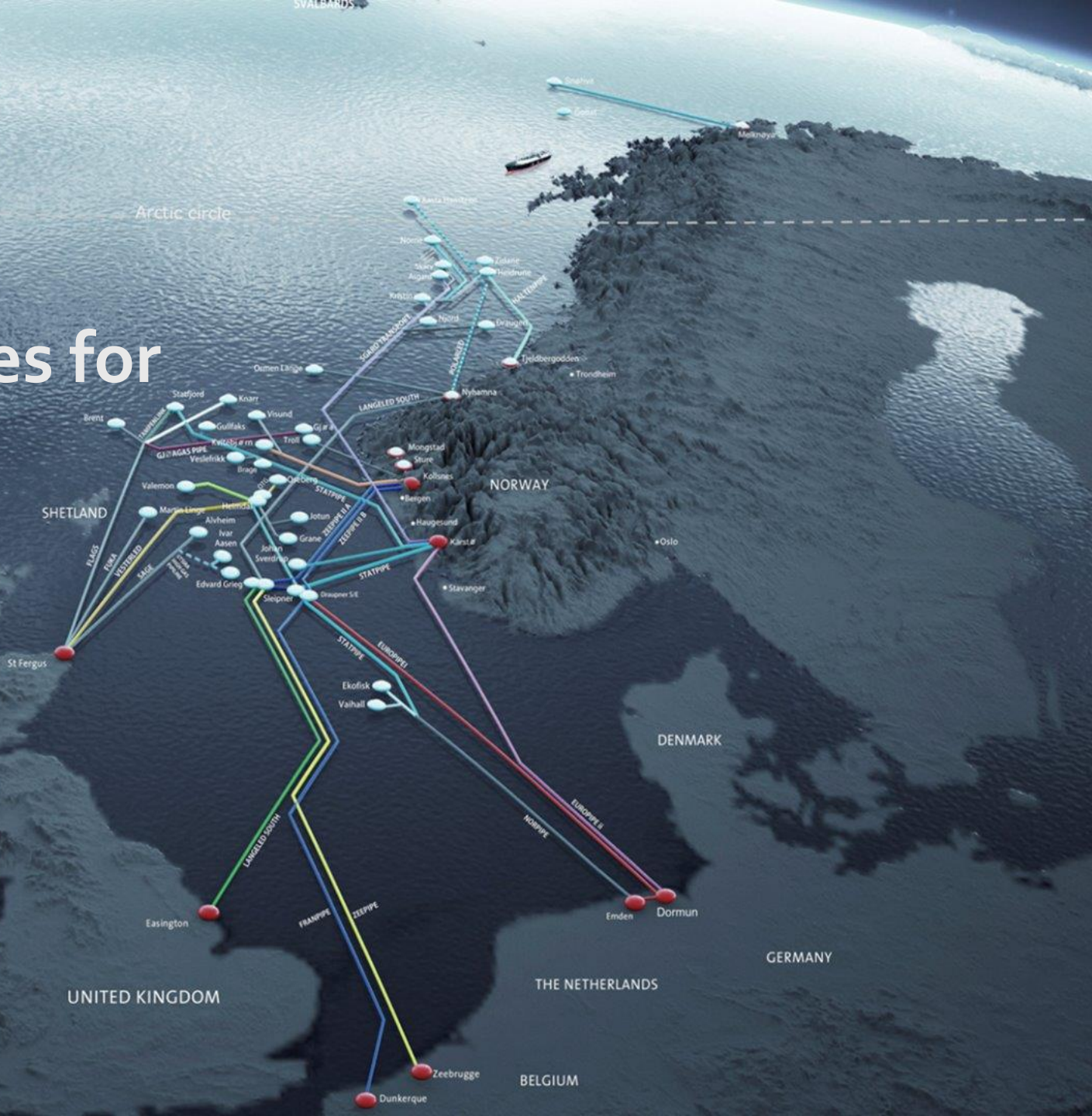


# Properties of pipeline steel for hydrogen transport in Nordic countries

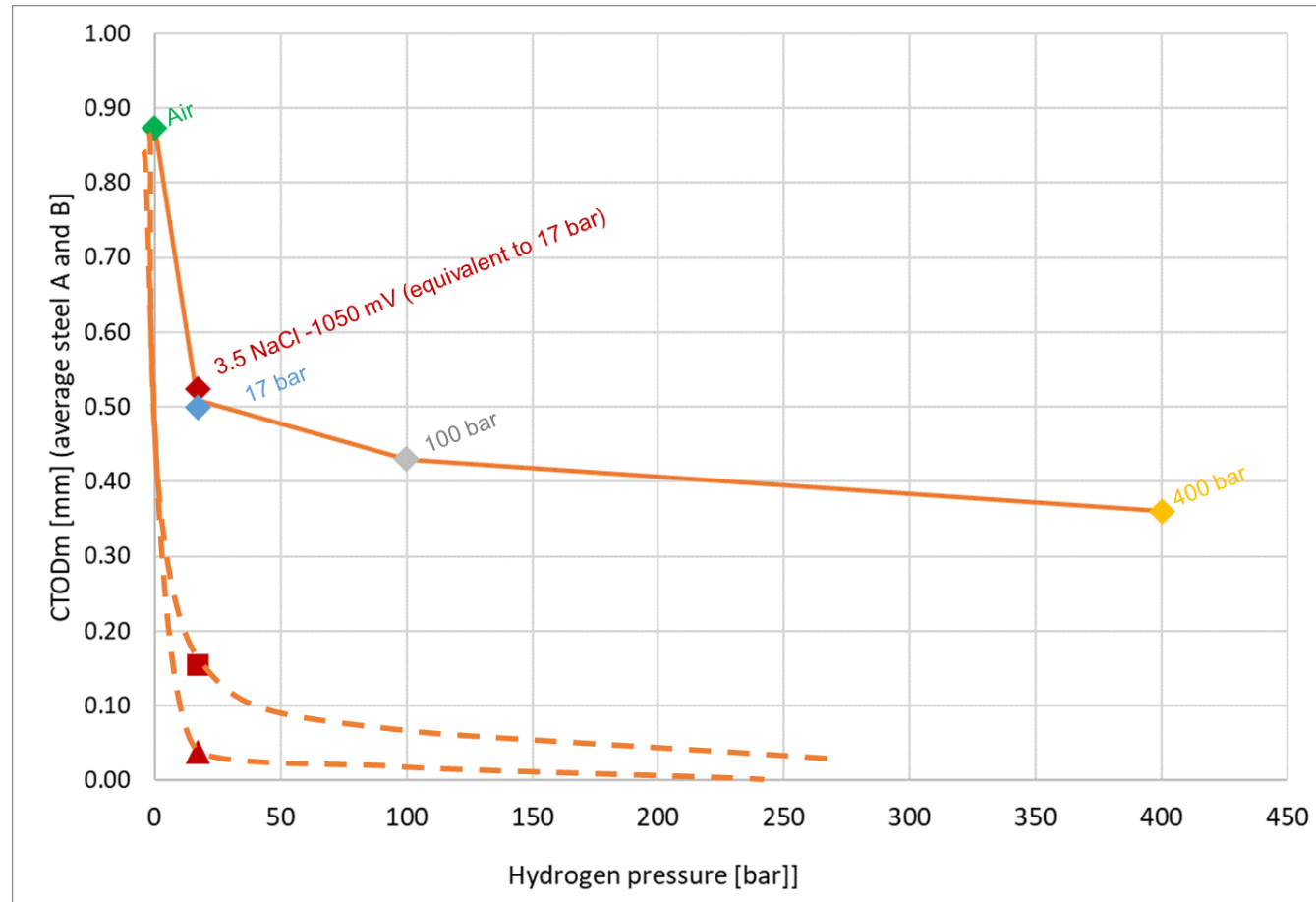
- What is pipeline transportation of gas?
- What pipelines do we have/plan to build?
- What are the special challenges structural integrity wise?
- Materials – what alternatives do we have?
- Can we be able to mitigate hydrogen embrittlement?
- What about the welds?



# Norway: 8900 km of subsea pipelines for natural gas transport

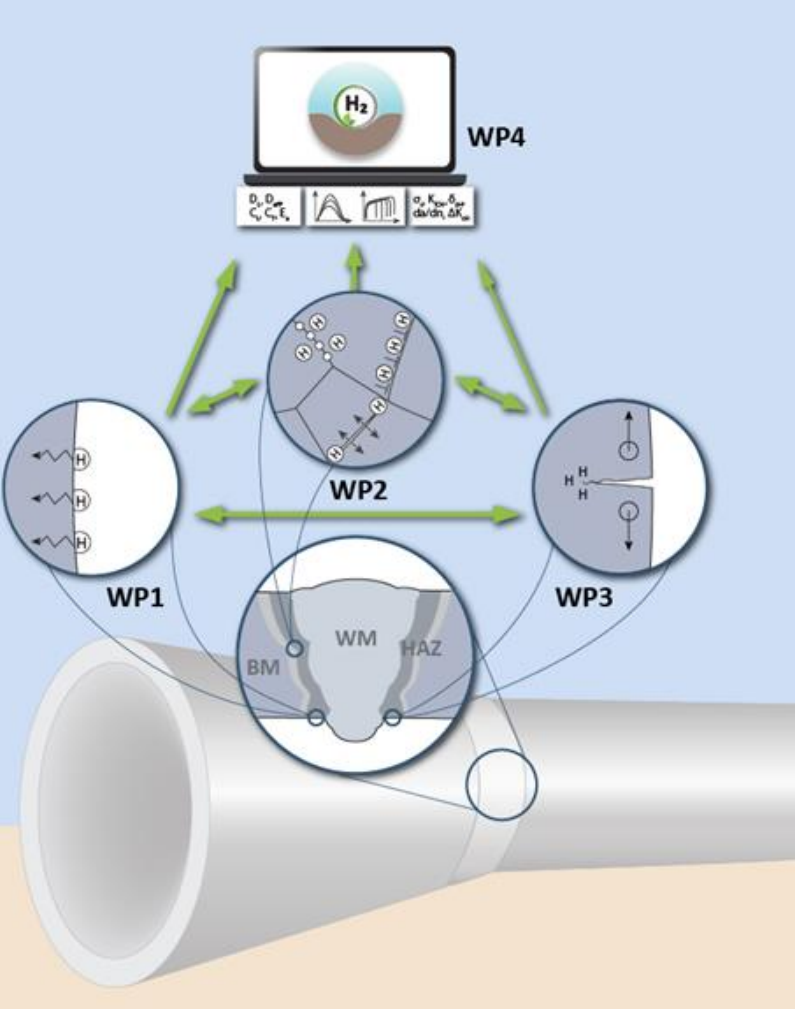


# Fracture toughness of pipeline steel in H charging conditions



# The HyLINE II project (2023 – 2027)

– focusing on welded joints



**ReSistH2** - Robust metal barriers for safe use of hydrogen infrastructure (2025 – 2029)



# How to manage this challenge?

## — Hydrogen embrittlement

