

Securing Energy Supply through Developing Offshore Energy Infrastructure:

The Nord Stream Pipeline >



Groningen, 28 September 2011

Agenda >

1 **More gas for Europe –**
A project of European interest

2 **Permitting –**
International consultations and national procedures

3 **Conclusion**

Energy infrastructure for Europe >

- > Two parallel offshore pipelines; transport capacity 55 bcm per year
- > Direct and fixed link between Russia's vast gas reserves and the European Union

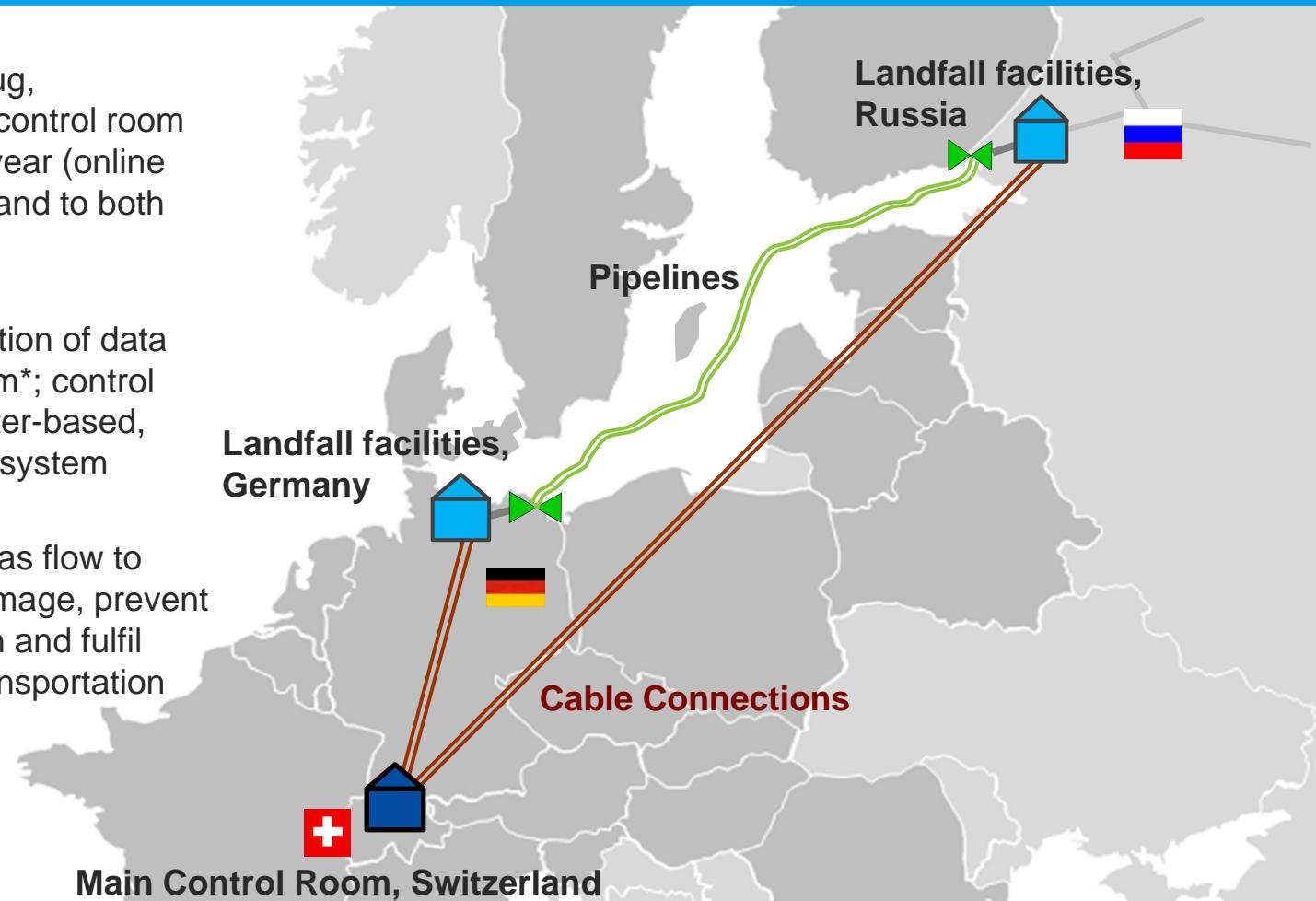
Gas transported by Nord Stream can

- > Provide 26 million European households with electricity and heating fuel
- > Reach consumers already in the last quarter of 2011



Operation of the Nord Stream Pipeline >

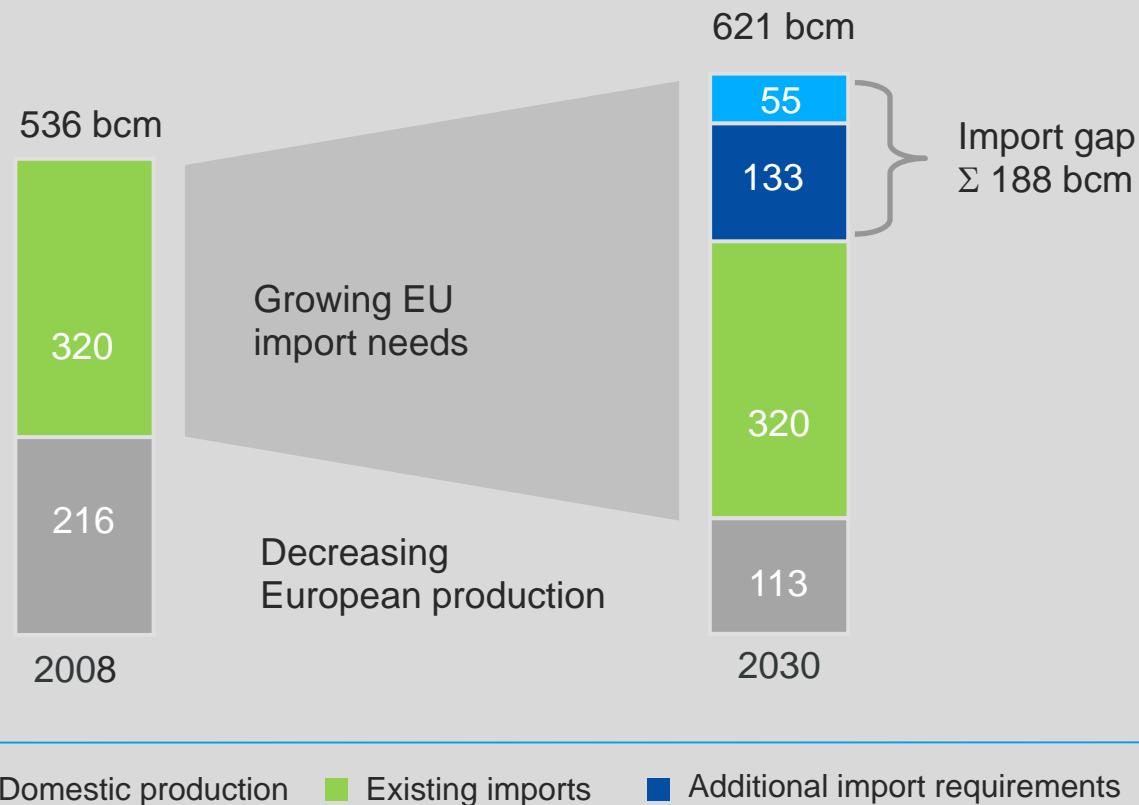
- > Headquarters in Zug, Switzerland: main control room operating 24/7 all year (online data transfer from and to both landfall facilities)
- > Continuous evaluation of data with SCADA system*; control rooms with computer-based, online supervisory system
- > Monitoring of the gas flow to detect possible damage, prevent over-pressurisation and fulfil contractual gas transportation requirements



*SCADA stands for Supervisory Control and Data Acquisition

Meeting the growing need for natural gas imports >

The EU will need 188 bcm* of additional gas imports by 2030



Nord Stream – a project of European interest >



2000
Nord Stream
designated a 'Project
of Common Interest'

2003
Status confirmed

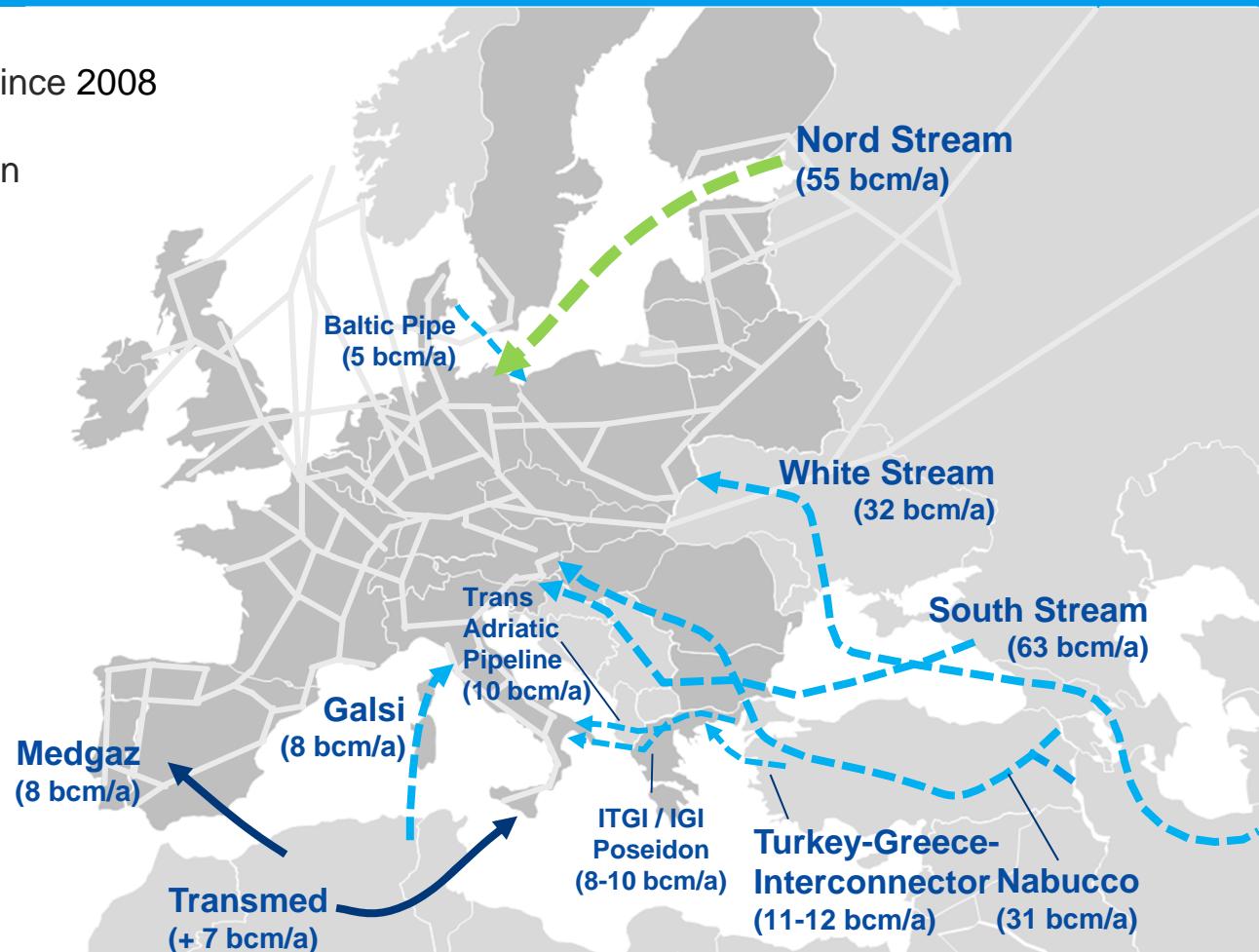
2006
Nord Stream made a
'Project of European
Interest'

2011
Nord Stream
increases European
energy security

- > Recognized by the Commission and European Parliament as one of the most important projects to meet Europe's energy infrastructure needs under the Trans-European Network Energy ('TEN-E') Guidelines
- > In line with the EU's overall energy policy objectives: security of supply, competitiveness and sustainability
- > Additional route, complementing existing networks and other planned pipelines

Additional pipeline transport capacities needed >

- Pipelines put in operation since 2008
- Pipelines under construction
- > Planned pipelines
- European pipeline network



Source: European Commission, Priority Interconnection Plan 2007; Nord Stream

Legal framework: five Exclusive Economic Zones and territorial waters of three countries >

National law
(5 countries involved)

- EIA Directive (excl. RU)
- Construction and operation



Supranational law

- European directives, regulations
- TEN-E guidelines



International law
(9 countries involved)

- Espoo Convention
- UNCLOS
- Helsinki Convention
- (Other) treaties



> Material focus: environment

Unique Espoo consultations >

- > Espoo Convention required the five Parties of Origin to consider whether the project could potentially affect themselves and four other countries ('Affected Parties')
 - 'Normally' each country informs its neighbour with an individual document on potential transboundary impacts
 - From the perspective of each of the five Parties of Origin in the Nord Stream project, there could be up to eight other countries' potential impacts to consider
 - Nord Stream submitted one document (Espoo Report) for all countries involved in favour of transparency and participation of the general public
- > The Baltic Sea has a very strong momentum of identification
 - Baltic Sea as a common ecological, economic and cultural region
 - Identification with the Baltic Sea goes beyond national boundaries
- > No company has ever conducted such comprehensive environmental studies of the Baltic Sea
 - Some 40,000 line kilometres surveyed and 100 million Euros invested
 - Additional 40 million Euros invested in environmental monitoring; 1,000 sampling stations show no unexpected results
 - Studies will be an important basis for further research of the Baltic Sea environment

Transboundary Environmental Report – Espoo Report >

- > Basis for the countries concerned to fulfil their obligations under the Espoo Convention
 - When deciding on a proposed project, a member state must take into account transboundary impact of that project. Therefore, states must perform an EIA and notify and consult each other on all major projects under consideration within their jurisdiction.
- > Result of extensive detailed scientific analysis of the Baltic Sea, describing potential environmental impact of the project along the whole pipeline route
- > On explicit request of the Parties of Origin, “eco regions” were introduced in the Espoo Report
- > Public Participation from 9 March to 8 June 2009 in all nine countries around the Baltic Sea
 - Procedures synchronised: Espoo consultation in nine countries and national consultation periods conducted in the same timeframe



Challenges, limits and boundaries of the Espoo process >

- > Management of expectations of nine countries with different national standards and requirements
 - Final Espoo Report: a compromise
- > Espoo Report written in English and translated into nine languages
 - On average, Espoo Report consists of 2,585.5 pages
 - 935 Espoo Reports printed, 2,073 DVDs produced
- > No project in the Baltic Sea region has ever initiated and maintained such comprehensive cross-border environmental consultations
 - National processes and habits vary significantly from country to country
 - No common general standards and rules for the interpretation and application of regulations and laws such as EU regulations or the Espoo Convention
 - Entire process led to enormous cost and effort for the developer
 - For smaller projects such efforts and especially the cost may be prohibitive

Relevant national legal framework >

Country	Legislation in EEZ/Territorial Waters (TW)	Permits issued
	<ul style="list-style-type: none"> • Federal laws about Internal Sea Water, Territorial Sea, Continental Shelf; Decree of the government 	Construction permit (18 Dec 2009)
	<ul style="list-style-type: none"> • Finnish Act on the EEZ • Water Act 	EEZ permit (5 Nov 2009) Water permit (12 Feb 2010)
	<ul style="list-style-type: none"> • Continental Shelf Act 	Construction permit (5 Nov 2009)
	<ul style="list-style-type: none"> • Continental Shelf Act 	Construction permit (20 Oct 2009)
	<ul style="list-style-type: none"> • Energy Industry Act • Federal Mining Act 	Construction permit TW (21 Dec 2009) Construction permit EEZ (28 Dec 2009) Permit for re-routing (26 Feb and 19 Aug 2010)

Conclusion

- > How Nord Stream contributes to securing energy supply for Europe
- > By investing time and effort to fully understand and comply with various legal requirements
- > By linking Russian natural gas reserves to the European gas transportation network
- > By adding 55 bcm yearly to Europe's import capacity, starting with 27.5 bcm in Q4 2011
- > By making available the environmentally friendliest fossil fuel, safely and reliably

