Plenary Session

Monday 16 June 13.00 – 14:15

The Role of Risk Science in the New Geopolitical Security Landscape: Geopolitical tensions, Hybrid threats, Artificial Intelligence, and Beyond

The Role of Risk Science in the New Geopolitical Security Landscape: Geopolitical tensions, Hybrid threats, Artificial Intelligence, and Beyond

- We are living in an era defined by rapid technological advancement, shifting power dynamics, and heightened global tensions. The convergence of artificial intelligence, terrorism, hybrid threats, and geopolitical tensions has created unprecedented challenges, and opportunities, for practitioners, decision-makers and researchers alike.
- This panel will discuss how these risks reshape the new era of risk and security and will investigate the role of risk science in this new era.
- Topics to be addressed include:
 - Will security as a new framework condition for risk and safety challenge existing tools and frameworks to anticipate, evaluate, and mitigate emerging risks?
 - How can risk science illuminate pathways to resilience and stability in this new era?



Panelists:



Sissel Haugdal Jore (Chair/moderator)

Susanne Therese Hansen



Rasmus Dahlberg



Genserik Reniers

Norwegian Defense Commission

O Mandate: consider what potential security and defence policy choices Norway could make in order to ensure Norwegian security and interests in a 10-20-year perspective



Norwegian Defence Commission of 2021

Finalised and presented to the Norwegian Government in May 2023.









A new era

- Challenging globalisation and challenging the world order, decoupling
- O Fake news, polarization and cognitive warfare
- "New" types of threats, e.g. hybrid threats while the old threats persist
- O Lack of global cooperation on global risk problems
- O Securitization -new areas are subject to security policy e.g. Norwegian oil and gas,





Demographic trends

- The population in many Western countries will age significantly, but also in China and Russia.
- O Explosive population growth in Africa.
- **O** Centralization
- Competition for people and skills.



Climate change

- Climate change and security will be increasingly interconnected
- Climate change is a threat multiplier
- Effects of climate change in the Arctic region
- Climate adaptation



Economics and resources

- Growth in international trade has slowed.
- The world market is becoming more politicized and fragmented.
- Energy policy will dominate in Europe.
- Defence budgets will increase.



Technology

- Global technological race.
- Disruptive technologies will shape the future.
- Artificial intelligence.
- Advanced technology are becoming more available.



Integration of the private sector

- More than 70 % of satellite communications used for defense purposes are provided by private actors.
- Approximately 90 percent of transatlantic internet traffic, including military communications, is carried by undersea fiber optic cables that are part of civilian electronic communications infrastructure.
- Around 75 percent of host nation support to NATO operations comes from local, commercial services
- Internet owned by foreign actors





Conclusions; role of risk science

- Security as a new framework condition
- O Securitization
- O Uncertainty, foresight
- O Whole-of-society approach
- O Tade-offs, dilemmas



Finalised and presented to the Norwegian Government in May 2023.

English short version





Thank you for your attention

Professor Sissel Haugdal Jore University of Stavanger, Norway

Risk governance under increased complexity

Keynote panel: The Role of Risk Science in the New Geopolitical Security Landscape: Geopolitical tensions, Hybrid threats, Artificial Intelligence, and Beyond

16 June, ESREL SRA-E

Susanne Therese Hansen (PhD), Senior Researcher

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Politics, security and risk

 $\cdot \rightarrow$ Political security risks

Caused and traditionally resolved in 'high policy'

 Hybrid threats – security risks become part of risk assessment in industry, and are responded to collaboratively across levels, sectors and actors Will security as a new framework condition for risk and safety challenge existing tools and frameworks to anticipate, evaluate, and mitigate emerging risks?

Photo: NATO

 Increases complexity between categories of risk, levels, sectors and actors





How can risk science illuminate pathways to resilience and

stability in this new era?

By zooming out



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· → Holistic research agenda for safety and security risk governance

- 1. More comprehensive zooms out to spot the fuller picture of factors affecting risk governance under complexity
- 2. Account for complexity in risks, levels, sectors, actors → multi-risk, multi-level, cross-sectoral, multi-agency
- 3. Account for the potential conflicts between risks, levels, sectors and actors

Analytical framework

 →Organisational sociology → perspectives on organisational culture

Political science and societal security

- Multi-level, cross-sectoral, actor-complex governance
- Securitisation



Thank you!

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Weaponizing Trust

Panel: The Role of Risk Science in the New Geopolitical Security Landscape: Geopolitical tensions, Hybrid threats, Artificial Intelligence, and Beyond

Rasmus Dahlberg, PhD

Associate Researcher, Rabdan Academy, Abu Dhabi, United Arab Emirates Associate Professor (sabbatical), Royal Danish Defence College Center for Societal Security



Trust in each other and in institutions



Figur 4.1 – Tillid til EU



Spørgsmål: Her er en liste med forskellige institutioner. Angiv venligst på en skala 0-10, hvor stor tillid du personligt har til hver af disse. EU (..) Regeringen (..) Folketinget. 0 = Slet ingen tillid. 10 = Fuld tillid. 11. Ved ikke/ønsker ikke at svare. **Kilde:** Tryghedsmålingerne.

TrygFonden 2025

The Nordic Gold

- There is a "Nordic exceptionalism" with very high trust and low degrees of corruption in the Nordic countries
- Trust is not a "natural ressource" and cannot be taken for grated
- High trust is a vulnerability when the social contract depends on it

ANALYSIS REPORT TRUST – THE NORDIC GOLD

The Nordic region has the highest levels of social trust in the world, which benefits the economy, individuals and society as a whole. This report discusses the background to why social trust has reached such high levels in the Nordic region, and why it is now under threat

2017

Nordic Council

Trust and Risk

Three conceptions:

- An assessment of expected behavior of others to obtain benefits of cooperation
- An alternative to calculative risk assessment based on habitual or social reasons
- A morally loaded attitude based on moral expectations of behavior

Nickel, P.J., Vaesen, K. (2012). Risk and Trust. In: Roeser, S., Hillerbrand, R., Sandin, P., Peterson, M. (eds) *Handbook of Risk Theory*. Springer, Dordrecht. <u>https://doi.org/10.1007/978-94-007-1433-5_34</u>

Ways Ahead

- What research is needed to integrate trust into Nordic risk assessment and management in times of hybrid threats?
- How do we create a "Nordic Safe Space" where information about incidents can be shared in a trustful environment?
- Can we mitigate the risk from AI in desinformation by using AI?

Thank you!

Rasmus Dahlberg Center for Societal Security Royal Danish Defence College rada@fak.dk

(sabbatical -> July 2025)

The Role of Risk Science in the new geopolitical security landscape –

ESREL conference, Stavanger, Norway, 15-19 June 2025 Prof. dr. ir. G.L.L. Reniers

Prof. dr. ir. G.L.L. Reniers Delft University of Technology The Netherlands



Introduction – A World in Flux

Observations: Geopolitical Tensions, Hybrid Threats, Sharp rise of Artificial Intelligence, Climate phenomena (NaTech), and Beyond:

- Rapid technological change in combination with global instability
- Risk science gaps and challenges: f.i. AI, terrorism, hybrid threats, drone technology
- Risk science (especially for security decision-making) is more essential than ever

Geopolitical Tensions & Emerging Risks

• Ever more a multipolar world and shifting power dynamics

- New uncertainties due to conflicts and realignments; systemic security risks emerge due to geopolitical tensions
- Security risks and Natech risks becoming the norm (which used to be safety risks in technological environments)

Hybrid Threats

• Blending conventional and unconventional tactics

- Examples: cyberattacks, disinformation/fake news, economic and trade pressures, drone attacks, deepsea attacks, etc.
- Cyber-physical threats and events

• Risk science tools are needed to address evolving tactics

The Role of Artificial Intelligence

- AI is potentially an extremely powerful tool and at the same time an emerging security risk
- Misuse examples: surveillance, autonomous weapons, deepfakes, use to develop weapons unknown before (e.g. chemical, biological, etc.)
- Need for **foresight, regulation, and ethical use**

Security as a Framework Condition

• Security is now a central concern, not secondary

- Challenges to current tools for risk and security (tools for safety and security need to be integrated more where possible)
- Resilience (important for safety, security, cyber-physical events, natural disasters, etc.) becomes a key management domain, needing to be measured, monitored, maintained, and actively managed

Pathways to Resilience and Stability

- Collaboration across sectors and disciplines
- Collaboration between industry, authorities and academia
- Integrating risk science into governance
- Emphasis on adaptability and preparedness instead of mitigation

Learning attitudes and cultures in organisations

For instance: Security concerns for the academic sector

- Chemical/Process security research and education should be taken more seriously by universities
- Conduct of researchers wrt matters of concern (e.g. from a chemical security viewpoint) should be improved by installing a questioning attitude among researchers
- Systematic security risk assessments can be carried out at universities and research institutes
- Legislation and authorities should create the general frame in which universities understand the urgency of taking care of security
- Security culture within universities should be installed and/or improved
- **AI threats** at universities (develop new molecules, identity theft, etc.)
- **Threat: Academic attitude** of freedom and innocence Lack of security mindset/attitude
- Threat: Academic transparency and independence for publishing research results

Novel solutions suggestions or emerging for the academic sector

- Developing and **promoting a Code of conduct** / ethical recommendations and code of good practice to be implemented **in universities and research institutes**

- Developing and promoting a **Publication Code of Conduct for Editors** (and authors and researchers)

- Developing and strengthening the Security culture in universities and research institutes

- Independent **assessments of security culture** within academia
- Building more resilient campusses, facilities and labs

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Challenges

- **Time** (the matter is rather urgent, considering contemporary problems)
- Funding (certainly at universities)
- Mindset (motivation and intention to change things sense of urgency?)
- Legislation (?)

Industry 5.0: "Digital, secure, resilient -The next frontier"

 <u>Security</u> Events in the Chemical Process Industries, some examples:

TUDelft



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Closing Thoughts

- **Risk science must evolve with global changes** (Security, Natural disasters)
- It's about managing risks AND shaping the future
- Let's lead with clarity, rigor, and foresight

Thank you very much for your attention!

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Stavanger The Role of Risk Science in the new geopolitical security landscape

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