

Modern2020 Final Conference – ‘Citizen Stakeholder Participation’ Panel

Building Trust and Improving Safety? A Four-Nation Comparison of Public Participation in R&D of monitoring systems for geological disposal

10th of April, Paris

Axelle Meyermans
Göran Sundqvist
Anne Bergmans

With thanks to:
Pieter Cools, Hannes Lagerlöf & Anna-Laura
Liebenstund



*This project has received funding from the Euratom research and training programme 2014-2018
under grant agreement n° 662177*

Monitoring in geological disposal = a sociotechnical challenge

- **Geological disposal** = internationally agreed solution for nuclear waste
 - ✓ Aim of **passive safety**
- Development of **monitoring technologies**
 - ✓ Opening up to **continuous vigilance**
 - ✓ Unclear relation to passive safety?
- **National differences** in the conceptualization of monitoring
 - ✓ Host rock and disposal concept, but also...
 - ✓ **Socio-political** explanations for these differences

Three topics of interest

- 1. Differences and similarities** between four European nations (BE, FIN, FR, SE) in their **understanding of monitoring**
- 2. Linking monitoring to questions of (dis)trust**
- 3. Public participation** in monitoring R&D

Key suggestions for public participation in R&D







Organisation of local stakeholder participation within Modern2020

- Engagement of local stakeholders from Belgium, France, Finland and Sweden
 - ✓ 'Liaison officers' on the project level
 - ✓ Organisation of 'home engagement workshops'
 - ✓ Online 'Delphi' survey (two rounds)
 - ✓ **WP5 Workshop** with local stakeholders and technical experts



1. Striving for a consensus on monitoring?

National comparison (based on D5.1, WP5, Modern2020)





			
<p><u>ONDRAF/NIRAS'</u> <u>framing of monitoring</u></p> <p>Monitoring is necessary; but unclear about what exactly will be monitored</p> <p>Socio-economic + environmental monitoring</p> <p>Will most probably be related to demands of reversibility</p>	<p><u>Posiva's framing of monitoring</u></p> <p>Monitoring does not increase safety per se (<-> STUK)</p> <p>Debate on EBS monitoring ('indirect' monitoring)</p>	<p><u>Andra's framing of monitoring</u></p> <p>"Surveillance": does the repository behave as expected?</p> <p>Monitoring is ensured during the operational phase</p> <p>Some connection with demand of reversibility</p>	<p><u>SKB's framing of monitoring</u></p> <p>Environmental monitoring since several years already</p> <p>Passive safety has been proven in advance by quality control systems</p> <p>Monitoring should not interfere with passive safety goals</p>

1. Striving for a consensus on monitoring?

- Within Modern2020: aim of reaching a **technical consensus** on monitoring
 - ✓ Resulting from “**political**” ambitions → political and technical consensus are **mutually supporting** each other
- Advantage: reaching a **scientific consensus**
- However, risk of **concealing “political” interests**

2. Monitoring and *trust*

- Geological disposal: **delegation of trust** and safety to geology
- Monitoring: tool for **trust-building**?

			
<p>Surface disposal for low-level waste in Mol/Dessel → certain level of mutual trust</p> <p>Conditional ('healthy distrust')</p>	<p>Culture of trust in the nuclear expert</p> <p>Participation on the technical level perceived as superfluous; however need of getting informed</p>	<p>General lack of confidence towards responsible NWMO</p> <p>Rather disinterested in monitoring R&D (more concerned with general waste disposal process)</p>	<p>Trust of local community in SKB</p> <p>Importance of the established veto right → more active role in NWM</p>

What kind of local stakeholder engagement in R&D?

- First conclusions from **survey** results
 - ✓ **Decisions about specific technical elements** should be left to technical experts
 - ✓ However, local stakeholder engagement remains important, because of
 - **Right to be informed**
 - Asking **critical questions**
 - **Encourage technical experts** to take local stakeholders' remarks, comments into account and to 'do the best job they can'

Yet, open questions remain:

- **Discrepancies** between local stakeholders and technical experts (and between themselves)
 - ✓ Should local stakeholders be **involved on the technical/engineering level** of a specific R&D project?
 - 85% of technical experts disagree >< 44% of local stakeholders agree
 - ✓ Local stakeholder involvement has the **potential to improve the design** of monitoring systems.
 - 35,5% of local stakeholders agree >< 9,1% of technical experts agree
- Carefully assess on **what topics**, in **what phases** and **for what reasons** citizen stakeholders should be engaged →
There must be something to **negotiate!**

Guidance on how to implement public participation in technical projects

1. Be sensitive towards **consensus**
 - ✓ Acknowledge what is not agreed upon
2. Be sensitive towards **delegation of decision power to technical experts only**
 - ✓ Depending on level of trust
3. Be sensitive towards **what is opened for discussion**
 - ✓ How to discuss (socio)technical issues with local stakeholders?
 - ✓ Avoiding 'tokenistic' participation

Thank you for your attention!
Questions, remarks?



This project has received funding from the Euratom research and training programme 2014-2018 under grant agreement n° 662177