



25th world gas conference  
"Gas: Sustaining Future Global Growth"

# Introduction WOC3

## Study Group 3.1

Strategic Gas Transmission  
Infrastructure Projects

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Venue: Kuala Lumpur



Patron



Host



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# Strategic Gas Transmission Infrastructure Projects

- Scope  
To share share lessons learned and practices from strategic gas transmission infrastructure projects (pipelines and compressor stations) and the construction of pipelines under extreme conditions



Seagrass "Posidonia Oceanica"

# Strategic Gas Transmission Infrastructure Projects

## ■ Study Report

- 9 Strategic Pipeline Systems Studied
- Horizontal drillings, micro tunnelling and role of inline inspection analysed
- Project management as critical success factor, lessons learned
- Interaction between neighbouring networks, domino effects, case study North-West Europe
- Tariffs and regulations as major driver or as treat for new investments, a comparison
- Global impact of major incidents on strategic pipelines, 3 case studies



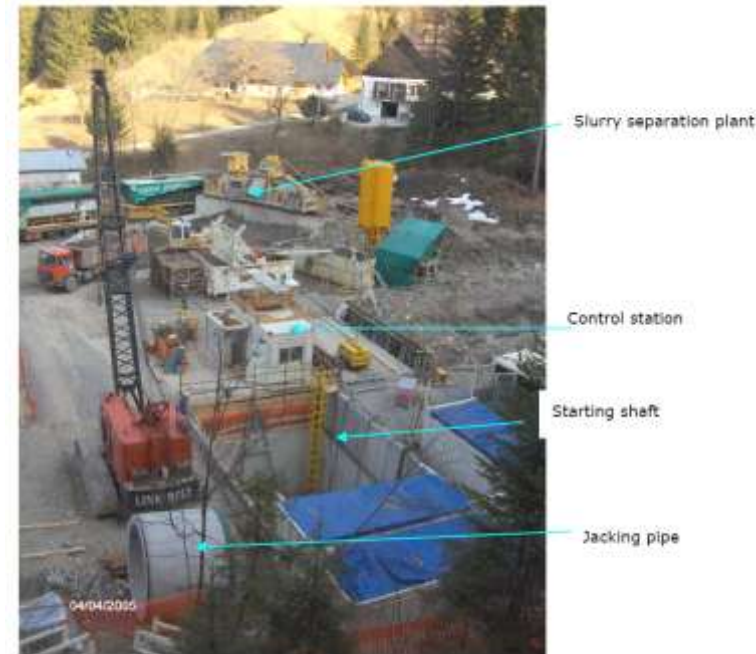
Direct pipe, 533 meter, 48"

# Strategic Gas Transmission Infrastructure Projects

## Final Conclusions (1)

- Project Management / Front End Loading is often under-estimated. Reduction of expenses on resources, scope definition, risk management, planning, estimating and contracting strategy is often penny wise pound foolish. Practical realities and critical success factors are given.
- Strategic Pipeline Projects
  - Front End Loading takes 1/2 years up to 8/10 years
  - Authority engineering/Permitting most significant parameter in total lead time. EIA major issue.
  - Risks are taken by having FID before all permits are in place.
  - Part of severe conditions can be avoided by new technologies; horizontal drillings, micro-tunnelling and direct pipe borings are developing very fast.

Overview of the working site

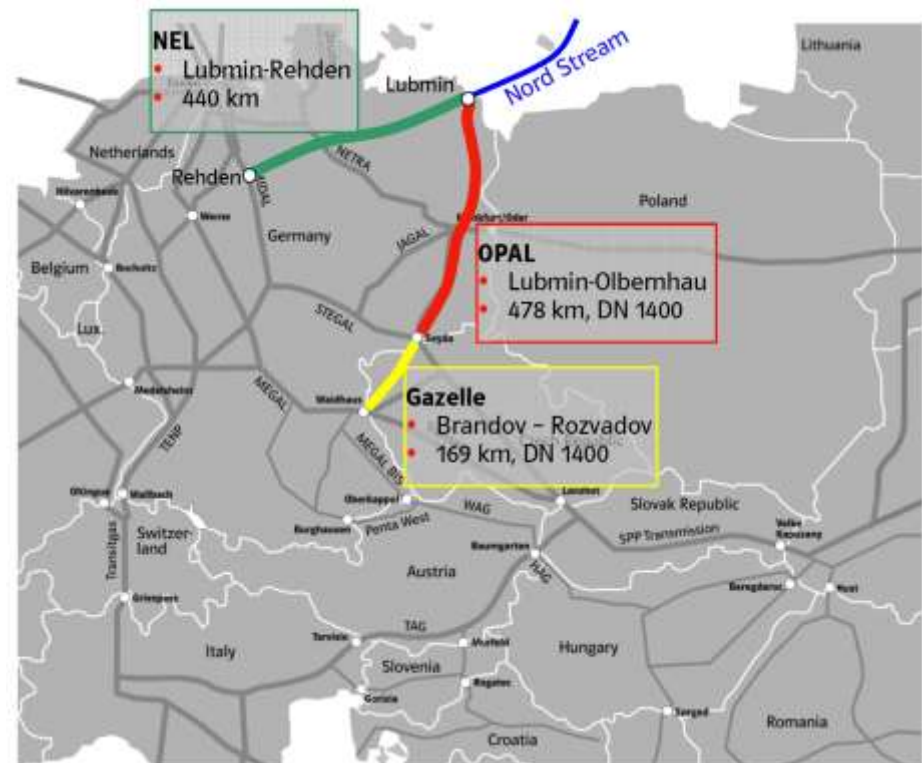


Inside the starting shaft

# Strategic Gas Transmission Infrastructure Projects

## Final Conclusions (2)

- The completion of Nordstream triggers a series of related investment projects in Germany, Netherlands, Czech Republic, Slovakia (e.g. NEL, OPAL, Gazelle, Storages) in the same order of magnitude as the investment in Nordstream.
- A brief comparative analysis shows marked differences in regulatory systems around the world. A general conclusion is that the more regulation is introduced, the less the market can do its job, and therefore the more regulation will be required.
- Three major incidents with a global impact have been described. Open and transparent communication towards the public and the authorities is a must for the gas industry. Yes, there are risks as in every industry, but they are manageable.



Route of pipelines OPAL, Gazelle and NEL

# Strategic Gas Transmission Infrastructure Projects

## Closing remarks

- A tremendous amount of knowledge, experiences, lessons learned and practical solutions is available. The challenge is getting the people together and share this information in the best interest for the gas industry.
- Thanks to all participants of Study Group 3.1 for their contribution in submitting a good report to IGU.

