



# NATO's Concept of Cognitive Warfare

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**“Cognitive warfare is not the means by which we fight; it is the fight itself. The brain is both the target and the weapon in the fight for cognitive superiority. Contesting in this environment comprises deliberate, synchronized military and non-military activities throughout the continuum of competition designed to gain, maintain and protect cognitive advantage.”<sup>1</sup>**

**“Warfare has changed dramatically with advanced technologies, whole-of-society involvement, and increased global interconnectivity. More people are unable to differentiate between legitimate and manipulated information. Improving the Alliance-wide understanding of Cognitive Warfare is a priority for NATO member nations and partners.”<sup>2</sup>**

**Cognitive warfare describes the expansion of warfare into a phenomenon that is harder to define than conventional warfare. The concept emphasises broader societal perspectives beyond just the military, but at the same time it is a dimension of warfare. Based on public sources, this review explores how cognitive warfare has been defined within NATO's framework. The review discusses the definition of cognitive warfare and its implications for society and the armed forces. In addition, it identifies specific features of cognitive warfare in relation to information warfare and psychological operations.**

## Basis for the Review

NATO's highest doctrine regards the cognitive dimension as one of the dimensions of the engagement space, alongside the physical and virtual.<sup>3</sup> NATO's concept of cognitive warfare was finalised in 2025. Over twenty NATO member countries and stakeholders participated in its development. The goal was to create a shared understanding of the dynamics and mechanisms of cognitive warfare, as well as to outline methods to improve NATO's cognitive resilience and capabilities.<sup>4</sup> Cognitive warfare was defined as actions executed in a synchronised manner with other instruments of power. The enemy's goal is to influence attitudes

and behaviour through cognition.<sup>5</sup> Cognitive influence is used as part of broader geopolitical strategies and is used to disrupt decision-making processes, weaken national unity, cause fragmentation, and undermine the ability to act in conflict situations.<sup>6</sup> Cognitive warfare utilises all available knowledge and tools that can influence human behaviour through cognition.<sup>7</sup>

NATO's concept has been classified under "*NATO Unclassified*," so direct referencing of it is not possible in a public research review. This review explores NATO's perspective on cognitive warfare by using publicly available sources, such as bulletins on concept development and other materials published by NATO Allied Command Transformation.

The theoretical-methodological starting point of this review is that concepts have both a semantic and a pragmatic dimension. The semantic dimension refers to the way concepts structure the surrounding world and shape perceptions of reality.<sup>8</sup> The pragmatic dimension refers to how concepts are used in arguments as part of discussions about a particular topic.<sup>9</sup> In concept-focused studies, both dimensions can be considered by examining how the concepts convey understandings of societal structures, power relations, or other macro-level phenomena. Additionally, it is important to explore the goals promoted through the arguments in which the concepts are used.

In this review, this kind of conceptual research approach is applied to study firstly, what kind of image of war NATO's definitions and concept of cognitive warfare represent. Secondly, the review discusses, what kind of thinking and action patterns NATO's concept demands from society and the military.

The review was motivated by the research work that has been done in the ongoing *Multinational Capabilities Development Campaign* (MCDC) community project (2025–2026), which is focused on

<sup>1</sup> NATO ACT: *Cognitive warfare*. <https://www.act.nato.int/activities/cognitive-warfare/>, accessed 16.12.2025.

<sup>2</sup> NATO ACT: *Cognitive warfare: Strengthening and defending the mind. 2023*. <https://www.act.nato.int/article/cognitive-warfare-strengthening-and-defending-the-mind/>, accessed 16.12.2025.

<sup>3</sup> NATO Standard. AJP-01. Allied Joint Doctrine. 2022, s. 91-92. [https://www.coemed.org/files/stanags/01\\_AJP/AJP-01\\_EDF\\_V1\\_E\\_\(1\)\\_2437.pdf](https://www.coemed.org/files/stanags/01_AJP/AJP-01_EDF_V1_E_(1)_2437.pdf), accessed 15.1.2026.

<sup>4</sup> NATO ACT: *Allied Command Transformation develops the Cognitive Warfare Concept to Combat Disinformation and Defend Against “Cognitive Warfare”*. 2024.

<https://www.act.nato.int/article/cogwar-concept/>, accessed 16.12.2025.

<sup>5</sup> NATO ACT (2023).

<sup>6</sup> Deppe, Christoph & Gary S. Schaal: *Cognitive warfare: a conceptual analysis of the NATO ACT cognitive warfare exploratory concept*. *Front. Big Data* 7:1452129, 2024, p. 04–06. doi: 10.3389/fdata.2024.1452129.

<sup>7</sup> Blatny, Janet M. & Steen Søndergaard: *Cognitive Warfare: NATO Chief Scientist Research Report*. NATO Science and Technology Organization, 2025, p. 7. <https://www.sto.nato.int/wp-content/uploads/chief-scientist-report-cognitive-warfare-4.pdf>, accessed 5.1.2026.

<sup>8</sup> Koselleck, Reinhart: *The Practice of Conceptual History: Timing History, Spacing Concepts*. Stanford (Calif.): Stanford University Press 2022.

<sup>9</sup> Skinner, Quentin: *Rhetoric and Conceptual Change*. *Finnish Yearbook of Political Thought* 3, University of Jyväskylä 1999, p. 60–73; Skinner, Quentin: *Visions of Politics. Volume 1: Regarding Method*. Cambridge University Press 2022.



writing a book on countering cognitive warfare.<sup>10</sup> The forthcoming *Countering Cognitive Warfare* book emphasises actions aimed at strengthening resilience at both the societal and individual levels. At the end of this review, the response these actions bring to NATO's concept of cognitive warfare will be highlighted, along with other areas of development that should be further prioritised.

Next, the review illustrates the unique features of cognitive warfare by examining how research literature has positioned cognitive warfare especially in relation to information warfare and psychological operations. This is followed by an analysis of NATO's concept, first from the perspective of the image of warfare and then from the perspective of the demands placed on society and the military. Finally, the review returns to reflect on the implications NATO's concept has for preparing for and responding to cognitive warfare.

### Special Features of Cognitive Warfare

In scientific definitions, cognitive warfare is presented as an enemy's attempt to deeply influence the cognitive processes and perceptions of people in the target society. The enemy seeks political, military, and societal effects, such as undermining the credibility of institutions that sustain society, and epistemic authorities like governments, authorities, the media, and science. The cognitive dimension has become more pronounced with the digital and technological development that has transformed warfare methods.<sup>11</sup>

Cognitive warfare has been noted to share similarities with the Russian definition of information warfare, which discusses massive psychological manipulation of populations to destabilise and erode decision-making in the state and society.<sup>12</sup> Other states, like China, have also integrated cognitive warfare into their hybrid warfare strategies, combining it with both military and non-military tools of influence.<sup>13</sup>

Academic research has tried to delineate the specific features of cognitive warfare by comparing it to information warfare and psychological warfare. Conceptually, cognitive warfare is often presented as a continuum of these two more established forms of warfare.<sup>14</sup>

Cognitive warfare differs from information warfare mainly by its broader aim to control mental processes rather than focusing on controlling the information environment and media landscape. The goal is to control how the target population reacts to presented information.<sup>15</sup> Actions in the information environment, for example in the media landscape, generates effects in the cognitive dimension.

Cognitive warfare also utilises information technology tools and structures and benefits from an information environment that has been disrupted by the spread of disinformation, propaganda, and conspiracy theories.<sup>16</sup> A central tactic in cognitive warfare is saturating the information environment with narrative floods that provoke strong emotional reactions, with content that may blur the line between reality and fiction. The management of narratives is a powerful weapon, and public discourse can be effectively manipulated, for example, by stoking fear and uncertainty.<sup>17</sup> In the context of the war in Ukraine, Russia has heavily relied on disinformation campaigns as part of its cognitive warfare strategy.<sup>18</sup>

Thus, the use of information remains central in cognitive warfare, but the goal is to influence deeper cognitive processes and behaviours, steering them toward outcomes that benefit the enemy. Cognitive warfare requires an understanding of neuroscientific and psychological processes, while information warfare operates more at the communication level. Information warfare can affect cognition, but it lacks the same effort to weaponise neuro-scientific knowledge to manipulate the processes of the human mind.<sup>19</sup>

In Finland, the discourse on information warfare has traditionally been broader, focusing on information influence as a societal issue that obscures the context of military warfare. The spreading of malicious information has been seen as a widespread threat to societal security, with particular emphasis on media literacy as a countermeasure.<sup>20</sup>

Finnish research has highlighted that this understanding of information influence does not capture the more comprehensive significance intended in cognitive warfare, where the target is human cognition through memory, emotions, attention, and perceptions. Technological advances have enabled deeper manipulation of individual and societal thinking patterns and

<sup>10</sup> More about the project and the book, see Kaarkoski, Miina & Toni Virtanen: Kognitiivinen sodankäynti – monikansallinen tutkimusprojektin esittely. *Puolustustutkimuksen vuosikirja* 2026. (forthcoming)

<sup>11</sup> See e.g. Hung, Tzu-Chieh & Tzu-Wei Hung: How China's Cognitive Warfare Works: A Frontline Perspective of Taiwan's Anti-Disinformation Wars. *Journal of Global Security Studies*, Vol. 7, Issue 4, 2022. <https://doi.org/10.1093/jogss/ogac016>; Miller, Seumans: Cognitive warfare: an ethical analysis. *Ethics Inf Technol* 25, 46, 2023. <https://doi.org/10.1007/s10676-023-09717-7>; Claverie, Bernard & François Du Cluzel: Cognitive Warfare: The Advent of the Concept of “Cognitics” in the Field of Warfare, *Cognitive Warfare: The Future of Cognitive Dominance*. Claverie, Bernard, Baptiste Prébot, Norbou Buchler & François du Cluzel, NATO Collaboration Support Office 2022, 978-92-837-2392-9, accessed 16.12.2025.

<sup>12</sup> Burda, Robin: *Cognitive Warfare as Part of Society: Never-Ending Battle for Minds*. Hague Centre for Strategic Studies 2023, p.3. <http://www.jstor.org/stable/resrep51454>, p. 3.

<sup>13</sup> Hung et al. (2022), p. 2–3.

<sup>14</sup> Burda (2023), p. 3; Miller (2023), p. 45.

<sup>15</sup> Bernal, Alonso, Cameron Carter, Ishpreet Singh, Kathy Cao & Olivia Madreperla, Olivia: *Cognitive Warfare – An Attack on Thought and Truth*. Baltimore MD: Johns Hopkins University 2020, p. 9. <https://innovationhub-act.org/wp-content/uploads/2023/12/Cognitive-Warfare.pdf>, accessed 16.12.2025.

<sup>16</sup> Miller (2023), p. 46; Claverie et al. (2022), p. 1–7.

<sup>17</sup> Paziuk, Andrii, Dmytro Lande, Elina Shnurko-Tabakova & Phillip Kingston: Decoding manipulative narratives in cognitive warfare: a case study of the Russia-Ukraine conflict. *Front. Artif. Intell.* 8:1566022, 2025, p. 02. doi: 10.3389/frai.2025.1566022.

<sup>18</sup> Burke, Paul, & Adam Henschke: I know my truth... now tell me yours: from active measures to cognitive warfare in the Russian invasion of Ukraine. *Strategic Panorama*, 2, 2023, p.13. <https://doi.org/10.53679/2616-9460.2.2022.02>.

<sup>19</sup> Hung (2023), p.2–3.

<sup>20</sup> Häkkinen, Teemu, & Hilkka Grahn: Placing Behavior in Context: Political Interpretations of Individual Behavior in Countering Information Warfare in Finland, *Proceedings of the 23rd European Conference on Cyber Warfare and Security*. Lehto, Martti & Mika Karjalainen (eds.), Academic Conferences International Ltd. Proceedings of the European Conference on Cyber Warfare and Security 23, 2024, p. 184–187. <https://doi.org/10.34190/ec-cws.23.1.2125>.



worldviews, leading to internal state fragmentation, weakening willingness to defend, and paralysing society.<sup>21</sup>

Compared to psychological warfare, a key difference in cognitive warfare is its primary focus on affecting society at large, rather than military targets that have clearer boundaries. The targets of cognitive warfare are typically civilian society and governments. Psychological operations used in military activities have not, at least historically, targeted as large a population as cognitive warfare aims to.<sup>22</sup>

Cognitive warfare differs from information operations (InfoOps), psychological operations (PsyOps), as well as STRATCOM and cyber operations in that it may not have a specific audience or target, and pre-defining the outcome may be difficult.<sup>23</sup> Psychological operations rely on distorted assumptions, cultural illusions, and weaknesses in personality, while cognitive warfare exploits cognitive overload, channeling, errors in judgment, and cognitive biases.<sup>24</sup>

### Weakening Societies by Manipulating the Human Mind

This section examines cognitive warfare from NATO's perspective and studies the image of warfare reflected in NATO's definitions. In these definitions, the central issue is the changed nature of warfare, particularly due to technological development and global interconnectedness. NATO emphasises that it is facing a new kind of threat, where battles are not fought solely with more concretely observable "bombs and missiles," but also through manipulating the human mind.<sup>25</sup>

NATO's definitions highlight technological development as the key transformative factor influencing the nature of cognitive warfare. Technological advancements have made societies globally vulnerable to hostile influence efforts.<sup>26</sup> These advancements include the development of artificial intelligence, emerging and disruptive technologies, and enhanced data harvesting. The exponential rise of digital platforms and social media usage has made it possible to conduct swift, anonymous, and hard-to-localise cognitive attacks in the information environment.<sup>27</sup>

The ability to influence public opinion and undermine trust in open sources of information has expanded, as the development of communication technologies has been coupled with the spread of false information and manipulation of perceptions.<sup>28</sup> Technology allows the manipulation of both civilian and military behaviour by exploiting various information channels and social media platforms. The enemy has broader opportunities to exploit the openness and interconnectedness of Western societies and target their citizens with propaganda and manipulation.<sup>29</sup>

In NATO's definitions, cognition refers to the processes of the human mind and all aspects of intellectual functioning, including the subconscious and emotions.<sup>30</sup> Cognitive attacks are more effective than ever before, as technological advancements have been combined with scientific knowledge of how individuals, groups, and societies operate. The effectiveness of influence campaigns relies on the deliberate manipulation of cognitive processes in the human mind, through which the enemy aims to instigate large-scale changes in attitudes and behaviour within target populations. Through technology, the enemy can more effectively identify societal division and polarising issues and exploit them to influence individuals' emotions, thoughts, and ultimately actions. Coordinated and synchronised attacks on emotions, thoughts, and behaviours can affect the will, morale, decision-making abilities, and situational awareness of people and groups in target societies.<sup>31</sup>

NATO's concept of cognitive warfare is based on an image of warfare where the enemy aims for effects not only in the physical and virtual dimensions but increasingly in the cognitive dimension as well.<sup>32</sup> Kinetic actions or the conquest of territories and resources may not necessarily occur. The enemy is seen as primarily aiming to conduct cognitive warfare while staying below the threshold of armed conflict, operating in a "gray zone."<sup>33</sup> Malicious influence campaigns target the erosion of trust in science, institutions, and governments.<sup>34</sup>

Thus, NATO's concept of cognitive warfare emphasises that technological changes have provided the enemy with new and more effective tools, which can be combined with scientific knowledge about how individuals, groups, and societies function, and how their behaviour can be manipulated.

NATO's concept of cognitive warfare reflects the understanding of an era in which the distinction between war and peace as separate, clearly defined situations no longer applies. Warfare can be conducted not only through significant human and material losses but also by attacking the minds of individuals with technology-assisted methods.<sup>35</sup>

More effective means are now available to undermine the cohesion, institutions, resilience, and national defense will of a target state. Such actions can pave the way for a future armed attack or advance the enemy's objectives without the need to cross the threshold of armed conflict. The concept emphasises that a state and society can be subjected to intense external influence without the more overt use of kinetic force, in contexts that are still framed within the notion of war.

### Mobilising the Society as a Whole

Based on the warfare image described above, it seems logical that NATO's concept of cognitive warfare defines it as a Whole-of-

<sup>21</sup> Saari, Dominic: (2024). Kognitiivinen sodankäynti: ihmismieli taistelulentä, *Sodan usvaa III: varautuminen, valmius ja nykyaikainen sodankäynti*. Palokangas, Marko (eds.), Maanpuolustuskorkeakoulu, Helsinki 2024, p. 149. <https://urn.fi/URN:ISBN:978-951-25-3451-7>.

<sup>22</sup> Bernal et al. (2020), p.7.

<sup>23</sup> Blatny et al. (2025), p. 10.

<sup>24</sup> Claverie et al. (2022), p. 2–4.

<sup>25</sup> NATO ACT (2024).

<sup>26</sup> NATO ACT (2023).

<sup>27</sup> Deppe et al. (2024), p. 04–06.

<sup>28</sup> NATO ACT: Cognitive warfare.

<sup>29</sup> Blatny et al. (2025), p. 4–6.

<sup>30</sup> NATO ACT (2023).

<sup>31</sup> Deppe et al. (2024), p. 04–06.

<sup>32</sup> Tähtinen Janne, Veikko Siukonen & Lauri Lyytinen: *Principles of Multi-Domain Operations*. Finnish Defence Research Agency. Research bulletin 10–2025. <https://puolustusvoimat.fi/documents/1951253/2815786/2025-10%20Principles%20of%20Multi-Domain%20Operations.pdf/ed95294a-a776-7dd7-af34-642a75b866af/2025-10%20Principles%20of%20Multi-Domain%20Operations.pdf?t=1749707677157>, accessed 16.12.2025.

<sup>33</sup> NATO ACT (2023).

<sup>34</sup> Blatny et al. (2025), p. 6.

<sup>35</sup> Ibid.



Society Problem.<sup>36</sup> The threshold of armed conflict does not necessarily need to be crossed, so the development of strategies, actions and countermeasures cannot be limited solely to the responsibility of the armed forces.

The concept stresses the need for a society-wide perspective, suggesting that the enemy or enemies will target the entire NATO alliance and its citizens to influence attitudes, decisions, and behaviour at the individual, group, and societal levels. It highlights the necessity of a comprehensive strategy to adapt to cognitive warfare conditions, including abstract-level societal issues such as improving resilience, protecting decision-making capabilities, and education.<sup>37</sup> Cognitive warfare requires reducing the adversary's capabilities, increasing resilience to withstand attacks, and enhancing individuals' cognitive abilities.<sup>38</sup>

Thus, NATO's concept emphasises the need to recognise that warfare has to be understood as a more deeply societal issue than perhaps before. The effects target the entire society, so the whole society must be mobilised to produce and maintain resilience. This includes a requirement for NATO member states to ensure that institutions and actors beyond the military are also responsible for protecting the society and people against cognitive warfare.

In Finland, the tradition of comprehensive security and conscription has long emphasised national defense and societal security as the responsibility of the entire society and every individual. The expansion of thought required by NATO's concept may not necessitate an equally significant change in Finland's context as in other NATO countries, where society and individuals are more detached from the duties related to warfare.

The other side of this "Whole-of-Society" approach is that the role of the military instrument of power in cognitive warfare may become unclear, especially when operating below the threshold of armed conflict. This is problematic, as it could alienate the military from the issue and complicate defense and capability planning.<sup>39</sup> NATO's definition, however, emphasises that cognitive warfare is conducted throughout the entire continuum of conflict, also when the threshold of armed conflict is crossed. Decision-making, missions, and forces are vulnerable to cognitive attacks during this period.<sup>40</sup>

The concept stresses that the military requires a clearer understanding and articulation of the significance of cognitive warfare from a military perspective. This includes a need to develop military capabilities to act in the cognitive dimension and to protect it. Further, protecting military capabilities and decision-making processes, and taking proactive actions to shape the information environment are required. Developing deterrence against external manipulation attempts is also included.<sup>41</sup>

NATO's concept highlights the necessity to achieve cognitive superiority.<sup>42</sup> Cognitive superiority refers to developing situational

awareness and strategic foresight, as well as expanding knowledge and understanding. Knowledge and understanding should be developed by using technology in all domains in ways that support forecasting, assessment, decision-making, and effectiveness.<sup>43</sup>

Understanding future warfare from the perspective of multi-domain operations requires an understanding of the cognitive dimension alongside the physical and virtual domains.<sup>44</sup>

### In Conclusion – Resilience, Deterrence, and Cognitive Superiority

NATO's concept of cognitive warfare sets the foundation for how member states should understand cognitive warfare and its requirements, both militarily and more broadly from a societal perspective. Similar to the concept of hybrid warfare, cognitive warfare refers to warfare but is often understood as non-military activity.<sup>45</sup> By definition, cognitive warfare blurs the line between war and peace and raises questions, especially regarding how it involves military forces, particularly when operating in the "gray" area below the threshold of armed conflict.

From the *Whole-of-Society* perspective, NATO's concept of cognitive warfare emphasises that the entire society and its actors must understand their participation and responsibilities in the ongoing battle for attitudes, behaviours, and perceptions. This requires actions that build trust within society, such as promoting openness, social cohesion, and general education. Research has highlighted the importance of public education and collaboration between administration and various societal actors to increase resilience.<sup>46</sup> In Finland, responding to cognitive warfare can be grounded in the model of comprehensive security and securing the vital functions of society.

Perspectives on strengthening societal resilience will be further explored in the upcoming *Countering Cognitive Warfare* book, to be published in late 2026 within the MCDC community.<sup>47</sup> The themes related to strengthening societal resilience are not inherently military in nature, but relate more broadly to the functioning capacity of society in various situations. The Finnish mindset emphasises that the Defense Forces are part of society, which fits within the cognitive warfare framework. The Defense Forces, through their actions, are integral to building key societal resilience themes like trust, cohesion, and willingness to defend the nation and the alliance.

NATO's concept also directly addresses the requirements of cognitive warfare for the military, which are divided into four points. First, the protection of military capabilities and decision-making in the cognitive dimension. This may include using technology for situational awareness, data management, and individual capability. The upcoming *Countering Cognitive Warfare* book discusses means to strengthen individual resilience,

<sup>36</sup> Deppe et al. (2024), p. 04–06.

<sup>37</sup> Ibid.

<sup>38</sup> Blatny et al. (2025), p. 8.

<sup>39</sup> Deppe et al. (2024), p. 04–06.

<sup>40</sup> NATO ACT (2023).

<sup>41</sup> NATO ACT (2024).

<sup>42</sup> NATO ACT: Cognitive warfare.

<sup>43</sup> NATO ACT: Warfighting Capstone Concept. Norfolk 2021.

<https://www.act.nato.int/our-work/nato-warfighting-capstone-concept/>, accessed 16.12.2025.

<sup>44</sup> Blatny et al. (2025), p. 11. On principles of multi-domain operations, see Tähtinen et al. (2025).

<sup>45</sup> On hybrid warfare, see Tähtinen, Janne: *Sotilaallinen paha päivä: Venäjän 2000-luvun sotatoimien vaikutukset suomalaiseen sodan ja taistelun kuvaan sekä Suomen sotilaalliseen puolustukseen*. Maanpuolustuskorkeakoulu, Helsinki 2024, p. 119. <https://urn.fi/URN:ISBN:978-951-25-3488-3>.

<sup>46</sup> Paziuk et al. (2025), p. 02; Wells, Linton: Cognitive-Emotional Conflict: Adversary Will and Social Resilience. *PRISM*, 7(2), 2017, p. 4–17. <http://www.jstor.org/stable/26470514>; Yanakiev, Yantsislav, Petko Dimov & Daniel Bachvarov: Conceptualizing the Role of Societal Resilience in Countering Hybrid Warfare. *Information & Security: An International Journal*, Vol. 39, Issue 1, 2018, p. 77–89. <http://dx.doi.org/10.11610/isij.3907>.

<sup>47</sup> See more in Kaarkoski et al. (2026, forthcoming).



including the ability to reflect on cognitive functions, regulate emotions, and maintain physical endurance and alertness.

Secondly, the concept calls for proactive action in shaping the information environment. Beyond strategic communication, this may also require actions that necessitate legal review for their development and implementation.

Third, the concept emphasises the need to form deterrence against external manipulation attempts. Here, societal resilience and its communication are central.

Fourth, the concept highlights the pursuit of cognitive superiority in battle space meaning the ability to outmatch the enemy in all the previously discussed areas and extend the limits of human capabilities through technology.

The examination of the specific features of cognitive warfare in relation to information influence or information warfare and psychological operations illustrates that cognitive warfare is a differently bounded form of warfare. The management of the information environment is essential in cognitive warfare, but cognitive warfare cannot be fully countered through information defense alone.

The upcoming *Countering Cognitive Warfare* book will provide the foundations for strengthening societal and individual resilience and exploring the possibilities of strategic communication. Moving forward, there is a need to more coherently discuss what cognitive warfare and the pursuit of cognitive superiority mean or require from military forces and society in various threat situations, which can range from long-term strategic competition to prolonged armed conflicts like the war in Ukraine.

### **For More Information**

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