

Engaging with intergenerational justice in radioactive waste management

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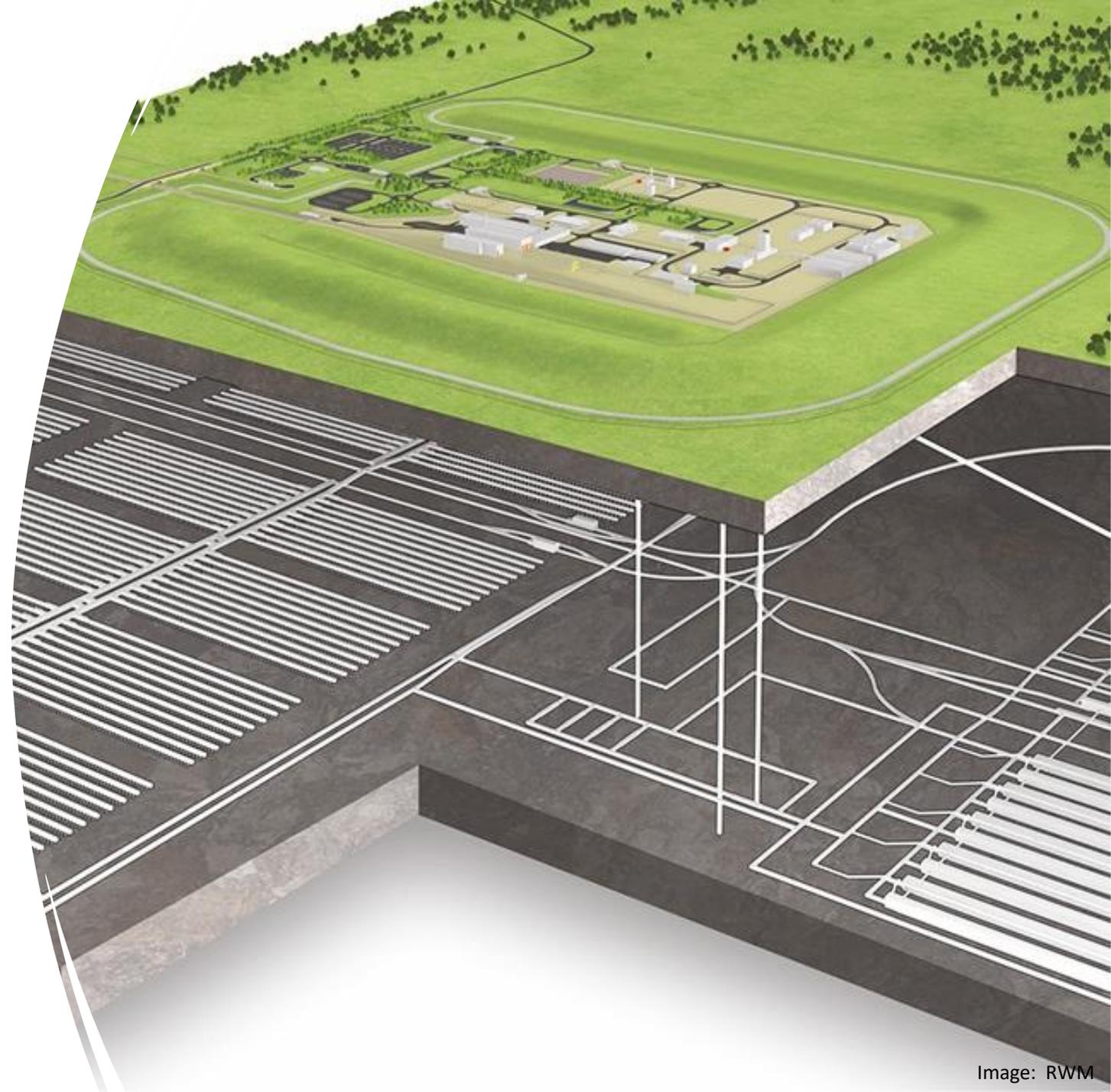
School of Social Sciences, Humanities and Law

Research Support Office Annual Conference
Leeds, January 12th 2023



Radioactive waste and future generations

- The geological disposal facility concept requires thinking across 'deep time' – longer than any previous human civilization
- Communication of risk messaging into the future
- Managing records and data
- Stewardship of wastes within host communities and specific places
- Connection between contemporary benefits and risks (intragenerational equity) and past and future benefits and risks (intergenerational equity)
- Balancing current and future needs
- Maintaining governance arrangements over multi-generational timeframes



Intergenerational equity

A core philosophical problem in environmental ethics

- *Non-reciprocity* – people in the future cannot hold us to account
- *Non-identity* – no specific future people yet exist
- Do future people have rights?
- Can we apply discount functions to future lives – how do we balance the wellbeing of current 'real' people against the needs of potential future people?
- Post-Brundtland Sustainable Development – is it enough to simply sustain current living conditions?
- Can we think about maintaining or improving welfare standards for future people?
- How do we approach different temporal horizons? Thinking about different approaches to time - familial and kinship (my immediate living relatives), ancestral (within traceable history), or deep time (across geological time frames).
- Should we think of time as solely linear?



Radioactive waste policy

- Working With Communities policy framework
- Designed to ensure no harmful quantities of radioactivity ever reach the surface environment
- National geological screening exercise undertaken by RWM/now NWS
- Updated planning and regulatory matters for implementing geological disposal
- Policy and process for working with communities in order to find a location to develop a GDF
 - 1. Initial discussions and forming a Working Group**
 - 2. Community Partnership**
 - 3. Community Partnership Agreement**
 - 4. Right of Withdrawal**
 - 5. Test of Public Support**
- How are future people included/represented in this discussion.

Integrated empirical ethics

- How do we get a range of stakeholders to engage with these complex philosophical issues, whilst being sensitive to practical and political realities?
- Integrating ethics with policy and planning – the need for *ethical decision-support tools*
- Provide social intelligence to (for example) local authority-led working groups, to NWS in the production of engagement materials, to aid community partnership working or decision-making following a test of public support.
- Future generational interests can sometimes remain ‘voiceless’ without some form of institutionalised proxy representation during participatory engagement processes
- Visualisation and imagination of future generational needs and interests.

The postdoctoral fellowship in four stages



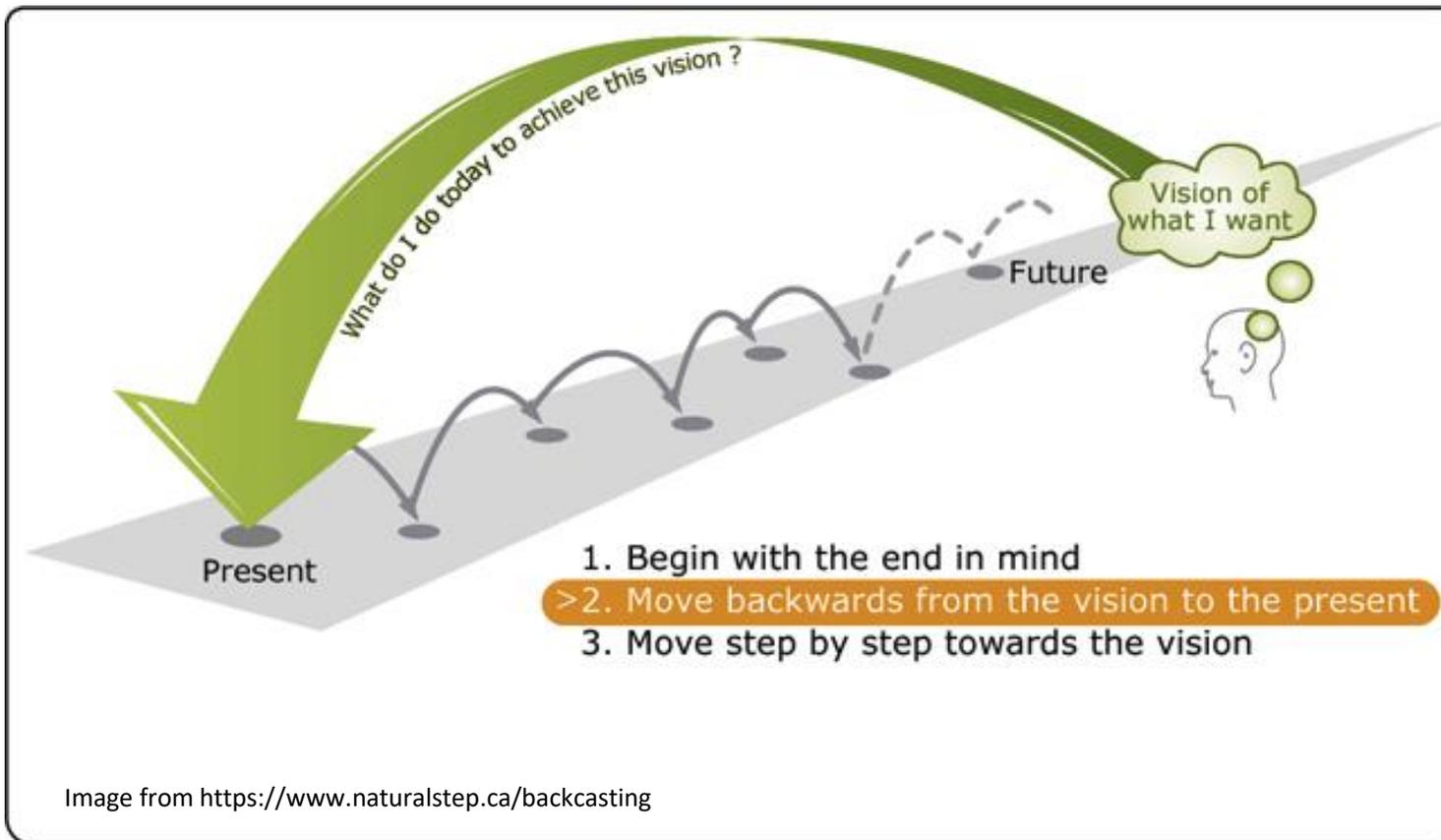
1. Review of intergenerational justice concepts and learning from cases

- *Thematic synthesis analysis* of intergenerational justice literature (social policy, environmental management, economics, applied ethics).
- Dr Lee Towers is leading a short monograph on these topics comparing learning on radwaste with other issues including global climate justice.



2. Visualising future generations

- The problem of ‘proxy representation’ of future people in current policy and planning
- Working with communities and diverse stakeholder audiences
- Using ‘elicitation devices’ including (potentially) VR of GDF to imagine future generational interests.
- Exploring *social representations* – how people engage with unfamiliar or novel topics and ideas.
 - People construct their understanding of the world through the use of mental shortcuts, or "schemas," based on past experiences, cultural backgrounds, and the information that is available to them.
 - People communicate about complex concepts or phenomena through simplified, shared ideas or "collective representations," shared among members of a particular social group or culture.



3. Backcasting radioactive waste management futures

- Backcasting is a future-oriented methodology
- Emphasis upon finding out what is desirable about an imagined future and then ‘working backwards to the present’, exploring the steps needed, barriers and enablers of action.
- Methodological innovation – workshops, Q-methodology, interviews, *comparative qualitative analysis* of findings.



4. Synthesis, policy engagement and participatory tool development

- Developing an engagement toolkit (inc. for example a handbook) for using the research in the Working With Communities framework.
- Practical evaluation and implementation/monitoring of tool uptake and use.

Next steps



The four-stage approach offers a comprehensive analysis of the future generations challenge in RWM



A variety of data types and methodological innovations



Practical steps for the use of the research in Working With Communities programme.



Any questions?

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