



# Evidence for Policy in Disaster Risk Management (DRM) Summer School 2026

Tallinn, 26-28 May 2026

## Class No. 7

### Preparedness and resilience for managing the systemic risk of compounding disasters and hybrid threats

Class will take place in room M 227 – 2<sup>nd</sup> floor of the Mare building

#### Class Coordinator



**Esther EL HADDAD**

**Analyst, Emergency Response Coordination Centre (DG ECHO)**

Ms. Esther El Haddad is a crisis management expert with 10 years' experience in humanitarian aid and emergency coordination, and has been involved in different operations from headquarters as well as in the field within the framework of the EU Civil Protection Mechanism. She has coordinated the EU's response to large-scale emergencies such as the COVID-19 pandemic and the war in Ukraine, and has deployed to major disaster zones, including Beirut (2020) and Turkiye (2023). She's an analyst at DG ECHO with a focus on fires, chemical incidents and environmental emergencies. She has a background in chemistry and holds a masters degree in International Humanitarian Action and is fluent in English, French and Arabic.

## Class assistant

Ilarnit Stern

## Speakers



### **Cees van WESTEN**

**Full professor Multi-Hazard Risk Dynamics, Faculty of Geo-information Science and Earth Observation (ITC), Twente University, The Netherlands**

Professor Cees van Westen is a renowned expert in the field of applied earth sciences, specialising in natural hazard risk management and geoinformation. He has extensive experience in disaster risk reduction, working on projects worldwide to assess and mitigate risks from landslides, floods, and other hazards. As a professor at the University of Twente, he leads research on geospatial technologies for disaster resilience and sustainable development. He is coordinator of the EU HORIZON Europe Research project PARATUS (<https://www.paratus-project.eu/>) on Promoting disaster preparedness and resilience by co-developing stakeholder support tools for managing the systemic risk of compounding disasters.



### **Jana WRANGE**

**Researcher at the Lund University Psychological Defence Research Institute in Sweden and a Guest Researcher at the Estonian Academy of Security Sciences**

Dr. Jana Wrangé is a civil defence policy expert specializing in the Nordic-Baltic region. Her work examines the evolution of civil defence at the national level and within the frameworks of NATO and the European Union. Her current research explores how resilience and preparedness are conceptualized and implemented in response to hybrid interference across the region. In 2017, she served at the Estonian Government Office during Estonia's Presidency of the Council of the European Union.

### Aim(s) of the Class

This class aims to provide insights into strategies for enhancing preparedness for complex disasters, using real-world examples, in line with the '[Science for Policy](#)' [competence framework](#). Participants will be encouraged to take a step back and adopt a systems-thinking lens: using impact chains to understand how hazards are interconnected and can compound one another. The class will apply a security perspective to impact chain analysis, examining the intersection between disaster management and security policy, as well as the broader science-policy interface. The class will also equip participants to integrate systems thinking into preparedness planning.

### Recommended readings

#### Before the summer school

- ERCC Virtual Tour  
<https://erccportal.jrc.ec.europa.eu/ERCC%20VIRTUAL%20TOUR/index.htm>
- EU Preparedness Union Strategy to prevent and react to emerging threats and crises, [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_25\\_856](https://ec.europa.eu/commission/presscorner/detail/en/ip_25_856)
- Niinistö report [https://commission.europa.eu/document/download/5bb2881f-9e29-42f2-8b77-8739b19d047c\\_en?filename=2024\\_Niinisto-report\\_Book\\_VF.pdf](https://commission.europa.eu/document/download/5bb2881f-9e29-42f2-8b77-8739b19d047c_en?filename=2024_Niinisto-report_Book_VF.pdf)
- Early Warnings for All: Executive Action Plan – UNDRR  
<https://www.undrr.org/implementing-sendai-framework/sendai-framework-action/early-warnings-for-all>
- Hazard definitions and classification review UNDRR  
<https://www.undrr.org/publication/hazard-definition-and-classification-review>
- Competence Framework 'Science for Policy' for researchers  
[https://knowledge4policy.ec.europa.eu/visualisation/competence-framework-%E2%80%98science-policy%E2%80%99-researchers\\_en](https://knowledge4policy.ec.europa.eu/visualisation/competence-framework-%E2%80%98science-policy%E2%80%99-researchers_en)
- Wrangé J, Bengtsson R, Brommesson D. Resilience through total defence: Towards a shared security culture in the Nordic-Baltic region? *European Journal*

*of International Security*. <https://www.cambridge.org/core/journals/european-journal-of-international-security/article/resilience-through-total-defence-towards-a-shared-security-culture-in-the-nordicbaltic-region/888FDC4D365790D5896350BE3C33A3AA>

### Further reading

- Multi-Hazard Early Warning Systems: A Checklist – *WMO & UNDRR, 2018*  
[https://community.wmo.int/sites/default/files/EWS\\_Checklist\\_0.pdf?cNCl0mkEKe2FY7nJrkC09atRuoqTCyfc=](https://community.wmo.int/sites/default/files/EWS_Checklist_0.pdf?cNCl0mkEKe2FY7nJrkC09atRuoqTCyfc=)
- Alexander D. & Pescaroli G. (2019): What are cascading disasters?  
<https://journals.uclpress.co.uk/ucloe/article/id/1994/>
- Gill J. & Malamud B. (2016): Hazard interactions and interaction networks (cascades) within multi-hazard methodologies.  
<https://esd.copernicus.org/articles/7/659/2016/esd-7-659-2016.html>
- van Westen C. J. & Greiving S., 2017, Multi-hazard risk assessment and decision making.- Environmental hazards Methodologies for Risk Assessment and Management. [https://www.researchgate.net/publication/329603799\\_Multi-hazard\\_risk\\_assessment\\_and\\_decision\\_making](https://www.researchgate.net/publication/329603799_Multi-hazard_risk_assessment_and_decision_making)
- The Crisis Management Innovation Network Europe  
<https://www.cmine.eu/>

### Relevant EU projects

- PARATUS - Promoting disaster preparedness and resilience by co-developing stakeholder support tools for managing the systemic risk of compounding disasters  
<https://www.paratus-project.eu/>