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 structure the special
- 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

DENMARK

GERMANY

THE NETHERLANDS

UNITED KINGDOM

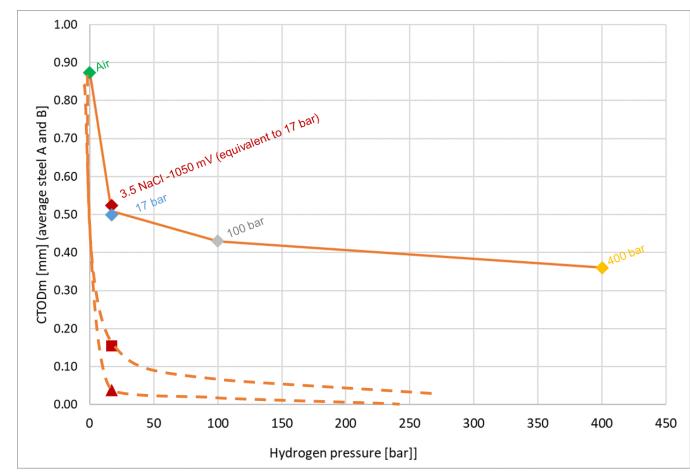
SHETLAND

^{ge} BELGIUM

NORWAY

ALEMANDS

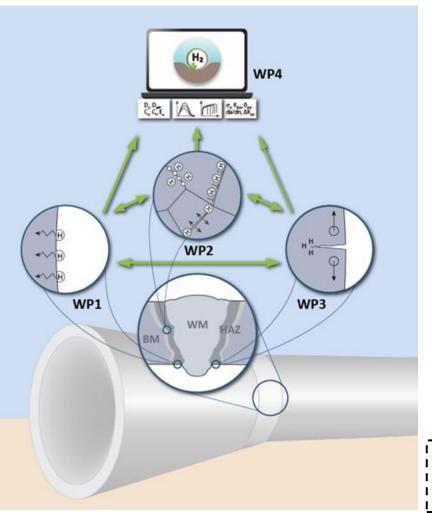
Fracture toughness of pipeline steel in H charging conditions



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The HyLINE II project (2023 – 2027) – focusing on welded joints

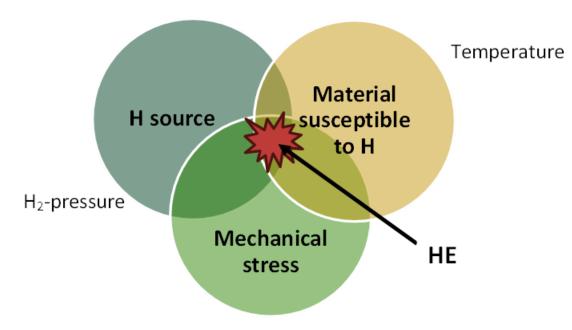




ReSistH2 - Robust metal barriers for safe use of hydrogen infrastructure (2025 – 2029)

How to manage this challenge?

— Hydrogen embrittlement



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