The need for a sustainable decommissioning paradigm

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November 6, 2019
Now is the time to reflect

- At paradigm level
- Using a sustainability lens

**Sustainable development**
Development that *meets the needs of the present without compromising the ability of future generations to meet their own needs.*

Summary of experience in nuclear back-end management

Plan

Reality
What are the consequences of this reality?

- Current paradigm clearly unsustainable
- Risk of abandoned sites before release from regulatory control can no longer be ignored

When it is known that most plans do not come to fruition, is it sufficient to require that plans be in place?
What is the problem?

- Multi-generational timelines
- Fragmented landscape
- Part of a bigger picture (plant shutdown)
- Nuclear industry’s tendency to think:
  - Within the fence line
  - Until release from regulatory control

Holistic approach and systems thinking needed
What type of system?

Complicated systems

Complex adaptive systems
Cornerstones of a sustainability-based approach

Inclusive

Integrated

Asset-focused

Vision-based
Sustainable decommissioning

Benefits

- Reduced risk of delays and "dead ends"
- Increased trust and resilience
- Less waste
- Shorter timelines
- Decreased financial impacts

Reduced risk of site abandonment prior to release from regulatory control.
Conclusions

- Time to face the music

- Sustainability-based approach:
  - More likely to succeed
  - In line with general trends in society

- **By embedding sustainability principles into the requirements**, regulators can reduce risk of:
  - Major delays and cancellations
  - Abandoned sites

Photo: KTH Royal Institute of Technology
Thank you

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