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# Black Sea's Offshore Energy Potential and its Strategic Role at a Regional and Continental Level

George Scutaru

## **Executive Summary**

This study aims to present the energy potential in the Black Sea, its stakes and impact, while also taking into account the way that Russia could act to disrupt the process of development of offshore natural resources. It will first address the regional energy security background related to the 2022 Russian aggression against Ukraine, highlighting the vulnerabilities European countries in the region and beyond have had to face. Second, the research will focus on the energy security potential of the Black Sea, considering its offshore natural reserves and current development projects. Finally, the study will conclude on the need for an integrated EU-NATO approach on the Black Sea energy security, considering both challenges and opportunities stemming from such a perspective.

Our research is founded on the findings concerning the Black Sea region's energy security challenges. Before Russia's invasion of Ukraine in 2022, the Black Sea region states were massively dependent on Russian natural gas. Romania was the only country in the region that could sustain 80% of its consumption through domestic production, while the rest of the countries imported gas on a massive scale, mainly from Russia. Russian war on Ukraine forced EU countries to quickly look for alternative sources. The easiest finds were imports from Azerbaijan and LNG coming through the Greek port of Alexandroupolis. However, Russia remains the most significant, if not exclusive, supplier of gas to non-EU nations, with the possibility of considerable political pressure, especially since Russia is using Gazprom as a foreign policy instrument.

The study also considers the Black Sea region's role as a transit area for Russian gas via the Blue Stream and TurkStream pipelines, as well as a transit area for the Southern Gas Corridor, which transports gas from Azerbaijan to Türkiye and Europe via three major segments: the South Caucasus Pipeline, the Trans-Anatolian Gas Pipeline, and the Trans Adriatic Pipeline. Furthermore, the Greek port of Alexandroupolis has evolved into a crucial position for providing LNG to the Balkan states and beyond, including LNG from the United States.

Our research also focuses on the potential for the Black Sea to serve as a source for European energy security, given that considerable natural gas reserves have been identified there. Romania started exploiting 1 billion cubic meters (bcm) in 2022, in the Ana field (owned by the American company Black Sea Oil&Gas), but the major stake will be the exploitation of the largest field, Neptune Deep, which will bring Romania 100 bcm of natural gas (7-8 bcm per year) and will make the country the largest gas producer in the EU by 2027. A consortium formed by OMV Petrom, an affiliate of OMV Austria and the Romanian state company ROMGAZ, will carry out the exploitation. Bulgaria has discovered gas reserves estimated at a minimum of 60 bcm in the Khan Asparuh field, neighboring the Romanian Neptune Deep field, but the timing of production kick-off remains uncertain. The most prolific Black Sea field is the Turkish Sakarya field, with estimated reserves of 540 bcm (according to the Turkish authorities), with exploitation starting in 2024. All these gas fields will play an important role in reducing the dependence of countries in the region on Russian gas. Romania will not only be able to ensure its full energy independence, but will also be able to export gas to countries such as the Republic of Moldova, Bulgaria, Hungary and Austria. Türkiye, which heavily imports gas from Russia, will be able to become much more energy independent. Bulgaria, once exploiting gas from the Khan Asparuh field, will not only be able to fully secure its domestic consumption (3 bcm per year), but also become an exporter in the region.

The study considers potential scenarios for Russian actions, considering the impact that such energy developments may have on Russia's influence in the region. Considering that offshore energy projects in the Black Sea are a direct competitor for Russia's energy strategy in the region, it is expected for Moscow to try to prevent the implementation of these projects, primarily those in the Exclusive Economic Zone of Romania and Bulgaria, two

countries that currently do not have strong naval capabilities as deterrents. As Romania begins building of the infrastructure needed to extract gas from the Neptune Deep perimeter in 2024, we anticipate that Russia will employ a variety of hybrid tactics. We expect Russia to refrain from hostile acts against the critical energy infrastructure Türkiye is building to exploit its own Black Sea natural gas, because Türkiye maintains a special relationship with Russia, being the only NATO state that did not impose economic sanctions on Russia following the large-scale invasion of Ukraine.

This is why our study concludes on how EU and NATO efforts could contribute to enhancing European security, beginning with addressing energy security in the Black Sea area, including by supporting offshore energy projects in the area. A greater awareness and understanding by the EU and NATO partners of Russia's threats would help in the identification of real remedies to discourage Russia's hostile behavior. More NATO "Intelligence, Surveillance and Reconnaissance" (ISR) capabilities located in Romania and Bulgaria, timely delivery of combat systems under Romania's procurement programs, joint exercises between Romanian, Bulgarian and Turkish naval forces in gas exploitation perimeters, are the type of joint actions of NATO member states that have to be multiplied and intensified under an integrated NATO strategic plan for the region. Most importantly, a common EU-NATO recognition of the fact that the Black Sea is a place where Russia has always behaved aggressively is needed.

# The Russian Energy Influence in the Black Sea Region

Russia has had a strong energy influence in the Black Sea region, which, nevertheless, diminished in relevant EU countries after the invasion of Ukraine in February 2022, but which is still consistently present in Türkiye and growing in Georgia. the Republic of Moldova, which was totally dependent on gas imports from Russia, managed to cope with Russia's energy blackmail with the support of Romania and the EU, and succeeded in 2023 to stop importing gas from Russia by finding alternative sources. Ukraine stopped importing gas from Russia since 2015<sup>2</sup> and Romania is the only country in the region that can cover 80% of its consumption from its own resources. Romania's Russian gas share in total imports was 10% in 2018 and increased to 24% in February 2022, during wintertime.<sup>3</sup> Türkiye's large gas imports from Russia stand out in the region, accounting for 39% of total consumption<sup>4</sup>. Georgia's dependence on Russian gas also increased, importing 119% more gas from Russia between January and June 2023, Russian gas thus reaching a 24% share of Georgia's domestic consumption in the first half of 2023, as opposed to a 11.6% share in the same period of 2021.<sup>5</sup> Bulgaria, which has an annual consumption of 3 bcm, imports massive amounts of gas from Russia, which has demonstratively stopped gas

<sup>1</sup> George Scutaru, Ecaterina Dadiverina, Marcu Solomon, "The impact of the Russian attacks on the Ukrainian energy sector", 2022, <a href="https://newstrategycenter.ro/project/the-impact-of-the-russian-attacks-on-the-ukrainian-energy-sector/">https://newstrategycenter.ro/project/the-impact-of-the-russian-attacks-on-the-ukrainian-energy-sector/</a>;

<sup>&</sup>lt;sup>2</sup> "Natural gas import volume in Ukraine from 2008 to 2021, by route", Statista.com, <a href="https://www.statista.com/statistics/1006510/ukraine-natural-gas-supply-and-consumption/">https://www.statista.com/statistics/1006510/ukraine-natural-gas-supply-and-consumption/</a>;

<sup>&</sup>lt;sup>3</sup> New Strategy Center & Center for European Policy Analysis (CEPA), "The Strategic Importance of Snake Island", 2022, <a href="https://newstrategycenter.ro/project/the-strategic-importance-of-snake-island/">https://newstrategycenter.ro/project/the-strategic-importance-of-snake-island/</a>; Corina Murafa, Energy Without *Russia*, Friederick Ebert Stiftung, <a href="https://library.fes.de/pdf-files/bueros/budapest/20487.pdf">https://library.fes.de/pdf-files/bueros/budapest/20487.pdf</a>

<sup>&</sup>lt;sup>4</sup> Vladimir Afanasiev, "*Russia* makes huge gas concession to Turkey", Upstream, 11.05.2023, https://www.upstreamonline.com/politics/russia-makes-huge-gas-concession-to-turkey/2-1-1449161;

<sup>&</sup>lt;sup>5</sup> "Georgia's Economic Dependence on *Russia* Continues to Grow: January-June 2023", Transparency Interantional Georgia, 29.09.2023, <a href="https://www.transparency.ge/en/post/georgias-economic-dependence-russia-continues-grow-ianuary-june-2023">https://www.transparency.ge/en/post/georgias-economic-dependence-russia-continues-grow-ianuary-june-2023</a>;

exports in April 2022 because Sofia did not respond favorably to Gazprom's request to pay in rubles.<sup>6</sup> In January 2023, Bulgaria signed an agreement with the Turkish state-owned company Botas to import gas, a decision that caused concern in Brussels because the agreement could bring Russian gas into the European Union in violation of the Russian embargo. In October 2023, the European Commission began investigating the agreement, requesting additional information from Bulgargaz. Botas Türkiye concluded similar gas export agreements with companies from Hungary, Romania and Republic of Moldova. The latter country will purchase 0.75 bcm of gas annually from Türkiye, half of its total consumption of 1.5 bcm.8 A former Russian Energy Minister, Yuri Shafranik, believes that "Europe will continue to import about 35 bcm of gas from Russia via third parties, especially as there are plenty of countries willing to do such intermediation". The suspicions are based on the fact that, in December 2022; Russian news agencies reported that Presidents Putin and Erdogan also discussed the possibility of creating a regional gas hub in Türkiye using Russian gas. 10 Bulgaria can be a platform for Russian gas to enter Europe, disguised as "Turkish" gas, as can Greece, another country heavily dependent on Russian gas. After importing 3.1 bcm of Russian gas in 2021, Greece's imports fell to 2.7 bcm in 2022, which accounted for 1/3 of total gas imports, and doubled in October 2023, with 64% of imported gas coming from Russia.<sup>11</sup> The TurkStream pipeline is operating at its maximum capacity (12 bcm per year) supplying Russian gas to Hungary, Serbia, as well as to Bosnia & Herzegovina and North Macedonia, via interconnectors in Serbia and Bulgaria. Significant quantities of Russian oil enter Bulgaria via the Black Sea port of Burgas, destined for the Lukoil-owned Neftochim refinery. Sofia benefits from temporary derogations concerning the import of Russian seaborne crude oil. 12 From January to September 2023, Neftochim processed 4.5 million tons of crude oil, making Bulgaria the fourth largest importer of Russian crude oil after China, India and Türkiye. The new Bulgarian government has decided to shorten the period of this exception, with March 2024 being the last month when Bulgaria will import oil from Russia (an alternative source of import being through Greece). 13 In October 2023, Bulgaria introduced a surcharge on imported gas from Russia, which has led to criticism not only from Moscow, but also from Hungary and Serbia, the beneficiaries of this gas. 14

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<sup>&</sup>lt;sup>6</sup> Dimitar Bechev, "*Russia*'s Energy Clout in the Balkans Is On Borrowed Time", Carnegie, 01.12.2023, <a href="https://carnegieendowment.org/politika/91154">https://carnegieendowment.org/politika/91154</a>;

<sup>&</sup>lt;sup>7</sup> "European Commission Investigating Gas Deal Between Bulgaria And Turkey", Radio Free Europe Radio Liberty, 20.10.2023, <a href="https://www.rferl.org/a/bulgaria-turkey-gas-deal-eu-investigation-russia-back-door/32647083.html">https://www.rferl.org/a/bulgaria-turkey-gas-deal-eu-investigation-russia-back-door/32647083.html</a>;

<sup>&</sup>lt;sup>8</sup> Vladimir Afanasiev, "Turkey to take over supply of almost half of Moldova's gas use", Upstream, 29.09.2023, <a href="https://www.upstreamonline.com/energy-security/turkey-to-take-over-supply-of-almost-half-of-moldova-s-gas-use/2-1-1526697">https://www.upstreamonline.com/energy-security/turkey-to-take-over-supply-of-almost-half-of-moldova-s-gas-use/2-1-1526697</a>;

<sup>&</sup>lt;sup>9</sup> Victor Jack, Gabriel Gavin, "Bulgaria-Turkey deal opens the door for Russian gas", Politico, 25.08.2023, <a href="https://www.politico.eu/article/bulgaria-turkey-gas-deal-russia-imports-competition-ukraine-war/">https://www.politico.eu/article/bulgaria-turkey-gas-deal-russia-imports-competition-ukraine-war/</a>;

<sup>&</sup>lt;sup>10</sup> Ventzeslava Kojouharova, "Why the Bulgaria-Turkey gas deal could be a Russian Trojan horse", Bankwatch Network, 13.12.2023, <a href="https://bankwatch.org/blog/why-the-bulgaria-turkey-gas-deal-could-be-a-russian-trojan-horse">https://bankwatch.org/blog/why-the-bulgaria-turkey-gas-deal-could-be-a-russian-trojan-horse</a>;

<sup>&</sup>lt;sup>11</sup> Dimitar Bechev, "*Russia*'s Energy Clout in the Balkans Is On Borrowed Time", Carnegie, 01.12.2023, <a href="https://carnegieendowment.org/politika/91154">https://carnegieendowment.org/politika/91154</a>;

<sup>12 &</sup>quot;EU sanctions against *Russia* explained", Council of the EU and the European Council, <a href="https://www.consilium.europa.eu/en/policies/sanctions/restrictive-measures-against-russia-over-ukraine/sanctions-against-russia-explained/#oilban;">https://www.consilium.europa.eu/en/policies/sanctions/restrictive-measures-against-russia-over-ukraine/sanctions-against-russia-explained/#oilban;</a>

<sup>&</sup>lt;sup>13</sup> Dimitar Bechev, "Russia's Energy Clout in the Balkans Is On Borrowed Time", Carnegie, 01.12.2023, https://carnegieendowment.org/politika/91154;

<sup>&</sup>lt;sup>14</sup> Ilona Gizińska, Łukasz Kobeszko, "Bulgaria introduces additional fees for Russian gas transit", Center for Eastern Studies, 26.10.2023, <a href="https://www.osw.waw.pl/en/publikacje/analyses/2023-10-26/bulgaria-introduces-additional-fees-russian-gas-transit">https://www.osw.waw.pl/en/publikacje/analyses/2023-10-26/bulgaria-introduces-additional-fees-russian-gas-transit</a>;

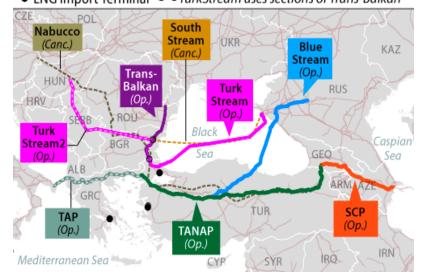
The influence of Russian gas in the region in 2021		
Annual internal consumption		Imports from Russia
Romania	12 bcm	2,77 bcm - 23 %
Bulgaria	3,4 bcm	2,6 bcm - 77%
Rep. of Moldova	1,3bcm	1,29 bcm - 99,23%
Georgia	2,2 bcm	0,39 bcm – 17,72%
Türkiye	60 bcm	26 bcm - 46,67%
Ukraine	29,8 bcm	0

Source: New Strategy Center

#### Gas pipelines network in the region

The European Union has been actively pursuing strategies to reduce its dependence on Russian gas imports through the REPowerEU initiative, launched in May 2022, which aims to curtail Russian gas imports by 100 bcm annually. This comprehensive approach involves diversifying gas supply sources by turning to other regions such as North Africa, Azerbaijan and Norway, as well as rebuilding the energy transport grid within Europe. Several critical pipelines that play a vital role in the energy dynamics of the region mark the energy network in the Black Sea region, particularly for gas transportation.

Existing Pipeline Op. =Operating; Canc. = Cancelled
LNG Import Terminal O—OTurkStream uses sections of Trans-Balkan



<sup>&</sup>lt;sup>15</sup> "REPowerEU: A Plan to Rapidly Reduce Dependence on Russian Fossil Fuels and Fast Forward the Green Transition." European Commission, May 2022. <a href="https://ec.europa.eu/commission/presscorner/detail/en/IP\_22\_3131">https://ec.europa.eu/commission/presscorner/detail/en/IP\_22\_3131</a>.

Fig.1 Gas pipeline mapping

Source: Every CRS Report

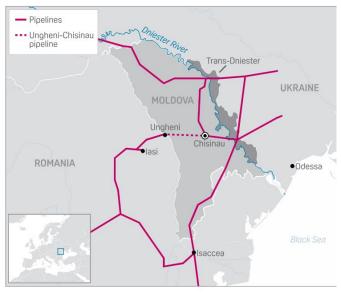
In conjunction with these initiatives, the **BRUA gas pipeline** (Bulgaria, Romania, Hungary and Austria) project has assumed strategic significance in the region by connecting Bulgaria and Austria through Romania and Hungary. Its reversible flow connectors to Ukraine and Bulgaria, in tandem with connections to the southbound Trans-Balkan pipeline, provide crucial supply flexibility and facilitate the efficient distribution of Black Sea gas resources. Romania's Transgaz (TSO) initiated the **Tuzla – Podisor gas pipeline** project, a crucial venture connecting Black Sea gas resources to the broader European network via the BRUA corridor. With Toscelik Spiral Pipe supplying the necessary steel pipes, this 306.5-kilometer pipeline will traverse Constanta, Calarasi, and Giurgiu counties in Romania. Designed to meet approximately 45% of Romania's gas demand, this pipeline will have an annual capacity of over 12 billion cubic meters. It will facilitate Black Sea gas entering the National Transmission System at the Podisor technological node, enhancing supply for both economic operators and households. 17



Source: Hart Energy

<sup>16</sup> Rani, Archana. "Romania's Transgaz to Build €500m Gas Pipeline in the Black Sea." Offshore Technology, March 17, 2023. <a href="https://www.offshore-technology.com/news/transgaz-gas-pipeline-black/?cf-view">https://www.offshore-technology.com/news/transgaz-gas-pipeline-black/?cf-view</a>.

<sup>&</sup>lt;sup>17</sup> Rani, Archana. "Romania's Transgaz to Build €500m Gas Pipeline in the Black Sea." Offshore Technology, March 17, 2023. <a href="https://www.offshore-technology.com/news/transgaz-gas-pipeline-black/?cf-view">https://www.offshore-technology.com/news/transgaz-gas-pipeline-black/?cf-view</a>.



Source: S&P Global Platts, ENTSOG

Romania, with the EU support, has invested in the **lasi-Chisinau pipeline**, which allows the Republic of Moldova to import gas from Romania and other countries. In September 2023, Romania took another important step in supporting the Republic of Moldova's energy independence; with the state-owned company Transgaz taking over the entire gas transmission network in Moldova through its subsidiary Vestmoldtransgaz. Until then, a local company, Moldovagaz, owned the entire gas transport network where Gazprom was the majority shareholder. Romania has invested €430 million to upgrade the transmission network between Romania and the Republic of Moldova, which will make it easier to distribute gas from the Black Sea to Moldova.<sup>18</sup>

The **Trans-Balkan pipeline**, particularly in the post-Ukraine war landscape, may play a pivotal role in regional energy distribution. It holds particular relevance for the Republic of Moldova, as it helps the country reduce its dependence on energy sources controlled by Russia and aligns with its aspirations for deeper European integration. The pipeline, historically used by Gazprom to supply gas to Türkiye, connects Türkiye and Ukraine via Romania, with extensions to Greece and North Macedonia. Linked to Ukraine's southern corridor, this pipeline has been adapted since 2020 to transport natural gas from TurkStream. It operates with a capacity ranging from 17 to 25 billion cubic meters per year.<sup>19</sup>

<sup>18</sup> Roxana Rosu, "Transgaz a preluat oficial operarea retelei de transport a gazelor naturale din Republica Moldova, prin subsidiara sa Vestmoldtransgaz. Ion Sterian, director Transgaz: Transgaz a realizat investitii strategice de 430 mil.euro pe teritoriul României şi al Republicii Moldova" (translate in Eng: Transgaz has officially taken over the operation of the natural gas transmission network in the Republic of Moldova through its subsidiary Vestmoldtransgaz. Ion Sterian, Transgaz Director: Transgaz has made strategic investments of 430 million euros on the territory of Romania and the Republic of Moldova), 19.09.2023, <a href="https://www.zf.ro/zf-24/transgaz-preluat-oficial-operarea-retelei-transport-gazelor-naturale-22130030">https://www.zf.ro/zf-24/transgaz-preluat-oficial-operarea-retelei-transport-gazelor-naturale-22130030</a>;

<sup>&</sup>lt;sup>19</sup> Cutler, Author Robert M., and Author Joseph De Sapio. "A Trans-Balkan Pipeline Is the next Project for EU's Accelerated Energy Cooperation with Azerbaijan." NAOC, May 24, 2023. <a href="https://natoassociation.ca/a-trans-balkan-pipeline-is-the-next-project-for-eus-accelerated-energy-cooperation-with-azerbaijan/">https://natoassociation.ca/a-trans-balkan-pipeline-is-the-next-project-for-eus-accelerated-energy-cooperation-with-azerbaijan/</a>.

Lastly, Azerbaijan delivers gas from the Shah Deniz field to Europe via the **Trans-Anatolian natural gas pipeline** (**TANAP**), to Türkiye, Greece, Albania, the Adriatic and Italy, through its continuation, the **Trans Adriatic pipeline** (**TAP**), both part of the Southern Gas Corridor. TAP alone aims to deliver at least 20 bcm per year to the EU by 2027. In 2022, Romania received approximately 2 billion cubic meters of gas through this pipeline and in 2023, Moldova started receiving non-Russian gas via this route.<sup>20</sup> Furthermore, TANAP also connects the South Caucasus Pipeline at the Georgia - Türkiye border and extends to the Trans Adriatic Pipeline at the Greek-Turkish border. Spanning 1,811 km, it is the longest natural gas pipeline in Türkiye, the Middle East, and Europe. Initially designed to transport 16 bcm of natural gas annually, with 6 bcm to Türkiye and 10 bcm to Europe via TAP, TANAP's capacity can be expanded with additional compressor stations to 31 bcm.<sup>21</sup> Azerbaijan plans to channel 16.2 bcm through TANAP, mainly to Europe, and envisages almost doubling its capacity in the future.

Consequently, the dynamic landscape of gas transport systems in Europe, especially in the wake of the Russia-Ukraine conflict, highlights the strategic importance and benefits of interconnected energy networks. The European Union's REPowerEU initiative and projects like BRUA and the Trans-Balkan pipeline, underscore a concerted effort to diversify energy sources and enhance supply security. This interconnectivity not only provides alternative routes for gas transport, effectively reducing dependence on Russian imports, but also strengthens regional cooperation and energy independence. Specifically, Romania's role in these developments, through projects like the Tuzla – Podisor gas pipeline, is pivotal in connecting Black Sea gas resources to the European network. This not only boosts Romania's energy security, but also fortifies its relationship with Ukraine, by providing crucial supply flexibility and support in times of geopolitical strife. Additionally, the role of pipelines like TANAP in transporting gas from Azerbaijan to Europe, including Romania, further diversifies the energy supply mix and enhances the region's resilience against supply disruptions.

## **Black Sea offshore gas potential**

The Black Sea is not only the crossroad of several vital energy routes for Europe, but it also has its own significant potential in terms of gas reserves. While Ukraine cannot currently exploit its offshore resources due to the Russian aggression, Romania, Türkiye and Bulgaria have offshore reserves that will soon begin to be exploited and which would make the Black Sea the center of gravity of gas exploitation in this part of Europe.

Romania is undertaking proactive measures and investments in its energy sector aimed at mitigating potential disruptions and ensure a more resilient energy landscape in the face of geopolitical challenges. Romania intensified its efforts to develop its domestic gas exploration and production capabilities in the Black Sea, to invest in infrastructure upgrades and exploration projects, to reduce reliance on external gas sources and enhance its energy independence.

Lozs, Akos. "Q&A: Russian Gas Transit through Ukraine." Center on Global Energy Policy at Columbia University SIPA | CGEP, October 4, 2023. <a href="https://www.energypolicy.columbia.edu/qa-russian-gas-transit-through-ukraine/">https://www.nsenergybusiness.com/projects/trans-anatolian Natural Gas Pipeline (TANAP)." NS Energy. <a href="https://www.nsenergybusiness.com/projects/trans-anatolian-natural-gas-pipeline-tanap/">https://www.nsenergybusiness.com/projects/trans-anatolian-natural-gas-pipeline-tanap/</a>.



Source: OMV Petrom

The largest project in this effort that stands as the largest natural gas endeavor in Romania's EEZ, the Neptune Deep project, is led by OMV Petrom and the Romanian state-owned company Romgaz. With an estimated recoverable natural gas resource of approximately 100 bcm, the project's significance is underscored by its scale and potential impact on Romania's energy security. The Neptune Deep Block is spanning approximately 7,500 km² in the deep-water region of the Black Sea.<sup>22</sup> Anticipated to commence production in the first quarter of 2027, the field is projected to yield 7-8 bcm of natural gas annually.<sup>23</sup> The project aims at developing the Domino and Pelican South natural gas fields in the Neptune Deep Block, involving ten wells, subsea production systems, an offshore platform, heated pipelines, and remote digital operation. Processed gas is planned to be sent via a 160 km pipeline to Tuzla for entry into the Romanian national gas transmission network.<sup>24</sup> In March 2023, a 17-year agreement was signed between OMV Petrom and Transgaz, the Romanian gas pipeline operator, to facilitate the transport of natural gas from the Neptune Deep gas field in the Black Sea to the National Transport System. This transformative initiative holds the key to enhancing Romania's domestic gas production and reducing dependence on gas imports, strengthening the country's energy resilience and contributing to the broader region's energy diversification efforts.

<sup>&</sup>lt;sup>22</sup> "Neptune Deep Gas Field Project, Black Sea," Offshore Technology, July 7, 2023. <a href="https://www.offshore-technology.com/projects/neptun-deep-gas-field-project-black-sea/">https://www.offshore-technology.com/projects/neptun-deep-gas-field-project-black-sea/</a>.

<sup>&</sup>lt;sup>23</sup> OMV Group. "OMV Announces Final Investment Decision Taken by OMV Petrom for Natural Gas Deep-Water Project Neptun Deep," June 21, 2023. <a href="https://www.omv.com/en/news/230621-omv-announces-final-investment-decision-taken-by-omv-petrom-for-natural-gas-deep-water-project-neptun-deep">https://www.omv.com/en/news/230621-omv-announces-final-investment-decision-taken-by-omv-petrom-for-natural-gas-deep-water-project-neptun-deep</a>.

<sup>&</sup>quot;Neptun Deep Natural Gas Project, Romanian Black Sea." NS Energy. https://www.nsenergybusiness.com/projects/neptun-deep-natural-gas-project/.

Transgaz also initiated a significant €500 million project aimed at directly connecting the Neptune Deep Block to Romania's national grid.<sup>25</sup> This initiative marks a considerable stride in enhancing the country's energy logistics. The project involves construction of a new pipeline that will extend over 308.3 kilometers, further connecting to the BRUA corridor, significantly enhancing the regional gas distribution network and bolstering national and regional energy security of a broader EU network.<sup>26</sup>

In addition to the Neptune Deep Project, there are the Midia project, incorporating the Ana and Dina production platforms. These platforms, part of the Midia West perimeter, are located approximately 120 kilometers offshore in the Black Sea, in waters about 70 meters deep.<sup>27</sup> The operator of those platforms is the Black Sea Oil & Gas Company, an EBRD-Carlyle (US) joint venture. Production in this field commenced on June 15, 2022, with initial targets set to produce 0.5 bcm in the same year. The transportation of gas from these platforms involves a 126-kilometre-long pipeline, extending from the Ana platform to an onshore facility. Expectations were to escalate production to a steady rate of 1 bcm annually by 2023, thereby fulfilling 8% of Romania's energy demand.<sup>28</sup> Presently, Romania satisfies roughly 80% of its annual gas consumption, which is about 12 bcm, through domestic production. With the expected development of both the Neptune Deep and Ana projects, alongside existing production, Romania is on track to cover its entire annual gas consumption domestically.<sup>29</sup> As production in the Black Sea ramps up to full capacity, Romania could potentially begin exporting excess gas to neighboring countries, thus offering an alternative to Russian gas. This shift not only strengthens Romania's energy autonomy, but also positions it as a key energy player in the region.

Türkiye has also discovered important gas resources in the Black Sea estimated at 540 bcm, the most prolific being Sakarya, located close to the Neptune Deep perimeter, at a distance of 100 nautical miles.<sup>30</sup> Türkiye will start exploiting this perimeter in 2025, which will increase its energy independence from Russia.<sup>31</sup>

Bulgaria has estimated reserves of 60 bcm in the Khan Asparuh perimeter. Bulgaria is not as advanced as Romania and Türkiye in explorations or exploiting gas reserves and expects the process to gain momentum in the coming period. OMV Petrom, which also owns Neptune Deep in Romania's EEZ, has taken over TOTAL French company's

<sup>&</sup>lt;sup>25</sup> Rani, Archana. "Romania's Transgaz to Build €500m Gas Pipeline in the Black Sea." Offshore Technology, March 17, 2023. https://www.offshore-technology.com/news/transgaz-gas-pipeline-black/?cf-view.

<sup>&</sup>lt;sup>26</sup> Rani, Archana. "Romania's Transgaz to Build €500m Gas Pipeline in the Black Sea." Offshore Technology.

<sup>&</sup>lt;sup>27</sup> "Midia Gas Development." Black Sea Oil & Gas, September 23, 2022. <a href="https://www.blackseaog.com/midia-gas-development/">https://www.blackseaog.com/midia-gas-development/</a>.

<sup>&</sup>lt;sup>28</sup> "Midia Gas Development." Black Sea Oil & Gas, September 23, 2022.Arnold, Dupuy. "A New Black Sea Natural Gas Project Could Be a Game Changer for the Region—and a Challenge for Putin." Atlantic Council, July 26, 2023. https://www.atlanticcouncil.org/blogs/turkeysource/a-new-black-sea-natural-gas-project-could-be-a-game-changer-for-the-region-and-a-challenge-for-putin/.

<sup>&</sup>lt;sup>29</sup> Arnold, Dupuy. "A New Black Sea Natural Gas Project Could Be a Game Changer for the Region—and a Challenge for Putin." Atlantic Council, July 26, 2023. <a href="https://www.atlanticcouncil.org/blogs/turkeysource/a-new-black-sea-natural-gas-project-could-be-a-game-changer-for-the-region-and-a-challenge-for-putin/">https://www.atlanticcouncil.org/blogs/turkeysource/a-new-black-sea-natural-gas-project-could-be-a-game-changer-for-the-region-and-a-challenge-for-putin/</a>.

<sup>&</sup>lt;sup>30</sup> Sergiu Mitrescu, Michalis Mathioulakis, "Security implications of new gas discoveries in the Black Sea and the Eastern Mediterranean", 2023, <a href="https://newstrategycenter.ro/project/security-implications-of-new-gas-discoveries-in-the-black-sea-and-the-eastern-mediterranean/">https://newstrategycenter.ro/project/security-implications-of-new-gas-discoveries-in-the-black-sea-and-the-eastern-mediterranean/</a>;

<sup>&</sup>lt;sup>31</sup> New Strategy Center – Yorktown Institute, "The Battle for the Black Sea! The Importance of Freedom of Navigation and Energy Stakes", 2023, <a href="https://newstrategycenter.ro/project/the-battle-for-the-black-sea-the-importance-of-freedom-of-navigation-and-energy-stakes-2/">https://newstrategycenter.ro/project/the-battle-for-the-black-sea-the-importance-of-freedom-of-navigation-and-energy-stakes-2/</a>;

stake in the Khan Asparuh field and is very interested in developing the exploration and subsequent exploitation of this field. The start of exploitation in the Khan Asparuh field will not only secure the entire gas consumption for Bulgaria, but will also transform Bulgaria into a natural gas exporter<sup>32</sup>.



Source: New Strategy Center

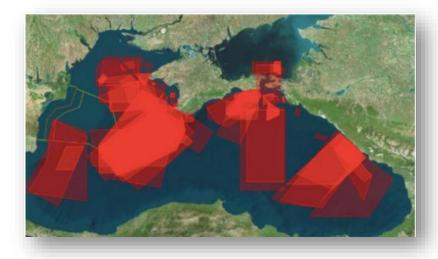
## Russian hybrid warfare

The exploitation of gas reserves in the EEZ may be endangered by Russia's hybrid activities. Romania and Bulgaria do not have significant naval forces to deter Russia's aggressive actions. The only NATO state bordering the Black Sea with a strong navy is Türkiye. Taking into account the special relationship between Russia and Türkiye, we do not foresee aggressive Russian actions in the perimeter of Türkiye's EEZ. However, mines remain a danger that can also affect Turkish infrastructure, which is why Türkiye has proposed to Romania and Bulgaria a common framework for the fight against mines. Negotiations took place in November and December 2023<sup>33</sup> and the agreement was signed in January 2024. This is an important first step in the joint fight of the three NATO states against the dangers affecting the freedom of navigation in the western Black Sea basin. False flag operations by Russia using naval drones and then blaming Ukraine cannot be excluded. On 10 February 2023, Russia used for the first time a kamikaze naval drone to hit the Zatoka Bridge over the Dniester estuary. This bridge is an important piece of critical infrastructure, as the railway between Odesa and Galati port in Romania crosses there. Russia wanted to make this

<sup>&</sup>lt;sup>32</sup>Discussions of NSC experts with representatives of OMV Petrom leadership,

<sup>&</sup>lt;sup>33</sup> Huseyin Hayatsever, "Turkey, Romania, Bulgaria to ink deal on floating Black Sea mines in January", Reuters, 16.12.2023, <a href="https://www.reuters.com/world/turkey-romania-bulgaria-ink-deal-floating-black-sea-mines-january-2023-12-16/">https://www.reuters.com/world/turkey-romania-bulgaria-ink-deal-floating-black-sea-mines-january-2023-12-16/</a>;

known because the moment of impact was filmed and posted on social media.<sup>34</sup> Such drones can also be used against Romania's oil platforms without the attack being claimed and Russia saying it was a false flag operation. Since 2007, Russia has often used the blocking of perimeters in the Black Sea to gain control over the area under the pretext of naval exercises, thus affecting freedom of navigation in the region. Naval military exercises are not prohibited by international law, but it considered as abusive when it becomes excessive.<sup>35</sup>

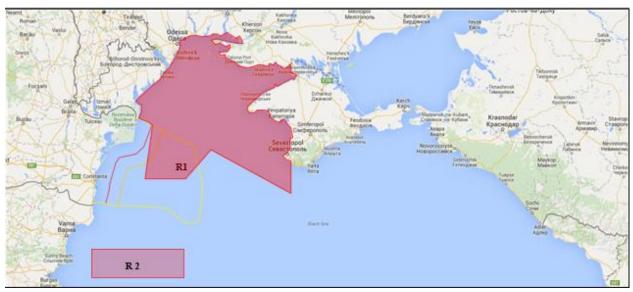


The perimeters blocked by Russia in 2019. Source: New Strategy Center

After the invasion of Ukraine, the Russian Federation continued to block perimeters in the western Black Sea basin, in the Romanian (R1 – summer 2021) and Bulgarian (R2 – July-December 2023) EEZ's.

<sup>&</sup>lt;sup>34</sup> "Video: Russian Suicide Drone Boat Strikes Ukrainian Bridge", Maritime Executive, 12.02.2023, <a href="https://maritime-executive.com/article/video-russian-suicide-drone-boat-strikes-ukrainian-bridge">https://maritime-executive.com/article/video-russian-suicide-drone-boat-strikes-ukrainian-bridge</a>;

<sup>&</sup>lt;sup>35</sup> New Strategy Center – Yorktown Institute, "The Battle for the Black Sea! The Importance of Freedom of Navigation and Energy Stakes", 2023, <a href="https://newstrategycenter.ro/project/the-battle-for-the-black-sea-the-importance-of-freedom-of-navigation-and-energy-stakes-2/">https://newstrategycenter.ro/project/the-battle-for-the-black-sea-the-importance-of-freedom-of-navigation-and-energy-stakes-2/</a>



Source: New Strategy Center

Between July and December 2023, Russia blocked a large perimeter in the Bulgarian EEZ in order to harass the naval traffic between Odesa and Istanbul, several times placing two military ships to increase pressure on commercial vessels (R2).<sup>36</sup> In August 2023, a Russian vessel opened fire in front of a cargo ship owned by a Turkish shipping company to force it to stop for inspection, which was a very clear example of freedom of navigation being affected. In order to inspect the bulk cargo ship, a Russian Ka-29 helicopter with a group of Russian servicemen was hoisted from the patrol ship Vasily Bykov. <sup>37</sup> This action is perceived as an attempt to elevate insurance costs, potentially impeding Ukraine's trade and export activities in the Black Sea, with a significant impact on global food security. Ukraine plays an important role on the cereals world market, the weaponization of food being another tool of Russian hybrid warfare used to generate social crisis in some countries from Africa or the Middle East.

Furthermore, such behavior may extend to disturb the construction of energy infrastructure in the Neptune Deep Block of the Romanian Exclusive Economic Zone (EEZ). This development, scheduled between 2024 and 2027, is expected to position Romania as the largest gas producer in the EU by 2027, with the peak of construction anticipated in 2025-2026, involving a significant number of ships and over 2,500 personnel at sea, incurring costs of approximately \$2 million per day.

Transocean, an American company renowned for its expertise in drilling operations, will execute the extensive technological development process for Neptune Deep.<sup>38</sup> Romania aims to annually exploit approximately 7-8 bcm

<sup>36</sup> Lyubomir Gigov, "*Russia* Extends Black Sea Temporary Warning Area Notification until August 19," Bulgarian News Agency, August 10, 2023, <a href="https://www.bta.bg/en/news/bulgaria/504432-russia-extends-black-sea-temporary-warningarea-notification-until-august-19">https://www.bta.bg/en/news/bulgaria/504432-russia-extends-black-sea-temporary-warningarea-notification-until-august-19</a>;

<sup>&</sup>lt;sup>37</sup> "Russia Opens Fire to Force Black Sea Cargo Ship Inspection", Bloomberg, 13.08.2023, <a href="https://www.bloomberg.com/news/articles/2023-08-13/russia-opens-fire-to-force-black-sea-cargo-ship-inspection">https://www.bloomberg.com/news/articles/2023-08-13/russia-opens-fire-to-force-black-sea-cargo-ship-inspection</a>;

<sup>&</sup>lt;sup>38</sup> OMV Petrom, "Neptun Deep project makes significant progress: more than 80% of the execution agreements have been awarded", 12.12.2023, <a href="https://www.omvpetrom.com/en/news/neptun-deep-project-makes-significant-progress-more-than-80-percent-of-the-execution-agreements-have-been-awarded-">https://www.omvpetrom.com/en/news/neptun-deep-project-makes-significant-progress-more-than-80-percent-of-the-execution-agreements-have-been-awarded-</a>

of gas out of Neptune Deep, generating revenues of at least 25 billion USD, equivalent to Romania's three-year defense budget.<sup>39</sup>

Russia's actions, including the obstruction of perimeters, mine placement, and electronic warfare, such as GPS signal jamming and interference with ship communications, pose a threat to the construction of critical infrastructure, potentially leading to delays and increased costs for operators. Romania's energy infrastructure development, aimed at transforming Romania into a gas exporter and reducing Gazprom's influence in the region, underscores the need for Romania's NATO and EU allies to comprehend the energy and political implications of the Neptune Deep exploitation in the context of very possible acts of harassment by Russia. It is imperative that these allies stand ready to support Romania in deterring Russia's aggressive actions. The potential for harassment between Romania, a NATO state and Russia is further complicated by the provisions of the Montreux Convention and Türkiye's interpretation of its terms, which restrict the entry of non-Black Sea state NATO ships into the region, thereby limiting NATO's ability to provide naval support to Romania.<sup>40</sup> Since the beginning of the Russian invasion in Ukraine, in February 2022, no NATO ship from a country outside the Black Sea has ever entered the sea.

In the worst case scenario on the Ukrainian front, in 2024 Russia could resume its offensive towards Mykolaiv-Odesa, posing the risk of Russia occupying the entire Black Sea littoral of Ukraine and the Snake Island, which is located very close to the Danube Delta, just a short distance from Romania's territorial waters and EEZ. If Russia occupies the Snake Island, it may refuse to recognize the 2009 International Court of Justice decision that established the boundaries between Romanian and Ukrainian EEZs. At that time, the International Court of Justice decided in favor of Romania, granting Romania 9700 km² out of 11,000 km² in dispute.<sup>41</sup>

Russia could argue that this court ruling is not enforceable towards it and may reject Romania's jurisdiction over the EEZ area that it has controlled since 2009.<sup>42</sup>

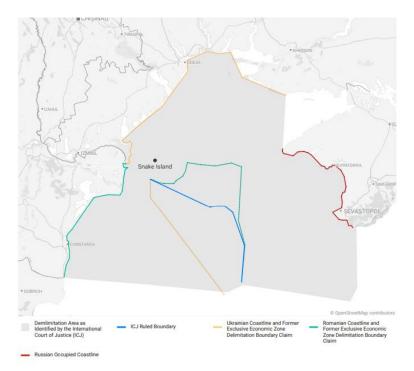
The Snake Island has a particular importance for freedom of navigation in the Western Black Sea and for the safety of development of offshore gas reserves. The Russian military presence on the Snake Island will increase the danger of hostile acts in Romania's EEZ. If Russia reoccupies the Snake Island, it will turn it into a platform for surveillance of naval traffic and electronic warfare equipment and from there it can harass naval traffic between the Danube and Black Sea ports, but also from Odesa and Istanbul. Russia can disrupt not only freedom of navigation in the Western Black Sea, but also on the Danube. The Black Sea has two gateways, the Bosporus and Dardanelles Straits and the mouth of the Danube. The freedom of traffic on the Danube is important for all riparian states, starting with Germany and continuing with Austria, Slovakia, Hungary, Serbia, Bulgaria and Romania. The Danube can be used to reach the whole of Europe or even the North Sea via the Danube-Main-Rhine canal. For all these reasons, it is crucial for the Snake Island to remain with Ukraine.

<sup>&</sup>lt;sup>39</sup> Presentation of George Scutaru for "New Concepts, Technologies & Equipment for Romanian Naval Forces Development" conference, November 2023;

<sup>&</sup>lt;sup>40</sup> New Strategy Center – Yorktown Institute, "The Battle for the Black Sea! The Importance of Freedom of Navigation and Energy Stakes", 2023, <a href="https://newstrategycenter.ro/project/the-battle-for-the-black-sea-the-importance-of-freedom-of-navigation-and-energy-stakes-2/">https://newstrategycenter.ro/project/the-battle-for-the-black-sea-the-importance-of-freedom-of-navigation-and-energy-stakes-2/</a>,

<sup>&</sup>lt;sup>41</sup> New Strategy Center - Norwegian Institute of International Affairs, "How the Snake Island matters in the context of the 2022 war in Ukraine", 2022, <a href="https://newstrategycenter.ro/project/nsc-nupi-publish-the-studies-the-black-sea-militarization-frozen-conflicts-and-hybrid-warfare/">https://newstrategycenter.ro/project/nsc-nupi-publish-the-studies-the-black-sea-militarization-frozen-conflicts-and-hybrid-warfare/</a>;

<sup>&</sup>lt;sup>42</sup> New Strategy Center & Center for European Policy Analysis (CEPA), "The Strategic Importance of Snake Island", 2022, <a href="https://newstrategycenter.ro/project/the-strategic-importance-of-snake-island/">https://newstrategycenter.ro/project/the-strategic-importance-of-snake-island/</a>.



Source: New Strategy Center & Center for European Policy Analysis (CEPA), "The Strategic Importance of Snake Island", 2022, <a href="https://newstrategycenter.ro/project/the-strategic-importance-of-snake-island/">https://newstrategycenter.ro/project/the-strategic-importance-of-snake-island/</a>

In the event of a frozen conflict in Ukraine, it is anticipated that Crimea will continue to be occupied by Russia, resulting in Romania de facto bordering the Russian Federation on the Black Sea, just as it does today. Russia will continue to exhibit assertive behavior in the western Black Sea and in the EEZ adjacent to Crimea, in order to assert its abusive sovereignty over the region, despite the lack of recognition from the international community.

#### **Conclusions and recommendations**

Given Russia's behavioral pattern, we should consider definite Russian harassment actions against Romania's efforts to build the critical energy infrastructure of its Black Sea Exclusive Economic Zone and develop the Neptune Deep project. Romanian gas from the Black Sea will mean not only Romania's energy independence, but also the removal of Russia's energy blackmail against countries such as Republic of Moldova or Bulgaria. It is quite possible that Hungary will also benefit from some of the Romanian gas from the Black Sea, since importing a quantity of gas from the Black Sea will reduce imports from Russia.

The success of gas exploitation in the Neptune Deep perimeter will encourage OMV Petrom Company to start similar actions to build critical energy infrastructure in Bulgarian waters in order to start gas exploitation in the

Khan Asparuh perimeter. In this way, Bulgaria will transform from an energy vulnerable country, in need for imports and constantly under pressure from Russia, into a country that secures all its consumption from its own sources and that becomes an exporter of gas to the region, with a major impact especially on the energy independence of the Balkan countries.

Romania is trying to improve its naval capabilities faster. It has bought two minesweepers from the UK, one arriving in Romania in December 2023 and the other due to join the Navy in summer 2024. It has also upgraded the engines of four missile ships and will upgrade their armaments. Romania signed a contract for four Naval Strike Missile systems, worth \$128 million, with American company Raytheon, trying to improve its coastal defense. In addition, Bucharest has developed new endowments programs for unmanned systems and ISR capabilities. However, all these programs take time and the defense industries in Europe and the US are facing long delays in armaments deliveries because of pressure on the Ukraine battlefield. This is precisely why Romania needs support from NATO allied states to bring anti-ship missile systems, anti-submarine warfare and ISR capabilities to the Black Sea coast to deter provocative Russian actions.

Given the interest of the three NATO Black Sea states in exploiting gas from their Exclusive Economic Zones, there is a need for increased naval cooperation between Romania, Bulgaria and Türkiye. The first step has been taken with the joint initiative of the three countries to fight against floating mines in the Black Sea, but cooperation can be extended to protect critical energy infrastructure as well. Joint exercises and especially patrol missions, primarily by Turkish and Romanian ships between the Neptune Deep field in the Romanian EEZ and Sakarya field in the Turkish EEZ, can be an effective tool to deter hostile Russian actions.

According to maritime law, a platform has a safety zone of 500 meters around it and is considered sovereign territory, which makes it easy to protect it, including from a legal perspective. However, the Exclusive Economic Zone does not have a legal status similar to that of territorial waters, so it is not covered by NATO's Article 5, which encourages Russia to behave much more aggressively in this area. The most sensitive time is when the critical infrastructure is being built, when the drilling ships come in, stretch the pipelines ashore and bring in the platforms. This will require a high level of cooperation between NATO countries in the Black Sea, but also an awareness on the part of NATO, as a whole, of the security risks to Romania and the Alliance.

The obvious concern not to escalate the security situation in the Black Sea and to diminish the possibility of a confrontation with Russia must not turn however, into an encouragement for Russia to be even more aggressive in its actions to undermine the freedom of navigation and the energy projects of NATO and EU Black Sea states. NATO's attitude should not be seen and understood by Russia as a sign of weakness or lack of political will to show solidarity with an ally facing Russian challenges. Russia's disinformation campaigns and Romanian Euro-sceptic and populist politicians, who spread Russian narratives, can turn NATO's hesitations into so-called "clear signals" that the Alliance will not help Romania, with a serious negative effect on the morale of Romanian citizens and the reputation of NATO, the EU and the US in Romania. In addition, it must be reminded, that 2024 is an election year in Europe and the US, where Russia will try to influence the election results and support, overtly or covertly, populist parties and candidates, while in Romania there will be four rounds of elections, for the European Parliament, and local, parliamentary, and presidential elections. Considering the important role Romania plays in supporting Ukraine, with the Romanian ports on the Danube and the Black Sea transiting 65% of Ukraine's grain exports, and Romania's importance in the energy sector, we should expect that in 2024 we will see extensive Russian-generated disinformation campaigns to diminish support for Ukraine and affect political stability in Romania, the election results, the popular trust in the EU and NATO and, not least, the success of Black Sea energy project.

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Author: George Scutaru, CEO, New Strategy Center

Research support: Dilara Kakillioglu, External Relations Expert, New Strategy Center

Peer review: Laurentiu Pachiu, Vice president, Energy Policy Group, Romania

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#### **ABOUT THE AUTHOR**

George Scutaru is one of the founders and the CEO of the New Strategy Center, the leading Romanian think tank in security and foreign affairs field, founded in July 2015. He started his professional career in journalism, in Bucharest, then as a press correspondent to Moscow, before he became the general director of a press monitoring and consultancy agency in Romania. Between 2004 and 2014, he was a member of the Parliament of Romania, the Chamber of Deputies. In that period, he successively held the positions of Secretary (2004-2008) and Vice-Chairman (2008-2014) of the Committee on Defense and National Security. Between 2014 and 2015, he was national security advisor to the President of Romania. On behalf of the President, Scutaru coordinated the entire negotiation process for the national agreement, assumed in 2015 by all Romanian political parties from the Parliament, for a 2% of the GDP financing of the defense sector, which triggered an extensive modernization process of the Romanian Armed Forces and enhanced the interoperability with NATO and the US. George graduated from the Faculty of History (University of Bucharest) and a Master in International Relations. He also graduated from the National Defense College and the National Intelligence College in Bucharest, and attended training courses and programs at the NATO College in Rome, the G.C. Marshall European Center for Security Studies and the US Department of State.

Area of expertise: Russia, security challenges in the Black Sea region. He is author of several studies dedicated to Russia's strategy in the Black Sea region, Russian hybrid warfare and aspects related to energy security in the wider Black Sea region.

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