

Summary - Responses – Espoo-procedure

Office/Departement

Centre for Subsoil Resources and Risk Preparedness

Date

30 October 2019

J no. 2019 - 86445

/ksc

Content

Responses	
Estonia	2
Finland	4
Germany	19
Latvia	25
Lithuania	30
Poland	31
Sweden	52
Other consultation responses received during the Espoo procedure	61
Further responses received from parties of origin and affected parties – Espoo Convention	79
Poland	79
Sweden	85



Responses

Estonia

No.	Consulting party	Response	Answer Nord Stream 2 AG	Answer Danish
				Energy Agency
1	The Estonian Fund	The Estonian Fund for Nature reiterated its position that the proposed	-	Not relevant in
	for Nature	South-Eastern route does not mitigate the problems brought out by the		relation to the
		Fund during the Espoo consultation procedure in 2017. The Nord		transboundary
		Stream 2 gas pipelines project is continually in contradiction with the		impact on the
		international climate objectives, including the commitments of the		environment in
		European Union beforehand and deriving from the Paris Agreement.		Estonia that
				could be caused
				by a proposed
				activity taking
				place in the
				Danish EEZ.
2	The Estonian Fund	The routing of the gas pipelines in the Gulf of Finland is a threat to the	-	Not relevant in
	for Nature	ringed seal population and for the Kurgalsky nature reserve.		relation to the
				transboundary
				impact on the
				environment in
				Estonia that
				could be caused
				by a proposed
				activity taking
				place in the
				Danish EEZ.



The I	Estonian Fund	The displacement of the route in Danish waters would not reduce the	Sediment movement and release of materials	The Danish
	lature	risks related to sediment movement (e.g. release of dangerous	The sediment movement that may be caused by Nord Stream 2 construction was initially modelled	Energy Agency
		substances or nutrients from sediments). In conclusion, the new	using state-of-the-art modelling software, and subsequently evaluated in the light of experience	has no further
		displacement of the route would not mitigate the issues described above.	obtained during Nord Stream construction and associated monitoring.	comments on this topic.
			Numerical modelling of sediment movement was performed using a flexible mesh version of the MIKE	·
			3 hydrodynamic (HD) model suite for three-dimensional modelling of currents, water levels and the	
			transport of suspended sediment. The model was a development of the existing Baltic Sea model of	
			DHI, which was calibrated and validated in the Danish straits and the western Baltic Sea. For the Nord Stream 2 model a dedicated calibration and validation of the model in the Gulf of Finland has	
			also been carried out, using current and salinity/temperature data from the Nord Stream monitoring	
			program. The model resolution was approximately 800-1,600 m within a 10 km band along the	
			planned pipeline corridor, and increased further away from the pipeline up to 3-5 km. The numerical	
			particle transport model MIKE 3 PT was used to model the transport of sediment and contaminant	
			spill during the construction phase, based on current velocities and water level provided by the hydrodynamic results from the MIKE 3 HD model. The results from the MIKE 3 PT were independent	
			of the calculation mesh of the MIKE 3 HD model and could be saved in a finer mesh than the	
			hydrodynamic input, which may be necessary to resolve the plumes resulting from the spill. Three	
			simulation scenarios were chosen to represent different conditions in relation to particle transport and	
			temperature/salinity stratification:	
			Summer scenario (June 2010): Representation of relatively calm current conditions with low particle	
			transport capacity and with relatively high temperature and salinity stratification.	
			Normal scenario (April 2010): Representation of average current conditions with average particle	
			transport capacity and with average temperature and salinity stratification.	
			Winter scenario (November 2010): Representation of relatively strong current conditions with high	
			particle transport capacity and with relatively low temperature and salinity stratification.	
			Evidence collected during Nord Stream monitoring was considered and used to evaluate the reliability	
			of the modelling:	
			Postlay trenching: The plough used during post-lay trenching created a plume of suspended	
			sediment, with a release rate conservatively derived from the measured suspended sediment	
			concentrations (SSCs) in the range of 3-25 kg/s. The plume was most dense near the plough, with	
			concentrations up to a maximum of 22.3 mg/l observed at a distance of approximately 100 m. The plume widened and concentrations decreased with distance from the plough, with concentrations less	
			than 4 mg/l observed at a distance of approximately 500 m behind the plough. This indicates that a	
			significant quantity of the suspended sediment settled during the initial 500 m of transport. Together,	
			the monitoring results indicated that the results of the sediment dispersion modelling can be	
			considered conservative (i.e. on the safe side).	
			Rock placement: Monitoring of sediment dispersion related to rock placement was undertaken in	
			Russia in 2010, as well as Finland in 2010 and 2011. In Russia, the highest concentration (20 mg/l)	
			was measured one hour after rock placement at a distance of 100 m from the placement location. Measurements in Finland (2010) confirmed that increases in suspended sediment concentration	



No.	Consulting party	Resume	Answer Nord Stream 2 AG Answer Agency	Danish Energy
Finla	ind			
4	The Health Board	The Health Board noted that the probability of health impacts caused by the proposed activity is minor (e.g. in case of an accident, pollution can be carried to the Estonian waters). In this context, attention was drawn to the health, safety, environmental and social management system developed by the developer to enable identification and management of all relevant risks associated with the project.		This is noted.
4	The Health Board	The Health Board noted that the probability of health impacts caused by	(SSC), and hence turbidity, was limited to the lowermost 10 m of the water column and that the impact distance, taken as the 10 mg/l contour, was less than 1 km from the rock placement site. Subsequent monitoring in Finland (2011) showed SSC peaks above 10 mg/l at only one sensor located 200 m from the construction site, on three occasions with a total duration of 6.5 hours. The monitoring results indicated that the maximum values of SSC caused by rock placement were significantly lower than those calculated by numerical modelling, and that the numerical modelling was thus highly conservative. Munitions clearance: Monitoring also showed that munitions clearance resulted in smaller craters than was predicted by the modelling, and the actual total amount of released sediment was substantially smaller than predicted by the model. The modelling performed predicted affected areas and time spans for SSC levels above thresholds of 10 and 15 mg/l, and the results are summarized in the Espoo Report (Tables 10-2 to 10-5). A comparison of the figures given in these tables with the monitoring results, described above, shows that the models can be considered to be highly conservative. As documented in the Espoo Report (Section 9.2.1.4), the ambient levels of SSC under calm conditions are typically 1-2 mg/l, with substantially higher levels occurring during storm events. The above analysis thus provides a verification of the models and demonstrated that it consistently predicted a more conservative outcome than will occur in practice. It can thus be relied upon to yield an upper limit to the size of the affected areas and the duration and intensity of the sediment spread. Amounts of contaminants, chemical warfare agents (CWA), and nutrients that could be released into the water columns during construction works were calculated based on the predictions of the model, and are therefore also considered equally conservative. Release of nutrients from sediments in terms of "release of nutrients" the expected overall load scena	



1	Ministry of Agriculture and Forestry / 2019	The Ministry of Agriculture and Forestry states that all its previous statements regarding the issue should be taken into account. In its previous statement the Ministry stated that particularly the transboundary impacts during construction phase and operation phase on fish, fishery and marine mammals have to be considered.	This statement has been responded in previous Espoo consultations (2018) and there is no additional South-eastern specific comment which needs an additional response.	The Danish Energy Agency has taken the previous statements that are of relevance for the southeastern route on the continental shelf into to consideration. Reference is made to no. 10/Finland showing the previous
				statements from the Finnish Ministry of Agriculture and Forestry.
2	Finnish Transport Infrastructure Agency. / 2019	The Finnish Transport Infrastructure Agency refers to its previous statement concerning the north-western route alternative. The agency noted that the installation of the natural gas pipeline may cause minor harm to the flow, safety and security of Finlands foreign maritime traffic. This is why the party implementing the project must notify the Danish maritime authority of the implementation of the project in a way stated by this authority in order that the Finnish maritime traffic authorities and operators are aware of any changes to the shipping routes caused by the project well in time befare the launch of the project.	This statement has been responded in previous Espoo consultations (2019) and there is no additional South-eastern specific comment which needs an additional response.	The Danish Energy Agency has taken the previous statement concerning the north-western route into to consideration. Reference is made to no. 52/Finland showing the previous statements from the Finnish Ministry of Agriculture and Forestry.
3	Finnish Meteorological Institute. / 2019	According to the Finnish Meteorological Institute, the construction of the natural gas pipeline will have an effect on the physical conditions of the sea, such as currents, temperature and salinity in the immediate vicinity of the pipe. The project is not expected to have any effect on the marine conditions in Finlands exclusive economic zone.	This is noted.	This is noted.
4	Geological Survey of Finland. / 2019	The Geological Survey of Finland considers that the project does not cause negative transboundary impacts on the abiotic marine environment in Finland.	-	This is noted.



5	Finnish Association of Professional Fishermen / 2019	The issuer of the statement wishes to draw attention to the fact that route V1 of NSP2 runs through a dumping area for explosives and for chemicals and substances used in warfare. This will weaken the ability to rehabilitate the area at a later date. Furthermore, the route in question is not favourable from the perspective of transboundary impacts. Assessments of the project must take into account the Baltic Sea Strategy and possibility of repairing the state of the Baltic Sea. If route V1 is the alternative selected, however, the pipeline area must be cleared of explosives and of chemical material used for warfare. In addition, the pair of pipes must be sur-rounded by a cleaned area that is of sufficient width, approximately 500 meters on each side of the pipeline. A review should be conducted to determine the width needed. The precise location of the explosives and other material is not known, as no precise map impact was prepared during the hurried dumping phase, and the material, which was packed primarily in wooden boxes, was able to spread to a wider area than intended. These factors must be taken into account in the route selection and in the plans for cleaning and clearing the area. It is also important to become familiarized with all of the existing data on the matter. As a further observation, the issuer of the statement draws attention to the fact that once the lifespan of the pipeline has ended, it should be removed. It must also be considered whether there is a polluter-pays principle in the environmental legislation that can be used or applied at the national level and that would bring new aspects to the disposal of these explosives and chemical materials. The issuer of the statement requests the opportunity to elaborate on its statement at a later date. The issuer of the statement does not request compensation from Nord Stream 2 AG for the actions in question; instead, it wishes with its comments to draw attention to the well-being of the marine environment.	Neither of the NSP2 route variants cross the area designated as chemical munitions dumping site. Route variant V1 runs approximately 2 km from the dumping site while it crosses the area where bottom trawling, anchoring and seabed intervention works are discouraged due to the risk of encountering chemical munitions. Dedicated munitions screening surveys along NSP2 route including route variants V1 and V2 have been completed to ensure that no munitions are present in the pipe-lay corridor. Safety distances to the identified munitions are being established in consultation with the relevant Danish authorities. Recommendation from the Danish authorities is to leave chemical munitions untouched and avoid munitions by local re-routing. Impacts from chemical warfare agents (CWA) have been assessed in the EIA based on the survey results from surface sediment sampling along the route. Assessment of the impacts on the marine environment from route variant V1 showed that construction of NSP2 represents negligible environmental risk associated with CWA. Transboundary impact assessment covering potential impacts on neighbouring jurisdictions as well as on regional and global receptors shows that NSP2 project activities in Danish waters, including construction of route variant V1, will not lead to any significant transboundary impacts. Assessment of compliance with the EU directives and international regulations aimed at improving the quality of the European waters such as the Marine Strategy Framework Directive, nor will it be contrary to the objectives and initiatives set out in the Water Framework Directive and Baltic Sea Action Plan indicates that NSP2 will not prevent or delay the achievement of the long-term goal for GES under the Marine Strategy Frame-work Directive, nor will it be contrary to the objectives and initiatives set out in the Water Framework Directive or Baltic Sea Action Plan. The decommissioning programme will be developed in consultation with the relevant authorities at a later stage, when the pipeli	Concerning the issue of a polluter-pays principle the Danish Energy Agency draws attention to that it is a condition in the permit that Nord Stream 2 AG shall take out insurance for compensation of damage caused by the activities exercised in accordance with the permit, even if the damage is incidental. Concerning the request from the Finnish Association of Professional Fishermen to elaborate on its statement at a later date the Danish Energy Agency does not foresee further public consultation concerning the environmental impacts from the project. The public consultation phase for the environmental impact assessment for a route south-east of Bornholm ended July 2019. The Danish Energy Agency will take the received comments from the public consultation into consideration in the
6	The Ministry of Economic Affairs and Employment, the Ministry of Social Affairs and Health, Finnish Safety and Chemicals Agency (Tukes), Natural Resources Institute Finland (Luke) and the Regional Council of Southwest Finland	The Ministry of Economic Affairs and Employment, the Ministry of Social Affairs and Health, Finnish Safety and Chemicals Agency (Tukes), Natural Resources Institute Finland (Luke) and the Regional Council of Southwest Finland did not see a need to comment on the matter.		evaluation. This is noted.



	/ 2019			
7	The Ministry of the Environment / 2019	The Ministry of the Environment wishes to bring comments received to the attention of Denmark to take into consideration in the ongoing EIA procedure and in the permitting of the project (enclosed).	-	This is noted.
8	The Ministry of the Environment / 2019	In addition, the Ministry of the Environment requests Denmark to take into consideration the statements and comments expressed in Finland's answer to Germany, Sweden and the Russian Federation on 30 June 2017 (enclosed).	-	This is noted. The Danish Energy Agency has taken the responses into account. The responses from 2017 from Finland and the answers to them are listed below (no. 9-50).
9	Ministry of Agriculture and Forestry / 2017	The Ministry of Agriculture and Forestry states that all legislation concerning the Baltic Sea and all the environmental agreements, programmes and guidelines that have been agreed or are under preparation should be taken into account during the Nord Stream 2 Gas Pipeline project. However, the Ministry states that most of these are addressed in the Espoo Report.		This is a statement which does not require a response.
10	Ministry of Agriculture and Forestry / 2017	The Ministry of Agriculture and Forestry states also that in decision-making regarding the route of the pipeline the negative impacts on fish, fishery and marine mammals have to be considered.		The decision-making regarding the final route of the pipeline will amongst other things include consideration concerning the potential negative impacts on fish, fishery and marine mammals.
11	Finnish Environment Institute / 2017	The Finnish Environment Institute concludes that the construction of the gas pipeline from Russia to Germany is an extensive project, which can have an impact on a wide area in the Baltic Sea. The Institute notes that munitions clearance operations in Russia have been estimated to cause negligible impacts on water quality and bathymetry in the Finnish marine areas. This estimation is based partly on the assumption that it is unlikely that munitions will be encountered close to the Finnish-Russian border. The estimation seems realistic, as long as the background assumptions are correct and the munitions clearance operations are carried out as planned.		Not relevant in relation to the transboundary impact on the environment in Finland that could be caused by a proposed activity taking place in the Danish EEZ.
12	Finnish Environment Institute / 2017	The Institute states that construction activities should be Scheduled so that no harm will be caused to migrating birds and ringed seals in the area of the Kurgalsky Peninsula. Futhermore, technical solutions for reducing noise levels should be sought to minimise the impacts of underwater noise.	-	Not relevant in relation to the transboundary impact on the environment in Finland that could be caused by a proposed activity taking place in the Danish EEZ.



13	The Finnish Meterological Institute / 2017	The Finnish Meteorological Institute draws attention to the risk of oil spills during the construction phase and littering of the sea. The Institute notes that the Baltic Sea is a small but complex sea area; therefore, during the construction phase, particular attention must be paid to ensuring that no harmful substances end up in the Baltic Sea.	Offshore Pipeline Construction of the Nord Stream 2 pipeline system will be undertaken in compliance with the International Convention for the Prevention of Pollution from Ships (MARPOL); International Maritime Organisation (IMO) Standards; statutory Permit conditions for the scope of the Project construction and offshore pipe laying activities; and the Project's (Nord Stream 2 AG) own dedicated requirements and Corporate Policy commitments for Environmental and Social Management, which are applicable to all Offshore Pipeline Construction related activities.	The Danish Energy Agency has no further comments on this topic.
			Where not already part of the offshore construction Contractors' own corporate policies and commitments, all further requirements will be directly transferred to each Contractor in the form of "Environmental and Social Commitments". These commitments will be recorded in a dedicated register (Environmental and Social Commitments Register – ESCR) which will allow verification checks to be undertaken and ensure the Contractors compliance. Compliance with the commitments by each Contractor will be verified via preparation of "Contractor Implementation Plans", which will reference each Environmental and Social Commitment to be complied with. Verification of compliance shall be via dedicated compliance audits undertaken by Nord Stream 2 AG and / or by Independent Third Parties.	
			To avoid that harmful substances enter into the Baltic Sea, specific measures to prevent pollution shall apply during the period of the construction activities, consistently with the aforementioned Environmental and Social Commitments. Every vessel will be equipped with spill response equipment and contracts will be in place to call upon the services of specialist providers of oil spill response support.	
14	Geological Survey of Finland / 2017	The Geological Survey of Finland considers that the Nord Stream 2 Gas Pipeline project is not expected to cause transboundary impacts from the dispersal of sediments. The Geological Survey states that the EIA and Espoo Report address to a Suitable extent topics concerning the geological parameters of the Seabed.		This is a statement which does not require a response.
15	Metsähallitus / 2017	Metsähallitus is concerned about the planned route of the pipelines and the impacts of the Nord Stream 2 Gas Pipeline project on ringed seals in the Gulf of Finland. Metsähallitus is pleased that the seals have been taken into account in the timing of the construction work. However, Metsähallitus states that the underwater noise caused by construction work and munitions clearance remains a major risk, especially for the ringed seal population of the Gulf of Finland. Metsähallitus considers that the project, if carried out as planned, puts the seal population of the Gulf of Finland at risk of decline.		Not relevant in relation to the transboundary impact on the environment in Finland that could be caused by a proposed activity taking place in the Danish EEZ.
16	National Board of Antiquities / 2017	According to the National Board of Antiquities, cultural heritage sites are physical landmarks or areas which are found in a certain restricted area. Conservation or research activities directed at them does not cause actual transboundary impacts. The Espoo Report gives general information about cultural heritage. The National Board of Antiquities states that the Espoo Report has fulfilled its purpose in this regard and it does not have any remarks about the Report.		This is a statement which does not require a response.



		T		1
17	City of Helsinki /	The City of Helsinki notes that Finland should take into account the	-	Not relevant in relation to
	2017	planned route of the pipelines in the conservation area of the Kurgalsky		the transboundary impact
		Peninsula. The City of Helsinki recommends that the alternatives to the		on the environment in
		pipeline route should be considered. If this is not possible, further		Finland that could be
		assessments of mitigation and compensation measures should be done		caused by a proposed
				activity taking place in the
				Danish EEZ.
18	Municipality of	Lemland is concerned about a greater military presence in the	-	Not relevant in relation to
	Lemland (Aland) /	neighbouring region of the project.		the transboundary impact
	2017			on the environment in
				Finland that could be
				caused by a proposed
				activity taking place in the
				Danish EEZ.
19	Municipality of	The Municipality of Lemland states that the project involves both direct	-	This is a statement which
	Lemland (Aland) /	and indirect environmental impacts on the sensitive marine environment		does not require a
	2017	during the construction and operational phases.		response.
20	Municipality of	Furthermore, the municipality notes that the project does not overall	-	Not relevant in relation to
	Lemland (Aland) /	support sustainable social development.		the transboundary impact
	2017			on the environment in
				Finland that could be
				caused by a proposed
				activity taking place in the
				Danish EEZ.
21	WWF Finland / 2017	WWF Finland does not support the Nord Stream 2 Gas Pipeline project,	-	Not relevant in relation to
		but rather would like to remind European countries about the climate		the transboundary impact
		pledges given under the Paris Agreement and encourages European		on the environment in
		countries to use climate-friendly energy that is based on renewable		Finland that could be
		resources.		caused by a proposed
				activity taking place in the
				Danish EEZ.
22	WWF Finland / 2017	WWF Finland is particularly concerned that the planned route of the	-	Not relevant in relation to
		pipelines passes through a valuable area of the Kurgalsky Peninsula.		the transboundary impact
		This area contains both a wetland conservation area under the Ramsar		on the environment in
		Convention and a marine protected area under the Helsinki Convention		Finland that could be
		on the Protection of the Marine Environment of the Baltic Sea Area.		caused by a proposed
				activity taking place in the
				Danish EEZ.



_	_		,	
23	Uusimaa District	The planned route of the pipelines in Russia is problematic, because the	-	Not relevant in relation to
	Organisation of the	route passes through the Kurgalsky Peninsula, where conservation		the transboundary impact
	Finnish Association	areas listed under the Ramsar and HELCOM conventions are located.		on the environment in
	for Nature	The Kurgalsky region is also relevant in terms of the Finland-Russia		Finland that could be
	Conservation / 2017	green belt. Therefore, the Uusimaa District Organisation states that the		caused by a proposed
		alternatives to the planned route and also mitigation and compensation		activity taking place in the
		measures should be further examined and considered. In addition, the		Danish EEZ.
		Uusimaa District Organisation notes that the new harbour porpoise		
		conservation area in Sweden should be taken into account during the		
		Nord Stream 2 Gas Pipeline project.		
24	Port of Helsinki, Ltd /	Port of Helsinki, Ltd notes that the EIA was conducted in an appropriate	-	Not relevant in relation to
	2017	manner, except with regard to the impacts on the anchoring areas during		the transboundary impact
		an emergency. Limitations on anchoring during emergency situations		on the environment in
		should be clearly marked on the nautical charts.		Finland that could be
				caused by a proposed
				activity taking place in the
				Danish EEZ.
25	Finnish Association	The Finnish Association of Professional Fishermen is concerned about	-	Not relevant in relation to
	of Professional	the impacts of the Nord Stream 2 Gas Pipeline project on commercial		the transboundary impact
	Fishermen / 2017	fisheries.		on the environment in
				Finland that could be
				caused by a proposed
				activity taking place in the
				Danish EEZ.
26	Finnish Association	The planned second pipeline will create more free spans between the	-	Not relevant in relation to
	of Professional	pipes and therefore increases the risk of accidents. Fishing vessels		the transboundary impact
	Fishermen / 2017	(trawlers) have to be very careful when they cross the pipelines or they		on the environment in
		have to try to avoid the pipelines entirely.		Finland that could be
				caused by a proposed
				activity taking place in the
				Danish EEZ.
27	Finnish Association	As the pipeline area expands, fishing in the Baltic Sea will become more	-	Not relevant in relation to
	of Professional	difficult. The Finnish Association of Professional Fishermen notes that		the transboundary impact
	Fishermen / 2017	fishing grounds can change depending on the fish stocks and the fishing		on the environment in
		quotas, so it is not possible to state unequivocally where the main fishing		Finland that could be
		grounds will be located in the Baltic Sea.		caused by a proposed
				activity taking place in the
				Danish EEZ.
28	Federation of Finnish	The Federation of Finnish Fisheries Association notes that a survey of	-	Not relevant in relation to
	Fisheries Association	commercial fishermen shows that the planned pipeline runs through		the transboundary impact
	/ 2017	commonly used trawling areas. Therefore, the Nord Stream 2 Gas		on the environment in
		Pipeline project has an effect on the fishermen's livelihood. Fishermen		Finland that could be
		should get full compensation for any loss caused by the project. The		caused by a proposed
		construction phase must be carried out in Such a way that damage is		activity taking place in the
		minimised.		Danish EEZ.
	/ 2017	Pipeline project has an effect on the fishermen's livelihood. Fishermen should get full compensation for any loss caused by the project. The construction phase must be carried out in Such a way that damage is		Finland that could be caused by a propose activity taking place



29	Greenpeace Nordic, ClientEarth Prawnicy dla Ziemi / 2017	Greenpeace Nordic and ClientEarth Prawnicy dla Ziemi state their firm opposition to the Nord Stream 2 Gas Pipeline project and to any decision that brings its construction closer to completion.	-	No comments.
30	Greenpeace Nordic, ClientEarth Prawnicy dla Ziemi / 2017	Greenpeace Nordic and ClientEarth Prawnicy dla Ziemi consider that the NS2 project will have serious adverse implications for the environment of the countries in the Baltic Sea basin, and that these serious implications have not been taken into account sufficiently in the EIA Report and in the Espoo Report.	Natura 2000 assessment In accordance with the requirements of the Habitats Directive, Nord Stream 2 AG has carried out Natura 2000 screening assessments and/or, where required, full Natura Assessments of all Natura 2000 sites (existing or proposed) which, based on: the features for which they were designated, the propagation characteristics of impacts arising from Nord Stream 2 to which such features could be sensitive and the location of the site, could potentially be affected by activities associated with the pipeline's construction or operation. For existing Natura 2000 sites in German waters, full Natura 2000 Assessments were undertaken as part of the EIA process for those sites, which will be crossed by or are within 5 km of the Nord Stream 2 alignment. For existing Natura 2000 sites in Danish and Swedish waters, the Natura 2000 screening assessments were undertaken as part of the national EIA process whereas for Estonia a standalone report was produced (as such an assessment is not required under Russian legislation). These screening assessments determined whether there could be potential for significant impacts to be experienced by such sites. For the proposed "Hoburgs Bank och Midsjobankarna" site, a consultation exercise was undertaken with the Swedish authorities and a separate supplementary report to the Swedish EIA was produced that specifically considered the potential implications of Nord Stream 2 construction and operation on the integrity of that site and its values. The Natura 2000 sites in Finnish waters have been considered in accordance with Section 65 of the Finnish Nature Conservation Act, which implements the Habitats Directive. Screening reports are provided to the ELY centre (the regional environmental authority) which determines whether a full Natura Assessment is required and if so provides its opinion on the outcome of such an assessment taking account of views of Metsahalitus (the authority that supervises Natura 2000 sites). Approval of the Natura Assessment is a condition for	The Danish Energy Agency has no further comments on this topic.
			concluded that there would be no potential for significant impacts on the integrity or	



conservation objectives of Natura 2000 sites except for possibly on the "Kallbådan Islets and Waters" site where, based on an initial precautionary analysis (a conservative scenario with respect to munition size, location and receptor sensitivity), the potential for an impact ranking of up to moderate was predicted.

The results of these studies were documented in the Espoo Report together with the stated intention to undertake a full Natura Assessment that would more accurately model, consider and evaluate the impacts at the "Kallbådan Islets and Waters site" in order to confirm whether they would be as per the conservative scenario determined through the appraisal undertaken as part of the EIA, or at a lower level. However, in accordance with the precautionary principle specified in the Habitats Directive, ahead of such a full assessment a worst case scenario was been documented in the Espoo Report.

The Natura Assessment for the "Kallbådan Islets and Waters" site has now been completed as part of the Finnish Natura 2000 process and concluded that the Nord Stream 2 project, either individually or in combination with other projects and plans, will not adversely affect the integrity of the site, or the achievement of the conservation objectives for which it was included in the Natura network.

The screening assessments of other Natura 2000 sites in Finnish waters, similarly undertaken as part of the Finnish Natura 2000 assessment process, also supported the results of the appraisal made in the EIA i.e. that there would be no potential for significant impacts on the integrity or conservation objectives of these sites. In the case of the "Sea Area South of Sandkallan" Natura 2000 site this was further substantiated by a subsequent full Natura Assessment undertaken to address specific queries raised by Metsallitus.

As all the full Natura Assessments for the German sites, the "Sea Area South of Sandkallan" and "Kallbådan Islets and Waters" sites, the supplementary report for the proposed Hoburgs Bank och Midsjobankarna" site and the screening assessments for all other sites show that there is no potential for significant impacts on any of the existing or proposed Natura 2000 sites, there is similarly no potential for significant impacts on the network of such sites from Nord Stream 2 activities in their vicinity.

With respect to activities in Finnish waters such a conclusion is supported by the statement from the Finnish Competent Authority for the Environmental Impact Assessment (which includes both the Finnish EIA Report and the Espoo Report) that, due to project activities in the Finnish EEZ, "the project has no transboundary impacts on the Natura 2000 areas in other countries."

The Natura Screenings and full Assessments are subject to review by the appropriate agencies as part of the EIA / permitting process (in the case of impacts that may arise from activities in Germany, Denmark, Sweden and Russia) and as part of a separate the Natura Assessment review and subsequent Water permitting process in Finland. During the Water permitting phase, both the permitting authority and the interested authorities, stakeholders and public, have the possibility to review and comment on the Natura 2000 Assessment regarding the "Kallbådan Islets and Waters" and "the Sea Area South of



		activity taking place in the Danish EEZ because the
		caused by a proposed
dla Ziemi / 2017		on the environment in Finland that could be
	-	Not relevant in relation to the transboundary impact
	other ways of meeting Europe's growing import demand of natural gas would be required".	
	precisely (as it is shown in section 2, project justification) saying that "it would also mean	
	The statement quoted from nage 8 of the Espoo Report could indeed be worded more	
	to 394,957 ktoe. This is exactly the database that the Espoo Report is built upon.	
	1	
	assumed. As for the EU Reference Scenario 2016, the corresponding numbers are all	
	, ,	
	years and decades. This is based on the gas demand forecast provided by the	
	Insufficient justification of project need for additional gas supplies	
	Addressed below in section 'Marine Strategy Framework Directive'.	
	Violation of the Marine Strategy Framework	
	Addressed below in section 'Indirect effects on climate and air quality'.	
	Analysis of indirect effects on climate and air quality	
	review in order to comply with the requirements of the Espoo Convention.	
	network, including those that might be transboundary in nature or for another round of	
	There is thus no need for further analysis or review regarding impacts on the Natura 2000	
	access to information and participation.	
	1.	
	interested stakeholders, have an opportunity through the EIA and Espoo consultation	
	described as requiring assessment in the feedback from the consultee. The public and	
	significant impacts on the "consistency" of Natura 2000 sites, or on "the Baltic Sea	
	precautionary approach as required by the Directive. It demonstrates that there will be no	
	their decision making. Where was uncertainty at the time of preparation of the Espoo	
	2000 sites in a manner that allows the competent authorities to consider such factors in	
	The Fence Penert thus provides an accurate assessment of potential impacts on Natura	
	Sandkallan" site. This procedure is in line with the national legislation that defines the Natura 2000 assessment procedure.	
	Greenpeace Nordic, ClientEarth Prawnicy dla Ziemi / 2017 They are concerned about the impact of the project on the Natura 2000 sites and the lack of an appropriate Natura 2000 assessment.	The Espoo Report thus provides an accurate assessment of potential impacts on Natura 2000 sites in a manner that allows the competent authorities to consider such factors in their decision making. Warsu uncertainty at the time of preparation of the Espoo Report (e.g. in relation to the Kallbaden site) the assessment has been based on a precautionary appracate site. It demonstrates that there will be no significant impacts on the "consistency" of Natura 2000 sites, or on "the Ballic Sea ecosystem" of which they form a part, or on "outside areas", which are specifically described as requiring assessment in the feetback from the consistency" of the Parameter of th



				assessment of Natura 2000 sites is related to the Finnish waters.
32	Greenpeace Nordic, ClientEarth Prawnicy dla Ziemi / 2017	The EIA Report lacks an analysis of the indirect effects on climate and air quality.	Both direct and indirect impacts of emissions to air have been considered. In the scoping process, the nature of pollutants requiring consideration has been determined based on: the concentrations of such pollutants emitted, the locations of their points of discharge, their dispersion characteristics, and the locations of receptors that could be sensitive to such pollutants. Such scoping has narrowed the compounds to be analysed to the following: CO2, NOX, SO2 and PM, which is in line with the Helcom recommendations. Other pollutants could be relevant for other projects, e.g. CH4 and VOC would be relevant when assessing the impacts of e.g. tanker loading of crude oil, due to the potential for fugitive emissions from oil, particularly at near shore locations i.e. close to receptors, However, due to the nature of the NSP2 activities, and associated emissions, and their largely offshore location where there will be good dispersion, these compounds are not relevant to consider further in connection with its construction and operation. For accidental events, however, the potential release of CH4 has been assessed. The above listed emissions have then been quantified and dispersion characteristics considered (Section 10.1 of the Espoo report) so that their concentration at, and hence potential for indirect impacts on, the environmental and social receptors could be evaluated (Sections 10.2-10.12). The potential direct and indirect impacts of air emissions at the landfall areas are reported in Sections 10.7.1. (Russia) and 10.8.1. (Germany). At other locations, where it can be demonstrated that the dispersion of air pollutants from the NSP2 is such that concentrations experienced at receptors is negligible, an in-depth analysis of possible indirect effects is not required and has therefore not been carried out.	This is a spefific comment related to the Espoo report in connection with a route south-east of Bornholm in Danish waters, and therefore not relevant for the southeastern route on the continental shelf.
33	Greenpeace Nordic, ClientEarth Prawnicy dla Ziemi / 2017	The planned route through the Kurgalsky Peninsula is problematic.		Not relevant in relation to the transboundary impact on the environment in Finland that could be caused by a proposed activity taking place in the Danish EEZ.
34	Greenpeace Nordic, ClientEarth Prawnicy dla Ziemi / 2017	That approval of the project will constitute a violation of the Marine Strategy Framework Directive, because it will make it more difficult to attain or maintain a good environmental status of the waters of the Baltic Sea.	An evaluation of compliance of NSP2 with the Marine Strategy Framework Directive (MSFD) has been undertaken and documented in the Espoo Report (Chapter 11). This considered the potential for NSP2 to influence the various state and pressure descriptors outlined in the MFSD that are used to address and manage possible risks to the achievement of the long-term goals for Good Environmental Status (GES) of the Baltic Sea. It was concluded that NSP2 will not prevent the achievement of targets or the long-term goals for GES or be contrary to the objectives and initiatives set out in the MSFD.	The Danish Energy Agency has no further comments on this topic.



		T		
35	Greenpeace Nordic,	5. Furthermore, we are of the opinion that, irrespective of the baseline	-	Not relevant in relation to
	ClientEarth Prawnicy	analysis included in chapters 7 - 9 of the EIA Report and analysis of		the transboundary impact
	dla Ziemi / 2017	alternative routes, the		on the environment in
		grounds for undertaking the proposed investment are not sufficient, due		Finland that could be
		to the fact that Europe has for some time been experiencing an		caused by a proposed
		oversupply of natural gas. It is		activity taking place in the
		therefore not the case, as is stated in the EIA Report, that "access to		Danish EEZ.
		natural gas is becoming increasingly critical for the EU as global demand		
		rises and its own gas		
		resources deplete. With Nord Stream 2, the EU can secure additional		
		gas resources in the long term in order to ensure global industrial		
		competitiveness and meet domestic		
		demand." The proposed investment is not justified in economic terms,		
		and, therefore, any economic factors in favour of its construction are		
		outweighed by the		
		environmental detriment brought about by the investment, particularly		
		those issues outlined in pts. 1-4 above.		
36	Ministry of	It is evident from the scientific data and from field observations that the	-	This is a statement which
	Environment / 2017	state of the Baltic Sea is alarming. Human activities in both the entire		does not require a
		catchment area and the sea area have increased and this imposes lots		response.
		of pressure on the Baltic's ecosystems. Finland is committed to		·
		achieving good status of its marine waters in accordance with the EU		
		Marine Strategy Framework Directive and the Convention on the		
		Protection of the Marine Environment of the Baltic Sea Area (Helsinki		
		Convention). The planned construction of the Nord Stream 2 gas		
		pipeline from Russia to Germany is a major project. Finland considers it		
		vital that it is ensured that the project will not cause adverse ef. fects on		
		the state of the Baltic Sea as a whole or on a regional or local level.		
37	Ministry of	The Ministry of the Environment considers that in general the overall	_	This is a statement which
	Environment / 2017	data and knowledge basis for the environmental impact assessment of		does not require a
		the project is rather good because of the monitoring data collected from		response.
		the existing Nord Stream pipeline. Based on the monitoring data, it can		
		also been indicated that the transboundary environmental impacts		
		caused by the existing Nord Stream pipeline have been minor. On the		
		other hand, the seabed underlying the proposed route of the Nord		
		Stream 2 pipeline is less favourable than for the existing Nord Stream		
		pipeline since more intervention work on the seabed is needed, e.g.		
		dredging and rock placement. This could lead to greater environmental		
		impacts.		
<u> </u>		impuoto.		



38	Ministry of Environment / 2017	The EIA considered two options for the pipeline route in Russian waters along the southern coast of the Gulf of Finland. The Narva Bay alternative was found to be the preferred option by the developer. It is mentioned in the Espoo Report that detailed discussion and an assessment of alternatives are included in the Russian EIA and in an Assessment of Alternatives report that will be available for public viewing as part of the national procedure. Finland would appreciate receiving the detailed discussion and the assessment of alternatives mentioned for information.	-	Not relevant in relation to the transboundary impact on the environment in Finland that could be caused by a proposed activity taking place in the Danish EEZ.
39	Ministry of Environment / 2017	This preferred route crosses the Southern section of the regional Kurgalsky nature reserve. The nature reserve is a wetland of international importance, i.e. a Ramsar site, and is included on the list of Baltic Sea areas protected under HELCOM (Marine Protected Area). The nearby Important Bird and Biodiversity Area (IBA) of the Kurgalsky Peninsula is one of the most important staging and feeding areas for waterfowl, including Arctic goose species, in the Gulf of Finland. A main migration route over the Baltic for migratory Arctic wetland bird species crosses this region. Furthermore, the Kurgalsky Peninsula forms an important resting area for the endangered Baltic ringed seal in the Gulf of Finland. Construction in theWater near the Kurgalsky Peninsula also can have indirect effects on the seal population, for example, by affecting the spawning habitats of fish preyed on by the seals.		Not relevant in relation to the transboundary impact on the environment in Finland that could be caused by a proposed activity taking place in the Danish EEZ.
40	Ministry of Environment / 2017	Finland considers it important that, in accordance with Article 6 of the Espoo Convention, in the final decision on the proposed project and its route in the Russian waters, due account is taken of the outcome of the environmental impact assessment, including the environmental impact assessment documentation, as well as the comments received and the outcome of the consultations.	-	Not relevant in relation to the transboundary impact on the environment in Finland that could be caused by a proposed activity taking place in the Danish EEZ.
41	Ministry of Environment / 2017	Important that the scheduling of the construction Work is done in a way that seals and migratory birds are not exposed to harmful effects.		Not relevant in relation to the transboundary impact on the environment in Finland that could be caused by a proposed activity taking place in the Danish EEZ. Relates to activities in Russian Waters.
42	Ministry of Environment / 2017	At the 2013 HELCOM Ministerial Meeting, the Ministers, in the Declaration of their meeting, paid attention to the ringed seal whose population is severely depleted in the Gulf of Finland and agreed to protect the seal. Concerning the protection of the eastern population of the endangered ringed seal in the Gulf of Finland, construction work during winter time should not be carried out. Ringed seals depend on the ice cover, especially during the pupping and moulting seasons. Pups are born in lairs on the pack ice in late February to early March and after that moulting takes place from mid-April to the beginning of May.		Not relevant in relation to the transboundary impact on the environment in Finland that could be caused by a proposed activity taking place in the Danish EEZ.



43	Ministry of Environment / 2017	The detonation of underwater munitions should be avoided due to the harmful effects on ringed seals hearing, foraging behaviour and stress levels and consequently on their fitness and overall survival in the Gulf of Finland. Underwater explosions are one of the strongest Sources of anthropogenic noise and the Sound can travel great distances. Possible detonations of wartime munitions will also cause dispersal of seabed sediments and thus increase the environmental load in the Baltic Sea.	Not relevant in relation to the transboundary impact on the environment in Finland that could be caused by a proposed activity taking place in the Danish EEZ.
44	Ministry of Environment / 2017	The developer should demonstrate its commitment to alternatives to detonation and other mitigation measures and must confirm before any clearance activities that there are no marine mammals, large shoals of fish or diving birds within reach of the impact. If there is a need to use explosives, none should be used during the time periods mentioned above, and none should be used in important foraging areas for ringed seals. To mitigate the effects of explosions, the most effective mitigation measures for protecting marine mammals seems to be the presence of marine mammal observers and use of acoustic deterrent devices to establish safety zones. Bubble curtains can also significantly reduce the risk of injury to the fish that seals feed on. Further mitigation measures to consider include reducing blasting activities to an absolute minimum, and in those situations where blasting cannot be avoided, to use small focused charges. The suitability of different mitigation measures must be investigated. Furthermore, technical solutions to reduce noise levels should be found to minimise the impacts of underwater noise during the construction work (rock placement, munition clearance) and also during the operational phases of the pipeline because of similar harmful effects.	Not relevant in relation to the transboundary impact on the environment in Finland that could be caused by a proposed activity taking place in the Danish EEZ.
45	Ministry of Environment / 2017	Information on munitions found in Russian waters is not included in the material provided. Finland requests that information be provided on mitigation measures to be used in munitions clearance and that data be provided on the locations where the proposed detonations of munitions in Russian waters will be carried out in the vicinity of the border.	Not relevant in relation to the transboundary impact on the environment in Finland that could be caused by a proposed activity taking place in the Danish EEZ.
46	Ministry of Environment / 2017	For the critically endangered Baltic Sea harbour porpoise, all underwater construction work, including that which produces noise, can have negative effects. Especially work near the Midsjöbanken area should be avoided, because this area is highly important for the protection of the Baltic Sea harbour porpoise population.	Not relevant in relation to the transboundary impact on the environment in Finland that could be caused by a proposed activity taking place in the Danish EEZ.



47	Ministry of Environment / 2017	In the vicinity of the proposed pipeline route there are several important Natura 2000 sites designated as Special Protection Areas (SPA) and Sites of Community Interest (SCI). Special Area of Conservation (SAC) by Germany and Sweden. These sites have a specialimportance beyond national borders throughout the Baltic Sea since they are key wintering and staging sites for a large variety of waterfowl, seabirds and waders. This whole area is also the most important part of the Baltic Sea for the harbour porpoise population. Finland emphasises the importance of appropriate Natura 2000 assessments and of the mitigation measures presented in the EIA and underlines the need to take them fully into account in the permit procedures.		Not relevant in relation to the transboundary impact on the environment in Finland that could be caused by a proposed activity taking place in the Danish EEZ.
48	Ministry of Environment / 2017	Because of its brackish conditions, the diversity of fish in the Baltic Sea is low but the sea Supports a number of species of commercial and conservation interest. Impacts on Baltic Sea fish stocks and fisheries from the construction and operation of the pipeline are one of Finland's concerns regarding the project. The impacts from the presence of vessels and safety Zones around construction, inspection and maintenance vessels are assessed to be negligible but the presence of pipeline structures can have some impacts on commercial fisheries.	The Nord Stream 2 pipelines are designed in the same way as the already existing Nord Stream pipelines, and both pipeline systems are confirmed to be overtrawlable. The experience of constructing the existing Nord Stream pipelines has shown that by regularly informing the fishermen about construction progress the presence of construction vessels and safety zones around these vessels have no impact on fishery since safety zones are imposed locally and only short term. During operation of the pipelines the fishermen will need to ensure their trawl gear crosses the pipelines, where these are fully exposed on the seabed, in an angle which is not less than 15 degrees. And where there are freespanning sections of the pipelines the fishermen will need to ensure not to set out the trawl or to turn the trawl at these sections. Due to these implications, which do not impact the fishermen's livelihood, the impact on fisheries during operation is considered to be negligible to minor at most. This assessment is supported by the experience from 6 years operation of the Nord Stream pipelines which shows that fishermen and the pipelines can co-exist and the pipelines do not have an impact on the fishermen's livelihood. Monitoring results have shown that fishery patterns have not changed since installation of the pipelines and no fishery gear has been reported lost or damaged.	The Danish Energy Agency has no further comments on this topic.
49	Ministry of Environment / 2017	The Ministry of the Environment considers that if the project is implemented the monitoring of the impacts related to construction and operation is important and should be done according to the same principles as with the existing Nord Stream pipeline. Transboundary impacts must also be monitored. In addition, monitoring should include verification of the environmental impact assessment. The results of monitoring should be shared with all Baltic Sea countries.	Extensive environmental monitoring will take place, both during construction and subsequently during the operational phase. The programs will be developed in collaboration with, and approved by, the competent national authorities prior to the start of the construction, and will benefit from experience obtained during the construction and operation of the existing Nord Stream pipeline. All results of environmental monitoring will be made publicly available.	In the Danish permit there is a condition concerning monitoring requirements during and after the development of the pipeline. The Danish Energy Agency notes, that a the monitoring program has to take relevant comments and proposals received during the transboundary consultation process into account.
50	Ministry of Environment / 2017	Finland requests that the complimentary material be provided that is referred to in the text. Finland would like to reserve the possibility to comment on this additional material after it has been provided.	-	Not relevant in relation to the transboundary impact on the environment in Finland that could be caused by a proposed



				activity taking place in the Danish EEZ.
51	Ministry of Agriculture and Forestry / 2018	Ministry of Agriculture and Forestry. The Ministry of Agriculture and Forestry states that all its previous statements regarding the issue should be taken into account. The Ministry states that particularly the negative transboundary impacts during construction phase and operation phase on fish, fishery and marine mammals have to be considered.		The previous statements will be taken into account. The Danish Energy Agency is of the opinion that all the previous comments was covered by the answer Denmark forwarded to Finland the 9 February 2018. The answers are listed from no. 9-50.
52	Finnish Transport Agency / 2018	Finnish Transport Agency. The Finnish Transport Agency notes that the installation of the natural gas pipeline may cause minor harm to the flow, safety and security of Finland's foreign maritime traffic. This is why the party implementing the project must notify the Danish maritime authority of the implementation of the project in a way stated by this authority in order that the Finnish maritime traffic authorities and operators are aware of any changes to the shipping routes caused by the project well in time before the launch of the project.	Nord Stream 2 will continue having a dialogue with the Danish Maritime Authority to agree on the extent of the exclusion zone around the pipe lay vessel well in time before construction in the traffic separation scheme starts. No concerns have been raised by the Danish Maritime Authorities at this stage. In general, the shipping lanes crossed by the proposed Nord Stream 2 route in Danish waters provide sufficient space and water depth for ships to plan their journey and safely navigate around possible temporary obstructions. Prior to and during construction, Nord Stream 2, in conjunction with relevant construction contractors and the Danish Maritime Authority will announce the locations of the construction vessels and the radius of the requested Safety Exclusion Zones through Notices to Mariners in order to increase awareness of the vessel traffic associated with the project.	The Danish Energy Agency has no further comments on this topic.
53	Geological Survey of Finland / 2018	Geological Survey of Finland. The Geological Survey of Finland considers that the project does not cause negative transboundary impacts on the abiotic marine environment in Finland.	-	This is noted.
54	Ministry of Environment / 2018	The Ministry of the Environment wishes to bring the comments with actual substance to the attention of Denmark to take into consideration in the ongoing EIA procedure and in the permitting of the project (enclosed).		This is noted.
Geri	many			
No.	Consulting party	Response	Answer Nord Stream 2 AG	Answer Danish Energy Agency
1	Bundeswehr - As a body responsible for public interests, i.e. the interests of national defence and Alliance commitments	As a body responsible for public interests, i.e. the interests of national defence and Alliance commitments, I am making - within the framework of the public hearing initiated by the Dan ish Energy Agency - the following comments on the application submitted by the project developer, Nord Stream 2 AG, concerning a construction permit for two route variants south east of Bornholm.	-	This is noted



_				
2	Bundeswehr - As a body responsible for public interests, i.e. the interests of national defence and Alliance commitments	1. Comment on the two route variants of the Nord Stream 2 pipeline southeast of Bornholm with regard to a possible influence on NATO submarine diving areas east of Bornholm Nine contiguous NATO submarine diving areas east of Bornholm which are situated in the Danish and in the Swedish and Polish exclusive economic zones are managed in their entirety and exclusively by the German Navy on behalf of NATO (see contact details below). All year round, they are used regularly by submarines for training and exercise patrols of the German Navy, the NATO partners and other friendly nations. Route variant V2 requested by Nord Stream 2 AG runs through three of these submarine diving areas, route variant V1 only runs through two submarine diving areas and there only in the western peripheries. Since the two route variants do not influence the so-called "safe bottoming areas", the construction and operation of a pipeline are generally acceptable. From a German military point of view, there are therefore no objections against laying the pipeline in accordance with route variants V1 and V2 through NATO submarine diving areas, taking also account of the naval forces of allied and friendly nations as well as international relations. As the influence exerted by route variant V1 on the military training areas is even significantly lower, this variant should be given preference from the point of view of the Bundeswehr.	This is noted.	This is noted.
3	Bundeswehr - As a body responsible for public interests, i.e. the interests of national defence and Alliance commitments	2. Early notification of construction periods and the use of acoustic, optical, optronic, magnetic-sensory, electrical, electronic, electromagnetic and/or seismic measuring equipment a. The utilisation of the NATO submarine diving areas will be planned up to one year in advance. Please provide information on the times when the pipeline through the NATO submarine diving areas east of Bornholm will be installed to the German Navy Headquarters as early as possible, ideally 250 days prior to the start of construction works in the respective sections (see contact details below). b. If - before the activation of the Nord Stream 2 Pipeline - acoustic, optical, optronic, magnetic-sensory, electrical, electronic, electromagnetic and/or seismic measuring equipment is employed, e.g. by means of an unmanned underwater vehicle (e.g. remotely operated vehicle, autonomous vehicle, glider and floats) or as stationary measuring equipment, which may be installed in the direct vicinity of the pipeline if required, within the training areas east of Bornholm, which are under German administration, information on the technical performance data of these instruments, the period of operation and the coordinates of the operating location (including the sections to be examined) shall be provided at an early stage, but not later than 20 working days in advance, to the German Navy Headquarters. After the activation of the Nord Stream 2 Pipeline, the employment of	All Nord Stream 2 activities related to surveys, construction and operation of the pipelines in the Danish waters are permitted, notified and reported to the relevant competent authority in Denmark in accordance with Danish legislation. Current practice is that NSP2 informs the competent Danish Authorities 4 weeks prior to start of surveys.	The Danish Energy Agency has been informed by Nord Stream 2 AG that when Nord Stream 2 AG has been granted a permit to construct the pipelines in Denmark and after the appeal period of four weeks they will most likely start construction. The Danish Energy Agency has also been informed by Nord Stream 2 AG that they plan to start construction in the beginning of 2020 but even earlier if they receive a permit earlier. Therefore it will most likely not be possible to notify a full 250 days before construction. The Danish Energy Agency has no further comments



		acoustic, optical, optronic, magnetic-sensory, electrical, electronic,		on this topic.
		electromagnetic and/or seismic measuring equipment, e.g. by means of		·
		an unmanned underwater vehicle (e.g. remotely operated vehicle,		
		autonomous vehicle, glider and floats) or as stationary measuring		
		equipment, which may be installed in the direct vicinity of the pipeline if		
		required, within the training areas east of Bornholm, which are under		
		German administration, shall generally be prohibited. If the employment		
		of this measuring equipment is absolutely necessary nevertheless, it		
		shall be coordinated at an early		
		stage with the German Navy.		
		Information on the scheduled times when the pipeline within the NATO		
		submarine diving areas will be installed or acoustic, optical, optronic,		
		magnetic-sensory, electrical, electronic, electromagnetic and/or seismic		
		measuring equipment will be employed within the training areas east of		
		Bornholm, which are under German administration, shall be directed to:		
		Contact data of the German Navy Headquarters:		
		DO EXAS		
		Uferstrasse		
		24960 Glucksburg		
		Tel.: 0049 (0)4631/666 - 3228/ - 3221		
		(Point of contact: Kapitanleutnant Mikulsky, Hauptbootsmann Franke)		
		Fax: 0049 (0)4631/666 - 3229		
		E-mail: markdoeinsmoc2exas@bundeswehr.org		
		L-mail. markubeinsmoczexas@bundesweiii.org		
		Outside regular duty hours:		
		DOOPER		
		Uferstrasse		
		24960 Glucksburg		
		Tel.: 0049 (0)4631/666 - 3202		
		Fax: 0049 (0)4631/666 - 3209		
4	Bundeswehr - As a	3. Handling of the monitoring results provided by the monitoring	_	The Danish Energy Agency
¯	body responsible for	programmes during the construction and operation phase		will ensure that the
	public interests, i.e.	If the Danish authorities oblige the project developer to publish the		environmental monitoring
	the interests of	environmentally relevant monitering results acquired during the		data will be forwarded to
		, , ,		
	national defence and	construction and operation phase, data acquired in the NATO submarine		the Federal Office of
	Alliance	diving areas shall not be published, due to the security considerations of		Bundeswehr Infrastructure,
	commitments	the NATO partners and friendly nations, unless a mutual agreement on		Environmental Protection
		the contents of the publications can be made with me in close cooper		and Services through the
		ation with the German Navy. In this case, it must be ensured that		Danish Navy before the
		security-relevant, and thus sensitive, military data of the NATO and of		data is published to ensure
		friendly nations will not be published.		that security-relevant, and
				thus sensitive, military data
				of the NATO and of friendly
				nations will not be
				published. The Danish
				Navy has been informed



				concerning this matter and has agreed to forward this data to the Federal Office of Bundeswehr Infrastructure, Environmental Protection and Services.
5	Bundeswehr - As a body responsible for public interests, i.e. the interests of national defence and Alliance	As representative of the agencies affected directly by the construction of the Nord Stream 2 pipeline, I raise - within the framework of the public hearing initiated by the Danish Energy Agency- the following objections to the application submitted by the project developer, Nord Stream 2 AG, fora construction permit for two route variants southeast of Bornholm.	-	This is noted
	commitments	I would like to point out explicitly that not only the public interest of the safety and security of national and Alliance defence in general is affected, but the project also has a direct effect on the German Navy Headquarters (Marinekommando) as a military agency and its seago ing units as well as on all units of NATO partners and other friendly nations conducting exercises in this area. Therefore, I herewith send you a separate letter containing the objection of the German Navy Headquarters and its seagoing units and of the units of NATO partners and other friendly nations as directly affected agencies.		



6	Bundeswehr - As a body responsible for public interests, i.e. the interests of national defence and Alliance commitments	1. Objections against the two route variants of the "Nord Stream 2" pipeline southeast of Bornholm with regard to a possible influence on NATO submarine diving areas east of Bornholm Nine contiguous NATO submarine diving areas east of Bornholm which are situated in the Danish and in the Swedish and Polish exclusive economic zones are managed in their entirety and exclusively by the German Navy on behalf of NATO (see contact details below). All year round, they are used regularly by submarines for training and exercise patrols of the German Navy, the NATO partners and other friendly nations in order to give the soldiers the best possible initial, proficiency and deployment training for the accomplishment of their missions and operational tasks.	Answered in no. 2.
		Route variant V2 requested by Nord Stream 2 AG runs through three of these submarine diving areas, route variant V1 only runs through two submarine diving areas and there only in the western peripheries. Since the two route variants do not influence the so-called "safe bottoming areas" relevant to the submarine units, the construction and operation of a pipeline are generally acceptable. From the point of view of the German submarine units, there are therefore no objections against laying the pipeline in accordance with route variants V1 and V2 through NATO submarine diving areas, taking also account of the submarine units of allied and friendly nations as well as international relations. As the influence exerted by route variant V1 on the military training areas is even significantly lower, this variant should be given preference from our point of view.	
7	Bundeswehr - As a body responsible for public interests, i.e. the interests of national defence and Alliance commitments	2. Early notification of construction periods and the use of acoustic, optical, optronic, magnetic-sensory, electrical, electronic, electromagnetic and/or seismic measuring equipment a. The utilisation of the NATO submarine diving areas by submarine units will be planned up to an year in advance. Please provide information on the times when the pipeline through the NATO submarine diving areas east of Bornholm will be installed to the German Navy Headquarters as early as possible, ideally 250 days prior to the start of construction works in the respective sections (see contact details below). b. It - before the activation of the Nord Stream 2 Pipeline - acoustic, optical, optronic, magnetic-sensory, electrical, electronic, electromagnetic and/or seismic measuring equipment is employed, e.g.	Answered in no. 3.
		by means of an unmanned underwater vehicle (e.g. remotely operated vehicle, autonomous vehicle, glider and floats) or as stationary measuring equipment, which may be installed in the direct vicinity of the pipeline it required, within the training areas east of Bornholm, which are under German administration, information on the technical performance data of these instruments, the period of operation and the coordinates of the operating location (including the sections to be examined) shall be	



		provided at an early stage, but not later than 20 working days in		
		advance, to the German Navy Headquarters.		
		,		
		After the activation of the Nord Stream 2 Pipeline, the employment of		
		acoustic, optical, optronic, magnetic-sensory, electrical, electronic,		
		electromagnetic and/or seis mic measuring equipment, e.g. by means of		
		an unmanned underwater vehicle (e.g. remotely operated vehicle,		
		, -		
		autonomous vehicle, glider and floats) or as stationary measuring		
		equipment, which may be installed in the direct vicinity of the pipeline		
		if required, within the training areas east of Bornholm, which are under		
		German ad ministration, shall generally be prohibited. It the employment		
l		of this measuring equipment is absolutely necessary nevertheless, it		
		shall be coordinated at an early stage with the German Navy.		
		Information on the scheduled times when the pipeline within the NATO		
		submarine diving areas will be installed or acoustic, optical, optronic,		
		magnetic-sensory, electrical, electronic, electromagnetic and/or seismic		
		measuring equipment will be employed within the training areas east of		
		Bornholm, which are under German administration, shall be directed to:		
		Contact data of the German Navy Headquarters:		
		DO EXAS		
		Uferstrasse		
		24960 Glucksburg		
		Tel.: 0049 (0)4631/666 - 3228/ - 3221		
		(Point of contact: Kapitanleutnant Mikulsky, Hauptbootsmann Franke)		
		Fax: 0049 (0)4631/666 - 3229		
		E-mail: markdoeinsmoc2exas@bundeswehr.org		
		Outside regular duty hours:		
		Outside regular duty hours: DOOPER		
		Uferstrasse		
		24960 Glucksburg		
1		Tel.: 0049 (0)4631/666 - 3202		
		Fax: 0049 (0)4631/666 - 3209		
8	Bundeswehr - As a	Handling of the monitoring results provided by the monitoring	-	Answered in no. 4
	body responsible for	programmes during the construction and operation phase		
	public interests, i.e.	If the Danish authorities oblige the project developer to publish the		
	the interests of	environmentally relevant monitoring results acquired during the		
	national defence and	construction and operation phase, data acquired in the NATO submarine		
	Alliance	diving areas shall not be published, due to the security considerations of		
	commitments	the NATO partners and friendly nations, unless a mutual agreement on		
		the contents of the publications can be made with me. In this case, it		
		must be ensured that security-relevant, and thus sensitive, military data		
		of the NATO units and of friendly nations will not be published.		
	1	or the NATO units and or mendry hations will not be published.	I	1



Lat	via			
No.	Consulting party	Response	Answer NordStream 2 AG	Answer Danish Energy Agency
1	Latvia	Nord Stream 2 is a project which intends to build and operate a new twin pipeline through the Baltic Sea, in order to transport natural gas from Russian Federation to the European Union's internal gas market. Since the provisional pipeline route (and in particular - the South - Eastern route in Danish waters) is not situated in the territorial waters or EEZ of Latvia as well as this route and discussed marine alternatives are not in the direct vicinity of these waters, - possible direct impacts to Latvia are comparably less severe than those identified in the countries of origin.		This is a statement which does not require a response.
2	Latvia	Nevertheless, taking into account the size and nature of the proposed project, the potential environmental impacts during construction and operation phases as well as potential emergency situations, - Latvia is participating in the transboundary EIA process and has previously sent letters containing comments to all parties of origin of the project Nord Stream 2, including Denmark.		This is a statement which does not require a response.
3	Latvia	After evaluation of EIA documentation with particular focus on the potential impacts to Latvia, Latvia sustains all concerns and comments already included in the letters of Bureau No 3-01/1027 and No 5-01/1305 that were sent to Environmental Protection Agency of Denmark on October 2, 2017 and December 19, 2018. These aspects include the possible release of toxic substances from sediments into the water column, their transportation and accumulation into marine organisms and food chains (also prevention and monitoring of these threats); establishing and ensuring of early warning system for accidents; the negative effects of blasting and necessary mitigation measures before and during blasting; historical chemical munitions dumping sites and specific measures in order to ensure that construction of the pipeline will not affect the historical chemical munitions dumping sites, and other issues.		Latvia is asking Denmark to take the previous comments in the letters No 3- 01/1027 and No 5- 01/1305 into account. The Danish Energy Agency finds that the comments from Latvia that in the opinion of the Danish Energy Agency are of relevance to a transboundary environmental impact into Latvia caused by an activity taking place in relation to the Danish section of the pipeline project have been covered by the response of February 9, 2018, Denmark forwarded to Latvia in connection with the Espoo procedure for the southern route in Danish territorial waters. In the view of the Danish Energy Agency there is no comment which needs an additional response for the South-



			Eastern route on the continental shelf in Denmark. The responses from Latvia (No 3-01/1027 and No 5-01/1305) are
			listed from no. 7 to 15.
4	Latvia	Latvia also repeatedly expresses deep concerns that Nord Stream 2 project is not in line with the objectives of European Union set in the field of diversification of energy sources, as well as aims in the field of measures against climate change.	Not relevant in relation to the transboundary impact on the environment in Latvia that could be caused by a proposed activity taking place in the Danish EEZ.
5	Latvia	We kindly ask to take into account our comments and make necessary amendments in EIA documentation, if necessary, prior development consent is given and project is realized.	The comments received both in the national consultation and comments concerning transborundary environmental impact is taken into account in the permit.
6	Latvia	We also kindly ask you to submit the final EIA report and to keep us informed about the further developments in EIA process.	-



Environment State	Having assessed the EIA documentation we conclude that most of the	-	Not relevant in relation
Bureau - 2017	issues raised by Latvia have been addressed satisfactorily in the report.		the transboundary im
	According to results of the study, there is no high concern regarding		on the environment in
	possible transboundary pollution or other impacts on Latvian territorial		Latvia that could be
	waters or EEZ. Nevertheless we draw your attention to several		by a proposed activit
	important aspects regarding transboundary impacts and their		taking place in the D
	assessment, that we hold an opinion should still be considered prior to		EEZ.
	the project acceptance and development:		
	1. EIA report concludes that Latvia shares EEZ borders with Sweden and		
	could thus be subject to transboundary impacts arising from activities in		
	Sweden (the closest distance from the Latvian EEZ to the Nord Stream 2		
	alignment is approximately 25 km). The report also states that although		
	there is a potential for the release of sediment into the water column		
	(and the associated spread of contaminants/sedimentation) and		
	generation of underwater noise within Swedish waters as a result of		
	seabed intervention works, the large distances between these activities		
	in Swedish waters and the Latvian EEZ is such that no transboundary		
	impacts have been identified. Our opinion is that even if the		
	disturbance of sediments during the construction of the pipeline is not		
	planned in the territory or vicinity of Latvia, the release of toxic		
	substances from sediments into the water column, their transportation		
	and accumulation into marine organisms and food chains causes overall		
	concern because of the possible impact scale and long-term effects in		
	the Baltic region. Therefore, the evaluation, prevention and monitoring		
	of these threats should be done in a way that strongly ensures that the		
	realization of the project will not bear any accountable contamination		
	and health risk for living organisms including human.		



	T		-	
8	Environment State Bureau - 2017	2. Another separate issue with great importance is the establishing and ensuring of early warning system for accidents, awareness and possibility of rescue services in the case of emergency to deal with potential accidents. Environmental vulnerability mapping and ranking has been carried out as a part of the project "Sub-regional risk of spill of oil and hazardous substances in the Baltic Sea (BRISK)'. Maps covering environmental vulnerability in relation to oil spills have been determined and drift simulations were carried out to determine the likelihood of an area being contaminated by spilled oil. We conclude that even though with low probability, the simulation of the probability of oil after two days shows, that to some extent oil spills can reach Latvian waters. We agree that the HELCOM countries have adopted a recommendation on the development of national ability to respond to accidental spills of oil and other harmful substances. The specified response times for combating oil spills are that within six hours the spill location shall be reached in the response region of the respective country; an adequate and substantial on-site response action must be implemented within 12 hours; countermeasures against a spill of oil or hazardous substances should be initiated within two days. Nevertheless we consider that EIA report should not only refer to these provisions, but should also contain a notification model or chart, identifying the actions and time frames in state of an emergency for notification of responsible institutions in the affected countries.	vessel collisions). The ERP will include measures such as the following: • Emergency notification plan and assigned emergency responders at all worksites, to ensure fast and appropriate response. • Emergency plans will be documented, accessible and easily understood. • The effectiveness of plans and procedures will be regularly reviewed and improved as required • Plans and procedures will be supported by training and, where appropriate, drills. • Specification of safety equipment. Oil spill response equipment, including IMO approved spill kits, will be held on Project vessels and equipment lists will be maintained. Project vessels will be equipped with emergency oil spill response procedures and staff will be trained in the application of such procedures. Tier 1 category incidents will be responded using an approved Shipboard Oil Pollution Emergency Plan (SOPEP). The SOPEP will cover hazardous materials, waste	The Danish Energy Agency has no further comments on this topic.
9	Environment State Bureau - 2017	3. We consider it is crucial to use dynamically positioned vessels during the building stage to diminish necessity for mine blasting and possible impacts of anchoring in the territory where mine risk is high. It is of utmost importance especially taking into consideration several places in the Baltic Sea, where mines or chemical ammunition objects are found during investigations, which asks for very precise laying of pipeline to avoid unnecessary additional accidents. It is necessary to find best compromise between necessity to ensure safe laying of pipeline by blasting or removing dangerous objects (founded in the vicinity of pipeline route) and the negative effects of blasting as such. Necessary mitigation measures before and during blasting have to be ensured to minimize the possible negative effects.		Not relevant in relation to the transboundary impact on the environment in Latvia that could be caused by a proposed activity taking place in the Danish EEZ.



10	Environment State Bureau - 2017	4. We remain precautious that during construction of the Nod Stream 2 pipeline the historical chemical munitions dumping sites may be affected. It is important that specific measures are envisaged in order to ensure that construction of the pipeline will not affect the historical chemical munitions dumping sites and, consequently, will not produce destructive environmental impact. It is also important that in case such impact occurs, full liability of the damages is taken and the losses of various entities, engaged in the activities in the Baltic Sea as well as in damage liquidation, shall be compensated. Necessary conservation measures for chemical munitions dumping sites in the provisional pipeline route should be assessed.	Potential impacts from chemical munitions during the construction and operational phase relate to the risk of contact of chemical munitions with pipelines and / or people during construction and operation activities. When chemical munitions are left undisturbed, they do not represent any risk to the pipelines or the marine environment. Nord Stream 2 is therefore identifying potential chemical munitions and avoiding them. Contact with identified chemical munitions will be avoided by marking the positions of the munitions in the navigation database as "areas to avoid". In the event that chemical munitions are encountered through surveys, local rerouting is then being undertaken to ensure the minimum distance between the pipeline and chemical munitions, as agreed with the Admiral Danish Fleet (ADF). The specific measures Nord Stream 2 has to adhere to in order to ensure no interaction with chemical munitions, are indeed being advised by the Admiral Danish Fleet (ADF) since the only	The Danish Energy Agency has no further comments on this topic.
			area where there were known sites of chemical munitions dumping in the vicinity of the pipeline route are within Danish waters. In addition to the design surveys, a pre-lay survey will be conducted in advance of commencement of pipe-lay. A remotely operated vehicle (ROV) will be used for touchdown monitoring through critical areas such as crossings, lay-down locations etc. In case possible chemical munitions/munitions-related objects are found, the identification and minimum distance required to avoid the munitions will similarly adhere to those advised by the ADF.	
11	Environment State Bureau - 2017	5. In order to achieve a safe and smooth supply chain, the Nord Stream 2 project plans on using onshore facilities comprising two weight coating plants in Kotka, Finland, and Mukran, Germany, and four pipe storage yards located in Finland, Sweden and Germany. However, as stated in the EIA report, - the logistics concept is subject to further optimisation, and the possibility to use the Freeport of Ventspils in Latvia as an additional pipe storage yard is being considered. It was concluded in the public meeting that was held in Riga on 6th of June 2017, that the use the Freeport of Ventspils in Latvia is no longer being considered, because it does not meet the necessary criteria required for the involvement in the Nord Stream 2 project. We kindly ask the project developers to amend the EIA report accordingly and to remove references to Freeport of Ventspils from the text of EIA documentation.	plants in Kotka, Finland, and Mukran, Germany, and four pipe storage yards located in Finland, Sweden and Germany. An amendment to the described logistics concept in the Espoo Report is therefore not required.	The Danish Energy Agency has no further comments on this topic. It is noted that the repsonse/answer is not relevant in connection with the SE-route on the continental shelf.
12	Environment State Bureau - 2017	6. EIA documentation shall be developed, discussed and consulted as well as final decision taken in a fully transparent and objective manner, ensuring involvement of various stakeholders, among them nongovernmental organizations and environmental institutions. EIA documentation and final decision shall contain information on clear mechanisms how members of the public concerned can have access to a judicial review procedure and principle of access to justice shall be ensured throughout the respective procedures.		The Espoo report in relation to the Denmark has been put forward for public consultation where various stakeholders, nongovernmental organizations and environmental institutions had the possibility to comment on the impacts from Denmark into their country. The permit will be



13	Environment State Bureau - 2017	Concluding the assessment, Latvia expresses deep concerns that Nord Stream 2 project is not in line with the objectives of European Union set in the field of diversification of energy sources, as well as aims in the field of measures against climate change.		public available together with information in relation to appeal possibilities in Denmark on www.ens.dk. Not relevant in relation to the transboundary impact on the environment in Latvia that could be caused by a proposed activity taking place in the Danish EEZ.
14	Latvia - 2018	After evaluation of EIA documentation with particular focus on the potential impacts to Latvia, Latvia sustains all concerns and comments already included in the letter of Bureau No 3-01/1027 that was sent to Environmental Protection Agency of Denmark on October 2, 2017. These aspects include the possible release of toxic substances from sediments into the water column, their transportation and accumulation into marine organisms and food chains (also prevention and monitoring of these threats); establishing and ensuring of early warning system for accidents; the negative effects of blasting and necessary mitigation measures before and during blasting; historical chemical munitions dumping sites and specific measures in order to ensure that construction of the pipeline will not affect the historical chemical munitions dumping sites, and other issues.		The issues are covered by the answers given from row 8, 10 and 11.
15	Latvia - 2018	Latvia also repeatedly expresses deep concerns that Nord Stream 2 project is not in line with the objectives of European Union set in the field of diversification of energy sources, as well as aims in the field of measures against climate change.		Not relevant in relation to the transboundary impact on the environment in Latvia that could be caused by a proposed activity taking place in the Danish EEZ.
Lith	uania			
No.	Consulting party	Response	Answer Nord Stream 2 AG	Answer Danish Energy Agency
1	Lithuania	Ministry of Environment of the Republic of Lithuania did not receive any comments from the public, however there were some issues raised by relevant national authorities. Taking into account these issues, hereby we present our position on the Nord Stream 2 gas pipeline project.	-	This is noted.
2	Lithuania	Lithuania maintains its consistent position that Nord Stream 2 project goes against the aims of European Union (hereinafter - EU) policy on climate change mitigation, energy security and gas supply diversification, while all energy infrastructure projects with European relevance should be compatible with EU law (incl. EU Third Energy Package) and EU energy policy objectives.	-	This is a statement which does not require a response.



		1.00		1
3	Lithuania	Lithuania supports European Commission's view that Nord Stream 2	-	This is a statement which
		could facilitate expansion of Gazprom's position on EU's main gas		does not require a
		markets, hampering the process of creating an open gas market with		response.
		competitive prices and diversified supplies in the EU.		
4	Lithuania	Lithuania also supports European Commission's position that Nord	-	This is a statement which
		Stream 2 project contradicts EU's core energy policy objectives - energy		does not require a
		security and diversification of routes and of sources - and that there is no		response.
		need in the EU for such additional infrastructure. Implementation of Nord		
		Stream 2 project would allow the single supplier (Russian Federation) to		
		dominate the European gas market, undermining regional energy		
		security. It will merely add one more route from the same supplier and		
		will increase already large EU dependence on this supplier.		
Polar	nd			
	Consulting party	Response	Answer Nord Stream 2 AG	Answer Danish Energy
	concurring party	Response	7 Honor Hora Gudani 2710	Agency
1	Poland (compilation	To ensure better understanding of the approach of the Danish party to	_	It is noted that the commen
	of the responses	the requirements for the content of the EIA documentation and		was answered in item 1 in
	from authorities,	proceeding of the environmental impact assessment for the Nord Stream		the letter forwarded by
	NGO's etc.)	2 gas pipeline in transboundary context, the Polish party requests the		Denmark to Poland the 9.
	11003 (10.)	competent authorities of the Danish party for providing the following		February 2018 (reference i
		information on interpretation of the provisions of the Espoo Convention		made to answer no. 24)
		and Directive 2011/92/EU of the European Parliament and of the Council		and the issues brought up
		·		are covered in the non-
		of 13 December 2011 on the assessment of the effects of certain public		
		and private projects on the environment1 (hereinafter: EIA Directive):		technical summary which
		a) whather the requirement contained in item (f) of Annandiv II to the		was translated into Polish.
		a) whether the requirement contained in item (f) of Appendix II to the		Diagon note that the Danie
		Espoo Convention and item 6 of Annex IV to the EIA Directive		Please note that the Danis
		concerning the explicit indication of predictive methods and underlying		Energy Agency finds that
		environmental data used in the EIA documentation provided to the		the non-technical summary
		affected Party in order to take the position on the potential		and the report concerning
		transboundary impacts is applicable only for impacts considered		the transboundary impacts
		significant at the territory of the other state by the authors of the EIA		from Nord Stream 2 South
		documentation,		Eastern route on the
		b) whether the requirement contained in item (e) of Appendix II to the		continental shelf from
		Espoo Convention and item Article 5(c) of the EIA Directive and item 7		Denmark into Poland
		of Annex IV to the EIA directive concerning the description of mitigation		provide substantiated
		measures to keep adverse environmental impact to a minimum is		information about the
		applicable only when the EIA documentation identifies significant		transboundary
		impacts at the territory of the other state,		environmental effects.
		c) whether the requirement contained in item (h) of Appendix II to the		Please also note, that the
		Espoo Convention concerns presentation, where appropriate, an outline		Danish Energy Agency
		for monitoring and management programmes and any plans for post-		finds the information
		project analysis is applicable only when the EIA documentation identifies		provided to Poland in
		significant impacts at the territory of the other state.		Polish concerning the
				impacts into Poland fulfils
		As understood by the Polish authorities and following the long-term		the regulations also in the



		practice, the environmental impact assessment procedure carried out		Espoo Convention.
		under the Espoo Convention aims both at informing the public and		
		potentially affected state's authorities on absence or potential significant		
		transboundary impacts and primarily at enabling independent		
		assessment of these impacts on the basis of EIA documentation		
		provided by the Party of origin. As we have repeatedly notified, the		
		Polish party is legally obliged to provide documentation in Polish		
		language version for comments of the public and authorities, while the		
		state participating in the procedure as the affected Party is entitled to		
		demand that the EIA documentation addresses the issues specified in		
		the requests to this documentation submitted in response to notification		
		(comments to the scope of documentation at the scoping stage). As		
		indicated by the Implementation Committee for the Espoo Convention,		
		this is the obligation of the Party of origin, provided that the demands		
		regarding this documentation are reasonable and comply with the		
		frameworks specified in Appendix II2.		
		With regard to the above, the Polish institutions are entitled to demand that the EIA documentation, translated into Polish language and provided for comments, contains the issues addressing the submitted scoping comments in the scope of potential transboundary impacts at the territory of Poland.		
2	Poland (compilation	In most of the positions, Polish institutions highlight that the documents	The assessment of potential transboundary impacts is based on consideration of several	Please note that the Danish
	of the responses	that were submitted by the Danish Party in Polish as necessary for	factors, including the nature of each potential source of impact, results of mathematical	Energy Agency finds that
	from authorities,	assessment of the potential environmental impact on the territory of	modelling and the distance of the pipeline route (source of impact) to each potentially	the non-technical summary
	NGO's etc.)	Poland contain general conclusions regarding the degree (size) of the	impacted receptor across country borders. Experience gained from monitoring undertaken	and the report concerning
	,	impact of the planned project on the waters in the exclusive economic	before, during and after construction of the Nord Stream Pipeline (NSP) project has also	the transboundary impacts
		zone of Poland (Polish EEZ). The following distances are the only	been taken into consideration.	from Nord Stream 2 South-
		criterion provided that excludes the possibility of an impact on the		Eastern route on the
		territory of Poland: 7.0 km for route V1 and 3.6 km for route V2 from the	The assessment of potential transboundary impacts concludes that potentially significant	continental shelf from
		Polish EEZ. Given the nature of the project and the location of the	transboundary impact on Poland, resulting from project activities in Danish Waters, can be	Denmark into Poland
		activities in the maritime area, in the opinion of the authorities, this is not	excluded.	provide substantiated
		a sufficient criterion to reliably exclude the probability of any impact at		information about the
		the stage of construction and operation of the project.		transboundary
				environmental effects.



3	Poland (compilation of the responses from authorities, NGO's etc.)	Legal remedies The letter of the Danish party of 8 May 2019 encloses information on available remedies, including also in transboundary context. It indicates that the timeline for raising objections to the Danish Energy Board of Appeal is 4 weeks running from the date of issuing the building permit for the investment. Since the administrative decision will be issued in Danish language and, pursuant to Article 6 of the Espoo Convention, must be made available to the public in the state of the affected Party in the official language of this state, the timeline for potential objection by the public and entities of the affected parties may be insufficient to enable the use of remedies in transboundary context, provided i Article 9(2) and Article 3(9) of the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, drawn-up in Aarhus on 25 June 1998 and implemented to the European legislation by the Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment (Article11).		This statement has been answered in the Espoo consultation concerning the north-western route in Denmark and there is no additional specific comment concerning the route southeast of Bornholm on the Danish Continental shelf which needs an additional response. The comment was answered in item 1 in the letter to Poland of 22 February 2019 (reference is made to answer no. 25).
		This is of importance due to the fact that in the case of previously issued permits for the Nord Stream 2 gas pipeline in the other state, the deadline for raising objectives to the administrative decisions of the affected Parties ran from the date of making the decision in the state of the affected Party available to the public.		
4	Poland (compilation of the responses from authorities, NGO's etc.)	Validity of the environmental data used The monitoring department at the Chief Inspectorate of Environmental Protection (GIOŚ) hereby submits an objection to the validity of the environmental data used and highlights the need to use more recent available data for environmental impact analyses, in particular, for biotic elements, i.e. plankton, ichthyofauna and marine mammals. As the results of the performed investigations show, this is important, inter alia, in the context of harbour porpoise presence. The investigations conducted as part of the National Environmental Monitoring Programme in Poland over a period of 24 months showed a tenfold increase in prevalence of the harbour porpoise in the Pomeranian Bay area compared with investigations conducted as part of the SAMBAH project implemented in 2010-2015, to which the authors of the EIA documentation refer (Annex 4).	On the basis of the information provided in the EIA and experience gained from NSP, monitoring of plankton and marine mammals in connection with the construction or operation of NSP2 is not required by the Danish authorities and is therefore not planned in Danish waters. The mentioned data set from the Pomeranian Bay is interesting and provides an additional understanding to the harbour porpoise distribution in the Baltic Sea. However, as the study is in German waters, it is not directly applicable to Danish waters. Further data is also expected in the coming years from the SAMBAH II project, which is currently being planned. The SAMBAH dataset is the only one covering the entire Baltic harbour porpoise population and has been generated from a very ambitious and well acclaimed investigation, spanning several years (May 2011-May 2013). Where possible, the dataset has been validated using other sources of harbour porpoise distribution. Mikkelsen et al. 2016 compared the acoustic detections with the distribution obtained from satellite tracked harbour porpoises in the West-ern Baltic, and found a significant linear relationship between the two methods, thus confirming the validity of the SAMBAH methodology. The SAMBAH dataset is thus very robust with the method and the models being developed by the most experienced researchers in Europe. While the acoustic stations were positioned in a grid 23 km apart from each other, the application of a distribution model to interpolate between these locations enabled a scientifically reliable calculation of densities for the entire area. As part of the analysis a very strict algorithm was used to identify porpoise	Please note that the Danish Energy Agency finds that both the Danish National EIA and the report concerning the transboundary environmental impacts for the Nord Stream 2 project comply with the legislation and provide substantiated information about the transboundary effects from the Nord Stream 2 gas pipeline project. Please also note, that the Danish Energy Agency finds no reason to doubt the overall conclusion, that the Nord Stream 2 gas pipeline project has no significant environmental impacts from Denmark into Poland.



			sounds in the dataset to avoid false positives in such a low density area, consequently all the clicks detected during SAMBAH project are indeed from harbour porpoises. There is thus sufficient data regarding the size and distribution of the Baltic harbour porpoise population present to support the assessment of impact provided in the EIA Report.	
5	Poland (compilation of the responses from authorities, NGO's etc.)	Baltic cod population status As regards the analysis of the population status of the Baltic cod in the Danish Report (point 7.9.2.1), in addition to the reference to the Danish ICES reports on the Baltic cod population status, reference should also be made to the latest publication available in this field published in 2019 (Annex 9).	It is not clear which report is being referred to. Our assumption is that the reference is to the report published on 29 May 2019 (http://ices.dk/sites/pub/Publication%20Reports/Advice/2019/2019/cod.27.24- 32.pdf), i.e. after submission of the EIA in April 2019. The baseline description for the Baltic cod population which is presented in the EIA drew from data published between 2014 and 2018. This data basis is sufficient for establishing a baseline from which impacts can be assessed. Furthermore, as the impact assessment iden-tified no population-level impacts on Baltic cod (or on fish in general), the conclusions of the assessment remain valid.	The Danish Energy Agency has no further comments on this topic.
6	Poland (compilation of the responses from authorities, NGO's etc.)	Impact of underwater noise on fish and marine mammals In its position, GIOŚ reports an objection to the approach to the analysis of the impact of underwater noise on fish and marine mammals. In its position, it states that both fish and marine mammals exist in stocks that move and do not stay in one particular location. Given the distance of the work site of 7 km from the Polish EEZ, the statement that "As such, rock placement within Danish waters is not expected to cause TTS- related impacts on marine mammals or fish within the Polish EEZ" is not justified and is incorrectly substantiated in the document (chapter 1.2.3, Transboundary Impact, EIA documentation).	As described in the EIA, the highest potential underwater noise source from Nord Stream 2 in Danish waters is at the planned locations of rock placement (for example at the Nord Stream crossing). Since no in situ detonation of munitions is foreseen, there is no risk of permanent hearing damage on marine mammals or fish. There is a risk of onset of temporary hearing loss only within 80 m of rock placement for marine mammals and within 100 m of rock placement for fish. For such temporary hearing loss to occur, the mammals and fish would have to remain in the immediate vicinity for a period of at least two hours. Since marine mammals and fish are expected to swim away rather than remain in the immediate location where intervention works are being carried out, such an occurrence of temporary hearing loss is extremely unlikely. The conclusion is that underwater noise may trigger temporary avoidance reactions in individuals, and the overall impact on individuals is therefore assessed to be, at most, minor in Danish waters and negligible in other jurisdictions. Marine mammals and fish occurring in the Polish EEZ or travelling from the Danish EEZ into the Polish EEZ are, as such, assessed to be outside the range of potential impact from underwater noise.	The Danish Energy Agency has no further comments on this topic.



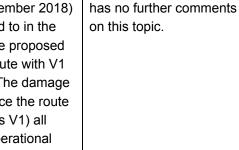
The Danish Energy Agency

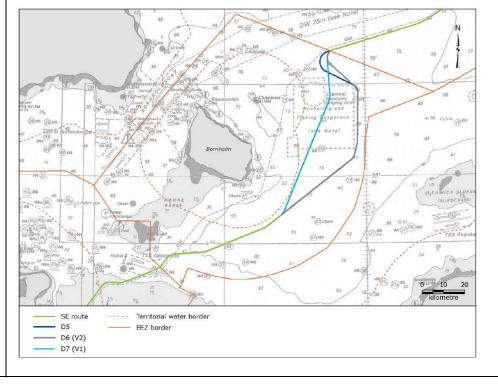
7 Poland (compilation of the responses from authorities, NGO's etc.)

Damage assessment report

In the position of the Department of Oil and Gas of the Ministry of Energy, attention is drawn to the absence of a damage assessment report for the new proposed route (point 13.3 of the Danish Report). The Danish Report highlights that the Damage Assessment Report used for the previous variant of the gas pipeline route meets the requirements of this documentation. In the opinion of the authority, the request may be questioned and, together with the change of the route, risk assessments dedicated to the newly proposed Nord Stream 2 route should be carried out.

The operational risk assessment presented in the EIA is based on information contained in three documents: damage assessment (August 2018), risk assessment (September 2018) and updated risk assessment (March 2019). The damage assessment referred to in the EIA was prepared in August 2018 based on an earlier route version (D5) of the proposed NSP2 route, which is very similar to the combination of the proposed NSP2 route with V1 and the combination of the proposed NSP2 route with V2 (see figure below). The damage assessment relies on ship crossing data and forecasted future ship traffic. Since the route versions D5, D6 (referred to in the EIA as V2) and D7 (referred to in the EIA as V1) all cross the same ship traffic streams, the damage assessment is used in the operational risk assessment of the proposed NSP2 route. The risk assessment report referred to in the EIA was updated in March 2019 with the development of the detailed pipeline engineering design to incorporate the applied route developments. As such, the risk assessment results cited in the EIA pertain to the combination of the NSP2 route with V1 (D7) and the combination of the NSP2 route with V2 (D6).







8 Poland (composite responsion of the responsion from authorities NGO's etc.)	ses III es, p to F u n s c F t t t t t t t t t t t t t t t t t t	No access to monitoring data for the Nord Stream Gas Pipeline in arguing the absence of significant transboundary impacts of the planned activity, the authors of the EIA documentation repeatedly refer to the results of the monitoring analyses of the existing Nord Stream Gas Pipeline project. At the same time, they emphasise the extensive and unique body of environmental data collected during post-project monitoring. I would like to highlight that the publications sent by Nord Stream AG in 2011-2015 contained only an interpretation of the results of environmental and socioeconomic monitoring. The baseline data for the existing Gas Pipeline, despite repeated applications submitted by the General Directorate for Environmental Protection, including to FDI Nord Stream AG, have not been made available. Polish institutions giving opinions on the EIA documentation for Nord Stream 2 Gas Pipeline are not able to verify or analyse the data, which form an important basis for arguing the absence of significant environmental impacts of the planned project.	Nord Stream AG is sharing its seabed survey and environmental project data with the scientific community through its Data and Information Fund (DIF) portal. The DIF portal contains data collected for pipeline route design as well as for the project's environmental impact assessments and environmental and social monitoring during pipeline construction. The Nord Stream DIF can be used by academic, research, educational and governmental persons and organisations. Nord Stream AG is the sole owner of information collected in the Nord Stream DIF. The use of data from the DIF is subject to registration and acceptance of the data use policy. Access to the Nord Stream DIF is possible via the following link: https://www.nordstream.com/environment/data-and-information-fund/dif/	The Danish Energy Agency has no further comments on this topic.
9 Poland (composite responsion of the responsion from authoriting NGO's etc.)	ses es, sies, sies	Hazards associated with dumped chemicals and munitions Polish institutions, in particular the Institute of Oceanology of the National Academy of Sciences (IOPAN - Annex 3), the Maritime Office in Szczecin (Annex 7) and the Department of Maritime Economy of the Ministry of Maritime Economy and Inland Navigation (MGMiŻŚ) specifically highlight the risks associated with the new south-eastern pipeline route in the Bornholm Deep chemical munitions dumping sites. Despite the fact that this route bypasses the original munitions dumping area, it runs through the extended area, which was marked out due to the poor precision of navigation in the 1940s. In this area, there are approximately 40,000 tonnes of chemical munitions, the majority of which are mustard gas (approximately 80%) and the remaining resources are CLARK I and II and Adamsite. As confirmed by the investigations conducted under the programmes CHEMSEA, MODUM and DAIMON, samples of benthic sediments in this region showed the presence of chemical warfare (CW) agents even up to 200 m away from the detected objects. Given the above, the possibility of the movement of contaminated sediments as a result of nearbottom currents by considerable distances must be taken into account; this is connected with the potential contamination of a large area, especially of the benthic ecosystem. It must be highlighted that both the gas pipeline V1 and V2 route variants involve serious risk. Variant V1, running closer to the original dumping site, is unfavourable due to the potential re-suspension of contaminated sediments and their release into the ecosystem. On the other hand, variant V2 runs close by to sites where accidental recoveries were alread done in the past. IOPAN's position presents the results of a numeric simulation of the spreading of sediments contaminated by chemical agents conducted using HRDM (High Resolution Dispersion Model). These results show that despite the fact that the suspension spill does not reach the Polish EEZ, it does lead to the contamination o	The EIA presents information on chemical warfare agents (CWA) in sediment on the basis of survey results from surface sediment sampling along the proposed NSP2 route, including route variants V1 and V2. These surveys have shown which types of CWA and CWA degradation products are present along the route, and at what concentrations. The available data on CWA in the Baltic Sea suggest that they are poorly dissolvable in water and as such exist mainly as particulate material that will rapidly resettle, if disturbed, on the seabed; consequently, within the immediate vicinity of the pipelines. Based on modelling of sediment dispersion and the distance to Polish waters, it is assessed that there will be no transboundary impacts (e.g. on water quality or benthos) in Polish waters due to sediment dispersion and the potential release of CWA or other contaminants. The EIA includes an assessment of potential impacts on biodiversity (section 9.13), i.e. habitats, species and ecosystems. Impacts on biological diversity during construction and operation are assessed to be negligible. Since the impact on the ecosystem in Denmark is assessed to be negligible, any transboundary impact on Poland would also be negligible.	The Danish Energy Agency has no further comments on this topic.



	of another disturbance of contaminated sediments) - a larger area contaminated by CW agents. The consequences of these events may have impacts on the territory of Poland. That is why in the opinion of Polish experts, sediments on the gas pipeline route close to historic conventional and chemical munitions dumping sites should be checked in terms of content of CWAs and their breakdown products, and if such are found, disturbance of their surface must be avoided on a continuous basis.		
10	Restriction on and safety of shipping, risk of collision The Szczecin Maritime Office, in its position (Annex 7) requests that Denmark, as the state administering the seawaters in the area of planned investment project, make best efforts to ensure that the planned project does not cause disruption to shipping or limitation to performance of vessels using existing shipping routes. Moreover, the Szczecin Maritime Office maintains its position attached to the letter of 26.09.2017 on taking into account Poland's development plans and ensuring adequate access to Polish seaports in Świnoujście and Szczecin, as well as the feasibility of the Baltic Pipe gas pipeline so that the place where the gas pipelines intersect does not limit shipping for deep draft vessels. On the other hand, based on the analysed documentation made available in Polish, the Department of Maritime Economy (Annex 6) maintains its position regarding the EIA report submitted by the Danish Party for Nord Stream 2 Gas Pipeline routes on the south-eastern route, on the lack of detailed safety analyses for shipping supported by reliable bathymetric investigations and taking into account the development plans of the countries of the parties of origin and affected countries, including the development plans of ports, as well as planned and other projects within the Baltic Sea.	The EIA addresses all relevant development plans, including Baltic Pipe, in the cumulative impact chapter and concludes that NSP2 does not impact any other infrastructure project. The EIA addresses the safety of shipping based on risk assessments performed in accordance with international design codes and verified by DNV-GL. The risk assessments consider the risk in relation to ship traffic during construction and operation and includes dialogue with the users of the waters and the relevant Danish authorities. The conclusion reached, based on the evaluations performed, is that the proposed NSP2 route (south-eastern route) is acceptable from a maritime safety perspective. The proposed NSP2 route can be constructed and operated in accordance within the industry specific risk acceptability criteria. Potential impacts on shipping and shipping lanes from construction and operation of Nord Stream 2 in Danish waters are assessed to be not significant.	The Danish Energy Agency has no further comments on this topic.



11	Poland (compilation of the responses from authorities, NGO's etc.)	Description of investment impact on protected areas, Baltic fauna and flora, including birds and sea mammals Protected areas and preservation of their integrity In the scoping position of 18.06.2013, the Polish Party has requested that detailed analyses of the impact on species and habitats protected within the areas of the European Ecological Network Natura 2000, located in the Polish area of the Baltic Sea be submitted in the EIA documentation. In particular, it requested inclusion of the impact on the Pomeranian Bay area (PLB990003) and the Słupsk Bank area (PLC990001). Attention was also drawn to th necessity to protect the integrity and cohesion of Natura 2000 areas. In chapter 1.1.4 of the document 'Transboundary Impacts', the authors of the EIA documentation highlight the need for both an individual approach to the protection of particular Natura 2000 areas and for the taking into account their significance in the context of the Natura 2000 network of the entire Baltic Sea. However, such a statement is not reflected in the conducted environmental analyses. The Regional Director for Environmental Protection in Gdańsk requests an explanation of why no arguments have been put forward that would show that there is no risk of compromising the cohesion of the network in connection with the implementation of the project between the Natura 2000 site Lawica Słupska PLC990001 and the Danish and German Natura 2000 sites located west of the Słupsk Bank. The only criterion used in the assessment of potential transboundary impacts is the distance from the planned location of the gas pipeline within which potential disturbances are expected.	Nord Stream 2 AG has performed Natura 2000 screening of individual Natura 2000 sites in accordance with Article 6(3) of the Habitats Directive and Danish legislation. Based on the information about the planned project activities, modelling results for e.g. sediment dispersion and underwater noise, and scientific knowledge, there are no Natura 2000 sites located within the range of potential impact from the NSP2 project. The overall conclusion is that that ther will be no risk of significant impact on the integrity of Natura 2000 sites. Therefore, the coherence of the Natura 2000 network, including spatial and functional connections, will not be affected. The proposed NSP2 route does cross wintering grounds for waterbirds for a distance of approximately 25 km near the Danish-German EEZ border. Impact distances from all possible sources have been described and assessed in detail in the EIA. For birds, potential negative impacts will, in general, be limited to a 1-1.5 km radius around the working area, and the potential impacts mainly consist of temporary behavioral changes. Given a pipe-lay rate of approximately 3 km/day, the total duration of pipe-lay activities within these wintering grounds is estimated to comprise 7-8 days. On the basis of the assessments completed in sections 9.10 and 14 of the EIA, no significant impacts on birds were identified. Nord Stream 2 AG thus considers that impacts on birds have been adequately assessed in the EIA and that the range of potential impact from activities in the Danish EEZ will not affect Natura 2000 sites nor their designated bird species.	The Danish Energy Agency has no further comments on this topic.
		The analysis made no reference to the attached construction works schedule, which shows that the most "risky" construction works for the environment (seabed intervention works and movement of rock mass, and works related to laying the pipeline on the seabed) are planned for the period of the first quarter that is sensitive for birds wintering in these areas (January - March).		
12	Poland (compilation of the responses from authorities, NGO's etc.)	Natura 2000 and Marine mammals In the division III d of ICES waters (Baltic Proper with adjacent bays), there is a water-body-specific harbour porpoise population critically endangered (CR IUCN), which is the highest endangerment category used, as it directly precedes the extinction of the species (population). Given the protection of the critically endangered population of the harbour porpoise of approximately 450-500, the life and health of even one individual may not be put at risk during the implementation of the project.	Population dynamics and distribution patterns have been taken into account for all residential species of marine mammals in the Danish part of the Baltic Sea, both in the preparation of the baseline description and the impact assessment. The critically endangered (and EU Annex II and IV) categorisation of harbour porpoise has been recognised in the determination of receptor importance applied in the EIA, and subsequently in the determination of the overall impact ranking (in accordance with the assessment methodology described in the EIA section 8). The SAMBAH project estimated the population size of harbour porpoises in the Baltic Proper to be 500 individuals (95% CI 80-1090).	The Danish Energy Agency has no further comments on this topic.
		As per the information contained in the Danish Report, the stage of project implementation works that will have the biggest impact on marine	The investigation regarding harbour porpoise was undertaken by DCE at the University of Aarhus, who are recognised experts in this area. That assessment covered all planned	



mammals will be the construction of the section requiring rock dumping. As the underwater noise propagation modelling shows, individuals that are very close, up to 80 m from the source of the noise, may be negatively impacted in the form of a temporary threshold shift (TTS). However, no precautionary measures aimed at the dispersion of animals from the area at risk of negative impact are expected.

This is justified by the fact that the noise generated by slow-moving vessels laying pipes will be comparable to a fast commercial vessel, which, as highlighted by the authors of the Danish Report based on literature data, will be sufficient to induce behavioral reactions involving the dispersion of animals within approximately 200 m of the source of the noise (the Danish Report, p. 334). However, the investigations presented in the report show that for fastmoving vessels within approximately 200 m of the harbour porpoise, the likelihood of a behavioral reaction in the animal, for example, a change of route or behaviour, is approximately 40%. In addition, it must be highlighted that in

accordance with the SAMBAH project, seasonal migrations of harbour porpoises occur from Faxe Bugt through the Arkona Basin and Bornholm Strait up to concentration sites during the breeding season found in the south-east of the Bahian Sea, where the noise level is between 100-130 dB re $1\mu Pa$ (the Danish Report, p. 285), which may suggest that these animals are used to an increased noise level related to the operation of ship engines.

For this reason, in the opinion of the Polish Party, using the presented assumptions as bases without providing safeguards that would ensure a decrease or elimination of this impact may result in negative transboundary impacts for all countries in whose Natura 2000 sites, harbour porpoises, in particular from the Baltic population, are protected. Given the above, the Polish Party requests that in the final decision specify the necessary mitigating measures, such as water curtains or acoustic devices, used to deter seals and harbour porpoises from construction areas generating the most underwater noise.

activities during NSP2 construction and operation and considered, amongst others, the potential impacts on harbour porpoise arising from the predicted changes in underwater noise levels and in concentrations of suspended sediment and associated contaminants and nutrients. It was also informed by the monitoring of construction and operation of the existing Nord Stream pipeline system.

As described in the EIA, and recognized in the consultation statement, the highest potential underwater noise source from Nord Stream 2 in Danish waters is at the planned locations of rock placement (for example at the Nord Stream crossing), as there will be no munitions clearance by controlled detonation is foreseen in these waters. Based on underwater noise modelling and applicable scientifically based thresholds, it is assessed there is no risk of permanent hearing damage, whereas noise levels which could potentially result in risk of onset of temporary hearing loss (usually lasting from minutes to days), would only occur within 80 meters of rock placement activities. For this to materialise, however, would presuppose that harbour porpoises remain in that small area for a period of at least two hours. Since marine mammals are expected to swim away rather than remain in the immediate location where intervention works are being carried out, such an occurrence of temporary hearing loss is extremely unlikely.

The conclusion of the EIA is that underwater noise may trigger temporary avoidance reactions in individuals, and the overall impact on individuals is therefore assessed to be, at most, minor in Danish waters. On this basis, the EIA concluded that there would be no significant population-level impacts to marine mammals. On this basis, no mitigation measures are suggested in the EIA.

The use of mitigation measures in relation to marine mammal species (i.e., acoustic detectors, visual registration by observers, ADDs) is not described in the EIA because, given the activities to be carried out in the Danish EEZ which are assessed to have no significant impacts, such measures are not assessed to be required.

Furthermore, the use of acoustic deterrent devices (ADDs) to scare harbour porpoises away from detonation areas should be carefully considered and only where required, since such devices can cause permanent hearing loss in these animals. This is substantiated by HELCOM11 who recommends ADDs as one of the many methods used to scare away seals from munitions clearance, but not to scare away harbour porpoises.

1/ Draft Material on Mitigation of Noise Impact on Marine Vertebrates from Munitions Clearance - Helsinki, Finland, 4-5 October 2016



13	Poland (compilation	Munitions	The preliminary results of the munitions screening survey along the proposed NSP2 route	The Danish Energy Agency
	of the responses from authorities, NGO's etc.)	The pipeline route runs through areas in which there is a risk of coming across both conventional and chemical munitions. Preliminary investigations along the south-eastern route in variant V2 identified a line of land mines of approximately 800 kg. Given the above, it was found necessary to introduce mitigation measures for this purpose; however, these have not been clearly defined at the stage of the procedure being conducted. The Polish Party requests that in the case of locating objects requiring in situ detonation, appropriate measures mitigating the impact of underwater noise on marine mammals are defined. These actions should be supported by the performance of modelling of detonation noise propagation. The investor's approach to endangered and critically endangered species should be in line with the precautionary principle arising under art. 191 para. 2 of the Treaty on the Functioning of the European Union, where any uncertainties and potential impacts should always be interpreted in favour of the environment, not in favour of the investment.	were available at the time of the completion of the EIA report, but reporting of the results was not yet finalised. The preliminary results were incorporated into the assessment reported in the EIA. The final survey results have confirmed the results reported in the EIA. The route alignment has been adjusted to safely accommodate all found munitions along the proposed NSP2 route, i.e. a minimum offset distance to the pipelines. No in situ munitions clearance by controlled detonation is foreseen in Danish waters based on results of the munitions screening survey along the proposed NSP2 route. In the case of the identified line of ground mines along the corridor of the V2 route variant, the safe approach to avoid the munitions will be agreed with the relevant Danish authorities prior to construction. As such, the Danish EIA does not consider mitigation measures related to munitions clearance and an assessment of the impact of such activity on marine fauna is not applicable.	has no further comments on this topic.
14	Poland (compilation of the responses from authorities, NGO's etc.)	Fish Given that the planned project crosses an important cod (Gadus morhua) spawning ground on a section of approximately 15 km, on which it will impact through physical disturbances, the release of sediments and contaminants into the water column and the creation of under-water noise, it is reasonable to refrain from works that could impact the spawning process of the above mentioned species (in the April - June period). The investor should identify the activities that can particularly affect cod spawning and damage deposited eggs or disturb the growth of the fry, and present them as a list of activities that will not be implemented during the spawning period. Such preventive measures have already been introduced in a similar situation for the section running through Swedish waters.	Assessment of impacts on fish, including impacts on fish spawning, has been performed as part of the Danish EIA. The assessment also includes the life cycle of fish in the marine environment, i.e. eggs, larvae and adult fish, as applicable. Particular consideration has been given to the section of the proposed NSP2 route that goes through the cod spawning area in the Bornholm Deep. In the EIA, it has been shown that neither release of sediments, contaminants into water column nor underwater noise or water movements from the thrusters will have a significant impact on fish and fish reproduction. Since the EIA conclude that over-all cod reproduction in the spawning area will not be impacted by NSP2, preventive measures are not required.	The Danish Energy Agency can inform you that the permit contains a condition where the developer in planning the construction works must attempt to avoid pipelaying in the restriction area for fishery in what is known as the Bornholm Deep during the period from July to August. No intervention works may be carried out during the period mentioned.



15	Poland (compilation of the responses from authorities, NGO's etc.)	Commercial fishery The Department of Fisheries of the Ministry of Maritime Economy and Inland Navigation (MGMiŽŚ) (Annex), based on information on the impact on commercial fishing presented in the documentation made available in Polish, requests that funding be secured to compensate for lost fishing opportunities for Polish fishermen during the construction and operation of the Nord Stream 2 Gas Pipeline (Annex 5).	The experience of constructing the existing Nord Stream pipeline has shown that by regularly informing the fishermen about construction progress, the presence of construction vessels and safety zones around these vessels have no impact on fishery since safety zones are imposed locally and only short term. The Nord Stream 2 pipeline is designed in the same way as the already existing Nord Stream pipeline, and both pipeline systems are confirmed to be overtrawlable. A study concerning bottom trawling in the Swedish EEZ with the purpose to map commercial fisheries above and around the existing Nord Stream pipelines, before and after the construction of the pipe-lines, has shown that no changes in bottom trawling activities as a result of the pipeline system could be seen. The experience from eight years of operation of the Nord Stream pipeline show that fishermen and the pipeline can co-exist and the pipeline does not have an impact on the fisher-men's livelihood. There have been no incidents and no fishery gear has been reported to be damaged or lost due to interaction with the pipeline. Nord Stream 2 AG will apply the Danish Maritime Authority to grant an exemption from the ban on the use of bottom trawling equipment around the NSP2 pipeline in Danish waters during operation of the pipeline to allow fishing activities during the operation of the pipeline. Therefore, there will not be "lost fishing opportunities" for Polish fishermen.	The Danish Energy Agency has no further comments on this topic.
16	Poland (compilation of the responses from authorities, NGO's etc.)	Preventive and mitigation measures In the EIA documentation (Non-technical summary in non-specialist language, chapter 0.12, p. 20), the authors indicate that the main objective during planning and design of the Nord Stream 2 Gas Pipeline was to identify measures to mitigate the project's impact on the environment, and the main objective in defining mitigation measures was to prevent minimise the identified negative impact. Having presented in the above points justified objections as to the negative impacts, the Polish Party requests the inclusion of mitigation measures for fish, birds and mammals that live and prey in the area of the planned Nord Stream 2 Gas Pipeline route in the Danish section. According the Polish experts, construction work should be carried out outside the period of breeding and rearing of young mammals, and for the protection of fish in a way that takes into account the periods of spawning and rearing of fry, in particular, of the cod. The restrictions should be introduced, inter alia, due to the impact of underwater noise.	Regarding potential impacts on marine mammals and fish from underwater noise: As described in the EIA, the highest potential underwater noise source from Nord Stream 2 in Danish waters is at the planned locations of rock placement (for example at the Nord Stream crossing). Since no controlled detonation of munitions is foreseen, there is no risk of permanent hearing damage on marine mammals or fish, and there is a risk of onset of temporary hearing loss only within 80 m of rock placement for marine mammals, and within 100 m of rock placement for fish. For such temporary hearing loss to occur, the mammals and fish would have to remain in the immediate vicinity for a period of at least two hours. Since marine mammals and fish are expected to swim away rather than remain in the immediate location where intervention works are being carried out, such an occurrence of temporary hearing loss is extremely unlikely. The conclusion is that underwater noise may trigger temporary avoidance reactions in individuals, and the overall impact on individuals is therefore assessed to be, at most, minor in Danish waters and negligible in other jurisdictions. On this basis, no given the activities to be carried out in the Danish EEZ, mitigation measures in relation to marine mammal or fish such measures are assessed not to be necessary. Regarding potential impacts on birds and the question of mitigation measures: impact distances from all possible sources have been described and assessed in detail in the EIA. Potential negative impacts will, in general, be limited to a 1-5 km radius around the working area, and the potential impacts mainly consist of temporary behavioural changes. Monitoring undertaken as part of the NSP project in Germany did not reveal any negative influence on bird density, abundance or distribution, and potential displacement effects were found to be minor compared with effects from commercial ship traffic. On the basis of the assessments completed in the EIA, no	The Danish Energy Agency can inform you that the permit contains a condition where the developer in planning the construction works must attempt to avoid pipelaying in the restriction area for fishery in what is known as the Bornholm Deep during the period from July to August. No intervention works may be carried out during the period mentioned.



significant impacts on birds, including transboundary impacts, were identified. Nord Stream 2 AG thus considers that the imposition of mitigation measures specific to birds is not necessary. Regarding potential impacts on breeding marine mammals and spawning fish: Population dynamics and distribution patterns have been taken into account for all residential species of marine mammals in the Danish part of the Baltic Sea, both in the preparation of the base-line description and the impact assessment. The proposed NSP2 route does not cross important breeding areas or known migration routes for marine mammals in Danish waters. Overall, it is assessed as highly unlikely that the short-term nature of Nord Stream 2 construction activities in Danish waters at any location would affect migration or breeding patterns for marine mammals. It has been shown that neither release of sediments and contaminants into water column nor underwater noise will have a significant impact on marine mammals or their long-term behaviour. Assessment of impacts on fish, including impacts on fish spawning, has been performed in both the Swedish and Danish Environmental Impact Assessments (EIA). The assessment also includes all growing stages of fish in the marine environment, i.e. adult fish, eggs and larvae, as applicable. Particular consideration has been given to the section of the proposed Nord Stream 2 route that goes through the cod spawning area in the Bornholm Deep. It has been shown that neither release of sediments, contaminants into water column nor under-water noise or water movements from the thrusters will have a significant impact on fish and fish reproduction. Based on the above, the EIAs conclude that overall cod reproduction in the spawning area will not be impacted by Nord Stream 2.



17	Poland (compilation
	of the responses
	from authorities,
	NGO's etc.)

Monitoring

As indicated by the authors of the EIA documentation, the monitoring programme for the planned investment in Denmark shall be developed at a later stage.

Since the post-implementation monitoring aims at verification and assessment of the assumptions and environmental impacts described in the EIA documentation and since the Polish party submits numerous issues related to verification of potential transboundary impacts, we request access to the monitoring programme upon its development. All investments implemented in the Baltic Sea area of potential significant environmental impact, including in particular large-scale investments, such as Nord Stream 2 gas pipeline, constitute the object of interest of the states involved in the works of the Helsinki commission involved in protection of natural environment of the Baltic Sea. The Convention on the Protection of the Marine Environment of the Baltic Sea Area, drawn-up in Helsinki on 9 April 1992, obliges the states sharing the transboundary waters of the Baltic Sea to jointly take appropriate measures in order to prevent and eliminate pollution including cumulative deleterious effects (Article 7(3) and all appropriate measures to conserve natural habitats and biological diversity (Article 15).

Since the authors of the EIA documentation assure (Non-technical summary, chapter 0.13) that the results of the environmental and socio-economic monitoring will be made public, we kindly request the competent Danish authorities to provide access to the outcomes of the post-implementation monitoring in the issues raised in the statement in the form of original output data to enable independent verification by the competent authorities in Poland.

permit that Nord Stream 2 AG has to conduct a monitoring programme, covering both the construction and the post construction phase. The monitoring programme has to be approved by the Danish authorities before the construction phase. The program will take relevant comments and proposals received during the transboundary consultation process into account. In the transboundary environmental impact report for the south-eastern route of Nord Stream 2 on the continental shelf in Denmark it is concluded that there will be no significant transboundary impacts from Denmark into Poland from the construction or operation of Nord Stream 2, which the Danish Energy Agency finds no reason to doubt. Therefore the Danish Energy Agency expects no further consultation of Poland concerning a monitoring program.

It is a condition in the



Poland (compilation	Summary -	The comments forwarded
of the responses	The Polish party kindly requests to address the comments presented in	by Poland to Denmark has
from authorities,	the statement in writing and consider the submitted postulates in terms	been carefully reviewed
NGO's etc.)	and conditions of implementation of the investment included in the final	and the Danish Energy
	decision. The Polish party asks for providing the response, if possible, in	Agency has prepared a
	a single document without referring to the responses provided under the	summary of your comme
	environmental impact assessment procedures for the remaining route	and a summary of the
	alternatives on Danish waters. Such approach will considerably facilitate	answers from the Nord
	analysis of responses and explanations to the Polish institutions.	Stream 2 AG (as
		developer) regarding the
		issues in your letter that
		of relevance to a
		transboundary
		environmental impact in
		Poland caused by an
		activity taking place in
		relation to the Danish
		section of the pipeline
		project. One comment h
		been covered by item 1
		the letter Denmark
		forwarded to Poland the
		February 2018 (reference
		made to no. 24). One
		comment has been cover
		by item 1 in the letter
		Denmark forwarded to
		Poland the 22 February
		2019 (reference is made
		no. 25).



19	Poland (Appendix 9 to Polish opinion: Position of the Department of Oil and Gas at the Ministry of Energy)	Release of sediment and sedimentation The conclusion regarding the supposed absence of impacts on Polish waters as a result of sediment spreading was based solely on numeric modelling and the distance criterion. The report does not present detailed modelling data and variables regarding the impact of specific distances from construction sites on the territory of the Affected Parties. The analysis of transboundary impacts in this respect is cursory, vague and incomplete. Detailed data should be presented and empirical tests should be conducted on sediment spreading, particularly in post-trenching conditions. To meet the requirements of an environ-mental impact assessment in a transboundary context, it is also necessary to present matrices showing the impact of specific distances on the intensity of potential impacts.	The mathematical modelling of release of sediment and sedimentation has been undertaken using a similar methodology as was applied for the NSP2 base case route. The modelling methodology and assumptions are described in the EIA (section 8.4), with further details available in the quoted EIA background report for the Southern Route (Nord Stream 2 AG and Ramboll, 2018, "Modelling of sediment spill in Denmark – Southern Route"). As described in the transboundary impact assessment in the EIA (section 14), local impacts on the seabed and the marine benthos in the Polish EEZ are expected due to the release of sediments and sedimentation during pipe-lay in Denmark close to the EEZ border between Denmark and Poland. No seabed interventions are planned in the area close to the Polish EEZ, and as illustrated by the sediment spread modelling results, pipe-lay will not result in significant sediment spread. The impacts are assessed to be highly localised at the EEZ border and of negligible significance. The project will minimize sediment spread through the use of seabed intervention works, which are planned in only two locations along the section of the pipeline in Danish waters. Rock placement will be performed in a controlled manner using a fall-pipe. In the event that post-lay trenching is necessary, the excavated material displaced from the plough trench will be left on the seabed immediately adjacent to the pipeline (instead of being mechanically backfilled), thereby allowing for partial, natural backfilling to occur over time due to the currents close to the seabed.	The Danish Energy Agency has no further comments on this topic.
20	Poland (Appendix 9 to Polish opinion: Position of the Department of Oil and Gas at the Ministry of Energy)	Sea water pollution (second, third and fourth paragraph) This risk refers to potential impacts of the operation of systems and auxiliary devices during construction works. For the construction of Nord Stream 2, this concerns PSV auxiliary vessels, as well as equipment used for testing, construction and in construction handovers. The analysis of potential transboundary impacts contained in the report completely omits this aspect of potential impacts, contrary to the cited interpretation of EU regulations devoted to EIA. The oil-spill scenario presented in the report is also limited to finding a low risk of transboundary impacts based on the distance criterion.	The assessment of transboundary impacts presented in the EIA has included all facets of construction and operation of the NSP2 pipeline, including the operation of systems and auxiliary devices during construction works. For all resources and receptors, no or negligible transboundary impacts were identified. As regards water quality in particular, local impacts were assessed to be negligible, and no transboundary impacts were identified. Regarding the oil spill scenario, the EIA report concludes that impacts on the marine environment from a potential, unforeseen oil spill would be minimised based on the application of HELCOM Recommendation 11/13, which recommends that contracting parties be able to respond to an oil spill within two days, the use of contingency planning and other mitigation measures, and the results of modelling, which indicated that the probability of an oil spill would be only marginally increased and the spill scenarios are similar to those which would be generated even without NSP2 as a result of the existing shipping in the area.	The Danish Energy Agency has no further comments on this topic.



21	Poland (Appendix 9 to Polish opinion: Position of the Department of Oil and Gas at the Ministry of Energy)	Surveys on the chemical and physical properties of water In this context, the lack of investigations on the chemical and physical properties of water along the gas pipeline route is of particular note (point 7.1.1.1). In contrast to the previously submitted applications of Nord Stream 2 AG in Denmark, no investigations of the chemical and physical properties of water along the gas pipeline route using a CTDO meter have been performed for the needs of the project documentation currently being consulted. Assessment of potential transboundary impacts consistent with the requirements of the application of international and EU law regarding EIA should be comprehensive and include extensive research material dedicated to far-reaching transboundary impacts. In addition, the authors of the EIA report stated that the investigation of water properties along the proposed south-eastern route of Nord Stream 2 was carried out in 2015-2019, while the reports to which reference is made were published in 2016-2017 (not along the currently reviewed route). Given that Nord Stream 2 AG has not conducted any investigations of the chemical and physical properties of water, this comment can be treated as a deliberate manipulation by the investor (point 7.4.2). As a result, the completeness of the EIA presented in point 7.5. ("Water quality") raises serious doubts.	Contrary to the consultation statement, Nord Stream 2 AG has conducted investigations of the chemical and physical properties of water along the proposed NSP2 route alternatives. The investigations have been undertaken in August - September 2018 and January 2019 by DHI, using a CTDO meter. During the investigations time, sampling and analysis were undertaken for sediment composition, contaminants (e.g. metal, PAHs, chemical warfare agents) and infauna. Assessment in the EIA is based on the results of these baseline investigations.	Please note that the Danish Energy Agency finds that both the Danish National EIA and the report concerning the transboundary environmental impact for the Nord Stream 2 project comply with the legislation and provide substantiated information about the transboundary effects from the Nord Stream 2 gas pipeline project. Please also note, that the Danish Energy Agency finds no reason to doubt the overall conclusion, that the Nord Stream 2 gas pipeline project has no significant environmental impacts from Denmark into Poland.
22	Poland (Appendix 9 to Polish opinion: Position of the Department of Oil and Gas at the Ministry of Energy)	Damage to the environmental monitoring station In terms of the rights of the Affected Party, the fact that the gas pipeline runs close to the monitoring station should also be highlighted. In route option V1, the HBP133 station will be located within the construction site, just 100 m from the gas pipeline and at the same time right in the centre of auxiliary construction works. This generates a significant risk of damage to the station. On the other hand, this may limit the possibility of obtaining environmental monitoring data at a later stage. The report does not present a sufficiently broad analysis of the indicated risk and does not present the safety measures applied in the construction of the gas pipeline in the vicinity of the monitoring station. A convincing recovery plan in the event of damage was also not provided. Given the fact that the spectrum of rights of the Affected Party also includes receiving environmental monitoring data, the presented risk and insufficient analysis thereof in the submitted report raise concerns as to the reliable postimplementation analysis process, as provided for in art. 7 of the Espoo Convention.	Nord Stream 2 AG will contact operators of the long-term environmental monitoring stations located close to the pipeline route prior to start of construction. Mitigation measures will be agreed upon to ensure that the stations are not damaged and that measurements are not impacted by construction and operation of NSP2. During construction of NSP a Swedish national environmental monitoring station SE-11 by SGU (Geological Survey of Sweden) located in the close vicinity to the route was successfully relocated to ensure uninterrupted measurements.	The Danish Energy Agency has no further comments on this topic.



23	Poland (Appendix 9 to Polish opinion: Position of the Department of Oil and Gas at the Ministry of Energy)	Wintering birds Obsolete and inadequate investigations on the wintering of birds along the gas pipeline route (point 7.11.4.2). The investor did not order and did not conduct additional investigations regarding the period of rest and wintering of marine birds along the gas pipeline route. This is significant, as the new option of the Nord Stream 2 route assumes additional intervention in regions that are sensitive in this regard at a distance of approximately 20 km. The areas also extend into the Polish EEZ, which makes a transboundary impact on locally wintering bird populations possible. The presentation of the reports from over ten years ago, which also do not correspond geographically with the route currently being consulted, is insufficient. An additional argument for the need to order new investigations is also the fact that rock dumping and trenching are planned in this area.	On the basis of the information provided in the EIA and experience gained from NSP, monitoring of birds in connection with the construction or operation of NSP2 is not required by the Danish authorities and is therefore not planned in Danish waters. The information presented in the baseline description of the EIA have been considered satisfactory for the establishment of a reliable basis for the impact assessment. The information presented on birds in the EIA is based on, interalia, interpretation of the results of the survey completed in the entire Baltic Sea by Skov et al. (2011). Other data used in the EIA are taken from seabird studies conducted in connection with NSP in Rønne Banke and Oder Bank in 2006-2007, at Ertholmene in 2008, and in the German part of Rønne Banke in 2010-2012; ship and airplane surveys performed at Rønne Banke in December 2010, January 2011, and March 2012; and vessel-based surveys in the German Pomeranian Bay from September 2015 through August 2016. The baseline description and the conclusions of the impact assessment are therefore considered sufficient.	The Danish Energy Agency has no further comments on this topic.
24	Poland (compilation of the responses from, authorities, NGO's atc.) 26.09.2017 Answer (item 1) in answer letter to Poland dated 9 February 2018.	Content of the Espoo Report Both Espoo Convention, Section 4, item 1 with Appendix II and Directive of the European Parliament and of the Council 2011/92/UE of 13 December 2011 regarding assessment of effects of public and private projects on environment (OOS Directive), Section 5 and Appendix IV, clearly define minimal requirements regarding contents of environmental documentation submitted for review. The submitted documentation regarding Nord Stream 2 does not contain all required data and information since they will be altered and discussed in much more detail during following actions and procedures, as well as because the project for the investment is not final. The Ministry of Environment of Poland considers that contents analysis shows that it is not a final documentation for Nord Stream 2 and cannot be regarded as basis for implementation of the investment. In Polish opinion the documentation does not provide solid analysis, which would make environmental interference justifiable. As stated by the Espoo report creators, while they were preparing the documentation they did not possess the detailed information regarding th pipeline route, since it was still in preparation (ch. 9.9.2.1, p. 262; ch. 16.3 p. 641), technical specification and information regarding the surface required for the investment (ch. 19.2.1, p. 673-674), information regarding location and type of munitions in fauna endangerment context (ch. 10.6.6, p. 404/405), information regarding archaeological sites which may be endangered (ch. 10.9.2.1, p. 449; ch. 10.10.2.1, p. 485/486). Espoo report does not contain complete and consistent methods for limiting and monitoring negative environmental impact (ch. 16.2, p. 636; ch. 18.1, p. 660) or complete information regarding other projects, effects of which may add	The documentation provided in the Espoo Report systematically characterizes all sources of potential impacts from Nord Stream 2 (Chapter 8); identifies all baseline features that could be affected by such sources of impacts, classifies them in terms of their importance and sensitivity to such impacts (Chapter 9); and assesses the eventual outcome for the environment arising from Nord Stream 2 with the proposed mitigation measures in place (Chapter 10). These analyses have been undertaken in accordance with the general method outlined in Chapter 7 (with detailed methods, e.g. of modelling and surveys, provided in appendices). Other sections of the report cover, amongst others: project description; the main alternatives considered and any associated environmental constraints, and the reason for selection of the preferred option, gaps and uncertainties and their implications for the assessment, and a non-technical summary. Where there has been uncertainty in any of these analyses e.g. due a lack of data, this is highlighted and a precautionary approach adopted in the assessment. Such a method reflects current best practice in relation to EIA and is consistent with the requirements of the 2011 EIA Directive (including Annex IV), and the Espoo Convention, (including Article 4 and Appendix II). It thus provides a solid analysis, the results of which can inform decision makers of the environmental consequences of project implementation, and assist in their determination of whether it is justifiable in environmental terms, as well as a robust and transparent audit trail to support such decision making. Below are detailed answers to those sections in the Espoo Report to which the Polish opinion refers to, claiming that the information provided is incomplete: Project route (ref to Sections 9.9.2.1, 16.3) Nord Stream 2 has adopted a staged approach to survey to establish a safe corridor for pipeline installation and subsequent operation, which integrates environmental, engineering and construction input to ensure that	Please note that the Danish Energy Agency finds that both the Danish National EIA and the Espoo report for the Nord Stream 2 project provide substantiated information about the transboundary effects from the Nord Stream 2 gas pipeline project. Please also note, that the Danish Energy Agency finds no reason to doubt the overall conclusion, that the the Nord Stream 2 gas pipeline project in Denmark has no significant impacts into Poland, and that the Espoo rapport (with its background reports), fulfil the regulations.



to the impact of pipeline (ch.14.3, p. 562). Nature analysis was based upon selective, incomplete studies and information regarding natural environment.

Poland requests accurate description of planned preventive and reducing measures in regards to negative environmental influence, including natural environment. As mentioned in par. 1.1 of the statement many reducing measures will be limited to specific sections of the pipeline, with no consideration to the fact that the influence, which is supposed to be limited with these measures, will also occur in other states areas of jurisdiction. We request explanation regarding the fact that the Danish EIA report misses information concerning mitigation measures for fish, birds and mammals, which live and feed in the planned NS2 route area in the Danish waters. According to the Polish authorities measures should also be taken besides breeding and young specimen rearing periods, also in regards to fish - besides spawning and young specimen rearing of cod.

The Espoo Report needs additional information in regards to reducing measures for project implementation impact on the fish, especially in terms of submarine noise impact (i.e. as a result of ammunition removal).

Poland requests that planned measures and actions to prevent and mitigate adverse impact on the environment, including the natural environment, be precisely indicated. As emphasised in point 1.1. of this statement, the introduction of multiple mitigating solutions were limited to selected sections of the pipeline, not taking into account that impacts which may be limited with the above mentioned measures will also occur in areas under the jurisdiction of other states.

It is noteworthy that missing descriptions of reducing measures for negative environmental influence, including natural environment, is considered a breach of conditions in s. e) of the Appendix 2 of the Espoo Convention and par. 5, s. c of the EIA Directive and s. 7 of the Appendix IV of the Directive.

Reconnaissance Survey (entire route)

A Reconnaissance Survey was initially conducted from the Russian landfall to the German landfall. This was performed using dedicated survey vessels (and Autonomous Underwater Vehicles or AUVs for shallow sections of the route in Russia) and on average, a 1,500m wide corridor was surveyed. The corridor width was up to 5 km in Finland to cover alternative route selections and generally more difficult seabed topography. Data collected included bathymetry (at a 2m x 2m bin grid resolution), side scan sonar, sub bottom profiler and magnetometer. Reduced line spacing in Germany and Russia achieved a higher density of soundings in these shallower sections.

Detailed Survey

Based on the reconnaissance survey results, routes were selected for further detailed survey. These routes were subjected to a more detailed survey. 130m corridors were surveyed along the selected routes using a specialised ROV 'flown' between 4.5m and 12m above the seabed. Data collected included bathymetry at 20cm x 20cm bin grid resolution, side scan sonar and sub bottom profiler. As well as producing a detailed bathymetric and geophysical overview, this data set was analysed and interpreted to assist in the identification of possible cultural heritage objects (CHO), munitions, and cable crossings. These targets and cables were identified for visual investigation. The routes were optimised based on the detailed survey. In Germany and Russia, due to shallow water depths, surveys are characterised by very dense survey line spacing and sensors are very close to seabed. The survey resolution is in the order of 0.5x0.5m in shallow water areas.

Data gathered from the reconnaissance survey and the detailed survey provided the Espoo Report authors with extensive information for the entire corridor and thus informed a robust and thorough environmental and social impact assessment of the range of pipeline alignments that could be taken forward. Where specific information was not yet available (e.g. confirmation that objects observed on the seabed are indeed cultural heritage objects (CHO) at the time of preparation of the Espoo Report, the assessment reported in that document followed a precautionary approach i.e. assumed that these unidentified objects could have cultural heritage value. Therefore for example the numbers objects classified as CHOs in Section 9.9.2.1 of the Espoo Report are likely to be overestimates of the numbers present as they include features which have not yet been confirmed as CHOs through visual inspection (and therefore may not be CHOs).

Selective and incomplete studies and information

The purpose of the EIA studies are to generate the specific information required to reliably inform the assessment (and decision makers) of whether there is potential for a significant impact to arise and, if so, the level of such impact. This potential will only occur where there is: presence of environmental receptors that could be sensitive to project activities and the occurrence such project activities that constitute sources of impact on such receptors and a pathway between the two.

The variation in conditions (source, receptor and pathway) that occur along the pipeline route has therefore required a similar variation in approaches to surveys, modelling,



assessment etc. The nature of such studies were determined through a systematic scoping process (documented in Chapter 8 and within Chapter 10). The different nature of the studies and analyses adopted along the length of the pipeline thus reflects the specific context at each location and is more robust than a "one size fits all" approach to generating information to inform the assessment. Hence, rather being "selective and incomplete", as stated in the feedback, the information and studies presented in the Espoo Report reflect an approach that has been customised to the specific context, which necessarily varies along the pipeline route.

As the Espoo Report draws on the EIAs undertaken in the five countries through which the pipeline passes, the nature of the studies also reflects any variation in specific methods required by each of the national authorities to comply with their regularity requirements. However, in all case the principle of fit for purpose rather than of "one size fits all" as described above has been applied.

While some gaps in information are identified in Chapter 19 of the Espoo Report, it is also noted that none of these have implications or the validity of the assessment since, where there has been any uncertainties that could affect the assessment outcome, a precautionary approach adopted. This includes any uncertainty relating to the surface areas of the seabed (ref to Section 19.2.1) required for rock placement alluded to in the feedback. Thus such gaps and uncertainties do not result in an "incomplete" study.

It should be noted that Nord Stream 2 is in the unique position to benefit from experience gained from the existing Nord Stream pipelines, especially from the over six years of environmental monitoring. The monitoring results have shown that a) there are no significant environmental impacts, b) the impacts are in line with or less than assessed in the environmental impacts assessments predicted for Nord Stream, and c) that there are no significant transboundary impacts. In addition, Nord Stream 2 has performed extensive additional environmental field surveys in Russia, Finland, Sweden, Denmark and Germany during 2015 and 2016. Further, the modelling used for Nord Stream 2 was enhanced using the monitoring results from the Nord Stream Project.

Location and nature of munitions in fauna endangerment context (ref to Section 10.6.6) The assessment of the impacts of munition detonation (which will be limited to Finnish and Russian waters) documented in the Espoo Report is based on assumptions whereby a maximum charge size is detonated at a location where the pipeline route is closest to sensitive areas i.e. a worst case scenario in terms of impact. The ongoing studies will either confirm this level of impact or establish that it will be lower than that predicted in the Espoo Report. This approach is therefore in accordance with the precautionary principle. It is sufficient to inform decision making in accordance with the EIA Directive and Espoo Convention and therefore and does not result in an incomplete study.

Location of archaeological sites (refs to Section 10.9.2.1 and 10.10.2.1)
While not all cultural heritage objects have been identified, Nord Stream 2 AG has committed to a chance finds procedure and has demonstrated that through its adoption it will be possible to avoid significant impacts on cultural heritage. Such an approach is standard practice for archaeology which, due its often buried nature, cannot be fully



identified prior to construction. Nord Stream 2 AG policies require the project to comply with the cultural heritage procedures of the International Finance Corporation (IFC Performance Standard 8), which is widely accepted as best practice in this respect, and will ensure that all cultural heritage features are appropriately safeguarded. Thus the absence of complete data regarding cultural heritage features does not constitute a lack of completeness of the EIAs or Espoo Report.

Mitigation (ref to Sections 16.2 and 11.3)

Where mitigation is required to address identified adverse impacts, Nord Steam 2 has committed to measures as specified within Chapter 10 and summarized in Chapter 16. Since, as described above, in the sub-section "Selective and incomplete studies and information", the potential for an impact to occur may, depending on the environmental context and the proposed activities at each location, vary along the pipeline so too may the nature of the required mitigation e.g. mitigation measures related to dredging activities will be limited to locations in Germany and Russia.

However, for the majority of the offshore areas many of the measures, notably those relating to vessel activities, will be standard across much of the project (as opposed to varying for particular locations and activities) e.g. controls of air emissions, and on discharges to water. These mostly comprise a range of established proven techniques so there is confidence that the predicted "with mitigation" environmental outcome can be achieved and they therefore do not require detailed specification, although where applicable the measures have been tailored to the particular Nord Stream 2 project activities and associated impacts. The assessment presented in the Espoo Report does not rely on new or very specific measures which could require more detailed specification to provide evidence of their effectiveness (if for example the project was relying on alternative untested methods for munitions removal). The approach to mitigation adopted for Nord Stream 2 is thus in accordance with the requirement to provide "A description of the measures envisaged to prevent, reduce and where possible remedy/offset any significant adverse effects on the environment" as set out in Article 5.3b and Annex IV.6 of the EIA Directive (which is understood to be the intent of the feedback provided as this relate to mitigation although it is Article 5.3c and Annex IV.7 that relate to other issues, that are cited in the submission) and a similar specification under Annex 2e of the Espoo Convention, as well as in line with good practice guidance and established precedent to demonstrate the effectiveness of such measures.

Preventive and Mitigation Actions

Where mitigation is required to address identified adverse impacts, Nord Steam 2 has committed to measures as specified within Chapter 10 and summarised in Chapter 16.

Since, as described under the response "Content of the Espoo Report" in the section about "Selective and incomplete studies and information", the potential for an impact to occur may, depending on the environmental context and the proposed activities at each location, vary along the pipeline so too may the nature of the required mitigation e.g. mitigation measures related to dredging activities will be limited to locations in Germany and Russia or those relating to detonation clearance to the Gulf of Finland. In these cases it is thus appropriate for the "mitigating solutions (to be)limited to selected sections of



the pipeline and jurisdiction(s)).

However, for the majority of the offshore areas many of the measures, notably those relating to vessel activities, will be standard across much of the project (as opposed to varying for particular locations and activities) e.g. controls of air emissions, and on discharges to water. These mostly comprise a range of established proven techniques (e.g. adoption of oils spill management plans) so there is confidence that the predicted "with mitigation" environmental outcome can be achieved and they therefore do not require detailed specification (i.e. to be "precisely indicated" as stated in the submission) although where applicable the measures have been tailored to the particular Nord Stream 2 project activities and associated impacts.

The assessment presented in the Espoo Report does not rely on new or very specific measures which could require more detailed specification to provide evidence of their effectiveness (if for example the project was relying on alternative untested methods for munitions removal). The approach to mitigation adopted for Nord Stream 2 is thus in accordance with the requirement to provide "A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment" as set out in Article 5.3b and Annex IV.6 of the EIA Directive and a similar specification under Annex 2e of the Espoo Convention, as well as in line with good practice guidance and established precedent to demonstrate the effectiveness of such measures.

It should be noted that Poland bases its opinion on Article 5.c and Annex IV.7 of the EIA Directive 2014/52/EU. However, Nord Stream 2 is subject to Directive 2011/92/EU prior to its amendment.

Monitoring (ref to Section 18.1)

Although the EIA Directive (2011) does not specify requirements for monitoring, several of the countries through which Nord Stream 2 will pass require monitoring as part of conditions set out in permits, rather than under an explicit legal basis.

The Espoo Convention (Article 7) recognises that "surveillance of the activity and the determination of any adverse transboundary impact" may be undertaken as part of "post project analysis". Article 5 of the Espoo Convention suggests that monitoring of the possible measures to mitigate significant adverse transboundary impact is one of the issues that may be discussed and negotiated during the consultations between parties that are conducted after distribution of the Espoo documentation.

Ahead of this, the Espoo Convention (Appendix 2(h)) specifies that "Where appropriate, an outline for monitoring and management programmes and any plans for post-project analysis" may be provided in the Espoo Report. Such an outline is provided in Section 18 of the Espoo Report and is based on experience of Nord Stream and the specific monitoring requirements of each country.

Consideration of other projects (ref to Section 14.3)

The cumulative impacts of Nord Stream 2 with other existing and proposed projects in the



				Agency
No.	Consulting party	Response	Answer Nord Stream 2 AG	Answer Danish Energy
Swe	eden			
	1	specified how to determine this period in the event of obligatory publication of the decision in question in the official language of the affected party (Art. 6 of the Espoo Convention). This is particularly important in view of the obligation to provide access to a review procedure in the transboundary context in accordance with Art. 9(2) and Art. 3(9) of the Convention on access to information, public participation in decision-making process and access to justice in environmental matters done at Aarhus on 25 June 1998 and implemented to the community law by means of Directive 2011/92/UE of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment (Article 11).	Answer Nord Stream 2 AG	decision. Local and national organisations can appeal the decision with regard to environmental issues. Any appeals must be submitted no later than 4 weeks after issuance of the permit to the Energy Board of Appeal, Toldboden 2, DK-8800 Viborg. The Danish version (and official permit) will be forwarded to the countries involved in the Espoo process. As fast as possible an English unofficial translation will be forwarded. A Polish translation will as fast as possible be forwarded to Poland.
25	Poland (compilation of the responses from authorities, NGO's etc.) Answer (item 1) in	Legal remedies The Polish translation of the EIA documentation, Section 1.1 "Overview" contains information on the available legal remedies. It was indicated there that, pursuant to the Act on the continental shelf, the period for filing appeals is 4 weeks from the date of publication. It wasn't, however,	Since, as described above, where relevant the information on which the Espoo Report is based meets the requirements of the EIA Directive, its content meets the requirements of the Espoo Convention and a robust process has been applied to the analysis of such information, the documentation is complete.	This decision of granting a permit will be published and can be appealed by anyone with a significant and individual interest in the
			Baltic area have been assessed in the national EIAs and in the Espoo Report. The methodology applied to set out the parameters within which the cumulative impact assessment has been undertaken is clearly described in Chapter 14.2 of the Espoo Report. Nord Stream 2 has considered both planned projects that "have been approved" and, where feasible and appropriate, those that are currently "in preparation". The project has thus given due consideration to cumulative impacts with planned projects in the Baltic Sea in accordance with the requirements in the relevant countries.	



1	Bromölla municipality	Page 9 - The halocline is expected to keep sediment and any sediment contaminants in place during the intervention works. Comment: An "expectation" is vague. A more detailed description is needed here with reference to studies of similar intervention works, where it is been possible to demonstrate significantly that the halocline is actually capable of keeping "sediment contaminants in place" under the effects of different weather conditions and seasons.	The suspension and subsequent transport of seabed sediments (and any associated contaminations) was evaluated in the EIA based on environmental modelling. Input to the model included the forecasted sediment spill caused by construction related seabed intervention works, sediment conditions in the specific area and hydrographic data. The hydrographic input is based on hind cast analyses of the hydrographic regime for representative construction periods, i.e., conditions that have occurred in the past. The representative design periods were chosen such that they would be typical of different yearly current and stratification conditions: Summer (calm conditions / weak currents and high stratification) Normal conditions (average currents and stratification for an entire year) Winter (rough conditions / strong currents and low stratification) Therefore, the effect to the degree of stratification (i.e., the presence and extent of haloclines and thermoclines) was taken into account in the modelling of sediment spread to support the conclusion that the halocline will prevent seabed sediments and any associated contaminants to spread upwards into the water column during construction. It should additionally be noted that validation of the modelling of sediment spread from inter-vention works was carried out in Danish waters in connection with the construction of the Nord Stream Pipeline (NSP) in 2011 and 2012. The results from both years were similar and showed that the assumptions and outcomes of the sediment spill modelling carried out as part of the Danish EIA were conservative. The actual increase sediment concentrations were lower than assessed. Similar monitoring carried out in Swedish waters yielded similar results; namely, that the actual increases in sediment concentrations were lower than assessed.	The Danish Energy Agency has no further comments on this topic.
2	Bromölla municipality	Discharge of aluminium and cadmium in spawning grounds and nursery areas Page 9. Aluminium and cadmium will be discharged into the water around the gas pipeline (release from sacrificial anodes for rust protection). Questions: Has account been taken of the total service life of the pipes and their local long-term effects in the assessments concerning the "insignificance" of aluminium and cadmium discharges? How are aluminium and cadmium discharges inside the spawning grounds and nursery areas viewed?	The impact from the release of metals is assessed in the EIA to be low and local over the entire operational life of the pipelines. Elevated metal concentrations (above PNEC values) are expected only in the very near vicinity (i.e., within a few metres) of the pipelines. Further-more, the amounts metals released from the anodes over the lifetime of the project will be insignificant compared with the existing rate of waterborne inflow of metals to the area. Therefore, the release of metals is assessed to have a negligible impact in Danish waters. Given that the impacts are assessed only to be measurable in the water column in the immediate vicinity of the pipelines, it is considered unlikely that elevated concentrations of metals will be detectable in the water mass where cod and sprat spawning may take place, i.e. the reproductive layer. Monitoring of potential impacts from the release of metals from anodes associated with the Nord Stream Pipeline was undertaken in Finnish waters in August 2012 (i.e., within the first year of operation). The results of monitoring showed that the metal concentrations were generally of the same order of magnitude between the sampling points and the reference station, and the PNECs for zinc and cadmium were not exceeded.	The Danish Energy Agency has no further comments on this topic.



3	Bromölla municipality	Chemical warfare munitions Page 9. The description of how chemical munitions are dealt with needs to be developed: It is briefly mentioned that chemical munitions are "not expected to be soluble in water". Different scenarios are needed here with facts about how chemical munitions – whether water-soluble or not – are to be dealt with in intervention works of the type concerned, where there is a risk of the chemical munitions being dispersed for example in an important spawning ground for cod.	The EIA presents information on chemical warfare agents (CWA) in sediment on the basis of survey results from surface sediment sampling along the NSP2 route, including route variants V1 and V2. These surveys show which types of CWA and CWA degradation products are present along the route, and at what concentrations. The available data on CWA in the Baltic Sea suggest that they are poorly dissolvable in water and as such exist mainly as particulate material that will rapidly re-settle, if disturbed, on the seabed; consequently, within the immediate vicinity of the pipelines. Furthermore, given that modelling has shown that the majority of released sediments and contaminants will remain in the lower 10 m of the water column, impacts will be limited to the deep, oxygen-depleted bottom water where fish and fish eggs/larvae are not present. Re-lease of sediments into water column is mainly associated with seabed intervention works such as rock placement and/or post-lay trenching (not planned for SE route). Therefore, the EIA concludes that there is no risk for contaminants associated with the seabed sediments to be dispersed over a wide area.	The Danish Energy Agency has no further comments on this topic.
4	Bromölla municipality	Important spawning ground for cod The proposed NSP2 route runs across an important spawning ground for cod. The conclusion has been that based on the described physical disturbances (pages 10-11), the release of sediment, contaminants in the water column and underwater noise "are not expected to have any impact on cod spawning". Comment: There is a need to set a requirement that gas pipeline intervention works are not allowed to take place between 1 May and 31 October within the area that is protected from fishing. Only after the roe has hatched can it be said that the "fish can swim away" from the disturbances due to the intervention works.	No intervention works are planned in the spawning areas for cod. Assessment of impacts on fish, including impacts on cod spawning, has been performed in both the Swedish and Danish Environmental Impact Assessments (EIA). The assessment also includes the life cycle of fish in the marine environment, i.e. eggs, larvae and adult fish as applicable. Particular consideration has been given to the section of the proposed NSP2 route that goes through the cod spawning area in the Bornholm Deep. The EIA has shown that neither release of sediments, contaminants into water column nor underwater noise or water movements from the thrusters will have a significant impact on fish and fish reproduction. Based on the above, the EIA's conclude that overall cod reproduction in the spawning area will not be impacted by NSP2.	The permit contains a condition where the developer in planning the construction works, the company must attempt to avoid pipelaying in the restriction area for fishery in what is known as the Bornholm Deep during the period from July to August. No intervention works may be carried out during the period mentioned.
5	Bromölla municipality	Decommissioning NSP2 is designed to operate for at least 50 years. The preferred option for decommissioning of NSP2 structures at sea can be expected to be to "leave them where they are". Comment: The cost – of decommissioning, removal of installation and restoration of seabed – needs to be borne by the producer, in a large-scale "producer responsibility". In modern strategic marine planning, the Baltic Sea should not be regarded as an infinite waste tip. Producer responsibility of this magnitude needs to be covered by the responsibility of the gas pipeline owner for the whole life cycle of the installation, including disassembly and recovery of the pipeline materials.	The decommissioning programme will be developed in consultation with the relevant authorities at a later stage, when the pipelines near the end of their operational life to ensure that it takes into account the relevant legislation and guidance, good international industry practice as well as technical advancements and knowledge. Ultimately, the same criteria that guided planning and construction of Nord Stream 2, including environmental, socioeconomic, technical and safety considerations will guide the development of the preferred decommissioning method. Regardless of the method chosen, Nor Stream 2 will comply with all applicable legal requirements for decommissioning at that time.	It should be noted, that the permit contains a condition, that well in advance of the expected decommissioning of the pipelines, the company must prepare a plan outlining its decommissioning and present the plan to the authorities. The Danish Energy Agency may, after prior discussions with the company, demand that the company remove the pipeline installation included in this approval from the seabed completely or in part, within a specified



				time limit when the pipeline is no longer in use.
6	Swedish Fishermen's Producer Organisation (SFPO):	In view of the serious situation that currently prevails in the Baltic Sea for cod fisheries due to seals and environmental problems, where the Swedish Meteorological and Hydrological Institute (SMHI) considers the problems of dead seabeds as worse than ever, SFPO regards the original problem as best for Swedish commercial fisheries.	-	This is a statement which does not require a response.
7	Swedish Agency for Marine and Water Management (SwAM)	The pipeline will be routed through the Bornholm Basin, which is an important spawning ground and nursery area for cod. The company judges that the intervention works on the seabed are not expected to have any impact on cod spawning. SwAM is, however, concerned about the possibility of cod stocks being adversely affected by disturbances such as sound and water currents, which can occur both below and above the halocline.	-	This is a statement which does not require a response. Reference is made to no. 8 below.
8	Swedish Agency for Marine and Water Management (SwAM)	The Agency is however concerned about how the cod stock can be adversely affected by including interference that sound and water streams that can arise both above and below the halocline. With reference to Sweden and Denmark common stock of fish and cod exposure the Agency considers that there is a need for time restrictions for the construction work during the main spawning period for cod which is between July and August.	No intervention works are planned in the spawning areas for cod. Assessment of impacts on fish, including impacts on cod spawning, has been performed in both the Swedish and Danish Environmental Impact Assessments (EIA). The assessment also includes the life cycle of fish in the marine environment, i.e. eggs, larvae and adult fish as applicable. Particular consideration has been given to the section of the proposed NSP2 route that goes through the cod spawning area in the Bornholm Deep. The EIA has shown that neither release of sediments, contaminants into water column nor underwater noise or water movements from the thrusters will have a significant impact on fish and fish reproduction. Based on the above, the EIA's conclude that overall cod reproduction in the spawning area will not be impacted by NSP2.	The permit contains a condition where the developer in planning the construction works, the company must attempt to avoid pipelaying in in the restriction area for fishery what is known as the Bornholm Deep during the period from July to August. No intervention works may be carried out during the period mentioned.
9	The Swedish Board of Agriculture	The Swedish Board of Agriculture submits comments based on the Board's responsibility for promoting the fishing industry and considers that the south-eastern route would have the most adverse consequences for Swedish fisheries, and one of the other alternatives is therefore advocated.	-	This is a statement which does not require a response.



10	The Swedish Board of Agriculture	The Swedish Board of Agriculture considers that the environmental impact assessment must be clarified and supplemented in certain respects.	All types of fishery have been considered in the EIA. However, most attention is given to bottom trawling (pelagic fishery), as this type of fishery has the greatest potential to be impacted by Nord Stream 2. Obstruction-related impacts will essentially be limited to	Concerning the comment that who bears the responsibility in the event of
		Clarifications must be made both regarding which types of fisheries are taken into account in the impact assessment and regarding the ability of the pipeline to withstand the impact of interaction with fishing gear. In addition, the impact assessment must be supplemented by who bears	bottom trawling activities, as the use of gear such as gill nets, pound nets, seine nets and longlines will allow for fishery in the area without the risk of incidence or obstruction. Pelagic fishery gear can over-trawl the pipelines. Trawling over the pipelines with pelagic fishing gear poses no threat to the pipeline or noteworthy obstacle for the pelagic fishing vessels or their trawl gear.	accidents, incidents and damage concerning it should be noted that the permit contains a condition where Nord Stream 2 AG shall take out insurance for
		legal and financial responsibility in the event of accidents, incidents and damage (the issue of liability) and by an economic impact assessment for the fisheries industry of pipelines now being dispersed around Bornholm instead of running together with existing pipelines south of Bornholm, as the original proposal signified.	A study concerning bottom trawling in the Swedish EEZ with the purpose to map commercial fisheries above and around the existing Nord Stream pipelines, before and after the construction of the pipelines, has shown that no changes in bottom trawling activities as a result of the pipeline system could be seen. NSP2 is designed in the same way as the already existing Nord Stream pipeline, and both pipeline systems are confirmed to be overtrawlable. Avoiding the pipeline route is not necessary. The	compensation of damage caused by the activities exercised in accordance with the permit, even if the damage is incidental.
		The Swedish Board of Agriculture also notes the absence of a proportionality assessment between, on the one hand, the choice of laying the pipeline on top of the seabed instead of burying it and, on the other, the risks and effects for pelagic fisheries in particular, resulting in changed catch patterns and landings.	experience from eight years of operation of the Nord Stream pipeline show that fishermen and the pipeline can co-exist and the pipeline does not have an impact on the fishermen's livelihood. There have been no incidents and no fishery gear has been reported to be damaged or lost due to interaction with the pipeline. As for the Nord Stream Pipeline, Nord Stream 2 AG will apply for an exemption from the	
			ban on the use of bottom trawling equipment in protection zones to remove the fishery restriction enforced around pipelines in Danish waters during operation of the pipeline to allow fishing activities during the operation of the pipeline.	
11	The Swedish The Coastguard	The Swedish Coast Guard considers the south-eastern route for maritime traffic safety reasons to be preferable to the previously proposed route between the mainland and Bornholm.	-	This is noted.
12	Kalmar County Administrative Board	The county administrative board highlights three comments in its opinion. Initially the county administrative board notes that it is not apparent in the EIA whether there are wrecks or other maritime relics. The county administrative board considers that measures need to be taken to identify these relics early so that they can be prevented from being damaged by the intervention works in laying of the pipeline. Such measures should include seabed scanning in coordination with staff with antiquarian expertise and consultation with the National Maritime Museums.		This statement refers to wrecks or maritime remains in Swedish EEZ and is therefore irrelevant in relation to potential transboundary impacts arising out of project activities taking place in Danish waters.
13	Kalmar County Administrative Board	The second comment concerns spawning grounds for cod, the county administrative board emphasising that it is important that all tests in spawning grounds for cod stocks take account of the problems faced by cod in the Baltic Sea.		The permit contains a condition where the developer in planning the construction works, the company must attempt to avoid pipelaying in what is known as the Bornholm Deep during the period from July to August. No intervention works may be carried out during the



				period mentioned.
14	Kalmar County Administrative Board	The county administrative board points out that the Baltic harbour porpoise may be affected during the construction phase, and that intervention works should be avoided between July and August.	Baltic Sea harbour porpoises are known to occur in Danish waters but are not known to breed in the Danish sector of the Baltic Sea. The recent SAMBAH project showed that the Baltic Sea population of harbour porpoise has the most important breeding area in Swedish waters, near the Midsjö banks where they breed in summer. The proposed NSP2 route thus does not cross important breeding areas or known migration routes for marine mammals in Danish waters. Overall, it is assessed as highly unlikely that the short-term nature of Nord Stream 2 construction activities in Danish waters at any location would affect migration or breeding patterns for marine mammals. It has been shown that neither release of sediments and contaminants into water column nor underwater noise will have a significant impact on marine mammals or their long-term behavior. In addition, according to the construction schedule, as presented in the EIA, pipe-lay in Danish waters is planned to be undertaken in Q1 and Q2 2020, with post-lay intervention	The Danish Energy Agency has no further comments on this topic.
			works (if deemed necessary) occurring during Q2 2020 outside the summer breeding period.	
15	Skåne County	The county administrative board has previously presented its views	The statements was been covered by the answers given in connection with the South-	It is noted that the
	Administrative Board	regarding harbour porpoise, fisheries and cod spawning. The county administrative board maintains that these are the most important issues	Eastern route in Danish territorial waters and the North-Western route and there is no additional South-eastern specific comment which needs an additional response.	comments from the County Administrative Board Skåne
		from the point of view of Skåne. The county administrative board has		has been answered in item
		nothing further to add to the views previously presented under the Espoo		3 in the letter forwarded to
		consultation.		Sweden the 9 February
				2018 and in item 8 in the
				letter forwarded by
				Denmark to Sweden the 22
				of February 2019. There is
				no additional specific comment related to the
				South-eastern route on the
				continental shelf which
				needs an additional
				response. The previous
				responses and answers
				that are relevant for the
				South-Eastern route on the
				continental shelf can be
				found under no. 16-19.



16	Skåne County Administrative Board - 2018 Skåne County	In the environmental impact assessment, it is mentioned that noise from the pipeline in operation is only audible to marine mammals that are very close to the pipeline and that the effect is irreversible, long lasting, but local. Although the company makes the assessment that the intensity and magnitude of the sound is low, there is no analysis of whether the pipeline, in operation, can be expected to have a barrier effect on the distribution of various species. However, the county administrative board wishes to emphasize	Concerning potential barrier impacts from noise during construction and the operating phase please see DCE's conclusions in appendix D. The Nord Stream 2 pipelines are designed in the same way as the already existing Nord	The Danish Energy Agency has no further comments on this topic. The Danish Energy Agency
17	Administrative Board - 2018	that from a fishery point of view, it is desirable that also the new gas pipeline is possible to pass over by a fishing trawl. Unless this can be guaranteed along the entire route, and it becomes apparent that the pipeline causes losses in catch loss, for example due to the fact that it blocks certain fishing spots or leads to extended time at sea, the county administrative board assumes that the fishery will be compensated for additional costs and loss of income. Likewise, if the pipeline, despite the information stated in the application, proves to cause restrictions on fishing.	Stream pipelines, and both pipeline systems are confirmed to be overtrawlable. No fishery restriction will therefore be applied for the Nord Stream 2 pipelines. As described in the Espoo Report, the pipelines could however impose some minor inconvenience for bottom trawling, since bottom trawlers may prefer to "lift" their trawls when passing the pipeline system at locations where the pipelines are fully exposed on the seabed. These added efforts will be compensated by the project in accordance with an agreement entered into with the demersal fishermen.	has no further comments.
18	Skåne County Administrative Board - 2018	The county administrative board is therefore of the opinion that construction work in the Bornholm basin should be avoided during the period 1 May to 31 October. It is especially important to avoid construction work during June - July when the spawning is likely to reach its peak. Avoidance of work in the Bornholm basin during May - October also protects the spawning of sprat.	-	The permit contains a condition concerning a spawning area for cod in the in the restriction area for fishery in the Bornholm Deep.
19	Skåne County Administrative Board - February 2019	Länsstyrelsen Skåne states that to protect the Baltic porpoise and the spawning of cod and sprat, construction that could disturb these areas should be forbidden during their most active season in the area. The Swedish government decision forbids intervention works in the Bornholm Deep during July-August. A similar restriction should also be applied to the route north of Bornholm.	Fish spawning The Nord Stream 2 design in the Swedish part of the cod spawning area in the Bornholm Deep does not include any intervention work. In the Danish part of the Bornholm Deep neither dredging nor trenching is planned to take place and pipelines will be laid directly on the seabed. The only intervention work that will occur within the area is rock placement where the Nord Stream 2 route crosses existing Nord Stream pipelines. Assessment of impacts on fish including impacts on fish spawning at Bornholm Deep has been performed in the EIA. The assessment includes all growing stages of fish in the marine environment, i.e. adult fish, eggs and larvae, as applicable. Particular consideration has been given to the section of the proposed Nord Stream 2 route that goes through the cod spawning area. It has been shown that neither release of sediments, contaminants into water column nor underwater noise will have a significant impact on fish and fish reproduction. Based on the above, the EIA concludes that overall cod reproduction in the spawning area will not be impacted by Nord Stream 2. Nord Stream 2 therefore does not see a need for seasonal restrictions for pipelay or rock placement in the cod spawning area. Harbour porpoise With respect to harbour porpoise, the recent SAMBAH project showed that the Baltic Sea	The permit contains a condition where the developer must attempt to avoid pipelaying in the restriction area for fishery in what is known as the Bornholm Deep during the period from July to August.
			population has the most important breeding area in Swedish waters, near the Midsjö banks where they breed in summer. The proposed Nord Stream 2 route thus does not cross important breeding areas or known migration routes for marine mammals in Danish waters.	



			Overall, it is assessed as highly unlikely that the short term nature of Nord Stream 2 construction activities at any specific location would affect migration or breeding patterns for marine mammals. It has been shown that neither release of sediments and contaminants into water column nor underwater noise will have a significant impact on harbour porpoise or harbour porpoise reproduction.	
20	Geological Survey of Sweden (SGU)	Sediment suspension SGU wishes to state that, during the construction and laying of the gas pipeline, including the work to eliminate munitions through explosions, there is a risk that the sediments in these basins will be disturbed and become suspended and subsequently dispersed across administrative boundaries. This suspended material, which may also contain anthropogenic environmental toxins which are now bound to the sediment, may be remobilised and transported, and then subsequently accumulated in other areas, including the seabeds of other nations. SGU considers that the greatest caution should be exercised and that possible measures should be taken to minimise dispersal of the contaminated sediments. SGU believes that such an approach would limit these environmental impact factors in terms of both time and space.	The South-Eastern route, including the two variants, has been designed based on extensive and detailed survey. The routes are designed such that there is no planned clearance of munitions through in situ detonation or interaction with chemical munitions. In the very unlikely scenario that a munition is encountered during the construction of the pipeline, then a chance find procedure will be implemented whereby the first action is to avoid i.e. re-route to locate the pipeline away from the munition. NSP2 has implemented measures to minimise the dispersal of potentially contaminated sediments though detailed survey to engineer the route, use of a dynamically position pipelay vessel (no anchors disturbing the seabed) and use of a fall-pipe vessel for rock placement. Further as described in the transboundary impact assessment in the EIA (section 14), only negligible local impacts on the seabed and the marine benthos in the Swedish EEZ are expected as a result of the release of sediments and sedimentation during pipe-lay in Denmark, close to the EEZ border between Denmark and Sweden. No seabed interventions are planned in the area close to the Swedish EEZ, and as illustrated by the sediment spread modelling results, pipe-lay will result in negligible sediment spread. The impacts are assessed to be highly localised at the EEZ border and of negligible significance.	The Danish Energy Agency has no further comments on this topic.
21	The geotechnical Institute (SGI)	Based on its modelling, SGI considers that the gas pipeline project can principally have local and temporary impacts during the construction phase. According to the documents, the water depth along the planned route is 80 metres, and modelling shows that sediment will be churned up in the bottom 10 metres of the water column. The modelling also shows that the increased sediment concentration is local and temporary. The closest distance to the Swedish exclusive economic zone is more than 100 km. SGI therefore has no objections to the documentation received. SGI emphasises that its comments are made from an environmental geotechnical point of view.		This is noted.



22	The geotechnical Institute (SGI)	Based on the geotechnical viewpoints, we believe that the gas pipeline project can mainly have local consequences during the construction phase. According to the modelling performed, sediment will be disturbed during the construction phase, but settle again after a few hours. The halocline will also prevent pollutants from spreading to the surface water. The conclusion therefore is that impact will be temporary and local around the pipeline. The documents also state that rock dumping work is planned at five different locations (a total of 11.3 km) to provide support and cover for parts of the pipeline. But SGI can find no information on whether the rock dumping is included in the modelling, and how it will affect the spread of polluting sediment. SGI also wants information on how much stone will be used. Large volumes of rock dumping can cause the sediment to be compressed, forcing out pore water (with pollution in the loose phase), causing the spread of pollutants as a result. The SGI would like to see the reasoning behind this.	The statement to the left is from the 2018 submission to the North-Western route. This statement has been responded in the "North-Western Espoo consultations" and there is no additional South-eastern specific comment which needs an additional response.	It is noted that the comment has been answered in item 5 in the letter forwarded by Denmark to Sweden the 22 of February 2019 and is relevant in connection with the northwestern route.
23	National Maritime and Transport Museums (SMTM)	SMTM has no objections to the Nord Stream 2 AG EIA. SMTM consider, however, that any future geophysical mapping should be analysed by experts in marine archaeology. Irrespective of where in the Baltic Sea the gas pipeline is planned, it is SMTM's assessment that geophysical surveys should be designed so that they can provide the basis for examination of impact on the cultural environment.	A recognised marine archaeology agency (under the Danish Agency for Culture and Palaces) has performed screening of the geophysical survey results collected along the pipeline corridor. Exclusion zones have been established for a number of identified objects. Results of the screening are being discussed with the Danish Agency for Culture and Palaces. The pipe-lay contractor will be informed of all agreed exclusion zones.	The Danish Energy Agency has no further comments on this topic.
24	National Maritime Administration	The National Maritime Administration initially points out that its opinion is expressed from the point of view of maritime safety. The National Maritime Administration emphasises that the gas pipelines, irrespective of route, will pass through several busy shipping channels and that these areas fulfil important functions for maritime transport systems in the Baltic Sea. The National Maritime Administration therefore considers it important that the intervention works are planned and carried out with the least possible impact on the manoeuvrability and safety of shipping. The National Maritime Administration takes a very positive view of the route now proposed as it would mean that the pipeline is routed through areas of water with less intensive maritime traffic, for example the busy TSS Bornholm Gatt is avoided.		This is noted.
25	Swedish Transport Agency	The Swedish Transport Agency emphasises that its opinion is expressed from the point of view of shipping and that it does not have any objections to the EIA, considering the route south of Bornholm to be a satisfactory alternative to the original alternative but above all a significantly better alternative than the proposal north of Bornholm.	-	This is noted.



26	Swedish Transport Agency	The Swedish Transport Agency supports the risk assessments and risk reduction measures for maritime traffic that have been carried out and reported. The Swedish Transport Agency's experience of Nord Stream 1 is very positive, and the Agency therefore takes a favourable view of the fact that the planned design, construction and implementation of Nord Stream 2 is almost identical to Nord Stream 1.	-	This is noted.
27	The Swedish Transport Administration	The Swedish Transport Administration has no comments because the project does not affect the Swedish Transport Administration.	-	This is noted.
28	Swedish National Heritage Board	The part of the gas pipeline to be built in Danish territorial waters and the Danish exclusive economic zone will, according to the Swedish National Heritage Board, release seabed sediment and cause noise and emissions. The Swedish National Heritage Board considers that these effects cannot be expected to have any impact on cultural environments on the seabed in Swedish territorial waters or the Swedish exclusive economic zone.		This is noted.
29	The Swedish Armed Forces	With reference to the fact that the consultation mainly concerns the environmental impact in Danish water, the Defense Forces has nothing to recall in the consultation. The Armed Forces position on Nord Stream 2 as a whole has previously been communicated to the government and is not being developed further here.	-	This is noted.
Oth	or consultation ro	sponses received during the Espoo procedure		
	er consultation re	sponses received during the Espoo procedure		
No.	Consulting party	Response	Answer Nord Stream 2 AG	Answer Danish Energy Agency
	T		Answer Nord Stream 2 AG	Answer Danish Energy Agency This is a statement which does not require a response.
	Consulting party	Response ClientEarth has serious reservations concerning the investor's analysis and conclusions in regard to NS2's impact on the environment and	Re: risk to even one individual harbour porpoise or ringed seal could be a risk to the species, due to low numbers] Population dynamics and distribution patterns have been taken into account for all residential species of marine mammals in the Danish part of the Baltic Sea, both in the preparation of the baseline description and the impact assessment. As described in the EIA, based on HELCOM data, ringed seals are not residential in Denmark (or Poland), nor are they known to occur in Danish (or Polish waters). With respect to harbour porpoises, they are known to occur in Danish waters, but are not known to breed in the Danish sector of the Baltic Sea. The recent SAMBAH project showed that the Baltic Sea population of harbour porpoise has the most important breeding area in Swedish waters, near the Midsjö banks where they breed in summer. The proposed NSP2 route thu does not cross known breeding areas or migration routes for marine mammals in Danish waters. Overall, it is assessed as highly unlikely that the short-term nature of Nord Stream 2 construction activities in Danish waters at any location would affect migration or breeding patterns for marine mammals. The EIA concludes (section 9.9), that neither release of sediments and contaminants into water column nor underwater noise will have a significant impact on marine mammals or their long-term behaviour. [Re: munitions clearance (need to account for, incomplete info since survey not yet	Agency This is a statement which does not require a



along with the lack of information on the location of munitions in Danish waters, makes it impossible to accept the investor's assertions that no detonations are planned and this, in turn, requires all parties involved to act as though the detonations are to be conducted in situ.

2) The proposed mitigation measures, including the use of ADDs, aimed at deterring marine mammals from the location of the noise during the construction or operation of the NS2 pipe-line, are not adequate in certain cases, and in others are detrimental to the health of marine mammals (porpoises and seals). ADDs, while the only method available to mitigate the effect of certain operations (e.g. bycatch), should be used sparingly during the construction of NS2 and the use of bubble curtains should be the norm. Bubble curtains were proposed for the Finnish portion of the pipeline and scientists have noted in an opinion that such bubble curtains should also be used during any detonations carried out in Denmark - something which should be included in the investor's EIA. However, even the use of bubble curtains cannot adequately mitigate

effects of high levels of noise and should not be considered as eliminating the risk to highly endangered species.

The information presented in the documentation prepared by the developer on the presence of conventional munitions in the Danish section of the project is incomplete and contradictory. At the same time, work on the report from the munitions screening survey in the Danish section of NS2 was not completed despite the completion of the Danish environmental impact assessment report.

There has been no assessment of the impact of underwater noise generated by the detonation of explosives in the Danish Baltic Sea waters on harbour porpoises and seals, both at the level of individuals and populations, in the event of such activities being necessary. The general documentation prepared by the developer does not contain precise noise propagation distances associated with TTS and PTS in Danish waters.

The developer has failed to present specific methods to minimise the impact of underwater noise on marine mammals in the event that munitions detonation is necessary. Several of the solutions presented for the Gulf of Finland, where such activities are planned and which could be applied to the Danish section, are not appropriate.

The use of acoustic detectors to detect the presence of harbour porpoises within the period of the planned works is not possible due to the time needed to extract

the devices and interpret the readings. This method is not suitable for

completed, no impact assessment on detonation, and no specific mitigation measures given)]

No in situ munitions clearance by controlled detonation is foreseen in Danish waters. As such, the EIA does not consider mitigation measures related to munitions clearance and an assessment of the impact of such activity on marine fauna is not applicable.

The risks related to munitions have been thoroughly assessed in the EIA. The preliminary results of the munitions screening survey along the proposed NSP2 route were available at the time of report completion, but that reporting of the results was not yet finalised. The preliminary results have been incorporated into the assessment reported in the EIA. The final survey results have confirmed the preliminary results reported in the EIA. The routing has been adapted to safely accommodate all found munitions along the proposed NSP2 route, i.e. a minimum offset distance to the pipelines. In the case of the identified line of ground mines along the corridor of the V2 route variant, the safe approach to avoid the munitions will be agreed with the relevant Danish authorities prior to construction.

[Re: use of mitigation measures (acoustic detectors, visual registration by observers, ADDs, bubble curtains)]

The use of mitigation measures in relation to marine mammal species (i.e., acoustic detectors, visual registration by observers, ADDs) is not described in the EIA because, given the activities to be carried out in the Danish EEZ which are assessed to have no significant impacts, such measures are not assessed to be required. As outlined in the EIA, the highest potential underwater noise source from Nord Stream 2 in Danish waters is at the planned locations of rock placement (for example at the Nord Stream crossing). Since no in situ detonation of munitions is foreseen, there is no risk of permanent hearing damage on marine mammals, and it is only within 80 m of rock placement that there is a risk of temporary hearing loss. For such temporary hearing loss to occur, the mammals would have to remain in the immediate vicinity for a period of at least two hours. Since the mammals are expected to swim away rather than remain in the immediate location where intervention works are being carried out, such an occurrence of temporary hearing loss is extremely unlikely. Therefore, it will not be necessary to use mitigating measures to deter seals and harbour porpoises from the areas where rock placement is carried out. The conclusion is that underwater noise may trigger temporary avoidance reactions in individuals, and the overall impact on individuals is therefore assessed to be, at most, minor in Danish waters and negligible in other jurisdictions.

[Re: wrong to say that the project does not affect these species in areas that are remote from the project; may have impact on maritime areas of Poland, including Natura 2000 sites where these animals are subject to protection]

Nord Stream 2 AG has performed Natura 2000 screening of individual Natura 2000 sites in accordance with Article 6(3) of the Habitats Directive and Danish legislation. Based on the information about the planned project activities, modelling results for e.g. sediment dispersion and underwater noise, an scientific knowledge, there are no Natura 2000 sites located within the range of potential impact from the NSP2 project. It is overall concluded that there will be no risk of significant or adverse impact on the integrity of Natura 2000 sites. Further, the impact of migratory mammals and birds in Danish waters is considered at most minor. Therefore, the coherence of the Natura 2000



activities that require data to be obtained when those activities are taking place. On the

other hand, visual registration by observers is unlikely due to the fact that harbour porpoises are difficult to observe and sightings are rare, which means that this method is likely to result in false findings.

The use of acoustic deterrent devices (ADDs) to scare harbour porpoises away from detonation areas should be considered inappropriate for minimising impact, since such devices can cause permanent hearing loss in these animals, leading directly or indirectly to their death. HELCOM in its document "Draft Material on Mitigation of Noise Impact on Marine Vertebrates from Munitions Clearance -Helsinki, Finland, 4-5 October 2016" as one of the many methods used to scare away seals from detonation areas, but not to scare away harbour porpoises. If a harbour porpoise is at a close distance to an ADD, the effect of the device will be almost identical to that observed during the detonation of munitions. Such devices may be responsible for permanent hearing loss in these animals, eading to the direct or indirect death of individuals, e.g. due to the impact of threats that the porpoise will no longer be able to detect. On the other hand, in the case of seals being scared away from detonation areas, the device does not guarantee that they will move far enough to avoid PTS and TTS.

The use of an observer programme to minimise the impact of noise on marine mammals has limited effectiveness as it does not cover the entire noise impact zone.

The planned project to build and operate the Nord Stream 2 gas pipeline will have a negative impact on marine mammals, including above all the critically endangered harbour porpoise population in the Baltic, if the methods proposed by the developer to minimise that impact are used. Through its activities in such areas as the Danish Baltic Sea waters, the project will have an impact on the population of this species throughout the area where it naturally occurs, namely, the Baltic Sea, including Polish Maritime Areas. It is wrong to say that the project or the activities carried out within it do not affect these species in areas that are remote from the project. The direct or indirect negative impact of the project on a given species affects the population in the whole area where it occurs. Therefore, we should recognise that the project may also have an impact on the maritime areas of Poland, including Natura 2000 sites, where these animals are subject to protection. The favourable conservation status of a species depends on the conditions prevailing within range of a habitat, both at a Baltic-wide and local level.

What is understood by 'deliberate' has been defined by the Court of Justice of the European Union (CJEU) in Commission v Spain, which establishes that "Fo the condition as to 'de-liberate' action in Article

network, including spatial and functional connections, will not be affected.

[Re: comments on 'deliberate' action under Habitats Directive]

NSP2 will not cause the deliberate or intended capture or killing of animal species listed in

Annex IV(a) of the Habitats Directive as protected by Article 12 of the Habitats Directive.

In Danish waters, the only marine Annex IV species are marine mammals. As stated in the EIA, section 9.9.3, the potential impacts on marine mammals during the construction and operation of NSP2, either individually or in combination, are assessed to be not significant. Further, as stated in the EIA, section 9.9.4, none of the planned impacts from NSP2 are assessed to contribute to a violation of the Annex IV conservation objectives in Denmark. With respect to the definition of "deliberate" within the meaning of Article 12(1)(a) of the Hab-itats Directive, reference is made to the EU Commission's definition in Guidance document on the strict protection of animal species of

Community interest under the Habitats Directive 92/43/EEC, (2007), section II.3.1, para. 33: "Deliberate" actions are to be understood as actions by a person who knows, in light of the relevant legislation that applies to the species involved, and the general information delivered to the public, that his action will most likely lead to an offence against a species, but intends this offence or, if not, consciously accepts the foreseeable results of his action."

[Re: comments from Skåne 2017 on barrier effect on distribution of various species]

Concerning potential barrier impacts from noise during construction and the operational phase, Nord Stream 2 has responded to the comment from the County Administrative Board of Skåne as part of the public consultations in Sweden in 2017. The response refers to an assessment from the Danish Centre for Environment and Energy, Institute for Bioscience at Aarhus University. The assessment (which was finalized in June 2018) concludes that "the potential for the noise from the pipeline in operation to interfere with migration and distribution of harbour porpoises appears extremely low, as the pipeline noise is present only at very low frequencies, likely inaudible to harbour porpoises and furthermore very likely to be completely masked by ambient noise, even very close to the pipeline."



12(1)(a) of the directive to be met, it must be proven that the author of the act intended the capture or killing of a specimen belonging to a protected animal spe-cies or, at the very least, accepted the possibility of such capture or killing." ...Going ahead with the NS2 project with the (incomplete) knowledge that it may result in the disturbance, capture and killing of cetaceans constitutes deliberate disturbance, capture and killing of these species in the sense of acceptance of the consequences described in Commission v Spain. This would be tantamount to a failure to establish a system of strict protection for these species and be in breach of Article 12(1) of the Habitats Directive.

Client Earth would also like to draw the Danish authorities' attention to the statement of the county administrative board in Skåne, Sweden (dated 2 June 2017, collected during the consultation procedure in Sweden) in which the board rightly noted that as regards the noise from the proposed pipeline "Although the company makes the assessment that the intensity and magnitude of the sound is low, there is no analysis of whether the pipeline, in operation, can be expected to have a barrier effect on the distribution of various species." This statement, with which ClientEarth concurs, echoes that made by the Institute of Oceanology of the Polish Academy of Sciences (dated 29 May 2017, collected during the consultation procedure in Sweden), according to which "The gas transported in the pipeline does not travel silently. No data exists which would allow a rough assessment of such noise. The absence of data does not mean this has no environmental impact."



3 Client Earth

Birds

1) Table 7-32 of the EIA pretends to show "the abundance of seabirds observed in the Danish sector during winter surveys in 2007-2009" based on Skov et al. (2011). In the accompanying section of the EIA text, author points out that the figures refer to the "Danish EEZ". However, Skov et al. (2011) did not provide species abundances summed for the Danish EEZ, and the figures provided in the EIA represent a clumsy compilation of data Skov et al. (2011) collected for other purposes, which hardly allow for such a generalization. The figures provided in the EIA actually refer to key areas identified for each species within the Danish EEZ. These key areas differ spatially from species to species and their area never approaches even a quarter of the Danish EEZ. As such, they cannot be used even to approximate bird numbers found in the whole Danish

EEZ. Moreover, for a number of species, Skov at al. (2011) did not define any key area within the Danish EEZ, despite species being present here in good numbers (although not allowing to find any site with distinctly higher local abundances). Such species were completely missing from Table 7-32. Consequently, the claim that "a total of 14 species were observed within the Danish EEZ" is clearly false. For example, Velvet Scoter (species globally threatened) is not listed in Table 7-32 at all, while Map 19 in Skov et al. (2011) shows clearly that species occurs abundantly over SW part of Danish EEZ, particularly in areas to be intersected by NS2 pipeline.

Most importantly, the most numerous species to be reported in Table 7-32, a globally threatened long-tailed duck, is shown here as 12 (twelve) birds, whereas the reference publication (Skov et al. 2011; Table 17) shows 12,000 (twelve thousand) birds recorded on Rønne Banke and Adler Grund. Thus, the abundance of a key species, threatened globally, is underestimated 1000 times in the EIA.

2) Possible transboundary impacts of the NS2 construction in Danish EEZ waters were excluded a priori in the EIA (chapter 14.2.3), despite Polish SPA Zatoka Pomorska (PLB990003) being located only 7 km away from the pipeline route (route V1) or just 3.6 km away (route V2). This assessment did not take into account possible impacts of the pipeline construction works on sea duck populations. Construction works are likely to decrease benthic fauna stocks that are the main food of threaened sea duck species, and this effect will include a 3-4 km wide zone along the pipeline route. Decrease in benthic prey stocks for ducks may last for several years, forcing these birds to move to other more profitable feeding grounds located outside the impacted zone. Thus, long-tailed ducks and scoters may be displaced from the vicinity of the pipe-line to nearby areas offering more profitable prey stocks, including the Polish SPA

PLB990003. Increasing densities of birds foraging within this SPA may

The information presented on birds in the EIA is based on, inter alia, interpretation of the results of the survey completed in the entire Baltic Sea by Skov et al. (2011). Other data used in the EIA are taken from seabird studies conducted in connection with the Nord Stream Pipeline (NSP) in Rønne Banke and Oder Bank in 2006-2007, at Ertholmene in 2008, and in the German part of Rønne Banke in 2010-2012; ship and airplane surveys performed at Rønne Banke in December 2010, January 2011, and March 2012; and vessel-based surveys in the German Pomeranian Bay from September 2015 through August 2016.

The numbers presented in Table 7-32 are taken from abundance summary tables by species in the areas referred to as "Bornholm coast" or "Rønne Bank & Adler Ground" in Skov et al. (2011), which overlap spatially most closely with the area crossed by the NSP2 pipeline and therefore provide the most accurate picture of bird abundance in the Danish project area.

The EIA does not purport the information presented in Table 7-32 to be exhaustive. Directly below Table 7-32 the following is stated: "It should be noted that not all of the seabird species present in the Danish part of the project area are included in the study summarized in Table 7-32 /255/. Only birds observed at the defined survey transects have been included. Other species are presented in the following sections [...]".

It is correct that the number of long-tailed ducks at Rønne Banke and Adler Grund was reported in Skov et al. (2011) as 12,000 and in Table 7-32 of the EIA as 12. This was the result of an accidental typographical error. The number for relative proportion of long-tailed duck listed in Table 7-32 (0.81 %) is correct. The misrepresentation in Table 7-32 is overshadowed by the fact that directly above the table, it is accurately stated in the text that "The most abundant species by far was the long-tailed duck (Clangula hyemalis), observed mainly at Rønne Banke". The baseline description and the conclusions of the impact assessment therefore remain valid.

The assessment of potential transboundary impacts is based on consideration of the distance of the pipeline route to other country borders, the nature of each potential source of impact and the results of mathematical modelling. Experience gained from monitoring undertaken before, during and after construction of NSP project has also been taken into consideration. Additionally, all Natura 2000 sites in the vicinity of the proposed NSP2 route were screened in the EIA based on their distance from the proposed NSP2 route and their designated conservation objectives. The Natura 2000 site Zatoka Pomorska (PLC990003) was excluded from the screening due to its distance

from the closest part of the NSP2 route in the Danish EEZ, which is more than 20 km. Impact distances from all possible sources, have been de-scribed and assessed in detail in the EIA. For birds, potential negative impacts will, in general, be limited to a 1-1.5 km radius around the working area, and the potential impacts mainly consist of temporary behavioural changes. Monitoring undertaken as part of the NSP project in Germany did not reveal any negative influence on bird density, abundance or distribution, and potential displacement effects were found to be minor compared with effects from commercial ship traffic. On the basis of the assessments completed in sections 9.10 and 14 of the EIA, no significant impacts on birds, including transboundary impacts, were identified. Nord

The Danish Energy Agency has no further comments on this topic.



impose costs stemming from in-creased competition, interference and faster prey depletion. Given extremely sensitive energy budget of long-tailed ducks and sea ducks, these costs may be far from negligible, leading to increase in mortality or emigration of birds in search of more profitable feeding grounds.

These possibilities should be carefully addressed using quantitative models (for example IBMs) to confirm or dismiss possible population-level impacts on threatened ducks using SPA PLB990003. The EIA for the Danish section of the NS2 pipeline does not contain such an assessment, leaving open the possibility of significant transboundary impacts on bird populations using the Polish marine Natura 2000 sites.

3) The EIA neglects possible impact of NS2 on wintering marine birds using an IBA intersected by the planned pipeline. Here, threatened species of sea ducks and divers will be negatively affected by the project activities impacting their foraging areas. Unfortunately, the EIA fails to recognize the spatial extent of these adverse effects and their consequences for bird populations. Furthermore, as impacted populations regularly move between different haunts within their Baltic wintering area, the negative effects may easily carry over from the areas directly affected by the project to other Baltic sites, including adjacent Polish SPAs. Consequently, possible transboundary effects of the project for birds are ignored, rendering the EIA incomplete.

[from the bird paper] Regarding birds, the EIA has a shortage of dedicated preconstruction surveys, conducted by the project proponent, providing baseline information on the environ-mental values. For bird populations, the main information available in the EIA are the results of surveys made in 2007-2009 for other purposes (mainly Skov et al. 2011). These surveys were made only once per winter season, so they do not provide information on the dynamics of bird populations across successive months of their stay on wintering grounds. This lack of dedicated, rigorous, baseline survey does not provide any basis of a strong inference based on post-construction surveys. This precludes the possibility to learn anything from possible post-implementation studies, due to the lack of dedicated baseline surveys that can be replicated in the future.

Stream 2 AG thus considers that impacts on birds have been adequately assessed in the EIA and that the range of potential impact from activities in the Danish EEZ will not reach the Zakota Pomorska Natura 2000 site or its designated bird species. It is overall concluded in the EIA that there will be no risk of significant or adverse impact on the integrity of Natura 2000 sites. Therefore, the coherence of the Natura 2000 network, including spatial and functional connections, will not be affected.

On the basis of the information provided in the EIA and experience gained from NSP, monitoring of birds in connection with the construction or operation of NSP2 is not required by the Danish authorities and is therefore not planned in Danish waters. The information presented in the baseline description of the EIA, which draws from, inter alia, Skov et al. (2011) and monitoring carried out in connection with NSP, have been considered satisfactory for the establishment of a reliable basis for the impact assessment.



Client Earth	Natura 2000 First, the investor's assessment does not take into account the entire network of Natura 2000 sites relevant to the conservation of habitats and species in the Baltic Sea basin. Both the ringed seal and the porpoise are species which migrate throughout the Baltic Sea and, therefore, any impact on any member of the population of this species shall have an impact on Natura 2000 sites created to protect the species (as is stated on p. 10 and 11 of the attached opinion authored by Mr. Gorski and Ms. Pawliczka). Third, as stated above (impact on bird populations), the investor incorrectly failed to analyse the impact on the Natura 2000 site "Zatoka Pomorska" (PLC990003). Fourth, the assessment made by the Applicant concerning the Natura 2000 sites (including those in Denmark) and the network in its entirely seems to incorrectly take into account existing causes of deterioration of said sites and network, thereby demonstrating that the Nord Stream 2 pipeline will not significantly (or even moderately) adversely affect protected habitats and species, since these are already adversely affected by other factors.	["First"] Nord Stream 2 AG has performed Natura 2000 screening of individual Natura 2000 sites in accordance with Article 6(3) of the Habitats Directive and Danish legislation. Based on the information about the planned project activities, modelling results for e.g. sediment dispersion and underwater noise, and scientific knowledge, there are no Natura 2000 sites located within the range of potential impact from the NSP2 project. It is overall concluded that there will be no risk of significant impact on the integrity of Natura 2000 sites. Therefore, the coherence of the Natura 2000 network, including spatial and functional connections, will not be affected. In relation to marine mammal species, reference is made to the response above. The proposed NSP2 route does not cross known breeding areas or migration routes for marine mammals. Overall, it is assessed as highly unlikely that the short-term nature of Nord Stream 2 construction activities at any specific location would affect migration or breeding patterns of marine mammals. ["Third"] as stated above, all Natura 2000 sites in the vicinity of the NSP2 route were screened in the EIA based on their distance from the NSP2 route and their designated conservation objectives Nord Stream 2 AG thus considers that impacts on birds have been adequately assessed in the EIA and that the range of potential impact from activities in the Danish EEZ will not reach the Zakota Pomorska Natura 2000 site or its designated bird species.	The Danish Energy Agency has no further comments on this topic.
		["Fourth"] The assessment of impacts on receptors in Natura 2000 sites compares against the available baseline information on the status of the species and/or habitat types for which the sites are designated, applicable regulatory thresholds and the natural processes occur-ring in the Baltic Sea. As such, other existing causes of deterioration of said sites and the Natura 2000 network are not considered in the baseline description or impact assessment; however, other projects that may have spatial or temporal overlap with the	

NSP2 project are considered in the assessment of cumulative impacts (see section 12).



5 Client Earth	d) The Status of the Baltic
Short Earth	ClientEarth observes that, owing to the already poor ecological status of
	the Baltic, the Nord Stream 2 project will prevent Member States,
	including Denmark, from fulfilling their obligations under the:
	i. Water Framework Directive,
	ii. Marine Strategy Framework Directive.
	It is common knowledge that the waters of the Baltic Sea are among the
	most polluted in the world.
	According to the joint website of Finland's environmental administration
	5, "the 2013 ecological assessment of surface waters accords a good or
	high status to 85% of the surface area of Finnish lakes, and 65% of
	rivers. Only a quarter of coastal waters achieved the same status. ()
	No coastal areas achieved a high status, while the proportion of those
	with a good status decreased from 36% (2008) to 25% (2013) between
	the two surveys. This change is due to changes in criter ia, since the
	2008 survey was based on preliminary criter ia that have since been
	adjusted and integrated."
	The situation is similar in other countries bordering the Baltic and
	involved in the Nord Stream 2 project. For example, according to the
	main German environmental protection agency, Umweltbundesamt 6
	(article published on 20 October 2017), "In 2015 no water body of the
	coastal and transitional waters of the German parts of North and Baltic
	Seas achieved good or very good ecological status. The target set by
	the European Water Framework Directive (WFD, EU Directive
	2000/60/EC) i.e. that all waters should be in at least a good
	environmental status by 2015, was therefore missed by a wide margin.
	As this goal was clearly missed, the two subsequent management
	cycles under the WFD now need to be used to reach the ambitious
	targets by 2027 at the latest."



Client Earth	Granting consent to any action which would contribute to the	-	This is a statement wh
	modification of the Baltic ecosystem without contributing to its		does not require a
	improvement would beat variance with Denmark's obligation under the		response.
	Water Framework Directive.		
	Any such consent would also constitute a violation of the Marine		
	Strategy Framework Directive. ClientEarth deems it necessary to once		
	stress that the Marine Strategy Framework Directive requires EU		
	member states to:		
	i. take the necessary measures to achieve or maintain good		
	environmental status in the marine environment by the year 2020 at the		
	latest. Good environmental status means the environmental status of		
	marine waters where these provide ecologically diverse and dynamic		
	oceans and seas which are clean, healthy and productive within their		
	intrinsic conditions, and the use of the marine environment is at a level		
	that is sustainable, thus safeguarding the potential for uses and activities		
	by current and future generations, i.e.:		
	a. the structure, functions and processes of the constituent marine		
	ecosystems, together with the associated physiographic, geographic,		
	geological and climatic factors, allow those ecosystems to function fully		
	and to maintain their resilience to human-induced environmental		
	change. Marine species and habitats are protected. human-induced		
	decline of biodiversity is prevented and diverse biological components		
	function in balance;		
	b. hydro-morphological, physical and chemical properties of the		
	ecosystems, including those properties which result from human		
	activities in the area concerned, support the ecosystems as described		
	above. Anthropogenic inputs of substances and energy, including noise,		
	into the marine environment do not cause pollution effects;		
	ii. develop and implement marine strategies in order to:		
	a. protect and preserve the marine environment, prevent its deterioration		
	or, where practicable, restore marine ecosystems in areas where they		
	have been adversely affected;		
	b. prevent and reduce inputs in the marine environment. with a view to		
	phasing out pollution, so as to ensure that there are no significant		
	impacts on or risks to marine biodiversity, marine ecosystems, human		
	health or legitimate uses of the sea.		



7	Client Earth	The Baltic Sea is a marine region covered by the scope of said directive, therefore it is the responsibility of all EU member states which are parties of origin for the proposed investment - and this includes Denmark - to ensure that no actions are undertaken that will make more difficult the attainment or maintenance before 2020 of the good environmental status of the waters of the Baltic Sea. It is clear to us that Nord Stream 2 will make this task more difficult and will do nothing to improve the environmental status of the Baltic. It is, therefore, equally clear that any consent for the Nord Stream 2 project will be in conflict with the obligations arising under the Marine Strategy Framework Directive. ClientEarth would further like to indicate that the consequences of the construction of pipelines, such as: (i) smothering and (ii) underwater noise, are listed by the Baltic Marine Environment Protection Commission (HELCOM) as having the potential to directly cause the decline of biodiversity in the Baltic and were one of the causes leading to the adoption (in Krakow, Poland) of the Helcom Baltic Sea Action Plan of 15 November 2017 More than ten years have passed since this document was adopted and it would be a shame for Denmark or any other EU member state to approve a project which does not contribute to the attainment of the goals envisaged therein.		This is a statement which does not require a response.
8	Client Earth	"Salami Slicing" The lack of proper analysis of all aspects of the investment is visible also in the fact that the investor has failed to provide an analysis of an environmental impact assessment which would provide an adequate assessment of Nord Stream 2's impact on the entire route of the project and the Baltic basin, not just those areas which are within or directly adjacent to Danish territory. This is particularly important as the effects of the investment will be felt in such countries as Poland and the national permitting authority must have exhaustive information as to what effect the permit issued in Denmark will have on the environment as a whole.	In accordance with the applicable legal framework, the EIA for the south-eastern route includes a transboundary impact assessment (see section 14) specific to the proposed NSP2 route in Danish waters. This assessment covers planned and unplanned events in the Danish EEZ and their potential impacts on neighbouring jurisdictions as well as on regional and global receptors. The scope of this transboundary assessment is therefore not limited to areas which are within or directly adjacent to Danish territory. Consideration was given to the distance of the pipeline route to each potentially impacted receptor across country borders, the nature of each potential source of impact and the results of mathematical modelling. Potential transboundary impacts on Poland in particular are de-scribed and assessed in section 14.2.3 of the EIA. For all potentially impacted countries and regional and global receptors, it is assessed that there will be no significant transboundary impacts from the construction or operation of NSP2.	Please note that the Danish Energy Agency finds that both the Danish National EIA and the report covering the transboundary environmental impacts for the Nord Stream 2 project provide substantiated information about the effects from the Nord Stream 2 gas pipeline project. Please also note, that the Danish Energy Agency finds no reason to doubt the overall conclusion, that the the Nord Stream 2 gas pipeline project in Denmark has no significant impacts into Poland or other countries, and that thr report covering the transboundary environmental impacts, fulfil the regulations.
9	Client Earth	Climate and Air Quality	Section 14.1 of the EIA describes project activities within Danish waters that potentially	The Danish Energy Agency



The investor seems to analyze the investment's impact [on climate and air] only as concerns Denmark and not, as is required by EU law, in relation to the short and long-term effects of the investment on the climate as a whole, including in other countries, particularly in affected countries other than the countries of origin. Moreover, ClientEarth considers that the assessment conducted by the investor is in violation of art. 3 of the EIA Directive, which requires an environmental impact assessment to identify, describe and assess in an appropriate manner, in the light of each individual case and in accordance with Articles 4 to 12 of said directive, the direct and indirect effects of a project on the following factors:

- i. human beings, fauna and flora;
- ii. soil, water, air, climate and the landscape;
- iii. material assets and the cultural heritage;
- iv. the interaction between the factors referred to in points a, b and c above.

can impact receptors on a regional or global scale, i.e. within all jurisdictions, including Denmark, other countries of origin and affected countries. Climate and air quality are addressed in this section (see section 14.1.2). As regards potential impacts on climate, modelling completed for the EIA shows that the emissions levels are not anticipated to have a quantifiable impact on the global climate, due to their small contribution to overall emissions caused by shipping in Denmark.

Regarding potential impacts on air quality, the assessments performed as part of the EIA found that due to the offshore nature of air emissions in relation to the Danish part of the project, concentrations will be dispersed and diluted to a level that is not quantifiable and no significant transboundary impacts are thus expected (see section 14.1.2).

The EU EIA Directive, as implemented in Denmark by the EIA Act, provides the legal basis for the EIA procedure and the information to be provided about the project in the EIA. The EIA prepared for the NSP2 project has relied on this information basis in the process of scoping and identifying potential environmental impacts. The direct and indirect impacts of the project are assessed in detail in Chapters 9 (Assessment of potential impacts) and 12 (Cumulative impacts) of the EIA, as shown in the table below.

Factors to be assessed per Article 3 of the EIA Directive	Section(s) of the EIA in which each factor is assessed
Human beings	Shipping and shipping lanes, section 9.14
	Commercial fishery, section 9.15
	People and health, section 9.17
	Tourism and recreational areas, section 9.18
Fauna	Plankton, section 9.6
	Benthic flora and fauna, section 9.7
	Fish, section 9.8
	Marine mammals, section 9.9
	Seabirds, section 9.10
	Protected areas, section 9.11
	Natura 2000 sites, section 9.12
	Biodiversity, section 9.13
Flora	Benthic flora and fauna, section 9.7
Soil	Sediment quality, section 9.2
Water	Hydrography, section 9.3
	Water quality, section 9.4
Air	Climate and air quality, section 9.5
Climate	Climate and air quality, section 9.5
Landscape	Bathymetry, section 9.1
Material assets	Existing and planned installations, section 9.19
	Raw material extraction sites, section 9.20
	Military practice areas, section 9.21
	Environmental monitoring stations, section 9.22
Cultural heritage	Cultural heritage, section 9.16
The interaction between the factors	Biodiversity, section 9.13
	Cumulative impacts, section 12

For each factor listed in the table above, a scoping procedure has been carried out to identify and evaluate all potential sources of impact. For interactions that were deemed to have a potential for significant impact, an assessment of the significance of each potential source of impact has been made. For all factors, impacts from identified potential sources of impact have been assessed to be negligible to minor, and not significant.

has no further comments on this topic.



10 Client Earth	II. THE ISSUE OF GAS SUPPLY TO THE EUROPEAN UNION	-	This is a statement which
	Lastly, ClientEarth is of the opinion that, irrespective of whether natural		does not require a
	gas is considered a fuel facilitating a transition to cleaner energy or a		response.
	typical fossil fuel which should be replaced as soon as possible by		
	renewable sources of energy, the view that additional gas supply		
	through NS2 is a necessity for the European Union is not based on		
	objective faet and cannot, therefore, be the basis for successful		
	application.		
	We note that:		
	a) there is at present an over-supply of natural gas in Europe and this		
	over-supply is expected to continue in the future with demand expected		
	to increase and internal EU supply to decrease only marginally until		
	20359		
	b) the current gas infrastructure for importing natural gas to the		
	European Union is not utilized in full, i.e. in 2016 gas imported from		
	Russia into the European Union was at a level of 146 billion m3,		
	whereas the total volume which could be imported from Russia		
	using existing infrastructure equals 228 billion m3. This should be		
	compounded with the data provided by NABU in its Comments on		
	NordStream 2 in which gas import capacities were listed as 54 billion m3	i	
	from Norway, 208 billion m3 from Russia and "some 25 m3 (presumably		
	25 billion m3) from the Netherlands and the connection of Nord Stream 2		
	was expected to expand the import of capacity by a further 55 billion m3		
	per year (p. 4 of said comments, and as is stated in the Application).		
11 Client Earth	It is simply not the case that the Nord Stream 2 investment is necessary	-	Not relevant in relation to
	to safeguard gas supplies and energy provision to the European Union;		an impact on the
	c) the construction of the Nord Stream 2 investment will further ensure		environment by a proposed
	the dominance of Russia as a provider of natural gas to the European		activity taking place in the
	Union. The Applicant, both in its written documents and in its statements		Danish EEZ.
	made during public hearings as part of the Espoo process, holds the		
	position that this is an investment made by a private company based on		
	economic considerations and, therefore, market conditions and the		
	economic outlook justify the construction of the investment. ClientEarth		
	believes that this is not the case. As stated above, there are at least		
	serious doubts as to whether the investment is economically justified .		
	Additionally, and in connection with this, the expansion of natural gas		
	supply from Russia into the European Union can have a serious,		
	detrimental effect on the European Union's drive to increase its energy		
	independence, encourage the development of renewable energy		
	sources, and meet its climate change obligations.		



		1		
12	Client Earth	Expanding the importation infrastructure of natural gas when the existing	-	This is a statement which
		infrastructure is under-utilized will mean that investment in renewable		does not require a
		energy sources will become less attractive and feasible, and will		response.
		inevitably lead to an increase in the use of natural gas which is, after all,		
		a fossil fuel contributing to climate change. ClientEarth has indicated this		
		issue in its previous remarks made in the Espoo process in other		
		jurisdictions, adding its voice to other parties which have drawn attention		
		to the faet that the Nord Stream 2 investment:		
		i. increases European dependency on Russian gas supply;		
		ii. decreases Europe's ability to meet its climate change obligations.		
		A move away from fossil fuels to renewable energy will not happen when		
		fossil fuel infrastructure is expanded even when it is superfluous.		
		For this reason alone, ClientEarth considers the Nord Stream 2		
		investment to be without justification and the Application sho uld, as a		
		consequence, be rejected.		
13	Both ENDS, The	Before going into our specific concerns of the pipeline, we would like to	-	This is a statement which
	Netherlands	stress that studies show that Europe's existing gas system is already		does not require a
	Evgeniya Chirikova,	resilient enough to handle a wide range of demand futures and extreme		response.
	Russian	supply disruption cases, including an accelerated coal phase-out,		
	environmental	without new infrastructure investments [1] [2]. The NS2 pipeline is a		
	activist (currently	clearly politically motivated project. In high level discussions,		
	based in Estonia)	newspapers, public opinion etc, the social, environmental and climate		
	Thomas	concerns of the project are not mentioned. As these concerns are		
	Wenidoppler,	critical, we hope they are at the center of the discussion in Denmark.		
	Finance & Trade			
	Watch, Austria			
	Urgewald, Germany			
	Milieudefensie,			
	Netherlands			
	Det Fælles Bedste -			
	netværk af grønne			
	foreninger, Denmark			
	Velkommen til			
	Vendsyssel Energi –			
	og Miljøforening,			
	Denmark NOAH -			
	Friends of the Earth			
	Denmark, Denmark			
<u> </u>	Delilliaik, Delilliaik			



		T		T
14	Both ENDS, The	The pipeline will pass through five Natura 2000 sites in the Baltic Sea as	-	Not relevant in relation to
	Netherlands	well as the Kurgalsky Nature Reserve in Russia. The construction of the		an impact on the
	Evgeniya Chirikova,	pipeline in sensitive and already damaged ecosystems represents		environment by a proposed
	Russian	serious and irreversible threats to wildlife.		activity taking place in the
	environmental			Danish EEZ.
	activist (currently			
	based in Estonia)			
	Thomas			
	Wenidoppler,			
	Finance & Trade			
	Watch, Austria			
	Urgewald, Germany			
	Milieudefensie,			
	Netherlands			
	Det Fælles Bedste -			
	netværk af grønne			
	foreninger, Denmark			
	Velkommen til			
	Vendsyssel Energi –			
	og Miljøforening,			
	Denmark NOAH -			
	Friends of the Earth			
	Denmark, Denmark			
15	Both ENDS, The	The EIA (Espoo Materials) is in violation of Article 4 of the Espoo	-	Please note that the Danish
	Netherlands	Convention. Nord Stream 2 AG presents an incomplete and unreliable		Energy Agency finds that
	Evgeniya Chirikova,	description of the elements of the environment that are likely to be		both the Danish National
	Russian	significantly impacted by the proposed activity or its alternatives, as well		EIA and the report covering
	environmental	as a description of the possible types of environmental impacts of the		the transboundary
	activist (currently	proposed activity and its alternatives, and an estimation of impact		environmental impacts for
	based in Estonia)	scale.[3]		the Nord Stream 2 project
	Thomas			provide substantiated
	Wenidoppler,			information about the
	Finance & Trade			effects from the Nord
	Watch, Austria			Stream 2 gas pipeline
	Urgewald, Germany			project in Denmark and into
	Milieudefensie,			other countries from
	Netherlands			Denmark. Please also note,
	Det Fælles Bedste -			that the Danish Energy
	netværk af grønne			Agency finds no reason to
	foreninger, Denmark			doubt the overall
	Velkommen til			conclusion, that the the
	Vendsyssel Energi –			Nord Stream 2 gas pipeline
	og Miljøforening,			project in Denmark has no
	Denmark NOAH -			significant impacts into
	Friends of the Earth			other countries, and that
	Denmark, Denmark			the report covering the
				transboundary



				environmental impacts, fulfil the regulations.
16	Both ENDS, The	Russia	-	Not relevant in relation to
	Netherlands	3. The pipeline is affecting the Kurgalsky nature reserve and its rare		an impact on the
	Evgeniya Chirikova,	species.[4] [5] Red Book species and animals like the White-tailed Eagle		environment by a proposed
	Russian	are impacted. Efforts of NS2 to mitigate the impacts, like transplanting		activity taking place in the
	environmental	plants, is contested by experts and Greenpeace Russia.[6]		Danish EEZ.
	activist (currently	4. Work without any permits was carried out in Kurgalsky reserve, as a		
	based in Estonia)	result of which hundreds of rare plants were destroyed.[7]		
	Thomas	5. The pipeline is powered by one of the most powerful compressor		
	Wenidoppler,	stations in the world, the Slavyanskaya Compressor Station, with 352		
	Finance & Trade	MW of installed capacity at the very border of the Kurgalsky Nature		
	Watch, Austria	Reserve.[8] There are no data on the noise levels in the vicinity of		
	Urgewald, Germany	working gas turbines.		
	Milieudefensie,	6. In 2017, Nord Stream 2 AG, Gazprom and the Russian government		
	Netherlands	reduced the protected area of the Kurgalsky reserve from 59,950 to		
	Det Fælles Bedste -	49,830 hectares, without any satisfactory explanation. Data about rare		
	netværk af grønne	species were excluded from the new maps of the reserve. Even		
	foreninger, Denmark	biologists who took part in the preparation of new documents were		
	Velkommen til	shocked to know that most of their findings, confirming environmental		
	Vendsyssel Energi –	significance of the reserve, were deliberately excluded from the final		
	og Miljøforening,	version of the document. [9] [10] [11]		
	Denmark NOAH -	7. Nord Stream 2 on its own website says there is no substantial		
	Friends of the Earth	information on the behavior of Baltic Ringed Seals.[12] Only when the		
	Denmark, Denmark	pipeline is built will they be able to see the impact on the already		
		endangered animals.		
		8. Nord Stream 2 contradicts the obligations of Russia under two		
		international conventions: the Espoo Convention and the Ramsar		
		Convention on Wetlands. Russia, as a Party to the Convention, did not		
		inform the Bureau of the Convention on the planned ecological changes		
		in the Kurgalsky Peninsula wetland as a result of the construction of the		
		Nord Stream 2 gas pipeline prior to the start of the international		
		consultation procedure.[13]		



Both ENDS, The	Germany	NSP2 could respond to the statement about impacts on harbor porpoises in "Responses	Not relevant in relation to
Netherlands	9. Germany's coastal waters and exclusive economic zone alone, more	to Relevant Comments to the "Nord Stream 2, South-Eastern Route" in Denmark" (W-PE-	an impact on the
Evgeniya Chirikova,	than seventy kilometres of 9. In the pipeline will intersect five sea zones	EIA-GEN-REP-800-SERNGOEN-01)	environment by a proposed
Russian	that are protected under the EU's Habitats and Birds Directives. Habitats		activity taking place in the
environmental	that enjoy stringent protections, such as seagrass meadows and marl		Danish EEZ.
activist (currently	reefs, will be destroyed over a broad area of up to 80 meters wide, and		
based in Estonia)	rare animal species such as harbour porpoises and sea ducks will be		
Thomas	driven from important habitats. The project is thus directly opposed to a		
Wenidoppler,	declared goal of European marine protection legislation - namely, to		
Finance & Trade	rehabilitate the marine environment of the Baltic Sea.[14]		
Watch, Austria	10. Based on the available knowledge, it is impossible to predict that		
Urgewald, Germany	harbor porpoises will remain unaffected by Nord Stream 2 construction.		
Milieudefensie,	As they are currently threatened with extinction,[15] driving these		
Netherlands	animals away from important habitats is directly opposed to the declared		
Det Fælles Bedste -	goals of German and European marine protection legislation – namely,		
netværk af grønne	to rehabilitate the marine environment of the Baltic Sea.[16]		
foreninger, Denmark	11. The German environmental organisation NABU filed a complaint		
Velkommen til	against the Nord Stream 2 pipeline about the environmental impacts at		
Vendsyssel Energi -	the High Administrative Court (OVG) and after this didn't lead to a stop		
og Miljøforening,	of the building activities, NABU has appealed against the construction		
Denmark NOAH -	license in the economic zone.[17]		
Friends of the Earth			
Denmark, Denmark			



18	Both ENDS, The	Social impacts in Russia	-	Not relevant in relation to
	Netherlands	12. Public meetings organized by Nord Stream 2 AG took place in		an impact on the
	Evgeniya Chirikova,	Kingisepp, Leningrad Oblast, Russia.[18] Contrary to what the Nord		environment by a proposed
	Russian	Stream 2 AG and local officials argue, residents who attended public		activity taking place in the
	environmental	meetings did not express support for the Nord Stream 2 project.		Danish EEZ.
	activist (currently	Representatives of environmental NGOs warned about falsifications in		
	based in Estonia)	the EIA documentation of the project - which is reflected in the minutes		
	Thomas	of the meeting.[19]		
	Wenidoppler,	13. When asked to come to Kingisepp for the meeting, some of the		
	Finance & Trade	locals did not know the purpose of the meeting. Many local residents		
	Watch, Austria	were also not informed about the public meetings, so they could not join		
	Urgewald, Germany	- as they pointed out in an open letter to Vladimir Putin.[20] They asked		
	Milieudefensie,	to stop Nord Stream 2 pipeline and spare Kurgalsky reserve. Therefore,		
	Netherlands	the project has neglected crucial interaction with local stakeholders.		
	Det Fælles Bedste -	14. Some residents in the Kurgalsky region identify themselves[21] as		
	netværk af grønne	indigenous people; Izhora, Ingermanlanders, and Vod. [22] [23] [24]		
	foreninger, Denmark	According to the ILO 169 standard [25] these people fall under the		
	Velkommen til	protection of Free Prior and Informed Consent (FPIC). As these people		
	Vendsyssel Energi –	have not been properly informed or consulted, FPIC is not implemented.		
	og Miljøforening,	15. Gas for the Nord Stream 2 project will be produced on the territory of		
	Denmark NOAH -	Yamal, inhabited by indigenous peoples, leading a nomadic lifestyle. As		
	Friends of the Earth	a result of gas production, indigenous peoples lose grazing land for		
	Denmark, Denmark	livestock grazing, which violates their traditional nomadic way of life. In		
	Deninark, Bennark	line with the OECD guidelines and UNGP's chain responsibility, social		
		and environmental impacts of the indigenous people in Yamal should be		
		but are not studied in relation to NS2.		
19	Both ENDS, The	Climate impacts	_	Not relevant in relation to
	Netherlands	Exploiting new fossil fuels reserves and building new fossil fuel		an impact on the
	Evgeniya Chirikova,	infrastructure is impossible to reconcile with the goal of keeping global		environment by a proposed
	Russian	warming well below 2°C, or aiming for 1,5°C.[26] If completed, this		activity taking place in the
	environmental	pipeline will be the largest fossil fuel project in Europe and when in		Danish EEZ.
	activist (currently	operation will be responsible for thousands of tonnes of carbon dioxide		Barneri EEE.
	based in Estonia)	emissions into the atmosphere.		
	Thomas	ciniosiono inte une aunospinere.		
	Wenidoppler,			
	Finance & Trade			
	Watch, Austria			
	Urgewald, Germany			
	Milieudefensie,			
	Netherlands			
	Det Fælles Bedste -			
	netværk af grønne			
	foreninger, Denmark			
	Velkommen til			
	Vendsyssel Energi –			
	og Miljøforening,			
	Denmark NOAH -			
<u> </u>	Deliliary MOALL-	1	1	



	Friends of the Earth Denmark, Denmark			
20	Both ENDS, The Netherlands Evgeniya Chirikova, Russian environmental activist (currently based in Estonia) Thomas Wenidoppler, Finance & Trade Watch, Austria Urgewald, Germany Milieudefensie, Netherlands Det Fælles Bedste - netværk af grønne foreninger, Denmark Velkommen til Vendsyssel Energi – og Miljøforening, Denmark NOAH - Friends of the Earth Denmark, Denmark	Nord Stream 2 is dimensioned to be in function for at least the next 50 years. Breaking down the use of gas in each of the eight scenarios of the long-term strategic visions for reducing GHG emissions with 80-100 % in the EU before 2050 from the European Commission (COMMUNICATION COM(2018) 773) shows that the Nord Stream 2 is to close down already a few years after it has started. Nord Stream 2 will therefore be a "stranded asset" for the companies behind the investment and it will entail negative socio-economic impacts for the EU and the countries involved with the pipe. The present EU target is 80-95 % reduction of GHG emissions in 2050. These target range is not assessed specifically in the EIA. We ask for an assessment of the fate of NS2 if the official climate target is enforced in both ends of the range and we ask the EIA to elaborate a full action plan on when and how to abandon the pipeline if the targets are enforced, including a description of the indicators which will be used to take the decision of closing down the pipe.	Using natural gas and working towards emission reduction targets are not mutually exclusive, quite the contrary. Nord Stream 2 fully agrees that much remains to be done for the EU to reach its 2050 goal of 80-95% reduction in greenhouse gas emissions. Looked at from today's perspective, many technological approaches to this goal become identifiable, with an increased share of various forms of renewable energy playing a priority role in all of them. However, all these approaches have to be able to pass the test of engineering feasibility and economic viability. Germany, the largest energy consumer in the EU, emits around 900 mil-lion tonnes of CO2 per year, more than any other EU country. As Germany approaches the deadline for the closure of its last nuclear power stations in the early 2020s, emissions have increased, due to increased quantity of coal burned in the power generation process. The role of natural gas has been discussed in many studies, including the latest WWF energy model for a German coal phase-out (Zukunft Stromsystem – Kohleausstieg 2035), which sees gas as playing a bigger role, both in Germany (depending on the scale of the proposed increase in the contribution of renewables and of the corresponding coal phase-out), and in neighbouring countries. To ensure that gas can play this role, a well-supplied, competitive and resilient gas market is needed. As European domestic production continues its long decline, more of this supply will need to be imported in the coming years. These new imports will need a new reliable and efficient infrastructure, to allow gas to be transported from the gas fields to the market. This is why Nord Stream 2 is important for Europe. For every 55 billion cubic metres of gas that can be brought to Europe and used to replace coal in power generation, up to 160 million tonnes of CO2 can be saved, representing approximately 14% of the emissions generated by the EU power generation industry. In summary, Nord Stream 2 will support the achievement of the ambitious climate g	The Danish Energy Agency has no further comments on this topic.



	Both ENDS, The	Other relevant information	-	This is a statement which
	Netherlands	18. Client Earth has filed court cases in Finland[27] and Sweden[28]		does not require a
	Evgeniya Chirikova,	arguing that the construction documents are incomplete and inaccurate,		response.
	Russian	as they fail to consider the pipeline's impact on marine wildlife in the		тоороноо.
	environmental	Baltic Sea. They also argue that the project may have a significant		
	activist (currently	adverse impact on the Polish environment.		
	based in Estonia)	19. Non-governmental organisations as well as internationally known		
	•	activists and experts from Armenia, Austria have therefore expressed		
	Thomas	·		
	Wenidoppler,	their concerns regarding the pipeline to potentially involved export credit		
	Finance & Trade	agencies.		
	Watch, Austria			
	Urgewald, Germany			
	Milieudefensie,			
	Netherlands			
	Det Fælles Bedste -			
	netværk af grønne			
	foreninger, Denmark			
	Velkommen til			
	Vendsyssel Energi –			
	og Miljøforening,			
	Denmark NOAH -			
	Friends of the Earth Denmark Denmark			
ur	Denmark, Denmark	nses received from parties of origin	n and affected parties – Espoo Convention	
ur	Denmark, Denmark	nses received from parties of origin	n and affected parties – Espoo Convention Answer Nord Stream 2 AG	Answer Danish Energy
ır	ther respo			Answer Danish Energy Agency
	ther respo			
ar	Ther respo Consulting party		Answer Nord Stream 2 AG	Agency
ar	Ther respo Consulting party	Response	Answer Nord Stream 2 AG	
ar	Ther respo Consulting party nd Poland (compilation	Response Absence of an effective access to data from the monitoring for the Nord Stream Gas Pipeline	Answer Nord Stream 2 AG	Agency This issue has been
ar	Ther respo Consulting party nd Poland (compilation of the responses from authorities,	Absence of an effective access to data from the monitoring for the Nord Stream Gas Pipeline The Polish party wishes to emphasize that the information contained in	Answer Nord Stream 2 AG	This issue has been covered in the letter forwarded to Poland 2
ar	Ther respo Consulting party nd Poland (compilation of the responses	Response Absence of an effective access to data from the monitoring for the Nord Stream Gas Pipeline	Answer Nord Stream 2 AG	This issue has been covered in the letter forwarded to Poland 2 September 2019, refere
ar	Ther respo Consulting party nd Poland (compilation of the responses from authorities,	Absence of an effective access to data from the monitoring for the Nord Stream Gas Pipeline The Polish party wishes to emphasize that the information contained in the response of the Nord Stream 2 of the availability of the data collected for the purposes of the evaluation of the environmental impact	Answer Nord Stream 2 AG	This issue has been covered in the letter forwarded to Poland 2 September 2019, refere
ar	Ther respo Consulting party nd Poland (compilation of the responses from authorities,	Absence of an effective access to data from the monitoring for the Nord Stream Gas Pipeline The Polish party wishes to emphasize that the information contained in the response of the Nord Stream 2 of the availability of the data collected for the purposes of the evaluation of the environmental impact assessment and the results of monitoring by portal Fund data and	Answer Nord Stream 2 AG	This issue has been covered in the letter forwarded to Poland 2 September 2019, refere is made to no. 1-25/Pola
ar	Ther respo Consulting party nd Poland (compilation of the responses from authorities,	Absence of an effective access to data from the monitoring for the Nord Stream Gas Pipeline The Polish party wishes to emphasize that the information contained in the response of the Nord Stream 2 of the availability of the data collected for the purposes of the evaluation of the environmental impact assessment and the results of monitoring by portal Fund data and information is incorrect. We are maintaining our position that Polish	Answer Nord Stream 2 AG	This issue has been covered in the letter forwarded to Poland 2 September 2019, refere is made to no. 1-25/Pola The Danish Energy Age
ar	Ther respo Consulting party nd Poland (compilation of the responses from authorities,	Absence of an effective access to data from the monitoring for the Nord Stream Gas Pipeline The Polish party wishes to emphasize that the information contained in the response of the Nord Stream 2 of the availability of the data collected for the purposes of the evaluation of the environmental impact assessment and the results of monitoring by portal Fund data and information is incorrect. We are maintaining our position that Polish institutions corresponding documentation EIA for the pipeline Nord	Answer Nord Stream 2 AG	This issue has been covered in the letter forwarded to Poland 2 September 2019, refere is made to no. 1-25/Pola The Danish Energy Age has not used the raw day
lar	Ther respo Consulting party nd Poland (compilation of the responses from authorities,	Absence of an effective access to data from the monitoring for the Nord Stream Gas Pipeline The Polish party wishes to emphasize that the information contained in the response of the Nord Stream 2 of the availability of the data collected for the purposes of the evaluation of the environmental impact assessment and the results of monitoring by portal Fund data and information is incorrect. We are maintaining our position that Polish institutions corresponding documentation EIA for the pipeline Nord Steram 2 are not in a position to verify or analyze data that according to	Answer Nord Stream 2 AG	This issue has been covered in the letter forwarded to Poland 2 September 2019, refere is made to no. 1-25/Pola The Danish Energy Age has not used the raw da from Nord Stream from
ar	Ther respo Consulting party nd Poland (compilation of the responses from authorities,	Absence of an effective access to data from the monitoring for the Nord Stream Gas Pipeline The Polish party wishes to emphasize that the information contained in the response of the Nord Stream 2 of the availability of the data collected for the purposes of the evaluation of the environmental impact assessment and the results of monitoring by portal Fund data and information is incorrect. We are maintaining our position that Polish institutions corresponding documentation EIA for the pipeline Nord Steram 2 are not in a position to verify or analyze data that according to the authors of the report of the impact on the environment is an	Answer Nord Stream 2 AG	This issue has been covered in the letter forwarded to Poland 2 September 2019, refere is made to no. 1-25/Pola The Danish Energy Age has not used the raw da from Nord Stream from Data and Information Fu
ar	Ther respo Consulting party nd Poland (compilation of the responses from authorities,	Absence of an effective access to data from the monitoring for the Nord Stream Gas Pipeline The Polish party wishes to emphasize that the information contained in the response of the Nord Stream 2 of the availability of the data collected for the purposes of the evaluation of the environmental impact assessment and the results of monitoring by portal Fund data and information is incorrect. We are maintaining our position that Polish institutions corresponding documentation EIA for the pipeline Nord Steram 2 are not in a position to verify or analyze data that according to the authors of the report of the impact on the environment is an important source of arguments about the absence of significant effects	Answer Nord Stream 2 AG	This issue has been covered in the letter forwarded to Poland 2 September 2019, refere is made to no. 1-25/Polation The Danish Energy Age has not used the raw dafrom Nord Stream from Data and Information Fuportal in the evaluation
ar	Ther respo Consulting party nd Poland (compilation of the responses from authorities,	Absence of an effective access to data from the monitoring for the Nord Stream Gas Pipeline The Polish party wishes to emphasize that the information contained in the response of the Nord Stream 2 of the availability of the data collected for the purposes of the evaluation of the environmental impact assessment and the results of monitoring by portal Fund data and information is incorrect. We are maintaining our position that Polish institutions corresponding documentation EIA for the pipeline Nord Steram 2 are not in a position to verify or analyze data that according to the authors of the report of the impact on the environment is an important source of arguments about the absence of significant effects on the environment of the planned investment.	Answer Nord Stream 2 AG	This issue has been covered in the letter forwarded to Poland 2 September 2019, refere is made to no. 1-25/Pola The Danish Energy Age has not used the raw da from Nord Stream from Data and Information Fuportal in the evaluation process of the
ar	Ther respo Consulting party nd Poland (compilation of the responses from authorities,	Absence of an effective access to data from the monitoring for the Nord Stream Gas Pipeline The Polish party wishes to emphasize that the information contained in the response of the Nord Stream 2 of the availability of the data collected for the purposes of the evaluation of the environmental impact assessment and the results of monitoring by portal Fund data and information is incorrect. We are maintaining our position that Polish institutions corresponding documentation EIA for the pipeline Nord Steram 2 are not in a position to verify or analyze data that according to the authors of the report of the impact on the environment is an important source of arguments about the absence of significant effects on the environment of the planned investment. If the Danish Agency; energy does not object to the question of the	Answer Nord Stream 2 AG	This issue has been covered in the letter forwarded to Poland 2 September 2019, refere is made to no. 1-25/Pola The Danish Energy Age has not used the raw da from Nord Stream from Data and Information Fuportal in the evaluation process of the environmental impacts i
ar	Ther respo Consulting party nd Poland (compilation of the responses from authorities,	Absence of an effective access to data from the monitoring for the Nord Stream Gas Pipeline The Polish party wishes to emphasize that the information contained in the response of the Nord Stream 2 of the availability of the data collected for the purposes of the evaluation of the environmental impact assessment and the results of monitoring by portal Fund data and information is incorrect. We are maintaining our position that Polish institutions corresponding documentation EIA for the pipeline Nord Steram 2 are not in a position to verify or analyze data that according to the authors of the report of the impact on the environment is an important source of arguments about the absence of significant effects on the environment of the planned investment. If the Danish Agency; energy does not object to the question of the provision of the data on the portal Fund Data and Information this means	Answer Nord Stream 2 AG	This issue has been covered in the letter forwarded to Poland 2 September 2019, refere is made to no. 1-25/Pola The Danish Energy Age has not used the raw da from Nord Stream from Data and Information Fuportal in the evaluation process of the environmental impacts i Denmark from the proje
ar	Ther respo Consulting party nd Poland (compilation of the responses from authorities,	Absence of an effective access to data from the monitoring for the Nord Stream Gas Pipeline The Polish party wishes to emphasize that the information contained in the response of the Nord Stream 2 of the availability of the data collected for the purposes of the evaluation of the environmental impact assessment and the results of monitoring by portal Fund data and information is incorrect. We are maintaining our position that Polish institutions corresponding documentation EIA for the pipeline Nord Steram 2 are not in a position to verify or analyze data that according to the authors of the report of the impact on the environment is an important source of arguments about the absence of significant effects on the environment of the planned investment. If the Danish Agency; energy does not object to the question of the provision of the data on the portal Fund Data and Information this means that the authorities of the Party of origin was made possible access to	Answer Nord Stream 2 AG	This issue has been covered in the letter forwarded to Poland 2 September 2019, refere is made to no. 1-25/Polation The Danish Energy Age has not used the raw dafrom Nord Stream from Data and Information Formation in the evaluation process of the environmental impacts in Denmark from the project or possible transboundard.
ar	Ther respo Consulting party nd Poland (compilation of the responses from authorities,	Absence of an effective access to data from the monitoring for the Nord Stream Gas Pipeline The Polish party wishes to emphasize that the information contained in the response of the Nord Stream 2 of the availability of the data collected for the purposes of the evaluation of the environmental impact assessment and the results of monitoring by portal Fund data and information is incorrect. We are maintaining our position that Polish institutions corresponding documentation EIA for the pipeline Nord Steram 2 are not in a position to verify or analyze data that according to the authors of the report of the impact on the environment is an important source of arguments about the absence of significant effects on the environment of the planned investment. If the Danish Agency; energy does not object to the question of the provision of the data on the portal Fund Data and Information this means	Answer Nord Stream 2 AG	This issue has been covered in the letter forwarded to Poland 2 September 2019, refere is made to no. 1-25/Pola The Danish Energy Age has not used the raw da from Nord Stream from Data and Information Fuportal in the evaluation process of the environmental impacts in Denmark from the project or possible transboundare.
lar	Ther respo Consulting party nd Poland (compilation of the responses from authorities,	Absence of an effective access to data from the monitoring for the Nord Stream Gas Pipeline The Polish party wishes to emphasize that the information contained in the response of the Nord Stream 2 of the availability of the data collected for the purposes of the evaluation of the environmental impact assessment and the results of monitoring by portal Fund data and information is incorrect. We are maintaining our position that Polish institutions corresponding documentation EIA for the pipeline Nord Steram 2 are not in a position to verify or analyze data that according to the authors of the report of the impact on the environment is an important source of arguments about the absence of significant effects on the environment of the planned investment. If the Danish Agency; energy does not object to the question of the provision of the data on the portal Fund Data and Information this means that the authorities of the Party of origin was made possible access to	Answer Nord Stream 2 AG	This issue has been covered in the letter forwarded to Poland 2 September 2019, referer is made to no. 1-25/Pola The Danish Energy Ager has not used the raw dat from Nord Stream from to Data and Information Furportal in the evaluation



Poland (compilation of the responses from authorities, NGO's etc.)	The risks associated with chemicals and ammunition Office Sea in Szczecin (Annex 4) referring to the given explanations still maintains its position of 18 June. (Mark: OW.070.38.19.AZ(7)) that the history of the proposed pipeline NSP2 - variant V2, and especially route NSP2 variant V1 - is very risky to the marine environment and even in relation to an existing route the Nord Stream Gas Pipeline. The proposed route NSP2 in variant V1 will be guided by the central part of the rest of the considered dangerous for any action and, in particular related to interference in the sea bottom (such as anchoring). This option is also directly at the border area in which according to official information was flooded ammunition cleaning.		Energy Agency has used the national Danish EIA concerning the impacts in Denmark and the transboundary report concerning possible transboundary environmental impacts from the project in Denmark in the evaluation of the environmental impacts from the project. Therefore there is and has not been unequal treatment between the institutions of the affected party and the Party of origin. This issue has been covered in the letter forwarded to Poland 2 September 2019, reference is made to no. 1-25/Poland.
Poland (compilation of the responses	Restrictions and security of shipping, risk of collision Office Sea in Szczecin (Annex 4) notes that for the Polish side is of vital	-	This issue has been covered in the letter
from authorities,	importance to the implementation of the Baltic Pipeline Pipe and ensure		forwarded to Poland 2
NGO's etc.)	proper access to the Polish maritime ports (Świnoujście and Szczecin).		September 2019, reference
	At the intersection of the pipelines should not restrict the shipping traffic		is made to no. 1-25/Poland.
	vessels of large draft. These issues were raised in earlier opinions		
	presented in the course of the environmental impact assessment		
	L DIESENIEU III IIIE CODISE OLINE ENVIRONDEDIA MODAGI ASSESSMEN		



Poland (compilation	Preventive action and minimize	- This iss	ue has been
of the responses	The Regional Director of environmental protection in Szczecin,		in the letter
from authorities,	hereinafter RDOŚ Szczecin, (Annex 1) maintains its position expressed		ed to Poland 2
NGO's etc.)	in the letter of 08.07.2019, mark: WONS- axis.442.11.2018.KK,		ber 2019, reference
1100000.,	indicating the need to determine the appropriate action to minimise the	· ·	to no. 1-25/Poland
	impact of noise on marine mammals in the event locate objects requiring		
	detonation "in situ", as well as monitoring during the implementation and		
	operation of the investment, the objective of the verification and		
	evaluation of the effects on the environment are described in the		
	documents produced by the Danish documents. In assessing the RDOŚ		
	Szczecin it cannot be excluded that accidentally located objects will		
	require detonation "in situ conservation". Furthermore, as an additional		
	argument RDOŚ Szczecin indicates that in the case of the planned		
	investment of a similar nature - Baltic pipeline Pipe, within the		
	environmental impact assessment was considered appropriate to		
	develop and implement a plan for the disposal of UXO together with an		
	indication of the mitigation plan for marine mammals, including		
	specifying the detailed application of the measures which minimise.		
	Proposed i.a. conduct visual monitoring by observers of marine		
	mammals (MMO) from the deck of the ship; keeping Passive Acoustic		
	Monitoring (PAM). Passive Acoustic Monitoring), which complements		
	MMO and the monitoring of the effectiveness of the action taken. In the		
	assessment of the Szczecin RDOŚ apply the above measures indeed		
	will reduce transboundary impact on marine mammals and fish, due to		
	the implementation of the investment, including the species which are		
	the subject of protection in the area of Natura 2000 frame on the Bay of		
	Pomeranian PLH990002. The Regional Director of environmental		
	protection in Gdansk (Annex 2) referring to the explanations submitted		
	also proposes to take into account in the final decision for the project		
	action to minimise the impact of underwater noise on fish and marine		
	saky at the border of a Natura 2000 Lawica Slupsk PLO 990001 in the		
	· ·		
	form of curtain airbag or other technology used.		
Poland (compilation	Description of the impact of the investment on the protected areas,	- This iss	ue has been
of the responses	fauna and flora Baltic (Fish)		in the letter
from authorities,	The Department of Fisheries Ministry of Maritime and inland waterway		ed to Poland 2
NGO's etc.)	transport (Annex 3) requests the commitment of the investor to stop the		ber 2019, referenc
1.0000,	construction work during April - June in the vicinity of the spawning cod.	· ·	to no. 1-25/Polano
	These works, in accordance with the opinion of the expert, may affect		
	the spawning cod (Gadus moru/a) by the release of soot and debris into		
	the water toni and manufacture of noise.		
	the water torn and manufacture of holde.		



6	Poland (compilation	Commercial fisheries	-	This is noted.
	of the responses	The Department of Fisheries Ministry of Maritime Economy and Inland		
	from authorities,	Waterway Transport has taken note of the explanations, Danish on the		Mitigation measures in
	NGO's etc.)	potential effects of the implementation of the investment on the fish but		relation to marine mammals
		nevertheless proposes to supplement the information in the report on		were covered in the letter
		environmental impact assessment of the issues of the potential impact		forwarded to Poland 2
		on fish and possible security measures to compensate for the lost fishing		September 2019, reference
		opportunities.		is made to no. 1-25/Poland.
7	Poland (compilation	Monitoring	-	This issue has been
	of the responses	RDOŚ Szczecin, in the context of the possible effects of cross-border		covered in the letter
	from authorities,	draws attention to the relevance of the monitoring of CW agents in		forwarded to Poland 2
	NGO's etc.)	sediments and marine monitoring area of the seabed, in order to		September 2019, reference
		determine the impact of the investment on the different types of habitats		is made to no. 1-25/Poland.
		under the gas pipelines. Monitoring to be carried out in the framework of		
		the implementation of the marine gas pipelines in the bottom of the		
		Baltic Sea covering the same range as well as the application of the		
		uniform methodology during the work of the monitoring will allow a		
		proper evaluation of the impact of these structures on the ecosystem of		
		the Baltic Sea and if necessary take appropriate restrictive measures		
		negative impact. It should be noted that this action is consistent with the		
		provisions of the Convention for the protection of the marine		
		environment of the Baltic Sea area drawn up in Helsinki on 9 April 1992,		
		which requires Member having joint transboundary waters of the Baltic		
		Sea to the joint take appropriate measures for the prevention and		
		elimination of pollution.		
8	Poland (compilation	Conclusion	-	The Danish Energy Agency
	of the responses	The Polish party asks kindly request to take these proposals in the final		will take the comments
	from authorities,	decision for this investment and requests that the monitoring program		from the Polish party into
	NGO's etc.)	after its completion. The Polish side repeats its call for the competent		account in the final
		authorities of Danish for output results of monitoring in porealizacyjnego		decision.
		raised issues to which the conduct is obliged investor both at the		
		implementation stage, and operation of the project together with data		
		input necessary for self-verification of the results obtained.		



9	Polish Ministry of	General remarks:		In the opinion of the Danish
9	Energy	In the opinion of the Ministry of Energy, the Danish Energy Agency's		Energy Agency the Espoo
	Ellergy			Convention has been
		replies to the Polish position on the Environmental Impact Assessment		
		Report of the Nord Stream 2 gas pipeline – South-Eastern Route on the		followed. All comments
		Continental Shelf in Denmark are insufficient.		from the consulted parties
		The answers presented are superficial, laconic and mostly lack		that are relevant in a
		substance. They are general judgments unsupported by references to		transboundary
		the material issues and conclusions included in the Polish position		environmental context has
		(especially the answer to point 1).		been answered.
		The answers formulated in the letter of 2 September 2019 are at a level		
		of generality such that they cannot be considered a proper form of		
		consultation, and thus do not meet the requirements set forth in		
		international law and European Union law, i.e. in Article 5 of the Espoo		
		Convention and Article 7(4) of the EIA Directive. The Guidance on the		
		Practical Application of the Espoo Convention requires that 'efficient		
		information flow' be ensured during the consultation process (paragraph		
		2.9.4). In the answers provided, there was no such quantitative,		
		parametric or methodological information (cf. answers to points 1, 2, 14).		
10	Polish Ministry of	, , ,		In the opinion of the Danish
	Energy	The answers submitted by the Danish Energy Agency have been		Energy Agency the Espoo
		formulated in a manner which is incomplete and does not meet the		Convention has been
		standards for the application of the Espoo Convention. This conclusion		followed. All comments
		is supported by the fact that they have essentially been limited to the		from the consulted parties
				·
		project owner's clarifications (which were also general and reproduced		that are relevant in a
		the contents of the report). Numerous passages stating that "the Danish		transboundary
		Energy Agency has no further comments on this topic" are not in line		environmental context has
		with standards of consultations under the Espoo Convention and the EIA		been answered.
		Directive or with the guidelines for interpreting these acts, according to		
		which the most important stakeholders in consultations under Article 5 of		The Danish Energy Agency
		the Espoo Convention are the authorities of the Parties (cf. Guidance,		notes that the answer "The
		paragraph 2.9.3). The fact that the Danish Energy Agency limited itself		Danish Energy Agency has
		to forwarding the project owner's clarifications, without providing any		no further comments on
		substantive comments or referring to the Espoo process, does not		this matter" means that the
		indicate that the analyses carried out by the Danish Energy Agency were		Danish Energy supports the
		comprehensive and thorough but rather suggests that the consultation		answer given by the
		process provided for in Article 5 of the Espoo Convention was not		developer and that the
		carried out correctly (cf. answers to points 2, 3, 4, 5, 6, 8, 13, 15, 16).		Danish Energy Agency also
				has evaluated the comment
				from the consulted party.
11	Polish Ministry of	It is unacceptable that replies to individual comments of the Polish side	-	The Danish Energy Agency
	Energy	are mere references to the answers given during consultations		has made reference to
		conducted under the Espoo Convention with respect to other variants of		answers in previous letters
		the planned activity (in this case: Nord Stream 2). From the formal point		to Poland because these
		of view, the consultations being conducted currently are a separate		answers cover the specific
				· ·
		procedure and require separate clarifications appropriate to the		issues brought forward by
		characteristics of the variant of the planned activity under consideration		Poland. The letters were
<u> </u>		(cf. the final part of point 1).		attached to the reply given



				by Denmark and a specific
				reference to the item where
				the answer could be found
				was given.
12	Polish Ministry of	Detailed comments:	-	By "attempt to avoid
	Energy	In the Danish Energy Agency's reply to the Polish side's position under		pipelaying" is meant that
		point 8 "Fish", it is stated that a permit will most likely include a condition		the developer in their
		whereby the project owner, when planning the construction works, must		planning must try to attempt
		take into account that in the period from July to August the company		to avoid pipelaying. If it is
		must attempt to avoid pipe-lay in the Bornholm Deep. In this respect,		not possible the developer
		doubts arise as to the scope of such an obligation. It remains unclear		can lay pipes in that period.
		what is meant by "attempting to avoid pipe-lay" and whether this will not		
		constitute a measure that is insufficient and too imprecise to mitigate the		The period July - August, is
		impact on the subject of protection. The timeframe of the condition as		in the opinion of the Danish
		stated in the reply also raises doubts. In the position presented by the		and Swedish authorities the
		Polish side in connection with the Environmental Impact Assessment		period were the spawning
		Report, the spawning period during which construction works may		for the eastern cod is at the
		potentially harm cod populations was indicated as being from April to		highest level.
		June. However, no criteria for determining the timeframe of the		ingg.
		envisaged condition were indicated.		
13	Polish Ministry of	In response to the Polish side's position on investment monitoring (point	_	The monitoring programs
	Energy	10), the Danish Energy Agency stated that it did not expect further		for Nord Stream 2 will be
	9)	consultations with Poland on the monitoring programme. No arguments		approved by the relevant
		concerning the extent of cross-border impact were put forward in support		authorities in Denmark. The
		of this position. In addition, the Polish side's request for access to the		reason that the monitoring
		initial results of post-implementation monitoring with respect to the		programs shall not be
		matters raised in its position, which access was to include the original		approved by Poland is
		output data in order to enable its independent verification by the		because there is no cross
		competent authorities in Poland, remained unanswered. According to		border environmental
		the Danish Energy Agency, it followed from the project's owner's report		impacts from the project in
		that there were no significant cross-border impacts on Poland, and this		Denmark into Poland both
		justified depriving Poland of any influence over the scope and manner of		in the construction and
		monitoring.		operation phase.
		No decision was taken to verify the project owner's statement to that		operation phase.
		effect and to carry out a detailed analysis as to whether there was a		
		need for consultation with Poland on monitoring. The Guidance to the		
		Espoo Convention also recognised the importance of resolving the issue		
		of cooperation between the Parties with respect to monitoring		
		environmental impact during intergovernmental consultations:		
		Charlet in pact during intergovernmental consultations.		
		2.9.2 Issues 70		
		Another important item worth to negotiate [sic] is monitoring during		
		the construction phase		
		the constituction phase		
		Given that the range of issues subject to consultations under Article 5 of		
		the Espoo Convention also includes issues relating to environmental		
		,		
L		monitoring data (Article 5(a)), it should be stated that the arbitrary and	<u> </u>	



		unjustified reply received from the Danish Energy Agency in this respect is far removed from the standards for application of the Espoo Convention.						
14	Polish Ministry of Energy	In reply to point 15 concerning the risk of damage to the environmental monitoring station, the Danish Energy Agency merely forwarded an explanation from the Nord Stream 2 AG company, which stated that prior to starting construction work, the project owner would contact monitoring station operators and would introduce mitigation measures in consultation with them. Despite the fact that in its position concerning the report, the Polish side strongly stressed the importance of environmental monitoring and also, in this context, the safety of monitoring stations, the Danish Energy Agency did not provide the Polish side with any information – not even generic – on mitigation measures in this respect.		In the permit there is a condition that Nord Stream 2 AG shall consult the relevant authorities and / or organizations operating environmental monitoring stations close to the pipeline route prior to the closure of the pipelines. As to the knowledge of the Danish Energy Agency the developer is in dialog with the owners of the monitoring stations.				
Swe	Sweden							
1	The Swedish Civil Contingencies Agency	The Swedish Civil Contingencies Agency does not have any comments to the consultation.	-	This is noted.				
2	Swedish Agency for Marine and Water Management (SwAM)	The Agency has noted that there will be a condition where the developer in planning the construction works, the company must attempt to avoid pipelaying in what is known as the Bornholm Deep during the period from July to August. The Agency does not have additional comments.	_	This is noted.				
3	The Swedish Maritime Administration	The Swedish Maritime Administration has taken note of the Swedish Maritime Administration's previous opinion is not included in the reported views. The Swedish Transport Agency's opinion also does not appear to be included. In our earlier opinion, the Swedish Maritime Administration emphasized, among other things, that from a maritime safety perspective, we look very favorably on the section southeast of Bornholm, in the Danish EEZ, in comparison with the previously proposed section northwest of Bornholm, which, among other things, lies in the middle of the heavily trafficked TSS Bornholm street. The Swedish Maritime Administration has no other views on the documentation.		The reason that the Danish Energy Agency has not responded to the comment from the Swedish Maritime Administration and the Swedish Transport Agency is that the Danish Energy Agency has assessed that the comment does not need an answer because it is a statement. But the Danish Energy Agency has noted the opinion from the two Swedish authorities.				
4	The County Administrative Board of Skåne	The County Administrative Board of Skåne finds it is very positive if there is a condition in the permit that no construction work may be performed in the Bornholm Deep during the period July – August. The County Board has nothing further to add to the views previously expressed in the Espoo consultation.	-	This is noted.				



5	The Swedish Agricultural Agency	The Swedish Agricultural Agency note that the response from Nord Stream 2 does not contain any intention to supplement the EIA. Nord Stream 2's response is limited to referring to the current environmental impact assessment.	-	This is a statement which does not require a response.
6	The Swedish Agricultural Agency	The Swedish Agricultural Agency note that the response from Nord Stream 2 does not contain any intention to supplement the EIA. Nord Stream 2's response is limited to referring to the current environmental impact assessment.	-	With reference to no. 10/Sweden the Danish Energy Agency finds that the comment has been covered by the previous answer forwarded to Sweden in September 2019.
7	The Swedish Agricultural Agency	The Board of Agriculture notes that Nord Stream 2 does not give any answer regarding any accidents, incident or injury. However, the Danish Energy Agency has replied that with respect to the comment on who has responsibility in case of an accident, incident and injury, the permit will contain a condition, reserving that Nord Stream 2 AG will take out insurance for compensation for damage caused by the activities performed in accordance with the permit even if the damages are temporary.		With reference to no. 10/Sweden the Danish Energy Agency finds that the comment has been covered by the previous answer forwarded to Sweden in September 2019.
8	The Swedish Agricultural Agency	The Board notes that the answer from Nord Stream 2 indicates that it does not intend to do any financial impact assessment.		With reference to no. 10/Sweden the Danish Energy Agency finds that the comment has been covered by the previous answer forwarded to Sweden in September 2019.
9	The Swedish Agricultural Agency	The Board notes that no proportionality assessment is presented and no intentions are made to make such an assessment.	-	With reference to no. 10/Sweden the Danish Energy Agency finds that the comment has been covered by the previous answer forwarded to Sweden in September 2019.
10	The Swedish Agricultural Agency	Conclusions Unfortunately, the Swedish Board of Agriculture must note that Nord Stream 2 does not intend to make the additions and clarifications that the Swedish Board of Agriculture asked for in the consultation response.		With reference to no. 10/Sweden the Danish Energy Agency finds that the comment has been covered by the previous answer forwarded to Sweden in September 2019.