Nord Stream
The new gas supply route for Europe

FACTS
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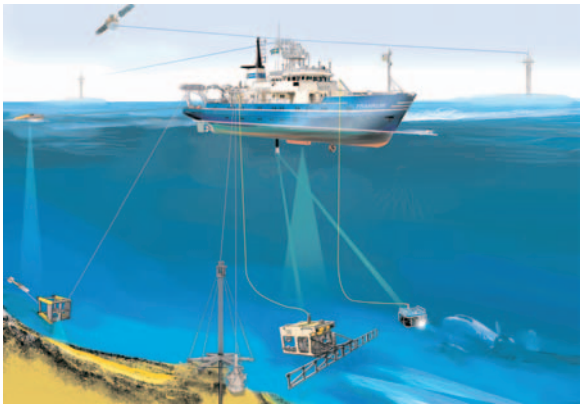
FACTS ABOUT THE NATURAL GAS PIPELINE ACROSS THE BALTIC SEA

NORD STREAM IN DIALOGUE: SAFE MUNITIONS HANDLING WITH EXPERTS AND PUBLIC IN TURKU

Safe installation and operation of the natural gas pipeline across the Baltic Sea were key issues during several Nord Stream events held in October in Turku, Finland.

Nord Stream's second munitions seminar, held at the Forum Marinum maritime centre, was the main event. Among the subjects discussed were munitions screening survey results from the past four years, survey techniques and evaluation and classification of findings, as well as munitions clearance and related impacts on pipeline installation.

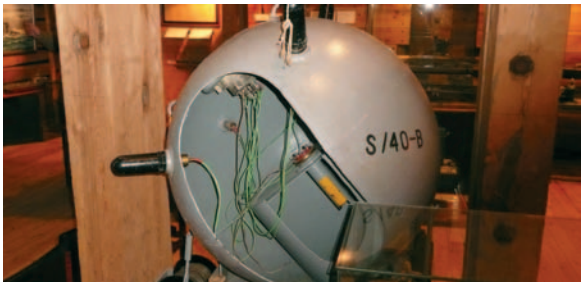


The seminar convened authorities involved in Nord Stream's environmental impact assessment and munitions experts from all Baltic Sea countries, including Sweden's Mine Warfare Data Centre and the Finnish and Danish navies. Ola Oskarsson, Managing Director of the Swedish survey company Marin Mätteknik AB, outlined munitions clearance techniques. Chris Mengehini, Permits Liaison Engineer at Saipem, explained barge anchoring and pipeline installation under provision for munitions and cultural heritage finds.

Peter Skjellerup and Henriette Hjorth from Rambøll addressed Nord Stream's approach to chemical munitions. In addition to conventional munitions screening, more than 100 sediment and pore water samples were taken along the selected pipeline corridor east of Bornholm.

Verifin (Finnish Institute for Verification of the Chemical Weapons Convention) and DHI (Danish Hydraulic Institute) analysed these samples in 2008. NERI (National Environmental Research Institute, Denmark) assessed the analysis results and deemed the route east of Bornholm as safe for pipeline installation.

While visiting the 'mine museum', guided by former Finnish navy commander Eero Auvinen, participants had a chance to see mine-clearing equipment and the different types of mines that have been found in the Baltic Sea.



At the same time, Nord Stream brought its Pipeline Information Tour bus to town and held an information event for local officials and representatives of the business community offering details on aspects of the pipeline. The bus stop was timed with the 30th annual Herring Festival in Turku, which attracts around 80,000 visitors each year.

THE ROLE OF NATURAL GAS IN EUROPE'S FUTURE ENERGY MIX

Interview with Dr Manfred Fischedick

What are the main challenges facing EU countries with regards to their future energy supply?
Fischedick: The biggest challenges facing today's society are climate protection and security of supply. Over the long term, climate protection will put emphasis on a substantial change in the energy mix, with a strong focus on sources of renewable energy and energy saving.

What's the current role of natural gas in the energy mix across EU countries today, and how do you think this will develop in the future?
Fischedick: Natural gas currently accounts for an approx. 24 per cent share of the European energy mix. Thanks to their high degree of effectiveness, natural gas applications (e.g. gas and steam plants) are among the most efficient options for energy use. They will be in higher demand in the future. The prospects for additional technologies, such as the gas heating pump, may also create additional opportunities for natural gas in the future.

When it comes to climate protection and international regulation, in which way do you think natural gas could contribute to reducing CO_2 emissions?
Fischedick: As natural gas is the fossil fuel with the lowest carbon content, it can be used as a means of creating economies based on solar energy and the saving of energy.

What are the main benefits of natural gas for industries and consumers in Europe?
Fischedick: The biggest advantages are the lower carbon levels, the flexible and highly efficient methods for its use, and the clean combustion. This makes natural gas a source of energy with a future.

Dr Manfred Fischedick is acting President of the Wuppertal Institute for Climate, Environment and Energy (Germany). The institute focuses on application-oriented sustainability research, addressing the major challenges related to sustainable development, such as climate change and resource shortages.

SMALL IMPACT, HUGE INPUT

There is concern about the impact the Nord Stream gas pipeline will have on the Baltic Sea environment because of its size. In fact, the project's footprint will be quite small, while its contribution to the European Union's (EU) energy security will be significant.

Environmental impact will be minimised by Nord Stream's commitment to technical and environmental safety through precise planning, surveys and route optimisation.

In contrast to its size and impact, the contribution of Nord Stream is of decisive measure. At full capacity, the pipeline will deliver as much gas per year as 655 liquefied natural gas (LNG) tankers, with substantially fewer carbon dioxide emissions.

Nord Stream gas will help secure energy for the EU for decades, as it is designed to deliver up to 25 per cent of the 195 billion cubic metre import gap that the EU will face by 2025. The pipeline is also essential if the EU is to achieve its target of reducing green house gas emissions by 20 per cent by 2020.

Please visit:
www.nord-stream.com/gas-for-europe.html

- Nord Stream will be 1,220 kilometres in length, with a diameter of 1,220 millimetres (48 inches).
- Nord Stream will take up only 3.7 square kilometres or 0.001 per cent of the total area of the Baltic Sea, which is 386,000 square kilometres.
- The volume of Nord Stream is 14.7 million times smaller than the total volume of the Baltic Sea.
- The diameter of the Nord Stream Pipeline is no bigger than that of a large hula hoop.
- Nord Stream will take up as much space in the Baltic Sea as a banana in an area the size of four football pitches.

NORD STREAM ENSURES SAFETY THROUGH THREE-LEVEL QUALITY CONTROL

Nord Stream's mission is to build and operate a safe and efficient offshore gas pipeline. The European-Russian joint venture ensures safety through implementation of a quality assurance and quality control (QA/QC) system, carefully monitored construction and operation, as well as consistent adherence to the highest international safety standards.

In order to meet these standards, Nord Stream has engaged independent certification institutions such as the Norwegian company Det Norske Veritas (DNV). The company uses DNV standards for its pipes, which are subject to a three-level QA/QC system controlled at the levels of Nord Stream's contractors, DNV and Nord Stream itself. DNV will issue Nord Stream a certificate that will serve as a hallmark for external stakeholders once the pipeline is on stream.

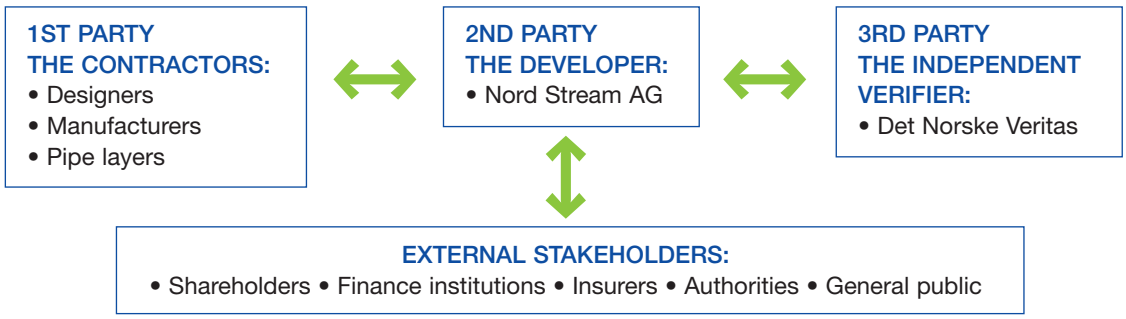
DNV acts as an independent third party whose role is to confirm that the first and second parties have produced a pipeline in accordance with the technical standard, the DNV-OS-F101. The certificate will be issued as a proof of compliance in 2011.

Quality of manufacturing, installation and operation is controlled with both internal (Nord Stream) and independent (DNV) inspections. DNV issued its first technical certification for an offshore pipeline in 1976. The DNV Pipeline standard has since become a leading international standard.

DNV has been working with the pipeline project across the Baltic Sea since 1999, so DNV's experience with earlier concepts and phases is irreplaceable expertise. Nord Stream and all relevant national authorities agreed that the DNV code will be used for the project.

Once Nord Stream is operational, its maintenance procedures will guarantee the pipeline system's safety standards. The pipeline system will be controlled by remote around the clock. Remote devices equipped with technology that can detect any leak will travel along the entire length of the pipeline interior and perform visual surveys of the pipeline exterior. In case of irregularities, Nord Stream's staff will be able to implement immediate and direct safety features.

NORD STREAM'S THREE-LEVEL QUALITY CONTROL SYSTEM



Read more at: www.nord-stream.com/safety-standards.html

ENERGY SECURITY THREATENED BY UNDERINVESTMENT

The Natural Gas Market Review 2008, which assesses trends and projected changes in the global gas economy over the next five to seven years, was recently published by the International Energy Agency (IEA). The report states that the security of Western countries' energy supplies is endangered because of no sufficient investment.

All IEA countries are set to import more gas from distant and expensive gas sources, but, as with the oil market, investments are insufficient for the medium term, particularly in the years beyond 2010. The principal reasons behind underinvestment are skyrocketing costs, a shortage of qualified engineers and risks in producer countries. Project delays pose an additional threat to security of gas supplies.

Nobuo Tanaka, Executive Director of the IEA, stressed in the report's foreword that adequate investment in supply infrastructure is a major issue for long-term security for both consumers and producers. Natural gas remains a key fuel in meeting growing energy demand, especially in power markets, and its lower carbon footprint is an important contributor to climate change goals.

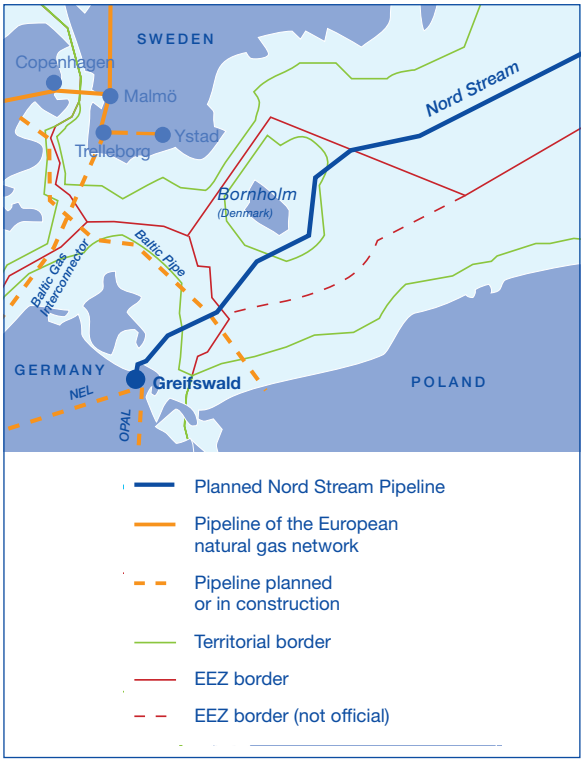
OPTIMISED ROUTE AROUND BORNHOLM PRESENTED

Nord Stream strives to find the safest route possible with the least environmental impact. Therefore, the pipeline developer has introduced an optimised route around Bornholm (Denmark).

The so-called S-Route was developed and investigated following a request earlier this year by the Danish authorities to evaluate an alternative route south of the island. The findings were compared with the previous northern route and the process yielded a decision in favour of the southern alternative.

The S-Route is the result of a careful assessment of many factors. It proves advantageous in terms of minimising environmental impact since seabed intervention work would be reduced significantly in comparison to a route north of Bornholm. The route virtually avoids nature preserves, areas of dense marine traffic and fishing, as well as areas important for tourism.

On the technical side, the overall length of the Nord Stream Pipeline will accordingly be shorter and there will be fewer cable crossings, thereby reducing both initial investment and operating costs.



DID YOU KNOW ...

- If the share of gas used for the EU-27's electricity production was raised by one percentage point with a proportionate cut in coal usage, CO_2 emissions could be reduced by 12 million tons per year. This represents approximately the total annual CO_2 emissions of the Swedish industry in 2005.
- Nord Stream is not the only Baltic Sea gas pipeline under development. Polish state-owned oil and gas company PGNiG for example has commissioned a survey for Baltic Pipe, which would transport gas from Norway to Poland.
- Nord Stream's interaction with the governments and citizens of the Baltic Sea states yielded around 200 comments, which have all been addressed in a White Book available at: www.nord-stream.com/white-book.html

NORD STREAM'S AGENDA

November 25–26 Nordic Climate Solutions, Copenhagen, Denmark

November 27–29 Conference "Energy Challenges in Northern Europe", Turku, Finland

November 30–December 2 Baltic Development 10th Anniversary Summit, Copenhagen, Denmark

For subscription to subsequent issues of "Nord Stream: Facts", please go to: www.nord-stream.com/newsletter.html

Should you have any comments or requests, we look forward to hearing from you.

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