Tracing the downfall of the Nord Stream 2 gas pipeline

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Abstract

The Nord Stream 2 pipeline, widely considered as one of the most contentious energy infrastructure projects ever built, has garnered substantial scholarly and media attention over the course of its seven-year existence. This narrative review examines key publications in different scholarly fields. It also tracks the evolution of the project, with the aim of explain its ultimate demise. The present overview relies on a comprehensive range of scholarly research, analyses, and news reports. Initially, concerns that dominated the debate on Nord Stream 2 are identified in the literature. This is followed by a detailed examination of the pivotal events - including the Polish regulator's decision, the delayed Danish permit, the revised EU regulation, and the US sanctions - that contributed to the timing of the construction of the pipeline. Ultimately, Moscow's actions in February 2022 dealt a fatal blow to the project, which was further aggravated by sabotage seven months later. Taken together, these developments ensured that the Nord Stream 2 pipeline was never utilized, and it currently remains partially damaged and unused at the bottom of the Baltic Sea. Scholars have extensively utilized this project as a lens to explore broader trends, highlighting its significance as a prism for understanding complex (energy) politics.

Introduction

The Nord Stream 2 gas pipeline has attracted significant controversy as one of the most contentious energy projects to date, despite never transporting any gas. During the project's seven year life-span, the risk of uncovering mines and dumped chemicals in the Baltic Sea were the least of its problems, as it faced a political minefield. Attempts to hinder the project included changes in regulations, sanctions, and permit delays. The project was indefinitely put on ice when Germany withdrew its support for the project on the eve of the Russian invasion of Ukraine. This was followed by an European Union (EU)-wide plan to stop importing Russian gas by 2030. There was hence no political future for Nord Stream 2 and the pipeline's fate was sealed when an explosion damaged it in September 2022.

Despite the extensive media coverage on the project and the scholarly work done, there have been no efforts to consolidate these works into a comprehensive assessment on the outcome of Nord Stream 2. Previous research on the pipeline has focused on specific research areas, such as regulatory or EU power relations (e.g. Talus (2018, 2019) and Schmidt (2020)). In this study, a narrative review is used to bring these works together and to trace the downfall of the project.

This review paper is structured into five sections: first, the methodology used in this paper is presented. Second, the Nord Stream 2 project is introduced. In the following section, the arguments to support or oppose the project are assessed based on reports and analyses. In the fourth section, the interventions by four entities are explored, in addition to Russian actions in 2022. These interventions are based on a broad scoping of the events surrounding the project. Finally, the conclusions summarize the main findings.

Methodology

The narrative review method is used in this study, as it provides the most suitable method to explore a specific subject or topic without a specific research question or objective. A narrative review is characterized by the absence of a statistical contribution and instead aims to review a specific topic, or issue narratively (Petticrew & Roberts, 2006, p. 19). This is also the main difference between a narrative review and a systematic review (Snyder, 2019). A narrative review has great purpose, as it attempts to link many different studies with different perspectives together (Baumeister & Leary, 1997). As the goal of this study is to explore the literature on the Nord Stream 2 pipeline, a narrative review approach is suitable. This study also does not seek to contribute to these specific literature fields and instead focuses on the heterogeneity of the project.

Unlike a systematic review, a narrative review does not have a fixed procedure. Still Demiris, Oliver, and Washington (2018) outlined a 4-step approach to conducting a narrative review. Step 1 is to include multiple databases in order to not miss any relevant studies. Second, keywords need to be identified, before step 3 review abstracts for relevancy and duplicates. Finally, the uncovered literature needs to be summarized and organized in to the narrative review. For this study, a similar approach is followed.

First, Web of Science and Google Scholar were primarily utilized to find appropriate studies by searching “Nord Stream 2” and “Nordstream 2” (often with a temporal starting point of 2015 to avoid papers on Nord Stream). Google Scholar yielded 9347 results versus 77 from Web of Science. The results from Google Scholar were reduced to an assessment of the first 15 pages, while all 77 of Web of Science results were assessed whether Nord Stream 2 was the main topic of research or merely referenced in the main text. Duplicates were removed. In the end, some 50 studies were thoroughly examined.

In addition, news reports from reputable agencies (e.g. Financial Times, Bloomberg, Reuters) were included to find relevant information on Nord Stream 2 and to trace the projects evolution, as scientific publications on the more recent events are limited (again the keywords “Nord Stream 2” and “Nordstream 2” were used). In some cases, reports and analyses were allocated, but only after verifying the qualifications of the author. These sources were subsequently organized in a more chronological way in order to identify the actions that contributed to the downfall of the project.

However, not all scientific or published work on Nord Stream 2 is utilized. This is done for multiple reasons. While the number of scientific studies (published in high ranking journals) is rather limited, the number of blogs, reports, and non-academic literature is rather extensive. Here I opted to prioritize work by authors that have frequently dealt with issues related to Nord Stream 2. In some cases scientific studies were not included because they do not relate to the main issues of the project or were written in another language (non-English). An example is Shilin et al. (2018) who deal with the environmental dimension of the Russian section of the pipeline.

Introducing Nord Stream 2

The Nord Stream 2 gas pipeline was conceived as a part of a larger strategy to bypass Ukraine as a transit country for Russian gas. In the 1960s and 1970s, an extensive network of pipelines was constructed to export Soviet gas to Europe (Högselius, 2013). After the Soviet Union's dissolution, a portion of this network was situated in Ukraine and Belarus, leading to disputes on gas prices, transit tariffs, deliveries, loans, and the leasing of the Russian Black Sea naval base in Crimea. These issues resulted in gas supply disruptions in the winters of 2006 and 2009 and also in the summer of 2014 which affected Moscow's ability to deliver gas to European customers. These disruptions prompted

the EU to promote non-Russian sources of gas, such as LNG terminals and the Southern Gas Corridor, which includes the Trans Adriatic Pipeline (TAP), Trans-Anatolian Pipeline (TANAP), and South Caucasus pipeline, to bring Azerbaijani gas to the EU. Meanwhile, the Kremlin actively explored alternative routes to Europe that minimized transit countries. In 1997 it proposed Nord Stream and 10 years later South Stream, which was eventually replaced by the TurkStream project in 2014. The next year Nord Stream 2 was announced.

The Nord Stream 2 project is a subsea megaproject valued at EUR 9.5 billion, which directly connects Russia to Germany through the Baltic Sea. It is owned by the Nord Stream 2 AG consortium, with Gazprom, a majority state-owned Russian company that holds the Russian monopoly on piped gas exports, as the sole shareholder. In June 2015, President Putin announced this new Gazprom infrastructure project at the International Economic Forum in Saint-Petersburg. Initially, Western European companies Engie, Shell, O.M.V., Wintershall DEA and Uniper were to become shareholders. However, this plan was scrapped when the Polish regulator (UOKiK) raised objections to the joint venture (Rettman, 2016). These companies subsequently became investors, with each contributed EUR 950 million to the project, leaving Gazprom with 100% of the shares. The Nord Stream 2 AG consortium is headquartered in Zug, Switzerland.

Nord Stream 2 comprises two parallel pipelines with a combined capacity of 55 billion cubic meters (bcm), each string having a capacity of 27.5 bcm. The 1,230 km pipeline originates in Ust-Luga and traverses the Exclusive Economic Zone (EEZ) of Finland, Sweden and Denmark, as illustrated in Figure 1. Nord Stream 2 would transport gas from the Bovanenkovo field on the Yamal peninsula. In order to ship Bovanenkovo gas to the Baltic Sea, an extensive network of pipelines was constructed ahead of the construction of Nord Stream 2. Nord Stream 2 was originally intended to be completed at the end of 2019, before the expiration of the Ukrainian-Russian gas transit agreement (Nord Stream 2 AG, 2019). This deadline was not met. Construction of the first string was completed in June 2021, while the second string was finished in September 2021 (Nord Stream 2 AG, 2021).

Nord Stream 2 has a sister pipeline known as Nord Stream or Nord Stream 1, which has the same capacity as Nord Stream 2 but is slightly shorter (1,222 km) and has been operational since 2011-2012. The pipelines share many similarities: both consist of two strings that connect to onshore pipelines to distribute the gas further on the EU internal market; and both were originally planned to be owned by a consortium of European companies and Gazprom. Both pipelines served the same purpose: circumvent Ukraine as a transit country for Russian gas and to shift the power balance between Russia and Ukraine in favour of the first.

Figure 1: The location and route of Nord Stream (yellow) and Nord Stream 2 (green)

Source: Gazprom (2017)

However, there were also many differences. The most obvious optical difference is the starting point of both pipelines, Vyborg and Ust-Luga, and the length of the pipelines, but there are also more substantial differences. Nord Stream was announced in 1997 (construction started in 2005), while Nord Stream 2 was announced in 2015. The geopolitical climate in Europe had changed significantly, with the Russian annexation of Crimea in 2014 and support for pro-Russian separatists in eastern Ukraine. This resulted in increased opposition to Russian energy projects, as exemplified by the 'failed' South Stream project. Thus, the two projects were announced in different political contexts.

Picking sides

The controversy surrounding Nord Stream 2 was driven by a small group of supporters and a large collection of countries opposing the project – see Table 1. In this section, the main reasons to support or reject the project are discussed.

Table 1: Position of member states on Nord Stream 2

Position on Nord Stream 2	**Member states**
Proponents	Austria, Belgium, Germany, Netherlands, France**
Neutral	Bulgaria, Croatia, Cyprus, Finland, France**, Greece, Hungary, Ireland, Italy, Luxembourg, Malta, Portugal, Slovenia, Spain, Sweden
Opponents	Czech Republic, Denmark, Estonia, Latvia, Lithuania, Poland, Romania, Slovakia, United Kingdom*

*The United Kingdon was still a part of the EU at the time.
**The position of France moved between supportive and neutral.

Source: Adjusted from de Jong, Van de Graaf, and Haesebrouck (2022)

Reasons to support Nord Stream 2

Nord Stream 2 received support from a powerful coalition of countries, including Russia, Germany, Austria, France, and the Netherlands. The participation of European companies in the project, in areas such as funding, logistics, and pipe construction, contributed to it receiving support at national and regional levels (de Jong et al., 2022; Schmidt-Felzmann, 2018; Wood, 2023). The involvement of European companies led Chancellor Merkel to view Nord Stream 2 as a commercial project. In addition, no financial support from public sources was requested, as the project was wholly financed by Gazprom and the five investing companies.

The business rationale for Nord Stream 2 was based on a combination of factors, including declining European gas production, increasing gas demand following the German coal phase-out, geopolitical risk in Algeria and Libya, political issues with the Ukraine transit route and aging Ukrainian gas corridor (Lang & Westphal, 2017; Łoskot-Strachota, 2016; Russell, 2017). Gazprom argued that these factors could lead to gas shortages and necessitated the construction of another pipeline (Lilkov & Freudenstein, 2018). According to a study by Fetisov, Tcvetkov, and Müller (2021), the project posed minimal risks for the company as it would remain profitable even if gas consumption dropped, given the relatively low cost of Russian gas. The second Nord Stream project could mitigate the issue of Ukrainian gas transit by redirecting gas, bypassing transit countries and transporting gas directly to Germany. For the EU, Nord Stream 2 provided additional importing opportunities (Russell, 2017). In addition, a study ordered by Nord Stream 2 argued that the EU would benefit from lower gas prices via the project, compared to more expensive LNG (Hecking & Weiser, 2017).

The consortium behind Nord Stream 2 also justified the pipeline's construction using environmental arguments, citing its potential to replace coal and hence reduce CO2 emissions. Additionally, Nord Stream 2 was deemed a more cost-effective option than refurbishing the older Ukraine corridor, as it would offer a shorter route and increased efficiency (Russell, 2017). Gazprom, in particular, viewed the pipeline as modern and advantageous in terms of transit revenue.

In retrospect, Germany[1] maintained a somewhat naive view regarding the efficacy of energy relations as a means of achieving closer ties with Russia. This perspective was informed by the longstanding tradition of Ostpolitik, which dates back to Chancellor Brandt's approach in 1969 aimed at promoting greater cooperation with the Soviet Union through rapprochement (so-called “Wandel durch Annäherung”). This *Ostpolitik* tradition was still very much alive in 2015, especially under the Social Democrats. The dominant position of the Social Democrats within the German foreign office underpinned Merkel’s support of the project (Forsberg, 2016; Siddi, 2016). An extensive analysis of the German reasons to support Nord Stream 2 can be found in Wood (2023) and Virág and Tancsa (2023). After the invasion of Ukraine, many German politicians admitted that supporting Nord Stream 2 had been a mistake (Dahm, 2022; Gehrke, 2022).

European investing companies yielded benefits that aligned with their wider corporate interests. Shell, for example, sought to secure access to the Russian upstream and consolidate its position in the liquefied natural gas (LNG) market. OMV intended to leverage Nord Stream 2 to bolster its position in Central Europe, particularly with respect to potential losses via the Ukraine corridor. For Wintershall and Uniper, the pipeline represented an opportunity to establish a gas hub in northern Germany and promote the role of gas within the country, given the announced phase-out of nuclear and coal (Łoskot-Strachota, 2016; Schmidt-Felzmann, 2019). In addition, the project generated economic incentives for Germany, Austria, France, and the Netherlands through the involvement of these

[1] Despite receiving extensive government support, the Nord Stream 2 project was met with criticism from German (green) politicians and environmental groups.

companies and by providing access to affordable Russian gas to fuel their economies (Vihma & Wigell, 2016).

Reasons to reject Nord Stream 2

The Nord Stream 2 project drew criticism from several quarters, with Estonia, Lithuania, Latvia, Poland, Ukraine, and the US being the harshest critics. The opposition to the project was grounded in various concerns. Firstly, there were (geo)political arguments, particularly given Russia's recent actions in Ukraine, which heightened tensions. The pipeline reduce Ukraine's role in gas transit, and therefore, the country would lose a vital bargaining chip in its relationship with Moscow (Łoskot-Strachota, 2015; Vatansever, 2017; Yakovenko & Mišík, 2020). The estimated loss of EUR 1-2 billion in yearly transit revenue was another source of concern, as this was needed to balance government spending and maintain its defence budget. This loss was downplayed by some as Ukraine was able to import 20 bcm of cheaper (Russian) gas via Slovakia, Hungary and Poland (Goldthau, 2016; Lang & Westphal, 2017). The project also illustrated the changing EU-Russia relation (Andersen, Goldthau, & Sitter, 2016; Siddi, 2017; Siddi & Kustova, 2021).

Secondly, energy security and the dominant role of Gazprom in the EU gas market were matters of concern. Giuli (2018) argued that the project would not fundamentally change the Russian gas importing capacity, but instead had broader energy security implications. Nord Stream 2 would provide Gazprom the opportunity to flood the EU market with cheap Russian gas, thereby limiting competition. While the first Nord Stream pipeline was viewed as a measure to diversify gas routes, Nord Stream 2 merely added more volume to the northern corridor without contributing to route or supplier diversification (Łoskot-Strachota, 2016; Russell, 2017). The EU's stance was to maintain the transit route via Ukraine (Goldthau, 2016).

A third concern related to the project was its potential to divide the EU and its gas market, as Central European countries were bypassed (Banciu, 2016). Nord Stream 2 would negatively impact transit benefits for Ukraine, Poland, Slovakia, the Czech Republic, while providing (relative) benefits for Germany, Switzerland, and France (Eser, Chokani, & Abhari, 2019; Günther & Nissen, 2019; Jirušek, 2020; Kóczy, Csercsik, & Sziklai, 2022; Sziklai, Kóczy, & Csercsik, 2020; Tóth, Kotek, & Selei, 2020; Yakovenko & Mišík, 2020). There was also apprehension about how this would impact gas corridor development in the EU. Moreover, the pipeline divided EU member states, with some seeing Russian gas as a commercial project and others seeing major security concerns (de Jong et al., 2022; Lang & Westphal, 2017).

Fourth, ideologically Poland and Germany viewed Russia differently (Siddi, 2019). After reunification, Germany embarked on its Ostpolitik, while Poland was cautious of Russian foreign actions following past forced partitioning. Nord Stream had been compared to the Molotov-Ribbentrop Pact signed by Nazi Germany and the Soviet Union in 1939, which resulted in the partitioning of Poland.[2] Nord Stream 2 was viewed in a similar light.

A fifth reason to object to Nord Stream 2 pertained to the US allegedly seeking a consumer base for its LNG. This narrative gained momentum following the Trump administration's advocacy of "freedom gas" and a steep increase in US LNG imports after 2018. Despite the positive link between US legislators from fossil fuel-rich states and support for sanctions against the project, the extent to which LNG sales were the reason for the US opposing Nord Stream 2 remains uncertain (de Jong, 2022). It

[2] This analogy was first made by Radoslaw Sikorski in 2006, then Poland's defence minister and later its foreign minister.

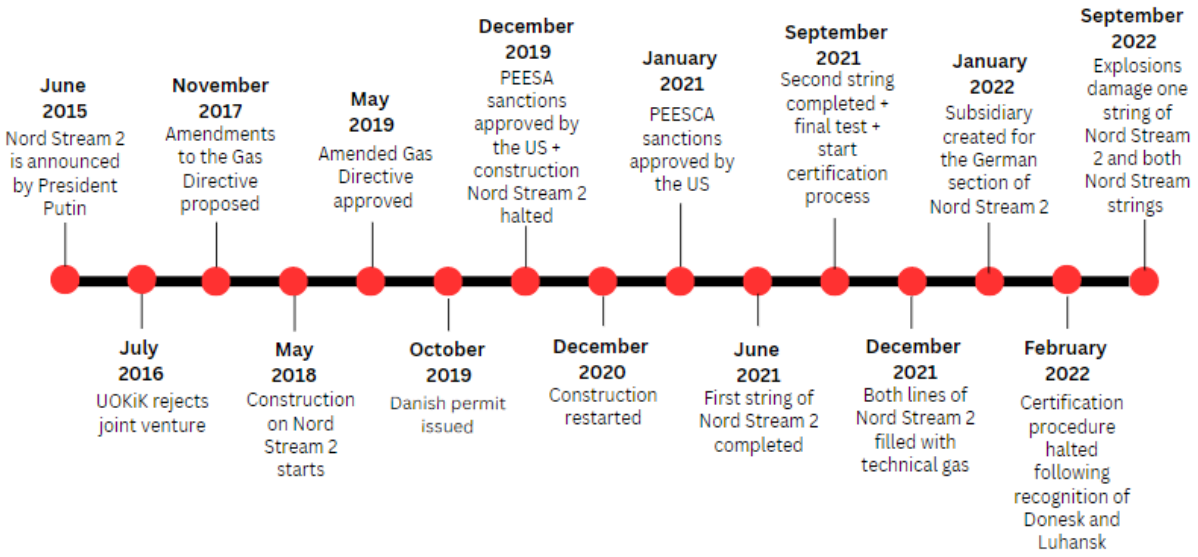
should be noted that the US LNG industry is not state-led and that the government plays no official role in gas contract signing.

A sixth consideration was environmental. While the Nord Stream 2 consortium claimed that its gas would substitute coal in Germany, environmental groups contended that gas consumption needed to be reduced in order for the region to meet its climate goals (Fischer, 2016). Natural gas emits substantial amounts of methane, a potent greenhouse gas, that poses significant climate concerns. New and costly pipelines contradict the EU's climate ambitions and runs the risk of locking-in carbon emissions. These environmental concerns were however overshadowed by the political and energy security arguments.

Taking actions

Opponents of Nord Stream 2 made efforts to impede or postpone its the construction, as well as its political and commercial value. These actions can be understood in light of the concerns discussed in the previous section. Four measures were taken that significantly impacted Nord Stream 2 and contributed to the ultimate outcome of the project: (1) objections from the Polish competition regulator regarding a joint venture, (2) delays in obtaining Danish construction permits, (3) amendments to EU regulations, and (4) US sanctions. Finally, the actions taken by Russia that led to the project's political demise are discussed. Figure *2* illustrates the most critical moments of Nord Stream 2.

Figure 2: Timeline of Nord Stream 2



Source: author's own

A redesign forced by the Polish regulator (UOKiK)

As previously mentioned, the Nord Stream 2 consortium would originally be a joint venture between Gazprom, Engie, Shell, O.M.V., Wintershall DEA and Uniper. As required by Polish law, these companies asked approval from the UOKiK, the Polish competition agency, for a joint venture involving companies with assets in Poland (Elliott, 2020). In July 2016, UOKiK dismisses the joint venture request, citing competition concerns and Gazprom's already dominant position in the European

market (UOKiK, 2016). As a result, the ownership structure was redesigned. The five European companies became financiers, leaving Gazprom as the sole owner of Nord Stream 2.

Despite this change, UOKiK was dissatisfied with the modified ownership structure, finding it too similar to the original (UOKiK, 2020). So, in November 2020, the competition watchdog issued Gazprom a EUR 6.5 billion fine, and fined the western companies EUR 50 million over competition concerns and for constructing the pipeline without seeking consent (Shotter & Foy, 2020). Gazprom and the other companies appealed the decision and in November 2022 the fine was remitted. The Polish court ruled that "it is beyond the competence of [UOKiK] to assess the effects on the economy and whether they [the actors involved in the construction of Nord Stream 2] tried to circumvent the law" (Ptak, 2022). UOKiK has since appealed the decision of the court.

Danish permit saga

Denmark unexpected played an influential role in the Nord Stream 2 chronicle. As one of the five countries responsible for issuing construction permits, Denmark's decision to delay authorization proved significant.

In April 2017, the Nord Stream 2 consortium applied for a permit to construct the pipeline in a route though Danish territorial waters, but a January 2018 modification to the Continental Shelf Act gave the Danish foreign ministry the right to give recommendations on projects in the territorial sea (Jeutner, 2019). The change was applied retroactively to include Nord Stream 2, leading the consortium to considered route options that only traversed the EEZ of Denmark where no recommendation was needed. A second route application was submitted in August 2018, followed by a third in April 2019, at the request of the Danish authorities. While these permits were under advisement, construction in Danish waters could not commence. As mentioned previously, Gazprom had planned the completion of Nord Stream 2 to coincide with the expiration of the Russia-Ukraine transit agreement, at the end of 2019, in order to avoid renewal of the agreement (de Jong & Van de Graaf, 2021; Wood & Henke, 2021).

Before approving a route, the Danish authorities requested feedback from public institutions and interested parties, which caused concern in the consortium. They feared that the permitting process would result in lengthy legal battles, while construction in other territories was already well underway (Gurzu, 2019). In June 2019, the CEO of Nord Stream 2, Mathias Warnig, retracted the original permit request and at the end of October, Denmark finally issued its permit with a few conditions. The pipelaying vessels needed to be equipped with dynamic positioning and "using a conventional S-laying technique" (Wood & Henke, 2021). Construction in the Danish section could finally begin. In December, construction was however halted due to sanctions imposed by the United States (cf. infra). A Russian replacement ship did not have dynamic positioning, a requirement stipulated in the permit, and an exemption needed to be asked. This exemption was issued in July 2020. Nonetheless, construction could not begin immediately as the fish spawning season had started. Construction was resumed in December 2020. In the meantime, Gazprom had signed a new five-year transit agreement with Ukraine.

EU regulation

After its announcement, eight member states (the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Romania) signed a letter asking the European Commission to critically assess Nord Stream 2's compliance with EU rules (Sytas, 2016). The Commission pledged to ensure that the pipeline would operate in accordance with EU regulations, which it deemed applicable. These rules of the Third Gas Directive mandated ownership unbundling (article 9), access to the pipeline for third parties (article 32), and transparent tariffs (article 41). With Gazprom as the sole shareholder after

UOKiK rejection of the joint venture and sole supplier, this meant that there was no ownership unbundling (Gazprom owned the pipeline and the gas flowing through it) and the Russian gas export monopoly meant that there was no open access on the Russian side.

The Commission had hoped to halt the construction of Nord Stream 2 by undercutting its business model. Initially, the Commission argued that Nord Stream 2 needed to comply with EU regulations (Dudek & Piebalgs, 2017). Multiple studies however suggested that the applicability of EU rules to Nord Stream 2 was uncertain, and that limited geographical scope of the EU law, United Nations Convention on the Law of the Sea (UNCLOS) and international trade law were additional issues (Gragl, 2019; Jeutner, 2019; Talus & Wüstenberg, 2017). The Commission's Legal Service agreed with this notion, but the Commission maintained its stance. It urged the Bundesnetzagentur, the German regulatory authority, to ensure that Nord Stream 2 adheres to EU rules, but the Bundesnetzagentur followed the opinion of the Legal Service (Bundesnetzagentur, 2017) This compelled the Commission to adopt a different strategy; the Commission sought a mandate from the European Council to negotiate an Intergovernmental Agreement (IGA) with Russia to enforce EU rules (Hancher, Talus, & Wüstenberg, 2020; Keypour, 2019). However, three months later, in September 2017, this proposal was shot down by the Council, after the Council's Legal Services called the mandate a "political choice", "a means to "externalize" the principles of the Union's internal energy acquis at the international level", and impeded on the sovereignty of the member states (Council's Legal Service, 2017, pp. 6, 12).

In a final attempt to halt the project, the Commission proposed to amend the Third Gas Directive to include Nord Stream 2. Although officially the proposal was not directed at Nord Stream 2, previous statements from the Commission suggested otherwise (de Jong & Van de Graaf, 2021). The proposed amendments were controversial, as they clashed with UNCLOS and WTO rules (Hancher & Marhold, 2019; Talus, 2019; Talus & Wüstenberg, 2019). The proposal drew scholarly attention to the power dynamic between the Commission and member states and to the external power of the EU (Batzella, 2022; Gens, 2019; Goldthau & Sitter, 2020; Himmelreich, 2020; Schmidt-Felzmann, 2020).

The UNCLOS issues were ultimately resolved by limiting the application of the Directive to the territory and the territorial sea of the entry point of the pipeline, in the case of Nord Stream 2 Germany (Hancher et al., 2020; Talus, 2019). Still, legal uncertainty remained regarding exemptions, transfer of competences, and compliance with WTO law and non-discrimination principles (de Jong & Van de Graaf, 2021; Hancher & Marhold, 2019; Jeutner, 2019; Keypour, 2019; Talus, 2019; Yafimava, 2019; Zafoschnig, 2019).

In addition to the legal issues surrounding the proposed amendments to the Third Gas Directive, the member states were divided on the proposal. This division delayed the legislative process, as the proponents of Nord Stream 2 had a blocking minority – see Table *1*. A blocking minority is when at least four countries, represented a minimum of 35 percent of the population, indicate their opposition to a proposal. An unexplained turnaround in the French position resulted in sufficient support for the reforms in February 2019 (de Jong & Van de Graaf, 2021). The amendments entered into force on 23rd of May 2019.

The revised Gas Directive mandated the unbundling of Nord Stream 2 for the German section of the pipeline, and ensured that the consortium could not request derogations or exemptions (Hancher et al., 2020). Consequently, the consortium challenged the amendments in court, but the first appeal was rejected as the pipeline company would not be directly impacted. However, the European Court of Justice disagreed with this decision and referred the case back to the general court in July 2022 (Siebold, 2022).

Later, the Amended Gas Directive prevented the Bundesnetzagentur from approving Nord Stream 2 after tthe completion of construction, leading the consortium to establish a German subsidiary called Gas for Europe GmbH in January 2022 to manage the section in German waters. The project was awaiting final approval when Russia recognized Donetsk and Luhansk as independent republics, causing the German government to withdraw its positive security assessment for the project.

US sanctions

On the other side of the Atlantic, the project also attracted political attention. The main concern in Washington was the security impact on Ukraine and Europe. This resulted in three different sanctions legislations. First, the US Congress pushed for the Countering America's Adversaries through Sanctions Act (CAATSA) in 2017, which granted the President discretionary powers to sanction parties involved in constructing Russian energy export pipelines. However, despite the Congressional support for sanctions, the Trump administration did not impose them, allowing the pipeline's construction to proceed uninterrupted (de Jong, 2022).

In May 2019, a second sanction bill, proposed by Senator Ted Cruz and colleagues, targets companies involved in the offshore pipe-laying of the pipeline.[3] This Protecting Europe's Energy Security Act (PEESA) bill is proposed when the construction of Nord Stream 2 is well on its way. The PEESA proposal was added to the National Defence Authorization Act (NDAA), a so-called "must pass bill", which was approved and signed by President Trump in December 2019. The signing of the bill caused the pipe-laying company, Allseas, to terminate its construction of Nord Stream 2, effectively halting the project after it had just received a Danish permit. The US sanctions created tensions between Washington and Berlin and were also an issue for the EU, as they impacted its strategic autonomy (Ryon, 2020). Despite the sanctions, construction resumed a year later using Russian-owned vessels after obtaining permission from Copenhagen not to use dynamic positioning vessels (cf. supra).

Next, the Protecting Europe's Energy Security Clarification Act (PEESCA) was proposed by Congress as an additional bill to the previous sanctions regimes. The focus of PEESCA was to prevent the commissioning of the pipeline by targeting companies involved in its certification and insurance. This bill was added to the NDAA of 2020 and approved in January 2021. As a result, almost twenty companies ended their ties with the Nord Stream 2 consortium, but construction persisted.

Later, the scope of PEESA was broadened to include activities that facilitate the pipelaying activities which enabled the addition of two vessels and Transadria Ltd to the list of sanctioned companies (U.S. Department of State, 2021). Despite these efforts, construction of Nord Stream 2 was completed, and the necessary certification and insurance were obtained. The U.S. Department of State only imposed sanctions against the project and its CEO after the German government had withdrawn its support for Nord Stream 2.

Russian actions in Ukraine

Beginning in February 2022, the actions of Russia have hindered progress on the Nord Stream 2 project. In October 2021, the German Ministry of Economic Affairs and Energy concluded that Nord Stream 2 did not pose a threat to the gas security of Germany or the EU, a requirement for certification. The following month, the Bundesnetzagentur suspended the certification process, as Nord Stream 2 was owned by a non-German company. The Nord Stream 2 consortium corrected this by creating a subsidiary, Gas for Europe GmbH. Still, the process was halted indefinitely in February 2022 when Moscow recognized Luhansk and Donetsk as independent republics and Chancellor Scholz

[3] This bill also encompasses the TurkStream pipeline, despite the fact that the construction of this pipeline had already been finalized.

order a newsecurity assessment for the pipeline. This outcome was compounded by the invasion that occurred two days later, resulting in a further breakdown of the Russia-German relationship. In March 2022, the EU announced its REPowerEU plan, which aimed to end Russian gas imports by 2030. Germany subsequently planned to substitute Russian gas with LNG by constructing five terminals, rendering Nord Stream 2 unnecessary.

The project was dealt another blow when, on the morning of September 26th 2022, an explosion damaged one of the lines of Nord Stream 2 near the Danish Island Bornholm, releasing technical gas into the water and atmosphere. The other string remains intact and technically capable of supplying gas. The sister pipeline, Nord Stream, was also sabotaged that evening and is fully disabled. Denmark, Germany and Sweden are investigating the explosions, as the explosions happened in the EEZ of Denmark and Sweden. Swedish investigators have stated that it is difficult to identify the responsible party, but a state actor is likely to be involved, either directly or indirectly (Cooper, 2023). Different allegations have been made outside of the official investigation, such as Seymour Hersh's journalistic report implicating the US, the German newspaper Die Zeit pointing to a pro-Ukrainian group, and reports of a Russian naval vessel in the neighbourhood of the pipeline. However, other possible perpetrators mentioned include Ukraine, Germany, Poland, and the UK.

Conclusion: an unexpected joint effort

This narrative review has uncovered different scholarly fields that connect to project, including geopolitics, energy security, markets/competition, and ideology. The literature on these topics and Nord Stream 2 does not produce a uniform outcome, as these concerns are interpreted differently by opponents and proponents. In other studies, the project is mostly used as an illustrative example. In particular, the project has been used to highlight the struggle between the European Commission and member states, and to advance integration in the EU energy domain, especially in relation to the amended Gas Directive (see for example de Jong and Van de Graaf (2021); de Jong et al. (2022)). Also, the debate on the external power of the Commission is assisted by the case of Nord Stream 2, as a more geopolitical Commission is revealed (Batzella, 2022; Gens, 2019; Goldthau & Sitter, 2020; Schmidt, 2020). Another major contribution is visible in the legislative domain. There is a rich literature discussing the legal uncertainty of EU energy law before and after the acceptance of the amendments (Hancher & Marhold, 2019; Jeutner, 2019; Keypour, 2019; Talus, 2018, 2019; Talus & Wüstenberg, 2017; Zafoschnig, 2019). This research also connects to the external dimension of the EU, as these studies discuss contradictions between EU law, WTO and UNCLOS. Also in other fields, the project was used to illustrate, for example, the effectiveness of sanctions (de Jong, 2022) and the concept of strategic autonomy (Ryon, 2020). Despite the differing interpretations of the project and the extensive debates in the media, the literature demonstrated its significance on (energy) politics and research.

Furthermore, this study examined the events that contributed to the downfall of the Nord Stream 2 project and assessed its sequential implications. The geopolitical landscape that emerged after the events of 2014, it is argued, hindered the pipeline's development. While proponents and opponents of Nord Stream 2 interpreted the pipeline's potential impact on financial, energy security, market, environmental, ideological, and security concerns differently. It are however the actions of Poland's UOKiK, Denmark, the EU's Commission, and the US that ultimately ensured that Nord Stream 2 was not operational on February 22, 2022. Had UOKiK not denied the creation of a joint venture, Nord Stream 2 would have been owned by a consortium of six partners, with Gazprom owning only half, enabling the latter to transport Russian gas through half of the pipeline. Similarly, if Denmark had issued the permit on time, Russia would have completed construction of the pipeline before American sanctions were imposed in December 2019. Moreover, had the EU not amended its legislation, the

rules of the Third Gas Directive would not have applied to the project, and the Bundesnetzagentur could have approved the project sooner for operation. In combination, these actions successfully delayed the construction and hindered the operation of Nord Stream 2 until February 2022. Without these interventions and actions, the project's outcome is unpredictable. However, the final nail on the coffin of the project were Russian actions in Ukraine and the subsequent policy measures to reduce Russian gas imports to the EU.

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