

# FACTS

NEWSLETTER ABOUT THE NATURAL GAS PIPELINE THROUGH THE BALTIC SEA

ISSUE 16 / DECEMBER 2010



About 60 percent of Line 1 of the Nord Stream Pipeline system was completed by early-December. The Castoro Sei (the primary pipelay vessel pictured above) is currently laying the pipeline in Danish waters. Meanwhile, the Solitaire is working in Finnish waters.

## Construction of the Nord Stream Pipeline Continues to Progress on Schedule

Since spring of this year, building activities have commenced as planned

In April of 2010, Nord Stream began constructing the first of its two natural gas pipelines through the Baltic Sea. As of early December, 60 percent of Line 1 had been completed. This line will begin transporting gas from Russia to customers in the European Union in late 2011. "Everything is going according to plan, on budget and on schedule," said Nord Stream's Managing Director Matthias Warnig. "This has been made possible by exemplary teamwork and collaboration among our partners and suppliers across Europe and in Russia."

In mid-November, Nord Stream had completed half of Line 1, and this milestone was celebrated on Saipem's Castoro Sei lay-barge when a pipe segment labelled "600 km" was welded onto the pipeline. Saipem's Special Projects Director Guido Giorgi said, "This unique milestone is the result of complex but highly efficient preparation and installation engineering processes." The Castoro Sei started constructing

Line 1 in April in the Swedish Exclusive Economic Zone (EEZ), laying pipe in an easterly direction into Finnish waters before laying down that section of the pipeline and moving into Russian waters. There, it laid sections of Line 1 and 2, and handled shore-pull activities at Portovaya Bay, Russia. Line 1 was pulled ashore on July 28, and Line 2 on August 4.

### Ahead of Schedule

Castoro Sei then moved south to pick up another section of Line 1 in German waters where Saipem's Castoro Dieci had completed the difficult 28-kilometre shallow water section of both pipelines in the Bay of Greifswald. The two pipeline segments were pulled ashore on July 1 and July 17. The first 28-kilometre pipeline segment was completed in mid-August, and the second by October 3. "If anything, our plans were conservative: It turned out that Castoro Dieci did not need all of the time that we had allowed for it to complete the shallow-water German landfall section, and it

was demobilised four weeks earlier than originally planned," said Nord Stream's Deputy Director Construction Ruurd Hoekstra. By the beginning of October, much progress had also been made at the German landfall, where valves and PIG (pipeline inspection gauge) traps were installed.

The world's largest pipelay vessel, the Allseas' Solitaire, picked up the 7.5-kilometre segment of Line 1 laid by the Castoro Sei in the Russian landfall section in September. Since then, it has continued in a westerly direction through the Gulf of Finland and it will reach kilometre point 300 by the end of this month. The Solitaire will also lay the same section of the Line 1 from May to September 2011. This lay sequence was developed by Nord Stream and agreed with the Finnish and Russian authorities to meet environmental restrictions, while enabling the construction vessels to work as efficiently as possible. For example, construction will not take place in the north-

eastern part of the route in winter, when the sea is covered by ice, to ensure that breeding seals are not disturbed. "The meticulous plans which we agreed with governments throughout the Baltic Sea region are becoming a reality, and we are carefully monitoring every step of construction to make sure that the pipeline meets high quality, safety and environmental standards," explained Warnig.

### Monitoring Impacts

Nord Stream developed national environmental and social monitoring programmes for Russia, Finland, Sweden, Denmark and Germany that are compliant with the permit conditions in each country. The five national environmental monitoring programmes, each aimed at documenting the environmental impacts from the construction and operations of the pipelines in the respective jurisdictions, were presented in Nord Stream's Overall Environmental and Social Monitoring Report at the end of October. (More information on page 2).

# Environmental Monitoring

In April 2010, Nord Stream began the construction phase of its natural gas pipelines through the Baltic Sea. Consequently, it also entered a new phase of environmental impact management with new requirements for documentation. Nord Stream developed national environmental and social monitoring programmes for Russia, Finland, Sweden, Denmark and Germany. The programmes were drawn up in compliance with the permit conditions from each country and finalised in consultation with relevant national authorities.

Baseline studies were conducted prior to construction to have reference data of the Baltic Sea's flora and fauna in its "original" state. More than 20 survey companies are currently conducting surveys of 16 scientific subjects, such as water quality. About 50 locations along the route will be testing water quality alone. All of the findings will be analysed in internationally recognised laboratories and Nord Stream will report the results to the national environmental authorities in each country. Monitoring will take place throughout construction and operation of the pipelines.

The Overall Environmental and Social Monitoring Programme is available for download at: [www.nord-stream.com/monitoring-programme.html](http://www.nord-stream.com/monitoring-programme.html)



## Birds

Bird populations are observed from land, ship and planes to assess if they have been affected by increased turbidity or construction activities.

## Water Quality

Turbidity, or murkiness caused by suspended sediment, is monitored at several key locations. Turbidity is a good measure of water quality.

## Munitions

Conventional munitions found along the route were cleared in accordance with strict guidelines prior to pipe laying. Traces of chemical warfare agents present in the sediment in some areas are monitored to ensure they are not spread during construction work.

## Benthic Fauna

Benthic, or aquatic fauna, is monitored where dredging or trenching has disturbed the seabed to follow its recovery. Growth on the pipeline itself is also recorded.

## Water Flow

The water movements around the pipeline are monitored to verify that the natural currents are not disturbed or changed by the structure.

## Air, Light & Noise

At the landfall areas where construction activities take place close to where people live, air emissions, light and noise levels are tested.

## Cultural Heritage

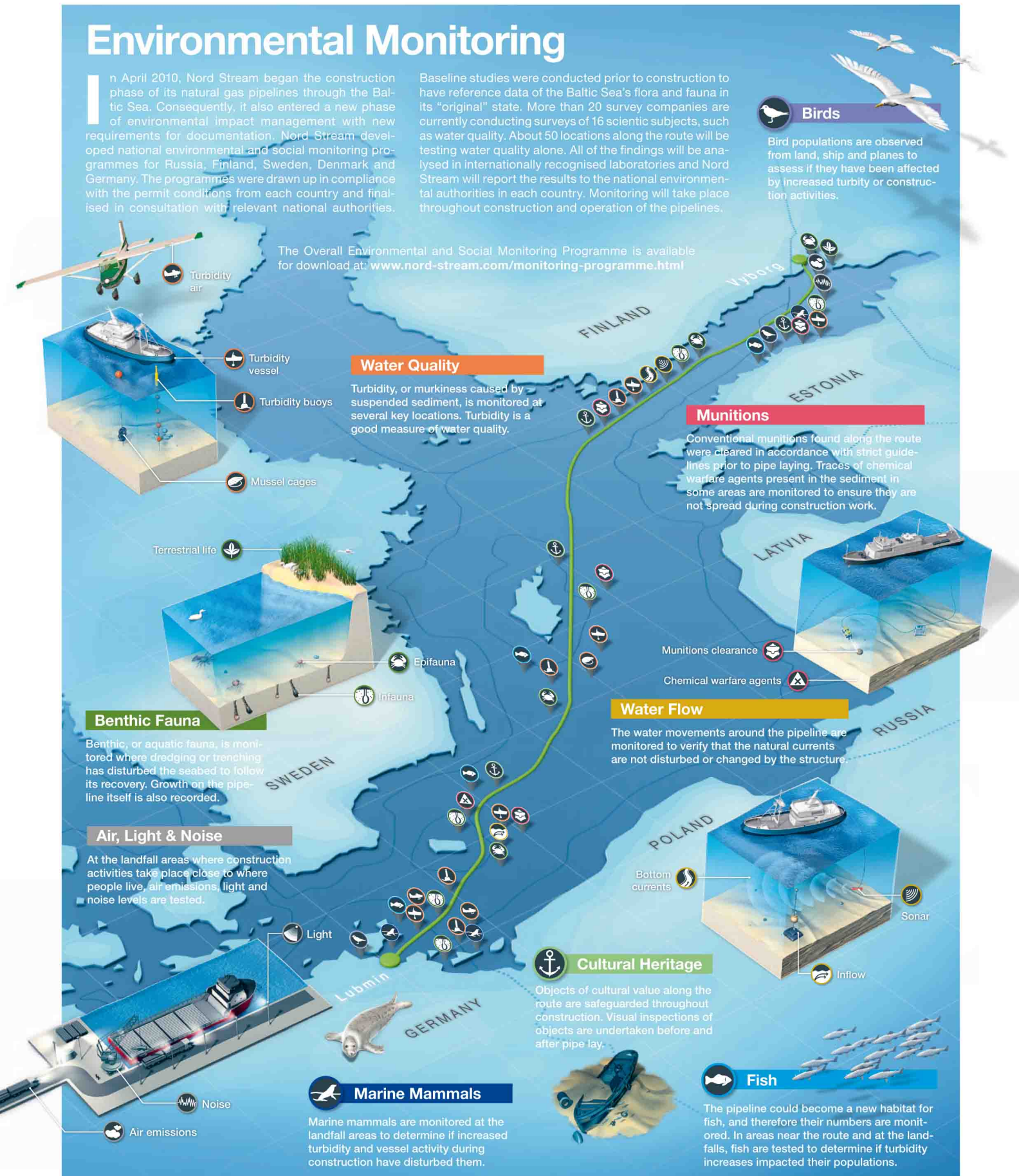
Objects of cultural value along the route are safeguarded throughout construction. Visual inspections of objects are undertaken before and after pipe lay.

## Marine Mammals

Marine mammals are monitored at the landfall areas to determine if increased turbidity and vessel activity during construction have disturbed them.

## Fish

The pipeline could become a new habitat for fish, and therefore their numbers are monitored. In areas near the route and at the landfalls, fish are tested to determine if turbidity increases impacted their populations.







In mid-November, Nord Stream completed half of Line 1. This milestone was celebrated on the Castoro Sei when a pipe segment labelled "600 km" was welded onto the pipeline. In early December, about 60 percent of Line 1 had been completed.

## Looking Back at 2010, and Forward to 2011

Interview with Matthias Warnig, Managing Director of Nord Stream AG

**FACTS:** 2010 has been an eventful year for the company. What are some of the highlights?

**MW:** Firstly, that we are completely on schedule with construction activities, having completed 60 percent of Line 1 to date. This underscores the exemplary teamwork and collaboration among our many partners and suppliers across Europe and Russia. It also highlights the project planning skills of our experts in the company.

For example, we were able to begin construction in April as planned because the basics were in place, meaning 800 kilometres of pipe, or two-thirds of the first 1,224-kilometre pipeline. This preparation enabled us to maintain a 24-hour construction schedule from that point onward. This was made possible as a result of a well-planned logistics concept.

Additionally, we have presented our Overall Environmental and Social Monitoring Programme, not only to the five countries from which we received permits, but also to the four other nations surrounding the Baltic Sea. The information we will compile through surveys over the next number of years will be shared

with authorities in these countries, and we believe it will supply them with vital information about the state of the Baltic Sea.

**FACTS:** Nord Stream received the 2010 German Logistics Award for its logistics concept in October this year.

What does it mean for Nord Stream to have won this prestigious award?



Many milestones were achieved in 2010, including the shore pull of Line 1 and Line 2 in Germany (above) and in Russia.

**MW:** I believe the award confirms and acknowledges the task that Nord Stream has undertaken – constructing a pipeline with the highest level of efficiency and quality. It also underscores the highly professional achievements of our logistics team. I would like to thank them again for their hard work. The award is also a positive sign for Nord Stream because it says: This logistical plan is best practice and we've received a

seal of approval for it from an independent body. Nord Stream is the youngest winner on the list of companies recognised for their logistics concept since 1984 by the German Logistics Association. The jury selected our project for its magnitude, and also for its environmentally friendly logistics of short transport routes, which significantly reduce carbon dioxide emissions.

**FACTS:** Phase I financing for the project was completed in March of 2010 with a positive response from lenders. Nord Stream was 60 percent oversubscribed for the 3.9 billion euros funding. Is the Phase II financing also well underway?

**MW:** The level of interest is very high with initial subscription levels of more than 4 billion euros, which means more than 50 percent oversubscription. A total of 2.5 billion euros are needed to

finance the second phase of the Nord Stream project. I am delighted with the level of interest shown in the project. Nord Stream's Financial Director Paul Corcoran hopes to move quickly to sign Letters of Commitment with selected banks, and he believes we are absolutely on course to complete this process in December 2010.

**FACTS:** What are the biggest challenges ahead for 2011?

**MW:** That's easy to answer, as we have only one goal: That is to begin delivery of gas in autumn! Everyone at Nord Stream, along with all of its partners, contractors and suppliers are working diligently toward this goal. And, we are on track for achieving it.

We expect to complete Line 1 in late spring of 2011. The first gas delivered by Nord Stream through Line 1 will be celebrated together with all of the company's supporters at a grand event in Germany at the landfall site in autumn.



**Matthias Warnig,**  
Managing  
Director of Nord  
Stream AG



## IN BRIEF

### SEASON'S GREETINGS

Dear FACTS Reader,

Nord Stream would like to thank you for your continued interest in the Nord Stream project and FACTS.

Nord Stream has included a 2011 calendar in the mailing of this issue. This calendar depicts some of the highlights of the construction process from 2010. We hope you enjoy it.

The calendar, like all of our publications, has been printed on environmentally friendly paper that is Forest Stewardship Certified. This means the paper stems from well-managed forests.

Nord Stream sends you and your family Season's Greetings, and wishes you a happy and peaceful New Year.

Yours Sincerely,

Ulrich Lissek  
Communications Director



> [www.nord-stream.com/publications](http://www.nord-stream.com/publications)

### FAST FACTS

**1** 95% of all transport handled by ship & rail. Nord Stream's logistics chain uses ecologically friendly means of transport.

**2** 200,000 tonnes of CO<sub>2</sub> are saved. Short trips from the stockyards to the pipelaying vessels results in reduced emissions.

**3** Investments of more than 100 million euros were made in the infrastructure of the ports involved in the project.

## First Pipes Arrive from Japan

Sumitomo began delivering pipes for Line 2 in October

Since mid-October, Sumitomo has been delivering pipes for Line 2 of the Nord Stream Pipeline system. The Japan-based company is responsible for providing 10 percent, or approximately 11,000 pipes, for Line 2. The first shipment of about 3,300 pipes has arrived at the EUPEC PipeCoatings plant in Dunkirk, France. EUPEC France is responsible for the carrying out the inter-

nal flow coating and the external anti-corrosion coating for all Sumitomo pipes, as well as their shipment to the concrete coating plant in Mukran on the German Island of Rügen. For the start of this new supply chain, Mülheim Pipecoating handled one lot of coating. From Dunkerque, the pipes are currently being transported by pipe carrier vessel and from Mülheim an der Ruhr, Germany by train

to the plant in Mukran. In January, Nord Stream commissioned three companies to supply the 1 million tons of steel pipes necessary for Line 2. German Europipe was awarded 65 percent of the contract valued at 1 billion euros, and the Russian OMK 25 percent, and Sumitomo 10 percent. "Sumitomo has a solid track record in offshore projects," says Henning Kothe, Project Director at Nord Stream.

## Supporting Local Causes

Nord Stream assists the Rodnichok Children's Home

Social responsibility to Nord Stream means not only creating sustainable development, but also making an essential contribution to society, the environment and cultural life in the Baltic Sea region. Along with its varied sponsorship activities in the Baltic region, Nord Stream is also providing financial support to the Rodnichok Children's Home, which is located near the start of the pipeline in Vyborg, Russia. The orphanage provides a home for 60 children from ages



A drawing from one of the children.

3 to 17, and was founded in 1993 in the Kalinina region, near Vyborg. Rodnichok Children's Home is primarily supported by the Leningrad region, as well as by private companies from the surrounding area. The fa-

cilities of the well-managed and organised home are in need of upgrading and refurbishment. Nord Stream's contributions will enable the orphanage to make some of these vital renovations. In October, Nord Stream provided the children with paper and art supplies, and asked them to create images that reminded them of Christmas. All of the children submitted drawings, 10 of which were selected for Nord Stream's 2010 Christmas cards. The 10 cards can be viewed at <https://e-facts.nord-stream.com>

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#### NEWSLETTER

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