

French Radioactive Waste
Disposal Programme :

Main advances since 1991
Way forward to 2015

Thibaud LABALETTE (ANDRA)

Radioactive HLW management in France

- French National Agency for Radioactive Waste Management (ANDRA)
- French Ministries for Industry, Research and Environment
- Parliamentary Office for Scientific and Technological Assessment (OPECST)
- National Review Board (CNE)
- Nuclear Safety Authority (ASN)
- Institute for Radioprotection and Nuclear Safety (IRSN)
- Local Information and Oversight Committee (CLIS)
- Producers : EDF, AREVA, CEA

French National Agency for Radioactive Waste Management (ANDRA)

- Public industrial and commercial organisation created by the Act of 1991
- Andra is supervised by the Ministries for Industry, Research and Environment
- 3 Missions : industrial operator, research, public information
- 5 sites : Châtenay-Malabry, the Manche waste disposal facility, the Aube waste disposal facilities (short lived LILW and VLLW), the Meuse Haute-Marne Underground Research Laboratory



Andra's sites



HLW management in France since 1991

- **The Law of 30 december 1991**

- ✓ 1993-1998 : siting process for the URLs

- ✓ 1999-2006 : Construction of the URL and experiments in situ

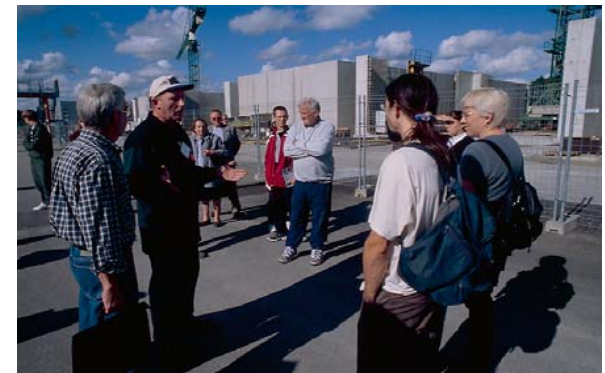
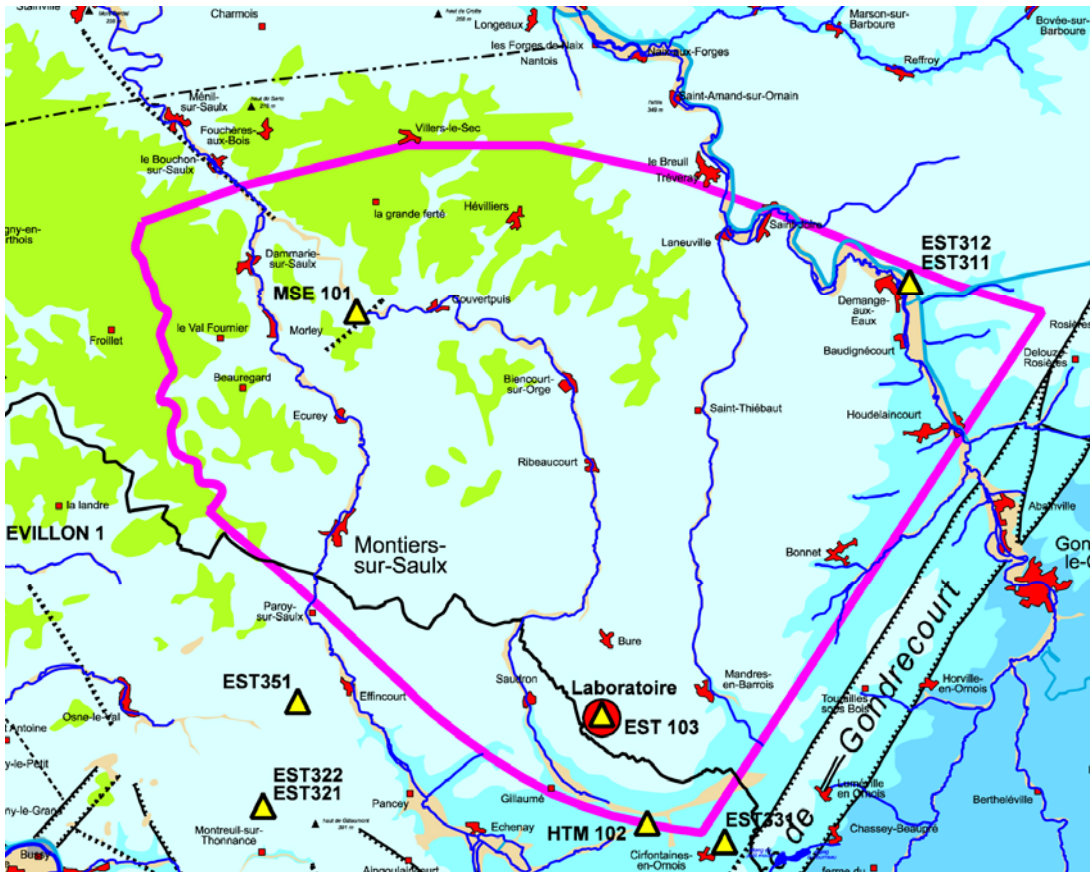
- ✓ Dossier 2005

- **28 June 2006 : Radioactive Materials and Waste Planning Act**

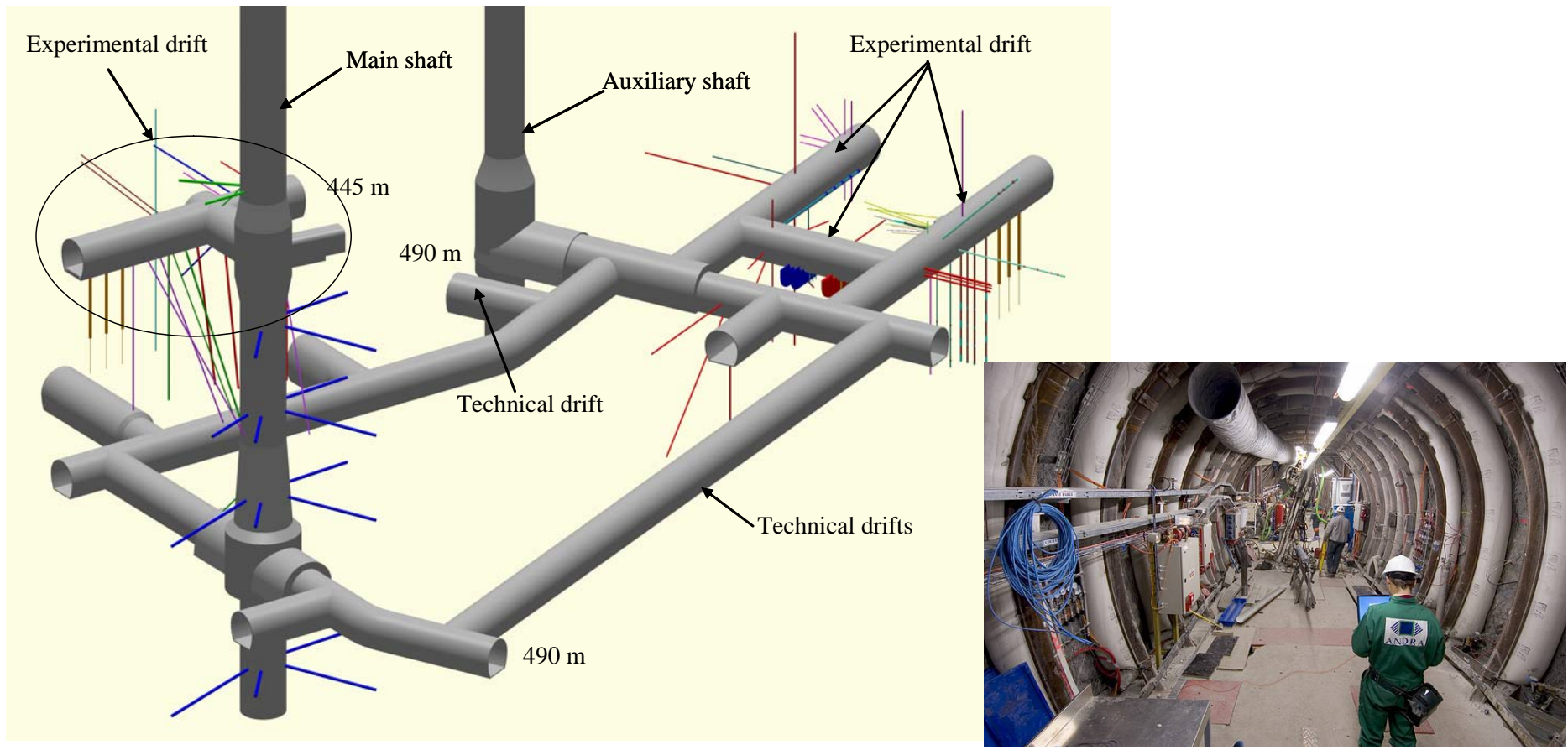
- ✓ 2015 : Application for IHLW disposal license

- ✓ 2025 : Disposal commissioning

Finding a site for the repository



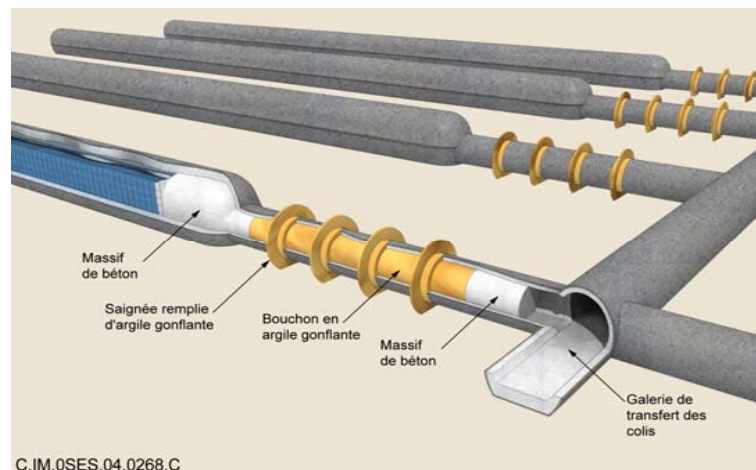
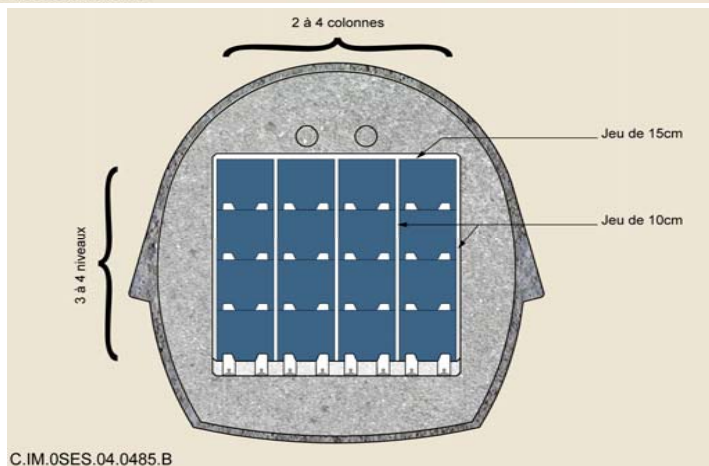
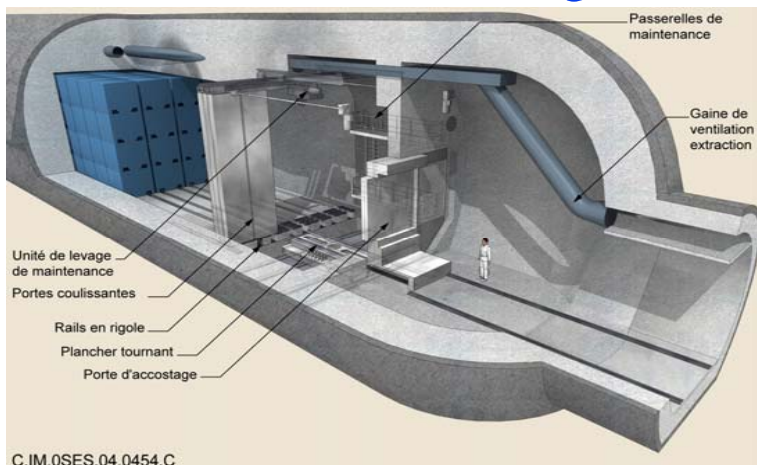
Scientific and Technological developments in the URL



Scientific and technological programs

- The assessment of the Dossier 2005 gave rise to recommendations, that were integrated in the forthcoming programs (EDZ, gaz, THMC transients, phenomena couplings...)
- Simulation
- Design studies with an industrial perspective
- Operational safety, Reversibility and monitoring studies
- Demonstrators for the public debate
- Storage

Scientific and Technological Developments



Overall Schedule

« PNGMDR », URL Re-licensing

DIALOGUE WTH STAKEHOLDERS

GEOLOGICAL SURVEY PROGRAM

URL EXPERIMENTAL PROGRAM

- Technological Development, Experiments
- Demonstration Tests, Long Term Experiments

ENGINEERING, SIMULATION, SAFETY

- Design Optimization, Operational Safety
- Basic Design Options
- Above-Ground Demonstration tests (Emplacement, Retrieval)
- Repository Architecture Design
- Design Adjustment To Proposed Site
- Detailed Design, Construction Preparation
- Transportation Studies
- Safety/Environmental Impact Analyses
- Safety/Impact Calculations

Andra-Reviewers Interactions

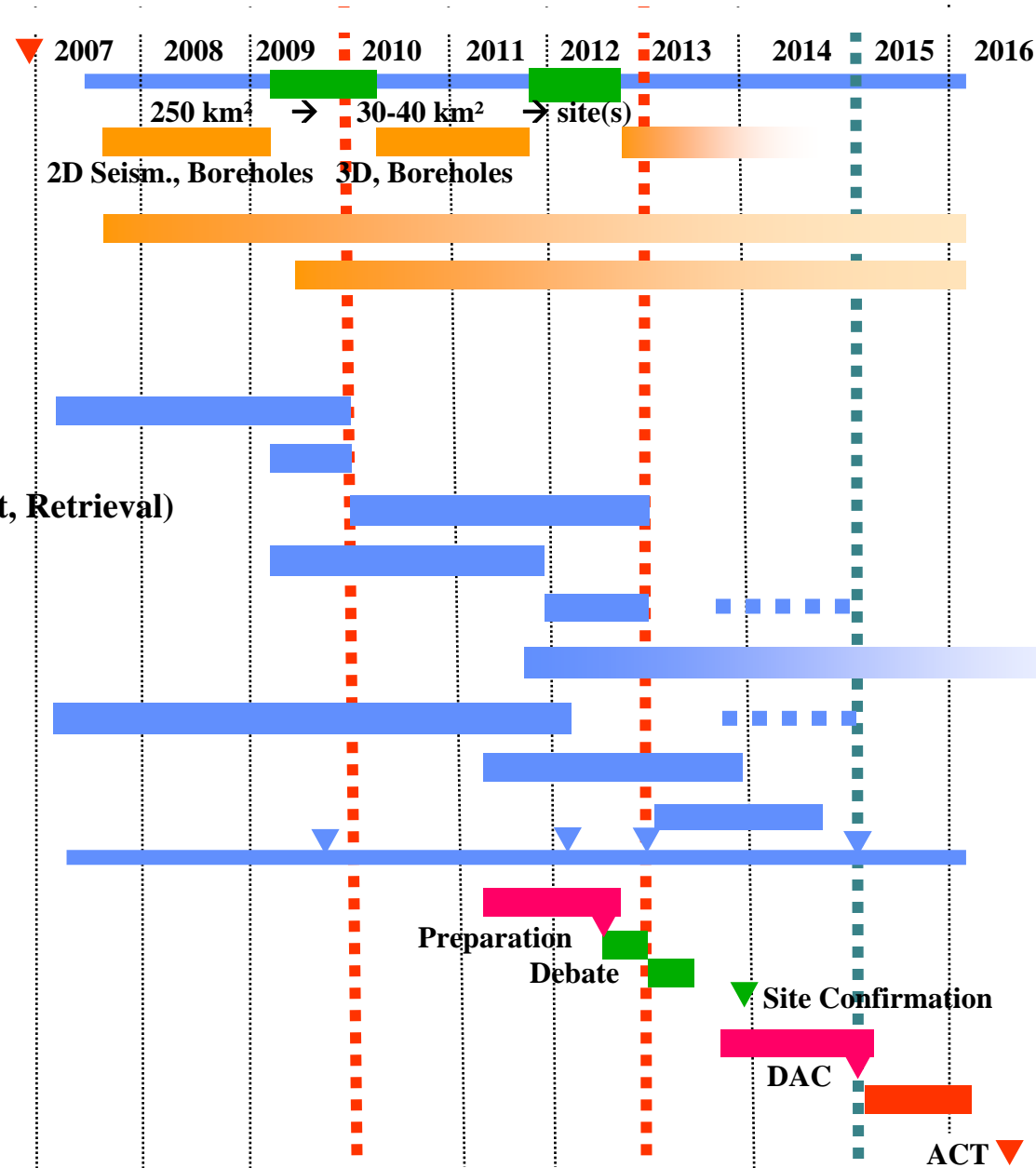
PUBLIC DEBATE REPORT

Public Debate

LICENSE APPLICATION

- Application report preparation
- Licensing procedure

Future Act on Reversibility



Some elements for conclusion

- The laws of 1991 and 2006 provide a structured process with regular controls and prescribed deadlines
- Reversibility was introduced by the 1991 law and the relevant reversibility conditions will be prescribed by a specific Act
- Safety assessment (cf. next presentations)
- Producers shall provide a significant effort for local incentive programs
- Transparency, independent assessment
- International cooperation