

# Summary Workshop Underground Hydrogen Storage and Regulation

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15 October 2024



# Workshop scope & objectives



## Contributions from:

- Netherlands
- Germany
- Denmark
- UK
- France

## Focus challenges in managing and regulating safety in UHS

- Identify the main hurdles for regulation and supervision of UHS projects
- Discuss and exchange different insights and solutions from projects and current regulations
- Explore how countries may strengthen their collaboration towards a safe deployment of UHS

# Speakers – Presentations – Discussions

## Keynotes:

- View on risk assessment from a mining authority (SodM)
- SMRI Research UHS Salt: Current Status and Potential Future Topics for Research (Deep-KBB)
- UHS Regulation: Framing Session (GT-Law)

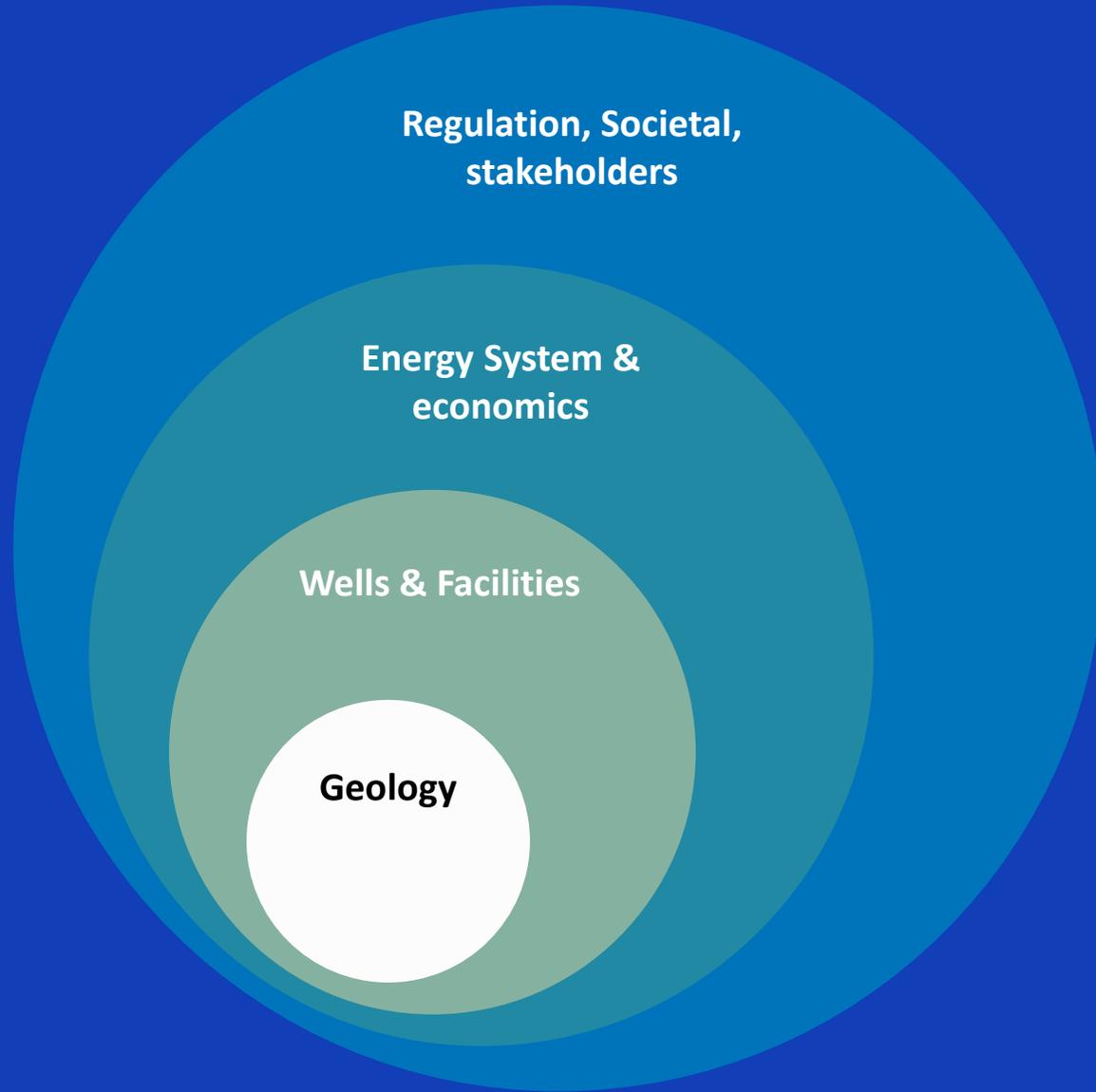
## Industry projects:

- HyStock hydrogen storage Zuidwending - The Netherlands (Gasunie)
- H2-Cast - Transition of two existing salt caverns for hydrogen storage – Technical (Storag-Etzel)
- HyStorage Project: Technical results and outlook (Uniper)
- Hydrogen storage in existing gas storage caverns, Ll. Torup, Denmark (Gas Storage Denmark)

## Policy & Regulation:

- Underground hydrogen storage in the Netherlands: policy & regulation (Min. of EZK – CGG)
- Handling regulatory challenges for UHS in Denmark (Danish Energy Agency)
- H2-Cast - Transition of two existing salt caverns for hydrogen storage – Regulation (Storag-Etzel)

# Key take-aways



## TECHNICAL

UGS (salt caverns) mostly transferable to UHS.

Investigation/verification of comparability and standards

Pilots: Technical feasibility, safe operation, permitting

- Geology (delta H<sub>2</sub>)
- Well completion, surface processing
- System integration and economics
- Permitting, dialog with authorities

## MARKET, REGULATION, SOCIETAL

Major challenges to create a hydrogen economy

General regulatory framework in place, H<sub>2</sub> specifics lacking

Building experience and confidence among stakeholders

Communication: Actual Risks vs Perception, Benefits