RISK AND RESILIENCE REPORT

The Strategic Value of Civil Protection Exercises

Jurgena Kamberaj, Simon Aebi

Zürich, September 2025
Center for Security Studies (CSS), ETH Zürich

CSS
ETH Zürich

ETH zürich

Authors: Jurgena Kamberaj, Simon Aebi
ETH-CSS project management: Simon Aebi, Head of the Risk and Resilience Team; Dr. Daniel Möckli, Head of Think Tank
Client: Federal Office for Civil Protection (FOCP)
FOCP project supervision: Dr. Stefan Brem, Head of section "Future Development of Civil Protection"
Layout and graphics: Miriam Dahinden-Ganzoni

DOI: 10.3929/ethz-c-000783731

Disclaimer: All views and opinions presented in this study are solely those of the authors.

Acknowledgments: The authors extend their gratitude to the experts whose invaluable contributions have greatly enriched this report. Their insights and expertise have been instrumental in deepening the understanding that exercises can serve as a vital tool to strengthen civil protection systems and enhance their capacity to safeguard people and livelihoods.

How to cite this report: Kamberaj Jurgena / Aebi Simon, «The Strategic Value of Civil Protection Exercises», *ETH-Center for Security Studies (CSS),* 2025

Available online at: css.ethz.ch/publikationen/risk-and-resilience-reports.html

© 2025 Center for Security Studies (CSS), ETH Zürich

Content

Executive Summary		**4**
Glossary		**5**
1	**Introduction**	**6**
1.1	Context	6
1.2	Objectives	6
1.3	Methodology and Structure	7
2	**Exercises in Civil Protection**	**8**
2.1	Policy Foundations of Civil Protection Exercises	9
2.2	Civil Protection Exercises: Type, Scale, Governance, and Goals	9
2.3	Exercise Goals: Tactical, Operational, and Strategic	13
2.3.1	Tactical Goals	13
2.3.2	Operational Goals	14
2.3.3	Strategic Goals	15
3	**Case Studies**	**18**
3.1	International Scale Exercise: Magnitude	19
3.2	National Scale Exercise: General Emergency Exercise	22
3.3	Regional Scale Exercise: Table-top “Drought”	25
4	**Discussion**	**28**
5	**Bibliography**	**31**

Executive Summary

Exercises are among the most effective instruments to prepare for crises and emergencies. They provide structured environments to test capabilities, validate coordination mechanisms, and identify vulnerabilities. Yet they can also serve a broader purpose. Exercises bring people, institutions, and policies together in controlled but realistic settings. When used strategically, they validate governance structures, strengthen international cooperation, and allow new approaches to be tested before crises unfold.

This study was commissioned by the Swiss Federal Office for Civil Protection and draws on a review of policy frameworks, expert interviews, official documentation, and direct observation of three exercises in 2024. This resulted in three case studies that demonstrate how civil protection exercises can move beyond tactical and operational training to contribute to broader strategic goals:

- The international EU exercise **Magnitude** showed how cross-border simulations build trust and interoperability while reinforcing political commitment to collective preparedness.

- The national **General Emergency Exercise** *(Gesamtnotfallübung)* revealed how governance gaps and decision-making under pressure emerge when multiple actors, including critical infrastructure operators, are involved.

- The regional **Table-top Exercise "Drought"** highlighted how long-duration climate-related crises stretch institutional roles and require new forms of coordination, such as the newly established Swiss National Drought Task Force.

Taken together, these exercises illustrate three strategic contributions civil protection exercises can have. They help validate governance by exposing institutional blind spots and providing leaders with opportunities to practice decision-making. They foster diplomatic engagement by building relationships and signaling reliability in international cooperation. And they enable policy innovation by creating safe spaces to test new frameworks and coordination models.

To unlock this potential, exercises must be embedded more deliberately into strategic planning. This requires the active involvement of political leaders, systematic integration of lessons into policy processes, and the development of a clearer doctrine for exercises in the domain of civil protection with governance, diplomatic, and policy objectives in mind.

Exercises are not only about rehearsing responses but also about shaping the systems, relationships, and policies that underpin resilience. Seeing them as strategic assets will help ensure that civil protection remains both operationally effective and institutionally adaptive in a risk landscape defined by complexity and uncertainty.

Glossary

English	German	Abbreviation
Cantonal Management Body	Kantonales Führungsorgan	KFO
Civil protection capability analysis	Fähigkeitsanalyse Bevölkerungsschutz	FABS
Chemical, Biological, Radiological, and Nuclear	Chemisch, Biologisch, Radiologisch und Nuklear	CBRN
Civil Protection Organizations	Zivilschutz	ZS
Functional exercise	Funktionale Übungen	FE
Full-scale exercise	Vollübung	FSX
General Emergency Exercise	Gesamtnotfallübung	GNU
Integrated exercise	Integrierte Übung	IU
Major exercise	Grosse Übung	
Modules (table-top or field) exercise	Modulübung	MODEX
National Drought Task Force	Fachstab Trockenheit	FST
National Emergency Operations Centre and Incident Management	Nationale Alarmzentrale	NEOC
Security Policy Study Commission	Studienkommission Sicherheitspolitik	
Strategic leadership exercise	Strategische Führungsübung	SFU
Swiss Security Network	Sicherheitsverbund Schweiz	SVS
Swiss Security Network Exercise	Sicherheitsverbundsübung	SVU
Table-top exercise	Table-top Übung	TTX
Union Civil Protection Mechanism	Katastrophenschutzverfahren der Europäischen Union	UCPM
United Nations Office for Disaster Risk Reduction	Büro der Vereinten Nationen für Katastrophenvorsorge	UNDRR
Urban Search and Rescue	Urbanes Such- und Rettungswesen	USAR

1 Introduction

1.1 Context

"Civil protection authorities are the backbone of civilian preparedness."[1] Exercises are a central instrument for strengthening this preparedness, as emphasized in international frameworks such as the Sendai Framework for Disaster Risk Reduction (2015–2030).

In Switzerland, the importance of systematic exercising has also come into sharper focus. The civil protection capability analysis conducted by the Swiss Federal Office for Civil Protection (FOCP) highlights a growing need for collective exercises.[2] These are intended not only to improve technical operations but also to reinforce leadership, harmonize collaboration processes across civil protection partners and the Swiss Armed Forces, and enhance overall system effectiveness.

One key initiative in this regard is the Integrated Exercise scheduled for November 2025, which will test Switzerland's revised federal crisis management architecture.[3] Its focus will be on collaboration between federal and cantonal authorities, inter-cantonal coordination, and the integration of scientific and infrastructure stakeholders. In parallel, Switzerland's first security policy strategy is expected to articulate a more integrated approach to disaster risk governance, further elevating the strategic role of exercises.[4]

These developments reflect an increasing convergence between institutional domains that have traditionally operated separately. Yet, it remains important to differentiate between civil protection and crisis management in the Swiss context. They are two related but distinct institutional components of the Swiss preparedness and response architecture.

Civil protection is primarily operationalized at the cantonal and local levels. It focuses on technical response and resource implementation during emergencies. At the federal level, the FOCP's role is therefore to support and coordinate these efforts.[5]

Federal crisis management operates at the strategic level under the leadership of the Federal Council.[6] This involves political coordination, cross-departmental organization, and the steering of complex responses when standard governance processes are no longer sufficient. It can be activated when, for example, emergencies such as pandemics or major infrastructure failures escalate. Civil protection remains part of this structure, but its role is largely operational, and mechanisms to integrate it into the strategic dimension of crisis management remain limited. As a result, its full potential is not yet realized.

Internationally, Switzerland is also reaching out to expand its international engagement in cross-border disaster and crisis management. Activities include participating in the Union Civil Protection Mechanism's (UCPM) Magnitude activities, as well as hosting a MODEX exercise in 2026.[7] These initiatives reflect the country's growing emphasis on international cooperation, interoperability, and strategic dialogue, while maintaining its neutrality.

Taken together, these developments mark a timely opportunity to reassess the role of exercises within the Swiss civil protection system. In the federal context shaped by subsidiarity, neutrality, and cross-border interdependencies, embedding exercises more systematically into the strategic planning processes of civil protection could significantly enhance Switzerland's capacity to anticipate, absorb, and adapt to future emergencies and crises.

1.2 Objectives

This report seeks to broaden the understanding and application of exercises in the domain of civil protection. Military and defense fields have long traditions of using simulations to stress-test governance or signal political intent. In civil protection, exercises usually focus on procedures rather than decision-making. This narrow perspective limits the ability to contribute to national resilience, strategic foresight, and adaptive crisis governance.[8] Yet these are the very capacities that are becoming essential in today's complex and interconnected risk landscape.

The report intends to address policymakers at the national and regional levels, civil protection and emergency management professionals, academic researchers, and international partners. Three interrelated objectives drive the report:

- To analyze civil protection exercises with a view to their broader potential. The report responds to the growing demand for more frequent and targeted exercises by encouraging planners to recognize that exercises are not only technical tests but can also generate leadership experience, coordination, and shared understanding.

- To strengthen the strategic dimension of civil protection in Switzerland, particularly within the broader crisis management architecture. The report highlights how civil protection exercises can serve as entry points for strategic reflection and long-term planning, ensuring that the lessons they generate feed into governance processes and reinforce civil protection's role in national crisis management.

- To position Swiss civil protection within the evolving European landscape, particularly considering the growing interest in cooperation with the UCPM. The report explores how Switzerland can use exercises to engage more actively in cross-border preparedness while respecting its specific political and institutional context.

This report does not offer a technical guide to exercise design. Instead, it seeks to initiate a broader dialogue about the role of exercises in the future development of civil protection in Switzerland. It advocates for a shift both in mindset and practice. In advancing this perspective, the authors acknowledge that they are charting new territory in conceptualizing civil protection exercises as strategic tools and in developing principles to guide their strategic application.

1.3 Methodology and Structure

The research for this report employed a multi-step qualitative approach that combines desk-based research, observational notes, analysis of exercise documentation, and expert interviews. The methodology aimed to triangulate insights from multiple sources to understand how civil protection exercises are conceptualized, implemented, and used strategically. An overview of the research methodology is provided in **Figure 1**.

The first phase involved a comprehensive review of relevant academic literature, policy documents, and institutional frameworks. Particular attention was paid to how disaster risk reduction, civil protection, and crisis management strategies address the purpose and relevance of exercises.

The analysis drew on key references such as the Sendai Framework for Disaster Risk Reduction, a range of international policy documents, and Swiss regulatory and strategic frameworks. Given that the strategic use of civil protection exercises remains relatively underexplored, literature from military and strategic studies was also consulted. These additional sources helped to broaden the conceptual lens and identify relevant parallels, particularly in areas such as strategic learning, capacity development, and institutional resilience.

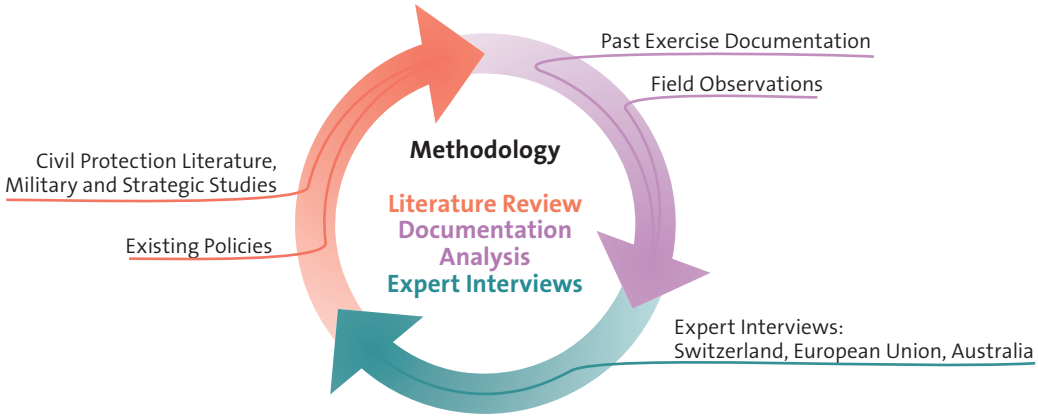
The second phase involved first-hand observations of three civil protection exercises, conducted between October and November 2024:

- Magnitude Exercise, 24–26 October 2024, Baden-Württemberg, Germany
- General Emergency Exercise *(Gesamtnotfallübung, GNU),* 5–7 November 2024, Gösgen, Switzerland
- Table-top Exercise "Drought", 20 November 2024, Zürich, Switzerland

During each exercise, the authors conducted informal discussions and closely observed interactions among participants. These were documented through field notes and observation protocols. This material provided insights into the planning, conduct, and evaluation of exercises, as well as the dynamics between participating actors. Where direct observation was not possible, these insights were supplemented by an analysis of official exercise documentation, including scenario descriptions, after-action reports, and internal evaluations.

The third methodological pillar consisted of four semi-structured interviews with seven experts and practitioners from Switzerland, the EU, Germany, and Australia. All were involved in the design, implementation, or evaluation of civil protection exercises. The interviews provided comparative insights into how exercises

Figure 1: Methodology of the study



strengthen preparedness, foster cross-border collaboration, and support long-term institutional development. They also revealed common challenges in exercise design and evaluation. The analytical framework applied in this report was informed by these findings.

This report is organized into four main sections.

- **Chapter 1** outlines the objectives of the report and describes the methodology used to collect and analyze the data.
- **Chapter 2** provides a comprehensive overview of civil protection exercises: Section 2.1 examines how the role and value of exercises are embedded in key international and national frameworks and policies. It then presents a classification of civil protection exercises, highlighting the main types and the key dimensions that influence their design in Section 2.2. The chapter concludes with an analysis of the goals of civil protection exercises, distinguishing between tactical, operational, and strategic levels in Section 2.3.
- **Chapter 3** illustrates how the strategic functions identified in Chapter 2 are reflected in three exercises as case studies.
- **Chapter 4** summarizes the key findings and outlines the main opportunities to strengthen the Swiss civil protection system.

2 Exercises in Civil Protection

"The evolving nature of contemporary crises amplifies the strategic importance of exercises. Challenges are no longer complicated but increasingly complex, marked by uncertainty, cascading effects, and system-wide strain."

In an increasingly complex and interconnected risk landscape, civil protection organizations have to continuously prepare and adapt to remain effective in protecting populations and safeguarding livelihoods.[9] Within most comprehensive disaster risk management approaches, preparedness and response adaptation are not isolated, one-time tasks, but rather part of a continuous and evolving process.[10] When approached systematically, these efforts contribute to society's resilience, understood as the broader ability to adapt to emergencies, crises, and evolving risks.

Exercises are among the most effective tools to initiate and support this adaptive process because they combine practice with analysis.[11] Exercises are structured, scenario-based activities that simulate crisis conditions.[12] They create controlled environments in which civil protection actors can practice roles, validate procedures, and assess their ability to coordinate and interoperate under pressure. This allows them to identify and correct weaknesses before a real emergency occurs.[13]

When strategically designed, exercises can become catalysts for broader institutional development. They enhance preparedness and readiness, reinforce the resilience of crisis management structures, and promote international cooperation. This is particularly important in settings where resources or prior experience may be limited.[14]

The evolving nature of contemporary crises amplifies the strategic importance of exercises. Challenges are not linear, solvable problems, but increasingly complex, marked by uncertainty, cascading effects, and system-wide strain.[15] As societies become more interconnected and interdependent, the consequences of failure increase, and expectations rise. Crises today often produce second- and third-order effects, occurring simultaneously or in quick succession. Civil protection actors and emergency managers are thus confronted with a broad spectrum of consequences while often operating with constrained resources.

These conditions underscore the need for a new paradigm of integrated crisis management that embraces complexity, anticipates compounding hazards, and sup-

ports strategic-level coordination across diverse actors and sectors.

This paradigm is particularly relevant for Switzerland, whose civil protection system is characterized by federalism, a multilevel governance structure, and strong cross-border interdependencies. In this context, exercises offer a platform to align decentralized responsibilities, clarify decision-making pathways, and build trust between cantonal and federal actors. At the international level, they provide a credible platform for structured collaboration with neighboring states and a means to demonstrate Switzerland's reliability and commitment in regional, national, and international crisis preparedness.

2.1 Policy Foundations of Civil Protection Exercises

Exercises have relevance across all levels of governance, from local civil protection personnel and national crisis management bodies to international disaster response networks. Consequently, their importance is increasingly recognized within international frameworks, national strategies, and regulatory provisions as essential instruments for building readiness and institutional resilience.

At the international level, major disaster risk frameworks and strategies highlight the need for regular exercises as part of institutional preparedness. The Sendai Framework for Disaster Risk Reduction 2015–2030, adopted by UN member states, emphasizes preparedness as a key priority. *Under Priority 4: Enhance disaster preparedness for effective response,* it explicitly calls on states to "promote regular disaster preparedness, response and recovery exercises, including evacuation drills", both at national and local levels.[16] The Framework views exercises as a means of strengthening response capability and building a culture of risk awareness.

Beyond disaster risk reduction, exercises are also acknowledged as strategic tools in the field of security and crisis management. A recent example is the EU "Safer Together" report, authored by the former President of Finland, Sauli Niinistö. Commissioned by the European Council to reflect on Europe's future security landscape, the report recommends the development of a dedicated EU exercise policy. It calls for a stronger "training and exercising culture" within the Union and advocates for regular, comprehensive simulations to bolster institutional readiness, civil-military cooperation, and resilience against hybrid threats.[17]

Switzerland similarly recognizes the strategic value of exercises across multiple policy domains. National security policy documents consistently refer to exercises as mechanisms for improving collaboration, clarifying responsibilities, and strengthening preparedness and governance for volatile or complex events. Especially the Strategic Leadership and Swiss Security Network exercises serve these purposes.[18] Looking ahead, the Integrated Exercise planned for November 2025 represents a significant evolution in non-military Swiss exercise culture. The exercise will combine a Strategic Leadership exercise with the Security Network exercise, simulating a complex crisis scenario that cuts across institutional boundaries and governance levels.[19] These considered major exercises should not just test and evaluate operational capabilities, but focus even more on the strategic level.

While policies emphasize the value of exercises, their implementation is often grounded in legal or regulatory provisions. In Switzerland, certain exercises are mandated by law, such as the General Emergency Exercise. This is a legally required biennial exercise for incidents at nuclear facilities that involves stakeholders from multiple sectors and levels of government. The exercise serves as a practical validation of emergency protocols, communication procedures, and protective measures.[20]

Additionally, the FOCP includes training and exercises as core elements of preparedness within its integrated risk management approach.[21] Moreover, in the civil protection capability analysis, the FOCP has identified an increasing need to exercise collectively to strengthen leadership and coordination processes among organizations involved. By doing so, emergency and disaster event efforts become harmonized, and operational effectiveness is enhanced.[22]

In light of their recognition in national and international frameworks, policies, and legislation, it is crucial to understand the various formats and functions that exercises can assume.

2.2 Civil Protection Exercises: Type, Scale, Governance, and Goals

Exercises can take a wide variety of forms. Their design and execution vary significantly according to their specific types, intended goals, operational scales, and governance contexts. The exercise classification and key dimensions presented here are based on a synthesis of several authoritative resources that together shape a shared understanding of exercise design, implementa-

tion, and development. Collectively, these resources provide a robust foundation for understanding the diversity of civil protection exercises for various contexts and challenges. These include:

- United Nations Office for Disaster Risk Reduction's (UNDRR) *Guidelines on the Design and Conduct of Simulation Exercises* set out key principles and practical steps for planning, conducting, and evaluating simulation-based training in disaster risk management.[23]

- The World Health Organization *Simulation Exercise Manual* provides a structured framework for designing health-related exercises, with emphasis on testing preparedness for public health emergencies.[24]

- EU-level documentation from the UCPM and the *Programme for Prevention, Preparedness and Response to Natural and Man-made Disasters in Southern Mediterranean Countries* offer standardized methodologies to strengthen cross-border preparedness and promote interoperability among member states and partner countries.[25]

- The US Federal Emergency Management Agency's materials, developed in collaboration with the Homeland Security Exercise and Evaluation Program, establish a comprehensive doctrine for exercise planning, conduct, and evaluation, widely applied across emergency management agencies in the United States.[26]

- The Australian Institute for Disaster Resilience's *Managing Exercises Handbook* by the Australian Institute for Disaster Resilience offers practical advice on exercise management, focusing on flexibility, stakeholder engagement, and continuous improvement.[27]

- The Swiss *Civil Protection Leadership Manual (Handbuch Führung im Bevölkerungsschutz FiBS)* provides guidance tailored explicitly to training and exercises for command and crisis management organizations.[28]

This repository of documents offers to analyze civil protection exercises along four key dimensions:

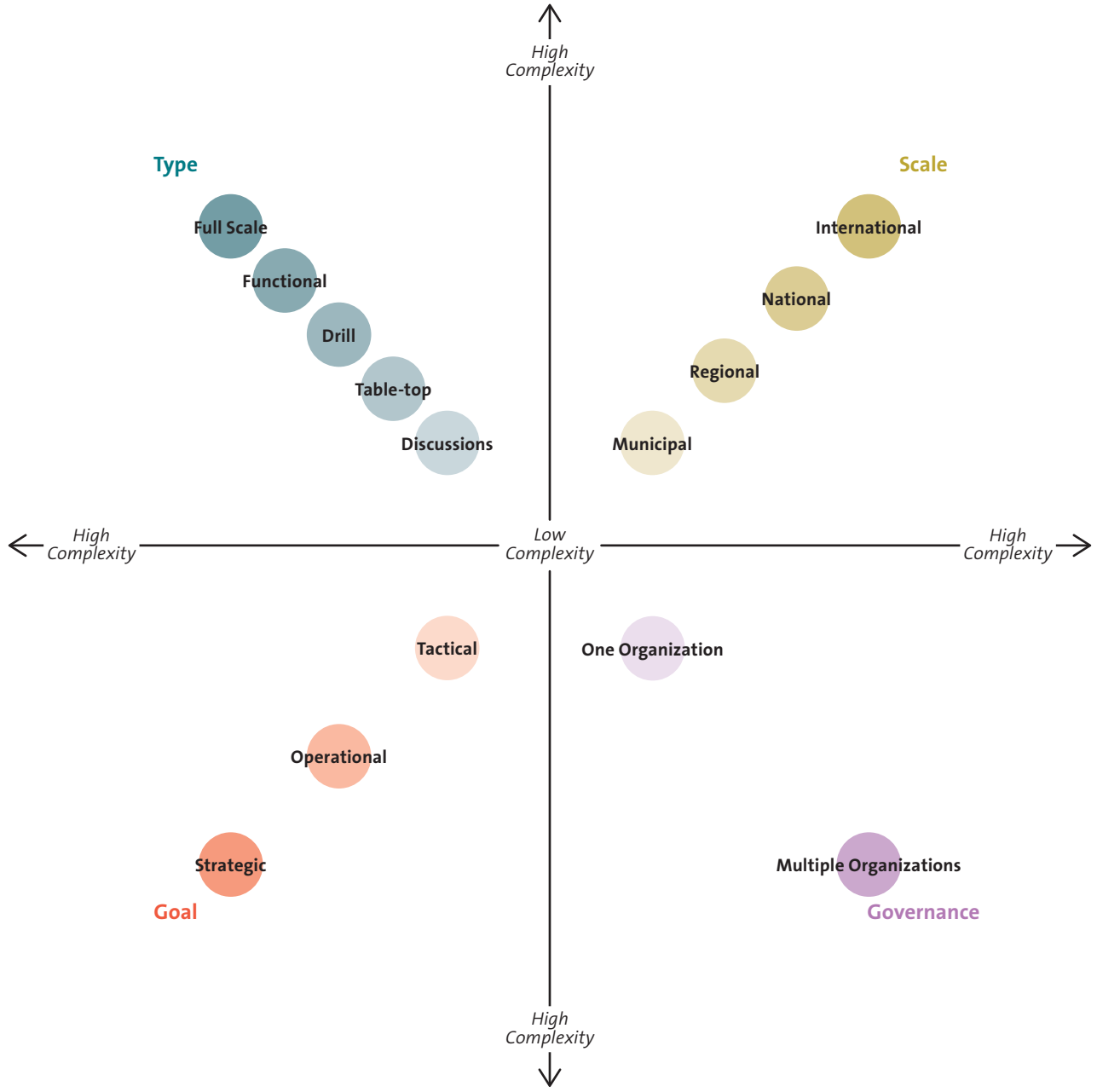
- **Type** (discussion, table-top, drill, functional, full-scale)
- **Scale** (local, regional, national, international)
- **Governance** (one organization, multiple organizations)
- **Goal** (tactical, operational, strategic)

Figure 2 provides an overview of how exercise complexity increases along these four axes. Exercises positioned at the outer edges of this spectrum typically require greater planning, coordination, and institutional engagement. By contrast, those closer to the center tend to be smaller in scope and more focused on a selected purpose. As complexity increases, so do the demands on coordination, communication, and leadership. Many combinations of these dimensions are possible. For example, a functional exercise might involve several organizations operating across multiple regions, while a table-top exercise could focus on the strategic coordination at the national level. In some cases, a full-scale exercise may be accompanied by a table-top component, either as a preparatory step to align participants or as a debriefing format to analyze outcomes and gather feedback.

While each of the four dimensions plays a role in shaping exercise design, it is the goal that most directly determines its orientation and complexity. The nature of what an exercise aims to achieve influences all other aspects, from format and scope to the level of institutional involvement. As such, goal definition serves as the analytical starting point for the next section. This report distinguishes between three interrelated levels of exercise goals: tactical, operational, and strategic. These three categories provide a structured lens through which exercises can be aligned with broader preparedness, coordination, and policy objectives.

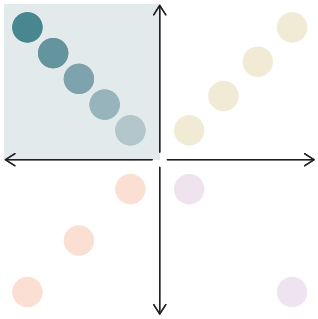
It is important to note, however, that complexity does not simply grow in a straight line from tactical to strategic exercises. Tactical exercises are often technically detailed and demanding, requiring precise execution of specialized tasks. Strategic exercises, by contrast, reduce operational detail but introduce a different form of complexity, as they deal with governance structures, political decision-making, and uncertainty across whole systems. In this sense, they are positioned higher in the spectrum because the consequences of decisions are broader and more uncertain, even if the technical detail is less pronounced. Operational exercises connect these two dimensions by translating strategic intent into coordinated action at the tactical level.

Figure 2: Exercise type, scale, governance and goal



Adapted from Australian Institute for Disaster Resilience, "Managing Exercises", Australian Disaster Resilience Handbook Collection, 2023.[29]

Figure 3: Classification of Exercise Types



Discussion

A discussion exercise, such as a seminar or workshop, serves as an entry-level activity to introduce participants to new concepts, policies, procedures, or tools. It focuses on facilitating information sharing and dialogue, helping build foundational knowledge and awareness. A discussion exercise is typically low-resource and low-stress, providing a platform for stakeholders to engage in preliminary planning, often as a preparatory step for more advanced exercises.

Table-top

A table-top exercise is a discussion-based simulation that focuses on strategic and tactical decision-making. Through a hypothetical emergency scenario, participants assess roles, responsibilities, and communication strategies; test policies and procedures in a low-risk environment; and identify gaps in planning and coordination. Although the scenario is hypothetical, it reflects realistic constraints and dynamics. Equipment is not used, resources are not deployed, and participants typically assume specific roles. A debriefing at the end allows participants to reflect on their experiences, share insights, and identify next steps. The success of a table-top exercise largely depends on active group participation and the collective identification of problem areas.

Drill

A drill is a highly focused, task-specific exercise designed to test a single function or capability. It aims to validate procedures, protocols, and the operability of equipment and systems under controlled conditions. By concentrating on individual components of the response system, a drill helps ensure their readiness for integration into larger, more complex exercises. Examples include a fire evacuation drill, testing an emergency communication system, or practicing medical triage. While limited in scope, a drill is essential for maintaining critical response functions and providing hands-on training for personnel.

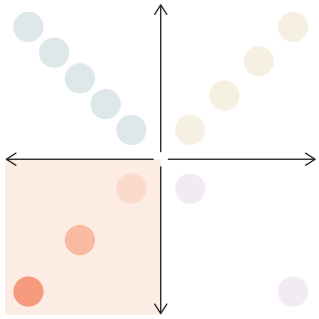
Functional

A functional exercise is designed to test specific functions, coordination mechanisms, and decision-making processes under simulated, time-pressured conditions. Unlike a drill, it involves multiple components of the response system operating simultaneously, but without deploying field resources. Participants typically operate from emergency operations centers or command posts, focusing on communication, coordination, and real-time problem-solving. A functional exercise is well-suited to examining command structures, inter-agency collaboration, and operational workflows.

Full-Scale

A full-scale exercise is the most complex and resource-intensive type of exercise. It simulates a real incident in real time, with the deployment of personnel, equipment, and resources in the field. Designed to test systems as a whole, it evaluates operational readiness, coordination across organizations, and the ability to manage crises under realistic conditions. Because of its scale, a full-scale exercise demands significant planning, logistics, and resources, but it provides the most comprehensive assessment of preparedness and response capabilities.

2.3 Exercise Goals: Tactical, Operational, and Strategic



Civil protection exercises are designed to meet a wide range of objectives. To better capture the diversity, this report distinguishes three interrelated levels of exercise goals: tactical, operational, and strategic. While these levels are conceptually distinct, in practice, they are interconnected, and boundaries between them are often fluid. Appreciating this layered approach helps planners align exercises with their intended purpose, allocate resources effectively, and assign responsibilities to appropriate teams or institutions. More importantly, it fosters a broader understanding of what exercises can deliver in generating strategic value.

The classification of an exercise as tactical, operational, or strategic depends primarily on its intended purpose. The actual purpose is derived from what an exercise is meant to test, enhance, or explore. Tactical goals in exercises focus on individual or team performance, while operational goals aim to strengthen coordination and readiness. Strategic goals seek to evaluate governance structures and policy assumptions under pressure.

Several contextual factors influence how goals are defined in practice. Legal and strategic mandates, such as regulatory requirements, planned exercise cycles, or alignment with national priorities, often shape the overall orientation. At the same time, feasibility is constrained by practical considerations, including the availability of personnel, funding, infrastructure, and the characteristics of the local or national risk landscape.[30] Lastly, the institutional and political context, especially the degree of interagency cooperation, political will, and the prevailing administrative structure (e.g., federal versus centralized systems), determines how ambitious or cross-cutting an exercise can be.

Importantly, the three goals should not be viewed as rigid or mutually exclusive nor do they represent a strict hierarchy. In practice, they are interconnected and often overlap.[31] For instance, tactical activities can produce insights with operational and strategic relevance. At the same time, responders at the tactical level are more effective when they understand the broader strategic objectives and the potential second- and third-order effects of their actions.[32] Operational leaders serve as the critical link between strategy and implementation, translating high-level goals into specific actions. Ultimately, the success of strategic objectives depends on well-coordinated operational plans and effective tactical performance.[33] Consequently, actors across all levels collaborate and interact continuously with each other. Successful crisis management depends on this coordinated effort to bring structure and clarity to complex and evolving situations.

Figure 4: Three levels of exercise goals: tactical, operational, strategic

Tactical
- Skill development
- Procedure validation
- Testing specific functions

Are tasks being done right?

Operational
- Interoperability
- Resource management
- System readiness

Are resources being coordinated efficiently?

Strategic
- Governance validation
- Diplomatic engagement
- Policy innovation

Are decisions aligned with strategic goals?

2.3.1 Tactical Goals

At the tactical level, exercises focus on skills development and the validation of specific response procedures and materials, ensuring adherence to certified protocols and accreditation standards.[34] This type of exercise helps frontline responders, emergency managers, and technical specialists to sharpen their immediate response actions in controlled environments. Key functions include:

- **Skill development:** Tactical exercises focus on refining specific skills required by individual responders and teams, directly applying certified knowledge and techniques, and following standards set by accrediting bodies. This includes practicing the use of equipment and executing specific tasks efficiently

and effectively in accordance with established standards. For instance, a fire department drill might focus on the precise technique for deploying a high-pressure hose line or the correct procedures for ventilating a burning structure, ensuring firefighters apply skills learned through their professional certifications. Participating in this type of exercise helps responders build muscle memory and reinforce adherence to best practices under pressure.

- **Procedure validation:** These exercises test the practicality and effectiveness of specific procedures and protocols at the field level, ensuring adherence to certified standards and best practices, as well as relevant accreditation requirements. They help identify bottlenecks, ambiguities, or areas where procedures need refinement. For example, a hazardous materials (HazMat) response drill would validate the step-by-step procedure for establishing a decontamination corridor. It would assess if all personnel correctly applied personal protective equipment according to specific agency guidelines and certified HazMat protocols.[35]

- **Testing specific functions:** Tactical exercises can involve multiple teams working together to rehearse and coordinate key response tasks such as rescue operations or casualty transport, thereby improving synchronization and integration under realistic constraints. An Urban Search and Rescue (USAR) team exercise, for example, might involve a multidisciplinary team, including structural engineers, medical personnel, and search specialists, practicing the coordinated breach and shoring of a collapsed building to extricate a simulated victim.[36]

2.3.2 Operational Goals

At the operational level, exercises test interagency coordination, communication, and execution across various sectors or jurisdictions. These simulations replicate multi-agency response efforts in real-time, but within controlled conditions. Activities at the operational level translate the strategic intent into action at the tactical level. In addition, they function as the direct connection between the strategic level and the tactics used.[37] A central focus is on ensuring that available resources such as personnel, equipment, and systems (including operational platforms, communication standards, and early warning mechanisms) are well-coordinated and effectively deployed to meet the demands of an event. Key functions include:

- **Interoperability:** Operational-level exercises play a crucial role in identifying and addressing frictions that can emerge when multiple agencies, systems, and jurisdictions converge during an emergency. These exercises test whether procedures align, communication standards and data structures are compatible, and physical assets such as equipment and operational platforms can function effectively together.[38] A key objective is to reveal and resolve practical incompatibility, whether due to differing protocols, non-standardized equipment, or fragmented information flows. They also aim to improve coordination by promoting shared terminology, mutual recognition of roles, and the integration of personnel and response units across organizations.[39] As Swiss Federal Councilor Martin Pfister emphasized during a press conference on 26 May 2025, interoperability between assets and teams cannot be improvised in the short term but requires years to build and mature.[40] While he was referring to military operations, the same logic applies to civil protection.

- **Resource management:** Exercises that evaluate the ability of organizations to rapidly mobilize and effectively deploy critical resources jointly. This includes personnel, equipment, and supplies during a simulated event. They are designed to expose logistical challenges and drive improvements in resource allocation across multiple responding entities. For instance, a mass vaccination exercise following a pandemic scenario would test the cold chain logistics for vaccine delivery, the efficient allocation of medical personnel to various sites, and the management of vaccine supply chains from international and national stockpiles to local distribution points.[41]

- **System readiness:** At the operational level, this form of exercise assesses whether the civil protection system as a whole is capable of delivering a coordinated, adaptive, and sustained response under realistic pressure.[42] Rather than focusing on isolated procedures or resource management, it examines how the various components of the response chain, across agencies, jurisdictions, and sectors, interact and perform collectively during a crisis. This includes the ability to plan and execute multi-phase operations, ensuring continuity across the different stages of a crisis, from initial response to prolonged operations and eventual recovery. Exercises at this level test the system's internal logic and practical viability. Aspects such as whether command structures are activated as planned, roles are clearly understood, and shared situational awareness is maintained throughout a dynamic event are essential. They

simulate conditions in which the overall crisis system is required to manage multiple and overlapping challenges. Exercise dilemmas for participants can include information overload, competing resource needs, and shifting operational priorities. Therefore, these exercises validate the system's capacity to function as an integrated and self-correcting mechanism, ensuring that a complex emergency can be managed without breakdowns in coordination, continuity, or effectiveness.

The importance of operational coordination is reflected in international exercises such as the sixth Modules tabletop Exercise, which is conducted under the UCPM framework.[43] This specific table-top exercise focused on practicing communication and coordination processes, both between the European Civil Protection Teams and within national modules. A practical example included a high-capacity water pump module from one country supporting a water treatment unit from another. This allowed teams to evaluate not only collaboration protocols but also the technical and, therefore, tactical compatibility of their equipment. The exercise highlighted that coordination, interoperability, and even language alignment are essential for international teams to operate effectively together.

2.3.3 Strategic Goals

As the analysis above shows, civil protection exercises are well-established tools for tactical training and operational coordination. However, their strategic potential remains significantly underexplored in both practice and academic literature. The existing literature largely concentrates on operational preparedness. In doing so, it overlooks how exercises can also support long-term crisis governance, institutional development, and policy alignment.

This gap is notable when comparing how exercises are approached in military studies, where their strategic role is documented. For instance, the report from the Security Policy Study Commission highlights that within NATO, military exercises incorporate scenarios that engage the political level and the decision-making process for mutual assistance in accordance with Article 5. These exercises not only help NATO member countries learn about interoperability but also convey the political message of a common and coordinated deterrent effect.[44] More broadly, Wolfley highlights how military exercises often serve additional functions such as diplomacy, alliance-building, and institutional capacity development.[45] These aspects are equally relevant to civil protection, as it evolves to meet increasingly complex and cross-border risks and therefore demands for greater cooperation and inclusion between stakeholders. [46]

Civil protection authorities should approach exercises not only as opportunities to test capabilities, but also as instruments for reinforcing governance. When exercises are designed with strategic intent, they help secure political commitment, support the allocation of sufficient resources, and integrate findings into broader institutional processes. Without this level of engagement, even well-functioning operational systems may fail due to misaligned priorities or fragmented leadership during actual crises.

The strategic orientation of civil protection in Switzerland is reflected in the Civil Protection Strategy 2015+, a policy document that continues to guide civil protection planning on the strategic level and was the foundation of the total revision of the federal law of civil protection and civil defense in 2012.[47] It defines strategy as an ongoing process aimed at optimizing structures and procedures to improve crisis resilience. The core goal of this strategy is to establish a clear governance framework that outlines the roles and responsibilities of federal and cantonal authorities. Exercises constitute an integral tool in implementing this strategic vision. They connect different parts of the national crisis management system and promote coordination across municipal, cantonal, and national levels. As a result, cantonal civil protection offices are increasingly calling for more cross-sectoral and cross-border exercises to complement and reinforce their readiness.[48]

Despite this growing recognition, exercises alone rarely lead to lasting policy or regulatory change. While they are effective in diagnosing gaps, their findings often remain confined to after-action reports or technical evaluations. In reality, it is still major disruptive events that most often prompt policy reforms. For example, it was only after the Fukushima disaster in 2011 that the Swiss Federal Nuclear Safety Inspectorate initiated the mandatory external storage of emergency equipment, a measure that is now regularly tested in the General Emergency Exercise, as outlined in Section 3.2.[49] This pattern reveals a weak feedback loop between operational learning and institutional evolution, whereby the outcomes of exercises are not incorporated into organizational change.[50] Without political ownership, long-term vision, and structured follow-through, even well-substantiated findings from exercises are unlikely to influence laws, mandates, or governance frameworks.

Strategically oriented exercises can help close this gap. To achieve this, they must be embedded within the governance systems they are intended to test. In this context, scenarios serve primarily as a concrete framework for the exercise; the real focus lies in testing overarching processes and coordination mechanisms within and between participating institutions. To serve as catalysts for change, exercises should therefore go beyond scenario play and examine the underlying rules, roles, and

workflows that shape crisis management. The resulting insights should be systematically assessed against existing policies and legal frameworks to identify misalignments, outdated assumptions, or institutional blind spots.

When exercises are politically visible, analytically grounded, and followed by concrete processes for translating lessons into reform, they can serve as trigger points for development and evolution. This is particularly important in federal systems like Switzerland, where governance is decentralized and change depends on consensus across multiple levels and stakeholders.

Three key strategic functions of exercises emerge from the analysis and are reflected in the case studies in Chapter 3:

- **Governance Validation:** When exercises are designed with a strategic lens, they offer a critical opportunity to test how political and institutional leadership function under conditions of uncertainty, pressure, and high stakes. These simulations present complex, high-impact crisis scenarios that go beyond operational coordination, requiring coherent, timely, and legitimate decision-making across all levels of government. This is especially demanding in federal systems, where responsibilities are distributed and alignment is sometimes harder and slower to achieve.[51] Strategic-level exercises help expose institutional blind spots, such as unclear mandates, coordination breakdowns, or conflicting interpretations of legal authority, that may only become visible in crisis situations. At the same time, they serve as a structured platform for political and administrative leaders, including those not regularly involved in emergency management, to engage with the realities of crisis governance. These managers are often responsible for high-level decisions during emergencies, yet they may lack practical experience or opportunities to learn. Participation in exercises provides them with a controlled environment to rehearse their roles, make difficult decisions, weigh competing priorities, and better understand their interdependence within the broader system. For instance, a national simulation of a widespread infrastructure failure would test the federal government's ability to activate emergency powers, coordinate ministries, and maintain public order. In doing so, these exercises contribute not only to institutional preparedness but also to political readiness, which is a critical component for responsive governance during a crisis.[52]

- **Diplomatic Engagement:** International exercises create spaces for dialogue, negotiation, and collaboration among civil protection actors. These activities foster mutual understanding and long-term cooperation.[53] In an increasingly interconnected risk landscape, this diplomatic function is essential for establishing cohesive and multi-state response systems. The UCPM is a leading example of this strategic function. Although it has existed since 2001, its importance was reinforced during the COVID-19 pandemic and the European 2023 wildfire season.[54] Both events exposed the urgent need for a unified and flexible European response to major concurrent and consecutive disasters. The pandemic specifically underscored the critical need for a unified and adaptable European response, prompting the accelerated operationalization and expansion of the UCPM's capabilities. In recent years, UCPM members have engaged in unprecedented levels of resource pooling and multinational exercises aimed at strengthening cross-border coordination and interoperability.[55] These activities are central to the EU's ambition to build a resilient, Europe-wide civil protection system. The growing strategic relevance of UCPM is also observed in the increasing involvement of non-EU countries, which recognize its practical benefits and seek to both benefit from and contribute to its evolving capabilities.

  A similar approach, though less institutionalized, is found in Southeast Asia under the ASEAN Agreement on Disaster Management and Emergency Response (AADMER). Regional exercises that simulate disaster scenarios for this region help to internalize collaboration and strengthen collective response capabilities by making it habitual.[56] For instance, their joint exercises are often utilized to advocate for specific policy changes or new agreements by showcasing the feasibility of proposed policies or frameworks. In this way, international exercises function not only as training tools but also as instruments of soft diplomacy, reinforcing political ties and enhancing collective resilience through shared practice, strategic alignment, and institutional trust.

- **Policy Innovation:** Strategic exercises provide a unique testing ground for policy experimentation. Unlike real emergencies, exercises offer a controlled environment where new approaches, regulatory changes, and institutional reforms can be trialed and evaluated without the immediate consequences of failure. This enables civil protection authorities and their partners to explore how innovative ideas function in practice before committing to formal implementation.

  Such innovations may include the introduction of new crisis coordination platforms, revised responsibilities for key actors, such as private infrastructure operators, or the operationalization of novel risk com-

munication protocols across sectors. For example, a strategic exercise might simulate the integration of private logistics providers into national emergency supply chains, testing not only their technical readiness, but also the legal and procedural frameworks that enable public-private cooperation during crises.

Exercises can also play a role in testing adjustments to institutional design, such as the creation of cross-cutting emergency committees or the redefinition of leadership roles in multilevel governance settings. By doing so, they highlight potential regulatory conflicts, bureaucratic resistance, or coordination inefficiencies that might hinder implementation during real events.

In some cases, exercises are used to validate draft legislation or new crisis management concepts before they are adopted. This can include piloting emergency declarations with extended authorities, exploring liability or subsidiarity issues. In this way, strategic exercises serve as policy laboratories by reducing the political risk of innovation and strengthening the evidence base for decisions. When linked to formal policy cycles or regulatory reviews, they can accelerate the pace of institutional learning and help civil protection systems adapt to new and emerging challenges.

3 Case Studies

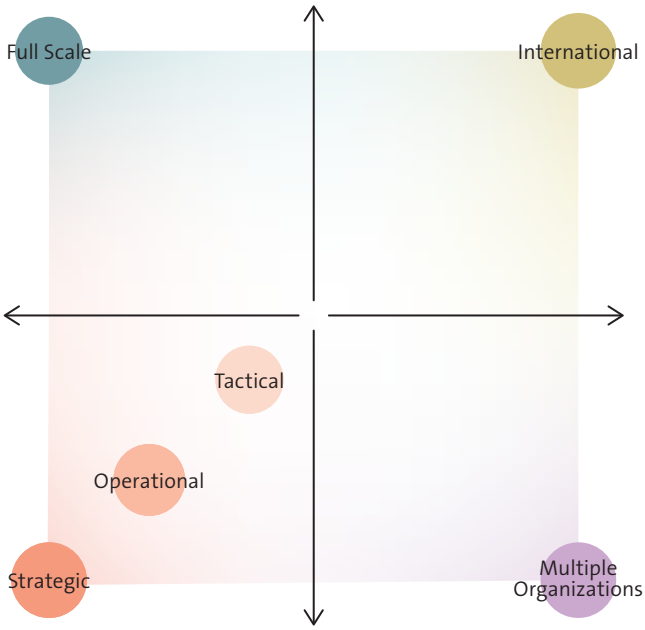
This chapter examines the strategic value of civil protection exercises through three case studies conducted in 2024: the international UCPM exercise, the national General Emergency Exercise and the regional table-top exercise "Drought". An overview of these exercises is provided in Table 1. While these exercises differ in scale, scope, and institutional context, each illustrates how civil protection exercises can serve as instruments for governance validation, diplomatic engagement, and policy innovation. Together, they offer a multilevel perspective on how Switzerland can integrate strategic thinking more effectively into its civil protection system. Their respective strategic contributions are synthesized in **Figure 5.**

Table 1: Comparative overview of the case studies

Exercise	Scale	Format and Scenario	Stakeholders
Magnitude	International	Full-scale exercise; 6.9 earthquake in Upper Rhine (Germany)	European level: • Union Civil Protection Mechanism expert team (6 experts) • European Commission (DG ECHO) National level: • Response teams from Austria, Greece, France, and Switzerland • 12 response teams and 8 authorities from Germany
General Emergency Exercise	National	Functional exercise with drill and table-top components; nuclear power plant accident at Kernkraftwerk Gösgen (Switzerland)	Federal level: • Federal Office for Civil Protection • National Emergency Operations Centre • Swiss Federal Nuclear Safety Inspectorate • Federal Office of Public Health • Federal Roads Office • Federal Office of Transport • Federal Food Safety and Veterinary Office (involved via radiological protection) • Swiss Armed Forces Cantonal level: • Civil protection partner organizations and crisis management bodies from the Cantons of Solothurn, Luzern, Basel-Landschaft, Aargau, Bern, Thurgau • Local political observers Critical infrastructure operators: • Nuclear power plant Gösgen • Swiss transmission grid operator • Swiss Federal Railways • Swiss Postauto
Table-top "Drought"	Regional	Table-top; Drought with cascading impacts	Federal level: • Federal Office for Civil Protection • Federal Office for the Environment Cantonal level: • Cantonal civil protection partner organisations* • Civil society and academia: • Swiss Red Cross • Gesellschaft für Krisenvorsorge, Bavaria (Germany) • Academic researcher from Center for Security Studies-ETH, Swiss Federal Institute for Forest, Snow and Landscape Research

* The partner organizations from the Swiss civil protection network include the police, the fire department, the health services, the technical services, and civil protection organizations. The latter is mainly responsible for command support, assistance (e.g., to people seeking shelter), technical assistance, and logistics. It can also provide specialized services, such as repair work or rescue from rubble.

3.1 International Scale Exercise: Magnitude



"These efforts are more important than ever. As the climate crisis worsens, extreme weather events are now an almost annual occurrence across Europe and beyond. In response, we must increase our disaster preparedness on local, national, and European levels to keep pace with this ever-growing rate of disasters."
Janez Lenarčič-European Commissioner for Crisis Management, Opening statement at the Magnitude Exercise in 2024[57]

Background

To understand how disaster management in Europe has evolved in recent years, one has to look at Magnitude Exercise. From October 24 to 26, 2024, the state of Baden-Württemberg in Germany hosted this large-scale EU civil protection exercise, simulating a 6.9 magnitude earthquake in the Upper Rhine region. The scenario was chosen due to the area's seismic activity and dense industrial infrastructure, factors that could exacerbate the impact of such an event.

Magnitude was co-financed by Germany and the EU through the EU's Knowledge for Action in Prevention and Preparedness program. Magnitude's primary objective was to simulate a complex, real-life emergency response within the framework of the UCPM.[58] This involved not only national responders, but also a diverse array of international rescue and support teams.

The scale of the exercise was significant, bringing together approximately 950 participants from Germany, Austria, France, Greece, Switzerland, and other countries. They worked alongside 12 German response teams and a six-expert EU civil protection team.[59] International contributions included a heavy urban search and rescue (USAR) team from France, a medium USAR team from Austria, three Swiss USAR teams, a water purification unit from Austria, and a CBRN response team from Greece.

Magnitude was designed as a full-scale exercise. The scenario included hundreds of casualties, extensive infrastructure damage, disrupted critical services, and triggered the need for cross-border assistance. Emergency operations included search and rescue missions, on-site medical triage and care, evacuation of vulnerable populations, hazardous materials decontamination, and the stabilization of lifeline infrastructure.[60]

In addition to operational testing, the exercise provided a framework for evaluating the effectiveness of international cooperation under UCPM. Strong emphasis was put on existing cross-border agreements and response protocols. An observers' program featured representatives from eight EU Member States, facilitating knowledge exchange and mutual learning. High-level political engagement, such as the attendance of EU Commissioner for Crisis Management Janez Lenarčič and Baden-Württemberg's Deputy Minister-President Thomas Strobl, emphasized the political backing for such exercises and their relevance for both national and EU-level disaster response efforts.[61]

For Switzerland, Magnitude represented the first opportunity to participate in a UCPM exercise reflecting its broader ambition to become a participating country in the mechanism. Coordinated by the FOCP and the Swiss Agency for Development and Cooperation, Swiss USAR teams could tap in, train, and provide insights into an already trained and cohesive European disaster response mechanism.

Findings

International
Magnitude
Diplomatic Engagement • Signaled Swiss intent to deepen ties with UCPM; • Strengthened trust and visibility in European civil protection.
Policy Innovation • Assessed EU Host Nation Support guidelines; • Advanced inclusive and cross-border disaster response policies.

Diplomatic Engagement

Magnitude offered Switzerland a key opportunity to demonstrate its commitment to international cooperation and its readiness to play a more integrated role in the European civil protection architecture. This is a substantial prospect considering the motion recommended for adoption by the Federal Council and adopted by parliament for Switzerland to join the UCPM.[62] As **the first UCPM exercise in which Switzerland participated** operationally, Magnitude was not only a technical training opportunity. It was also a diplomatic platform to strengthen trust, visibility, and alignment with the mechanism.

The exercise highlighted several important dimensions of the UCPM as **a tool of diplomacy**. First, it showcased the value of multi-state communication and information sharing, particularly using common platforms like the Common Emergency and Information System, and the Copernicus Emergency Management Service.[63] Such instruments enable participating countries to access and exchange real-time data on hazards, cascading effects, and evolving operational needs. When combined with joint planning, standard operating procedures, and shared terminology, they underscore how the UCPM functions as a coherent and rapidly deployable coordination framework across Europe.

Importantly, Magnitude served not only to connect systems but also to **connect people**. It reinforced mutual trust in partner capabilities and fostered a culture of professional solidarity among national teams. Despite different languages and operational cultures, teams operated effectively using standardized English and common protocols. Many observers noted that this "readiness to cooperate" was not only operationally effective but politically meaningful, reflecting shared values and strategic cohesion at the European level.

For Switzerland, participation signaled **political intent to deepen ties with the UCPM.** It comes at a time when formal membership is being discussed next to broader EU-Swiss bilateral negotiations. Magnitude provided an opportunity to showcase Swiss added value. From the deployment of highly specialized USAR teams to the utilization of cutting-edge technologies, such as search-and-rescue robotics co-developed with institutions like ETH Zurich.[64] These contributions highlighted Switzerland's potential not just as a participant, but as a potential technology and innovation leader within the mechanism. With its internationally recognized expertise in emergency management, humanitarian aid, and crisis preparedness, Swiss participation would bring tangible benefits to the EU's collective response capacity.[65]

However, the exercise also **exposed the existing limits** of Switzerland's current institutional integration into European civil protection structures. Under current agreements, Swiss disaster response abroad is primarily coordinated through the Swiss Agency for Development and Cooperation. Cantonal civil protection units, which form the key pillars of Switzerland's decentralized civil protection system, remain excluded from direct participation in international exercises such as Magnitude. This exclusion is increasingly viewed as a strategic disadvantage, especially as countries across Europe intensify efforts to strengthen joint preparedness for complex and cross-border crises.

In the context of Magnitude, several cantonal representatives expressed during informal exchanges with the authors a strong interest in engaging more directly with European counterparts, testing their operational readiness, and gaining hands-on experience in cross-border collaboration. This need for further cross-border collaboration among civil protection authorities is also reflected in a survey result on drought management across Switzerland.[66] Their non-participation in the exercise highlights an area with significant potential for further development in Switzerland's engagement. Future steps could focus on **creating more systematic opportunities for cantonal civil protection teams** to participate in international cooperation. Discussions with partners such as Germany's Federal Office for Civil Protection and Disaster Assistance already indicate avenues for advancing this agenda, for example, through an update of bilateral agreements.[67] By pursuing such measures, Switzerland could further enhance the effectiveness of its national civil protection system while at the same time reinforcing its alignment with evolving European approaches to cross-border preparedness.

Building on a solid legal foundation, further progress will depend above all on political commitment and consistent implementation. As the Security Policy Study Commission has noted, Swiss civil protection has been neglected in recent years, in part due to a perceived decline in the threat situation.[68] In the current context of compound risks and growing regional interdependence, this legacy is no longer sustainable.

The inclusion of cantonal civil protection units into international exercises would offer twofold strategic value. It would **improve national preparedness** through practical experience, and at the same time, it would **strengthen Switzerland's institutional alignment** with the UCPM. In doing so, Switzerland would not only build capacity but also show its long-term commitment to a cohesive and cooperative European civil protection system.

Policy Innovation

Magnitude also served as a policy innovation laboratory. It offered a controlled environment to test emerging frameworks, assess new coordination models, and evaluate how international or national guidelines can be locally implemented.

One of the central policy areas tested during the exercise was **Host Nation Support** (HNS). HNS refers to the set of arrangements and support services required for a country to receive and integrate international assistance during major emergencies. In the scenario simulating a 6.9 magnitude earthquake, Baden-Württemberg assessed its operational processes related to incoming international teams and applied the EU Host Nation Support Guidelines in practice.[69]

Cascading events, such as multiple infrastructure failures, hazardous materials incidents, and overburdened healthcare systems, increase the pressure on local and regional response capacities.[70] When domestic resources are no longer sufficient, international teams play a substantial role in supplementing national efforts. Predefined HNS measures enable such incoming support. This includes customs and border clearance, transportation and escorting, coordination with local responders, and provision of logistical support.[71] Several of these components were tested in real-time, with civil protection units from various EU countries arriving by air or on land, supported by the liaison officers from Baden-Württemberg.[72]

This real-time implementation created a **policy and concept feedback loop.** It allowed regional authorities to evaluate their current planning assumptions, identify regulatory bottlenecks, and adjust institutional responsibilities accordingly. It also generated operational insight that can feed directly into the refinement of EU-wide HNS guidance and bilateral cooperation protocols.

For Switzerland, the exercise revealed a strategic blind spot. Unlike its neighbors, Switzerland currently **lacks a comprehensive HNS framework** for receiving international disaster assistance. Although certain bilateral agreements permit limited forms of cross-border cooperation, there is no uniform procedure to coordinate the arrival and integration of foreign teams during a major emergency. This absence is particularly relevant in the context of Switzerland's seismic exposure. Cities such as Basel, Geneva, Zurich, Lucerne, and Bern contain both dense populations and critical infrastructure, making them exposed to the compound effects of an earthquake.[73]

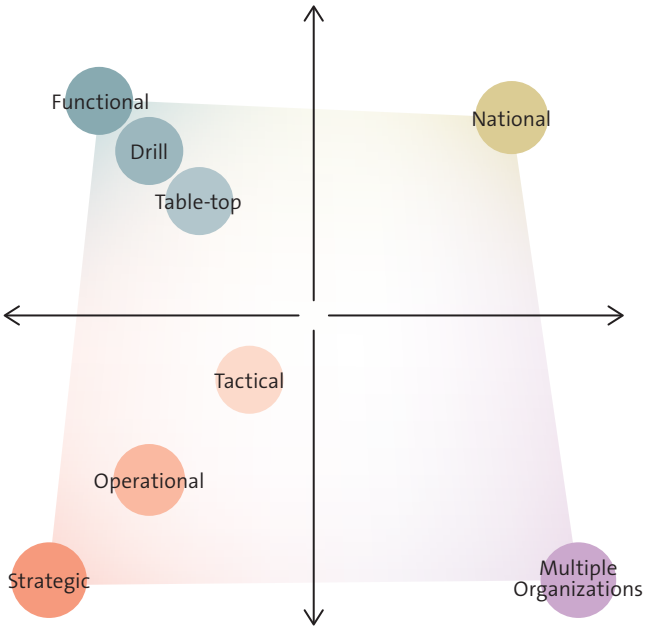
If Switzerland intends to engage more closely with the UCPM, the **development of national HNS procedures** and their application to the regional context will become necessary. These procedures are relevant not only for the deployment of Swiss teams abroad, but also for scenarios in which Switzerland may require external assistance. Initial steps in this direction are already visible. For instance, the Swiss Armed Forces recently prepared for an international exercise simulating an earthquake in the Lucerne area. This exercise, designed to challenge coordination and reception processes for USAR teams arriving in Switzerland, highlights a growing awareness of HNS requirements within the country.[74] The next step would be to test such HNS through civil protection exercises, to ensure their compatibility with the country's decentralized system and existing legal arrangements.

A second area of focus during the exercise was **the integration of vulnerable populations**, particularly individuals with physical, sensory, or cognitive disabilities, into disaster response planning and operations.

Magnitude utilized the exercise platform to assess how inclusive approaches could become a standard component **of crisis governance.** In this context, inclusivity refers to procedures and measures designed to ensure that the needs of people with disabilities are systematically considered in emergency planning and response. Scenarios were therefore designed to simulate conditions in which people with disabilities required evacuation, shelter, or targeted communication support. This forced participating institutions to confront legal, logistical, and procedural barriers in real-time. Consequently, the exercise also brought together actors from emergency services, health and social care, and civil society to explore new models of collaboration.

Thus, rather than treating inclusion in disaster response as an ethical add-on, Magnitude positioned it as a core component of strategic preparedness and institutional reform. In doing so, the exercise demonstrated how inclusivity itself can be a driver of innovation in civil protection policy.

3.2 National Scale Exercise: General Emergency Exercise



"Without practical verification, it cannot be ensured that the corresponding processes will proceed smoothly in an emergency."
Final Assessment Report GNU 2024

Background

Nuclear emergencies, although rare, necessitate highly coordinated responses that encompass technical systems, civil protection authorities, and political leadership. Recognizing the strategic implications of such scenarios, Switzerland conducts a General Emergency Exercise (*Gesamtnotfallübung,* GNU) every two years. The exercises are jointly organized by the FOCP and the Swiss Federal Nuclear Safety Inspectorate (ENSI). They are mandatory for nuclear power plants (NPP) under national regulation and form a cornerstone of preparedness for low-probability, high-impact events in Switzerland.[75]

GNU 2024 took place amid growing attention to compound risks and systemic vulnerabilities. The scenario simulated the cascading effects of a severe storm that led to a widespread power outage, fire, and a total station blackout at a Swiss NPP. As the situation escalated, emergency organizations were confronted with multiple technical failures and the need to plan for a precautionary evacuation of the surrounding population. Although the triggering event was localized, the scenario quickly assumed national relevance, requiring coordinated response efforts across local, cantonal, and federal levels.

The overarching goal of GNU 2024 was to assess the collaboration between the NPP's internal emergency organization and external civil protection and crisis partners. In addition to testing regulatory compliance and technical preparedness, the exercise was designed to evaluate the interface between operational management and strategic coordination. It aimed to highlight the dependencies and decision-making chains that define national-level crisis response. The exercise also offered participating cantonal authorities the opportunity to determine additional evaluation priorities based on their needs and operational responsibilities.

By combining technical complexity with high-level coordination demands, GNU 2024 served as a multi-layered stress test for Switzerland's nuclear emergency governance. It was planned to reinforce tactical capabilities and test operational planning. At the same time, it surfaced strategic questions about institutional readiness, cross-sectoral integration, and the evolving role of civil protection towards whole-of-society crisis management.

Findings

National
GNU
Governance Validation • Tested crisis coordination across federal, cantonal, and infrastructure levels; • Included strategic actors such as Swissgrid and political observers.
Policy Innovation • Informed political debate on nuclear emergency management.

Governance Validation

Although formally organized with an operational focus, GNU 2024 revealed several elements that directly support the strategic objectives of Swiss civil protection. Its dual character, **operational in structure, yet strategic in coordination,** positions GNU 2024 as an instrument for governance validation. The exercise involved a range of actors, from civil protection authorities to operators of critical infrastructure. It allowed them to assess how their institutions perform under conditions of uncertainty, time pressure, and institutional complexity. This mirrors the broad understanding, across the Swiss security policy landscape, that exercises are essential to assess the performance of civil protection actors in fulfilling their politically and strategically mandated roles.[76]

Echoing this, civil protection participants in previous GNUs have repeatedly expressed a desire for stronger strategic integration and more active participation beyond the operational level.[77] While an incident at a nuclear power plant initially demands a robust and rapid operational and tactical response, it can quickly evolve into a **broader national crisis management challenge**. Addressing this type of scenario requires political decisions, inter-agency coordination at the federal level, and coherent public communication. GNU 2024 accentuated the need to bridge the operational and strategic layers of response to ensure that decisions are aligned and executed as part of a functioning system.

A defining feature of the GNU 2024 was its broadened participant base. It therefore reflected a **whole-of-governance approach**. The inclusion of Swissgrid, Switzerland's national grid operator, as an active participant for the first time indicated a significant step toward more comprehensive strategic preparedness.[78] Exercises that incorporate critical infrastructure operators, regulators, and other non-traditional stakeholders in civil protection facilitate better cooperation and information sharing in a real crisis. By doing so, they foster a stronger connection and trust among various actors within the response chain.[79]

Crucially, the strategic value of an exercise, particularly those with a broad scope, is forged long before the simulation begins. **The preparatory phase is highly valued by participants**. Pre-exercise activities range from initial introductions and concept discussions to rehearsals and scenario refinement. This phase provides space for intellectual, political, and analytical reflection on what is being tested and why. It is also the moment when relevant stakeholders outside the traditional civil protection domain should be included. In the case of GNU 2024, for example, several professionals simulated the media for exercise purposes, but real media actors were not engaged as strategic partners. Bringing them into the preparatory process could generate significant benefits, enabling the crisis network to refine how information is communicated to the population at different stages of an event and thereby strengthening both credibility and trust.

At the same time, this preparatory element was only partially realized at the GNU 2024. While key frameworks and concepts were available in advance and based on earlier GNUs, several cantonal participants still felt that procedures had been introduced top-down rather than developed collaboratively. This suggests that the **link between past experience and current exercise design** was not always clearly communicated. If participants are fully aware of how lessons from previous exercises shape the current framework**,** acceptance and legitimacy are strengthened. A more deliberate emphasis on the preparatory phase can therefore foster shared ownership, increase transparency, and improve coordination across governance levels, well before the first simulated event begins.

Another notable aspect of the GNU 2024 was the **deliberate inclusion of cantonal political leaders**.[80] Selected policymakers, such as members of a cantonal council, were invited to observe critical phases of the exercise, providing them with a tangible sense of what crisis response entails in practice. Many of these actors, though ultimately responsible for high-level decisions during real emergencies, are not routinely involved in day-to-day civil protection operations. For them, the GNU 2024 offered an opportunity to better understand the complexities of real-time decision-making, institutional interdependencies, and the serious consequences that can result from delayed or ambiguous communication.[81]

However, their role remained largely observational. Active engagement, such as decision-making under pressure or participation in strategic coordination processes, was not part of their involvement. Future iterations of the GNU could benefit from **involving strategic actors more directly and actively**. As the GNU generally pushes the scenario to the level of a national emergency that has a strategic impact, it would also offer the strategic level an opportunity to rehearse decisions, test coordination mechanisms, and experience their roles in a dynamic crisis environment. Nevertheless, this strategically more inclusive approach is already applied in formats such as the Strategic Leadership Exercises (SFU) in Switzerland. These exercises explicitly aim to assess federal crisis management structures by fostering cross-departmental collaboration and coordination at the federal level. Depending on the exercise topic and scenario, cantonal authorities and other relevant actors can be included. SFUs are specifically designed to stimulate strategic reflection at the political-strategic level in complex situations.[82] Connecting a GNU and an SFU, at least conceptually as an evolving scenario from one exercise to the other, has already taken place in the past.[83]

When **decision-makers** are **actively involved in exercises,** they gain practical insight into the challenges

of crisis governance while also reinforcing the political commitment needed for systemic improvement. Their participation increases the likelihood that identified lessons will be translated into specific reforms. This, in turn, supports the allocation of adequate resources, reinforces mandates, and integrates findings into broader institutional processes. In contrast, without political involvement, even well-founded exercise outcomes risk becoming siloed within technical communities. This limits their potential to inform and influence legal frameworks, policy decisions, or governance structures.

Furthermore, the GNU 2024 revealed that even exercises formally organized with an operational focus inherently expand to encompass strategic dimensions. The choice to either seize the opportunity to integrate these strategic insights or to disregard them directly impacts whether the full value of the exercise is realized or overlooked. For the GNU 2024 to have a lasting impact, its findings must inform lessons-learned processes, support revisions to legal and procedural frameworks, and shape future planning across cantonal and federal levels.

Policy Innovation

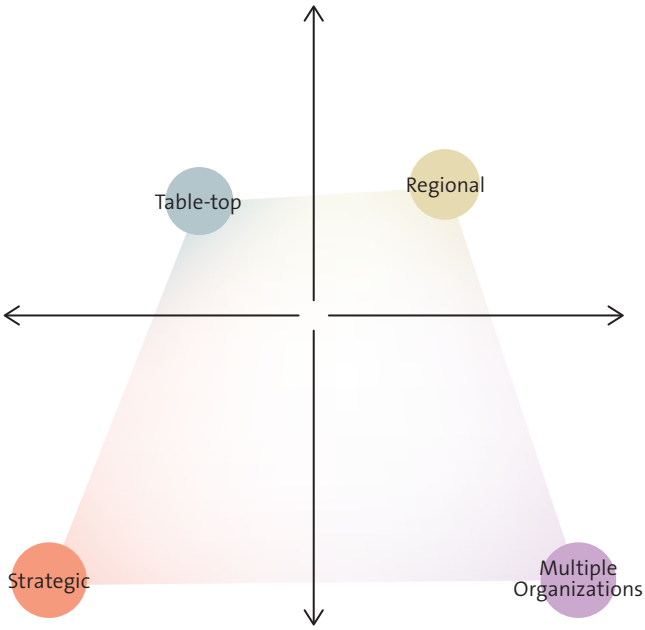
As part of the GNU 2024, significant efforts focused on testing and refining the updated foundational **emergency protection concept** for nuclear accidents in Switzerland. A particular emphasis was placed on **evacuation planning**, surfacing those aspects that need further refinement and should be revalidated at a later stage. The exercise quickly revealed the complexity of planning evacuations with numerous actors and governmental levels involved, exposing gaps in coordination and leadership that necessitate further collaborative planning **guided by the strategic level**.

For the first time, the matter of **precautionary evacuation** was examined in depth during the GNU 2024, including a workshop containing elements of a table-top exercise that formed the final part of the exercise. This setting enabled cantonal and federal actors to explore how a precautionary evacuation, as outlined in existing protocols, would be initiated in practice: The questions of who would assume leadership and how competing priorities should be managed emerged. The workshop also provided a platform for cantonal authorities to articulate their practical concerns and governance dilemmas, which had not been fully addressed in prior conceptual planning.

The GNU 2024 further showed how exercise experience can be **relevant to ongoing political debates** in Switzerland. A postulate on evacuation planning asks the Federal Council to examine how large-scale evacuations should be conceptualized, especially based on the experience of Russia's war against Ukraine.[84] As the topic is discussed at the highest national level, it shows how operational efforts are connected to strategic planning and decision-making. Exercises like the GNUs serve as testing grounds for precisely these types of unresolved policy questions. They can help policymakers understand what new frameworks or legal clarifications are needed by offering simulated environments in which current or new procedures can be tested.

Despite this clear potential, the GNU 2024 experience also highlights a familiar weakness in the **exercise-to-policy feedback loop**. Lessons from the GNU 2024 highlighted that evacuation planning often suffers from fragmented responsibilities, unclear mandates, and coordination gaps. These are challenges that cannot be resolved solely through operational adjustments. Addressing them requires political will, legal review, and institutional adaptability. If exercises are to contribute meaningfully to policy innovation, their findings must move beyond technical reports and become part of structured political processes. Only then will they serve as a common ground for discussions and bear the potential to strengthen the role of **exercises as a tool for anticipatory governance** and evidence-informed policymaking.

3.3 Regional Scale Exercise: Table-top "Drought"



"Strategic exercises like the table-top 'Drought' allow for trial-and-error exploration of new approaches, the testing of draft coordination structures, and the identification of implementation gaps before a real crisis unfolds."
Table-top "Drought": Where does the Swiss Civil Protection stand in dealing with long-term drought[85]

Background

Drought events stretch institutional roles in ways few hazards do. Unlike sudden-onset disasters, droughts evolve slowly, disrupting across sectors and blurring the boundaries between emergency response and long-term resource governance.[86] Recognizing these challenges, a table-top exercise titled "Drought" was conducted on 20 November 2024. This initiative was a collaborative effort between the Center for Security Studies (CSS) at ETH Zurich, the Swiss Federal Institute for Forest, Snow and Landscape Research (WSL) Extremes Research Program, and the FOCP. It brought together around 50 participants, including representatives from cantonal civil protection partner organizations, federal agencies, research institutions, humanitarian associations, and crisis organizations from the State of Bavaria in Germany. Representatives from the insurance industry participated as observers, as they were interested in the dynamics of drought events and their potential impact on the insurance industry.

The scenario simulated a severe multi-year drought affecting Switzerland. Participants were confronted with cascading impacts, including groundwater depletion, regional drinking water shortages, conflicts over competing water uses, reduced agricultural yields, increased wildfire risk, and strain on critical infrastructure (e.g., hydropower production). The simulation was structured into several rounds, progressing chronologically to reflect the intensifying and compounding nature of drought impacts over time.[87]

The exercise aimed to better understand how the Swiss civil protection system, which has traditionally focused on rapid-onset hazards, could adapt to managing slow-onset and long-duration crises that unfold gradually and affect the entire country. In particular, the exercise drew attention to the type and availability of resources required for drought management. These extend beyond operational capabilities, such as mobile water supply systems, firefighting units, and fuel stocks. It included governance and planning instruments, such as inter-cantonal water-use agreements, harmonized data platforms for water monitoring, and mechanisms for mediating competing demands between sectors.

The exercise encouraged participants to think beyond short-term emergency response and consider how civil protection could adapt to slower, prolonged crises like drought. This included rethinking how responsibilities, resources, and decisions are shared across cantonal and federal levels, as well as how to plan for climate-related risks that have wide-reaching impacts. In this sense, the exercise served as a laboratory for advancing integrated risk governance and stress-testing emerging policy frameworks under realistic, but controlled conditions.

Findings

Regional

Table-top "Drought"

Policy Innovation
- Simulated a national drought task force;
- Identified coordination and communication gaps;
- Promoted integrated risk governance for slow-onset, climate-related hazards.

Policy Innovation

The table-top exercise "Drought" served as a strategic rehearsal space for institutional learning and cross-sectoral coordination of a drought scenario. It also demonstrated that **impactful exercises do not always require major financial or logistical resources**. When the strategic objective is clearly defined and the institutional relevance is understood by participants, even a modestly resourced initiative can produce meaningful insights. In this case, the collaboration between three distinct institutions allowed for a well-targeted and carefully designed exercise that effectively explored critical strategic and governance questions surrounding drought preparedness.

A key element tested during the exercise was an **early emulation of Switzerland's National Drought Task Force** Formally established by a Federal Council decision in 2022, the FST is designed to steer federal- and strategic-level action during severe droughts. Its mandate includes aligning efforts across federal and cantonal actors, working with infrastructure operators and neighboring countries, supporting political crisis bodies with expert input, and ensuring a unified public sector response.[88]

However, as the FST has not yet been required and activated, its real-world functioning remains largely conceptual. The exercise provided a first opportunity to explore how such a body might operate in practice, particularly in managing decision processes, synthesizing information, and coordinating actions.

Participants confronted several strategic challenges, particularly regarding the distribution of responsibilities, authority, and technical expertise. While cantonal representatives were generally familiar with their mandates, the simulation revealed significant uncertainties. This included inter-cantonal coordination mechanisms, unclear delineation of resource responsibilities, and limited capacity for real-time information exchange. In several cases, operational responses were launched **without clearly defined prioritization** or joint evaluations of interdependencies. For example, one group focused on securing drinking water through tanker deliveries, while omitting early-stage water use restrictions or public outreach.

A recurring theme was the difficulty of **clear** and timely communication. The early stages of the simulation showed a lack of proactive public engagement, insufficient coordination across cantons, and uncertainty regarding who should lead external communication. Questions such as "How do we communicate with the population?" or "How do we reach consensus?" remained unresolved. The simulation underscored the importance of proactive communication and how building legitimacy around unpopular measures such as water rationing is necessary.

Additionally, **inter-cantonal cooperation** appeared to be underdeveloped during the exercise. Participants did not initiate dialogue across cantonal boundaries and were unaware of the broader drought situation in neighboring regions. This fragmentation is not unsurprising in a federal system. However, it is particularly critical given that droughts, unlike some other hazards, do not follow administrative borders and require early and coordinated responses based on shared information and trust.

More broadly, the exercise underlined the fundamental **distinction between emergency management and strategic crisis management**. While often used interchangeably, these functions differ in purpose and orientation. Civil protection organizations are typically geared toward immediate operational response. They deploy teams, manage logistics, and address immediate risks. Crisis management, on the other hand, requires navigating longer and broader horizons, institutional complexity, evolving societal expectations, and reputational risks. Emergencies may trigger crises, but crises can also arise from cascading or less visible factors such as misinformation, public distrust, or perceived inaction.[89] Failing to address these aspects during a drought event can lead to delayed decisions, fragmented responses, and reduced compliance among the population.

Finally, the exercise reinforced the notion that **drought requires a shift toward fully integrated and strategically aligned risk governance**. While Switzerland possesses strong technical capabilities, participants acknowledged that real-world experience with drought management is still limited. Effective drought governance will require sustained horizontal and vertical collaboration. A rethinking of planning responsibilities and closer alignment with national climate adaptation efforts is required. In this context, strategic exercises like the table-top exercise "Drought" become a relevant policy tool.

Figure 5: Strategic contributions of three civil protection exercises across three scales

International	National	Regional
Magnitude	**GNU**	**Table-top "Drought"**
Diplomatic Engagement • Signaled Swiss intent to deepen ties with UCPM; • Strengthened trust and visibility in European civil protection.	Governance Validation • Tested crisis coordination across federal, cantonal, and infrastructure levels; • Included strategic actors such as Swissgrid and political observers.	Policy Innovation • Simulated a national drought task force; • Identified coordination and communication gaps; • Promoted integrated risk governance for slow-onset, climate-related hazards.
Policy Innovation • Assessed EU Host Nation Support guidelines; • Advanced inclusive and cross-border disaster response policies.	Policy Innovation • Informed political debate on nuclear emergency management.	

4 Discussion

In a system that encompasses local, cantonal, national, and international levels, the weakest link significantly influences its overall strength.

This concluding chapter synthesizes the key findings of the report and highlights recurring themes and cross-sectional insights that emerged. The analysis of the three case studies, the exchanges with the experts, and the broader literature reveal recurring patterns that extend beyond individual exercises.

At the core of these findings is the recognition that civil protection exercises hold unrealized potential as strategic instruments of governance validation, diplomatic engagement, and policy innovation. However, to unlock this potential, several persistent limitations must be addressed. These include a weak feedback loop between exercises and institutional reform, an operational framing that overlooks the strategic value of civil protection, and the absence of a dedicated doctrine for designing and implementing exercises with strategic relevance.

Strengthening the feedback loop

Despite their diagnostic value, exercises often fail to generate lasting institutional change, and this limitation is not confined to civil protection alone.[90] Lessons are identified, but not embedded. This is especially true for the strategic level. Strategic gaps are acknowledged but not addressed through reform. While most exercises lead to post-incident reports or after-action reviews, these outputs rarely translate into actionable policy shifts. The findings remain largely siloed within the agencies that produced them and are often written without coordinated inter-agency input. Or agencies involved in the exercise do not follow up. As a result, exercises reinforce existing routines rather than challenge and develop them.

This observation is not unique to Switzerland. International experience indicates that, across the emergency management field, the gap between identifying lessons and institutionalizing them remains persistent.[91] Most lessons-learned processes, whether in the form of reviews, debriefings, or performance evaluations, succeed in identifying problems, but fall short when it comes to enabling learning and consequently pre-disaster adaptation. Core weaknesses such as overlapping mandates, coordination breakdowns, and communication failures occur across different exercises and real events, indicating that lessons are neither accessible nor sustained across the system.

The reasons for this are both structural and political. First, organizational change is notoriously difficult.[92] In the absence of clear mandates, follow-up mechanisms, or incentives for behavioral change, exercise insights remain isolated and short-lived. Second, political traction for exercise outcomes is often lacking. Unlike large disasters, exercises rarely generate public pressure or media scrutiny, which are two forces that often drive political action. For instance, it was only after the Fukushima disaster in 2011 that several countries introduced reforms to better prepare for low-probability, high-impact events.[93] Switzerland had already established a high level of preparedness before Fukushima, but the disaster nonetheless triggered an additional wave of measures. No matter how well designed, exercises thus far lack the capacity to demonstrate the urgency and visibility needed to mobilize decision-makers. As a result, investments in preparedness are often delayed until the next major disruption draws political attention.

For this reason, exercise planners should recognize early on that exercises, even when designed with an operational focus, can generate strategic impact and political attention. Future exercises should stand to benefit from the direct and active involvement of political decision-makers. Their inclusion, and where possible participation, is not only symbolic but also grounds exercises within broader governance frameworks. When decision-makers are engaged throughout the process, they gain firsthand insights into the complexities of crisis coordination, inter-agency conflicts, and systemic vulnerabilities. Additionally, their presence reinforces the political commitment necessary to translate identified lessons into meaningful reforms where needed. This involvement increases the likelihood that findings will lead to clear mandates, appropriate resource allocations, and necessary institutional adjustments.

Key Message 1:
Exercises often identify weaknesses, but without stronger follow-up and political traction, their lessons risk remaining on paper. Strengthening the feedback loop can turn diagnostic insights into real reforms and lasting improvements.

Even when lessons learned from exercises do make it onto the policy agenda, implementation may still fail due to fragmented responsibilities, misaligned incentives, or resource constraints. Different authorities interpret problems and desired outcomes differently depending on their mandates. In cases where federal and local policymakers see issues in the same way, federal ambition can exceed local capacity. This occurs when federal

agencies conduct extensive planning, but local resources are insufficient to meet federal requirements. It is an aspect that exercises can reveal before a disaster or crisis manifests.

Civil Protection as a strategic asset

This report approaches the value of exercises from the perspective of Switzerland, a country with a federal government system that strongly shapes how civil protection is organized and operated. While civil protection in Switzerland is largely operational, this does not mean it lacks strategic significance. Responsibilities for implementation rest largely with the cantons, while the federal level assumes an important coordinating role. Particularly in cross-cantonal and nation-wide collaboration, the coordination of research efforts, and the analysis of nationally relevant risks, the federal level sets national preparedness priorities and engages in international cooperation. These federal contributions are fundamental to the country's overall preparedness and readiness.

Key Message 2:
Exercises can show that civil protection, often perceived as the operational aspect of crisis management, also plays a crucial role in shaping national strategy and governance. Recognizing this dual role helps ensure that civil protection is valued not only for its response capacity but also for its strategic contribution.

Therefore, exercises offer a unique setting to reveal, test, and strengthen these dimensions. They allow the federal level to better understand where and how it can support cantonal systems, while also surfacing interdependencies and shared vulnerabilities across levels and sectors.

To fully realize this potential, civil protection must become more intentionally integrated into the broader strategic framework of Swiss security policy and crisis management. This requires political and strategic actors to be actively involved. These actors include representatives of parliamentary committees (e.g. security policy committees), heads of relevant federal offices, interdepartmental steering groups, critical infrastructure operators as well as academia. They need to be engaged not merely as observers, but as co-designers and active participants in exercises. When they recognize that even smaller civil protection exercises can serve as valuable tools for validating governance, enabling diplomatic engagement, and fostering policy innovation, exercises can become significant resources for informing policy discussions.

Furthermore, political and governance actors also play a crucial role in shaping the development of civil protection itself. They decide how, when, and with what objectives exercises should be conducted within the larger security policy agenda. Their involvement not only provides oversight but also offers opportunities to practice crisis leadership, which is an experience many do not regularly encounter in their everyday governance roles. In a system that encompasses municipal, national, and international levels, the weakest link significantly influences the overall strength. It is essential that the strategic level does not become that weak link in an otherwise integrated system.

Ultimately, the strength of Switzerland's civil protection system will depend not just on operational readiness, but also on the ability of its actors to see, support, and steer it as a national asset. Exercises are a starting point, but their value depends on whether this strategic mindset is considered and embodied.

Developing a strategic exercise doctrine in civil protection

This report provides a structured framework for understanding and classifying civil protection exercises according to type, scale, governance level, and goals. It introduces strategic vocabulary that facilitates planners, analysts, decision-makers, and lawmakers to move beyond the operational or tactical dimension when engaging with exercises. Yet, while it clarifies the strategic potential of exercises, it does not offer practical guidance for their design and implementation.

Several open design questions remain: How can exercises be used to simulate and stress-test high-level decision-making under uncertainty? What types of scenarios are best suited to reveal system-wide vulnerabilities or institutional blind spots?

Key Message 3:
To unlock their full potential, exercises need clearer guidance for testing strategic decision-making and governance under pressure. Developing a strategic exercise doctrine in the domain of civil protection can bridge practical implementation with long-term policy development, completing the feedback loop.

How can political actors be integrated into an exercise? And finally, how can performance at the strategic level be evaluated, especially when the outcomes are unexpected and policy-relevant?

Addressing these questions is not only important for closing the research gap identified in this report.

As the case studies have shown, the absence of structured formats for strategic engagement has practical implications. It limits the learning potential of exercises, reduces their relevance for governance development, and reinforces the view that civil protection is the domain of operational actors alone.

Currently, the Swiss Civil Protection Leadership Manual[94] focuses almost entirely on tactical and operational aspects of exercises. This reflects the traditional civil protection emphasis on technical competence and command structures. However, it leaves little room to address the growing need to test strategic decision-making, cross-sectoral coordination, and political leadership under crisis conditions, specifically within civil protection structures and at every level of government.

Future work should focus on filling this design gap. This includes updating national guidance materials, developing a practice-oriented playbook for scenario construction and stakeholder engagement, and organizing cross-institutional design workshops that bring together civil protection planners, policymakers, and external experts. These steps are necessary to ensure that civil protection in Switzerland is equipped to contribute to broader strategic objectives, ranging from national preparedness to international crisis cooperation.

If civil protection is to be taken seriously as a strategic asset, the exercise doctrine must evolve accordingly. A promising step in this direction is Switzerland's national Integrated Exercise planned for November 2025. This initiative merges the operational aspects of the Swiss Security Network Exercise with the strategic direction of the SFU. This integration was shaped by both deliberate planning and the evolving circumstances that rendered such a union increasingly necessary. It signals progress toward a more cohesive exercise doctrine that bridges tactical execution, operational skills, and strategic foresight. However, its true value will depend on what follows. Switzerland must be prepared not only to run such comprehensive exercises, but also to critically evaluate their outcomes and act on the lessons they generate.

5 Bibliography

1 European Union-Union Civil Protection Knowledge Network, "An interview with President Niinistö", 26.02.2025.

2 Der Bundesrat, «Fähigkeitsanalyse Bevölkerungsschutz», 26.06.2024.

3 Der Bundesrat, «Bund und Kantone führen 2025 eine Integrierte Übung durch», 22.12.2023.

4 Der Bundesrat, «Bundesrat beschliesst Eckwerte der Sicherheitspolitischen Strategie 2025», 20.12.2024.

5 Die Bundesversammlung der Schweizerischen Eidgenossenschaft, «*SR 520.1 Bundesgesetz über den Bevölkerungsschutz und den Zivilschutz*», fedlex.admin.ch, 01.01.2022; Bundesamt für Bevölkerungsschutz BABS, «Leitfaden KATAPLAN. Grundlage für kantonale Gefährungsanalysen und Massnahmenplanungen», 27.12.2023.

6 Bundeskanzlei, «Krisenmanagement».

7 Bundesamt für Bevölkerungsschutz BABS, «Die Schweiz ist vom 6. bis 9. Oktober 2026 erstmals Gastgeberin einer EU-MODEX-Übung», 9.07.2025.

8 Curnin, Steven et al., "Learning for Uncertain Futures: Training Teams to Rapidly Develop Scenarios during Organisational Crises", in: *Futures* 173 (2023).

9 Kamberaj, Jurgena et al., "Trend Analysis Civil Protection 2035: Uncertainties, Challenges and Opportunities", (Zürich: ETH-Center for Security Studies (CSS), 2024), p. 48; Bundesamt für Bevölkerungsschutz BABS, «Der Auftrag des Bevölkerungsschutzes», 19.02.2025.

10 See for example Bundesamt für Bevölkerungsschutz BABS, "Integrales Risikomanagement", 17.11.2023; ISO,"ISO 22361:2022 – Security and resilience – Crisis management – Guidelines", *ISO,* 2022; WHO, *Emergency cycle,* who.int, nd.; Cappola, Damon P., *Introduction to International Disaster Management* (Oxford/Cambridge: Butterworth-Heinemann, 2020); Federal Office for Civil Protection, "Hazards and Risks", 17.11.2023.

11 Katie Krushinski, "Exercises Play a Vital Role in Disaster Preparedness", in: *NOAA Office of Response & Restoration Blog,* 11.06.2020; Prior Tim / Roth Florian, "Learning from Disaster Events and Exercises in Civil Protection Organizations", (Zürich: ETH-Center for Security Studies (CSS), 2016), p. 25.

12 National Emergency Management Agency, "Exercises".

13 World Health Organization, "WHO Simulation Exercise Manual", 2017.

14 European Commission, "EU concludes crisis response exercise EU Integrated Resolve 2024", 25.10.2024; Perry Ronald W. / Lindell Michael K., "Preparedness for Emergency Response: Guidelines for the Emergency Planning Process", in *Disaster* 27:4 (2003), p. 336–350; Christine Eriksen et al., "An Evaluation of Switzerland becoming a Participating State of the European Union Civil Protection Mechanism", Center for Security Studies, ETH Zurich, 2021.

15 Australian Government – National Emergency Agency, "Crisis Appreciation and Strategic Planning (CASP) Guidebook", 2024.

16 United Nations Office for Disaster Risk Reduction, "Sendai Framework for Disaster Risk Reduction 2015–2030", 2015, p. 21–22.

17 Sauli Niinistö, "Safer Together – Strengthening Europe's Civilian and Military Preparedness and Readiness", (European Commission, 2024), p. 56, 69–70.

18 Bundeskanzlei, «Strategische Führungsübungen (SFU)»; Projektorganisation SVU 14, «Schlussbericht SVU 14», 2015; Übungsleitung SVU 19, «Sicherheitsverbundsübung 2019: Schlussbericht», 2020; Der Bundesrat, «Die Sicherheitspolitik der Schweiz», 24.11.2021, p. 32, 48.; Swiss Security Network SSN, "Crisis management and exercises", 11.12.2023; Swiss Security Network SSN, «Sicherheitsverbundsübung SVU», 02.04.2024.

19 Bundeskanzlei, «Übungen Krisenmanagement»; Der Bundesrat, «Bund und Kantone führen 2025 eine Integrierte Übung durch», 22.12.2023.

20 Die Bundesversammlung der Schweizerischen Eidgenossenschaft, SR 732.33, «Verordnung über den Notfallschutz in der Umgebung von Kernanlagen», fedlex.admin.ch, 01.01.2025; Swiss Federal Nuclear Safety Inspectorate ENSI, "Emergency exercises at nuclear facilities".

21 Federal Office for Civil Protection, "Hazards and Risks,", 17.11.2023.

22 Der Bundesrat, «Fähigkeitsanalyse Bevölkerungsschutz», 26.06.2024.

23 United Nations for Disaster Riak Reduction, "Design and Conduct of Simulation Exercises – Simex", 2020, p. 21.

24 World Health Organization, "WHO Simulation Exercise Manual", 2017.

25 European Union – Union Civil Protection Knowledge Network, "Civil Protection Exercises"; Fabi David, et al., "Regional Guidelines document on Civil Protection Planning", *Expertise France and the Italian Civil Protection Department. EU-funded PPRD South 3 Project,* 2021, p. 25.

26 US Department of Homeland Security, "Homeland Security Exercise and Evaluation Program", 2020.

27 Australian Institute for Disaster Resilience, "Managing Exercises", 2023.

28 Bundesamt für Bevölkerungsschutz BABS, «Handbuch Führung im Bevölkerungsschutz FiBS», 1.06.2022.

29 Australian Institute for Disaster Resilience, "Managing Exercises", 2023.

30 US Department of Homeland Security, "Homeland Security Exercise and Evaluation Program", 2020.

31 Australian Government – National Emergency Agency, "Crisis Appreciation and Strategic Planning (CASP) Guidebook", 2024.

32 Australian Government – National Emergency Agency, "Crisis Appreciation and Strategic Planning (CASP) Guidebook", 2024.

33 Joint Chiefs of Staff, "Doctrine for the Armed Forces of the United States", JP 1 (Washington, DC: Joint Chiefs of Staff, 2017), I–7; Andrew S. Harvey, "The Levels of War as Levels of Analysis", in: *Military Review,* 2021.

34 United Nations Office for the Coordination of Humanitarian Affairs, "International Search and Rescue Advisory Group (INSARAG)", 2022.

35 Federal Office for Civil Protection – National Emergency Operations Centre, "Hazmat Suisse".

36 Swiss Humanitarian Aid, "INSIEME 21 – Urban Search and Rescue (USAR) exercise in Switzerland, newsd.admin.ch", 2021; New South Wales Government, "AUS02 Urban Search and Rescue (USAR) Exercise".

37 Australian Government, National Emergency Agency, "Crisis Appreciation and Strategic Planning (CASP) Guidebook", 2024.

38 Gastaldi Silvana / Horlait Melissa, "Health Care Organizations' Interoperability during Multi-Organizational Disaster Management: A Scoping Review", *in: Prehospital and Disaster Medicine* 37:3 (2022), pp. 401–408; Angelos J. Amditis et al., "Interoperability and Standardisation supporting preparedness and response to disasters", in: Chiara Fonio / Adam Widera / Tomasz Zwęgliński (eds.), *Innovation in Crisis Management* (Routledge, 2023), pp. 291–303.

39 Beatrice Heuser, "Reflections on the Purposes, Benefits and Pitfalls of Military Exercises", in Beatrice Heuser / Tormod Heier / Guillaume Lasconjarias (Eds.), *Military Exercises: Political Messaging and Strategic Impact* (Rome: Nato Defense College, Research Division, 2018), p. 9–26; Ilay A. D. Ferrier, "NATO Strategic-Level Political-Military Crisis Management Exercising – History and Challenge", in Beatrice Heuser / Tormod Heier / Guillaume Lasconjarias (Eds.), *Military Exercises: Political Messaging and Strategic Impact* (Rome: Nato Defense College, Research Division, 2018), p. 141–162.

40 Bundesrat Martin Pfister, «Wir haben in der aktuellen Sicherheitslage keine Zeit für langes Schweigen», *Medienkonferenz in Bure JU,* 26.05.2025.

41 Curnow E., Wyatt M., "Using a Mass Vaccination Exercise to Increase Compliance with Annual Flu Vaccination While Preparing for an Influx of Potentially Infectious Patients", in: *American Journal of Infection Control,* 3–14, 2008.

42 Der Bundesrat, «Fähigkeitsanalyse Bevölkerungsschutz», 2024, pp. 21–27.

43 Deutsches Komitee Katastrophenvorsorge e.V., "International Civil Protection Exercise MODTTX6", 04.05.2023.

44 Gentinetta Katja, «Bericht der Studienkommission Sicherheitspolitik», in: *Studienkommission Sicherheitspolitik,* 2024, p. 52.

45 Wolfley J. Kyle "Military Statecraft and the Use of Multinational Exercises in World Politics", in: *Foreign Policy Analysis* 17:2 (2021), p. 35.

46 Der Bundesrat, «Zusatzbericht zum Sicherheitspolitischen Bericht 2021 über die Folgen des Krieges in der Ukraine», 07.09.2022, p. 25; Das Hans, "The evolving risk landscape and its implications for European civil protection and crisis management", Public Speech at *The International Conference of the Estonian Academy of Security Sciences,* 14.11.2023.

47 Der Bundesrat, «Strategie Bevölkerungsschutz und Zivilschutz 2015+», 09.05.2012.

48 Internal proceedings from the Bevölkerungsschutz Roundable at the PLANAT-Zukunftsforum 2025, 28.03.2025.

49 Kurt Münger, «Gesamtnotfallübung 2013 mit dem Kernkraftwerk Leibstadt: ‹Im Einsatz müssen auch die Details auf Anhieb klappen›», in: *Bevölkerungsschutz: Zeitschrift für Risikoanalyse und Prävention, Planung und Ausbildung, Führung und Einsatz,* 2014.; Observations at the GNU 2024 by the authors.

50 Prior Tim / Roth Florian, "Learning from Disaster Events and Exercises in Civil Protection Organizations", (Zürich: ETH-Center for Security Studies (CSS), 2016), p. 25.

51 Bundesministerium des Innern, «Strategie für einen modernen Bevölkerungsschutz in Deutschland», 27.01.2009, pp. 13–17.

52 Balthasar Aandreas, et al., «Evaluation der Krisenbewältigung Covid-19 bis Sommer 2021», *Im Auftrag des Bundesamts für Gesundheit,* 4.02.2022.

53 Republic of Latvia – State Fire and Rescue Service, "Civil protection exercises and public awareness", 19.03.2025.

54 European Commission, "Wildfires: EU doubles rescEU firefighting fleet for summer 2023" 30.05.2023; European Commission – European Civil Protection and Humanitarian Aid Operations, "rescEU".

55 European Commission, "Civil Protection – Performance".

56 Rum Muhammad "The Case of Regional Disaster Management Cooperation in ASEAN: A Constructivist Approach to Understanding How International Norms Travel", in: *Southeast Asian Studies* 5:3 (2016), pp. 491–514.

57 European Commission – European Civil Protection and Humanitarian Aid Operations, "Commissioner Lenarčič at EU-funded civil protection exercise in Germany", 25.10.2024.

58 European Union – Union Civil Protection Knowledge Network, "Magnitude".

59 European Union – Union Civil Protection Knowledge Network, "Magnitude: Germany Hosts Major EU Civil Protection Exercise", 31.10.2024.

60 Baden Württemberg, «Hauptübungstag der EU-Katastrophenschutzübung Magnitude», 25.10.2024,

61 European Union – Union Civil Protection Knowledge Network, "Magnitude: Germany Hosts Major EU Civil Protection Exercise", 31.10.2024; Baden Württemberg, «EU-Katastrophenschutzübung ‹Magnitude› im Land gestartet», 24.10.2024.

62 Bundesversammlung, «Motion Matter Michel. Für einen Beitritt der Schweiz zum EU-Katastrophenschutzverfahren».

63 European Commission, "CECIS – Common Emergency Communication and Information System"; European Union, "Copernicus: Emergency Management Service – Mapping".

64 Davidson Nicole, "The snake that saves lives", in: *ETH Zurich,* 04.11.2024.

65 Bundesamt für Bevölkerungsschutz BABS, «Beitritt der Schweiz zum EU-Katastrophenschutzverfahren (Union Civil Protection Mechanism UCPM)», 15.03.2025.

66 Kamberaj Jurgena / Aebi Simon, "Civil Protection Roadmap for Drought Resilience in Switzerland", (Zürich: ETH-Center for Security Studies (CSS), 2024), p. 56.

67 Bundesamt für Bevölkerungsschutz BABS, «Arbeitstreffen mit Deutschland: Das BABS stärkt die Zusammenarbeit mit dem deutschen Bundesamt für Bevölkerungsschutz und Katastrophenhilfe», 14.08.2025.

68 Gentinetta Katja, «Bericht der Studienkommission Sicherheitspolitik», in: *Studienkommission Sicherheitspolitik,* 2024, p. 11.

69 Baden Württemberg, "EU-Großübung Magnitude-1. Tag", 24.10.2024.

70 Tretting Center Retten & Helfen, "Magnitude 2024: Disasters rarely come alone", 16.10.2024.

71 European Union – Union Civil Protection Knowledge Networ, "Revised EU Host Nation Support Guidelines Adopted".

72 Technisches Hilfswerk Orstverband Emmendingen, «EU-Großübung ‹Magnitude› des Landes BW», 27.10.2024.

73 Swiss Seismological Service-ETH Zürich, "Overview".

74 Generalstabsschule (Gst S), «Generalstabsschule (Gst S)'s Post», 20.06.2025.

75 Swiss Federal Nuclear Safety Inspectorate ENSI, *Emergency exercises at nuclear facilities,* ensi.admin.ch, nd.; Eidgenössisches Nuklearsicherheitsinspektorat ENSI, «Notfallübungen: Richtlinien für die schweizerischen Kernanlagen ENSI-B11/d», 2020;Die Bundesversammlung der Schweizerischen Eidgenossenschaft, SR 732.33, «Verordnung über den Notfallschutz in der Umgebung von Kernanlagen», fedlex.admin.ch, 01.01.2025.

76 Gentinetta Katja, «Bericht der Studienkommission Sicherheitspolitik», in: *Studienkommission Sicherheitspolitik,* 2024, p. 52.

77 Wicki Dieter, «Gesamtnotfallübung 2019: wertvolle Übung im Verbund», in: *Revue Militaire Suisse,* 2020.; Observations at the table-top component of the GNU 2024 by the authors.

78 Bundesrat, «Gesamtnotfallübung 2024 mit dem Kernkraftwerk Gösgen», 31.10.2024.

79 Boin A., & McConnell A., "Preparing for Critical Infrastructure Breakdowns: The Limits of Crisis Management and the Need for Resilience", in: *Journal of Contingencies and Crisis Management* 15:1, (Wiley, 2007), pp. 50–59.

80 Observations at the GNU 2024 by the authors.

81 Mueller Nicolas / Wigger Bernhard, «Gesamtplanung grosser Übungen: Stand mit Ausblick», in: *ASMZ* 182:11, 2016.

82 Bundeskanzlei BK, «Übungen des Krisenmanagement».; Mueller Nicolas / Wigger Bernhard, «Gesamtplanung grosser Übungen: Stand mit Ausblick», in: *ASMZ* 182:11, 2016, Bundeskanzlei BK, «Bericht über die Strategische Führungsübung 2009 (SFU 09)», 2010, p. 6.; Bundeskanzlei BK, «Auswertungsbericht SFU 13 zuhanden des Bundesrates», nd, p. 7.; Bundeskanzlei BK, «Auswertungsbericht Strategische Führungsübung 2017 (SFU 17)», 2018, p. 2

83 Bundeskanzlei BK, «Auswertungsbericht Strategische Führungsübung 2017 (SFU 17)», 2018, p. 5.

84 Die Bundesversammlung – Das Schweizer Parlament, «Postulat 23.3740 Evakuationsszenarien müssen in massiv grösserem Massstab gedacht und geplant werden», 15.06.2023.

85 Björnsen Astrid, et al., «Table-top ‹Drought›: Wo steht der Schweizer Bevölkerungsschutz im Umgang mit langanhaltender Trockenheit», In: *WSL Berichte* 164 (2025) pp. 73–86.

86 Kamberaj Jurgena / Aebi Simon, "Civil Protection Roadmap for Drought Resilience in Switzerland", (Zürich: ETH-Center for Security Studies (CSS), 2024), p. 25.

87 Björnsen Astrid, et al., «Table-top ‹Drought›: Wo steht der Schweizer Bevölkerungsschutz im Umgang mit langanhaltender Trockenheit», In: *WSL Berichte* 164 (2025) pp. 73–86.

88 Bundeskanzlei, «Übersicht Krisenorgane Bundesverwaltung», 2025. NOT PUBLICLY AVAILABLE.

89 Jury Laura, "Emergency vs. Crisis Management: Different Purposes, Distinct Approaches", 06.04.2025.

90 Organisation for Economic Co-operation and Development OECD, "The Changing Face of Strategic Crisis Management", in: *Reviews of Risk Management Policies,* (OECD Publishing, 2015); Al Zaabi Saqar Obald Mohammed, "Organisational Learning and Dynamics of Institutional Change Following Large-Scale Emergencies: Oman's Emergency Management System as a Case Study", Doctoral Thesis, (Institute for Risk and Disaster Reduction, University College London, 2022).

91 Donahue K. Amy / Tuohy V. Robert, "Lessons We Don't Learn: A Study of the Lessons of Disasters, Why We Repeat Them, and How We Can Learn Them", *Homeland Security Affairs.* 2(4), 2006.

92 Prior Tim / Roth Florian, "Learning from Disaster Events and Exercises in Civil Protection Organizations", (Zürich: ETH-Center for Security Studies (CSS), 2016), p. 25.

93 McDermott-Murphy Caitlin, "How deadly lessons from Fukushima changed Japan and the world", *The Harvard Gazette,* 25.04.2023.

94 Bundesamt für Bevölkerungsschutz BABS, «Handbuch Führung im Bevölkerungsschutz FiBS», 1.06.2022.

CSS
ETH Zürich

The **Center for Security Studies (CSS) at ETH Zürich** is a center of competence for Swiss and international security policy. It offers security policy expertise in research, teaching and consulting. The CSS promotes understanding of security policy challenges as a contribution to a more peaceful world. Its work is independent, practice-relevant, and based on a sound academic footing.