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How to Deter Russia: More (Nuclear) May Be Better?

by Polina Sinovets and Adérito Vicente

On 28 February 2025, the controversial meeting between United States's President Donald Trump and Ukrainian President Volodymyr Zelensky created the impression that the US was eager to conclude the war in Ukraine without prioritising its long-term consequences.[1] This event, coupled with the US Defence Secretary Pete Hegseth's declaration that Ukraine will not join NATO and the suspension of US weapons supplies, pressured Ukraine into peace negotiations.[2] So, under a Trump administration, Ukraine's government must carefully weigh its security options, possibly also considering a nuclear weapon.[3]

[1] C-SPAN, "Full Meeting between President Trump, VP Vance and Ukrainian President Zelensky in Oval Office" (video), in *YouTube*, 28 February 2025, https://youtu.be/7pxbGjvcdyY; Steve Holland et al., "Trump and Zelenskiy Clash, Leaving Ukraine Exposed in War with Russia", in *Reuters*, 1 March 2025, https://www.reuters.com/world/trump-zelenskiy-sign-minerals-deal-white-house-meeting-2025-02-28.

[2] US Department of Defense, *Opening Remarks by Secretary of Defense Pete Hegseth at Ukraine Defense Contact Group (As Delivered)*, 12 February 2025, https://www.defense.gov/News/Speeches/Speech/Article/4064113/opening-remarks-by-secretary-of-defense-pete-hegseth-at-ukraine-defense-contact; Andrew Roth and Oliver Holmes, "US Suspends All Military Aid to Ukraine in Wake of Trump-Zelenskyy Row", in *The Guardian*, 4 March 2025, https://www.theguardian.com/p/xxy5k3. However, in a surprising shift, the United States agreed on 11 March to resume military aid and intelligence sharing with Ukraine after Kyiv expressed readiness to support Washington's proposal for a 30-day ceasefire with Russia. See US and Ukraine, *Joint Statement on the United States-Ukraine Meeting in Jeddah*, 11 March 2025, https://www.state.gov/joint-statement-on-the-united-states-ukraine-meeting-in-jeddah. This sudden change in policy demonstrates the complex and rapidly evolving nature of the conflict and international diplomacy surrounding it.

[3] Oleg Sukhov, "Will Ukraine Develop Its Own Nuclear Weapons?", in *The Kyiv Independent*, 6 November 2024, https://kyivindependent.com/with-trump-back-in-white-house-can-ukraine-opt-for-nuclear-deterrence; Elena Davlikanova, "Ukraine Can Go Nuclear — Should It?", in *CEPA Articles*, 22 October 2024, https://cepa.org/?p=34400; Alexander K. Bollfrass, "Are Nuclear Weapons an Option for

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In this context, Zelensky's remark, 'Ukraine in NATO or nuclear weapons', has further fueled domestic and international debates.[4] According to an opinion poll conducted by the Kyiv International Institute of Sociology, public backing for nuclear armament rose from 30 per cent in 1994 to 73 per cent by December 2024.[5] Trump's return to power appears to have further diminished Ukrainian confidence in NATO accession, with 27-44 per cent declaring to be ready to give it up in different regions of Ukraine.[6]

Ukraine's nuclear capacities

This shift in sentiment has reignited debates about Ukraine's technical capacity to develop nuclear weapons. A 2024 report commissioned by the Ukrainian Ministry of Defence, concluded that Ukraine possessed the capability to build a nuclear bomb.[7] The report highlighted that Ukraine could utilise spent plutonium fuel from its civilian nuclear power reactors, estimated at approximately seven tons. Historically, the US-made Fat Man bomb, dropped on Hiroshima in 1945, relied on a plutonium core activated by an internal blast – a technological approach well within Ukraine's scientific reach.[8] Given Ukraine's longstanding expertise in nuclear physics dating back to Soviet times, particularly through institutions like the Kharkiv Institute of Physics and Technology, Ukrainian scientists would face minimal technical barriers in developing nuclear weapons.

Moreover, given its available plutonium reserves, Ukraine could theoretically develop a substantial arsenal of tactical nuclear weapons – precisely the type needed to deter Russian aggression. However, the country lacks the necessary reprocessing facilities to extract and weaponise this material, which would require significant time and resources.[9] Adapting existing Ukrainian missile platforms for nuclear delivery instead would pose minimal technical challenges, as the country already manufactures several missile models that could be modified for this purpose.[10]

Ukraine?", in *IISS Online Analyses*, 7 February 2025, https://www.iiss.org/online-analysis/online-analysis/2025/02/are-nuclear-weapons-an-option-for-ukraine; Casey Michel, "Ukraine Now Faces a Nuclear Decision", in *Foreign Policy*, 7 November 2024, https://foreignpolicy.com/2024/11/07/ukraine-now-faces-a-nuclear-decision.

[4] Nate Ostiller, "Zelensky Says He Told Trump that Either Ukraine Will Join NATO or Pursue Nuclear Weapons", in *The Kyiv Independent*, 17 October 2024, https://kyivindependent.com/zelensky-says-he-told-trump-that-either-ukraine-will-join-nato-or-pursue-nuclear-weapons; Mariana Budjeryn, "'NATO or Nukes': Why Ukraine's Nuclear Revival Refuses to Die", in *Bulletin of the Atomic Scientists*, 1 November 2024, https://thebulletin.org/?p=117262.

[5] Kyiv International Institute of Sociology, *Attitude towards Ukraine's Restoration of Nuclear Weapons*, 23 December 2024, https://www.kiis.com.ua/?lang=eng&cat=reports&id=1461.

[6] Ipsos, *The Economist Ukrainian Citizens Attitudes Survey*, March 2025, p. 8, https://www.ipsos.com/en/survey-ukranian-citizens.

[7] Maxim Tucker, "Could Zelensky Use Nuclear Bombs? Ukraine's Options Explained", in *The Times*, 14 November 2024, https://www.thetimes.com/article/2343d101-1c8e-4ca4-a4c1-913ce31e9e42.

[8] Ibid.

[9] Mariana Budjeryn and Matthew Bunn, "Ukraine Building a Nuclear Bomb? Dangerous Nonsense", in *Bulletin of the Atomic Scientists*, 9 March 2022, https://thebulletin.org/?p=95137.

[10] Peter Dickinson, "Ukraine Is Expanding Its

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The political constraints

However, numerous constraints exist. Besides technical and financial barriers, there are significant political and strategic limitations.

Primarily, there are international legal and normative constraints. Ukraine's 1994 accession to the Nuclear Non-Proliferation Treaty (NPT) as a non-nuclear state binds it to international non-proliferation norms.[11] Reversing this status would provoke global condemnation, isolate Kyiv diplomatically, and expose it to the risk of sanctions. The Budapest Memorandum, despite its failures, reinforced Ukraine's commitment to disarmament in exchange (theoretically) for security assurances. A nuclear reversal would undermine Ukraine's moral standing as a victim of Russian aggression and alienate allies.

Subsequently, there might be some geopolitical repercussions. First, the loss of Western support may be a reality if Ukraine pursues nuclear weapons, jeopardising military and financial aid from NATO allies. Ukraine's heavy reliance on Western military and financial aid is evident, with total support from its Western allies exceeding 200 billion euros by October 2024.[12] Second, as far a potential Russian retaliation is concerned, nuclearisation could legitimise Russia's narrative of an "existential threat",[13] justifying harsher measures based on Russia's historical hypersensitivity to NATO expansion and making preemptive strikes a genuine risk.

Indeed, an indigenous Ukrainian nuclear programme would face critical and strategic vulnerabilities. For instance, its facilities could be exposed to a pre-emptive strike by Russia. Furthermore, in its initial stages, Kyiv would likely lack a credible second-strike capability. A limited arsenal and underdeveloped infrastructure would render Ukraine's nuclear deterrent highly susceptible to a Russian first strike.[14]

Ukrainian and European nuclear deterrence

Notwithstanding, the evolving security landscape in Europe has introduced new uncertainties. In particular, the growing divide between the United States and its European partners has reignited discussions on European nuclear deterrence.[15] Smaller powers

Long-Range Arsenal for Deep Strikes inside Russia", in *UkraineAlert*, 10 December 2024, https://www.atlanticcouncil.org/?p=813131.

[11] Russia, Ukraine, UK and USA, *Memorandum on Security Assurances in Connection with Ukraine's Accession to the Treaty on the Non-Proliferation of Nuclear Weapons*, Budapest, 5 December 1994, https://treaties.un.org/Pages/showDetails.aspx?objid=0800000280401fbb.

[12] Torbjörn Becker et al., "Ukraine's Fight Is Our Fight: The Need for Sustained International Commitment", in *Free Network Policy Briefs*, February 2025, p. 2, https://freepolicybriefs.org/?p=11457.

[13] Isabel van Brugen, "What If Ukraine Hadn't Given Up Its Nuclear Weapons?", in *Newsweek*, 14 March 2025, https://www.newsweek.com/ukraine-give-nuclear-weapons-russia-war-2044266.

[14] Alexander K. Bollfrass, "Are Nuclear Weapons an Option for Ukraine?", cit.

[15] Steven Erlanger, "As Trump Stirs Doubt, Europeans Debate Their Own Nuclear Deterrent", in *The New York Times*, 15 March 2025, https://www.nytimes.com/2025/03/15/world/europe/nuclear-deterrent-trump.html.

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seem to no longer trust Washington's promises.[16] On 5 March, French President Emmanuel Macron reiterated the idea of extending France's nuclear deterrent to European partners.[17] Friedrich Merz, likely to be the next German chancellor, expressed his openness to the idea.[18]

In our view,[19] concerns exist as to whether expanding France's deterrent – currently considered minimal compared to Russia's – would result in a credible enough force.[20] So, the question remains: will this evolving idea of a European deterrent serve to protect Ukraine?

The Polish factor

In the emerging global nuclear order, European nuclear deterrence is no longer the sole concern of France, Germany or the United Kingdom. Poland has recently voiced its interest in nuclear weapons on two occasions – either by developing its own arsenal or by hosting US nuclear weapons.[21]

Would President Trump consider deploying US tactical nuclear weapons on Polish territory, particularly given that such a move would be unacceptable to Putin? Russia has consistently insisted on the removal of NATO military infrastructure from the territories of new member states as a key condition for peace with Ukraine. Deploying American nuclear weapons in Poland would directly challenge these demands, potentially escalating tensions.

Against this backdrop, could Poland – one of Ukraine's staunchest allies in the war – become instead Kyiv's partner in nuclear cooperation? Ukraine possesses the necessary materials and expertise, while Poland offers relative security, political ambition and a rapidly expanding defence sector, with

[16] Jeffrey Lewis, "Europe Is Ready to Shelter Under France's Nuclear Umbrella", in *Foreign Policy*, 20 March 2025, https://foreignpolicy.com/2025/03/20/poland-france-nuclear-weapons-trump-europe-defense.

[17] "Macron Proposes French Nuclear Extension, Ukraine Troop Deployment in Case of Ceasefire", in *Le Monde*, 5 March 2025, https://www.lemonde.fr/en/international/article/2025/03/05/macron-says-he-will-open-debate-on-using-french-nuclear-deterrence-to-protect-europe_6738859_4.html; French Presidency, *Speech of the President of the Republic on the Defense and Deterrence Strategy*, 7 February 2020, https://www.elysee.fr/en/emmanuel-macron/2020/02/07/speech-of-the-president-of-the-republic-on-the-defense-and-deterrence-strategy.

[18] "Germany's Merz Repeats He's Open to France Extending Nuclear Deterrent", in *Le Monde*, 9 March 2025, https://www.lemonde.fr/en/germany/article/2025/03/09/germany-s-merz-open-to-france-extending-nuclear-deterrent_6738977_146.html.

[19] Adérito Vicente, *Why Europe Needs a Nuclear Deterrent: A Critical Appraisal*, Brussels, Martens Centre, October 2024, https://www.martenscentre.eu/?p=11471.

[20] Lawrence Freedman, *The Evolution of Nuclear Strategy*, 3rd ed., Basingstoke, Palgrave Macmillan, 2003, p. 195; Bruno Tertrais, "French Nuclear Deterrence Policy, Forces, and Future: A Handbook", in *FRS Recherches & Documents*, No. 4/2020 (February 2020), p. 29, https://frstrategie.org/en/publications/recherches-et-documents/french-nuclear-deterrence-policy-forces-and-future-handbook-2020.

[21] Andrew Higgins, "Alarmed by Trump, Poland Must Look at Nuclear Options, Premier Says", in *The New York Times*, 7 March 2025, https://www.nytimes.com/2025/03/07/world/europe/poland-nuclear-trump-tusk.html; Aleksandra Krzysztoszek and Charles Szumski, "Poland 'Ready' to Host Nuclear Weapons, Polish President Says", in *Euractiv*, 22 April 2024, https://www.euractiv.com/?p=2080826.

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military spending reaching 4.7 per cent of GDP.

Most importantly, both Poland and Ukraine have expressed interest in nuclear capabilities as a response to perceived Russian aggression, in order to establish a credible defence against potential Russian military actions. Both countries have historical experiences of Russian domination and view nuclear weapons as a potential equaliser in the face of Russia's superior conventional forces.

Looking ahead

Creating a Polish-Ukrainian nuclear deterrent would require overcoming significant political, technical and strategic challenges. However, with careful planning and international coordination, several steps could make it viable. First, legal and diplomatic foundations would need to be established. Both Poland and Ukraine are signatories to the NPT, necessitating either a withdrawal or renegotiation of its terms to allow limited nuclear capabilities under strict international oversight. Gaining international support would be crucial, particularly from key Western allies like the US and NATO, to minimise the diplomatic fallout and frame the deterrent as a response to Russian aggression.

Second, shared infrastructure and resources would be essential for the success of this initiative. Poland, leveraging its NATO membership, could integrate into the alliance's nuclear-sharing programme, enabling the stationing of US nuclear weapons in Poland while involving Ukraine in operational planning. The two nations could also collaborate on the joint development of delivery systems, such as dual-capable aircraft and missile systems, with Poland's F-35 programme potentially expanded to accommodate nuclear missions. Poland, for example, plans to certify its F-35A aircraft for NATO's B61 nuclear bombs, thereby enhancing its nuclear capabilities.[22] However, this effort is primarily focused on the air-based nuclear leg. Consequently, cooperation with Ukraine might be necessary to also encompass the land-based leg ensuring intermediate range capabilities, necessary for the deterrence of Russia.[23]

Third, technical and financial collaboration would be key. Ukraine could focus on missile development, while Poland could focus on infrastructure.[24] Additionally, the

[22] Fabian Hoffmann, "The Future of the Zeitenwende: Scenario 5—Poland Becomes a Nuclear Power", in *Internationale Politik*, 29 January 2024, https://ip-quarterly.com/en/node/40018.

[23] Following the withdrawal of the US and Russia from the Intermediate-Range Nuclear Forces Treaty, Ukraine announced plans to develop intermediate-range cruise missiles, including the R-360 Neptune. On 18 November 2024, Ukraine reported that serial production of Neptune missiles had expanded, with 100 units produced that year. Additionally, there were plans to extend the missile's range from 400 to 1,000 kilometres, exceeding the 500-kilometer range of the Taurus cruise missile. See "Ukraine Scales Up Advanced Neptune Missile Production - Defense Chief", in *Ukrinform*, 18 November 2024, https://www.ukrinform.net/rubric-defense/3928546-ukraine-scales-up-advanced-neptune-missile-production-defense-chief.html.

[24] Poland has committed to constructing three civilian nuclear power reactors using Westinghouse technology, with construction set to begin in 2026 and completion expected by 2033. See World Nuclear Association, *Nuclear Power in Poland*, last updated on 23 January

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alliance could seek international partnerships with states like France (or the UK) for the provision of technical support under a broader European framework.[25]

Fourth, public support and strategic messaging are essential. Both governments would need to build domestic consensus by framing the deterrent as a defensive measure aimed at national security. To mitigate international backlash, the alliance should present the deterrent as serving regional stability rather than aggression.

Finally, minimising risks is critical. The alliance must ensure transparency with international partners and avoid provocative deployments near Russian borders to prevent pre-emptive actions from Moscow. Moreover, to ensure the deterrent's credibility, the development of mobile or hardened missile systems would enhance survivability in the face of potential attacks.

These steps, though ambitious, could pave the way for a viable Polish-Ukrainian nuclear deterrent, contingent upon careful negotiation and coordination at the political, technical and strategic levels.

Still, the pursuit of nuclear weapons by Poland and Ukraine – even under Polish command and control – would encounter formidable challenges. Developing a nuclear arsenal requires extensive resources, advanced technical expertise and substantial financial investment, likely exceeding the two countries' current capacities. Moreover, such an endeavour could trigger pre-emptive action from Russia, exacerbating regional instability. Given all these political, technical and strategic constraints, the production of even a single warhead could take years – far too long to meet Ukraine's immediate security needs. Nonethless, this should not prevent us from discussing the matter seriously.

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2015, https://world-nuclear.org/information-library/country-profiles/countries-o-s/poland. While these reactors will generate plutonium, their design and international safeguards make its weaponisation highly challenging. However, if Poland were to pursue nuclear weapons development, it would need to establish facilities for uranium enrichment or chemical reprocessing to extract plutonium from spent fuel – processes that require significant investment and expertise, similar to Iran's nuclear programme. See Jeffrey Lewis, "Europe Is Ready to Shelter Under France's Nuclear Umbrella", cit.

[25] Andrew Naughtie, "Could Another European Country Develop Its Own Nuclear Weapons?", in *Euronews*, 21 March 2025, https://www.euronews.com/2025/03/21/could-another-european-country-develop-its-own-nuclear-weapons.

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