



The Hague Centre
for Strategic Studies

HCSS Annual Report 2025

December 2025





HCSS Annual Report 2025

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The Hague Centre for Strategic Studies

December 2025

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Foreword

So here we are. Approaching 2026. While the shift towards a multipolar order continues, it is unclear whether the disruptive and violent character of this development can be managed. The US National Security Strategy represents a clear break from the past and marks a growing rift between the US and Europe. Accumulating pressures on geopolitical fault lines, the rapidly changing and degrading environment, the impact of emerging technologies, as well as the economic fragmentation and the unbalanced distribution of wealth, will affect global, regional, and local stability. Economic dependencies—on semiconductors, raw materials, and critical technologies—are increasingly used as tools of geopolitical influence.



The growing geopolitical and geo-economic international volatility are already leading to the regionalisation of global supply chains with an upward pressure on inflation as an outcome. The looming threat of 'tariff wars' will cause geo-economic fragmentation to accelerate. Ideological and political competition between those advocating for more globalisation and those who argue for national sovereignty is putting pressure on the way citizens relate to each other and identify with.

Meanwhile the COP 30 Summit in Brazil, did not generate the desired outcomes. Greenhouse emissions will continue to rise. Biodiversity loss is taking place at an unprecedented scale. Limiting global warming to 1.5 degrees Celsius above preindustrial levels is out of reach. Global cooperation and urgent measures are required, not only in reducing greenhouse gas emissions and adopting clean energy technologies, but also in changing our consumption and lifestyle patterns. Both great power competition internationally and eroding trust in politicians nationally are not conducive to much-needed global collaboration.

Closer to home, growing protectionism, high energy costs, strained infrastructure, and regulatory burdens are weighing on the Dutch business climate. Domestically, a lack of political direction has delayed key policy decisions and weakened the Netherlands' international credibility. Support for radical right parties has remained stable, and immigration continues to be a focal point for wider discontent.

As the year ends, we also enter a season of reflection. This Annual Report highlights some of the key moments and insights of 2025, while looking ahead to future developments. At HCSS, we do not claim to have all the answers. But we expect that our fact-based analyses contribute to an increased understanding of the future and to provide ideas of how governments, businesses, and individuals, can help to make this world a better and safer place to live in.

The HCSS team wishes you a very merry Christmas and a Happy New Year!

Paul Sinning, Executive Director



**The Hague Centre
for Strategic Studies**



Introduction

We live in dangerous times. 2025 was, again, a year of tremendous turbulence. Large scale conventional war on our European Continent continued unabated. The pull and push of rising, incumbent and resurging powers created fresh fissures in regional security systems often with global consequences – politically, socially and militarily. In the first year of his second reign, US President Trump tried to put the G back in *Great power politics* targeting both allies and adversaries, emphasising the US ability to coerce rather than induce. Some small and middle powers sought to toe the party line balancing, at least ostensibly, with the US. Others started adjusting their policies and alignment strategies to create more freedom of manoeuvre for themselves.



European Union leaders found out that those who exclusively cling to the status quo in times of transformational change, only do so at their own peril. Strategic autonomy, once merely an aspirational pipedream, has started to gain actual momentum not just in Brussels but across different European capitals. Political slogans have started to be combined with actual spending power to turn them into a reality. Necessity, after all, is the mother of adaptation and transformation, even if real change arrives painstakingly slow.

Meanwhile, the disruptive impact of emerging and emerged technologies became clearer for anyone to see with first generation generative AI applications, including most visibly Large Language Models, penetrating societies and, as of now, threatening to upset entire industries. Societal polarisation, based not on ties that bind but on differences that divide, has become a constant feature of European societies. Amidst all the geopolitical hard security tumult, the pernicious effects of climate change are ever harder to deny, although leaders and corporations are still reluctant to counter it with decisive action.

For HCSS, these developments and the challenges they pose to the well-being of our societies, means that this year there never was a dull moment. Our Team has worked unrelentingly to contribute to understanding these big challenges and offering solutions towards a more peaceful, prosperous and equitable world. We have worked day and night to inform public discourse, advise policymakers, convene stakeholders from the public and private sectors, and infuse discussions with, what we hope, are meaningful insights.

Our research portfolio has continued to evolve. We have expanded our thematic focus and reorganised our focal areas into five core Programmes: Geopolitics & Governance, Economics & Technology, Defence & Security; Society & Resilience; and Climate, Water & Food. We have also added a variety of new analytical techniques to our portfolio facilitated by a significant expansion of our Research Methods and Datalab. We do so at a time when the emergence of generative AI opens an array of promising research avenues whilst at the same time posing important methodological and ethical questions. Also here, we try and remain ahead of the curve – always in a responsible manner.

In 2025, we further expanded our analytical toolkit, incorporating advanced methodologies such as multilingual natural language processing, structural and relational causal models, optimisation techniques for policy interventions, and experimentation with generative AI for strategic analysis. We also launched a number of new dashboards and monitors, publicly available at our website, to analyse

complicated if not complex phenomena in national and international affairs. I invite you to take a look at, for instance, CARMEN (Critical Raw Materials Early Navigation Dashboard), DOMINO (the Dutch Observer for Materials Intelligence and Operations), DAMON (Disturbances and Aggression Monitor), or GATRI (our Geopolitical Annual Trade Risk Index), amongst others.

We maintain our rigorous standards to ensure that our research meets the highest quality benchmarks:

- Clear Focus, Clear Argument, Clear Message; Our work is precise, well-structured, and conveys a distinct message.
- Well-Articulated, Well-Written, Well-Structured; Our insights are presented intelligently, with accessible language and coherent organisation.
- Evidence-Based, Methodologically Sound; Our research is driven by data and empirical evidence, adhering to robust methodologies that ensure reliability, validity, and objectivity.
- Creative and Innovative; We challenge conventional wisdom, offering fresh perspectives and novel approaches.
- Policy-Relevant and Actionable; Our work is designed to provide concrete, practical value to policymakers, advocacy specialists, and private-sector leaders.

We meet these standards with our multidisciplinary team of experts from a variety of fields, including, but not limited to, strategists, political scientists, economists, philosophers, mathematicians, and data scientists, which are featured on the following pages.

Our Annual Report offers a comprehensive overview of our activities this year. Our Team's output has been nothing short of exceptional—publishing over 100 in-depth reports, policy briefs, academic articles, and books. Our experts have provided over 2000 commentaries for major national and international media – in print, online, on television, and on the radio.

Several studies generated substantial media attention and spurred discussion among policymakers and politicians and amongst the public at large. The “Strategic Guidance” report of the Global Commission on the Responsible Use of Artificial Intelligence in the Military Domain (REAIM), for which HCSS acted as the Secretariat for the past two years, was presented at the UN by Dutch Prime Minister Schoof, contributing directly to international norm development in this sphere. We also launched a new periodical societal survey, the HCSS Public Monitor on Societal Stability, to gain a better understanding of Dutch citizens' perceptions, including on what they perceive as threats in their daily lives, where they lose trust in authorities, but also when they feel safe and experience cohesion.

We have forged and strengthened partnerships with leading institutions worldwide while hosting many decision makers at the highest levels of government, from Europe, the Indo-Pacific and elsewhere, at more than 35 events on our premises at the Lange Voorhout in The Hague. We have welcomed more than 2,200 participants to our conferences, symposia, workshops, and closed-door sessions at our Institute. We are particularly proud to have been a co-host of the NATO Public Forum during the historical NATO Summit in The Hague, where we received another 500 participants from 32 NATO allies and partners.

2026 will undoubtedly be another demanding year but our mission will remain unchanged: we will seek to inform public discourse, support strategic decision-making in both public and private sectors, and contribute to national and international security in alignment with liberal democratic values.

Dr. Tim Sweijns, Director of Research

Chaos, Orde en Machtspolitiek

HCSS Strategische Monitor 2025

Frank Bekkers, Rob de Wijk, Jesse Kommandeur en Ron Stoop
December 2024

Veilige stad

Uitdagingen voor hoogstedelijke gebieden in Nederland

Gerben Bakker, Bert Vossebeld en Thijn van Aken
Januari 2025

From the Steppes of Ukraine to the Shores of Formosa

Lessons Learned from Contemporary War for Taiwan

Davis Ellison, Benedetta Giordani en Tim Swope
January 2025

Van meme tot moord

Hoe online extremistische broedkamers een nieuwe generatie van geweld kweken

Gerben Bakker, Thijn van Aken, Philippe van Poppelendam en Julie Jeukens
Augustus 2025

Making e-SAF land

Opportunities for the Netherlands in the synthetic aviation fuel sector

Irina Petrahau en Ron Stoop
September 2025

Securing Europe's Clean Tech Future

Supporting Industry Stockpiles of Critical Raw Materials in the Netherlands

Irina Petrahau en Ron Stoop
November 2025

Blinded by Bias

Western Policymakers and Their Perceptions of Russia before 24 February 2022

Tim Swope, Thijn van Aken, Julie Ebdon, Philippe van Poppelendam and Anna Hoefnagels
September 2025

European Military Fuel Readiness

The Role of Alternative Fuels in Military Logistics

Irina Petrahau, Ron Stoop and Thomas Jansen
November 2025

Deterrence Warning Messages

A Short Guide for NATO

Dr. Jeffrey H. Michaels
June 2025

Propelling Green Ambitions

Policy Cycles and Priorities in China and the Netherlands

Fiona De Cuyper, Ard Boudewijn en Laura Birkman
October 2025

Responsible by Design

Strategic Guidance Report on the Risks, Opportunities, and Governance of Artificial Intelligence in the Military Domain

September 2025

Samenleving in Transitië

Balanceren tussen Hoop en Vrees

Strategische Monitor Politie 2025

Securing the Digital Backbone

NATO's Quest for Interoperability in the Age of Emerging Disruptive Technologies

Hans Horan and Davis Ellison
June 2025

Veiligheid in een Verhitte Wereld

Klimaatverandering en Maatschappelijke Stabiliteit

Laura Birkman, Fiona De Cuyper en Julie Jeukens
Juni 2025

Voortzettingsvermogen

Een parate krijgsmacht in een weerbare maatschappij

Frank Bekkers, Hans van der Louw, Otto van Wiggen, Björn de Heer, Pieter-Jan Vandoren, Michel Rademaker en Nino Malekovic
April 2025

Critical Raw Materials in the Dutch Provinces of Noord-Holland and Flevoland

Towards Resilient Supply Chains

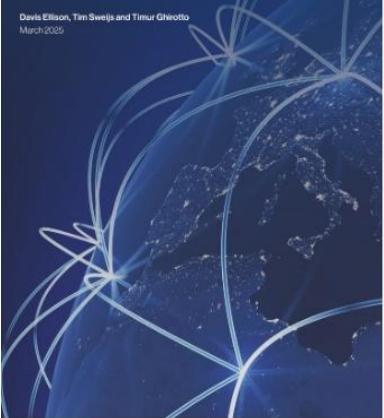
Inria Petrahau, Lucia van Geuns, Ron Stoop and Julie Jeukens
September 2025

Deterring or Spiralling?

Emerging Technologies, Strategic Stability, and Prospects for Sino-European Arms Control

Davis Ellison, Tim Sweijts and Timur Gherotto

March 2025



HCSS Publieksmonitor

Maatschappelijke Stabiliteit

Hoofdlijnen Zomerpeiling 2025

Gerben Bakker en Jesse Kommandeur

Juli 2025



HCSS Focus

Autocratisch Sentiment

Gerben Bakker en Jesse Kommandeur

Augustus 2025



Europe's Strategic Access to Battery Minerals in a Changing Geoeconomic Landscape

Irina Patrahanu and Ron Stoop

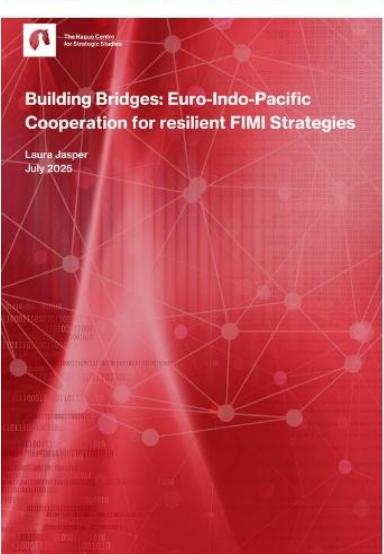
August 2025



Building Bridges: Euro-Indo-Pacific Cooperation for resilient FIMI Strategies

Laura Jasper

July 2025



Innovatie in de Defensie-industrie

HCSS Position Paper

Michiel Riedmeyer

Januari 2025



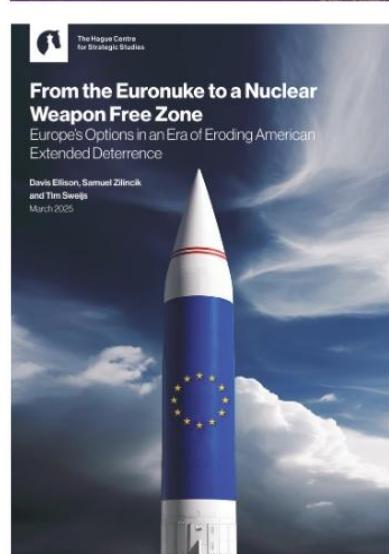
From the Euronuke to a Nuclear Weapon Free Zone

Europa's Options in an Era of Eroding American Extended Deterrence

Davis Ellison, Samuel Zilnicki

and Tim Sweijts

March 2025



Anticipating Regret

The Psychology of Deterrence, in Ukraine and Beyond

Kenneth Payne

Januari 2025

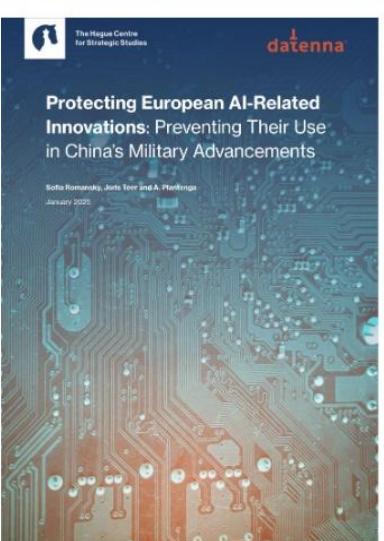


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Protecting European AI-Related Innovations: Preventing Their Use in China's Military Advancements

Sofia Romanuk, Joris Teer and A. Steffens

January 2025

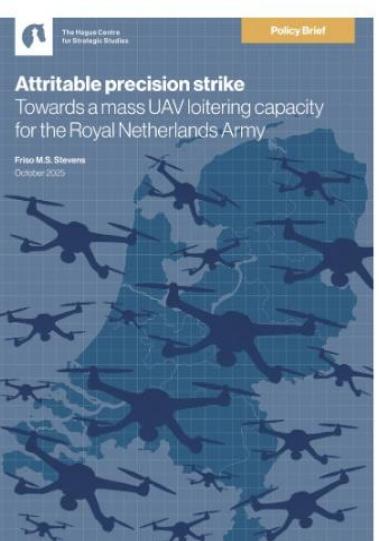


Attributable precision strike

Towards a mass UAV loitering capacity for the Royal Netherlands Army

Friso M.S. Stevens

Oktober 2025

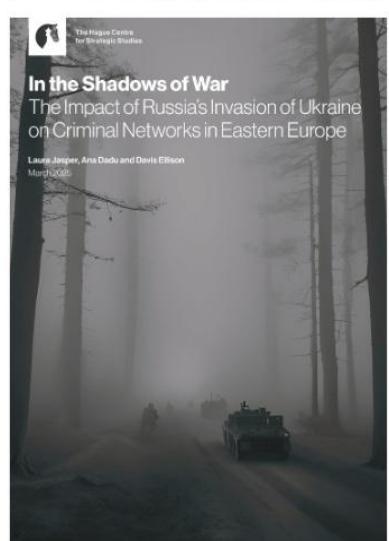


In the Shadows of War

The Impact of Russia's Invasion of Ukraine on Criminal Networks in Eastern Europe

Laura Jasper, Ana Dicu and Davis Ellison

March 2025



Cooperation in an Era of Confrontation: The Case of the Benelux Arms Control Agency

Wannes Verstraete

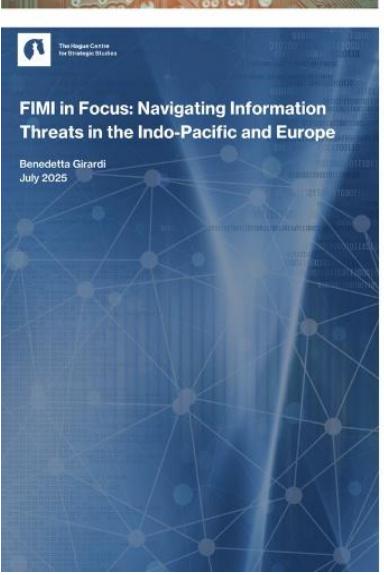
March 2025



FIMI in Focus: Navigating Information Threats in the Indo-Pacific and Europe

Benedetta Girardi

July 2025



Rough Seas Ahead

Maritime Trends and Scenarios until 2050

Davis Ellison, Pieter-Jan Vandoren and Frank Bekkers

March 2025

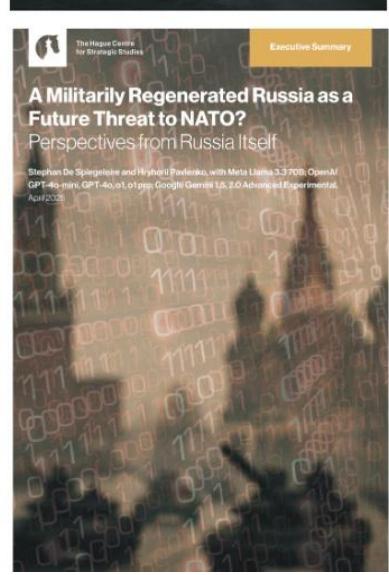


A Militarily Regenerated Russia as a Future Threat to NATO?

Perspectives from Russia Itself

Stephan De Sperrele and Hynek Pavlenko, with Metia Lainia 3.3705; OpenAI GPT-4b-mini, GPT-4o-o, o1 pre-Google Gemini 1.5, 2.0 Advanced Experimental

April 2025

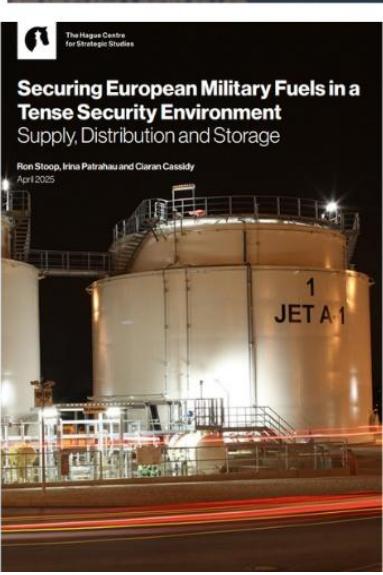


Securing European Military Fuels in a Tense Security Environment

Supply, Distribution and Storage

Ron Stoop, Irina Patrahanu and Cieran Cassidy

April 2025



Geopolitics & Governance

The year 2025 has laid bare a world in which geopolitical realignments accelerate faster than governance structures can adapt. The London Summit on Ukraine in March offered a rare moment of unity, yet also revealed how the war continues to test transatlantic cohesion and redefine Europe's security order. Meanwhile, the breakdown of strategic arms control—intensified by Russia's August announcement that it no longer considers itself bound by the INF Treaty—has revived Cold War-era anxieties at a time when new technologies and new power centres complicate every dimension of deterrence.

Across regions, old frameworks are proving too brittle for emerging realities. Shifting US priorities and intensifying China-US rivalry are reshaping diplomatic space for Europe, compelling governments to rethink economic security, diversify partnerships, and engage more deeply with Asia and Africa. These trends were underscored throughout 2025 in developments ranging from Taiwan's growing role in Europe's strategic reindustrialisation to renewed volatility in Western Asia and the wider Indo-Pacific.

Throughout this period of uncertainty, HCSS has worked to provide clarity and practical foresight. The *Strategic Monitor 2025* mapped the structural forces driving instability, from hybrid interference to democratic pressure points and supply-chain vulnerabilities. Our Europe in the Indo-Pacific Programme expanded dialogues on maritime security, critical raw materials, and democratic resilience—reflecting Europe's growing stake in shaping rules and norms beyond its immediate neighbourhood.

A defining component of our governance work this year has been our role as the Secretariat of the Global Commission on Responsible Artificial Intelligence in the Military Domain (GC REAIM). In 2025, we supported the final stages of the Commission's Strategic Guidance Report, culminating in its launch at the UN General Assembly by Dutch Prime Minister Dick Schoof. Through successive meetings in Abu Dhabi and The Hague, policy notes, and UN First Committee engagement, HCSS helped advance shared language, practical safeguards, and pathways toward institutionalising global AI governance.

We also continued to foster open, informed public debate. At the 2025 NATO Public Forum—co-organised by HCSS—leaders, experts, and citizens explored the future of collective security, economic resilience, and strategic autonomy. Across our events, publications, and partnerships, a common thread emerged: governance must evolve as quickly as the geopolitical environment it seeks to stabilise.

This chapter reflects that imperative. In a world where established orders are fraying and new centres of power are rising, HCSS aims to illuminate the choices that will shape tomorrow's governance—from Europe's role in a multipolar system to the responsible integration of transformative technologies.

Report | Chaos, Order and Power Politics: HCSS Strategic Monitor 2025

The world is in transition, and the EU must adapt. The latest HCSS Strategic Monitor, "Chaos, Order and Power Politics," emphasises that strategic autonomy, increasing defence capacity, and cooperation with the global south are crucial. The Monitor emphasises that Europe needs a unified approach to overcome the challenges of our time. Only by acting together can the EU member states play a key role in the new world order. [\[LINK\]](#)

Minister of Defence Ruben Brekelmans received the Strategic Monitor 2025 from author Frank Bekkers and HCSS founder Rob de Wijk on January 16. Minister Brekelmans: "It is crucial for Defence to understand geopolitical turbulence and the growing number of security threats. The strategic monitors are a valuable tool for this. They enable us to better arm ourselves against future threats, anticipate potential scenarios, and strengthen international partnerships." [\[LINK\]](#)

Authors: Frank Bekkers, Rob de Wijk, Jesse Kommandeur and Ron Stoop.

Contributions by: Tim Sweijs, Laura Jasper, Rens van Dam, Bart Vossebelt, Giulio Damiani, Emma Bokel, Berend Kwak and Philippe van Poppelendam.



Report | Propelling Green Ambitions: Policy Cycles and Priorities in China and the Netherlands

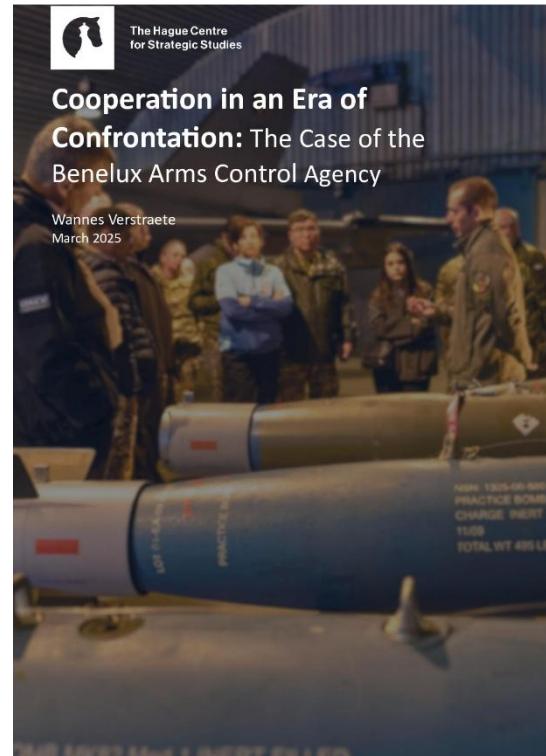
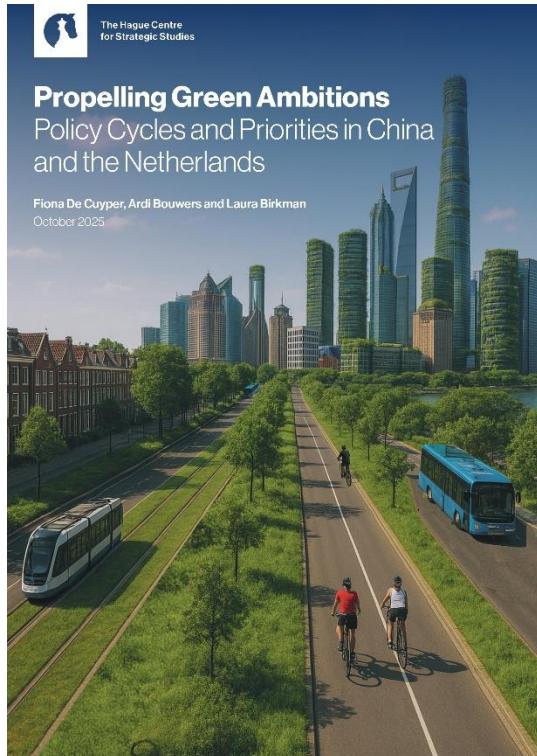
How do China and the Netherlands translate their sustainability ambitions into policy and how can cooperation on the green transition be intensified? This new HCSS report compares the Dutch and Chinese approaches to green policymaking, revealing shared priorities across the domains of physical connectivity, environmental quality and human wellbeing, and resilience and adaptability. The study identifies how both countries can complement each other to accelerate the green transition, by focusing on pilot projects, knowledge exchange, and integrated spatial planning, among others. [\[LINK\]](#)

Authors: Fiona De Cuyper, Ardi Bouwers, and Laura Birkman.

Contributions: Alexander Krabbendam and Noemie Jacq.

Guest Paper | Cooperation in an Era of Confrontation: The Case of the Benelux Arms Control Agency

In the rapidly changing geopolitical context, middle and minor powers have fewer options regarding arms control. But multilateral cooperation can be beneficial to retain past experiences and expertise concerning the negotiation, implementation, and verification of formal arms control treaties. In a new HCSS guest paper, PhD candidate Wannes Verstraete focuses on the establishment, the current role, and future opportunities for the Benelux Arms Control Agency (BACA) as a successful example of trilateral conventional arms control cooperation between Belgium, the Netherlands, and Luxembourg. [\[LINK\]](#)



Snapshot | The Four (not so noble) Truths about Nuclear Governance

Can arms control survive when giving up nukes seems to invite risk and keeping them feels like the only reliable hedge? Assistant Analyst Elton Höglint traces this dilemma through four case studies—Ukraine, Libya, North Korea, and Iran—revealing systemic breakdowns in security guarantees, negotiation dynamics, policy continuity, and treatment of civilian nuclear aims. He proposes a revised framework to answer the central question: how do we make disarmament rational, credible and sustainable? [\[LINK\]](#)

Author: Elton Höglint.

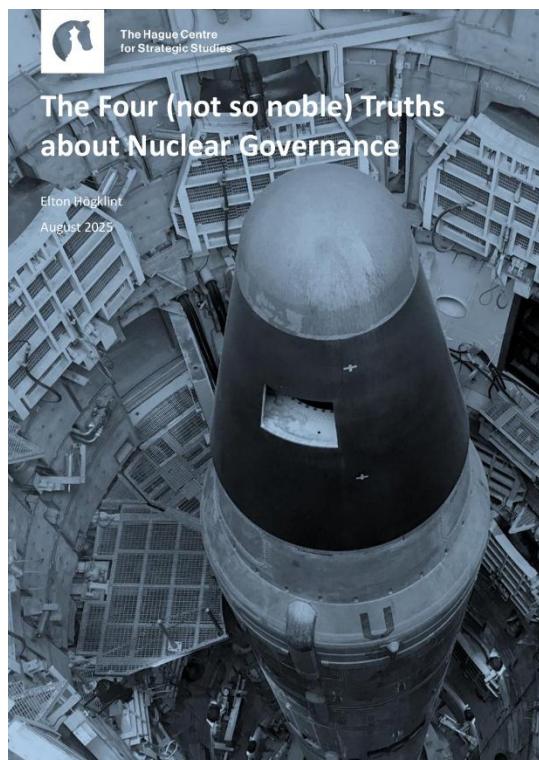
Editor: Dr. Davis Ellison.

Snapshot | Old Players, New Moves: India's Strategy in the Shanghai Cooperation Organisation

As global power dynamics shift toward multipolarity, India's challenge lies not in adaptation, but in shaping the new order. A new HCSS Snapshot explores how India can turn its SCO membership into strategic advantage. Authors Anna Hoefnagels and Benedetta Girardi assess whether the opportunities of SCO membership outweigh its challenges—and how India's strategic moves today can shape the rules of tomorrow's global game. The paper identifies three key pathways for India to strengthen its regional role and influence the emerging multipolar order. [\[LINK\]](#)

Author: Anna Hoefnagels.

Editor: Benedetta Girardi.



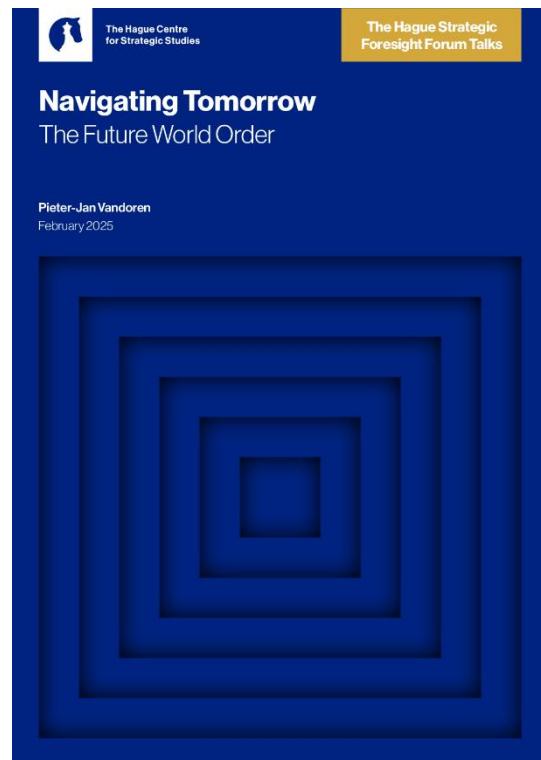
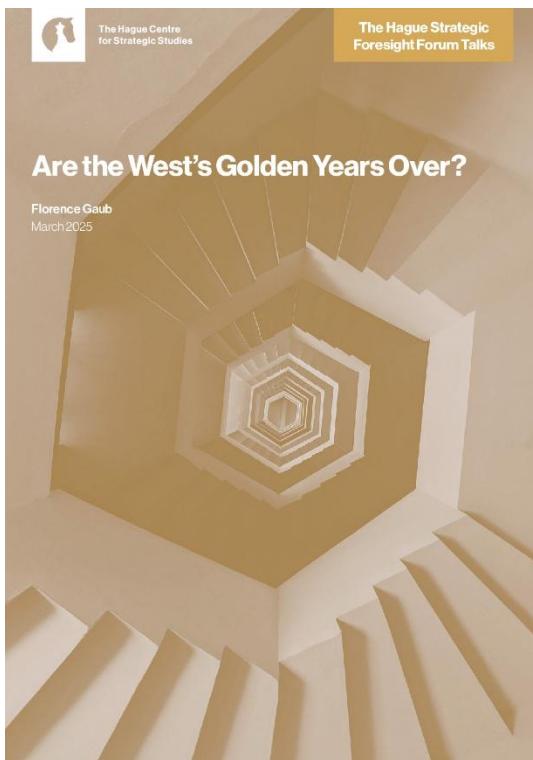
Guest Paper | Are the West's Golden Years Over?

This guest paper by Dr. Florence Gaub explores the perceived decline of the West in contrast to the rising influence of China and Russia. It examines how narratives of Western stagnation – driven by political uncertainty, demographic challenges, and economic anxieties -have gained traction, shaping global perceptions of the future. While pessimism dominates Western discourse, Dr. Gaub argues that decline is not inevitable. Drawing on historical examples, it highlights the West's capacity for adaptation, reform, and innovation. The analysis underscores the need for a new, forward-looking vision to counter narratives of doom and reinvigorate global leadership. In a time of crisis, the paper asserts, the West has a unique opportunity to redefine its future. [\[LINK\]](#)

Write-up | Navigating Tomorrow: The Future World Order

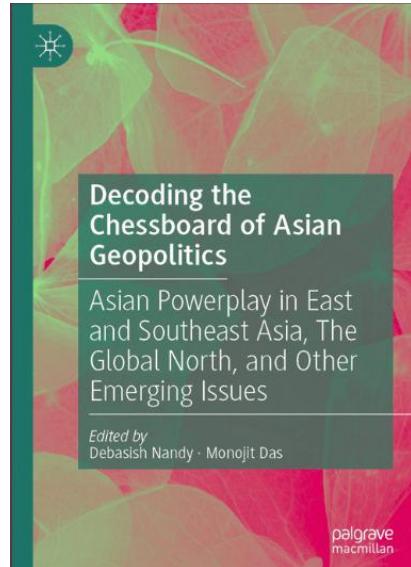
On the 11th of December 2024, the Hague Centre for Strategic Studies (HCSS) invited foresight experts to explore the shifting dynamics of our global order from a North American, Southeast Asian and European perspective. This was the third and final event in a three-part series called 'The Hague Strategic Foresight Forum Talks'. The third event was titled 'The Future World Order.' This write-up of the third event offers perspectives on the flaws and merits of the current order and lays out the contours of the future global order from American, Asian and European experts. It concludes with a set of key takeaways offered by the participants. [\[LINK\]](#)

Check out the event recap [here](#).



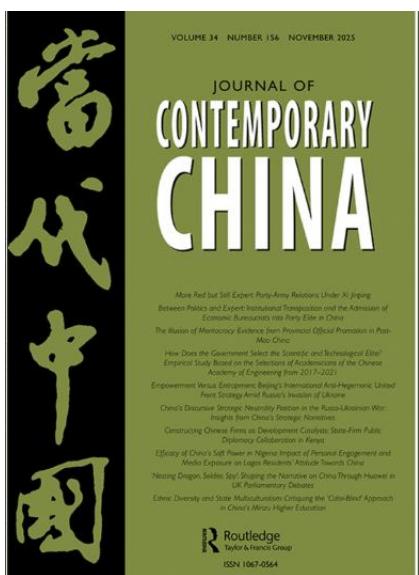
Navigating Geopolitics: Europe's Evolving Connections with South and Southeast Asia

Strategic Analyst Benedetta Girardi and former Assistant Analyst Alisa Hoenig authored a chapter in the newly published book 'Decoding the Chessboard of Asian Geopolitics: Asian Powerplay in East and Southeast Asia, The Global North, and Other Emerging Issues.' Their chapter, titled 'Navigating Geopolitics: Europe's Evolving Connections with South and Southeast Asia', explores the dynamic and shifting relationships between Europe and key actors in Asia through a geopolitical lens. [\[LINK\]](#)



HCSS Commentary | Taiwan: A Geopolitical Powder Keg that could reshape Global Balances

Given Taiwan's strategic significance—both in military and economic terms—it is imperative to examine the potential scenarios and broader implications of a Chinese attempt to force reunification, writes HCSS Strategic Analyst Benedetta Girardi in an op-ed originally written in Italian for and published in *Analisi Difesa*. [\[LINK\]](#)



Journal of Contemporary China | A Revanchist Chinese Foreign Policy, with Xi Jinping's Politics in Command

In an article for the *Journal of Contemporary China*, HCSS Senior Fellow Friso Stevens uses Steve Tsang's concept of Party-state Realism to explain how Xi Jinping's ideology drives China's increasingly assertive foreign policy. He shows how Xi's two-pronged strategy — combining military build-up with indirect tools such as psychological warfare, United Front operations, and lawfare—aims to restore Chinese regional primacy by 2049. Stevens details how ideology, political culture, and strategic intent converge in a long-term effort to reshape East Asia toward Sino-centrality. [\[LINK\]](#)

Asia Times op-ed | The LDP leadership race could reshape Japanese politics

On October 4, 2025, Japan's ruling Liberal Democratic Party will elect a new party president, following Prime Minister Shigeru Ishiba's decision to step down. While five LDP members have entered the race, the contest is effectively a battle between two key figures: Sanae Takaichi and Shinjiro Koizumi, who lead substantially in comparison to the others, according to recent polls. HCSS Strategic Analyst Hans Horan examined this leadership race in an article for Asia Times. [\[LINK\]](#)

Singapore–Netherlands Cooperation on Critical Undersea Infrastructure Protection

Dr. Tim Sweijs and Benedetta Girardi recently visited Singapore for a seminar on critical undersea infrastructure protection, co-organised by HCSS with the Royal Netherlands Embassy in Singapore and the S. Rajaratnam School of International Studies (RSIS). The event brought together practitioners and experts from both countries to examine how bilateral cooperation can strengthen protection, resilience and governance of undersea infrastructure. The discussions converged three key takeaways for future Singapore–Netherlands cooperation. [\[LINK\]](#)



Asia Times op-ed | Xi's charm offensive cuts both ways in the Global South

Chinese President Xi Jinping is on an economic charm offensive across the Global South's emerging markets. While Beijing is positioning itself as a stable alternative to a volatile US, the reality beneath the surface reveals mounting risks, writes HCSS Strategic Analyst Hans Horan in an op-ed for AsiaTimes. Unless China undertakes serious domestic reform and opens its economy in good faith, those enticed by its charm offensive may find themselves entangled in unequal and unstable partnerships with more to lose than to gain. [\[LINK\]](#)

Closed Door Event | Taiwan's Role in the Strategic Reindustrialisation of Europe

On 15 September 2025, HCSS had the honour of hosting His Excellency the Minister of Foreign Affairs of Taiwan, for a closed-door luncheon. The discussion focused on "Taiwan's Role in the Strategic Reindustrialisation of Europe." Conversations explored the geopolitical aspects of reindustrialisation, the development of democratic and resilient supply chains, and opportunities for enhanced cooperation between Taiwan and the Netherlands within the ReArm Europe framework. The exchange offered valuable insights into the evolving role of Taiwan in Europe's strategic landscape and highlighted the importance of strengthening partnerships among like-minded democracies. [\[LINK\]](#)

Japanese Vice Minister for Defence visits HCSS

On April 28, 2025, the Japanese Parliamentary Vice-Minister Kobayashi visited the Hague Centre for Strategic Studies (HCSS), where he received a briefing on the organisation and engaged in discussions on the situation in Europe and the Indo-Pacific region. [\[LINK\]](#)



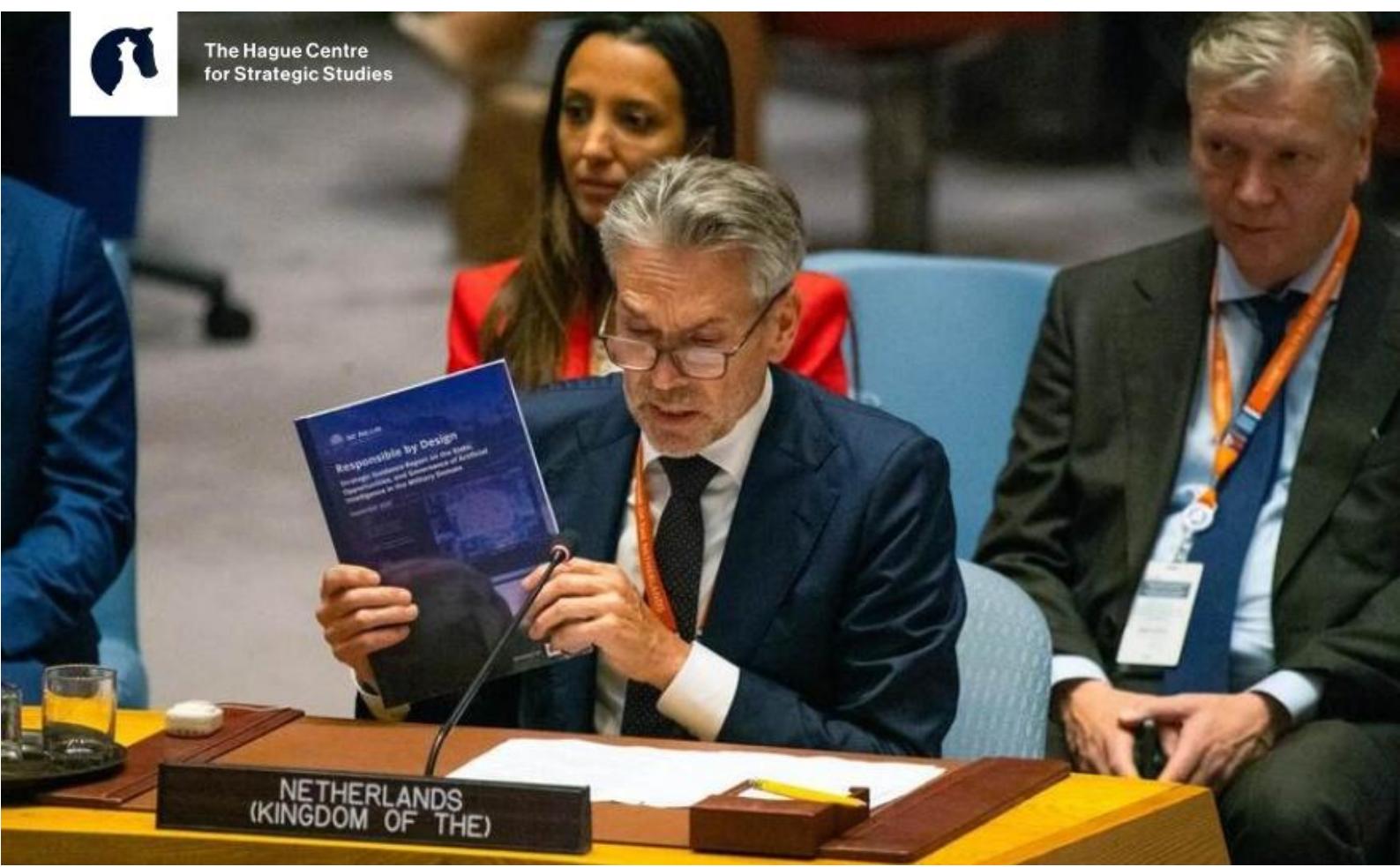
GCRAIM | The Global Commission on Responsible Artificial Intelligence in the Military Domain

The Global Commission on Responsible Artificial Intelligence in the Military Domain (**GC REAIM**) is an initiative of the Government of the Netherlands that was launched during the 2023 REAIM Summit on Responsible Artificial Intelligence in the Military Domain in The Hague. Upon request of the Dutch Ministry of Foreign Affairs, the Hague Centre for Strategic Studies acts as the Secretariat of the Commission.

GC REAIM has been established, for an initial period of two years, to help promote mutual awareness and understanding among the many communities working on issues related to the global governance of AI in the military domain. By linking dialogues between these communities, the Global Commission will contribute to an essential global task: supporting fundamental norm development and policy coherence in this field.

The GC will produce a strategic guidance report which identifies short and long-term recommendations for governments and the wider multi-stakeholder community on responsible AI in the military domain on:

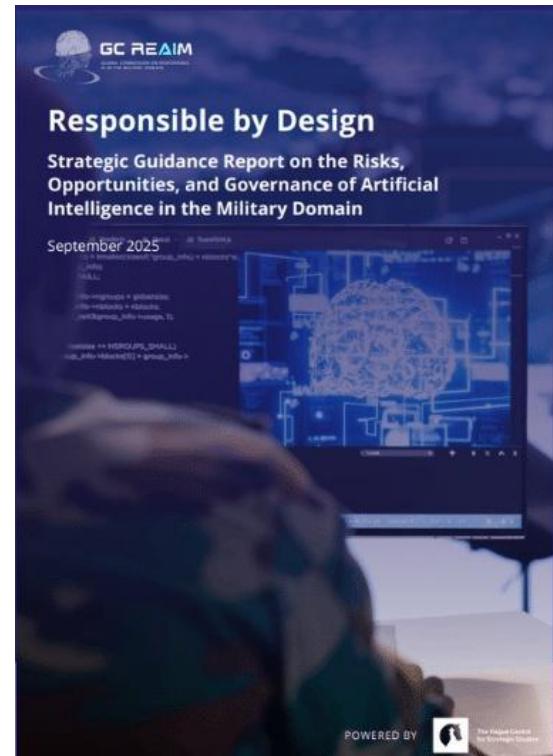
- What the multi-stakeholder community understands by responsible AI in the military domain,
- The elements that need to be taken into account at every stage of the AI life-cycle, when designing, developing, producing, introducing, and using AI in the military domain in a responsible way,
- The governance mechanisms that could be set up to design, develop, and use AI in the military domain in a responsible way.



Report | Responsible by Design: Strategic Guidance Report on the Risks, Opportunities, and Governance of Artificial Intelligence in the Military Domain

The responsible development and use of AI in the military domain requires informed human decisions and context-specific approaches to designing, testing, and deploying these technologies in ways that uphold values of peace and human dignity. With this report, GC REAIM proposes modalities for global cooperation to foster warranted trust in the responsible use of AI systems, paving the way towards the institutionalisation of governance for AI in the military domain. [\[LINK\]](#)

At the UN General Assembly in New York, Prime Minister Dick Schoof launched the final report of the GC REAIM—an initiative supported by the HCSS as its secretariat for the past two years. The launch marks a significant step in the international conversation on artificial intelligence, security, and ethics. As AI increasingly influences warfare, it is crucial that countries collectively agree on responsible use, risk management, and international cooperation. [\[LINK\]](#)



AI in the Military Domain at the United Nations First Committee

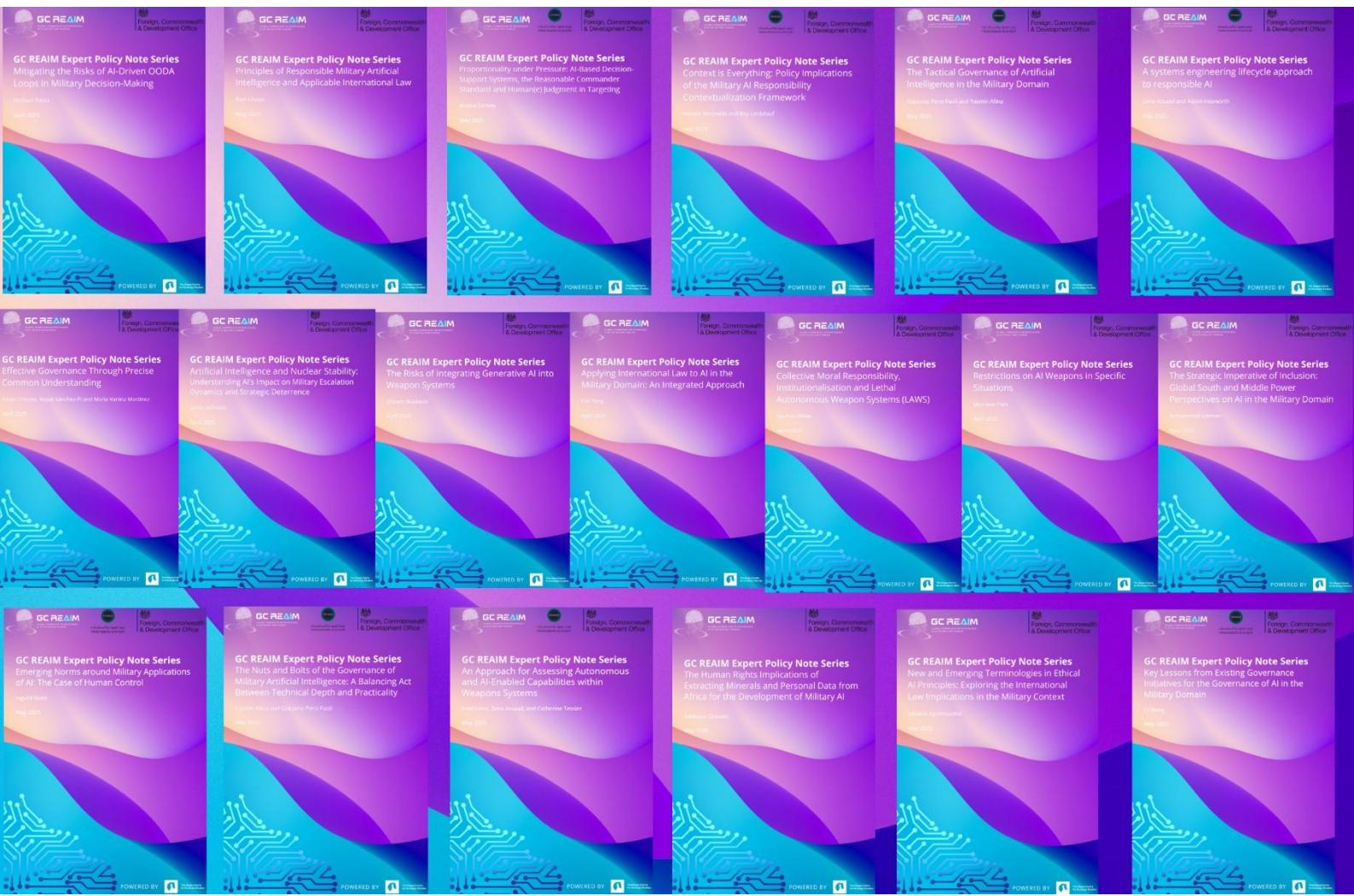
The 2024 UN General Assembly First Committee resolution on AI in the military domain marked a key step toward aligning multistakeholder and multilateral approaches. As the First Committee reconvenes in 2025, the Global Commission on Responsible AI in the Military Domain (GC REAIM), supported by HCSS, will host a side event presenting its Responsible by Design Strategic Guidance Report. The report offers shared knowledge, concrete recommendations, and a framework for institutionalising global AI governance—advancing a collective commitment to the responsible use of AI in defence and international security. [\[LINK\]](#)



GC REAIM Expert Policy Note Series

Throughout 2025, we've launched the GC REAIM Expert Policy Note Series, consisting of 19 thought-provoking policy notes written by members of the GC REAIM Expert Advisory Group. These notes explore the variety of issues that emerge at the intersection of AI, ethics, law, and military strategy, offering timely, practical recommendations for responsible AI governance. [\[LINK\]](#)

- **Effective Governance Through Precise Common Understanding;** by Edson Prestes, Nayat Sánchez-Pi and María Vanina Martínez
- **Artificial Intelligence and Nuclear Stability: Understanding AI's Impact on Military Escalation Dynamics and Strategic Deterrence;** by James Johnson
- **The Risks of Integrating Generative AI into Weapon Systems;** by Vincent Boulain
- **Applying International Law to AI in the Military Domain: An Integrated Approach;** by Fan Yang
- **Collective Moral Responsibility, Institutionalisation and Lethal Autonomous Weapon Systems (LAWS);** by Seumas Miller
- **Restrictions on AI Weapons in Specific Situations;** by Mun-eon Park
- **The Strategic Imperative of Inclusion: Global South and Middle Power Perspectives on AI in the Military Domain;** by Mohammed Soliman
- **Mitigating the Risks of AI-Driven OODA Loops in Military Decision-Making;** by Michael Raska
- **Principles of Responsible Military Artificial Intelligence and Applicable International Law;** by Rain Liivoja



- **Proportionality under Pressure: AI-Based Decision-Support Systems, the Reasonable Commander Standard and Human(e) Judgment in Targeting;** by Jessica Dorsey
- **Context is Everything: Policy Implications of the Military AI Responsibility Contextualization Framework;** by Herwin Meerveld and Roy Lindelauf
- **The Tactical Governance of Artificial Intelligence in the Military Domain;** by Giacomo Persi Paoli and Yasmin Afina
- **A systems engineering lifecycle approach to responsible AI;** by Zena Assaad and Adam Hepworth
- **Emerging Norms around Military Applications of AI: The Case of Human Control;** by Ingvild Bode
- **The Nuts and Bolts of the Governance of Military Artificial Intelligence: A Balancing Act Between Technical Depth and Practicality;** by Yasmin Afina and Giacomo Persi Paoli
- **An Approach for Assessing Autonomous and AI-Enabled Capabilities within Weapons Systems;** by Ariel Conn, Zena Assaad, and Catherine Tessier
- **The Human Rights Implications of Extracting Minerals and Personal Data from Africa for the Development of Military AI;** by Adebayo Okeowo
- **New and Emerging Terminologies in Ethical AI Principles: Exploring the International Law Implications in the Military Context;** by Keketso Kgomosotho
- **Key Lessons from Existing Governance Initiatives for the Governance of AI in the Military Domain;** by Li Qiang

Paper | Lessons from the EU on Confidence Building Measures around Artificial Intelligence in the Military Domain

HCSS Strategic Analyst and GC REAIM project coordinator Sofia Romansky contributed to the ongoing discourse on emerging technologies and security with her newly published paper, *'Lessons from the EU on Confidence Building Measures around Artificial Intelligence in the Military Domain,'* as part of the EU Non-Proliferation and Disarmament Consortium's Non-Proliferation and Disarmament Paper series. Her paper explores how confidence-building measures (CBMs), informed by the European Union's regulatory experience with the AI Act, can help break the current deadlock in global governance of military AI. [\[LINK\]](#)

EU Non-Proliferation and Disarmament Consortium

NON-PROLIFERATION AND DISARMAMENT PAPERS

Promoting the responsible and independent
non-proliferation and disarmament discourse

No. 97 May 2025

LESSONS FROM THE EU ON CONFIDENCE-BUILDING MEASURES AROUND ARTIFICIAL INTELLIGENCE IN THE MILITARY DOMAIN

SOFIA ROMANSKY*

I. INTRODUCTION

Deliberations around the governance of artificial intelligence (AI) in the military sphere rapidly gained momentum in the global arena. Multi-concurrent international and national initiatives have been launched with the goal of developing core principles and frameworks to guide the development, deployment and use of lethal autonomous weapons (LAWs), as well as in the military domain more broadly.¹ There was noteworthy progress in these areas, particularly in the first half of 2024, notably AI by the year, Committee of the United Nations General Assembly, the second Responsible AI in the Military Forum (RAMF) summit in Seoul, which produced the 'Blueprint for Action' endorsed by over 60 states, and bilateral talks between the United States and China, which led to an agreement on emphasising human oversight and control in the development, control and deployment of AI. These developments can be interpreted as reflecting maturing dialogues and converging priorities around core issues, such as accordance with international law, responsibility and accountability, bias and harm mitigation, explainability and traceability, and reliability and generalisability.² While these principles are not universally employed as official texts, they are increasingly expressed or implied in the content of ongoing governance processes. There is also prevailing consensus among

SUMMARY

Integrating artificial intelligence (AI) into the military domain poses a number of significant challenges that have contributed to a deadlock in global governance deliberations. The rapid evolution of AI, its dual-use nature and its impact on the strategic calculations of actors present the governance challenge in a unique light. The need for trust, accountability and ethical and legal considerations, unfortunately, divides the efforts of confidence-building measures (CBMs) and offers a way forward for governance processes and initiatives by fostering trust and reducing uncertainty. Drawing on lessons from the context of the Responsible AI in the Military Forum (RAMF) AI, this report examines how global governance deliberations might benefit from a focus on risks and risk mitigation in order to operationalise high-level principles, such as multi-stakeholder engagement and investment in an AI governance framework. It also highlights the outcomes of deliberations, which are relevant and implementable. At the same time, this report also emphasizes the value of AI's autonomy and the role of autonomous small and medium powers in the global governance arena. Finally, it highlights the potential for the human security and dual-use military regulation within the EU, by leveraging CBMs and drawing on the structured regulatory approach of the EU AI Act. Global governance efforts can move beyond the current deadlock to foster a more coherent, risk-informed and responsible governance of AI in the development, deployment and use of AI in the military domain.

ABOUT THE AUTHOR

Sofia Romansky is a strategic analyst at The Hague Centre for Strategic Studies and the Project Coordinator of the Global Consultation on Responsible Artificial Intelligence in the Military Domain. She holds a Master's degree in political science and international relations from the University of Amsterdam and a Master's degree in International Relations and Diplomacy from the University of Leiden and the Clingendael Institute.

¹ While, for example, the United Nations General Assembly has adopted a resolution on AI in the military sphere, it is not clear if this has led to the adoption of any specific policy.

² The Responsible AI in the Military Forum (RAMF) was established in 2022. It is an open, non-governmental, non-binding, multi-stakeholder platform, with members from 35 countries, including the United States, the United Kingdom, France, Germany, Australia, Canada, India, South Korea, Japan, and the European Union.

³ See, for example, the RAMF's 'International framework for responsible AI in the military domain', Centre for International Governance Innovation, 15 Sept. 2024, p.1.

AI Action Summit | Military Talks

In February, alongside the AI Action Summit, the French Ministry of Defence organised Military Talks dedicated to AI in the defence sector at the École Militaire. HCSS Strategic Analyst Sofia Romansky was asked to be a speaker on the panel “Issues related to the development of AI in the military field.” Looking back at the event, Sofia stated: “What the AI Action Summit ultimately demonstrates is that geopolitical dynamics and the corresponding calculations of state actors remain powerful driving forces behind the direction that AI governance and regulation is taking. Still, despite clear tensions and a purported AI arms race, an emerging common language to speak about AI risks and harms, as well as opportunities, is emerging. This demonstrates that opinions have not entirely diverged, and that there continues to be space for further deliberations.” [\[LINK\]](#)

Fourth GC REAIM Meeting Abu Dhabi, United Arab Emirates

From May 6-8, 2025, GC REAIM successfully held its fourth in person Commission Meeting in Abu Dhabi, bringing together Commissioners, Experts, and local partners to work on the drafting of its Strategic Guidance Report. Graciously hosted by TRENDS Research & Advisory and with additional support from the Foreign, Commonwealth and Development Office of the United Kingdom. Our three days in Abu Dhabi have proven incredibly fruitful and presented a great opportunity to collect insights from the UAE and the wider region. [\[LINK\]](#)



Fifth GC REAIM Meeting the Hague during the 2025 NATO Summit

From 24-25 June, the fifth and final GC REAIM Commission Meeting took place, in the margins of the 2025 NATO Summit in the Hague. Through two expert-led panels, we explored how to translate high-level norms into real-world safeguards and manage the risks of adaptive, evolving AI systems in defence. Over the past two years, GC REAIM has hosted four successful Commission Meetings and Symposiums around the world (Washington D.C., Seoul, Stellenbosch, Abu Dhabi). The Secretariat is extremely proud to have hosted the concluding Meeting and Symposium at its HCSS home base in The Hague. [\[LINK\]](#)

Sarajevo Security Conference | AI in the Military Domain: Legal, Industry, and Practitioner Perspectives

In September, HCSS Deputy Director Michel Rademaker spoke at the Sarajevo Security Conference, where he was the featured speaker and moderator of the panel on “AI in the Military Domain: Legal, Industry, and Practitioner Perspectives”, which also included Jessica Dorsey, Col. Arnel David, and Dr. Anke Allenhofer. [\[LINK\]](#)



Webinar | Bridging Waters: Middle Powers' Cooperation on Maritime Security

On 18 November 2025, we organised the webinar 'Bridging Waters: Middle Powers' Cooperation on Maritime Security', exploring opportunities for the Netherlands to collaborate with countries like Egypt, Indonesia, Malaysia, Philippines, Saudi Arabia, and Vietnam, focusing on securing vital maritime routes and ensuring freedom of navigation. With expert insights from contributors to an upcoming paper series, the event examined how through the use of preventive and responsive measures, we can enhance security and uphold open international maritime routes. [\[LINK\]](#)

Symposium | Hybrid Pressures, Strategic Responses: Small and Middle Powers in the Age of China's Influence

How can small and middle powers (SMPs) in Europe and Asia effectively respond to the evolving hybrid threat posed by China? On 16 December 2025, HCSS organised the symposium 'Hybrid Pressures, Strategic Responses: Small and Middle Powers in the Age of China's Influence'. This in-person event brought together European and Asian experts to examine China's expanding use of hybrid tactics and their impact on small and middle powers. The event explored how states are responding, how China's activities differ from other hybrid threats, and where opportunities exist to strengthen Europe-Asia cooperation and resilience. [\[LINK\]](#)



HCSS and CESFA Sign Memorandum of Understanding to Enhance Cooperation on Economic Security

On April 16, HCSS and the Center for Economic Security and Foreign Affairs (CESFA) at the Ministry of Foreign Affairs of the Republic of Korea signed a Memorandum of Understanding (MoU) to strengthen cooperation on key economic security challenges. The agreement establishes a framework for collaboration on research and policy development related to critical economic security topics, including supply chain resilience, advanced technology protection, export controls, and risk management.

The signing builds on the broader momentum of deepening bilateral ties between the Netherlands and the Republic of Korea. In 2024, the two countries formalised a Strategic Partnership, underlining their shared commitment to upholding international norms, fostering innovation, and promoting economic and technological cooperation. This new MoU reinforces that commitment, with a focus on navigating the complex landscape of global economic security. [\[LINK\]](#)



HCSS at the Paris Peace Forum 2025

A delegation from HCSS, consisting of Deputy Director Michel Rademaker and Strategic Analysts Irina Patrahanu and Sofia Romansky, participated in the 8th edition of the Paris Peace Forum, held on 29–30 October 2025. The HCSS team actively contributed to discussions on the Global Commission on Responsible Artificial Intelligence in the Military Domain (GC REAIM) and on Critical Raw Materials. [\[LINK\]](#)

On the eve of Forum, Irina Patrahanu spoke at a pre-event with renowned experts on responsible mineral investment and supply chain resilience, during the panel “Exploring the link between responsible mineral investment in an evolving security landscape and mineral supply chain resilience.” Part of a series of partner-led panels, organised by the OECD, Global Witness, and the United Nations Department of Peace Operations, these sessions explored how global and local actors can ensure that the accelerating demand for minerals drives justice, peace, and sustainability rather than conflict or exploitation. Patrahanu shared insights from HCSS research on how geopolitical shifts, ESG factors, and data-driven early warning systems can help identify and manage risks in mineral supply chains — ensuring that mining in conflict-affected and high-risk areas (CAHRAs) becomes a driver of stability, growth, and resilience, rather than conflict.

At the Paris Peace Forum Day 0 Seminar “From disruptive code to restrained conflict: Governing the war-to-peace continuum of emerging technologies”, GC REAIM Project Coordinator Sofia Romansky shared the findings and recommendations of the GC REAIM Strategic Guidance Report. Kicking off the event with an engaging panel, the discussion that unfolded touched on the many aspects that contribute to the complexity of not only governing AI in the military domain, but also reaping the full range of benefits of this potential technology.



The Socio-Political Instability Survey

In May 2023, HCSS launched **The Socio-Political Instability Survey**, inviting over 500 think tankers from around the world to give their views on the short-term likelihood and geography of volatility globally using both multiple-choice and open questions. The results of the open-ended questions were gained through a process of quantitative and qualitative discourse analysis, with specified themes or coding categories determined by the authors.

Socio-Political Instability Observer: January 2025

The fifth edition of the 'Observer', analysing the results of the HCSS Socio-Political Instability Survey, continues to monitor high levels of instability in Western Asia and Eastern Europe. Despite a Gaza ceasefire, tensions between Israel and Iran and the fallout from Syria's regime collapse persist. Ukraine now tops the list of high-risk countries, likely due to war-related uncertainty. Notably, the US has surged as the most influential country in global instability, rising from 15% to 60%, reflecting concerns over Trump's second-term policies. Economic factors have overtaken military ones as the main drivers of instability, amid growing fears of trade wars. [\[LINK\]](#)

Authors: Timur Ghirotto and Pieter-Jan Vandoren.



The Socio-Political Instability Observer

Results from the Socio-Political Instability Survey

January 2025







Source: News wire (left), DPA and Reuters (right). © 2025 HCSS Survey. All rights reserved. The German Chancellor and the US President are shown in their official capacity. © 2025 HCSS Survey. All rights reserved. © 2025 HCSS Survey. All rights reserved.

This 'Observer' factsheet outlines the results of the fifth Socio-Political Instability Survey. In this survey, military, economic, diplomatic, environmental and demographic factors are encompassed as drivers of socio-political instability. Extreme socio-political instability includes the probability of conflict fatalities, and specifically, the fatalities that result from the incidence of armed conflict. To learn more about the Survey, please visit the [HCSS website](#).

The January 2025 edition of the Observer series continues to monitor high levels of instability in Western Asia and Eastern Europe. Although a ceasefire was reached for the Gaza war, the region still remains a source of instability, due to previous tensions between Israel and Iran, as well as the uncertainty left after the collapse of the Assad regime in Syria. At the same time, Ukraine has regained the top of the list of countries most at risk of socio-political instability, possibly due to the uncertainty surrounding the future of the war. However, when it comes to the country exerting the most influence on global socio-political instability, the US has moved from 15% in the previous edition to 60% this year, highlighting the uncertainty connected with the second Trump administration and its new approach towards historical allies and adversaries. This edition also highlights that economic factors have now surpassed military ones as the primary drivers of instability, likely due to the heightened possibility of trade wars.

The survey further examines the potential outcomes of the Russo-Ukrainian war, the EU's stance within the US-China rivalry, and the Sustainable Development Goals (SDGs) most affected by geopolitical tensions. Finally, respondents reflect on instability within their own countries.

Socio-Political Instability Observer: July 2025

The sixth edition of the 'Observer', analysing the results of the HCSS Socio-Political Instability Survey, continues to monitor high levels of instability in Western Asia and Eastern Europe, caused by the war in Ukraine and the conflict in Gaza. The escalation of the conflict between Israel and Iran followed by American airstrikes on the Fordow nuclear plant weakened the Ayatollah's reign, bringing Iran to the top of the list of countries most at risk of further socio-political instability. Consequentially, military factors are once again seen as the main driver of global socio-political instability, once again surpassing economic factors now the unease and uncertainty surrounding US trade has receded into the background. [\[LINK\]](#)

Authors: Thomas Jansen and Pieter-Jan Vandoren.



The Socio-Political Instability Observer

Results from the Socio-Political Instability Survey

July 2025







Source: News wire (left), DPA and Reuters (right). © 2025 HCSS Survey. All rights reserved. The German Chancellor and the US President are shown in their official capacity. © 2025 HCSS Survey. All rights reserved. © 2025 HCSS Survey. All rights reserved.

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Day of Progress | European Sovereignty and Knowledge in Times of Transatlantic Tension

On 13 November, Clingendael and HCSS hosted the annual “Day of Progress,” a private gathering where researchers, policymakers, and strategic thinkers examined Europe’s challenges in a shifting transatlantic landscape. Discussions focused on strategic autonomy, the future of the European defence industry, and the continent’s technological resilience.

The conference is part of the PROGRESS research program, organised by Clingendael and HCSS in cooperation with the Ministries of Foreign Affairs and Defence. The 2025 edition opened with reflections on Europe’s knowledge base, capabilities, and cooperation by Tanja Röling (Ministry of Foreign Affairs), Fenna Leijten (Ministry of Defence), Monika Sie Dhian Ho (Clingendael), and Tim Sweijs (HCSS).

A plenary session explored how MAGA-inspired narratives resonate in Europe. With democratic backsliding visible worldwide, the discussion asked whether this signals a deeper erosion of liberal democracy.

Participants then joined four breakout sessions highlighting key themes of PROGRESS:

- European Defence Industry and US Decoupling (Bart van den Berg & Davis Ellison) – Can Europe develop the industrial capacity, innovation power, and joint procurement needed for real strategic autonomy, or will dependence on US systems and supply chains persist?
- New Technology and Digital Sovereignty (Alexandre F. Gomes & Ron Stoop) – How can Europe reduce structural digital dependencies while maintaining vital geopolitical and defence relationships?
- Territorial Politics and Corridor Thinking (Julia Soldatiuk-Westerveld & Benedetta Girardi) – How can the Netherlands work with coastal states around the Black Sea, Red Sea, and South China Sea to safeguard essential trade and power corridors amid rising tensions?
- Working with AI Models (Niels Drost & Jesse Kommandeur) – What remains the unique contribution of researchers and trainers in an era of rapidly advancing AI?

The closing plenary, “European Sovereignty as a Mission,” brought in external experts Lotje Boswinkel (CSDS) and Steven Everts (EUISS) to explore how Europe can strengthen its sovereignty in a changing global order. [\[LINK\]](#)





From Dayton to Brussels: 30 Years of Peace, deadlock, and an EU path for Bosnia and Herzegovina

To mark thirty years since the signing of the Dayton Peace Agreement, on November 21st, 2025, HCSS, the Clingendael Institute, and the BiH-NL Think Tank convened policymakers, scholars, diplomats, and civil society representatives to assess Dayton's legacy and Bosnia's prospects of moving from the "Dayton phase" to the "Brussels phase". Discussions highlighted Dayton's dual role as a peace settlement and a constitutional framework, the structural deadlock it created, rising geopolitical pressures, and the growing importance of civic engagement. Read the full event recap here. [\[LINK\]](#)

Dashboard | The Nuclear Timeline

The HCSS Datalab presents: the Nuclear Timeline, providing a comprehensive overview of key events in nuclear history. It traces the long legacy of nuclear security threats and policies and puts these developments in a broader context. Events covered span a wide range of fields, including scientific developments, nuclear power, (non-)proliferation efforts and safety and security issues. This historical overview can help policymakers, researchers, and the general public to better understand the continuing impact of nuclear issues on our world. Making our world a safer place in light of the unabated nuclear threats is a concern that faces all of us. [\[LINK\]](#)

Position paper | Connecting Continents, Securing Futures: The ROK-NL Partnership Amid Global Shifts

This position paper outlines how the Republic of Korea and the Netherlands can deepen their strategic partnership amid global geopolitical and technological shifts. Highlighting key areas such as security, AI governance, and high-tech industry cooperation, the paper calls for joint action on cyber defence, education, clean tech, and innovation.

Building on the **2025 ROK-NL Forum**, held on April 23rd, it presents a roadmap for agile, values-driven cooperation between Europe and the Indo-Pacific. With practical insights and policy proposals, the paper urges both governments to embed this partnership into long-term national strategies and shape an agile, principled model of cooperation between Europe and the Indo-Pacific. [\[LINK\]](#)

Authors: Fiona De Cuyper, Benedetta Girardi and Julie Ebrard.
With contributions by Davis Ellison and Hans Horan.

Strengthening ROK-NL ties: HCSS field visits and initiatives in Seoul

On 18 September 2025, a delegation from HCSS –comprising Benedetta Girardi, Irina Patrahau, Michel Rademaker and Karlijn Velthuis – joined the Korea Institute for International Economic Policy (KIEP) in co-organising the ROK–NL Think Tank Dialogue on Industrial Open Strategic Autonomy in the Indo-Pacific, held at the Hotel President in Seoul. The event brought together policymakers, scholars, and researchers from both countries to discuss how the Netherlands and the Republic of Korea can jointly strengthen their technological and industrial resilience in an era of growing geopolitical complexity. [\[LINK\]](#)





Economics & Technology

In 2025, global competition over resources, technology and industrial capacity intensified. From critical minerals to military fuels and clean-tech supply chains, Europe faces mounting pressure to secure the foundations of its economic resilience and strategic autonomy. Against this backdrop, HCSS research this year demonstrates a clear message: ambitions are high, but Europe will only succeed if it moves faster, acts more coherently, and builds the industrial and technological strength needed to withstand geopolitical shocks.

HCSS work across economics and technology reveals how deeply Europe's prosperity and security depend on resilient supply chains. Our analyses of the global race for critical raw materials — spanning battery minerals, essential inputs for clean technologies, and the vulnerabilities of provincial, national and European supply chains — show that no country can go it alone. Studies on regional CRM strategies, voluntary stockpiling models, and the security of supply for Dutch and European industry underscore the need for coordinated public-private action. Meanwhile, publications on Europe's clean tech future and our contributions to the Draghi Revisited series highlight a recurring conclusion: if the EU wants to meet its industrial and climate ambitions, it must significantly step up its game.

Defence-related economic security also features prominently. Our in-depth analysis of the supply chain of the Air Defence & Command Frigate exposes how complex defence systems rely on fragile, globalised material inputs. Research on fuel logistics and alternative fuels demonstrates that energy remains a decisive factor in military readiness. Position papers on scaling the European defence industry and strengthening defence innovation show the urgent need to expand production capacity, reduce dependencies, and prepare for long-term geopolitical competition.

Technology transfer and digital dependencies add another layer to Europe's vulnerability. Our work with Datenna on protecting AI-related innovations illustrates how quickly emerging technologies can be absorbed into the military capabilities of strategic competitors, while broader contributions — from seafloor infrastructure security to the governance of strategic value chains — map the risks across diverse sectors.

Finally, HCSS research is not just limited to producing reports. With interactive dashboards such as **GATRI**, **CARMEN** and **DOMINO**, the **HCSS Datalab** provides policymakers and industry leaders with near real-time tools to navigate geopolitical and market volatility. These platforms translate complex signals into actionable insights, enabling more resilient decisions in an era defined by uncertainty.

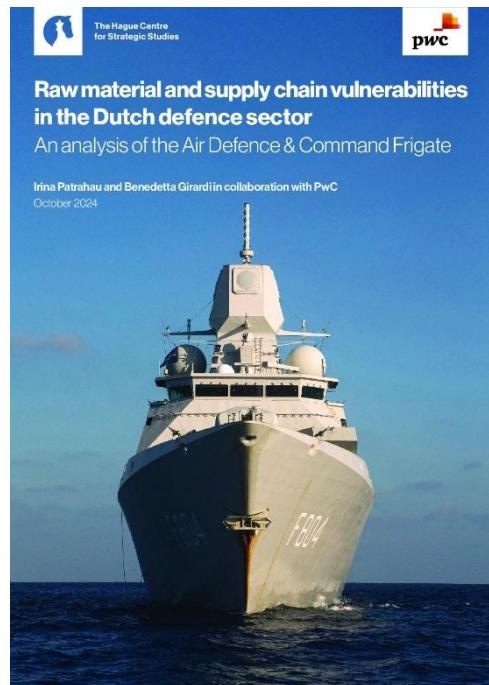
Report | Raw material and supply chain vulnerabilities in the Dutch defence sector: An analysis of the Air Defence & Command Frigate

How can we bolster the resilience of the Dutch military supply chain? The Dutch Ministry of Economic Affairs has commissioned HCSS and PwC to analyse the supply chain of Air Defence & Command Frigates (*Luchtverdedigingen en Commandofregat - LCF*). This study identifies geopolitical vulnerabilities related to critical raw materials and provides policy recommendations for enhancing resilience against disruptions. The research shows that the Ministry of Defence has a solid overview of its tier-1 suppliers who are located within EU and NATO countries, but limited insights exist regarding lower-tier suppliers and raw material dependencies. [\[LINK\]](#)

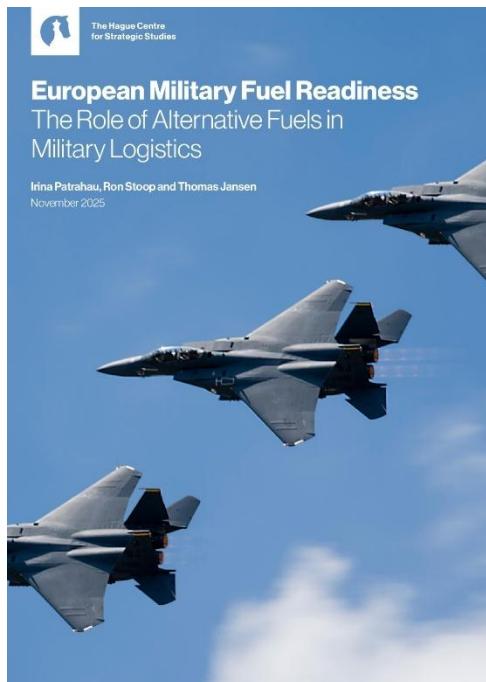
Authors: Irina Patrahau and Benedetta Girardi, in collaboration with PwC.

Contributors: Michel Rademaker, Julia Döll and Bart Vossebelt.

Reviewed by Peter Handley.



Report | European Military Fuel Readiness: The Role of Alternative Fuels in Military Logistics



What does the energy transition in the military look like? The use of alternative fuels in the military brings challenges and opportunities, but while fossil fuels are slowly phased out, advanced and sustainable biofuels as well as synthetic fuels – are introduced. This report analyses the energy transition for military fuel readiness across the air, land and maritime domains as of 2025. Relating fuel properties and infrastructure to the operational needs of the military and providing 5 takeaways. [\[LINK\]](#)

Authors: Irina Patrahau, Ron Stoop and Thomas Jansen. Contributors: Michel Rademaker and Bjorn de Heer.

Report | Critical Raw Materials in the Dutch Provinces of Noord-Holland and Flevoland: Towards Resilient Supply Chains

No EU country can be self-sufficient in critical raw materials. But regions like Noord-Holland & Flevoland can lead in recycling, innovation & circularity. This HCSS report by Irina Patrahau, Lucia van Geuns, Ron Stoop, and Julie Jeuken highlights how regional actors—from ports to recycling companies—can strengthen Europe’s security of supply amid growing global competition for critical raw materials. It identifies vulnerabilities and outlines five key opportunities for building circular, sustainable CRM supply chains.

[\[LINK\]](#)

Authors: Irina Patrahau, Lucia van Geuns, Ron Stoop, and Julie Jeuken.

Report | Securing Europe’s Clean Tech Future: Supporting Industry Stockpiles of Critical Raw Materials in the Netherlands

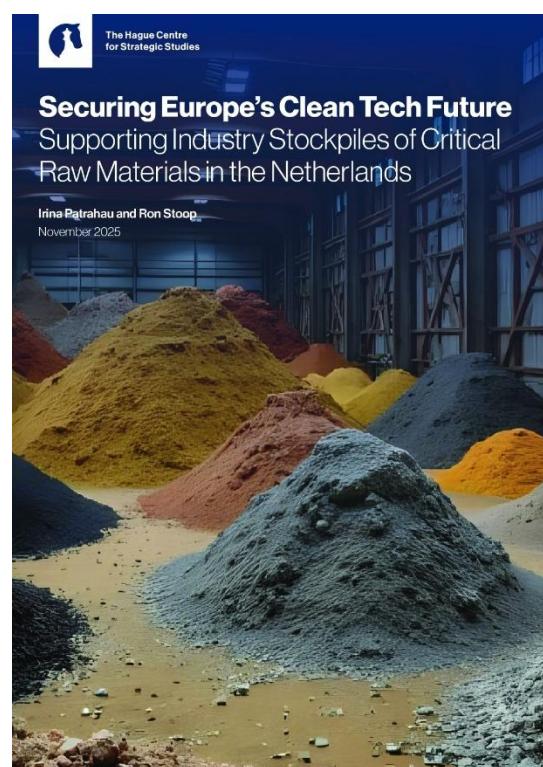
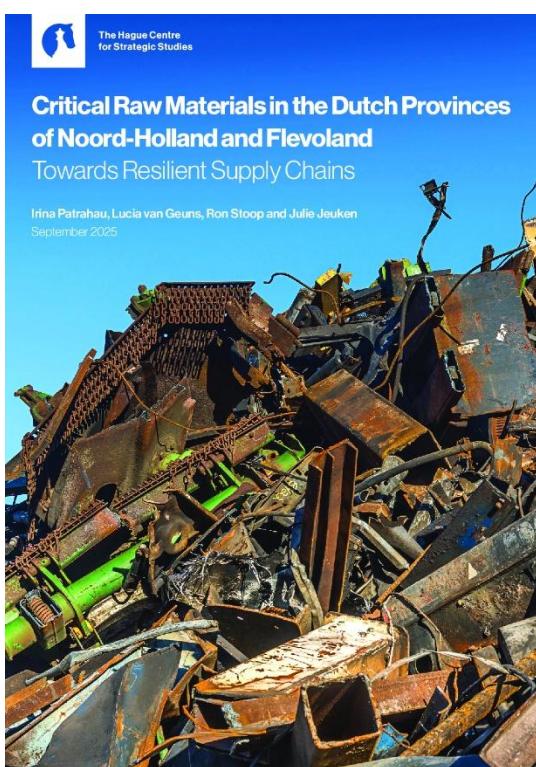
From batteries to hydrogen: Europe’s clean tech future depends on secure, sustainable material supply. This HCSS report explores how public-private collaboration on voluntary critical raw material stockpiles can strengthen the resilience and sustainability of the Dutch and European clean tech sectors. The study by Irina Patrahau and Ron Stoop proposes a four-step model and actionable recommendations for building voluntary stockpiles that support SMEs, promote ESG sourcing, and align with EU strategic autonomy goals.

[\[LINK\]](#)

Authors: Irina Patrahau and Ron Stoop.

Contributors: Michel Rademaker, Lucia van Geuns and Ciaran Cassidy.

Review by Peter Handley.



Paper | Securing European Military Fuels in a Tense Security Environment: Supply, Distribution and Storage

How prepared is NATO's European fuel infrastructure for war on its Eastern Flank? Fossil fuels are the backbone of modern militaries, a fact that is unlikely to change in the foreseeable future. This report investigates the challenges to fuel logistics that NATO could face if forced into a large-scale conflict on its Eastern Flank. It finds that several core features of the European fuel supply system could emerge as serious constraints on military effectiveness and provides several recommendations to address these challenges. [\[LINK\]](#)

Authors: Ron Stoop, Irina Patrahau and Ciaran Cassidy.

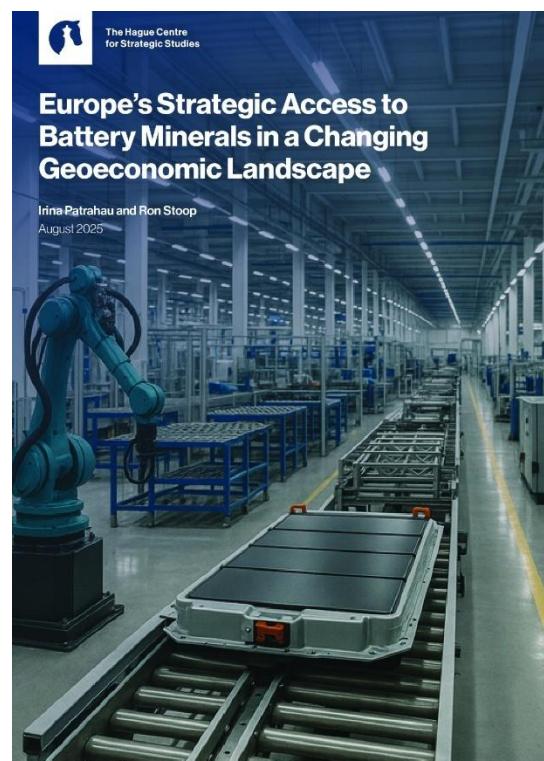
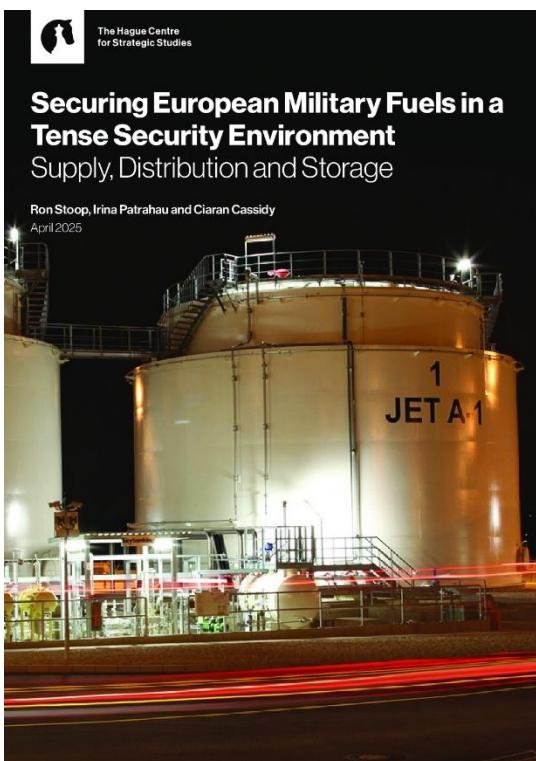
Contributors: Lucia van Geuns and Michel Rademaker.

Peer review: Energeix.

Paper | Europe's Strategic Access to Battery Minerals in a Changing Geoeconomic Landscape

Batteries are central to the EU's transition to a low-carbon economy. This paper analyses the geopolitical vulnerabilities arising from the three most widespread battery chemistries – Lithium Nickel Manganese Cobalt Oxide (NMC); Lithium Ferro Phosphate (LFP); and Sodium Ion Batteries (SIB) – on two timelines, 2025 and 2030 and provides three main takeaways for EU-based policymakers and industry actors. [\[LINK\]](#)

Authors: Irina Patrahau and Ron Stoop.

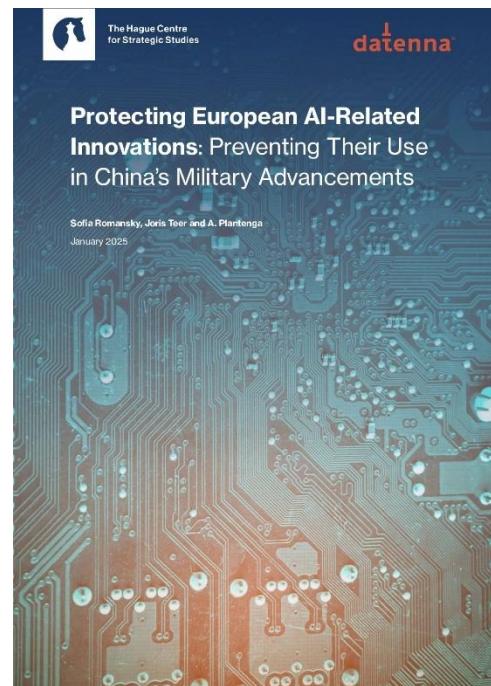


Report | Protecting European AI-Related Innovations: Preventing Their Use in China's Military Advancements

Over the past years, China's rapid military modernisation has caused alarm in the US, Asia and Europe. If the US-China military balance of power in the Indo-Pacific definitively tips in China's favour, this could have far-reaching consequences for security in East Asia, as well as globally. Drawing on a collaborative research effort by HCSS and Datenna, this report provides a detailed analysis of China's technological strategies and industrial landscape, offering European policymakers actionable recommendations for managing technology transfer and safeguarding security interests.

[\[LINK\]](#)

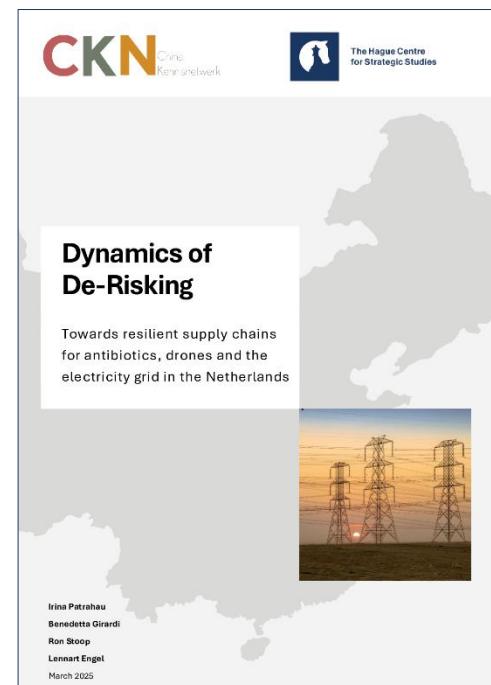
Authors: Sofia Romansky, Joris Teer and A. Plantenga.
 Contributors: Tim Sweijs, Anna Sophie den Ouden, Frank Bekkers, A. Bauer (Datenna), Maria Antigone Rumpf (Datenna), and Datenna analysts who have chosen to remain anonymous.



Report | Dynamics of De-Risking: Towards resilient supply chains for antibiotics, drones and the electricity grid in the Netherlands

The EU faces growing economic dependencies on China in vital sectors like health, defence, and energy. This HCSS report by Irina Patrahau, Benedetta Girardi, Ron Stoop and Lennart Engel, written at the request of the China Knowledge Network (CKN), examines the risks posed by China's economic statecraft and outlines a strategic de-risking approach for Europe. By analysing vulnerabilities in antibiotics, drones, and electricity grids, we provide concrete policy recommendations to strengthen resilience. [\[LINK\]](#)

Authors: Irina Patrahau, Benedetta Girardi, Ron Stoop and Lennart Engel.



Report | Making e-SAF land: Opportunities for the Netherlands in the Synthetic Aviation Fuel Sector

What are the opportunities for Dutch industry in the global e-SAF supply chain? With EU climate targets driving demand for synthetic aviation fuels, the Netherlands can leverage its strong capabilities and international partnerships to secure sustainable solutions. The Netherlands is well-positioned with its technical expertise, energy hub role, and strong international ties—but high costs mean global partnerships are key. This HCSS study highlights opportunities in Sweden, Spain, France, Canada, Morocco, Brazil, and Saudi Arabia, and offers concrete recommendations for government and industry. [\[LINK\]](#)

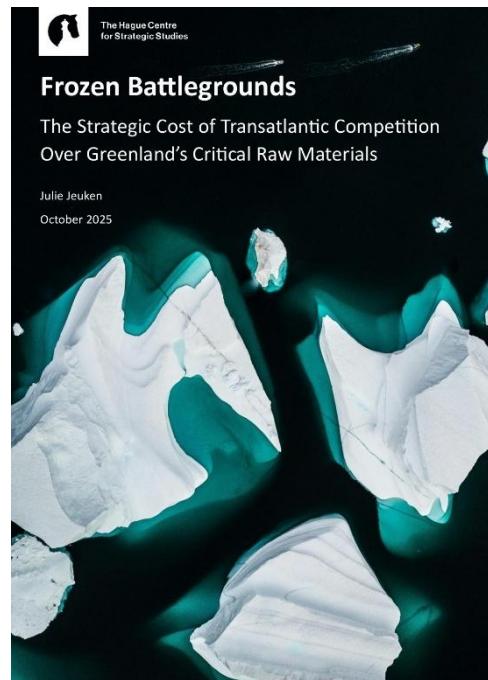
Authors: Irina Patrahau and Ron Stoop.
 Contributions by Elton Höglint and Lucia van Geuns.
 Quality Assurance by Tim Sweijs.



Snapshot | Frozen Battlegrounds: The Strategic Cost of Transatlantic Competition Over Greenland's Critical Raw Materials

Greenland's critical raw materials are attracting global attention – but will the EU and US step up, or will China fill the void? Assistant Analyst Julie Jeuken investigates EU and US bilateral engagements with Greenland, finding that both share similar goals yet fall short of Nuuk's expectations. The snapshot calls for a Greenland-centred approach to transatlantic cooperation: aligning efforts with the island's ambitions, leveraging renewable energy in mining, and coordinating with countries already active in the sector. [\[LINK\]](#)

Author: Julie Jeuken.
 Editor: Irina Patrahau.





The Draghi Report Revisited

HCSS Expert Commentary Series

One Year After
The Draghi Report
What has been achieved
and what has changed



HCSS Draghi Revisited Report Series | Expert Commentary

One year after Mario Draghi's landmark report on Europe's economic future, "*The future of European competitiveness*", HCSS launched the second edition of our Draghi Report Series: **Draghi Revisited**. [\[LINK\]](#)

Despite political attention, Europe still struggles with dependencies in defence, raw materials, cleantech, and digital domains. Global tensions with both China and the US are mounting, and Europe's trade model faces unprecedented pressure. Progress has been uneven and often too slow due to coordination, financing and other internal barriers.

Last year, Ron Stoop and Berend Kwak examined the long-term implications of Draghi's recommendations. Their work earned them an invitation to **the European Commission's high-level conference marking the report's anniversary**. Now, they return to assess how far Europe has come in addressing Draghi's urgent call to secure its industrial, technological and economic sovereignty, in a series of sector-by-sector deep dives by HCSS analysts Benedetta Girardi, Irina Patrahan, Michel Rademaker, Davis Ellison, Lucia van Geuns, Jilles van den Beukel, Sofia Romansky and Jesse Kommandeur.

Our verdict: while policy ambition is rising, implementation remains slow, fragmented and underfunded — leaving Europe at risk of staying a regulatory power rather than becoming an industrial one. Key findings per sector:

- **Automotive** – EV uptake grows, but progress is uneven. Policy rollbacks, tariff gaps and slow infrastructure development keep Europe behind global competitors.
- **Semiconductors** – The Chips Act boosts coordination, yet major projects stall due to high costs, labour shortages and slow permitting.
- **Critical Raw Materials** – Ambitious CRMA targets face weak EU-wide execution, slow permitting and insufficient financing; dependence remains high.
- **Energy** – Diversification improved, but high prices, fragmented state-aid and lagging grid investments persist; competitiveness suffers.
- **Clean Technologies** – Despite the NZIA and Clean Industrial Deal, domestic cleantech production scales too slowly amid regulatory complexity and grid congestion.
- **Energy-Intensive Industries** – High power prices and weak demand for low-carbon products delay vital decarbonisation investments.
- **Artificial Intelligence** – New investment-driven initiatives mark progress, but adoption stays low due to skills shortages, fragmented regulation and limited compute access.
- **Defence** – Reforms continue, but national procurement fragmentation pushes EU states toward US purchases, weakening Europe's defence industrial base.
- **Conclusion** – by Ron Stoop and Berend Kwak

Conclusion: Europe knows what to do — but still struggles to create the market conditions to make its ambitions real.

The individual expert commentaries can also be read on our website.

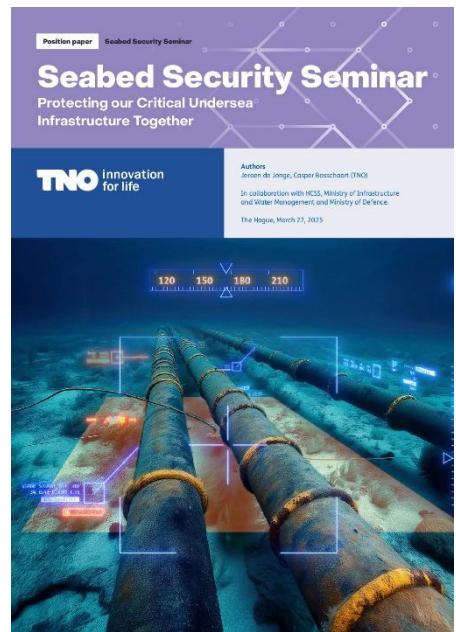
Guest Paper Series | Seabed Security

The seabed is under attack — and so is our security. Recent incursions by Russian vessels and the sabotage of underwater power and internet cables have exposed critical vulnerabilities in NATO countries' infrastructure. This threat to security, as well as societal and business continuity, demands urgent and unified action.

In preparation for the NATO Summit in The Hague, TNO and HCSS, in close cooperation with the Dutch Ministries of Defence and Infrastructure & Water Management, organised an exclusive **NATO Seminar on Seabed Security**, on March 27, 2025. The seminar brought together leading experts for inspiring panels to discuss topics like "The Threat Landscape – From Baltic to Global", "Smart Responses – Innovation & Risk-Based Resilience", and "Race to the Bottom – Collaboration Across Sectors.

As part of the preparations, TNO in collaboration with HCSS and the Ministries, drafted a position paper containing concrete recommendations for action, aimed at strengthening the debate and contributing to effective solutions for the strategic security of the seabed. [\[LINK\]](#)

As a follow-up, HCSS asked several experts to contribute a guest paper on Seabed Security, edited by HCSS deputy director Michel Rademaker. [\[LINK\]](#)



Paper 1 | Unconventional Legal Approaches to protecting Underwater Infrastructure

In his contribution, Alexander Lott (researcher at the Norwegian Center for the Law of the Sea at UiT – The Arctic University of Norway) explores legal solutions to safeguard critical underwater infrastructure from sabotage and accidental damage. Existing international law offers little protection beyond territorial waters, leaving submarine cables and pipelines vulnerable. The paper examines unconventional legal tools—ranging from piracy laws to safety zones—that could help coastal states take action. As recent incidents in the Baltic Sea and beyond have shown, securing these vital assets is more urgent than ever.

[\[LINK\]](#)

Paper 2 | Strengthening Taiwan’s Sea Cable Security

Submarine cables are the lifeline of global digital communication, yet they remain vulnerable to geopolitical risks, cyber threats, and sabotage. Dr. Kenny Huang (Chair, Taiwan Network Information Centre) examines these security challenges and explores strategies to protect critical infrastructure. From AI-powered monitoring to stronger international cooperation, the paper provides key recommendations for strengthening sea cable security in an era of rising global tensions. [\[LINK\]](#)

Paper 3 | Coping with Sabotage and Seabed Security Threats in the Baltic Sea: a Regional Maritime Security Policy

How can regional cooperation improve maritime security in the Baltic Sea? Adriana Ávila-Zúñiga-Nordfjeld (Senior Lecturer, Swedish Defence University) explores the feasibility of expanding the Helsinki Convention and HELCOM to include maritime security measures. The paper highlights the need for a regional agreement to counter undersea sabotage threats through standardised policies and cooperation. [\[LINK\]](#)

Wind Finland Offshore seminar, Helsinki | Sea infrastructure under attack

On 21 May 2025, HCSS Deputy Director Michel Rademaker shared his insights on the vulnerabilities of maritime infrastructure and strategies to enhance resilience amid growing geopolitical and hybrid threats, at the Wind Finland Offshore seminar in Helsinki, Finland. The event brought together more than 300 professionals and stakeholders from across the offshore wind sector, offering a full day of expert presentations, discussion, and networking opportunities centred on the future of offshore wind energy in the Baltic Sea region. [\[LINK\]](#)

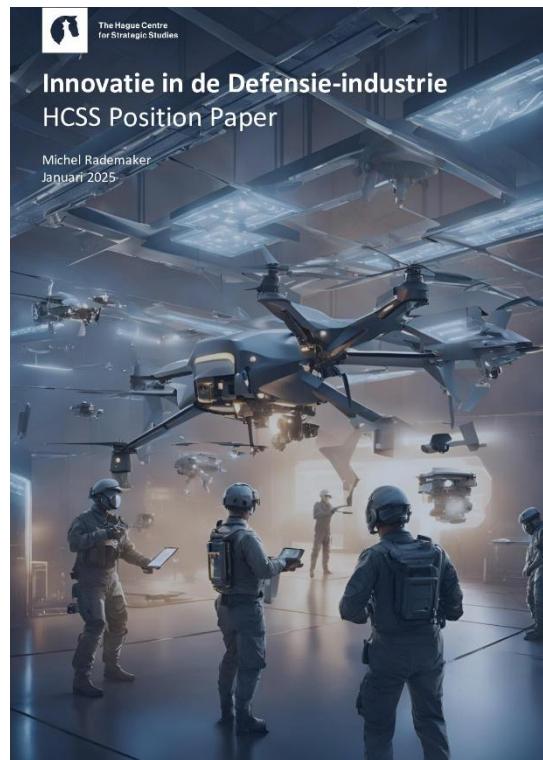
Position paper | Scaling Up the European Defence Industry

In an era of heightened geopolitical tensions, the importance of military preparedness and sustainment of any war effort is more pressing than ever. The Trump presidency has once more underscored the need for Europe to be able to fend for itself. Unfortunately, Europe is currently falling short in a number of critical capabilities if called upon to go alone. European NATO-members states strongly depend on US capabilities for their defence operations. This position paper will give an overview of the most pressing topics in the defence industry sector and will provide recommendations for future policy agendas. [[LINK](#)]

Authors: Ron Stoop and Michel Rademaker.

Position paper | Innovation in the Defence Industry

How can the Netherlands not only strengthen its own defence industry but also contribute to a more resilient European defence landscape better equipped to meet future challenges? The House of Representatives' Standing Committee on Defence held a **roundtable discussion** on Innovation in the Defence Industry with Michel Rademaker and other experts on January 16, 2025. Rademaker, HCSS deputy director, co-founder, and raw materials expert, wrote this position paper in preparation. [[LINK](#)]



CEPA | Recalibrating Connectivity to Compete Against China

"The Competition is with China, not with Europe." Securing global trade and technology is more critical than ever. In an article for the Center for European Policy Analysis (CEPA), HCSS Director of Research Tim Sweijs and Strategic Analyst Ron Stoop explore how the US and EU must unite to counter China's growing influence, protect supply chains, and strengthen economic security. To address these challenges, Sweijs and Stoop urge the US and EU to adopt a coordinated strategy. With rising geopolitical tensions, the US and EU must set aside trade disputes and work together: the challenge is not with each other - the real competition is with China. [\[LINK\]](#)

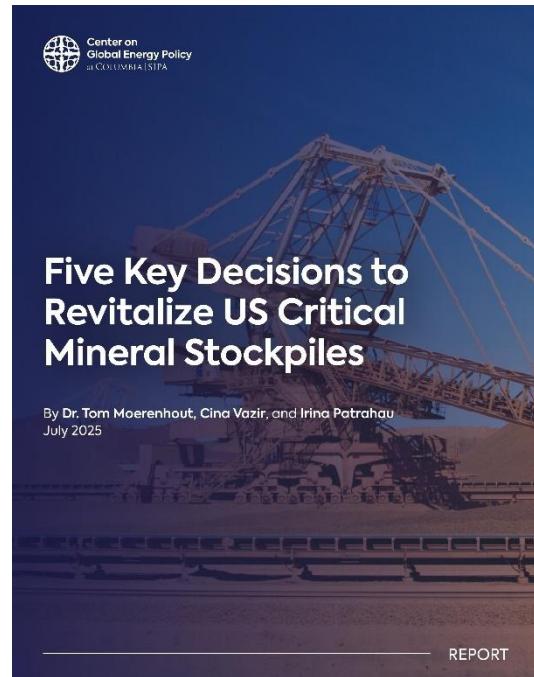
Paper | The Strategic Importance of Chloralkali and Sustainable Aviation Fuel for the EU & Saudi Arabia

The costs of energy are an important part of various industrial value chains and are very decisive for the competitive position of the industry. In three studies commissioned by the Royal VNCI and the National Program for Sustainable Industry, TNO, HCSS and Roland Berger compared the future energy costs of the renewable energy supply for industrial processes in the Netherlands with Saudi Arabia for two value chains: the chlor-alkali chain and the production of sustainable aviation fuel (SAF) from household waste via syncrude. HCSS analysed the strategic importance of the two industries for the two regions as well as the types of interventions that the two governments are generally undertaking to support domestic industry in a broader sense. [\[LINK\]](#)

Authors: Irina Patrahan, Lucia van Geuns, Berend Kwak, Ron Stoop and Philippe van Poppelendam.

CGEP | Five Key Decisions to Revitalize US Critical Mineral Stockpiles

In a new report published by the Center on Global Energy Policy (CGEP) at Columbia University, experts Dr. Tom Moerenhout, Cina Vazir, and Irina Patrahan identify five key decisions that must be made to revitalise the US stockpiling system and to establish effective strategies for Europe and the Netherlands. From expanding its mandate to refining what, how, and who should manage it, the report offers a roadmap for policymakers. [\[LINK\]](#)

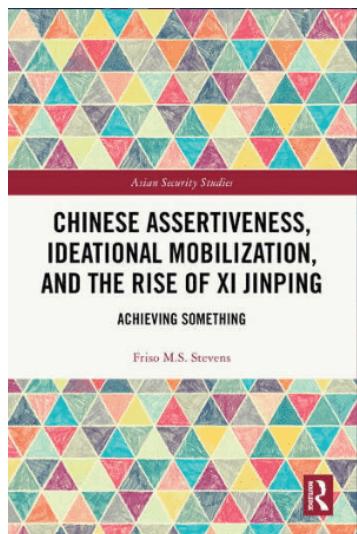
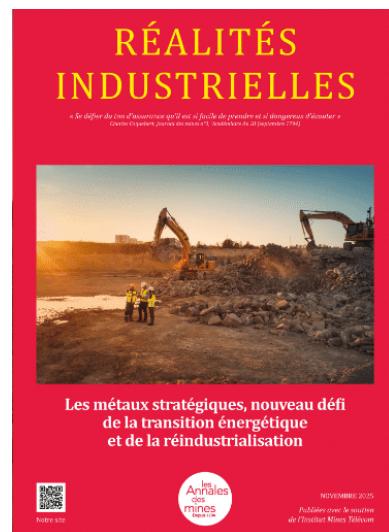


HCSS Commentary | Opaque Supply Chains may prevent ReArming Europe

Europe's military supply chains are too fragile, fragmented, and opaque for today's security environment—putting its Rearmament Plan at risk. While policymakers focus on boosting defence investments, a critical blind spot remains: securing the midstream of military supply chains. Without transparency and resilience in sourcing key components, European defence readiness is vulnerable to disruption write analysts Irina Patrahan and Benedetta Girardi in their op-ed on why Europe must urgently strengthen its defence supply networks. [\[LINK\]](#)

Annales des Mines | The current state of the European Union's dependency and its policies

In an article for *Les Annales des Mines*, HCSS Strategic Advisor Peter Handley examines how the EU's efforts to reduce strategic dependencies — from energy to defence — have paradoxically coincided with rising import reliance. As China tightens export controls and the US races ahead with industrial policy, Handley argues that Europe must urgently shift from awareness to action to secure critical raw materials — and with them, its strategic autonomy. [\[LINK\]](#)



Book Review | Chinese Assertiveness, Ideational Mobilization, and the Rise of Xi Jinping

In his new book, HCSS Senior Fellow Friso Stevens uncovers the deeper continuity between Hu Jintao and Xi Jinping—showing that Xi's rise began with a 2007 mandate to restore control amid corruption, social unrest and foreign-policy uncertainty. Drawing on extensive archival research, Stevens argues that China's current course was set well before 2012, culminating in a new phase of centralised autocracy and a long-term project to reshape Asia's regional order ahead of China's planned “national rejuvenation” in 2049. [\[LINK\]](#)

War On The Rocks | Tanks, Tech, and Tungsten: The Strategic Mineral Alliance the West Needs

What good is a tank if you can't get the metals to build it? A new piece in War on the Rocks co-written by HCSS Strategic Advisor Peter Handley argues that the US and EU need to rethink critical minerals cooperation — shifting from a climate and economic framing toward defence and security. [\[LINK\]](#)

Event | The Arctic Security Conference 2025: Managing Polarisation and Fragmentation

In September, Strategic Analyst Fiona De Cuyper attended the 2025 Arctic Security Conference in Oslo, Norway. The event brought together a diverse group of global participants, including academics, government and business representatives, Indigenous peoples, and locals from northern communities. This year, the central theme of the conference was “Managing Polarisation and Fragmentation”, with sessions focused on great power competition in the High North, the relevance of Arctic cooperative institutions, the state of conflict in the region, the local aspect of security considerations, and the role of non-Arctic states. Fiona reflects on the discussions and shares her insights from the Arctic Security Conference 2025 in this recap: [\[LINK\]](#)

The Arctic This Week | Take Five

HCSS analyst Fiona De Cuyper wrote the Take Five for The Arctic Institute. The article highlights five key developments related to the Arctic region. Ranging from Russia's LNG exports to China and France's growing diplomatic presence in Greenland, to Indigenous rights in Finland, Chinese research operations off Alaska, and community-led initiatives in Canada's North. [\[LINK\]](#)

Conference | “WindWorks Powering Economy”

HCSS Strategic Analyst Pieter-Jan Vandoren spoke at the 2025 WindWorks Conference in Riga on the 'Defense vs Wind Energy' panel. “Windworks Powering Economy” is the main platform for experts, policymakers, investors, and other stakeholders to network and discuss opportunities, challenges, and best practices in the wind energy sector across the Baltic States. “Underwater the war has already begun,” Pieter-Jan stated, highlighting concrete examples of cooperation between the military and offshore-wind developers in the Netherlands that allow the green transition to continue despite heightened geopolitical tensions in the North Sea and that could serve as a blueprint for civil–military cooperation in the Baltic Sea. [\[LINK\]](#)

Dashboard | GATRI: The Geopolitical Annual Trade Risk Index

The *Geopolitical Annual Trade Risk Index* (GATRI) is a metric developed by the HCSS Datalab in collaboration with WTC to quantify the influence of geopolitical developments on global trade. GATRI was launched on June 2 by Rob de Wijk and HCSS data scientist Maarten Vink, during a **high-level event with top entrepreneurs at the High Tech Campus** in Eindhoven organised by the World Trade Center Netherlands Alliance (WTCNL), HCSS, the High Tech Campus and Mikrocentrum.

Updated annually, GATRI condenses economic, military, and diplomatic signals into a single score, helping policymakers and business leaders assess risks and opportunities in an evolving world. Launched in 2025 with a baseline of 100, GATRI offers a clear, data-driven snapshot of global stability for strategic decision-making. [\[LINK\]](#)

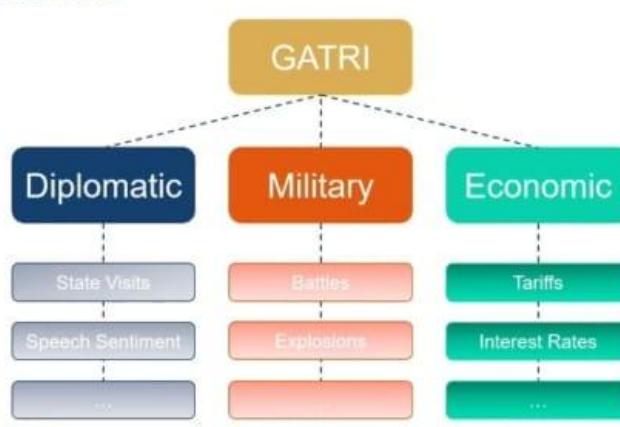
In an era in which traditional assumptions about global order no longer hold, GATRI offers a structured way to assess not just the state of the world, but the broader system level forces reshaping the international system. It does so by measuring both the absolute level of geopolitical risk and its volatility—capturing how threatened the system is and how fast it is shifting. The index focuses on the geopolitical climate, rather than reacting to the ‘weather’ of isolated incidents, enabling users to see through the noise and track underlying system dynamics.

GATRI aggregates open-source data across three core domains of global power politics: economic, military, and diplomatic. It includes material indicators like sanctions, military deployments, and trade disruptions, as well as behavioural signals such as diplomatic sentiment and foreign state visits. This multi-domain approach tries to aggregate both the visible actions and the strategic posture shifts that shape the global system over time.



GATRI

Structure



Dashboard | CARMEN: The Critical Raw Materials Early Navigation Dashboard

The *Critical Raw Materials Early Navigation* (CARMEN) dashboard is a tool developed by the HCSS Datalab to help organisations navigate the volatile world of critical raw materials. It brings together near real-time financial, and market data to secure essential materials while minimising exposure to risk. CARMEN contains financial data relating to 87 materials from various sourcing countries such as Australia, Brazil and China, which are updated daily. [\[LINK\]](#)



Dashboard | DOMINO: The Dutch Observer for Materials Intelligence and Operations

The *Dutch Observer for Materials Intelligence and Operations* (DOMINO) dashboard, developed by the HCSS Datalab with support from the Netherlands Materials Observatory (NMO), provides a near real-time synthesis of global events that impact critical raw material supply chains. It enables decision-makers and industry stakeholders to understand potential domino effects, where a single change can trigger a cascade of consequences that affect supply chain security.

DOMINO organises large volumes of near real-time critical raw materials news data from a wide range of international outlets through an AI-automated pipeline that applies a tailored taxonomy. In this interactive dashboard you can explore trends, search for content or generate reports on 50+ materials, 40+ event types, more than 200 countries and administrative units, 3 actor categories (public, private and non-governmental) and 20+ supply chains. [\[LINK\]](#)



If you're interested in our methodological notes, accessing the CARMEN and DOMINO tools or contributing to their development, please reach out to us at datalab@hcss.nl.

10th Edition of the EU Raw Materials Week

A delegation consisting of HCSS experts Michel Rademaker, Irina Patrahau and Jesse Kommandeur was present at the 10th edition of the EU Raw Materials Week, an annual event organised by the European Commission. The 2025 edition took place in Brussels from 17-21 November. It gathered over 1000 stakeholders from governments, industry, civil society, academia and research to discuss policies and initiatives in the field of raw materials in the EU and globally. [\[LINK\]](#)

On November 18th, HCSS Deputy Director Michel Rademaker was a panellist at the High-Level Conference on Raw Materials Session 2: Critical raw materials and European security: Strategic autonomy in a shifting world.

On November 19th, HCSS Strategic Analysts Irina Patrahau and Jesse Kommandeur were part of a presentation by the NMO (Netherlands Materials Observatory) where Elmer Rietveld presented DOMINO – The Dutch Observer for Materials Intelligence and Operations. This took place in the session ‘Monitoring critical raw materials supply chains: Enhancing early warning systems and company risk preparedness’.

On November 20th, Irina Patrahau moderated both panels of the session ‘Security of supply for EU defence: How recycling can be a part of the solution’, on the topics of “How can we strengthen Security of Supply through circularity?” and “What are the conditions needed for the development of secure and circular defence value chains for critical raw materials?”

Elsewhere during that same week in Brussels, HCSS Strategic Advisor Peter Handley moderated a session on ‘Securing Strategic Value Chains: The Role of Lithium, Antimony, Gallium and Graphite Materials in Europe’s Green and Digital Transition’ at The International Antimony Association Conference on November 17th.

On November 18th Handley participated in a panel session at the European Aluminium Summit that explored the balance between sustainability and economic pragmatism in the EU’s long-term transition strategy, assessing how this shift impacts supply chains strategy, trade relations, and regulatory frameworks.



De Balie | Cinédialoog: Lithium Rising

From the moment the smartphone alarm wakes us up in the morning, we begin our day relying on the lithium battery. From the mundane to lifesaving, lithium powered devices get us through the day. On 2 October 2025, HCSS Strategic Analyst Irina Patrahan spoke about the global scramble for lithium at De Balie in Amsterdam for the program *"Cinédialoog: Lithium Rising."* Who controls the supply of this critical mineral? Access to the minerals that power a battery has emerged as a vital geopolitical, economic and social concern. So where does the lithium, the nickel, and the cobalt come from? Who controls the supply? And who is impacted by the demand? [\[LINK\]](#)

NATO Future Fuels Workshop

As low-carbon fuels gain a more prominent role in the European economy, energy production, storage and transportation infrastructure are changing. Militaries are investing in reducing emissions as well, with NATO pledging to achieve carbon neutrality by 2050, yet fossil fuels remain the most reliable for militaries during conflict in the short-term. On 24 April 2025, HCSS and the Federation of European Tank Storage Associations (FETSA) hosted a NATO Future Fuels Closed-Door Workshop in The Hague. For the first time, this workshop brought together representatives of the commercial and military infrastructure sectors to discuss the impact and risks of the changing global environment as well as commercial and military infrastructure needs. It featured short pitches from speakers that opened the room for discussion, debate and networking. [\[LINK\]](#)

The report *'Securing European Military Fuels in a Tense Security Environment: Supply, Distribution and Storage'* was written and shared with participants in anticipation of the event.



The Southern Africa-Netherlands Cyber Security School (SANCS) 2025

The need for ethical and highly educated professionals in Cyber Security is more pressing than ever.

The **Southern Africa-Netherlands Cyber Security School (SANCS)** is a free, annual online event organised by Dutch and Southern African organisations for students and young to mid-career professionals who are interested in cyber security issues and are based in Southern Africa or the Netherlands.

The 2nd edition of SANCS took place from 3 March – 10 April 2025. Co-organised by HCSS, Stellenbosch University and sponsored by the Netherlands Embassy and Consulate in South Africa and the Ministry of Foreign Affairs in the Netherlands, SANCS is supported by a wide range of partners from industry, research and government. During SANCS, students had the opportunity to play the National Cyber Resilience Game as well.

With over 3,000+ registrations this year, SANCS25 is committed to fostering professional and academic growth in the field of cyber security through expert lectures and online action learning. By creating a platform for cyber security enthusiasts to connect, this school paves the way for stronger ties and cooperative efforts in tackling the challenges of the digital age.

The 2025 edition of SANCS built on last year's success, doubling participation and delivering the first ever SANCS **in-person Career Day** at Deloitte South Africa's headquarters in Johannesburg. The event was conceptualised, organised and delivered on-site by Berend Kwak and Stephanie Govaerts on behalf of HCSS. The central aim of the Career Day was to support the top performing 250 SANCS graduates to be more work-ready through a full day of interactive workshops and skills development sessions, designed to prepare them for the dynamic and growing cyber security job market. This Career Day brought together SANCS alumni from both cohorts, SANCS Ambassadors, co-organising parties, industry experts and was an incredible way to keep investing in the growing SANCS community. [\[LINK\]](#)



The Indo-Dutch Cyber Security School (IDCSS) 2025

The **Indo-Dutch Cyber Security School (IDCSS)** is an annual event organised by Dutch and Indian organisations for students based in the Netherlands or India and young professionals interested in cyber security issues. The central goal of this school is to give students and young professionals the opportunity to grow professionally and academically. This is achieved through a series of 20+ lectures, group projects, and online action learning.

The 8th Edition of the IDCSS was held from October 6th to November 7th, 2025, and was organised by HCSS, together with the Cybersecurity Centre of Excellence (CCoE) Hyderabad, the Data Security Council of India, the Municipality of The Hague, the Netherlands Embassy in India, and the Government of Telangana. Within HCSS, Michel Rademaker, Berend Kwak, Stephanie Govaerts and Britt de Cuijper were responsible for running the school. We are extremely excited to announce that we reached 8,000+ registrations for IDCSS25.

Over the years, the IDCSS has organised lectures on topics such as forensics in cyber security, data protection, blockchain, cyber arms monitoring and cloud computing. We further improved the curriculum in 2025 by organising lectures from introductory level (in the first week) to advanced level (in the final week). Our expert speakers come from a range of backgrounds in computer science, crisis and security management, academics, law, international organisations and tech industries. This year, emerging subjects such as Cryptography and Artificial Intelligence have also been addressed.

As part of the IDCSS, HCSS Deputy Director Michel Rademaker has developed the Strategic Cyber Resilience Game, an online serious game that allows students to actively engage with hypothetical cyber incidents. The intent of the game is to further educate the students on all different aspects of cyber resilience and challenge them to assess what capabilities are required to make India more cyber resilient.

This years' IDCSS also hosted an in-person Cybersecurity 'Mixer' in Hyderabad, inspired by the SANCS Career Day, for the top performing students for a day of interactive workshops, skills development sessions and networking.



Defence & Security

The global security environment of 2025 is marked by volatility, strategic competition, and the accelerating transformation of warfare. This year's turbulent developments — from Russia's September drone incursion into NATO airspace to renewed nuclear signalling and the erosion of long-standing arms control norms — underscored how quickly the strategic landscape is shifting. The announcement by Moscow that it no longer considers itself bound by the INF Treaty, combined with escalating hybrid pressures across Europe, highlighted the urgency of adaptive deterrence and resilient defence.

Meanwhile, 2025 also witnessed intense fighting beyond Europe. While the war in Gaza continued, direct confrontations between Israel and Iran — including missile and drone strikes — underscored how regional conflicts can rapidly escalate and reverberate across global security architectures. As conflicts from Ukraine to the Red Sea continue to demonstrate how quickly regional crises can escalate, the need for a modern, resilient arms control framework is more pressing than ever.

Amid this instability, a key moment in 2025 was the NATO Summit in The Hague. HCSS played a central role in organising the Summit's Public Forum, helping to facilitate public debate around NATO's new 5% defence spending commitment, the future of collective security, and the Alliance's growing focus on industrial capacity, digital backbone development, and readiness. Together, these discussions reflected the Alliance's need to prepare for a world in which deterrence, military endurance, and societal resilience are more tightly intertwined than ever.

Throughout the year, HCSS contributed analysis and insight across this evolving spectrum. Our widely acclaimed report *Blinded By Bias* examined how cognitive blind spots have distorted Western strategic assessment — a theme that continues to resonate as Europe grapples with Russia's ongoing war in Ukraine. That war remained a central focus of HCSS research, from assessments of possible deployment scenarios to analysis of Russia's military regeneration and Europe's uneven preparedness. The lessons from Ukraine also informed our extensive work on Taiwan, including a major HCSS study comparing Ukrainian resistance with Taiwan's defence posture, and a series of guest papers analysing implications for land, air, maritime, and asymmetric defence.

2025 also marked the launch of *On Future War*, our flagship programme exploring how autonomous systems, AI-enabled targeting, digital information ecosystems, and new coercive tools are reshaping tomorrow's battlespace. From hybrid threat modelling to studies on attritable precision strike systems and NATO's digital capabilities, HCSS continued to map how emerging technologies intersect with geopolitics, military strategy, and societal resilience.

This chapter captures a year in which defence and security were redefined by rapid technological change, shifting power dynamics, and the hard lessons of contemporary conflict. Through research, scenario development, and dialogue, HCSS worked to illuminate how governments and alliances can deter, withstand, and adapt in an increasingly contested world.

Paper | Dirty deals, done dirt cheap? Implications of a Trump-brokered deal to end the Russia-Ukraine war

In January, Trump took office with the ambition to strike a quick deal between Russia and Ukraine that will have far-reaching repercussions for security on the European continent. There is no quick and easy fix. A ceasefire by itself does not end the war, and war termination does not necessarily lead to sustainable peace - especially not if it compromises on key aspects of Ukrainian sovereignty. Europe should not only complain to Trump but be actively involved and help to make sure an agreement succeeds. This includes funds for reconstruction, continued arms supplies and stabilising and securing Ukraine after a ceasefire. [\[LINK\]](#)

Joint Clingendael/HCSS policy brief by Bob Deen, Tim Sweijs, Roman de Baedts and Nora Nijboer.

Dirty deals, done dirt cheap?

Implications of a Trump-brokered deal to end the Russia-Ukraine war

Bob Deen
Tim Sweijs
Roman de Baedts
Nora Nijboer

Clingendael/HCSS Policy Brief

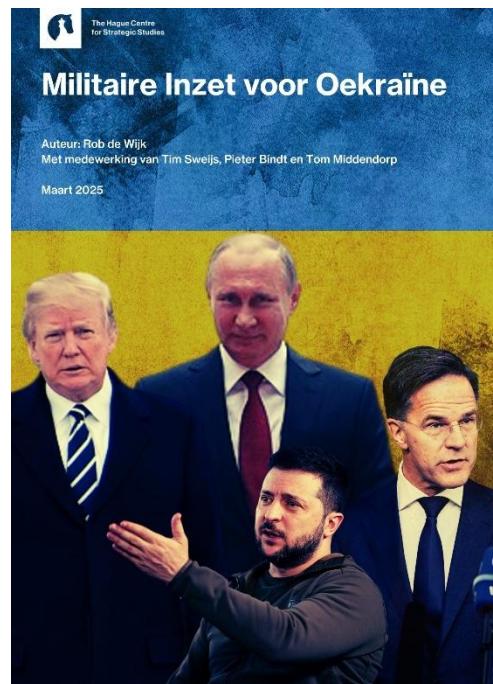


Policy brief | Military Deployment in Ukraine

In this new policy brief on military deployment in Ukraine, Rob de Wijk, Tim Sweijs, Pieter Bindt, and Tom Middendorp discuss possible scenarios, such as a "reassurance force" or a large-scale deterrent mission. Without American involvement, deterrence is uncertain, and a ceasefire remains unstable. The note examines the risks of military deployment, the risk of escalation, the trade-off between support for Ukraine and NATO defence, and the implications for European security. [\[LINK\]](#)

Author: Rob de Wijk.

Contributions by Tim Sweijs, Pieter Bindt and Tom Middendorp.



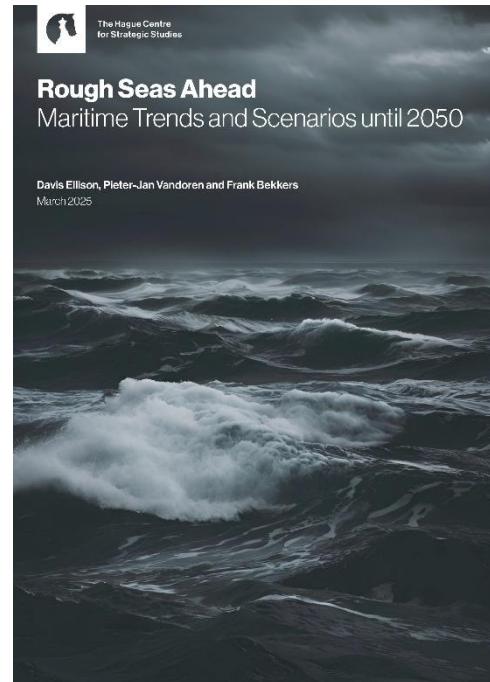
Report | Rough Seas Ahead: Maritime Trends and Scenarios until 2050

What does the future hold for the Royal Netherlands Navy? This HCSS report by Davis Ellison, Pieter-Jan Vandoren and Frank Bekkers explores the future of Dutch maritime security in the 2040-2050 period. With climate change, shifting trade dynamics, and growing geopolitical instability, the RNLN must adapt to emerging threats. The report outlines key trends, four potential conflict scenarios, and critical capability recommendations. The study warns against over-specialisation, emphasising the need for a balanced, flexible force structure. With the potential for simultaneous crises, European navies, including the RNLN, must adapt their strategies and capabilities to remain effective in a rapidly changing geopolitical landscape.

[\[LINK\]](#)

Authors: Davis Ellison, Pieter-Jan Vandoren and Frank Bekkers.

Contributors: Bryan Smeets and Tom Connolly.



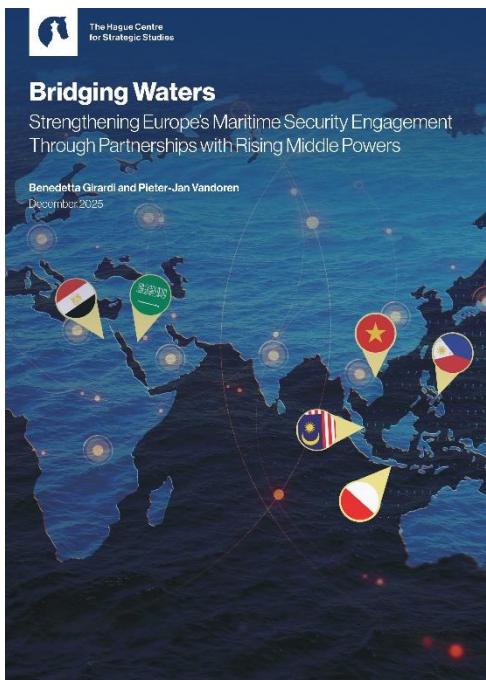
Report | Bridging Waters: Strengthening Europe's Maritime Security Engagement Through Partnerships with Rising Middle Powers

Europe cannot secure its sea lines of communication alone. This report explores how Europe can strengthen maritime security in the South China Sea and Red Sea through cooperation with rising middle powers. The study outlines urgent threats, identifies high-value preventive and responsive measures, and presents an actionable agenda for European policymakers. [\[LINK\]](#)

Authors: Benedetta Girardi and Pieter-Jan Vandoren.

Contributors: Thomas Jansen.

Quality Assurance by Tim Sweijs.



Report | Endurance: Military Readiness in a Resilient Society

This report examines the endurance of the Dutch armed forces—its ability to remain operational over a prolonged period during a military conflict. Growing threats from Russia make this capacity essential, both for deterrence and for actual deployment in the event of a large-scale NATO confrontation. The study looks at the medium and long term and emphasises that endurance is not only a military issue but a societal one. Strategic stockpiles, logistics chains, personnel replenishment, and the defence industry all play a critical role. The report concludes that the Netherlands must strengthen its regenerative capacity to ensure sustained military deployment. This will require strategic choices, financial investments, and societal acceptance. [\[LINK\]](#)

Authors: Frank Bekkers, Hans van der Louw, Otto van Wiggen, Björn de Heer, Pieter-Jan Vandoren, Michel Rademaker and Nino Malekovic.



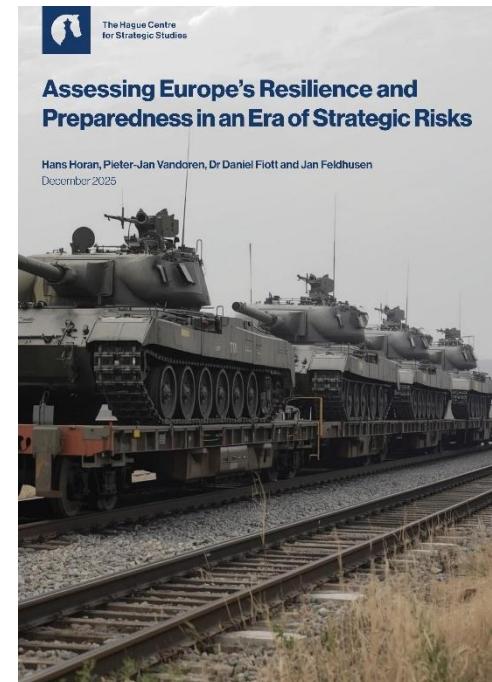
Report | Assessing Europe's Resilience and Preparedness in an Era of Strategic Risks

Europe's resilience is still situational, not systemic, concludes a new joint HCSS and CSDS report. The report finds that Europe's ability to withstand hybrid shocks remains uneven, with civil–military cooperation and military mobility emerging as critical vulnerabilities. The authors propose concrete EU–NATO and Dutch recommendations to strengthen energy, transport and digital resilience, and argue that true deterrence now depends on treating resilience as a core strategic capability. [\[LINK\]](#)

Authors: Hans Horan, Pieter-Jan Vandoren, Dr Daniel Fiott and Jan Feldhusen.

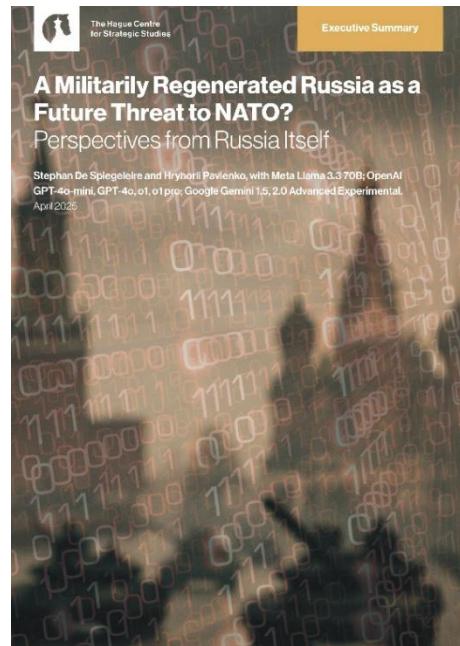
Contributor: Dr Davis Ellison.

Editor: Frank Bekkers.



Report | A Militarily Regenerated Russia as a Future Threat to NATO? Perspectives from Russia Itself

Beyond Western interpretations, how is Russia debating its own military future and stance towards NATO? This report, part of the innovative multi-year research project **RUBASE**, sets out to improve our understanding of Russia's multi-domain international behaviour, by providing insights derived directly from Russian-language sources on two crucial topics: Russia's capacity for military regeneration and its potential intentions towards NATO. The research leverages an innovative analytical approach, combining deep domain expertise with AI assistance, to systematically process a scale of information previously unmanageable. In this study, our team of human analysts leveraged a variety of Large Language Models to process, analyse and, in this case, also report, on a vast body of Russian language sources, combining human expert judgment with generative AI applications. This effort has been experimental in nature and this study is a proof of concept. [\[LINK\]](#)

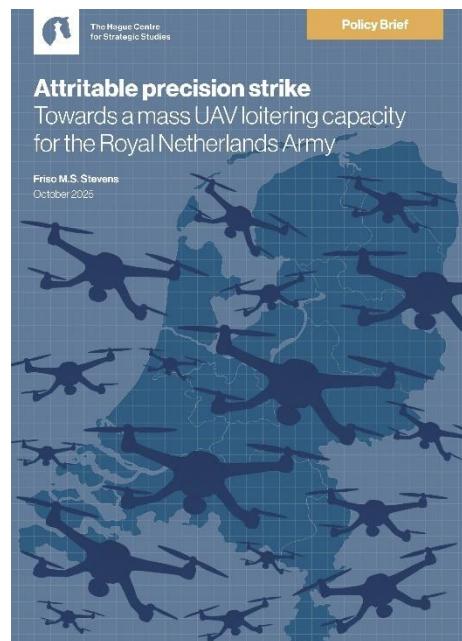


Authors: Stephan De Spiegeleire and Hryhorii Pavlenko, with Meta Llama 3.3 70B; OpenAI GPT-4o-mini, GPT-4o, o1, o1 pro; Google Gemini 1.5, 2.0 Advanced Experimental.

Policy Brief | Attributable Precision Strike: Towards a Mass UAV Loitering Capacity for the Royal Netherlands Army

How will Europe fight its next land war? High-intensity land war in Europe with Russia will not look like past conflicts: it will be dominated by vast numbers of attributable unmanned aerial vehicles (UAVs) that reshape where and how combat is fought, warns Friso Stevens in a new HCSS policy brief. The Royal Netherlands Army should build a resilient, AI-enabled loitering UAV capability and a domestic industrial base to scale rapidly in crisis. Read the policy options and concrete industrial steps for Dutch defence. [\[LINK\]](#)

Author: Friso Stevens.



Landmacht Magazine | RuBase: AI-supported HCSS research offers insight into Russian thinking

HCSS used advanced AI tools to analyse more than 250,000 Russian-language sources, offering the Dutch Army fresh insight into how Russia assesses its own military performance and resilience. Led by principal scientist Stephan De Spiegeleire, the project combines large-scale data analysis with expert interpretation to identify Russian perceptions of strengths, weaknesses, and lessons from the war in Ukraine. This human-machine collaboration supports better strategic understanding and helps decision-makers prepare for future challenges. [\[LINK\]](#)

Militaire Spectator | Endurance: A Ready Armed Force in a Resilient Society

Strengthening the ability to sustain military operations over time is one of the biggest challenges for the further development of the armed forces in the decade ahead. In this article, Michel Rademaker and Frank Bekkers explain how military endurance within the Dutch Army is essential for maintaining prolonged deployment in a potential NATO conflict with Russia. Based on the recent HCSS report, the article explores the full scope of the concept of endurance in the medium and long term. [\[LINK\]](#)

Opinion | How European Security Is Shaped by the Middle East

Conflicts rarely occur in isolation. Developments in the Middle East resonate directly in Europe, even when they seem geographically distant. When US security guarantees in the region come into question, this can create openings for Russian probing actions in Europe. An Israeli strike in Doha, for example, could pave the way for Russian drones over Poland, writes HCSS Strategic Analyst Pieter-Jan Vandoren in an op-ed for De Tijd. [\[LINK\]](#)

Paper | Hybrid Threat Modelling

Hybrid threats pose a complex and evolving challenge to Western governments. These threats span military and civilian domains, blending conventional and unconventional tactics, remaining below the threshold of armed conflict. Their ambiguity and unpredictability make them difficult to detect and counter. Our recent research uses game-theoretic modelling to evaluate the effectiveness of various counter-measures—ranging from enhancing societal resilience and denying adversaries the means to act, to dissuasion through the threat of punishment. [\[LINK\]](#)

Authors: Maarten C Vonk, Anna V Kononova, Thomas Bäck and Tim Sweijs.

Partner institution: Leiden Institute for Advanced Computer Science.

HCSS Symposium | Baltic Defence Line: Strengthening the Defence of NATO's Eastern Flank

On January 15, HCSS was very honoured to have hosted the three Baltic Ministers of Defence, together with Dutch Minister of Defence Ruben Brekelmans, for a symposium on the 'Baltic Defence Line: Strengthening the Defence of NATO's Eastern Flank'. [\[LINK\]](#)

During the symposium, Hanno Pevkur (Minister of Defence of Estonia), Andris Sprūds (Minister of Defence of Latvia) and Dovilė Šakalienė (Minister of Defence of Lithuania) gathered at HCSS to discuss the topic of eastern flank defence, NATO's forward defence strategy in Europe, and the ongoing Russian invasion of Ukraine.

Featuring a keynote by Dutch Minister Brekelmans and a panel with defence experts from the three visiting Allies, moderated by HCSS Director of Research Tim Sweijs, the central message conveyed at the symposium was: "Preparedness is Key, Deterrence is the Best Defence."

In response to the resurgent Russian threat to Euro-Atlantic security, NATO has taken a strategic approach to reinforcing its deterrence and defence, especially on the Eastern Flank. In turn, the Baltic States have dramatically increased their defence spending to above 3 percent and taken unprecedented steps to strengthen their territorial defence, including by developing complex fortifications and border facilities (also known as the Baltic Defence Line).

Fortifications such as the ones to be built by Estonia, Latvia, and Lithuania, are becoming a more common feature in contemporary politics and warfare, not least of which during the ongoing Russian invasion of Ukraine. The Baltic Defence Line will be a key feature of what is becoming a reinvented European security and defence architecture.

Just before HCSS hosted this event, Dr. Tim Sweijs managed to briefly interview the 4 defence ministers. [\[LINK\]](#)

 **Ruben Brekelmans** 
@DefensieMin · [Follow](#)



Eervol om bij [@hcssnl](#) met mijn Baltische collega's te spreken over het versterken van onze veiligheid.

Samen steunen we Oekraïne, verdedigen de NAVO-oostgrens, en treden op tegen sabotage van infrastructuur op zee.

We staan zij aan zij met onze Baltische bondgenoten! 



During a press briefing at HCSS following the event, the four ministers expressed unity on critical issues, including support for Ukraine and the strengthening of NATO's eastern flank to enhance its deterrence capabilities. They emphasised that the Russian threat is acutely felt in the Baltic states. [[LINK](#)]

Estonian Minister Pevkur stated that support for Ukraine also benefits other nations along NATO's eastern border. "Otherwise, Russia will simply reposition its troops," he warned. Pevkur underscored the importance of exceeding NATO's 2% defence spending benchmark, calling it insufficient for the current security climate.

Latvian Minister Sprūds urged the European Union to play a greater role. "The EU must significantly contribute to strengthening the defence industry. Don't forget, Ukraine is fighting for us too," he emphasised.

Lithuanian Minister Šakalienė shared a personal story during the HCSS "Baltic Defence Line" meeting. She recounted the fate of a relative who was imprisoned in Siberia for distributing leaflets proclaiming "Lithuania is free." "He was captured and tortured. Russia shows no mercy—whether you're a man, a woman, an adult, or a child. We must prepare ourselves as best we can. Deterrence is our strongest defence," she said.

The ministers also expressed gratitude for the Netherlands' efforts in enhancing Baltic and NATO security. Dutch F-35 fighter jets operate from Estonia to deter Russian aircraft from encroaching on NATO territory. Since 2017, the Dutch Army has stationed troops in Lithuania as part of NATO's enhanced Forward Presence. The Dutch Navy, meanwhile, ensures the security of critical seabed infrastructure in the Baltic Sea and surrounding areas.

The ministers agreed that these contributions significantly bolster security for the Baltic nations and NATO as a whole.



Guest Paper Series | Lessons Learned for Taiwan from the Russo-Ukrainian War

As part of our **Europe in the Indo-Pacific Programme**, HCSS regularly brings together renowned researchers, experts, and policymakers from Europe, Asia, and the US in workshops, as well as contributors to publications. For this new paper series, edited by Davis Ellison, Benedetta Girardi and Tim Sweijs, four guest authors have looked at the lessons learned from the Russian war in Ukraine, that are applicable to Taiwan. [\[LINK\]](#)

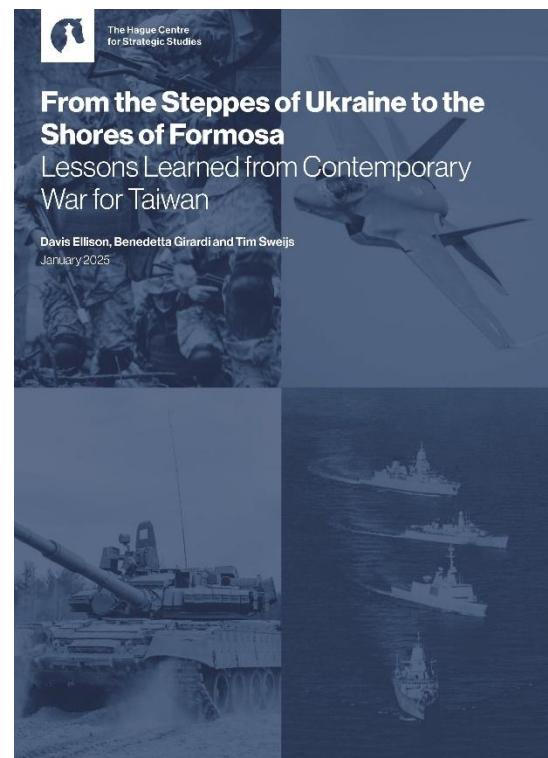
The series is a follow-up of a **thought-provoking symposium** on the military lessons learned from the ongoing war in Ukraine and their relevance to potential conflict scenarios, particularly regarding Taiwan's delicate position, hosted by HCSS on October 17. This event brought together policymakers, academics, and defence experts to explore key insights on warfare, strategy, and international security dynamics.

Main Report | From the Steppes of Ukraine to the Shores of Formosa: Lessons Learned from Contemporary War for Taiwan

What lessons can Taiwan learn from the Russian war in Ukraine? A **comprehensive new HCSS study** by Davis Ellison, Benedetta Girardi and Tim Sweijs analyses Ukraine's resistance against Russia, offering key insights for Taiwan's defence strategy.

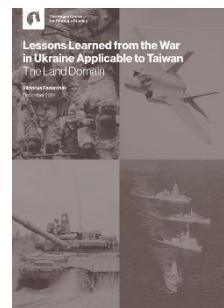
The report highlights the importance of asymmetric denial tactics, sustained resilience, and strategic deterrence to counter a potential Chinese invasion. Key recommendations include strengthening air and missile defence, enhancing naval strike capabilities, and improving intelligence networks. By learning from Ukraine, Taiwan can bolster its defences and deter aggression. [\[LINK\]](#)

Authors: Davis Ellison, Benedetta Girardi and Tim Sweijs.
 Contributors: Giulio Damiani, Julie Ebrard, Alisa Hoenig and Paul van Hooft.
 Quality Assurance: Frank Bekkers and Viktoriya Fedorchak.



Paper 1 | Lessons Learned from the War in Ukraine applicable to Taiwan: The Land Domain

The war in Ukraine illustrates the use of various old and new techniques in warfighting, employing both Western cutting-edge and Soviet-era equipment. Different innovations and adaptations have been witnessed across domains. Although each war is unique, we can distil lessons about the ongoing trends in warfighting and the employment of new and old equipment. This guest paper by Dr Viktoriya Fedorchak explores the lessons that can be learned from the land domain, focusing on the relevance for the potential Taiwan–China conflict. [\[LINK\]](#)



Paper 2 | Lessons for Taiwan from the Russo-Ukrainian War

Taiwan has faced threats from China for decades, but the risk of invasion has grown significantly since Xi Jinping's rise to power. Russia's 2022 invasion of Ukraine has reshaped global geopolitics, offering valuable lessons for Taiwan's national security. These lessons, however, must be adapted to Taiwan's unique conditions, writes Dr. Jyh-Shyang Sheu in this paper. [\[LINK\]](#)



Paper 3 | The Maritime War in Ukraine: The Limits of Russian Sea Control?

At the onset of Russia's invasion of Ukraine, the Black Sea and the Sea of Azov were under firm Russian control. This narrative, however, quickly shifted, raising critical questions: How did Russia lose its maritime edge against a country with virtually no navy? How did Ukraine achieve such significant naval successes? This paper by Prof. Alessio Patalano explores these questions and reveals how Ukraine turned the tide in the naval dimension of the conflict. [\[LINK\]](#)



Paper 4: Lessons Learned from the War in Ukraine applicable to Taiwan: Airpower

The war in Ukraine has underlined the importance of airpower in a contemporary conflict like never before. What lessons from that conflict can be learned and applied to a possible future conflict in and around the island of Taiwan? This paper by HCSS Strategic Advisor Peter Wijninga focuses on the lessons for airpower, be it crewed or uncrewed, and ground-based air defence. [\[LINK\]](#)



Symposium | Fit for the Future? Towards a digitally-capable NATO Alliance for the 21st Century

On March 10th, HCSS organised a symposium in Brussels where world class experts, defence planners, and military professionals discussed how NATO can prepare for the battlefield of the 21st century. As warfare becomes more data-driven, a robust C4ISR (Command, Control, Communications, Computer, Intelligence, Surveillance, and Reconnaissance) ecosystem is no longer a luxury, but an imperative. The ability to collect, curate, digest, and disseminate information, a process that AI could facilitate, is a new prerequisite for victory on today's battlefield. Digital capabilities, able to transform streams of data into a situational awareness advantage, will become essential. This highly digitised environment raises new challenges for the NATO alliance. The development of a digital backbone will become key to ensure the operational readiness of the alliance in the digital age. Taking stock of NATO's digital platforms and its C4ISR infrastructure is therefore vital. As interoperability starts extending into the clouds, time has come to evaluate NATO's digital capabilities. [\[LINK\]](#)

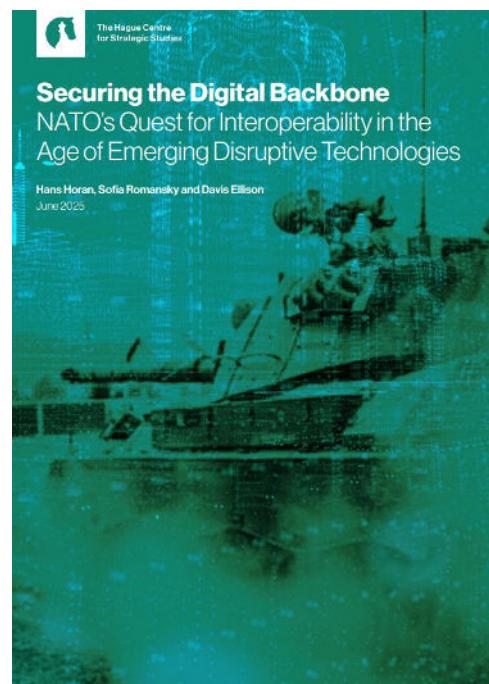
As a follow-up to the symposium, four guest authors have looked at different aspects of NATO's Digital Capabilities for a new paper series edited by Tim Sweijs. [\[LINK\]](#)

Capstone Paper | Securing the Digital Backbone: NATO's Quest for Interoperability in the Age of Emerging Disruptive Technologies

As Europe navigates a rapidly evolving threat landscape, NATO's digital capabilities are increasingly being tested. This new paper offers a comprehensive blueprint for building a NATO fit for the digital battlefield, focusing on the urgent need to modernise Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) across NATO Europe.

This Capstone paper synthesises key insights from the four expert guest papers commissioned for this project. Together, these papers offer a multifaceted perspective on the challenges NATO faces in adapting to a digital battlespace and provides the foundation for the capstone to both diagnose NATO's current shortcomings and propose actionable solutions, laying the strategic framework for collective digital capabilities ahead of the 2025 NATO Summit. [\[LINK\]](#)

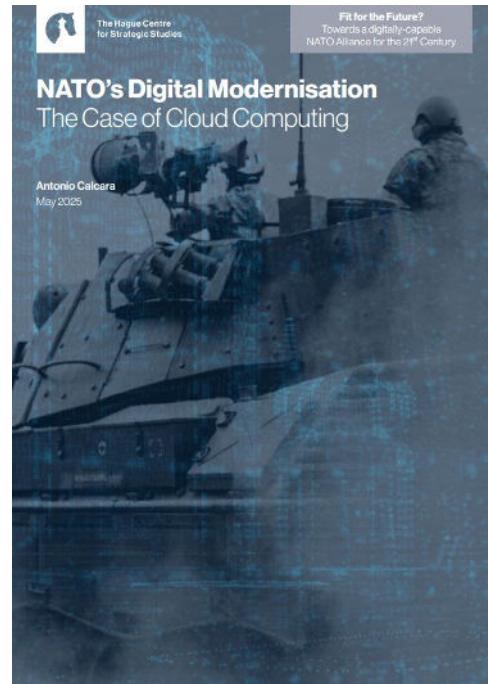
Authors: Hans Horan, Sofia Romansky and Davis Ellison.
Contributor: Emma Genovesi.



Paper 1 | NATO's Digital Modernisation: The Case of Cloud Computing

The digital battlefield is already here. From Ukraine to the Middle East, modern warfare is increasingly multi-domain, where legacy weapon systems are enhanced by cutting-edge digital technologies—especially those powered by artificial intelligence. But AI can only function effectively with robust digital infrastructure. Cloud computing is emerging as one of the key enablers in this transformation.

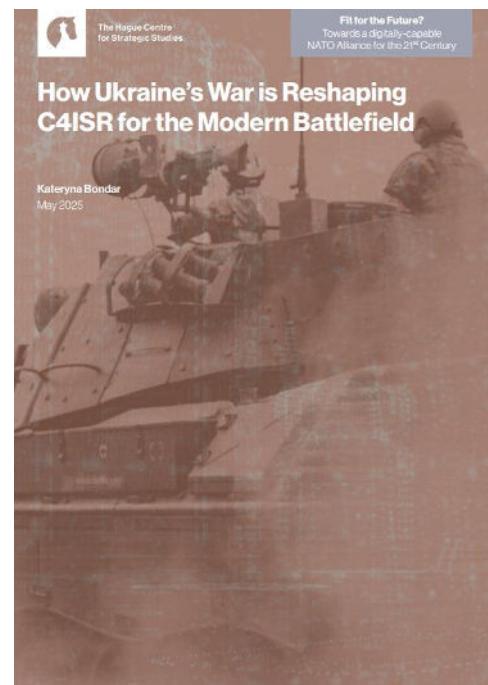
This HCSS guest paper by Professor Antonio Calcara (Head of the Geopolitics and Technology Programme at the Centre for Security, Diplomacy and Strategy (CSDS)), examines NATO's efforts to adopt cloud computing as part of its broader digital modernisation agenda. As NATO moves from planning to implementation of its cloud strategy, the paper identifies six key challenges—three military and three industrial—that must be addressed to bridge the gap between ambition and capability. [\[LINK\]](#)



Paper 2 | How Ukraine's War is Reshaping C4ISR for the Modern Battlefield

Now in its fourth year, the war in Ukraine is redefining modern warfare. Under conditions of extreme pressure and limited resources, the Ukrainian Armed Forces have undergone a rapid evolution in how they manage and deploy C4ISR—Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance.

This HCSS guest paper by Kateryna Bondar (Fellow at the CSIS Wadhwani AI Center), examines how Ukraine has responded to the strategic and operational demands of full-scale war by building a more agile and adaptive C4ISR framework. Lacking a pre-established strategy and facing severe material constraints, Ukraine has had to innovate in real time. The result: an accelerated cycle of adaptation and learning that offers important lessons for NATO and its allies. [\[LINK\]](#)

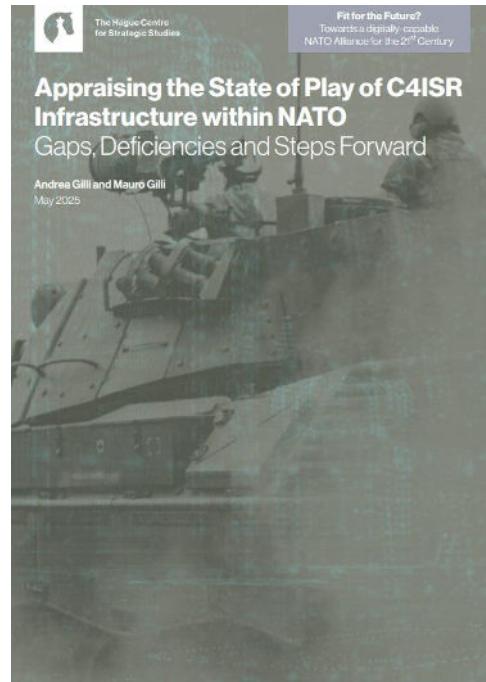


Paper 3 | Appraising the State of Play of C4ISR Infrastructure within NATO: Gaps, Deficiencies and Steps Forward

Despite cutting-edge assets like AWACS, AGS, and Link 16, the Alliance struggles with interoperability gaps, cyber vulnerabilities, and limited multi-domain operations (MDO) readiness. Russia's advanced electronic warfare capabilities, demonstrated in Ukraine, highlight NATO's exposure to GPS and tactical data link disruption.

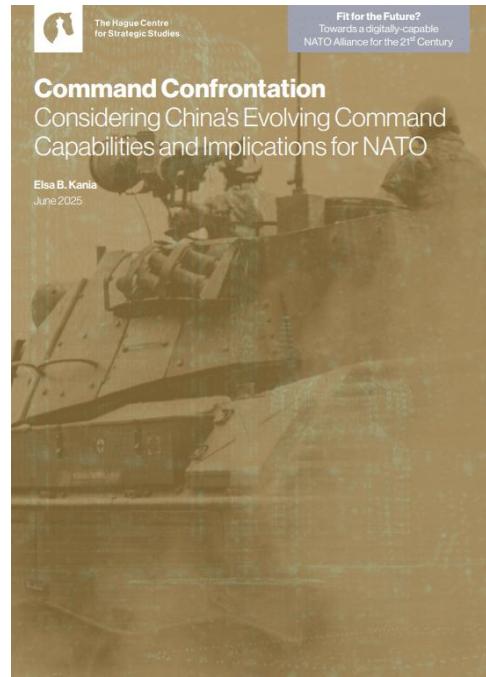
Moreover, national modernisation efforts risk deepening fragmentation without alignment to NATO-wide goals.

This HCSS guest paper by Andrea Gilli (Lecturer at the University of St Andrews) and Mauro Gilli (Senior Researcher in Military Technology and International Security at the Center for Security Studies (CSS) at ETH Zurich) assesses NATO's C4ISR infrastructure—vital to maintaining operational superiority—as it faces growing challenges from strategic competitors, technological fragmentation, and under investment. [\[LINK\]](#)



Paper 4 | Command Confrontation: Considering China's Evolving Command Capabilities and Implications for NATO

The Chinese People's Liberation Army (PLA) continues pursuing ambitions to become a world-class military, the impacts of which will be global. NATO's future force design and defence planning should be informed by assessments of the trajectory of China's military power and potential threats that PLA capabilities could present, including to NATO C4ISR systems. For decades Chinese military leaders have dedicated considerable resources and consistent investments to developing command information systems that are comparable to C4ISR, information operations capabilities such as cyber and electronic warfare to target adversary C4ISR. This HCSS guest paper by Elsa B. Kania (Center for a New American Security (CNAS)) assesses China's evolving command capabilities and the implications for NATO. [\[LINK\]](#)

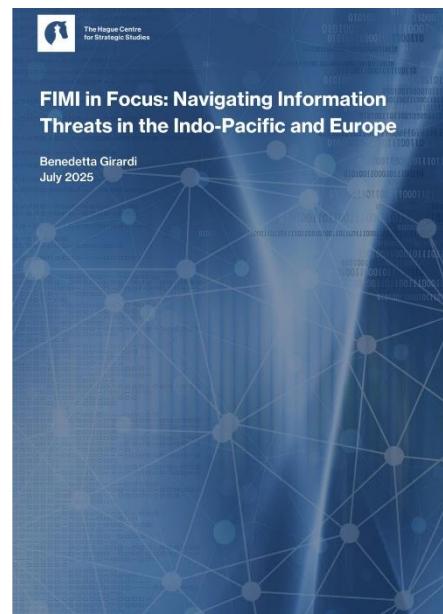


Policy Brief Series: From Shared Concern to Shared Action on FIMI for the Indo-Pacific and Europe

From Europe to the Indo-Pacific, foreign actors are manipulating information to divide societies and undermine democracy. As disinformation knows no borders, why are the two regions still fighting the growing menace of *Foreign Information Manipulation and Interference* (FIMI) alone? In two new HCSS policy briefs, Strategic Analysts Benedetta Girardi and Laura Jasper, with contributions by Timur Ghirotto and Davis Ellison, provide a comprehensive overview of the FIMI threat landscape across the two regions, and explore how to move from shared concern to shared action for resilient FIMI Strategies.

Paper | FIMI in Focus: Navigating Information Threats in the Indo-Pacific and Europe

Foreign Information Manipulation and Interference (FIMI) poses an evolving and systemic threat to democratic institutions and societal cohesion in both the Indo-Pacific and Europe. This policy brief by Benedetta Girardi provides a comprehensive overview of the FIMI threat landscape across the two regions, identifying shared vulnerabilities, common tactics, and the unique regional contexts that shape how these threats manifest. [\[LINK\]](#)



Paper | Building Bridges: Euro-Indo-Pacific Cooperation for resilient FIMI Strategies

Foreign Information Manipulation and Interference (FIMI) has emerged as a pressing and complex challenge to democratic resilience across both Europe and the Indo-Pacific. This HCSS policy brief by Laura Jasper explores how Europe and the Indo-Pacific can strengthen cross-regional cooperation to enhance resilience against FIMI. It examines regional policy frameworks and national responses, revealing divergent approaches. [\[LINK\]](#)

NATO Summit Pre-Events

On 24 and 25 June, the NATO Summit took place in The Hague, the Netherlands. At the same time, the NATO Public Forum was held as well, a public event jointly organised by NATO and the Government of the Netherlands, in collaboration with the Atlantische Commissie, the Clingendael Institute and the Hague Centre for Strategic Studies.

To set the stage for the summit, HCSS organised a series of high-level public and private events throughout 2024 and 2025, with topics ranging from seabed security and digital defence capabilities, to deterrence, EDT's and the Baltic Defence Line. [\[LINK\]](#)

Symposium | Defence Industry

On March 12, 2025, HCSS, in collaboration with the Confederation of Netherlands Industry and Employers (VNO-NCW) and the Ministry of Defence, organised Defence Industry Day, a pre-event for the NATO summit to be held in The Hague on June 24 and 25. Leading experts, policymakers, and the business community gathered to discuss scaling up defence efforts and collaborating on a resilient industry, including Minister of Defence Ruben Brekelmans, Minister of Foreign Trade and Development Aid Reinette Klever, European Commissioner Kubilius, State Secretary of Defence Gijs Tuinman and VNO-NCW chair Ingrid Thijssen.

It was a day full of constructive discussions and valuable insights: (1) The need to scale up defence efforts and collaborate on a resilient industry; (2) Innovation and financing as the key to a strong European defence sector; (3) The importance of NATO cooperation in breaking down barriers in defence procurement.

HCSS has summarised the Key Takeaways from the event here. [\[LINK\]](#)



Symposium | Missions and Operations

How can the Dutch Armed Forces continue to promote stability in missions and operations worldwide, while also remaining committed to defending its own territory and NATO? On April 7, a panel of military and civilian experts with backgrounds in conflict studies, military operations, and diplomacy discussed the Dutch Armed Forces' global engagement at an event organised by HCSS, in collaboration with the Dutch Ministries of Foreign Affairs and Defence, and the Centre for International Conflict Analysis & Management (CICAM), part of Radboud University's Department of Political Science. [\[LINK\]](#)

Symposium | Deterrence & Long-Term Combat Capability

How long will it take for the Dutch Army to be ready for a protracted war? The war in Ukraine underscores the continuing threat from Russia to European member states. What is Russia's capacity for military recovery after a ceasefire? And what is the preparedness of the Dutch Army in the event of a protracted conflict? On April 17, a panel of experts discussed the challenges surrounding regeneration capacity, combat power, and sustainability, delving into the state of our defence and analysing what is needed to remain resilient. [\[LINK\]](#)

Symposium | From Cloud to Community: Shaping the Future of Digital Defence

In a world where conflicts are increasingly fought with bytes as much as bullets, the ability to secure digital domains is more critical than ever. From the frontlines of cyber operations to the resilience of civilian infrastructure, digital defence has become a defining challenge for NATO and its allies. On June 18, HCSS organised this symposium focussed on the future of digital defence. [\[LINK\]](#)

Just before the event, HCSS Strategic Analyst Dr. Davis Ellison managed to briefly interview three of the speakers about shaping the future of digital defence. Watch the interviews with Dr. Victoria Vdovychenko, Dr. Christian Fjäder and Dr. Simona R. Soare here. [\[LINK\]](#)



The Diplomat | China Watches, Taiwan Learns: Ukraine's War and the Indo-Pacific

How can Taiwan ensure its defence strategy evolves in time to counter China's growing military pressure? Over the course of a year-long study, Benedetta Girardi, Davis Ellison, and Tim Sweijs analysed the campaign in Ukraine, comparing it with Taiwan's military strategies and defence posture. If one thing is certain, it's this: Beijing's calculation will be shaped by whether Taiwan is ready to defend itself. For Taiwan to do so successfully, it will have to learn lessons from the war against Ukraine, a country that failed to deter an attack from a much more powerful neighbour, yet has been able to successfully defend itself since. [\[LINK\]](#)

War On The Rocks | A Wargame to Take Taiwan, from China's Perspective

China's invasion of Taiwan may not begin with a massive amphibious assault, warns HCSS Strategic Advisor Jeffrey H. Michaels. A wargame at Syracuse University asked experts to think like Beijing, revealing that China could instead pursue limited strikes and political coercion to force Taipei's surrender while avoiding a war with the United States. Participants emphasised China's military caution, untested capabilities, and focus on exploiting US political hesitancy rather than triggering open conflict. The exercise suggests deterrence must address political vulnerabilities, not just military ones, and broaden US planning beyond traditional invasion scenarios. [\[LINK\]](#)

Atlantisch Perspectief | Welcome to the 4th Space Age

HCSS Strategic Advisor Patrick Bolder argues that the world is entering a Fourth Space Age, defined by congestion, competition and the growing likelihood of conflict in orbit. Space is shifting from an enabler of military operations to an operational domain in its own right. Bolder warns that Europe's growing dependence on space-based services creates major vulnerabilities and calls for a clearer national vision to secure access, protect critical satellites and prepare for escalation in the space domain. [\[LINK\]](#)

Atlantisch Perspectief | Donald Trump's 'Golden Dome'

Patrick Bolder examines Donald Trump's proposed "Golden Dome" missile shield and asks whether it would truly make the USA safer. Modelled on Israel's Iron Dome but aimed at intercepting ICBMs and hypersonic weapons, the plan relies heavily on space-based interceptors—an idea reminiscent of Reagan's Star Wars programme. Bolder warns that the technical, financial and geopolitical risks are enormous: from the militarisation of space and treaty erosion to destabilising nuclear deterrence. Rather than a golden dream, the system could become a black nightmare. [\[LINK\]](#)

HCSS On Future War Programme

This year also marked a major milestone for HCSS with the launch of our new flagship initiative: the **On Future War** programme. Developed in response to the accelerating transformation of modern conflict, the programme examines the forces reshaping the battlefield—from autonomous systems, AI-enabled targeting and drone swarms to space security, cognitive warfare, information manipulation and militarised supply chains.

'On Future War' brings together interdisciplinary expertise from across HCSS to analyse how technological, geopolitical and societal trends interact to create new doctrines, new vulnerabilities, and new strategic dilemmas. Through scenario development, expert roundtables, wargaming and dedicated publications, the programme provides policymakers with early-warning insights into the next generation of threats and opportunities. Its focus extends beyond hardware and capabilities: it explores how future warfare will affect decision-making, escalation control, alliance dynamics, and the resilience of open societies. As conflicts from Ukraine to the Red Sea and the Indo-Pacific increasingly illustrate, the boundaries between physical and digital, civilian and military, deterrence and disruption are eroding.

The *On Future War* programme positions HCSS at the forefront of understanding this evolution, equipping governments, militaries and industry partners with the analytic tools needed to prepare for—and shape—the conflicts of the coming decades. [\[LINK\]](#)



The War of Tomorrow: Understanding the Conflicts to Come

A key intellectual contribution to the national defence debate this year was the publication of **De Oorlog van Morgen** [**The War of Tomorrow**], the new book by HCSS Director of Research Tim Sweijs and Martijn Kitzen. Building on more than a decade of research into the changing character of warfare, the book offers a sharp, data-driven exploration of how technology, geopolitics and societal disruption are converging to transform conflict in the 21st century.

Sweijs and Kitzen outline how emerging technologies—from AI-driven targeting and autonomous weapons to hypersonic systems and cognitive warfare—are eroding traditional deterrence models and accelerating escalation dynamics. At the same time, they analyse how demographic trends, resource scarcity, information manipulation and the breakdown of global norms are reshaping strategic competition.

‘De Oorlog van Morgen’ has resonated strongly in public and policy circles, becoming a reference point in discussions about Dutch and European defence preparedness. Its central message—that future conflicts will be faster, more complex, and fought simultaneously in physical, digital and societal domains—reinforces the urgency of long-term planning and adaptive strategy. The book not only complements the launch of our *On Future War* programme but also anchors HCSS’s broader mission: to help decision-makers anticipate the future of conflict rather than be overtaken by it. [[LINK](#)]

De Balie | Will There (Always) Be War Again?

Violence runs like a constant thread through human history. What does that teach us—and what lessons can we draw for the future? On 10 September 2025, Carel van Schaik (The Human Primeval Book) and Martijn Kitzen and Tim Sweijs (The War of Tomorrow) discussed the question “Will there (always) be war again?” at De Balie in Amsterdam. [[LINK](#)]



Deterrence and Arms Control in an Era of Disruption

The HCSS *Strategic Stability: Deterrence and Arms Control* programme examines the full spectrum and dynamics of contemporary deterrence. With groundbreaking research from our team of experts, we explore how political signalling, psychological biases, and emerging disruptive technologies shape deterrence and arms control today, providing policymakers with practical insights to anticipate risks, avoid miscalculation, and craft more credible strategies and policies for stability in a turbulent world.

Both deterrence and arms control have become increasingly complex in today's geopolitical landscape. Geopolitical revisionism in combination with the proliferation of weapon and delivery technologies puts pressure on stability across the globe. Nuclear multipolarity is a fact as nuclear powers are actively modernising and upgrading their nuclear arsenals.

Meanwhile, the maturation of conventional deep precision strike complexes affects offense-defence balances in different ways as recent real world developments showcase. Integrated air and missile defence systems are vital components of denial and thereby deterrence postures. In Europe, growing uncertainty over America's long-term commitment to European security raises fundamental questions about the credibility of extended deterrence. This puts renewed focus on the British nuclear capability and France's nuclear force de frappe as well as the role of European conventional forces in sustaining a credible deterrent posture.

HCSS examines the dynamics of contemporary deterrence, assesses risks of escalation, formulates concepts and strategies, and identifies arms control measures to promote stability. We consider the full spectrum of deterrence and arms control: from how political leaders communicate intentions and signal capabilities to how these messages are received; from strategic concepts underlying conventional and nuclear deterrence postures in Europe and the Indo-Pacific to the required capability packages that underpin them.

We also analyse how emerging disruptive technologies (EDTs) such as hypersonics, cyber capabilities, and AI are transforming the very foundations of deterrence, creating new risks for escalation but also opportunities for restraint and arms control. We look deeply into decision-making during crises to better understand fears of escalation, and prior to crises how assumptions about technologies worsen fears amongst countries' leaderships. [\[LINK\]](#)



Report | From the Euronuke to a Nuclear Weapon Free Zone: Europe's Options in an Era of Eroding American Extended Deterrence

This report examines the growing uncertainty surrounding US security guarantees to Europe. With Washington increasingly focused on Asia and adopting a transactional approach to alliances, European states face difficult choices about how to secure their own deterrence. The report explores six potential pathways, from nuclear latency and shared European nuclear forces to enhanced conventional strike capabilities or even a European nuclear-weapons-free zone. Each option comes with political, strategic, and arms control implications. The study urges European leaders to move beyond automatic reliance on US deterrence and to consider new frameworks for their own security. [\[LINK\]](#)

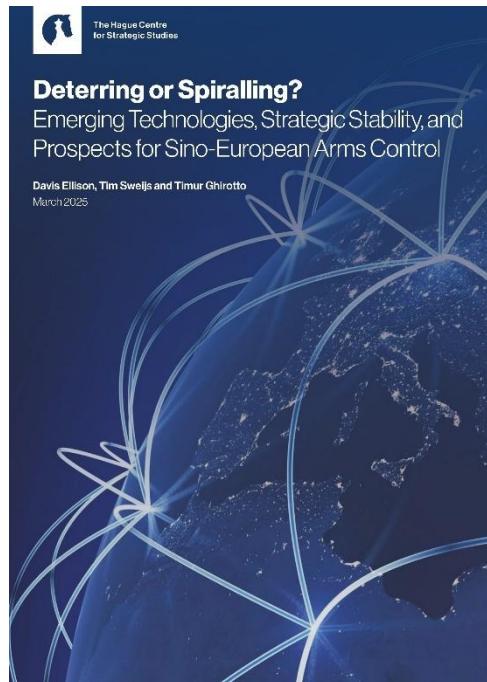
Authors: Davis Ellison, Samuel Zilincik, and Tim Sweijns.



Report | Deterring or Spiralling? Emerging Technologies, Strategic Stability, and Prospects for Sino-European Arms Control

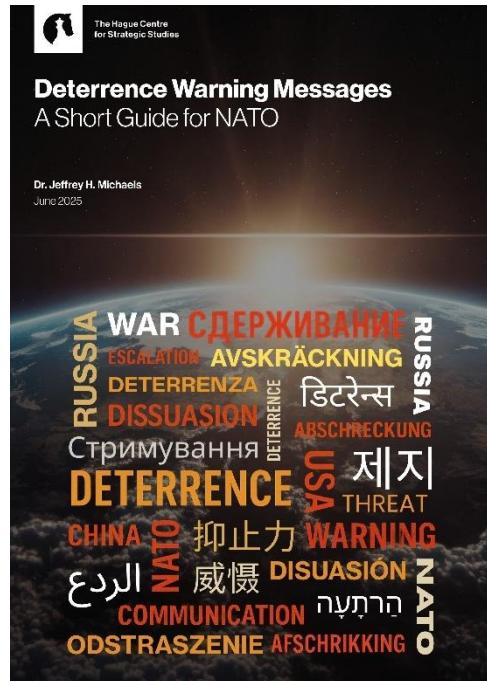
This report warns that EDTs threaten to destabilise nuclear deterrence by enabling first strikes, disrupting command-and-control systems, and fuelling arms races. The report focuses on Europe's role in engaging China, recommending practical steps to reduce risks — from limiting AI use in nuclear decision-making to enhancing transparency in hypersonic development. In a world where technological innovation is accelerating faster than strategic restraint, this study provides a roadmap for Europe to help prevent spirals of escalation. [\[LINK\]](#)

Authors: Davis Ellison, Tim Sweijns, and Timur Ghirotto.
Contributions from: Ayla Elzinga, Julia Döll, and Paul van Hooft.
Quality assurance: Frank Bekkers.



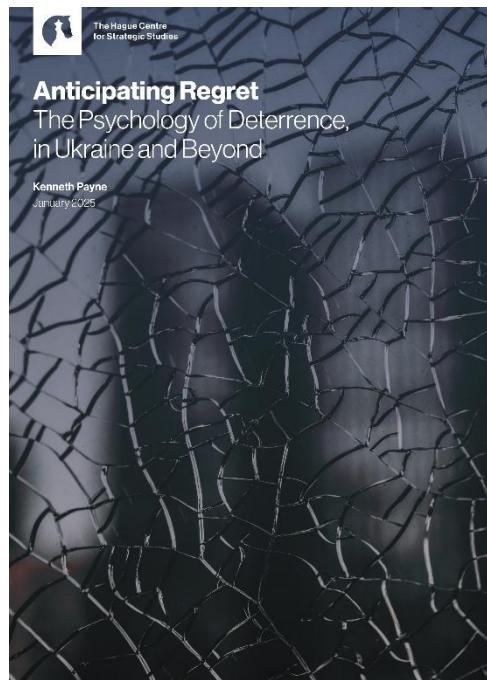
Report | Deterrence Warning Messages: A Short Guide for NATO

Why do deterrence efforts fail? Often, it's not what is said, but how it's said. Guest author Dr. Jeffrey H. Michaels highlights a dimension of deterrence too often overlooked: language. Military capabilities matter, but so do the words used to communicate threats and red lines. Drawing on a century of historical cases, with case studies from WWI to Ukraine, Michaels demonstrates how vague or poorly timed warnings have contributed to deterrence failure — and how clearer, more credible communication could help NATO avoid similar missteps. In the wake of Russia's war against Ukraine, the report provides timely lessons for policymakers seeking to prevent escalation and strengthen NATO's deterrent posture. [\[LINK\]](#)

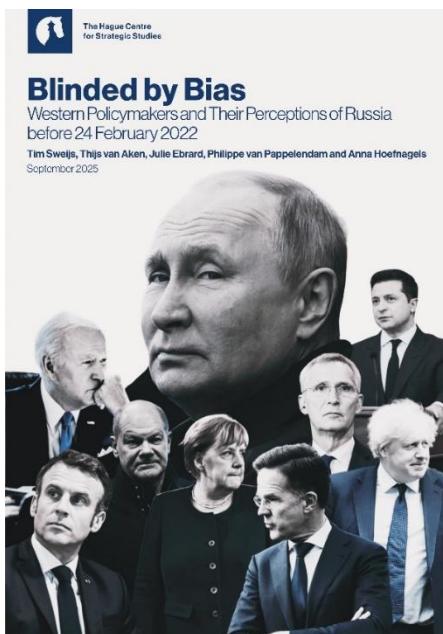


Report | Anticipating Regret: The Psychology of Deterrence, in Ukraine and Beyond

Guest author Kenneth Payne, Professor of Strategy at King's College London, takes a different angle by focusing on "knowing thyself." It argues that deterrence is not only about predicting adversaries' behaviour but also about understanding how our own preferences, priorities, and risk appetites change over time. Western leaders sincerely sought to deter Russia, but underestimated Ukraine's importance before the invasion — a classic case of failing to anticipate future regret. Payne advocates for a more dynamic approach to deterrence planning, including measures such as bias-awareness training and regularly revisiting baseline assumptions. [\[LINK\]](#)



Report | Blinded By Bias: Western Policymakers and Their Perceptions of Russia before 24 February 2022



On 24 February 2022, Russia launched its full-scale invasion of Ukraine. Despite months of military buildup and increasingly aggressive rhetoric from the Kremlin, many Western governments were caught off guard. Why were so many clear warning signs ignored? This groundbreaking HCSS report offers an in-depth investigation into this crucial question. Its core finding: Western policymakers were not just unprepared — they were blinded by bias.

Based on 44 interviews with senior officials from NATO Headquarters, France, Germany, the Netherlands, the United Kingdom, and the United States, including advisers to presidents, prime ministers and secretary-generals, as well as analysis of media reports, academic literature and official documents, the study examines how entrenched psychological and cognitive biases shaped the perception of the Russian threat — and, in turn, the (lack of) responses prior to the invasion.

Despite Russia fulfilling all the traditional indicators of a credible threat — a clear interest in subjugating Ukraine, the military capability to do so, and a track record of aggression — many Western governments simply couldn't imagine a large-scale war returning to the European continent. Countries such as the UK and US identified the danger early on and responded more forcefully. Others, including Germany, France and the Netherlands, dismissed the risk of full-scale war as unlikely, irrational, or potentially self-provoked by stronger support to Ukraine.

The report groups NATO member states into four categories, based on how they perceived the Russian threat and the kind of support they offered to Ukraine.

- **Doves:** did not perceive an existential threat or high risk of invasion, focused on diplomacy and economic sanctions (e.g., Germany, France, Netherlands).
- **Deers:** saw an existential threat and high risk, but feared escalation and limited themselves to non-military support.
- **Buzzards:** considered invasion likely but not existentially threatening, and provided military support (e.g., UK, US).
- **Wolves:** perceived both existential threat and high likelihood of invasion, and responded with military support (e.g., Poland, Baltic states).

The report identifies seven key cognitive and psychological biases that shaped Western threat perceptions:

1. **Availability Heuristic** — policymakers couldn't imagine large-scale war in Europe because they hadn't experienced it in recent history.
2. **Cognitive Dissonance** — acknowledging the threat would have required rejecting core beliefs in diplomacy and economic interdependence.
3. **Mirror Imaging** — assuming Russia would act rationally by Western standards.
4. **Poliheuristic Bias** — political leaders avoided high-cost options (like military support) due to domestic concerns.
5. **Representativeness Heuristic** — expectations were based on past limited Russian incursions, not full-scale war.
6. **Groupthink** — internal pressure suppressed dissenting views and alternative scenarios.
7. **Self-Deterrence** — fear of provoking Russia inhibited stronger action.

While the outbreak of war may not have been preventable, the report argues that better recognition of these biases could have led to more timely and robust responses — and can help prepare us for future crises.

Authors: Tim Sweij, Thijs van Aken, Julie Ebrard, Philippe van Poppelendam and Anna Hoefnagels.
 Contributors: Alisa Hoenig, Ana Dadu, Miriam Sainato and Nora Nijboer.
 Including a Preface by Professor Beatrice Heuser.

The chapters of the report can also be downloaded as individual PDF's. [\[LINK\]](#)



A Comprehensive Approach

Together, these studies demonstrate and sharpen our understanding of the multifaceted nature of deterrence in today's multipolar world, from the political and psychological, to the technological:

- **Signalling:** Credible and well-timed communication is essential for deterrence success.
- **Knowing your opponent:** Avoiding mirror imaging and grasping adversaries' intentions and capabilities is vital.
- **Knowing yourself:** Recognising biases and anticipating how our own views may evolve is just as important.
- **Technology's disruptive edge:** AI, hypersonics, cyber, and space systems are reshaping the foundations of strategic stability.
- **New frameworks for European security:** With growing uncertainty surrounding reliance on US deterrence, European states face difficult choices about how to secure their own security.

The 2025 NATO Summit Public Forum in The Hague

For the first time, the Netherlands hosted a NATO Summit — a historic moment that brought world leaders, ministers, and experts to The Hague for one of the largest security operations in Dutch history. Alongside the Netherlands Atlantic Association and the Clingendael Institute, the Hague Centre for Strategic Studies (HCSS) was proud to serve as an official co-organiser of the NATO Public Forum: the Summit's public-facing platform for open dialogue on global security. [\[LINK\]](#)

Across two days, the Forum featured 25 sessions with leaders, policymakers, journalists, and academics, addressing topics such as the future of warfare, energy security, industrial resilience, and the changing nature of conflict. For HCSS, it was not only an opportunity to shape the programme, but also to help open up diplomacy to a wider audience.

Months of preparation by a dedicated HCSS team made the Forum possible. Project coordinators Davis Ellison and Berend Kwak led the development of high-level panels and content, working closely with NATO's Public Diplomacy Division and the Dutch MFA and MOD. Their efforts, supported by colleagues across the organisation, ensured the smooth delivery of a complex international event.

From communications to logistics, HCSS staff were central throughout. Communications Manager Patrick Willemsen and Communications and Events Officer Stephanie Govaerts worked behind the scenes with partners, media, and international delegations — helping to put both The Hague and HCSS firmly on the map. As Laura Birkman noted, the event showcased not only global security challenges but also the strength and professionalism of the team delivering it.



NATO Public Forum



HCSS expertise was also featured prominently on the Forum's stages:

- Tim Sweijs, HCSS Director of Research, joined a panel on **Future-Proofing the Alliance**, discussing military innovation, deterrence, and the rapid evolution of modern conflict.
- Rob de Wijk, HCSS founder, took part in the **Day 2 opening panel**, reflecting on the Summit's emerging themes and the strategic choices facing NATO leaders.

Their contributions underscored the strategic debates that will shape the Alliance in years to come — from resilience and industrial capacity to geopolitical uncertainty and the future of transatlantic cooperation.

Throughout 2024–2025, HCSS organised a series of events leading up to the Summit, building momentum on topics such as seabed security, emerging technologies, and deterrence. The NATO Public Forum represented the culmination of these efforts: a moment where diplomacy became more accessible, transparent, and connected to society.

For HCSS, co-organising the Forum was a significant milestone in our mission to bring strategic insight into the public sphere. It was an opportunity to help shape — and share — the major security conversations of our time. The 2025 Summit may have raised new questions on implementation and long-term strategy, but it also demonstrated the Alliance's adaptability and the powerful role of open, informed debate.



NATO Rapid Response Group Conference in Brussels

In January, HCSS Strategic Analyst Laura Jasper attended the first ever NATO Rapid Response Group Conference in Brussels. The conference addressed the topic of countering information threats and had participants from Allies, NATO bodies and agencies, NATO Strategic Commands, COE's, international organisations, including the EU, and selected civil society and industry. Looking back at the interesting debates, Laura noted that in a time we see growing threats below the threshold of armed conflict the role of non-state actors in foreign interference is becoming increasingly more visible. "When addressing Foreign Information Manipulation and Interference in a time of hybrid warfare, it is imperative to not be deceived by the word 'foreign' as the use of non-state actors and more specifically domestic actors, proves to be a growing challenge." [\[LINK\]](#)

NATO Youth Summit, Budva, Montenegro

This year the NATO Youth Summit took place in Budva, Montenegro from April 25-26th, 2025. Unlike the previous year in Sweden, which commemorated Sweden's full membership in NATO and marked the Alliance's 75th anniversary – this year did not commemorate a specific milestone yet focused on engaging young leaders in discussions about pressing global security challenges and the future of leadership. HCSS Strategic Analyst Sofia Romansky was asked to be a speaker on the panel: "The Invisible Frontline: Navigating Hybrid Threats in the Digital Age."

"Artificial intelligence as a category of technologies is actively changing the character of warfare, as witnessed in Ukraine which has become a testing ground for emerging capabilities. Yet, when looking at the impact of AI in non-kinetic contexts such as digital hybrid threats, it is important to consider not only how AI affects adversary tactics, but also how it risks creating new vulnerabilities within societies that can be exploited", Romansky stated. [\[LINK\]](#)

NATO Staff Centre | NATO Night 2025

On Wednesday the 30th of April 2025, HCSS analyst Laura Jasper moderated the Panel "Security and Defence: Towards the NATO Summit in The Hague" at NATO Night 2025 organised at the NATO Staff Centre in Brussels. The panel looked back at the military developments of the past year and focused on the future, with the NATO summit in June as an important benchmark. [\[LINK\]](#)



NUPI Symposium: Consequences of investments for national security

How do foreign direct investments from autocracies impact global politics? On February 26, HCSS Director of Research Tim Sweijs spoke at NUPI, the Norwegian Institute of International Affairs, about how to protect national security and prosperity at a time when European economies are on the receiving end of coercive statecraft not just from Russia and China but also from the US. [\[LINK\]](#)

Franco-Dutch Defence Talks

On 30 September 2025, the French Defence Attaché Office in the Netherlands hosted the inaugural Franco-Dutch Defence Talks (FDDT) at HCSS. This year's talks focussed on the current state of nuclear deterrence in Europe and explore the future of continental security in the months following the NATO Summit in The Hague. France and the Netherlands, as long-standing members of NATO and committed to nuclear deterrence, face both shared and distinct challenges in this evolving security landscape. The discussions examined Europe's security architecture, the implications of recent geopolitical developments, and the potential need to reevaluate nuclear deterrence strategies. [\[LINK\]](#) Read the event recap [here](#).

Expert panel | After The Summit: Understanding the Implications of the Recent NATO Summit in The Hague

How will the recent NATO Summit in The Hague shape the future of European security and transatlantic relations? Just days after the summit, The Hague Humanity Hub, in collaboration with The Hague Centre for Strategic Studies (HCSS) and the T.M.C. Asser Instituut organised an event that offered a timely discussion on the summit's outcomes and their implications against the backdrop of the war in Ukraine and shifting geopolitical landscapes. [\[LINK\]](#)



De Balie | At the frontline of Russia's shadow war: Dr. Tim Sweijs and Estonia's former President Toomas Hendrik Ilves

On Wednesday 15 October, HCSS Director of Research Dr. Tim Sweijs joined a conversation with Estonia's former President Toomas Hendrik Ilves at De Balie in Amsterdam. Together with moderator Yoeri Albrecht, they discussed Europe's security challenges now that Russia is increasingly testing the borders of NATO-territory.

With Russian MiG-31 fighter jets violating Estonian airspace just weeks earlier, the discussion explored how the Baltic states, long at the frontline between Russia and the West, are responding to renewed threats ranging from cyberattacks to airspace incursions.

Former President Ilves' long and distinguished career, including his presidency (2006–2016), guided Estonia through a period marked by escalating Russian cyber aggression and disinformation campaigns. He played a pivotal role in steering Estonia to its current status as a confident EU and NATO member. His insights reflected decades of leadership, experience, and dedication.

Former President Ilves delivered a stark warning about the stakes of the war: "If Ukraine does not win, the mother of all refugee crises will emerge, and will make 2015 look like child's play."

Dr. Sweijs, recently back from a trip to Ukraine, reflected on the challenges the country continues to face and the immediate and ongoing need for Western support. He noted that if such support is provided, Ukraine not only has a chance to survive as a sovereign state but is increasingly showing resilience and capacity to improve its position.

The discussion also highlighted the urgency to rethink how the West approaches Russia — combining hard power with soft power and the need to shift the thinking of Russian elites and broader society. It was noted that Western European leaders continue to be blinded by bias, underlining the importance of clear, unified responses and adjusting our worldview.

The evening offered sobering yet insightful perspectives on the continuing shadow war unfolding across Europe's eastern frontier — and a reminder that the defence of democracy requires both vigilance and unity. [\[LINK\]](#)



CENS Roundtable on Hybrid Threats and Future War in an Age of Disruption

On January 23, Tim Sweijs presented at a roundtable at the S. Rajaratnam School of International Studies (RSIS) in Singapore. The session focused on hybrid threats and the future of war, examining how to prepare, equip, and organise for conflict. Drawing lessons from both ongoing frontlines and developments occurring beyond the battlefield, Dr. Sweijs explored the essential prerequisites for waging and sustaining war, including societal preparedness, the role of the population, industrial contributions, and the military's ability to leverage technology and innovate. [\[LINK\]](#)

"Brussels 360" Executive Course

Tim Sweijs lectured on strategy and transatlantic security during the "Brussels 360" Executive Course organised from 4-6 June by the Centre for Security, Diplomacy and Strategy (CSDS) of the Brussels School of Governance. The course aims to provide participants with a deeper and more critical understanding of Europe's role in a world in flux. [\[LINK\]](#)

NATO's Second Foresight Conference

At NATO's Second Foresight Conference in Rome (7–9 October), Tim Sweijs shared his insights on developing a Theory of Victory versus a Theory of Long-Term Advantage for NATO. In panels with Professor Olivier Schmitt and other senior experts, he explored how the Alliance can enhance strategic effectiveness amid rising geopolitical tensions. Dr. Sweijs also joined the closing session, *What's Next for NATO*, discussing the Alliance's future direction and deterrence posture. [\[LINK\]](#)



RSIS Roundtable on the Future of War: Implications for Small and Middle Powers

On October 31, Tim Sweijs joined a roundtable discussion on 'The Future of War: Implications for Small and Middle Powers', at the S. Rajaratnam School of International Studies (RSIS) in Singapore, chaired by Dr. Michael Raska. Drawing on insights from visits to Armenia, Taiwan, and Ukraine, this roundtable explored the challenges of contemporary warfare and their implications for SMPs. [\[LINK\]](#)

Atlantisch Perspectief | The leader cannot lead if the followers won't follow: The crucial role of Small and Middle Powers in NATO

HCSS Director of Research Tim Sweijs highlights the indispensable role of small and middle powers in NATO. While the US sets the Alliance's strategic direction, NATO's strength depends on willing followers whose geography, capabilities and diplomacy shape collective defence. From frontline states deterring Russia to cyber leaders like Estonia and diplomatic bridge builders like the Netherlands, these countries provide cohesion, legitimacy and operational reach. Sweijs warns that NATO's future hinges on preserving this unity—echoing the fate of past alliances that collapsed when smaller members drifted away. [\[LINK\]](#)

War On The Rocks | The Mighty Middle Powers

Two years after warning that middle powers would decisively shape global order Tim Sweijs argues that this trend has only accelerated. The US has reasserted itself through a more forceful posture, prompting many allied middle powers to align with Washington's agenda. Yet middle powers have also driven major geopolitical shifts—from enabling Russia's war economy to bolstering Ukraine, mediating in the Middle East, and investing heavily in AI. Sweijs now cautions that sustained US neglect of Africa and parts of Europe risks strategic fallout in an era where middle powers increasingly determine global stability. [\[LINK\]](#)

The Diplomat | NATO's North Korea Blindspot Is a Security Nightmare

North Korea's deepening military and cyber support to Russia poses a far greater threat to NATO than acknowledged at this year's summit, writes HCSS Strategic Analyst Hans Horan. While leaders focused on defence spending and US politics, Pyongyang's troop deployments, massive artillery supplies, and infiltration of Western defence-related IT networks went largely unaddressed. North Korean operatives embedded in critical supply chains could gather intelligence, sabotage rearment efforts, or aid Russian targeting in Ukraine. NATO's neglect of this growing hybrid threat risks undermining its collective defence strategy unless integrated into future planning. [\[LINK\]](#)

The Diplomat | Is North Korea a Strategic Cyber Threat to Europe?

North Korea has become a top-tier cyber threat to Europe, ranking just behind Russia and China in ENISA's Threat Landscape 2025 report. Hans Horan highlights how Pyongyang's cyber operations now target EU defence, technology, and critical industries through financial theft, espionage, and IT-worker infiltration. As Europe ramps up defence production and deepens partnerships, these expanding digital entry points offer opportunities for North Korean hackers to gather intelligence, disrupt supply chains, or sell access to Russian cybercriminals. Horan argues that NATO and the EU must treat North Korea as an urgent, strategic threat—not a peripheral one. [\[LINK\]](#)

Atlantisch Perspectief | An agile, innovative and adaptive armed force

HCSS Senior Fellow Friso Stevens argues that the Netherlands must rethink its defence strategy for an era defined by drones, AI-enabled systems, and urban conflict. He warns that recent budget increases largely reinforce Cold War-style capabilities instead of building an agile, innovative and adaptive force. Stevens highlights gaps in strategy, preparedness for hybrid and space threats, and the absence of capabilities for city fighting. He calls for a forward-leaning vision that aligns technology, manpower and strategy with the war of the future. [\[LINK\]](#)

The Malaysian National Resilience College visits HCSS

On 17th April, officers from the Malaysian National Resilience College visited HCSS to discuss the evolving global security landscape. The conversation covered multiple pressing issues ranging from the changing character of warfare, especially observed in Ukraine, to the critical importance of sustainment and mobilisation in modern defence strategies. These exchanges highlighted the need for continued collaboration and dialogue between partners around the globe to enhance resilience and better understand the evolving trends of modern warfare. [\[LINK\]](#)

Iskander Rehman | A Little World War: Lessons from the Spanish Civil War for Contemporary Strategies

On 11th September 2025, HCSS welcomed Dr. Iskander Rehman for a lecture on the *Lessons Learnt from the Spanish Civil War (1936-1939) applicable to the current war in Ukraine*. Rehman's comparative historical analysis yielded numerous insights relevant for today's world. Dr. Rehman observes both evident and non-evident parallels between the two global proxy wars. Both conflicts incontestably serve as test beds for military innovation, with international support playing key roles in the unfolding of the conflict. Less evidently, both contexts also observe the use of shadow fleets to circumvent arms embargoes or war profiteering with corporations bypassing economic sanctions, engagement in information warfare and the use of 'ethnic auxiliaries', Moroccans for Franco and Chechens for Putin, spreading terror on the front line. [\[LINK\]](#)



Society & Resilience

The past year has shown with exceptional clarity how international geopolitical shocks reverberate directly into Dutch society. Wars, hybrid interference, and global economic uncertainty increasingly shape daily realities at home. These pressures test social trust, democratic resilience, and the cohesion on which an open society depends. In 2025, this tightening connection between global turbulence and national stability became impossible to ignore.

HCSS research in the field of Society & Resilience examines precisely these linkages: how external pressures—from conflict to disinformation—interact with domestic vulnerabilities such as polarisation, declining institutional trust, or online radicalisation. The chapter that follows showcases this work across a wide spectrum of topics that increasingly define societal security.

A cornerstone of our efforts remains our multi-year collaboration with the Dutch police, including the *Strategic Monitor* and the *HCSS Public Monitor*, which capture how citizens perceive external threats, internal tensions, subversive forces, and sources of societal strength. These insights provide an indispensable evidence base for policymakers seeking to understand how geopolitical developments translate into local anxieties about safety, democracy, and social cohesion. One of the findings this year is that migration is consistently perceived by large parts of the public as a significant source of pressure on societal stability — a perception that, regardless of objective risk, carries clear political and democratic implications, and should not be overlooked or ignored by politics.

HCSS also continued to map the rapidly evolving landscape of online extremism and radicalisation, including in the acclaimed reports *Van Meme Tot Moord* and our studies on extremist subcultures. These analyses show how digital ecosystems—memes, fringe platforms and hybrid ideologies—are reshaping pathways to violence, often outpacing institutional awareness.

At the same time, hybrid threats once considered abstract—disinformation, foreign interference, cyber-enabled destabilisation—have become part of mainstream public debate. Our work for the police, government partners, and international networks illustrates how these tactics erode democratic legitimacy, deepen polarisation, and blur the line between external and internal security.

Climate-related disruptions, too, are no longer distant risks but drivers of social stress. HCSS research, including the report *Security in a Heated World*, identifies how extreme weather, water scarcity, and environmental shocks interact with societal inequalities and geopolitical tensions, requiring new forms of preparedness and cross-sector cooperation.

Together, the analyses presented in this chapter underline a central conclusion: resilience must be cultivated. In an era where global crises carry immediate domestic implications, strengthening the social fabric—through insight, foresight, and an understanding of public sentiment—is essential. HCSS remains committed to supporting this effort through rigorous research and sustained engagement with policymakers, security professionals, and society at large.

Report | Society in Transition: Balancing Between Hope and Fear - Strategic Monitor Police 2025

The Strategic Monitor Police 2024 provides insight into a rapidly changing world and its impact on the Netherlands and its democratic rule of law. It outlines how geopolitical, technological, and societal developments are increasing uncertainty, instability, and hybrid threats. The report highlights the importance of cooperation between government, police, and international partners, with a focus on prevention, innovation, and strengthening societal resilience. Through realistic scenarios and continuous knowledge development, the Monitor offers guidance for strategy and policy aimed at safeguarding stability and security in an increasingly complex and dynamic society. [\[LINK\]](#)

Our democratic rule of law is robust but far from guaranteed. Geopolitical tensions, technological advancements, and economic uncertainty are putting pressure on social stability in the Netherlands. Without constant vigilance, instability looms. Rapid technological and economic change produces both winners and losers. Growing uncertainty and inequality create a classic recipe for societal instability. The Netherlands faces developments it cannot fully control, yet that profoundly affect society. Government plays a key role as norm-setter and guardian of public order, but societal stability is a shared responsibility.

Author: Frank Bekkers.

Contributions by: Gerben Bakker, Jesse Kommandeur, Nora Nijboer and Emma Bokel.

On February 6, author Frank Bekkers (l) presented the Strategic Monitor to police chief Janny Knol and member of the police management Henk Geveke (r). [\[LINK\]](#)



Report | Safe City: Challenges for Highly Urbanised Areas in the Netherlands

Dutch cities face complex challenges in the coming decades due to population growth, ageing, migration, climate change, and technological developments. Vulnerable neighbourhoods, superdiversity, polarisation, mental health issues, and crime are increasing the pressure on urban safety and liveability. This HCSS study offers insights for strategic adaptation and long-term policymaking. Cooperation between municipalities, provinces, and the national government is essential to safeguard urban resilience and develop future-oriented solutions. [\[LINK\]](#)

Authors: Gerben Bakker, Bart Vossebelt and Thijs van Aken.

Contributors: Frank Bekkers, Paul Sinning, Philippe van Poppelendam, Tom Driessen and Pieter Bindt.

With thanks to: Mijchanou Kowalczyk and Lise Houwing (Dutch Police Strategy & Innovation Team), Marco van der Land (Lecturer in Integrated Safety Studies, The Hague University of Applied Sciences). Several urban policymakers and strategists were consulted for this study.

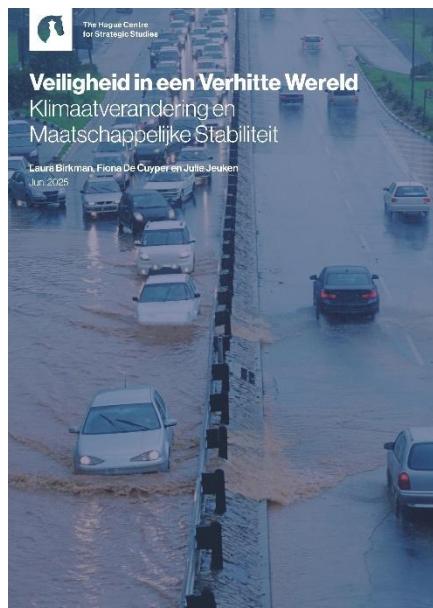


Report | Security in a Heated World: Climate Change and Social Stability

Climate change is not a distant issue — it is already affecting the social stability of the Netherlands. This report is an initial exploration of the complex interplay between climate-related events and the socio-political, economic, and security dynamics within our country. Climate change acts as a so-called risk multiplier: it intensifies existing ecological, economic, and social tensions. Europe — the fastest-warming continent — is already experiencing more frequent extreme weather events, with consequences for food security, public health, energy supply, and financial stability. At the same time, hybrid threats such as disinformation about climate impacts can further fuel social unrest and polarisation. [\[LINK\]](#)

Authors: Laura Birkman, Fiona De Cuyper and Julie Jeuken.

Contributors: Irina Patrahanu, Linde Arentze, Abe de Ruijter, Frank Bekkers, Tom Middendorp and Gerben Bakker.



Report | In the Shadows of War: The Impact of Russia's Invasion of Ukraine on Criminal Networks in Eastern Europe

How has Russia's invasion of Ukraine opened up new spaces for organised crime to become weaponised across Europe and thereby risking security across the continent? This report examines how the Russian invasion of Ukraine has enabled criminal networks to exploit wartime instability, adapt to shifting markets, and expand their operations across Eastern Europe. Key findings reveal a significant link between organised crime, kleptocracy, and stability, highlighting their particularly destabilising impact on Eastern Europe. Understanding these dynamics is crucial to addressing the hidden criminal dimensions of war. [\[LINK\]](#)

Authors: Laura Jasper, Ana Dadu and Davis Ellison.

Contributor: Tom Driessen.



Atlantisch Perspectief | The danger of the unknown and unnamed threat

The numerous academic articles published on hybrid threats, along with countless counter hybrid programs, underscore the uncertainty we experience in confronting new types of conflict. This entails significant risks. The mere response of a "resilient society" will not suffice, write HCSS Strategic Analyst Gerben Bakker and Yarin Eski (associate professor of Public Administration at VU Amsterdam), in an op-ed for Atlantisch Perspectief. We mustn't forget that the Russian regime has declared us an "existential threat." That's quite a statement, and it doesn't reflect small-scale intentions and surreptitious pinpricks. [\[LINK\]](#)

Atlantisch Perspectief | Why the transatlantic 'culture war' sparks political violence

Demonstrations turning violent more often, and political violence is increasingly seen as an acceptable tool. Why is this, and what can governments do to counter this worrying trend? HCSS Strategic Analyst Davis Ellison wrote an op-ed for the Atlantisch Perspectief about the growing normalisation of political violence in both the United States and Europe, where he considers how the internationalisation of political polarisation, particularly on so-called "culture war" topics, is contributing to an interconnected wave of political violence that is continuing to spiral. [\[LINK\]](#)

HCSS Public Monitor | Societal Stability

How stable is Dutch society in the eyes of its citizens? The new **HCSS Public Monitor on Societal Stability** measures how people in the Netherlands perceive social tensions, threats, and resilience. This unique survey supports policymakers, the police, and other professionals in strengthening strategic insight and democratic resilience.

The Public Monitor is a research instrument that systematically maps how citizens experience societal stability. It looks not only at objective developments but especially at public perceptions: where people feel threatened, lose trust, or—conversely—find strength and social cohesion. The aim is to provide insight into how people view the state of society and what they see as risks or sources of resilience.

The monitor focuses on four central themes: external pressure, internal discontent, subversive forces, and societal resilience.

- *External pressure* refers to factors acting upon society from the outside, such as geopolitical tensions, migration, and foreign interference.
- *Internal discontent* covers domestic dynamics that may fuel social unrest, such as dissatisfaction with political effectiveness or public participation.
- *Subversive forces* include actors who deliberately seek to undermine the rule of law, such as organised crime groups or extremists.
- *Resilience & societal strength* highlights elements that help society absorb shocks, such as community cohesion and crisis preparedness.

The first edition, the Summer Survey, makes clear that societal stability in the Netherlands cannot be taken for granted. Yet it also highlights potential avenues for strengthening it: through social cohesion, transparent communication, and attention to underlying currents of discontent. By systematically measuring what citizens see, fear, and trust, the monitor provides valuable insights for policymakers, security partners, and public administrators committed to reinforcing the democratic rule of law.

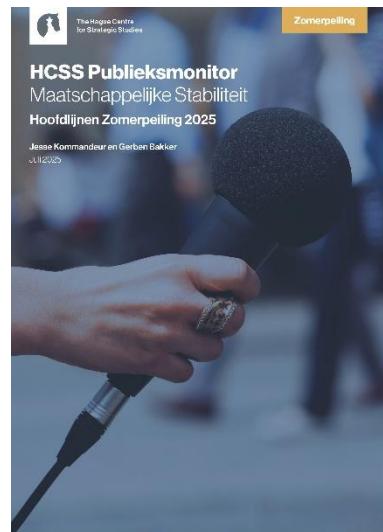
The questionnaire behind the monitor was developed by HCSS in cooperation with Kieskompas and is administered four times a year to a representative sample of Dutch citizens. The responses form the basis for public perception analyses, enabling longitudinal tracking and links to social and political trends.

Which questions were included in the Summer Survey 2025—and how did respondents answer them? Read more about the concept and application of this new tool in the Scoping Paper and the Appendix, which contains the full questionnaire and all associated results: [\[LINK\]](#)

The **Public Monitor** is a research line within HCSS, commissioned by the Strategy Department of the Dutch Police.

HCSS Public Monitor | Key Findings Summer Survey 2025

The first edition—the Summer Survey 2025—shows how people in the Netherlands perceive social tensions, threats, and resilience. While the average score for societal stability is a 6.2—indicating the Netherlands is not a country in crisis—the deeper analysis reveals a fragile and uneven picture. Public opinion points to structural tensions across the four dimensions of stability: external pressure, internal discontent, subversive forces, and resilience & societal strength. [\[LINK\]](#)



HCSS Public Monitor | Key Findings Autumn Survey 2025

The Autumn Survey 2025 shows that societal stability in the Netherlands remains fragile. Citizens score it at 6.1, slightly lower than in the summer. Internal tensions and concerns about the functioning of democracy are increasing, while trust in government remains low. At the same time, many people view their local communities as sources of resilience. Read the key findings here. [\[LINK\]](#)



HCSS Public Monitor | Key Findings Winter Survey 2025

According to the Winter Survey, societal stability in the Netherlands receives a bare passing grade (6.1). Domestic tensions, declining trust in the government, and growing concerns about extremism dominate the picture. At the same time, social cohesion proves to be the most important source of resilience. Read the latest analysis of what the Dutch see as the greatest threats and the strongest foundations of our society. [\[LINK\]](#)



Authors: Jesse Kommandeur and Gerben Bakker.

Contributors: Emma Bokel, Thijs van Aken and Marit Weurding.

With thanks to: Jeroen van Lindert (KiesKompas) and Willem Blanken (KiesKompas).

Report | From Meme to Murder: How Online Extremist Incubators Are Cultivating a New Generation of Violence

Online extremism is no longer a fringe phenomenon—it is rapidly becoming a driving force behind radicalisation and violence. The latest HCSS report shows how online biotopes—such as the incelosphere, manosphere, Siege niches, and eco-fascist channels—attract, shape, and sometimes incite young people, including minors, toward extreme violence. The result is a new type of extremist: young, digitally adept, ideologically diffuse, and often invisible to institutions.

The report explains how memes, games, and hybrid ideologies fuse into a dangerous breeding ground for radicalisation—and what can be done to counter it. [\[LINK\]](#)

Authors: Gerben Bakker, Thijs van Aken, Philippe van Pappelendam and Julie Jeuken.

Contributor: Paul Sining.

With thanks to: Strategy Development Team of the Dutch Police, “Mary” (Capitol Terrorists Exposers), and various covert researchers and OSINT analysts who contributed to this analysis.



Snapshot | The Rise of Siege Culture: A Case Study of Online Extremist Threats

Digital far-right subcultures pose a real and growing threat, including in the Netherlands. What is “Siege,” and why is this extremist online ecosystem an increasing driver of violence risk? A new HCSS Snapshot explores the radical ideology behind Siege and shows how this digital environment fosters hate, violence, and societal disruption. Read the full analysis here. [\[LINK\]](#)

Authors: Philippe van Pappelendam and Gerben Bakker.



HCSS Focus | Autocratic Sentiment

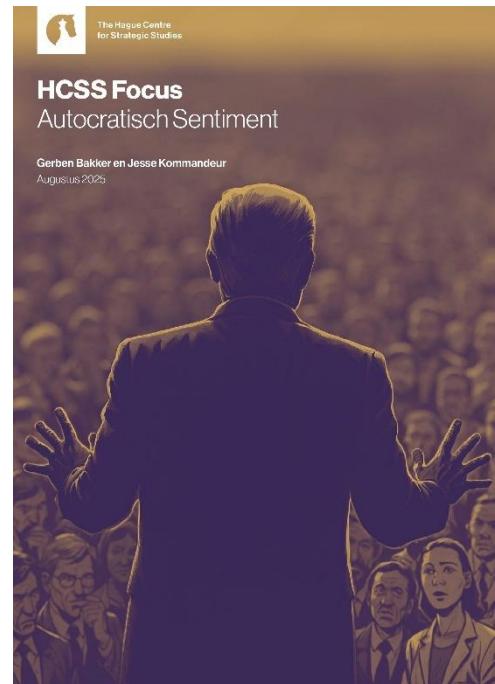
This HCSS Focus examines autocratic sentiment in the Netherlands: the preference among parts of the population for unconstrained authoritarian decisiveness over democratic governance bound by checks and balances and the rule of law. The report shows that nearly half of Dutch citizens can support the idea of a “strong leader” in times of crisis—someone who prioritises decisiveness over compromise. At the same time, many people express frustration with the slow pace of democratic decision-making, distrust in institutions, and anxieties over migration, war, and economic uncertainty. These factors heighten the appeal of authoritarian alternatives.

Although the Netherlands continues to rank highly on international democracy indices, the analysis demonstrates that the sentiments capable of eroding the democratic rule of law are clearly present. For policymakers and observers, the report identifies where vulnerabilities lie—and where opportunities exist to strengthen resilience and trust. The report does not offer recommendations, but aims to signal risks for further research and inform public debate. [\[LINK\]](#)

Authors: Gerben Bakker and Jesse Kommandeur.

Contributors: Emma Bokel, Marit Weurding and Rens van Dam.

With thanks to: Jeroen van Lindert (Kieskompas) and Willem Blanken (Kieskompas).



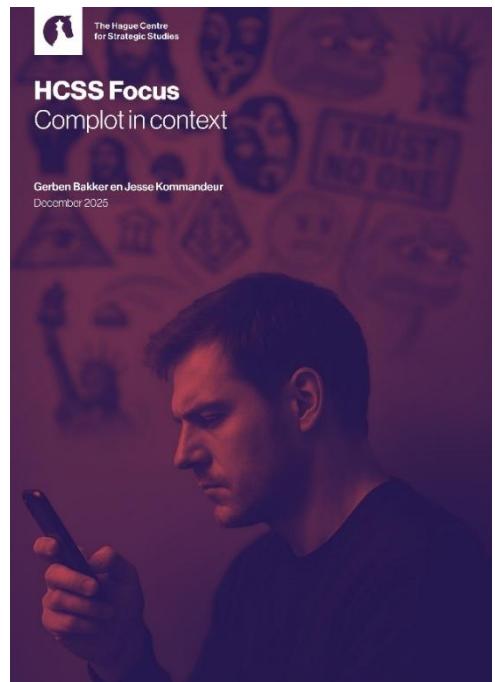
HCSS Focus | Conspiracy in Context

This HCSS Focus examines how people in the Netherlands assess alternative explanations for societal events. It explores psychological and socio-economic drivers, the dynamics of digital platforms, and how individuals navigate information sources. The report differentiates between narrative types and varying levels of plausibility. Rather than prescribing policy directions, it maps a diverse and layered landscape—showing how transparency, media literacy, and strong institutions are essential to sustaining societal stability. [\[LINK\]](#)

Authors: Gerben Bakker and Jesse Kommandeur.

Contributors: Emma Bokel and Philippe van Poppelendam.

With thanks to: Jeroen van Lindert (Kieskompas) and Willem Blanken (Kieskompas).



Policy note | Independent Oversight and Independent Investigation

The main concern during the introduction of shared responsibility for safety was that the government would lose its coordinating role and weaken its supervisory function. Although the government retained safety as a core task, it became increasingly cautious in exercising control. This led to a shift toward sector-specific safety regulations without binding government directives, resulting in fewer inspections and cuts to oversight capacity. In this policy brief, Professor (emeritus) Pieter van Vollenhoven and Lodewijk Gunther Moor argue that the House of Representatives should take the initiative to enable truly independent oversight by national inspectorates—ensuring that safety is not compromised by political influence or financial considerations. [\[LINK\]](#)

Authors: Professor mr. em. Pieter van Vollenhoven and Drs. Lodewijk Gunther Moor.

Strategic Capability Game | Resilience of the Civil-Law Notaries

On October 16, HCSS, in collaboration with the Royal Dutch Association of Civil-Law Notaries (KNB), organised a Tabletop Strategic Capability Game on resilience in times of crisis and uncertainty, to explore how the KNB can continue to function in a world where threats are rapidly becoming more complex and realistic. The simulation, developed by HCSS, placed participants in a scenario in which the Dutch notarial profession faced a cascade of calamities: from cyberattacks and disinformation campaigns to disruptions in critical infrastructure and international tensions. [\[LINK\]](#)



Fraude Film Festival

On Thursday, November 6th, HCSS Strategic Analyst Laura Jasper spoke at the Fraud Film Festival at the Royal Tuschinski Theatre in Amsterdam. In her introduction on disinformation and geopolitics, she addressed Europe's declining power, the changing global order, and the growing threat of disinformation. What does this mean for oversight, law enforcement, and businesses? The Fraud Film Festival is an annual festival featuring films, documentaries, workshops, interviews, and networking opportunities on fraud and fraud prevention. [\[LINK\]](#)

International Fact Checking Day

To mark International Fact-Checking Day, the Anti-Disinformation Network for the Balkans (ADN-Balkans) organised two regional events taking place in Skopje and Tirana, gathering fact-checkers, journalists, researchers, policymakers, and civil society leaders from across the Western Balkans and Europe. Strategic Analyst Laura Jasper joined the conference “Together for Truth: Whole-of-Society Approach to Safeguard Democracy” in Skopje, North Macedonia, on April 2, as a panel speaker.

“The information environment is integral to the foundations of democracy because it is where people make decisions. The legitimacy of democracy therefore is rooted in the ability of people to make free and informed decisions,” Laura stated during her presentation.

Continuing, Laura added: “While in the past autocrats, regimes, and adversaries, used the power to withhold information, think of the secret police, censorship, and oppression of the truth. We are now seeing the complete opposite, namely excess of information where instead of little information that is available to the public, the public is now flooded with information on a daily or even hourly basis.” [\[LINK\]](#)



Climate, Water & Food

By 2025, climate change has become a defining force in global security. No longer a distant scenario, it now shapes the strategic environment through intensifying extreme weather, deepening resource pressures, and exacerbating fragility in regions already struggling with political or economic stress. Around the world, climate impacts this year underscored how environmental shocks and security risks are increasingly intertwined.

The year opened with unprecedented heatwaves across Southern Europe, North Africa, and the Middle East, pushing temperatures and placing acute strain on health systems, energy grids, and water supplies. In India and Pakistan, record-breaking pre-monsoon temperatures triggered blackouts and food price spikes, while East Africa endured its sixth consecutive season of erratic rainfall—fuel for both humanitarian crises and localised tensions. At the same time, flash floods in Brazil, Southeast Asia and the Balkans again revealed the destructive combination of ageing infrastructure and a warming, moisture-laden atmosphere.

These events carried sizeable geopolitical and economic consequences. From disrupted grain exports due to prolonged low water levels on Europe's rivers, to wildfire-related shutdowns of industrial sites in the Mediterranean, climate shocks reverberated across global supply chains. A mid-year UN assessment estimated that climate-related disasters displaced more than 30 million people in 2025 alone, adding pressure to already fragile regions and amplifying the drivers of instability, migration, and conflict – but also beyond fragile regions, climate stresses increasingly pose risks to critical infrastructures, agricultural productivity and public health.

European leaders increasingly frame these developments as strategic risks. Defence planners from NATO to the EU have warned that climate change is reshaping operational environments—damaging bases, constraining mobility, accelerating resource competition, and raising the likelihood of conflict in water-stressed regions. As climate impacts accelerate, integrating adaptation, resilience and early-warning capabilities into foreign, security and development policy has become a necessity rather than an option.

Against this backdrop, HCSS has further strengthened its Climate, Water & Food Security work. In 2025, we advanced research that maps climate-security hotspots, examines the geopolitics of the green transition, and assesses how water scarcity, energy stress, and food insecurity intersect with political fragility. Our contributions to the Water, Peace and Security (WPS) partnership—through early-warning tools, country analyses, and policy engagement from Iraq to East Africa—demonstrated how data-driven insights can support collaborative, conflict-sensitive water governance.

Through scenario development, risk analysis and strategic outreach, HCSS continues to bridge environmental science and security practice. This chapter highlights why climate, water and food security now sit at the core of geopolitical foresight—and why strengthening resilience is essential for stability in an increasingly volatile world.

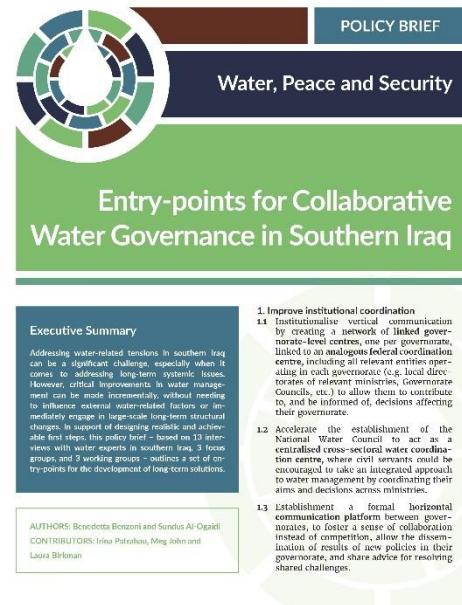
WPS Policy Brief | Entry-points for Collaborative Water Governance in Southern Iraq

As Iraq continues to deal with a chronic water crisis, experts both inside and outside the government are mobilising to find and design durable solutions.

Addressing water-related tensions in southern Iraq can be a significant challenge, especially when it comes to addressing long-term systemic issues. In support of designing realistic and achievable first steps, this Water, Peace and Security (WPS) policy brief – based on 13 interviews with water experts in southern Iraq, 3 focus groups, and 3 working groups – outlines a set of entry-points for the development of long-term solutions. [\[LINK\]](#)

Authors: Benedetta Benzoni and Sundus Al-Ogaidi.

Contributors: Irina Patrahanu, Meg John and Laura Birkman.



The cover of the policy brief features a circular graphic composed of various colored segments. At the top right, the text 'POLICY BRIEF' is written in white. Below it, the text 'Water, Peace and Security' is displayed. The main title 'Entry-points for Collaborative Water Governance in Southern Iraq' is centered in a large, bold, black font. At the bottom of the cover, there is a box containing the 'Executive Summary' and a list of 13 recommendations, with the number '1' indicating the first recommendation.

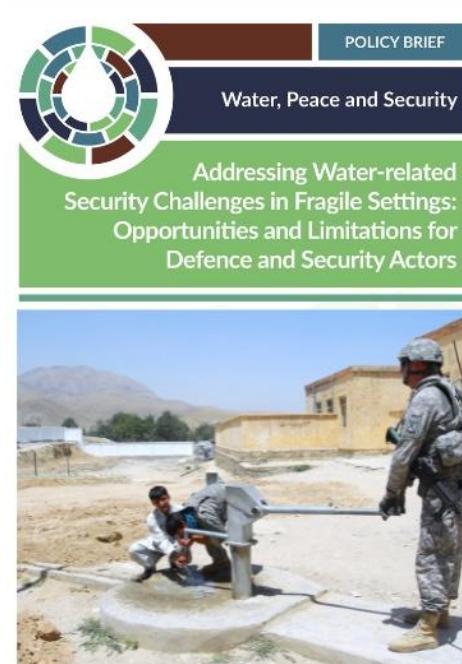
WPS Policy Brief | Addressing Water-related Security Challenges in Fragile Settings: Opportunities and Limitations for Defence and Security Actors

The Water, Peace and Security (WPS) partnership explores the growing role of defence and security actors—the “fourth D” alongside development, disaster relief and diplomacy—in addressing water-related security risks. Based on literature review and expert interviews in Iraq, Mali, Ethiopia and Kenya, this new WPS policy brief by HCSS analysts Lennart Engel and Thijs van Aken examines their complex role in fragile, water-stressed contexts and identifies key opportunities, challenges, and three priority actions for more effective and responsible engagement.

[\[LINK\]](#)

Authors: Lennart Engel and Thijs van Aken.

Contributors: Laura Birkman and Abigail Robinson.



The cover of the policy brief features a circular graphic composed of various colored segments. At the top right, the text 'POLICY BRIEF' is written in white. Below it, the text 'Water, Peace and Security' is displayed. The main title 'Addressing Water-related Security Challenges in Fragile Settings: Opportunities and Limitations for Defence and Security Actors' is centered in a large, bold, black font. At the bottom of the cover, there is a photograph showing a soldier in military gear standing next to a water pump, while two local men are working on it. The number '1' is also present at the bottom left of the cover.

WPS Symposium | From Fragility to Resilience: Engaging Defence and Security Actors in Water Security

On November 5th, 2025, HCSS hosted a Water Peace and Security (WPS) 4D Mini-Symposium - From Fragility to Resilience: Engaging Defence and Security Actors in Water Security. This event explored the role of defence and security actors in tackling water-related security challenges. This report synthesises the key take-aways from the event: (1) Foster Cross-Sectoral Trust and Understanding, (2) Build Comprehensive Cooperation Structures and (3) Understand Local Realities. [\[LINK\]](#)

Water, Peace and Security Symposium, Baghdad, Iraq

On 27 May 2025, a diverse group of Iraqi policymakers, technical experts, academics, and international partners gathered in Baghdad for a dynamic one-day Symposium organised by the Water, Peace & Security (WPS) partnership. Held directly after the 5th Baghdad International Water Conference, the Symposium aimed to transform insights from WPS initiatives in Wasit, Missan, Basra, and Dhi Qar into actionable and collaborative solutions for addressing water-related security challenges in Iraq. Organised by the WPS partnership, the event marked a pivotal step toward transforming data and insights into collaborative solutions for southern Iraq's mounting water-related challenges.

Laura Birkman, Director Climate, Water and Food Security at The Hague Centre for Strategic Studies (HCSS) and Lead WPS engagement in Iraq, shared key findings of the WPS work in Iraq. She reflected on Iraq's institutional landscape and the challenge of bridging the gaps between policy, data, institutions and civil society. She stressed that monitoring water problems alone is insufficient and called for systems that support root cause analysis, adaptive policymaking, and inter-agency collaboration. [\[LINK\]](#)



International Conference on Water, Peace and Security 2025: Water as a Catalyst for Peace and Cooperation

From October 27-28, Strategic Analyst Thijs van Aken represented HCSS at the International Conference on Water, Peace and Security in Nairobi, Kenya, organised by the Water, Peace & Security (WPS) Partnership. The event, themed “Water as a Catalyst for Peace and Cooperation”, brought together governments, international organisations, civil society, researchers, and practitioners to explore how water can serve as a driver for peace rather than conflict.

As part of the WPS Partnership, HCSS together with International Alert co-organised a panel session on “Securing Water, Sustaining Peace: Involving Defence and Security Actors in Addressing the Water Security Nexus.” Reflecting on the discussions, van Aken noted: “In fragile contexts, defence and security actors are increasingly called upon to support stabilisation and disaster relief efforts when water stress turns into a security risk. Yet their involvement in addressing these issues—together with diplomacy, development and disaster relief actors—remains limited. The key question is: how can we better integrate defence and security actors into long-term water governance and peacebuilding efforts, without compromising trust and local ownership?”

The discussions in Nairobi highlighted the urgent need to build effective partnerships between defence, development, disaster relief and diplomacy actors,” said van Aken. “These cross-sectoral efforts will be key to sustaining peace in a world where climate, water and security risks are increasingly intertwined.” [\[LINK\]](#)

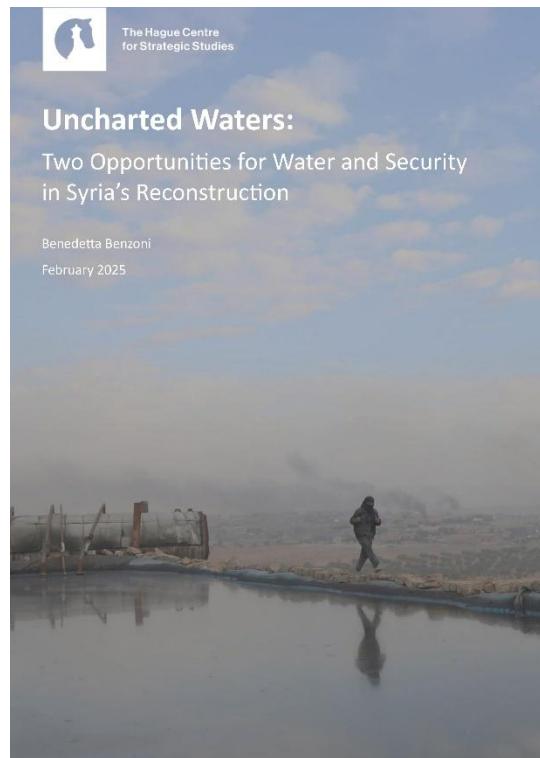


Snapshot | Uncharted Waters: Two Opportunities for Water and Security in Syria's Reconstruction

Control over water has become an entrenched part of strategic considerations for groups governing Syria, both due to the role played by water infrastructure in projecting power across the Syrian territory, and the fact that irrigation is currently the 'sine qua non' of food self-sufficiency ambitions. As Syria enters a reconstruction phase, how can the HTS-led transitional government use water governance to contribute to peace and stability in Syria? This snapshot by Assistant Analyst Benedetta Benzoni tries to answer this question. [\[LINK\]](#)

Author: Benedetta Benzoni.

Editors: Laura Birkman and Irina Patrahanu.



Berlin Security and Climate Conference on Gender, Climate and Security

Laura Birkman was the keynote speaker of an official side event at the Berlin Security and Climate Conference on Gender, Climate and Security, co-hosted by the European Centre of Excellence for Civilian Crisis Management (CoE) and the European External Action Service (EEAS) Civilian Operations Headquarters, to celebrate 25 Years of the Women, Peace and Security agenda.

She emphasised that sustainable peace is achieved by building connections and integrating the fields of gender, environment, and security, rather than by allowing them to operate in parallel. [\[LINK\]](#)



Paper | Uncovering the Climate – Conflict Link: Mapping the Causal Pathways in Iraq

Environmental conditions like drought, heat, and soil stress are increasingly linked to armed conflict, but the exact pathways remain unclear. In a new study, Ninoslav Malekovic, Maarten Vonk, Laura Birkman, and Tim Sweijs use advanced causal analysis on Iraqi subdistricts to reveal how these conditions—especially when paired with high energy demand and dense populations—can drive violence through complex chains of resource and demographic pressure. Their findings highlight where and why conflict is more likely, offering a foundation for targeted interventions to prevent violence before it unfolds. [[LINK](#)]

Authors: Ninoslav Malekovic, Maarten Vonk, Laura Birkman, Tim Sweijs, Anna V Kononova and Thomas Bäck.

This article was published with *Scientific Reports*.

Partner institution: Leiden Institute for Advanced Computer Science.

TRENDS Research and Advisory 5th Annual Conference on Sustainable Water Security

Laura Birkman was panellist at the TRENDS Research and Advisory 5th Annual Conference on Sustainable Water Security in Abu Dhabi. Birkman was part of the panel 'Multilateralism and knowledge in the global water dialogue: the UN and the role of think tanks in promoting SDG 6'. [[LINK](#)]



Cairo Water Week: Promoting Nature-Based Solutions for Water, Peace, and Security

Laura Birkman represented HCSS at Cairo Water Week 2025, contributing to high-level panels on nature-based solutions, water diplomacy, and investment in sustainable water systems. She highlighted the role of wetland restoration and nature-based approaches as pathways toward peace, stability, and ecological regeneration. Organised annually by the Egyptian Ministry of Water Resources and Irrigation, Cairo Water Week brings together policymakers, researchers, practitioners, and international organisations to exchange experiences and promote cooperation on water-related issues.

This year's conference focused on advancing sustainable water systems, regional collaboration, and innovative financing for water solutions, building on Egypt's growing role as a regional hub for water diplomacy. Birkman contributed to several high-level sessions underscoring the strategic role of nature-based solutions (NbS) in addressing water insecurity and fostering peace and the importance of capitalisation when scaling EU programmes that aim to address water-related challenges.

"Nature-based solutions offer an opportunity for water and peace," Birkman noted during the High-Level Panel on 'Nature-based Solutions for Sustainable Water Systems'. "By restoring the water cycle through ecological regeneration and sustainable livelihoods, we can create essential foundations for stability and lasting peace."

In addition, Birkman delivered a framing keynote and moderated a session on programme capitalisation during the EU–Egypt Water Investment Conference: Shaping Mediterranean Water Futures. Joined by representatives from different EU funding programmes, she stressed that effective capitalisation serves as the bridge between research, policy, and investment. "Capitalisation is about turning knowledge into action. It requires evidence integration, cross-programme synergies, and institutional learning – the architecture for scaling Mediterranean water solutions," Birkman explained. [\[LINK\]](#)



ISPI | MED This Week newsletter on developments in the MENA region

The MENA region, already grappling with instability and conflicts, is also facing the growing impact of climate change. In the ISPI's MED This Week Newsletter, Laura Birkman shared her perspective on the water cooperation between Iraq and Türkiye. The newsletter provides informed insights into the most significant developments in the MENA region, bringing together unique opinions and reliable foresight on future scenarios. Birkman stated: "The 2024 water agreement between Türkiye and Iraq on joint management, data sharing, and infrastructure investment is a positive step, but unlikely to ease shortages without strong enforcement. The agreement could be strengthened by forming a permanent joint water commission, enabling third-party monitoring, and including Syria in broader negotiations. Alongside transboundary cooperation, Iraq must increase its in-country water resilience by modernising irrigation, reducing water waste, and adopting climate-resilient policies." [\[LINK\]](#)

Military and Security Leaders urge Europe to treat Clean Energy as a Defence Priority

"Investing in green fuels is investing in stability and sovereignty": a coalition of military and security leaders, including HCSS experts Richard Nugee, Laura Birkman and Tom Middendorp, urge Europe to treat clean energy as core to national defence. In an open letter, they call for counting low-carbon energy investments toward NATO's 1.5% resilience target, warning that fossil-fuel dependence undermines sovereignty. Their message is clear: renewable energy is now a strategic security imperative. [\[LINK\]](#)

The Diplomat | COP30 and China's Tibetan Plateau Paradox

China's transformation of the Tibetan Plateau – the "Third Pole" and Asia's critical water tower – is reshaping regional security and the global climate agenda, write Richard Ghiasy and Jagannath Panda in an op-ed for The Diplomat. As Beijing expands dual-use infrastructure, hydropower megaprojects, and its Military-Civil Fusion strategy, Tibet becomes both a strategic frontier and a clean-energy backbone. Yet rapid warming, permafrost melt, and ecological fragility threaten this trajectory. With COP30 approaching, the plateau's future raises urgent questions about transboundary water security, climate justice, and whether great powers can balance national resilience with shared ecological stewardship. [\[LINK\]](#)

Engagement, Outreach & Public Impact

Running a high-pressure think tank in the field of defence and international security—particularly amid today's volatile global landscape—requires far more than sharp analysis alone. Behind every report launch, media appearance, event, briefing or public intervention stands a professional and resilient secretariat that keeps the organisation moving forward, the crisis managers, problem-solvers and steady hands who ensure that HCSS can operate at the required pace: HR Manager Daniella Kranendonk, Communications Manager Patrick Willemsen, Events Manager Karlijn Velthuis, Communications & Events Officer Stephanie Govaerts, Management & Events Assistant Britt de Cuijper, and Financial Administrator Remy Darricarrère. They form the heart of HCSS, the engine room without which none of our strategic work would reach the public, policymakers or partners who rely on it.

The remarkable achievements of 2025—our most successful year since the founding of HCSS—are also a testament to their professionalism and dedication. The significant growth in our outputs, the surge in social-media engagement, the record number of media appearances (including extensive international coverage), the unprecedented scale of our events programme, and the expanding community of participants who engage with our work: all were made possible by a support team operating behind-the-scenes with calm under pressure, creative problem-solving and a deep commitment to excellence. This chapter highlights the impact of that work—through our media presence, outreach, events and the growing global network that surrounds HCSS.

From The Hague to the World: A Record-Breaking Year for HCSS Events

In 2025, HCSS hosted a record number of events, welcoming more than 2,200 participants to our conferences, symposia, workshops, and closed-door sessions. This landmark year not only strengthened our national profile but significantly expanded our international visibility, with thanks to the professionalism and meticulous planning of Events Manager Karlijn Velthuis, whose logistical expertise ensured each gathering ran with flawless precision.

From small expert roundtables to high-profile conferences and full-day symposia, Velthuis oversaw events both at the HCSS office and at external venues—including the **Defence Industry Symposium**, one of the major pre-events we organised leading up to the **2025 NATO Summit in The Hague**, supported by Communications & Events Officer Stephanie Govaerts and Management & Events Assistant Britt de Cuijper.

The year began with significant momentum: in January, HCSS hosted the **Baltic Defence Line Symposium**, featuring the three Baltic defence ministers and Dutch Defence Minister Ruben Brekelmans. Other high-level engagements soon followed. Each visit required careful coordination—from complex AV arrangements to hotel and travel bookings for international guests. Throughout the year, HCSS also organised a series of Summit pre-events on topics such as seabed security, digital defence capabilities and deterrence, bringing together policymakers, industry leaders, and international experts.

HCSS also continued to expand its global network, particularly across the Indo-Pacific, reflected in major events such as the December symposium **Hybrid Pressures, Strategic Responses**, which convened European and Asian experts to examine China's hybrid tactics. We welcomed the **Japanese Parliamentary Vice-Minister for Defence**, hosted a closed-door luncheon with the **Taiwanese Minister of Foreign Affairs**, and received delegations such as the **Malaysian National Resilience College**.

The breadth of topics covered in 2025—from AI governance and NATO's digital transformation to long-term combat capability, water security, and the future of Europe's defence industry—showcased the depth and interdisciplinary character of HCSS research.

Many events featured renowned moderators, dynamic panels and contributions from officials at the highest levels including European Commissioner Andrius Kubilius, VNO-NCW chair Ingrid Thijssen, Minister of Defence Ruben Brekelmans and State Secretary of Defence Gijs Tuinman and many others.

A particular highlight was the **Fifth GC REAIM Commission Meeting**, held during the NATO Summit, which brought global experts to The Hague to discuss safeguarding AI systems in defence—an impressive conclusion to the two-year efforts by HCSS as the **Secretariat of the Commission**.

HCSS also hosted its very first **HCSS Alumni Reunion** event, launching what will become an annual tradition that reconnects former staff and interns, strengthening our community and creating new networking opportunities.

With a record-breaking events programme and unmatched operational excellence, 2025 was a benchmark year for HCSS, reinforcing our role as a convenor of strategic dialogue in the Netherlands, Europe and far beyond.



HCSS in the Media: A Year of Visibility, Impact and Public Engagement

In 2025, the Hague Centre for Strategic Studies further strengthened its role as one of the Netherlands' most trusted and frequently consulted voices on international security, geopolitics and emerging global risks. With more than 2,000 media appearances across print, television, radio and online platforms—an all-time record—HCSS analysts, fellows and non-resident experts helped audiences navigate a year marked by conflict, technological disruption, climate-related stress and shifting great-power competition.

HCSS has long been a consistent presence in Dutch media, but the geopolitical turbulence of recent years has dramatically accelerated our visibility. Communications Manager Patrick Willemsen continued to coordinate a near-daily flow of interview requests, ensuring that HCSS expertise reached the right platforms at the right moments. As global instability deepened, the demand for independent, fact-based strategic analysis surged. Our expanding public footprint reflects both the urgency of these developments and the growing relevance of our multidisciplinary work.

Our analysts appeared regularly in major Dutch and Belgian newspapers—including NRC, de Volkskrant, Trouw, het Financieele Dagblad, Algemeen Dagblad, het Reformatorisch Dagblad, De Morgen and NU.nl. On television, our staff appeared on programmes such as the NOS Journaal, Nieuwsuur, RTL Nieuws, and EenVandaag. On radio, HCSS also maintained a strong presence at Bureau Buitenland, Dit Is De Dag, Spraakmakers, BNR Nieuwsradio, and others. A memorable moment came when former HCSS communications intern Simba Martens, now a journalist at RTL Nieuws, interviewed Strategic Advisor Lucia van Geuns.



International reach expanded as well, with HCSS experts providing commentary for CNN, the New York Times, BBC, Bloomberg TV, the Financial Times and leading European newspapers, further cementing HCSS as a reference point for global strategic commentary. Our prominent role as co-organiser of the NATO Public Forum, hosted during the NATO Summit further expanded our visibility.

In 2025, podcast '**De Strateeg**', produced by HCSS in cooperation with our partner BNR Nieuwsradio since March 2020, continued to see a steady increase in listeners and downloads. Host Paul van Liempt discusses the latest developments in geopolitics and international security with HCSS experts, but also with experts from other organisations, policymakers and representatives from businesses. In the lead-up to the NATO Summit in The Hague, we released an extra episode per week discussing issues relevant to the Summit.

In 2025 we produced 58 episodes, with topics ranging from critical infrastructure at sea, European democracies under pressure, the connection between war and organised crime, mining and critical raw materials, innovation of the European defence industry, the war of the future, NATO's cyber capabilities, the geopolitical race for the arctic, the rise of authoritarian leaders in western democracies and the role of AI in the military domain.



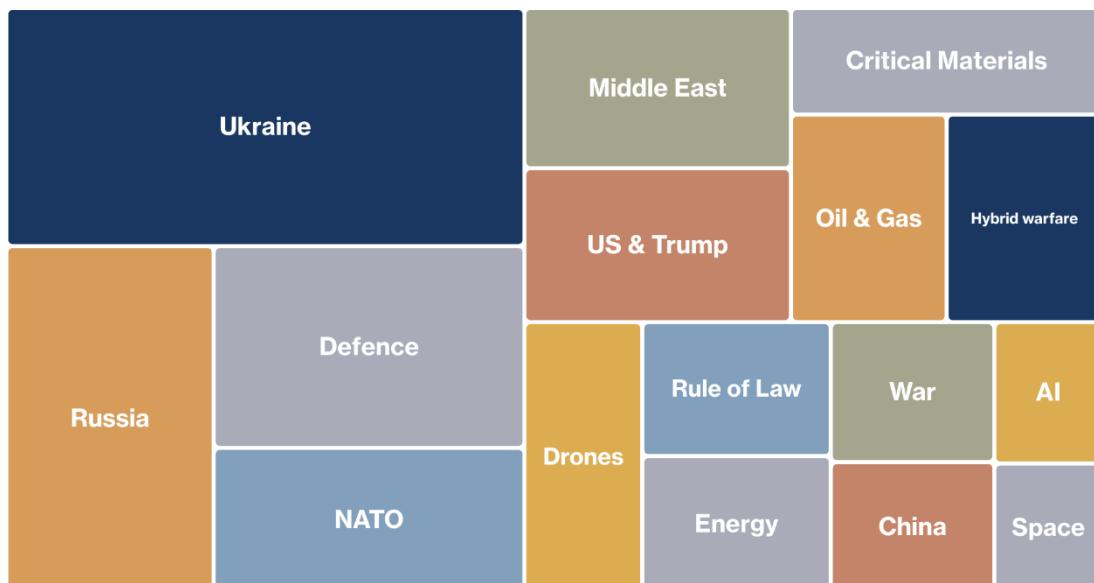
Expanding Themes: From Defence to a Wider Strategic Spectrum

While the conflict in Ukraine and developments in the Middle East remained a central focus, 2025 marked a clear broadening of media demand toward the full range of HCSS' research pillars. Journalists and broadcasters increasingly relied on our expertise to explain:

- The global race for critical raw materials and supply chain vulnerabilities
- Cyber threats, emerging technologies and the AI revolution
- Online extremism, radicalisation and information manipulation
- European competitiveness and industrial strategy
- The evolving role of the United States and the implications of the Trump administration for trans-Atlantic relations
- The climate–security nexus, water governance and related governance challenges

This broadening reflects the reality that security is no longer confined to traditional defence issues, but intersects with technology, economics, governance and climate. HCSS's strength lies in connecting the dots between these domains and provide accessible, evidence-based context.

Top Topics in HCSS Media Mentions



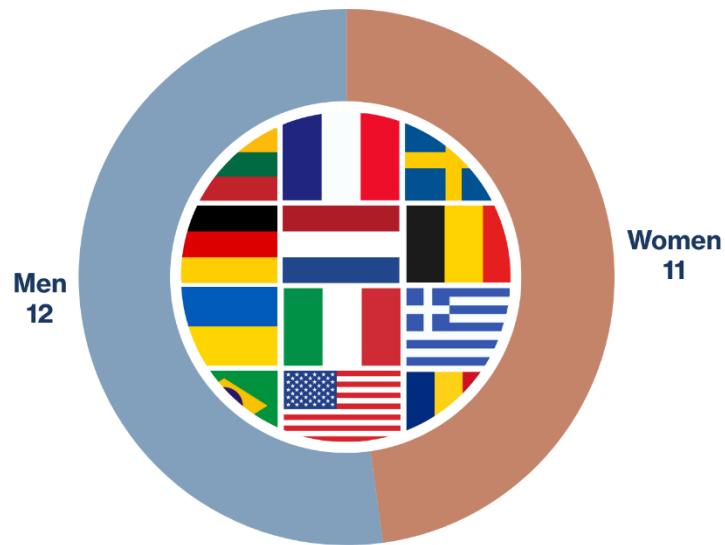
A More Diverse Public Voice

Besides a broadening of our research themes, HCSS's public profile is also steadily becoming more diverse. Our younger analysts—many of them women—took on increasingly prominent roles in public debate, contributing fresh perspectives and strengthening the inclusivity and representativeness of the Dutch strategic community. This generational and gender diversification enriches the analytical depth we provide and enhances public trust in the think-tank community.

In 2025, HCSS also welcomed a remarkably diverse cohort of 23 interns, reflecting our commitment to fostering the next generation of strategic thinkers. With a strong gender balance—11 women and 12 men—our interns brought perspectives from across the Netherlands, Greece, Germany, France, Belgium, Brazil, Ukraine, Italy, Scotland, Ireland and Sweden. HCSS actively engages with students worldwide by participating in career fairs, organising online schools, and hosting university visits, giving young talent firsthand insight into the dynamic work of a modern think tank. All interns remain enrolled as students during their tenure, underscoring our emphasis on continuous learning, academic grounding and professional growth.

Through these initiatives, HCSS provides students and young professionals with a meaningful pathway into the evolving world of geopolitics, security and global affairs. With our mentorship programme, each intern is paired with an individual mentor who will guide their growth, offering support for their personal and professional development. HCSS opens **internship applications** twice a year; upcoming start dates are always announced on our website and social media platforms.

HCSS Internship Programme 2025



HCSS can also build on a network of experienced non-resident subject matter experts to provide commentary on global affairs and defence related issues in the media, among them retired Royal Netherlands Air Force officers Peter Wijninga and Patrick Bolder, who have become highly recognisable voices in national media, particularly on WNL's *Goedemorgen Nederland*, *Tijd voor Max* and on BNR Nieuwsradio.

HCSS founder Prof. Dr. Rob de Wijk remained a prominent public commentator through his weekly **Trouw** column, his successful BNR Nieuwsradio podcast **Boekestijn & De Wijk**—which inspired another theatre tour—and his bestselling book 'Amerika en wij: Hoe Europa sterker kan worden door de revolutie van Trump'. He also contributed regular op-eds about the energy transition for **EnergiePodium** and the strategic importance of the Dutch agrisector for **Nieuwe Oogst**.

Beyond media appearances, HCSS analysts and non-resident experts produced opinion pieces in Dutch newspapers, as well as international outlets such as War on the Rocks, The Diplomat, Asia Times and Atlantisch Perspectief.

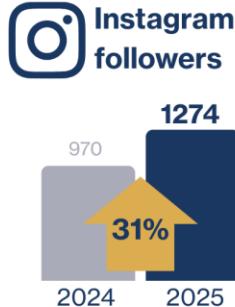
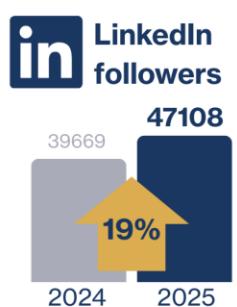
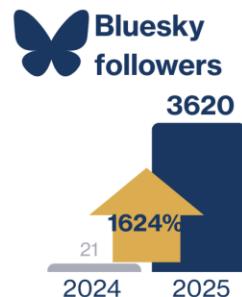
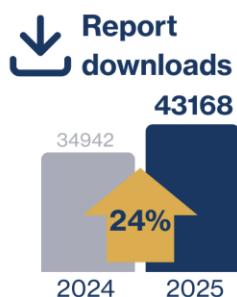
Policy Impact and Institutional Reach

Our well-oiled PR Team—Patrick Willemsen and Communications Officer Stephanie Govaerts—coordinated the publication of more than 80 reports, papers, factsheets, snapshots and policy briefs. Strong digital growth due to a proactive social-media strategy further expanded our reach: LinkedIn saw significant increases among professional audiences, Instagram continued to attract younger readers, we welcomed more newsletter subscribers and our website drew more traffic and engagement than ever before.

Several flagship studies, including **Blinded by Bias**, **Van Meme tot Moord** and **Complot in Context**, as well the new book by Director of Research Tim Sweijns, ‘**De oorlog van morgen**’, generated substantial media attention and spurred discussion among policymakers and politicians. The GC REAIM “**Strategic Guidance**” report on AI governance, presented at the United Nations by Prime Minister Dick Schoof, showed how HCSS research contributes directly to international policy development.

HCSS also provided multiple briefings to Dutch parliamentary committees, ensuring that fact-based insights inform national decision-making.

HCSS Engagement Growth



The top 10 publications with the most downloads in 2025 are (as of 15 December), in random order:

- [CHAOS, ORDE EN MACHTPOLIEK: HCSS STRATEGISCHE MONITOR 2025](#)
- [VAN MEME TOT MOORD | HOE ONLINE EXTREMISTISCHE BROEDKAMERS EEN NIEUWE GENERATIE VAN GEWELD KWEKEN](#)
- [BLINDED BY BIAS: WESTERN POLICYMAKERS AND THEIR PERCEPTIONS OF RUSSIA BEFORE 24 FEBRUARY 2022](#)
- [RESPONSIBLE BY DESIGN: STRATEGIC GUIDANCE REPORT ON THE RISKS, OPPORTUNITIES, AND GOVERNANCE OF ARTIFICIAL INTELLIGENCE IN THE MILITARY DOMAIN](#)
- [HCSS FOCUS | AUTOCRATISCH SENTIMENT](#)
- [SCALING UP THE EUROPEAN DEFENCE INDUSTRY](#)
- [SAMENLEVING IN TRANSITIE: BALANCEREN TUSSEN HOOP EN VREES | STRATEGISCHE MONITOR POLITIE 2025](#)
- [FROM THE STEPPES OF UKRAINE TO THE SHORES OF FORMOSA: LESSONS LEARNED FROM CONTEMPORARY WAR FOR TAIWAN](#)
- [VOORTZETTINGSVERMOGEN: EEN PARATE KRIJGSMACHT IN EEN WEERBARE MAATSCHAPPIJ](#)
- [DETERRENCE WARNING MESSAGES: A SHORT GUIDE FOR NATO](#)

In 2025, HCSS significantly expanded its international presence, strengthening partnerships with thinktanks, research institutions, security organisations, and policymakers across Europe, the Indo-Pacific, and beyond.

We co-organised a seminar on critical undersea infrastructure protection in Singapore with [the Royal Netherlands Embassy and RSIS](#), and engaged in high-level discussions in Taiwan and South Korea, including the [ROK–NL Think Tank Dialogue](#) on Industrial Open Strategic Autonomy. The signing of a Memorandum of Understanding with [CESFA in South Korea](#) formalised cooperation on economic security, supply chain resilience, and advanced technology protection. Through collaborations with global research institutions such as [CEPA](#) and [CGEP](#), HCSS contributed to policy discussions on critical mineral stockpiles, strategic supply chains, and Western industrial strategy.

HCSS experts also contributed to numerous international conferences and forums, including the [Paris Peace Forum](#), [Sarajevo Security Conference](#), [AI Action Summit in Paris](#), the [Arctic Security Conference](#), the [EU Raw Materials Week](#), and of course the [NATO Summit Public Forum](#). Topics ranged from responsible AI in the military, critical raw materials, and sustainable supply chains, to hybrid threats, emerging technologies, the future of war, cyber security, and European industrial resilience.

As the world becomes ever more interconnected—and the consequences of great-power competition become increasingly visible—in an era defined by geopolitical turmoil, accelerated technological change and a rapidly shifting global order, the need for accessible, independent and multidisciplinary strategic analysis continues to grow.

In 2025, HCSS proved once again that it plays a vital role in informing national and international debates of today's most pressing security challenges with clarity, context and long-term thinking.

In Closing

In March 2025, HCSS celebrated its 18th anniversary—a moment to reflect on our journey, our staff's dedication, and the relevance of our research in today's complex geopolitical landscape.

Since our founding by Rob de Wijk in 2007, the HCSS team have worked to deliver rigorous analyses on geopolitical, defence, and security issues to governments, international institutions, and businesses. Our mission has always been to inform public debate and strategic decision-making, contributing to national and international security rooted in liberal democratic values.



Over the years, HCSS has built a broad research portfolio addressing global challenges. We assess geopolitical risks, hybrid threats, and conflict dynamics, helping policymakers navigate an increasingly volatile world. Our work on energy security and climate resilience supports sustainable development strategies. In the realm of cybersecurity and emerging technologies, we analyse AI-driven risks and digital vulnerabilities. We also provide insights on economic security, supply chain resilience, and defence innovation.

Beyond research, HCSS actively informs public debate through active outreach and PR. Our experts regularly provide media commentary, op-eds, podcasts, interviews, and social media analysis, ensuring our insights reach policymakers, businesses, and the wider public. By translating complex issues into accessible analysis, we support informed decision-making and deepen understanding of international affairs.

HCSS's achievements stem from the dedication of our international team of researchers, analysts, and specialised support staff. From reports to events, their commitment to excellence ensures that HCSS remains at the forefront of strategic studies, providing insights that shape policies and strategies in the Netherlands, Europe, and beyond.

In a world marked by geopolitical tensions and rapid technological change, the role of independent research institutions is more vital than ever. Our work helps interpret developments, anticipate future challenges, and offer grounded, actionable insights that contribute to stability and security.

As we mark this milestone, we remain committed to our mission and values. The years ahead will bring new challenges and opportunities, and HCSS will continue to adapt, innovate, and collaborate to keep our work relevant and impactful. We extend our deep gratitude to our partners, supporters, and especially our dedicated staff.

Here's to 18 years of strategic insights—and to many more years of contributing to a safer, more informed world.

Patrick Willemsen, Communications Manager

About HCSS

The Hague Centre for Strategic Studies (HCSS) was established in 2007 as an independent think tank by Rob de Wijk with a small team of senior experts. It is now an established research institute in Europe with over 25 researchers that cover global governance and geopolitics; international security and defence; climate, energy and resources; and emerging technologies.

Our goal is to offer fact-based analysis of the challenges that our societies face in order to inform public discourse, public and private strategic decision making and contribute to international and national security in accordance with liberal democratic values. We typically conduct our research at the intersection of scientific research and strategic policy for governments, international organisations, and NGOs. We also offer analytical support to inform private sector strategic planning processes. Our work is funded through contract research, through research grants and we also develop our own initiatives.

Our fact-based analysis is intended to generate strategy and policy relevant insights that inform real world decisions. To further this cause, we conduct both basic and applied research, we host public and closed-door events, and we convene and engage with a wide range of stakeholders to further our own thinking and to stimulate debate on the pressing issues of our time. We are not linked to any political party nor beholden to any external corporate or national interests.

HCSS works with clients from both the public and private sectors. We conduct research commissioned by both national and international organisations but also carry out research projects with the financial support of grant giving foundations. In addition to being trusted advisor to various governments, HCSS provides analysis to international organisations including NATO.

HCSS conducts its activities independently and in collaboration with its global network of affiliated experts. Our products are diverse: full-fledged reports, serious games, strategic surveys, trend and scenario analyses, risk assessments, geopolitical and regional security analyses, operational evaluations, and policy briefs. We create models and monitors for public and private organisations to improve their situational awareness and provide them with a better understanding of their strategic environment. We also compile, collate and generate new datasets, design tailor-made analytical frameworks and build fully interactive web interfaces. Our in-house competencies include predictive modelling using both structural and dynamic data, web scraping, text mining, advanced internet search techniques and data visualisation.

Transparency, Finances and Ethical Principles

HCSS adheres to the ethical principles of independence, accountability, transparency and research integrity. Although other ethical principles may apply, these four principles are relevant for our knowledge institute, given our core mission and activities. The principles are clarified in terms of the standards that HCSS upholds and specified by practices that HCSS adheres to, which is subject to independent external audit. The principles, standards and practices are spelled out in [this document](#) on our website.

Client Overview 2025

This Financial Overview provides a temporary summary of our clients for 2025. The official annual financial statements will be filed with the Dutch Chamber of Commerce in 2026.

Clients: > 500k – 2.000.000
Ministry of Foreign Affairs, The Netherlands
Ministry of Defence, The Netherlands
Dutch National Police
Clients: 100k - 500k
TNO Defence, Safety and Security
US Department of Defence
Institute for Water Education
Ministry of Justice and Security, The Netherlands
Ministry of Infrastructure and Water Management, The Netherlands
Clients: 50k - 100k
Taipei Representative Office in the Netherlands
Microsoft
Invest-NL / Dutch Investment Agency
The Korea Foundation
The Dutch China Knowledge Network (CKN)
Amsterdam Municipality
Clients: 10k - 50k
Port of Antwerp-Bruges
Australian Embassy in The Netherlands
Royal Notary Association / Koninklijke Notariële Beroepsorganisatie (KNB)
Netherlands Maritime Technology
NATO Defense College
Foreign, Commonwealth & Development Office (FCDO)
Royal Netherlands Chemical Society (VNCI)
Federation of European Tank Storage Associations (FETSA)
Nutreco
World Trade Center The Hague
Ministry of Agriculture, Fisheries, Food Security and Nature, The Netherlands
Ministry of Economic Affairs, The Netherlands
TNQ B.V.
Leiden Municipality
Stichting Gieskes-Strijbis Fonds
Lectures, various (Speakers Academy, Sprekershuys B.V., Assemblee Speakers, Sprekersbureau Quality Bookings, Sprekersbureau Athenas)
The Centre for International Governance Innovation (CIGI)
European Centre of Excellence for Countering Hybrid Threats (Hybrid CoE)

FNLI (Dutch Food Industry Federation)
RWE Generation NL B.V.
Stichting Administratiekantoor W. & B.E. Ruys
Clients: < 10k
Embassy of the Kingdom of the Netherlands in Saudi Arabia
Oxfam Novib
RVO-Partners for International Business
Birch Consultants B.V.
Rotterdam Municipality
Embassy of France in The Netherlands
Stockholm International Peace Research Institute (SIPRI)
S. Rajaratnam School of International Studies (RSIS)
Delft University of Technology (TU Delft)
Drenthe Province
Leiden University
Dordrecht Municipality
Venlo Municipality
Embassy of the Kingdom of the Netherlands in Latvia
Nato Headquarters Supreme Allied Commander Transformation (SACT)
Embassy of the Kingdom of the Netherlands in South-Africa
Center for European Policy Analysis (CEPA)
Delft Municipality
University of Groningen
Embassy of the Kingdom of the Netherlands in Polen

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THE HCSS TEAM WISHES YOU A MERRY CHRISTMAS AND A HAPPY NEW YEAR!

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