SYSMET – Systematic scenario methods for the assessment of overall safety

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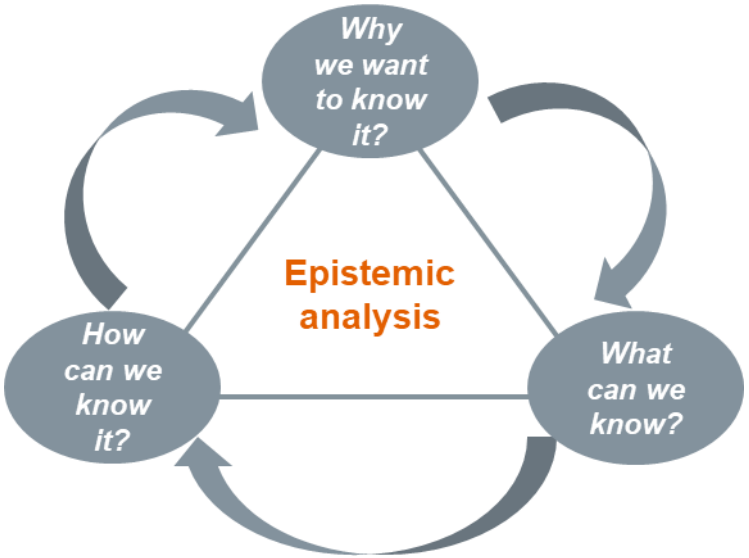
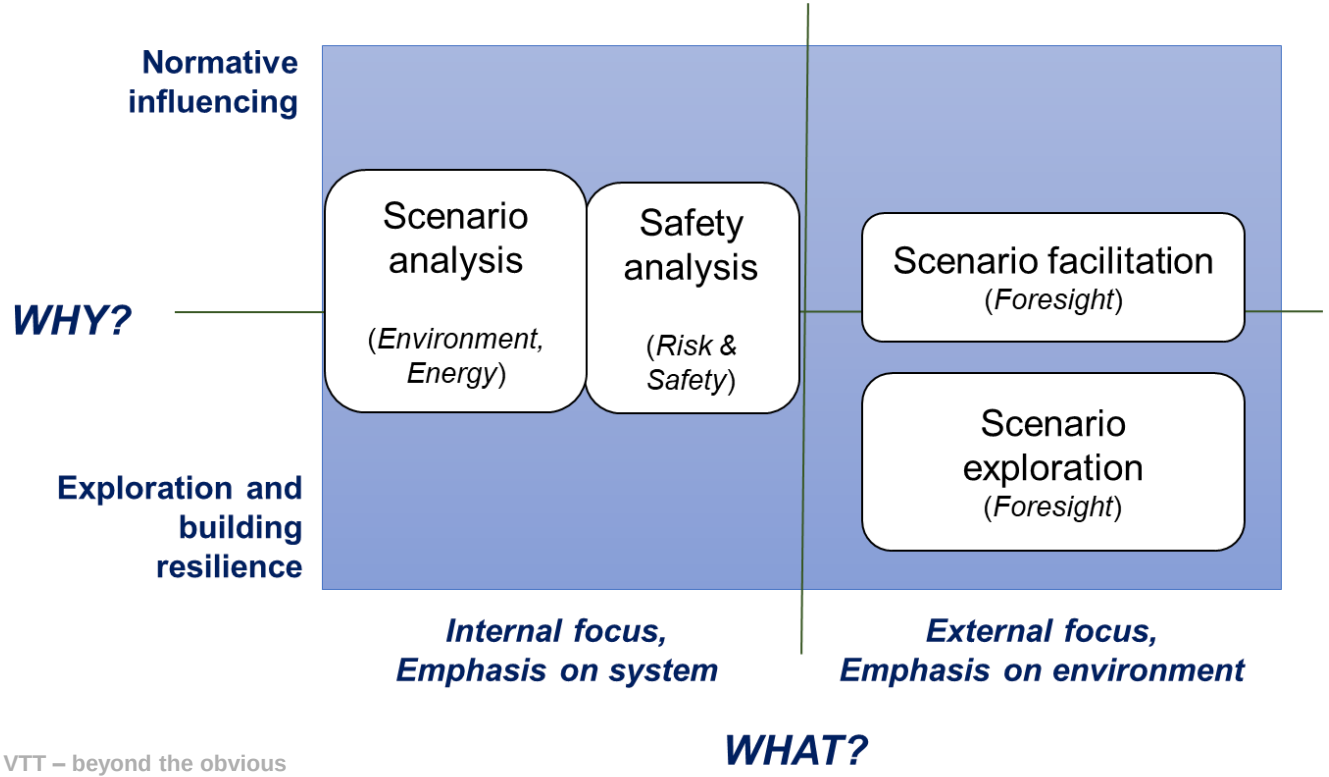
Nuclear waste repository in the context of scenario analysis – epistemic approach

- Goal: to increase understanding of the requirements and special characteristics of nuclear waste repository as a target for scenario analysis

1. Learning from other scenario application domains
2. Formulation of systematic framework for analysing scenario requirements



Epistemic scenario framework –
Findings from literature review



Nuclear waste repository as a scenario problem

- Nuclear waste repository scenarios require systematic scenario approaches, which involve normative and explorative elements

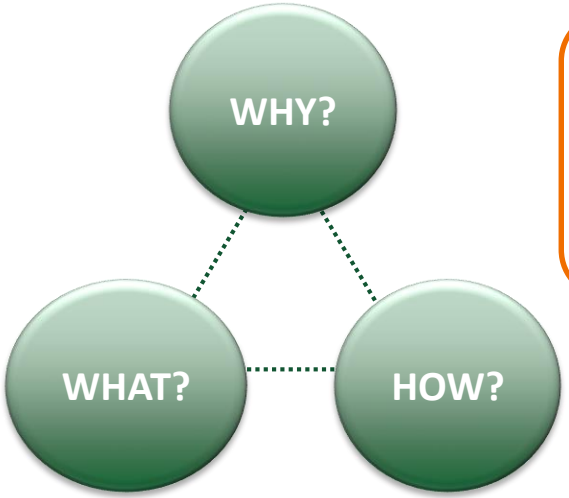
- Resembles *scenario analysis* or *safety analysis*
  - Combine scenarios with model-based impact assessment
  - Utilize systematic, mathematical methods in scenario development
  - Improving the explorative aspect of analysis through brainstorming or workshops

- The scope of prduced knowledge decreases in every step of the scenario analysis
  1) Scenario development
  2) Quantification of scenarios
  3) Impact assessment

Conclusion

COMMUNICATION

Results are understandable to all relevant stakeholders, also to “non-experts”



Adequate for the assessment of long-term safety

TRANSPARENCY

METHODOLOGICAL RIGOR

Includes all relevant internal and external factors
Manages the uncertainties of knowledge creation process

beyond
the obvious

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