

# NATO in its multidomain operations: Reflections on cognitive superiority

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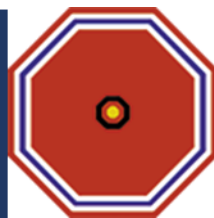
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## Importance of the topic:

1. Strategic security environment and importance of this topic from NATO's perspective.
2. Cognitive superiority.
3. Russia and China in the information environment.
4. Conclusions.

# Strategic Foresight Analysis – 15 TRENDS



Zagreb  
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# NATO Strategic Foresight Analysis 2023 and strategic security environment

- 1) **Climate breakdown** and loss of biodiversity => new diseases, migration challenges, climate change
- 2) **Resource scarcity** => urbanization, food/water scarcity
- 3) **AI and Emerging Disruptive Technologies** => cognitive warfare, social movements, lack of governance/standards
- 4) **Geoeconomics** => demographic/population dynamics, risk from isolated and fragile states
- 5) **Human networks** => rising wealth inequality, declining trust in governments, information overload (social media)
- 6) **Scramble for "commons"** => space-based capabilities/ exploration and exploitation, high seas contestation, uneven access to resources

# NATO's Strategic Concept 2022 and strategic security environment

Strategic Concept 2022 states that “ the Euro-Atlantic area is not at peace [..]. Strategic competition, pervasive instability and recurrent shocks define our broader security environment.”

Strategic Concept 2022 designates the Russian Federation as “the most significant and direct threat to Allies’ security and to peace and stability in the Euro-Atlantic area” while the People’s Republic of China is seen as a challenges to Western interests, security and values.

Different set of emerging security risks stemming from disruptive technologies and hybrid threats:  
Focus on cognitive dimension.

# NATO warfighting capstone concept 2021 and operational environment

- **Persistent operating environment** where such actors as **China, Russia, Iran** could seek to shape the operating environment and may attempt to replace the rules-based international order. They compete for power and advantage.
- More **competition** among different state and non-state actors; **diverse use of new weapons and technologies employed in new ways**.
- Competition in the **non-physical** and geographically unbound domains (**cyber and space**).

# What is a cognitive superiority?

Cognitive superiority is **understanding the operating environment** and **potential adversaries** relative to NATO's own capabilities, capacities and objectives (NATO warfighting concept). It is one of the objectives of information and cyber warfare, relying on access to information, surveillance, persuasion and new technologies. **BEING FASTER, BETTER, LARGER than others.**

- Ability to anticipate; to build better situational awareness and to achieve cognitive advantage at a short period of time. Ability to excel in understanding and decision-making that enables out-thinking the adversary.

## HOW?

- Apply more effective and faster military thinking than adversaries.
- Be able to use situational awareness on your advantage. Effective decision-making.
- Shape, contest and fight adversarial actions. Gain and maintain the advantage.

# Cognitive superiority and information dominance

- ✓ Target command and control of operations to enable decision superiority;
- ✓ Create an information dominance;
- ✓ Use sophisticated different means and tactics (technology as an enabler).

Cognitive superiority and information dominance/superiority can create decision advantage

“If you know the enemy and know yourself, you need not fear the result of a hundred battles” (Sun Tzu)

“War has always involved the mind” (Carl von Clausewitz)



# Information superiority and information environment

- Information environment: complex, **contested**, diverse and ambiguous;
- Different non-state actors and state actors are generating an **alternative information reality**;
- **Influence across the information space** by using deception, disinformation, ambiguity with competing narratives and messages;
- Information space is **dynamic**; it comprises interactive media and immersive extended reality technologies.
- The rapid flow of information causes a significant stress on decision-makers.

# China and Russia in the information environment

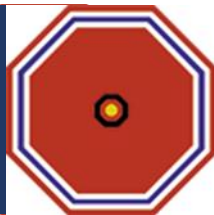
China	Russia
War takes place not only in the physical domains of land, sea, air, and space, information but also in the <b>domain of human cognition</b> .	Uses a <b>concept of information and psychological confrontation</b> .
Cognitive warfare consists of <b>public opinion warfare</b> to influence domestic and international public opinion, <b>psychological warfare</b> to shock and demoralize soldiers and civilians, and <b>legal warfare</b> to gain international support through international and domestic law.	<b>Manipulation</b> of international public opinion by misleading people's cognition through different means. <b>Control</b> of information inside of society and projection of messaging outside.
Cyber is used as a <b>tool</b> to support land, sea, and air operations.	<b>Use of cyber</b> and different digital means.
Use of <b>emerging disruptive technologies</b> to achieve technological superiority in Global supremacy.	<b>Weaponization</b> or manipulation of AI/ other technologies to impact decision-making process.

# Cognitive superiority: Critical reflections

- Focus on **sensing and situational awareness**: Acquiring intelligence and data about different actors, adversaries, partners, etc.
- Focus on information security and resilience of C2;
- **Monitoring and alert system**: could help to identify vulnerabilities and track them;
- **Building situational understanding, strategic awareness** and working on the sources of instability, risks. Focus on anticipation of crisis;
- Early **recognition of future challenges** and timely assessment of risks to **allow alignment of military planning and political decision-making**;
- **Layered resilience**: ability to absorb shocks and fight-on, across all layers, military, civil-military and military-civilian.

## Critical reflections on NATO's cognitive superiority

- **Cognitive superiority is about decision-making and acting: Understanding and acting by creating a decisional advantage over adversaries;**
- Protecting and sharing information;
- Constant **rapid assessment of the information environment;**
- Understanding of **tech drivers** in the info environment;
- Alignment of **threat perception** amongst all NATO Member States is needed; Multiple of actors involved.
- **Decision-making:** DECIDE assertively and ACT effectively than the adversary.



# Questions?

