

Online webinar

Hydrogen embrittlement & Pipeline integrity



Dec. 2, 2025



12:00 - 1:00PM
CET

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HyFit

The conversion of Belgium's natural gas transmission steel grid for **hydrogen transport and storage** is key to the nation's decarbonization goals and the **European Green Deal**. This transition requires confirming the grid's **fitness-for-service**, as hydrogen absorption causes material degradation, specifically **hydrogen embrittlement (HE)**. We look at the base metals but do not forget the welds. **Acceptance tests** that were carried out in the past may need to be re-evaluated for **future hydrogen transport**.

HySource

To ensure the **safe conversion** of the natural gas grid for hydrogen transport, this project develops and evaluates **mitigation strategies**. The core focus is on adding **gaseous inhibitors** to the hydrogen stream to reduce hydrogen uptake in the pipeline steel. This involves fundamental research on inhibitor efficiency and concentration.

Schedule

introduction by Prof. Kim Verbeken (UGent) and Prof. Wim De Waele (UGent)

Presentation by ir. Jubica (UGent) and ir. Laura De Pue (UGent)

Concluding remarks by dr. Julien Schweicher (Fluxys)

Q&A

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