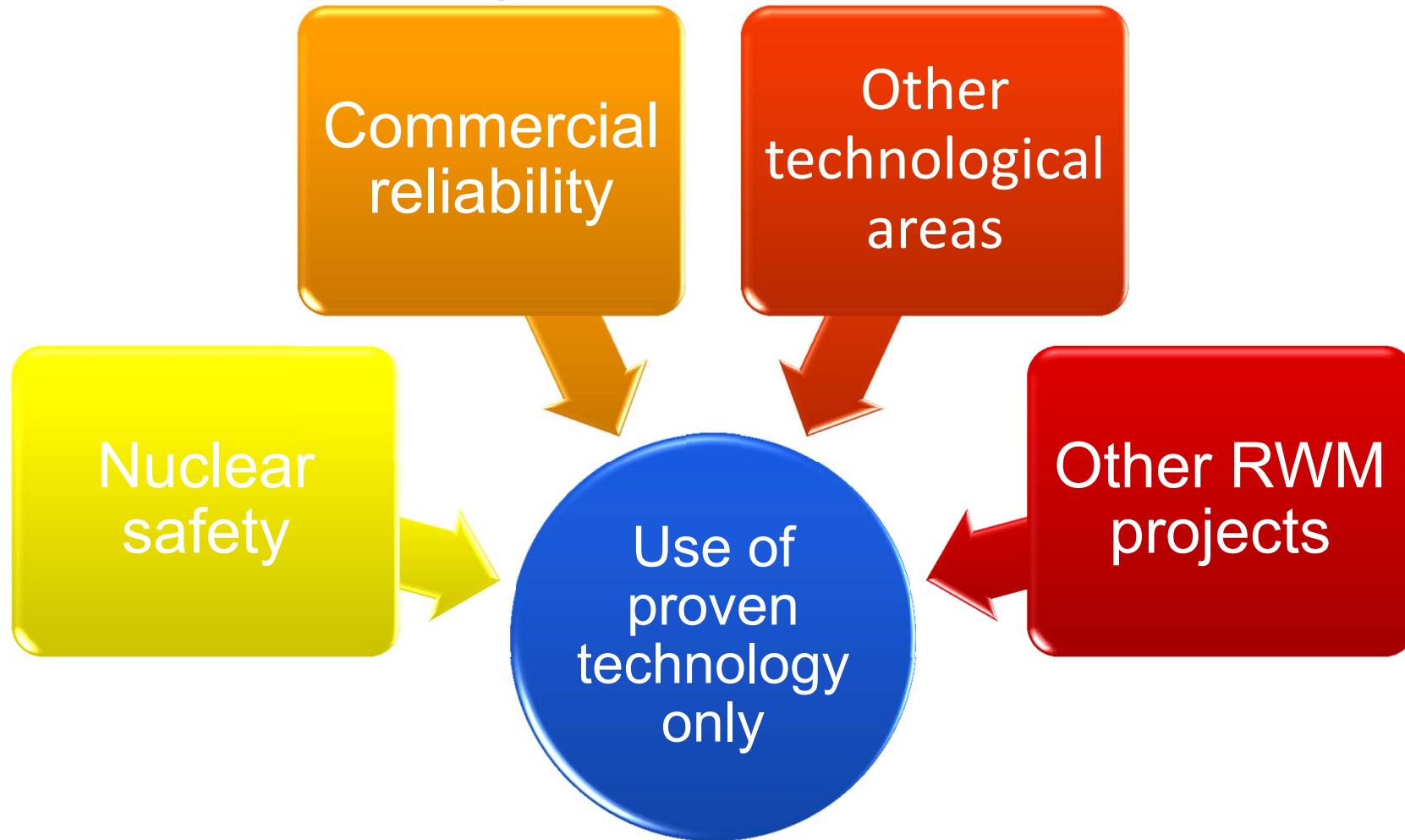
Design solutions easily developed on paper



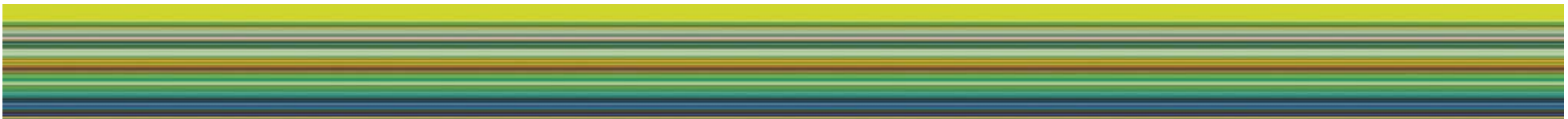
In reality proven technology to be applied only



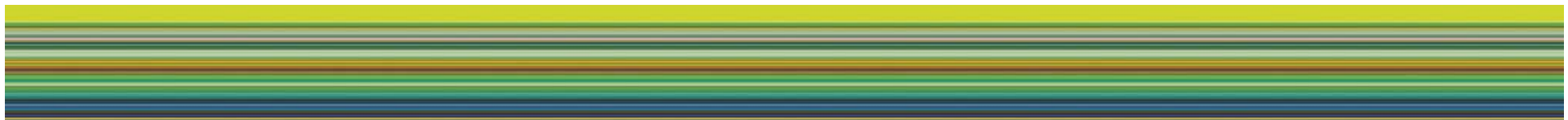
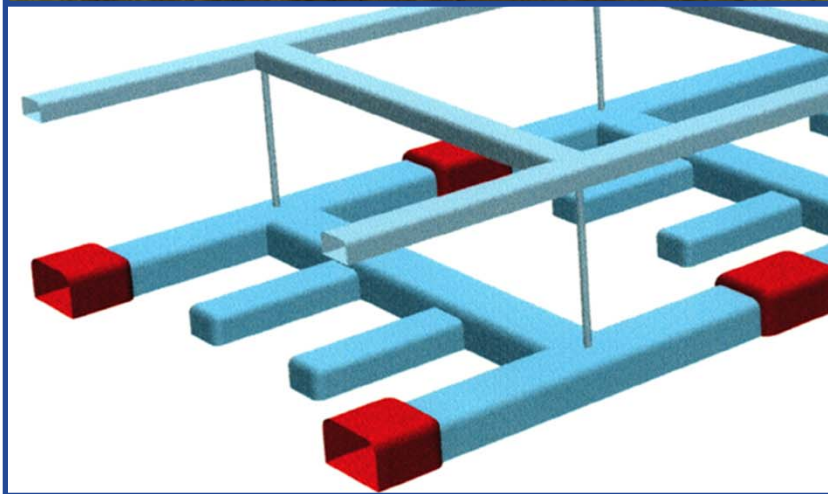
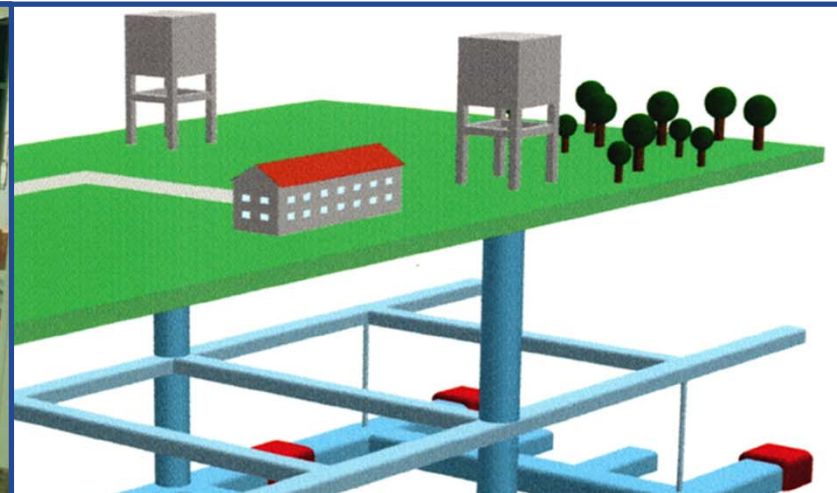
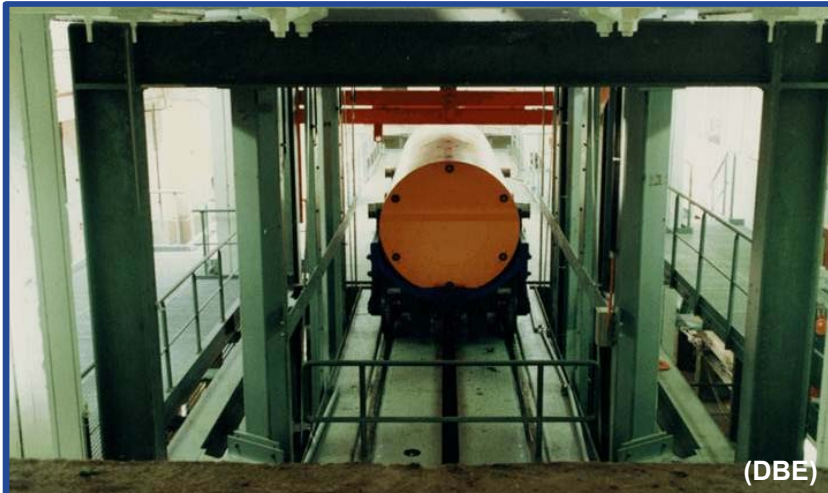
Need for Technological Demonstrators



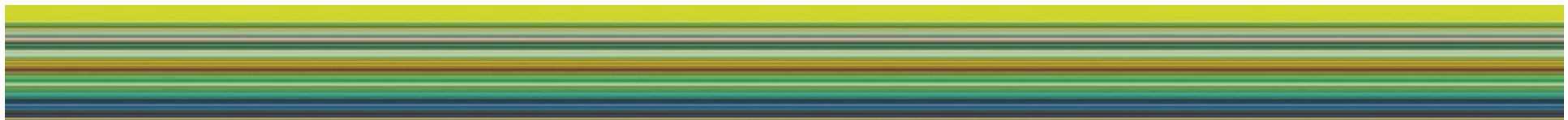
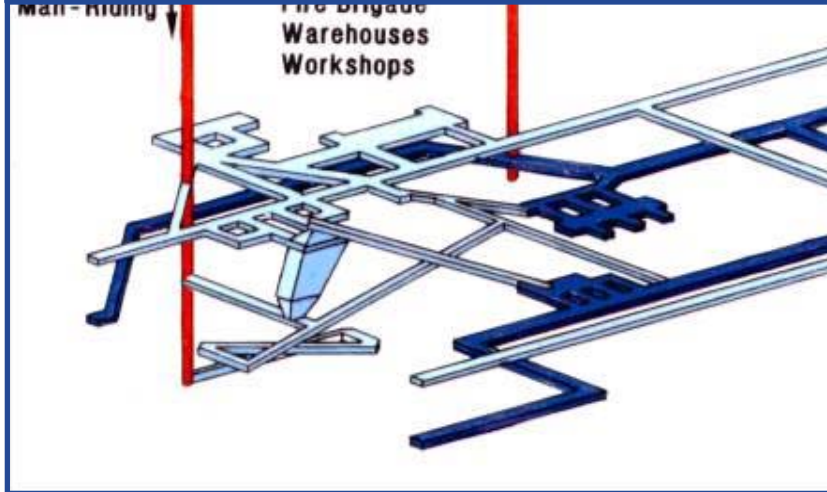
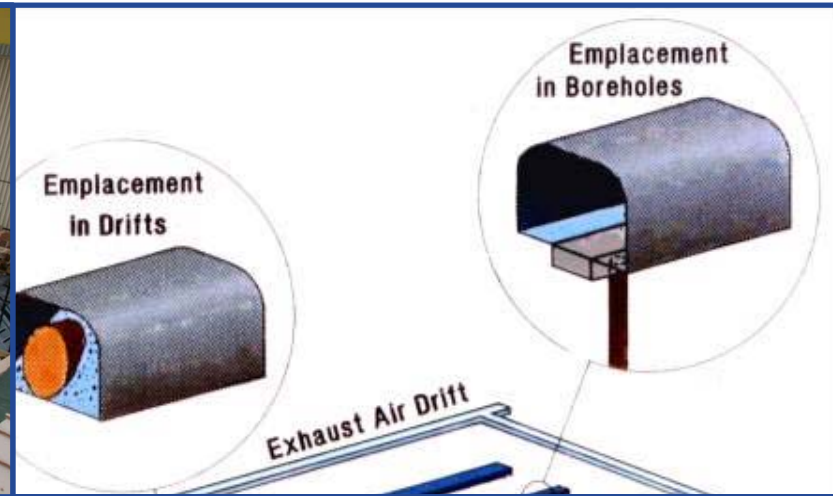
Technological Demonstrators for Waste Handling



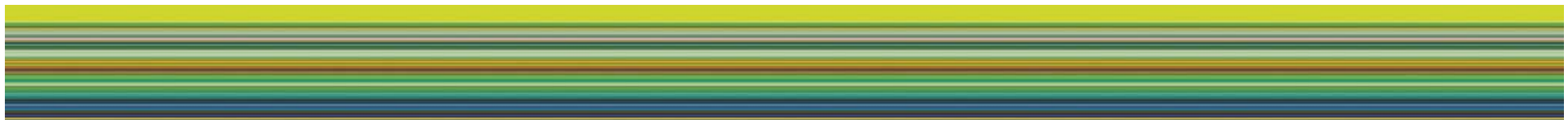
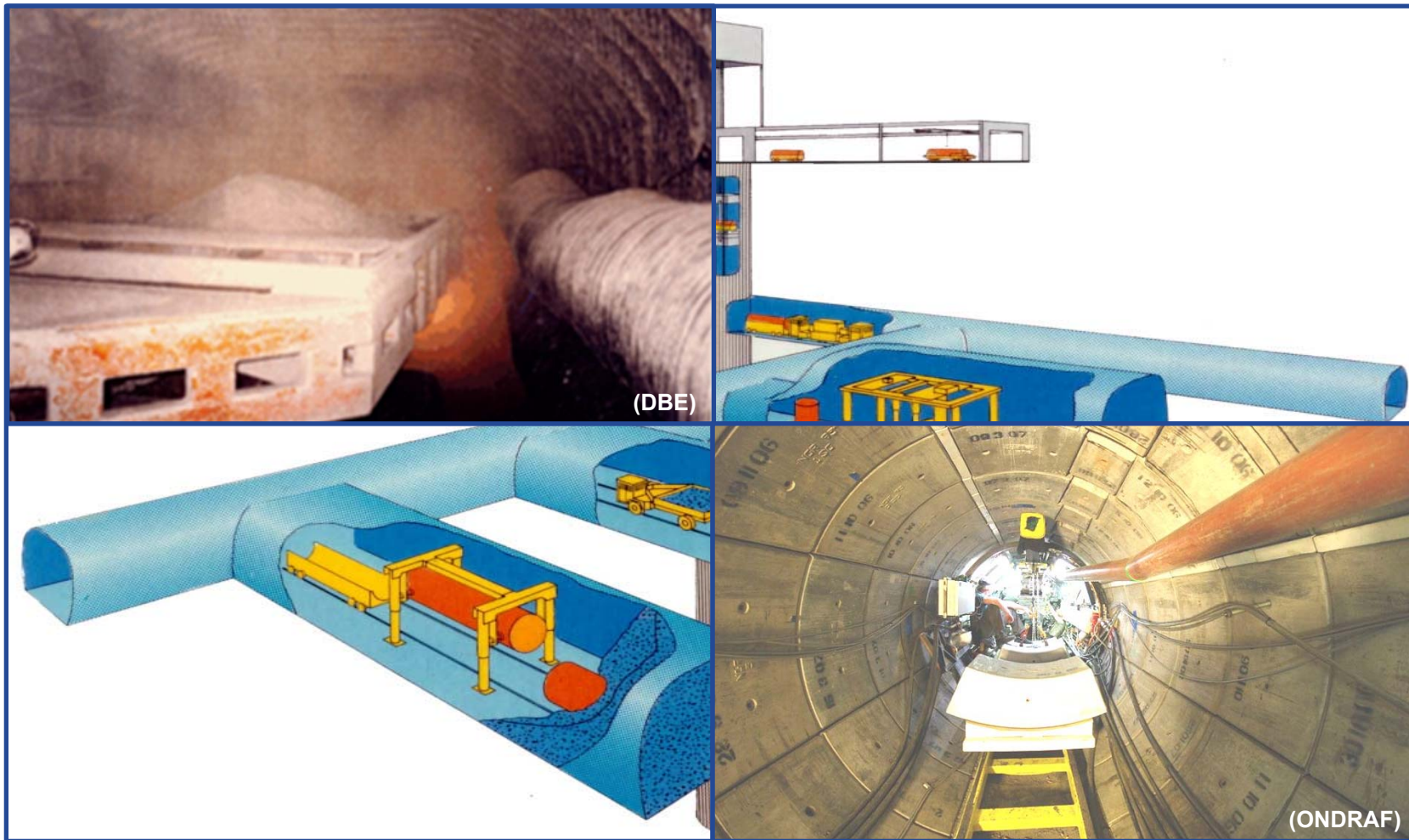
Technological Demonstrators for Transport



Technological Demonstrators for Emplacement



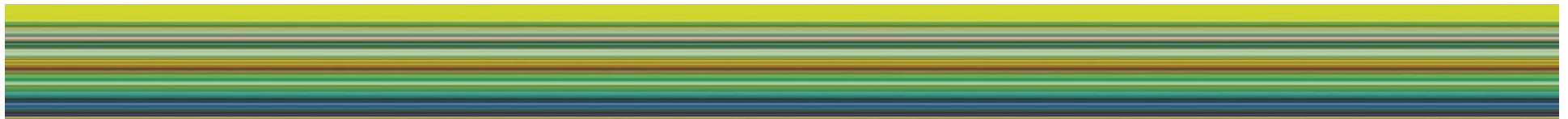
Technological Demonstrators for Long-term Safety



Lessons Learnt

- Iterative development of DGR design
- Substantial influence of operational ‘reality’ constraints on DGR design
- Major design principles
 - Simple and robust technology
 - Minimised manipulation, but close control

→ Feasibility and safety of DGR proved by Technological Demonstration



**Thank you
for your attention!**

