Bundesministerium
der Verteidigung

Strategy on Defence and Climate Change

BUNDESWEHR

Contents

Preface

In terms of global average temperature, 2023 was the hottest year on record. Extreme heat, extreme storms, extreme rain – climate change is a global phenomenon with visible and tangible consequences. It represents the key challenge for humanity in the foreseeable future and profoundly changes our world.

The effects of climate change do not stop at our security and have a direct impact on the armed forces. Major geopolitical tensions and crises as well as wars in regions of strategic importance to Germany underline that the Bundeswehr, as the central instrument of our integrated security, must be warfighting-capable and resilient. Climate change demands that it also be adaptable and sustainable, in short: fit for the future.

We must be prepared for climate change and strategically anticipate its effects. Considering that the climate challenges for the Bundeswehr take many different shapes and forms, the responses must also be comprehensive.

The Strategy on Defence and Climate Change will provide guidance in addressing the complex threat of climate change and its associated dangers, risks and uncertainties: it identifies fields of action and outlines targets in order to adapt the Federal Ministry of Defence and the Bundeswehr to climate change and ensure operational readiness in the long run – even under increasingly extreme climatic conditions.

In this context, our Strategy places a strong focus on cooperation and partnerships – at the national and multilateral level, with other EU Member States, NATO Allies and international partners. Because one thing is certain: we can only tackle climate change by working together, and we must and will lead the way!

Boris Pistorius, Federal Minister of Defence

Summary

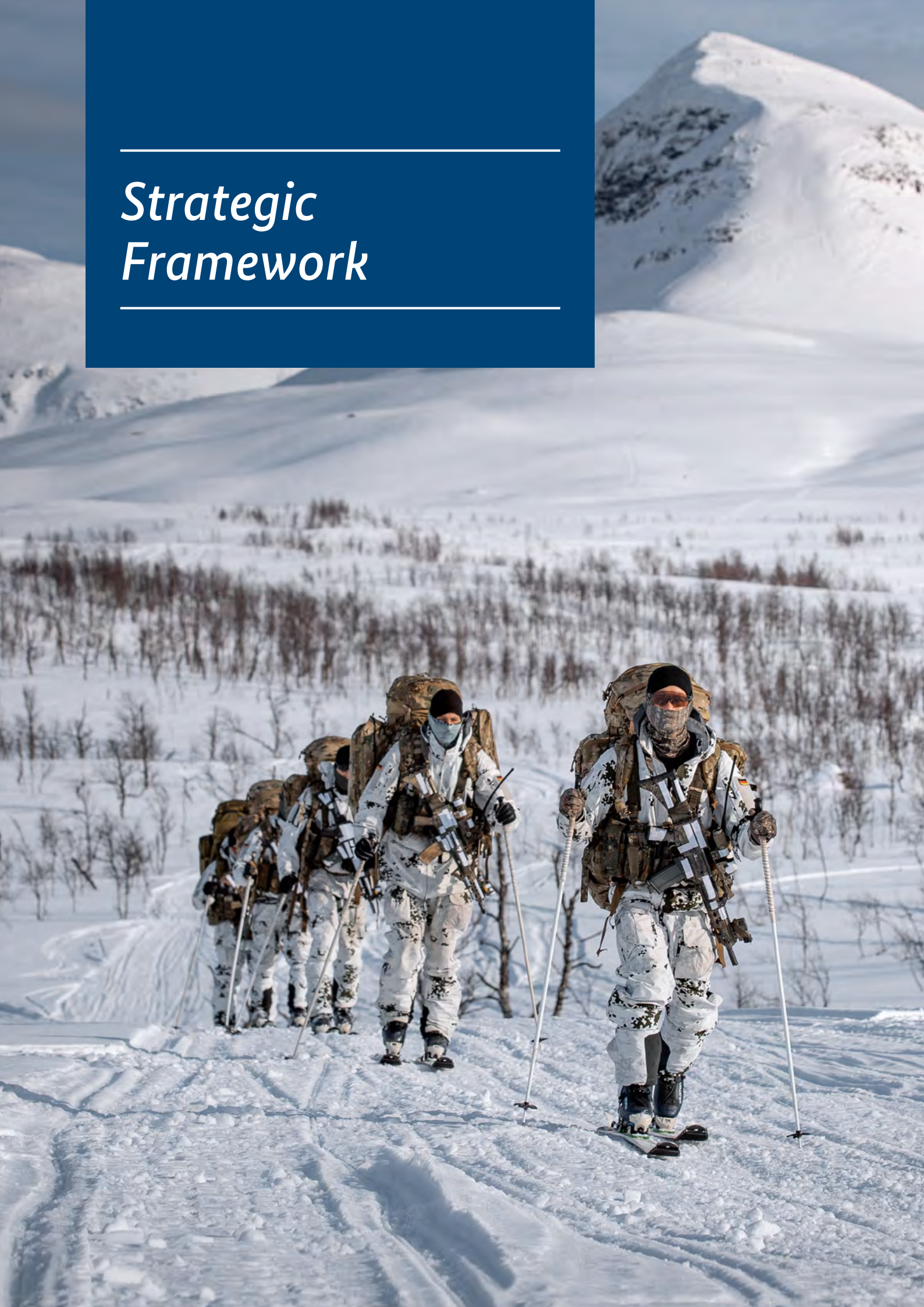
Climate change as a global challenge affects our security and defence policy and therefore directly impacts the Federal Ministry of Defence's area of responsibility including the German Federal Forces (Bundeswehr).

The Strategy on Defence and Climate Change aims to conceptually prepare the Federal Ministry of Defence and its area of responsibility for the impacts of climate change and to initiate appropriate measures which ensure full and continued operational readiness for future mission accomplishment. To this end, eight fields of action have been identified which contribute to achieving the aim of this Strategy:

field of action	Objective
Geoinformation, early warning and foresight	Recognise impacts of climate change early, evaluate and draw relevant conclusions
Technologies, research and development	Use and stimulate innovative technologies and research in order to adapt Bundeswehr capabilities
Defence planning and capability development	Ensure long-term usability of Bundeswehr capabilities even under the influence of climate change
Bundeswehr operations across the entire task spectrum	Integrate the impacts of climate change into the cycle of military planning and conduct of operations
Enabling civilian and military personnel	Incorporate challenges posed by climate change into basic and advanced training, qualification and exercises
Defence-relevant infrastructure	Ensure the functioning of defence-relevant infrastructure
Military assistance in Germany and abroad	Continuously refine procedures and processes for the provision of subsidiary assistance by the Bundeswehr
Cooperation and partnerships	Use synergies and potential for cooperation through collaboration with partners

In all fields of action, clear objectives have been defined. In a next step, these will be operationalised in internal action plans for further implementation. Accordingly, the Strategy on Defence and Climate Change lays the foundation for a future-oriented adaptation of the Federal Ministry of Defence and its area of responsibility to climate change.

Strategic Framework



The impacts of climate change – such as more frequent temperature extremes, melting ice sheets and thawing permafrost regions, the rising sea level, desertification and the increasing frequency and intensity of extreme weather events – are changing and possibly threatening the livelihoods of people all over the world. As a catalyst for risks and conflicts, climate change will potentially exacerbate existing conflicts and increase social unrest, instability and the resulting migration flows. It also has geopolitical implications such as the opening of new Arctic shipping lanes and trade routes, increasing competition for resources and the expected growing demand for rare earth elements as a result of the green transition. These implications of climate change are increasingly threatening to become a fertile ground for future conflicts and geopolitical tensions, and to lead to power shifts, new rivalry and security risks. Thus, they are relevant for security policy and must be taken into account in conflict analyses, assessments and management.

The implications of climate change are already affecting the entire spectrum of Bundeswehr tasks today. Both the core mission of the Bundeswehr – credible deterrence and effective defence of Germany and its allies – and its military contributions to the Federal Government's international crisis management require the Bundeswehr to be able to fulfil its mission even under increasingly extreme environmental and climatic conditions.

This places special demands on the Bundeswehr. Both military and civilian Bundeswehr personnel need to be prepared for climate change and its far-reaching implications and must be enabled to respond to them. Military equipment undergoing complex planning, procurement and in-service use cycles must be operational even under more extreme climatic conditions. Innovative technologies and future-oriented research play a crucial role in this context: Given the limited availability of resources like fossil fuels, both the mobility required on the battlefield and the supply of Bundeswehr facilities must be ensured through synthetic fuels or other alternative energy sources; logistic support concepts must be adapted accordingly. The increasing frequency of extreme weather events will foreseeably place higher demands on the resilience of defence-relevant infrastructure, whose operability is crucial for the Bundeswehr in fulfilling its core mission. In addition, natural disasters will lead to a greater need for subsidiary support provided by the Bundeswehr to civilian authorities at the national and international levels.

At the same time, the Bundeswehr must consistently and at all times contribute to the deterrence and defence capability of Germany, NATO and the EU. This underlines the strategic need for the Federal Ministry of Defence and its area of responsibility to address the implications of climate change in a comprehensive and future-oriented manner.

Cooperation with partners is crucial in dealing with the impacts of climate change. This Strategy therefore emphasises the importance of bilateral and multilateral cooperation. EU institutions and Member States are already collaborating closely on strengthening their joint engagement and better coordinating national efforts. The European Union's 2022 Strategic Compass concludes that climate change and the resulting environmental degradation and natural disasters are drivers of instability and conflicts around the world. Against this backdrop, it tasks the Member States with developing national strategies to prepare the armed forces for climate change by the end of 2023. The Federal Ministry of Defence is delivering on this target by issuing this Strategy. Other relevant EU policy documents are the "Climate Change and Defence Roadmap" (2020) and the Joint Communication "A new outlook on the climate and security nexus" (2023).

Based on the "Climate Change and Security Action Plan" of 2021 as well as the 2022 Strategic Concept, NATO is incorporating the impacts of climate change in large parts of its range of tasks

and is thus actively pursuing the adaptation of the Alliance. The United Nations (UN) and the Organisation for Security and Cooperation in Europe (OSCE) are also attaching greater importance to the impacts of climate change on peace, stability and security. UN peacekeeping missions are the primary framework for action in conflict regions most heavily affected by climate change. Therefore, the UN Security Council has stressed the implications of climate change for stability in these regions in several resolutions. This Strategy uses the documents referred to above as guidelines.

By issuing this Strategy on Defence and Climate Change, Germany is joining the group of states addressing the importance of climate change for security, defence and armed forces in a future-oriented manner. The increasing focus on this issue offers the potential to identify and seize synergies with European and international partners, thus strengthening both national and multinational efforts regarding the impacts of climate change on security and defence.

Provisions and Objectives

The role of the Bundeswehr as a guarantor of Germany's deterrence and defence capability is based on constitutional provisions as well as the objectives laid down in the Federal Government's National Security Strategy, in line with the security interests and strategic priorities defined therein. The Bundeswehr is the key instrument of German security and defence policy. It ensures the freedom and security of Germany and its allies.

By attributing equal significance to the dimensions of robustness, resilience and sustainability, the National Security Strategy takes the importance of climate change for security and the need for protection of our livelihoods into account through an integrated security perspective. It states that fighting the climate crisis and dealing with its implications is one of the fundamental and most pressing tasks of this century and underlines the need to develop adaptation strategies. This Strategy contributes to this objective.

Among the strategic policy documents released by the Federal Ministry of Defence, this Strategy ranks right below the Defence Policy Guidelines. It complements the "Sustainability and Climate Protection Strategy" of the Federal Ministry of Defence and its area of responsibility, which translates the existing national provisions of the Federal Government with respect to climate protection, emission reduction and sustainability into concrete measures.

The Bundeswehr's operational readiness as a key element of Germany's integrated security must be ensured at all times. The impacts of climate change will increasingly affect security challenges, related Bundeswehr tasks and missions as well as operational readiness across the entire spectrum of tasks and capabilities. Transformation processes in the context of climate change, like the energy transition, also need to consider specific military requirements.

This Strategy on Defence and Climate Change outlines fields of action and objectives for the Federal Ministry of Defence and its area of responsibility to ensure mission accomplishment of the Bundeswehr even under changing climatic conditions. It contributes to Germany's robustness, resilience and sustainability. At the same time, it implements the tasking of the EU Strategic Compass. Its overarching objective is therefore:

> **The Federal Ministry of Defence and its area of responsibility extensively address the impacts of climate change in order to continuously ensure the operational readiness of the Bundeswehr to fulfil its future tasks and missions.**

Fields of Action

This Strategy encompasses eight strategic fields of action based on the impacts of climate change on security and defence as well as on the entire spectrum of tasks and capabilities of the Federal Ministry of Defence and its area of responsibility.

Field of action 1 *Geoinformation, early warning and foresight*

Field of action 2 *Technologies, research and development*

Field of action 3 *Defence planning and capability development*

Field of action 4 *Bundeswehr operations across the entire task spectrum*

Field of action 5 *Enabling civilian and military personnel*

Field of action 6 *Defence-relevant infrastructure*

Field of action 7 *Military assistance in Germany and abroad*

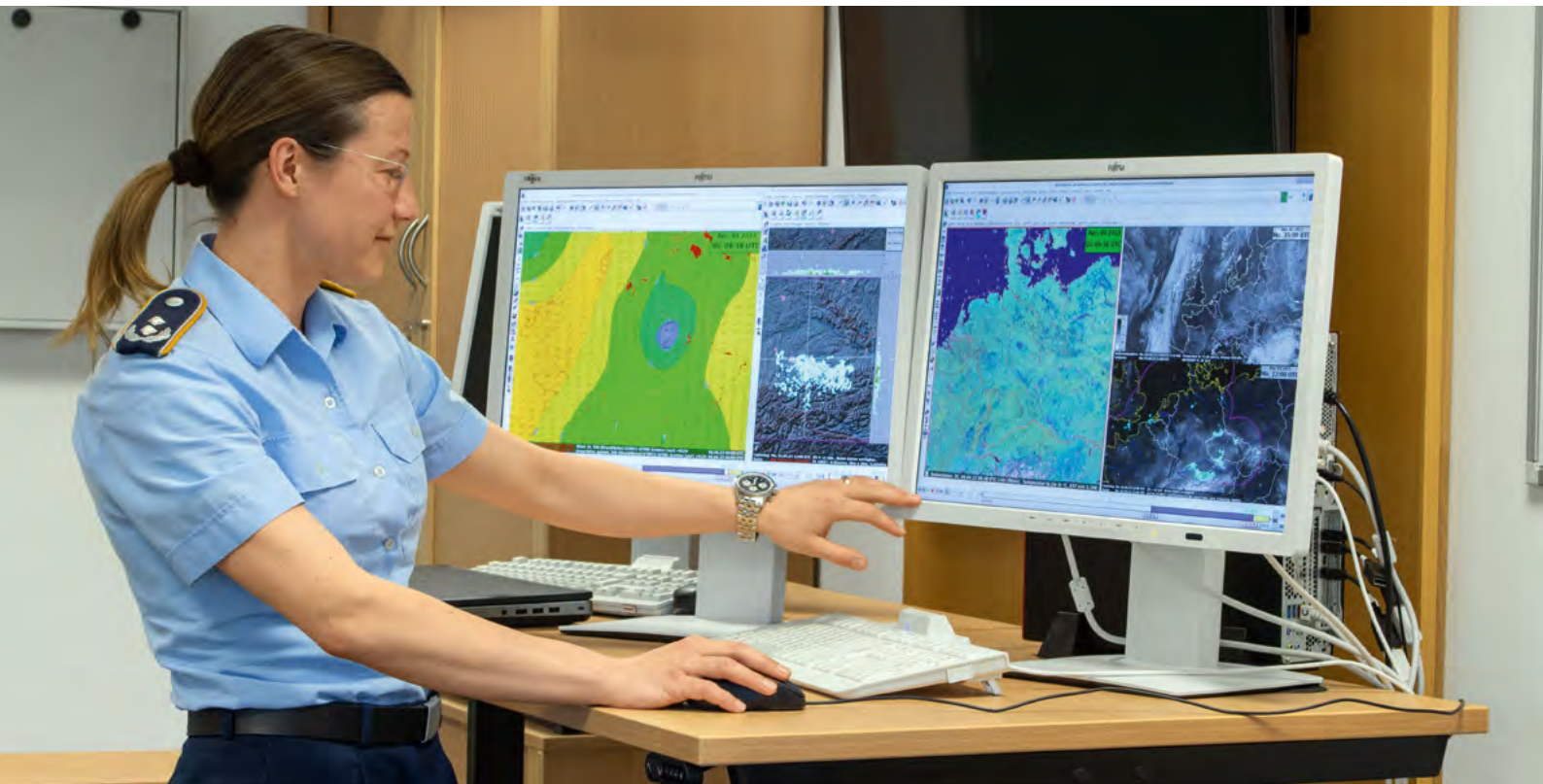
Field of action 8 *Cooperation and partnerships*

The order does not indicate any prioritisation, as all fields of action equally contribute to achieving the overarching objective of this Strategy. The fields of action identify areas of focus and define clear objectives. These objectives represent baselines for the future and, at the same time, the tasking for the implementation of the Strategy as outlined in chapter 6.

Field of action 1 – Geoinformation, early warning and foresight

Sound scientific data are required to recognise and assess the impacts of climate change on security and defence policy early on and to draw relevant conclusions for the spectrum of tasks and capabilities of the Federal Ministry of Defence and its area of responsibility. Findings on climate change are already being incorporated into the work of the Federal Ministry of Defence and its area of responsibility. The Bundeswehr Geoinformation Service provides authoritative advice on identifying and analysing the interaction between geofactors and German security and defence policy. An internal "Defence and Climate Change" information portal, which compiles all these findings and provides a graphic representation, will serve to inform all fields of action of this Strategy and support decision-making.

A future-oriented security and defence policy also requires the ability to identify short-term developments early and foresee long-term developments. The implications of climate change must be systematically analysed at the Federal Ministry of Defence using means of early warning, strategic foresight and future analysis. Such analyses should for instance identify possible new mission areas, any increase in conflict potential or specific implications for operational scenarios of the Bundeswehr. Analyses of the impacts of climate change on security and defence policy are already being conducted on a case-by-case basis. The aim is to raise overall awareness regarding concrete implications for the Federal Ministry of Defence's area of responsibility and to facilitate a future-oriented approach to its actions. Early warning and foresight should also incorporate the crisis-prevention options of security policy and consider the particular vulnerability of certain groups in conflict situations. Early warning and foresight measures by the Federal Ministry of Defence must therefore consolidate and expand their analysis of the impacts of climate change through new and innovative methods.



The Federal Ministry of Defence and the Federal Foreign Office have commissioned leading scientific institutes and the Federal Intelligence Service to investigate the implications of climate change for Germany's national security, thereby implementing a task outlined in the National Security Strategy. The findings of this analysis will feed into future-oriented actions at national level and also be incorporated into discussions at the European and international levels.

The following objectives must be achieved in this field of action:

⇨ The advisory capability of the Bundeswehr Geoinformation Service regarding the short- and long-term implications of climate change for all planning categories is strengthened.

⇨ The Bundeswehr Geoinformation Service's online service has been developed into a "Defence and Climate Change" information portal.

⇨ The continuous improvement of this information portal is ensured, including in exchange with other federal ministries. The use of the portal as a basis for information and decision-making for all fields of action of this Strategy is established in relevant processes.

⇨ The wide range of security and defence implications of climate change are considered as part of the early warning measures. This concerns the Munich Bundeswehr University's Centre for Intelligence and Security Studies as well as the further development of existing IT support for early warning.

⇨ Strategic foresight and future analysis measures also systematically address the issue.

⇨ Methods such as modelling and simulation, experiments and conflict simulation are used as part of the early warning and foresight measures, and project-specific cooperation opportunities with partners and institutions are exploited.

⇨ Cooperation with Bundeswehr Universities and the Command and Staff College as well as with think tanks has been expanded to seize specific expertise and synergies in a targeted and project-based manner.

⇨ The joint analysis with the Federal Foreign Office on the impacts of climate change on the national security of Germany is published and is used to inform relevant work strands.

⇨ Interministerial, European and international exchange is increasingly used to share findings, incorporate relevant information and compare assessments.

Field of action 2 – Technologies, research and development

Innovative technologies and forward-looking research play a crucial role in preparing the Federal Ministry of Defence and its area of responsibility for the impacts of climate change. A number of climate change-related challenges, including those relevant to the capabilities of armed forces, can only be resolved through technological progress. Technologies that ensure the operational readiness of armed forces against the backdrop of climate change and the energy transition can at the same time increase sustainability and reduce dependency on increasingly scarce resources.

To prepare the technological base for these planned capabilities, defence research and technology (R&T) builds on civilian research according to the add-on principle, analyses new technologies and evaluates their importance for the armed forces. Defence R&T thus responds to dynamic developments and acts as a driver of innovation, thereby ensuring that the Bundeswehr remains fit for the future. It is complemented by geoscientific departmental research as well as academic research at the two universities of the Bundeswehr.

A wide range of military topics are being considered, including those related to climate change. One focus is on the energy transition and the intended defossilisation. To ensure operational capability in the long term and to maintain and enhance military capabilities, alternative sources of energy must be identified and logistic support concepts developed. Another issue is the increasing scarcity of water in many regions of the world. Here, too, environmentally friendly and energy efficient technologies can help ensure the supply of the Bundeswehr, including in operations across the entire task spectrum, as well as the efficient use of water as a limited resource also by military systems. At the same time, this avoids unwanted competition with the local population and preserves resources, especially in countries affected by climate change.

As a rule, innovative and future-oriented technological solutions for the Bundeswehr must be identified, evaluated and quickly put into practice. This also applies to the adaptation to climatic changes. There is considerable potential for innovation both in a solid national defence R&T and in multinational research projects, specifically within the EU and NATO.

The following objectives must be achieved in this field of action:

⇨ The R&T process considers the implications of climate change for all relevant areas of future development, so that future technologies ensure the operational readiness of the armed forces even in the context of climate change and the energy transition.

⇨ The analytical and evaluative capabilities needed to reliably assess the potential of new technologies are consistently provided.

⇨ Targeted and applied testing of innovative technological solutions is used and insights regarding climate change-induced requirements for Bundeswehr capabilities, equipment and missions are generated.

⇨ The participation in state-of-the-art multinational research projects that analyse technological solutions relevant to Bundeswehr capabilities under the conditions of climate change has been systematically increased.

Field of action 3 – Defence planning and capability development

Well-trained personnel as well as suitable material and infrastructure are necessary to ensure the operational readiness of the Bundeswehr under all possible climatic and environmental conditions in the future. Integrated Defence Planning transposes political and strategic guidelines into specific capabilities of the Bundeswehr and provides the framework for all further steps. To this end, the impacts of climate change must continuously be evaluated and relevant conclusions for the spectrum of tasks and capabilities of the Bundeswehr must be drawn.

To ensure mission accomplishment in all future operational dimensions, life cycles and operational spectrum of capabilities must be weighed against the impacts of climate change over time. Conclusions must be factored into planning and procurement decisions. This requires a high degree of agility to reconcile long-term planning with a flexible approach to dynamic developments and new technological solutions. A concrete example for ongoing deliberations of this regard is the continuing demand for liquid fuels and the potential of synthetic fuels for military mobility.

The integration of the impacts of climate change in the planning process is based on strategic provisions laid down in the relevant policy documents as well as on findings from foresight analysis and future capability development. In this context, capabilities required for possible future conflicts and operations are analysed, specific implications, risks and opportunities for the armed forces are defined, and requirements and guiding principles for capability development are determined. Based upon this, the impacts of climate change must be considered in all relevant phases of the planning process. NATO's capability requirements, which constitute a constant and essential factor for the Integrated Planning Process,

as well as the EU's capability development priorities, also take the challenges of climate change into account. .

The following objectives must be achieved in this field of action:

⇨ The topic "impacts of climate change" is embedded in the key documents of the Integrated Planning Process and incorporated into the future-oriented capability development of the Bundeswehr.

⇨ Reference points within the planning process, where potential climate change impacts should be systematically considered, have been identified and defined.

⇨ The impacts of climate change on the Integrated Planning Process are incorporated into relevant training and qualification measures.

⇨ Insights into the use of military capabilities under any climatic conditions, which result from the evaluation of Bundeswehr operations and missions, are continuously incorporated into the planning process.

⇨ Bilateral and multilateral exchange on the integration of climate aspects in national and multinational defence planning and capability development is strengthened. Potential for action based on common norms and standards, which also provide the basis for interoperability under changing climate conditions, is identified and exploited.

Field of action 4 – Bundeswehr operations across the entire task spectrum

Climate change will have a profound impact on all Bundeswehr missions and operations – ranging from national and collective defence to international crisis management, standby commitments and recognised missions abroad. Climatic conditions directly influence the specific course of conflicts, place high demands on personnel, equipment, training, qualification, and exercises and may significantly hinder the conduct of missions and operations. All the fields of action encompassed in this Strategy contribute to the overarching objective of ensuring the operational readiness of the Bundeswehr across the entire spectrum of tasks.

Overall, it is necessary to continuously adapt the existing systematic consideration of geofactors to changing realities, anticipate the increasing impacts of climate change on regional conflicts, and draw relevant conclusions for mission and operation planning and conduct. As part of national and collective defence, it is crucial to ensure the resilience of logistics and supply chains in both Germany and on NATO territory. The "logistics hub" Germany must continue to function even under increasingly challenging climatic conditions and unexpected extreme weather events. During international crisis management

operations, it is imperative to reduce logistic dependencies and minimise the ecological footprint while simultaneously strengthening Operational Resilience. Synergies may be generated through international cooperation, for example within the UN. Troop Contributing Countries in UN peacekeeping operations are already required to implement comprehensive UN provisions such as limiting energy and water consumption and making use of renewable energies. As part of the "Group of Friends for leading on environmental management in the field" and the UN Peacekeeping reform ("Action for Peacekeeping"), Germany supports the adaptation to the impacts of climate change and the strengthening of the operational readiness of UN Peace Operations and Troop Contributing Countries.

Extreme climatic conditions may place a high physical and psychological strain on deployed personnel, increasing health risks during deployment. For instance, this could be due to increasing regional prevalence of infectious diseases and their vectors, respectively. Therefore, risk evaluation and the resulting prevention strategies play a crucial role in the planning and conduct of operations to maintain the operational readiness of personnel.

The following objectives must be achieved in this field of action:

⇨ The impacts of climate change on geofactors, conflict-related events and mission accomplishment are considered throughout the cycle of military preparation, planning, execution, follow-up and evaluation of Bundeswehr operations.

⇨ The impacts of climate change on German territory and on possible theatres of operations are included in the detailed planning of Germany's role as a "logistics hub".

⇨ Extreme climatic conditions as well as potential measures to reduce the ecological footprint are taken into account in the detailed planning of logistic supply and support concepts and of operational infrastructure as part of international crisis management.

⇨ The potential follow-on use of operational infrastructure by the host nation or other troop contributing nations is considered from the very start of planning and implementation.

⇨ Cooperation with industry, business and other nations' armed forces is ensured to make use of synergies and innovative solutions.

⇨ UN regulations, including the "Environmental Policy for Peacekeeping Operations and Field-Based Special Political Missions", the "Environment Strategy for Peace Operations 2030" as well as the "Environmental Management Handbook for Military Commanders in UN Peace Operations" are implemented in the planning and conduct of Germany's participation in UN missions.

⇨ The deployment of specialist personnel for climate and environmental advice in missions and operations of the EU's Common Security and Defence Policy, in line with the Strategic Compass, as well as to UN Peace Operations, has been explored. .

Field of action 5 – Enabling civilian and military personnel

The impacts of climate change are already taken into account in the curriculum of basic and advanced training[1], in the qualification of civilian and military personnel, and during exercises. Such measures must continue to be reviewed regularly and adapted to the growing challenges. Their spectrum ranges from military training and exercises under varying environmental and climatic conditions to enabling civilian and military leaders to take the impacts of climate change into account when making strategic decisions. At the tactical level, the armed forces must continue to be able to accomplish their mission even under increasingly extreme climatic conditions. At the strategic and operational levels, military and civilian leaders must be enabled to consider climate change in their operational planning and conduct as well as in capability development, and know how to adapt to changing conflicts. This requires a targeted and level-appropriate training and qualification of military and civilian personnel through specific training and qualification measures as well as military and civil-military exercises.

National, EU and NATO strategies and legislation aiming to contain climate change and adapt to its impacts also lead to increasing demands. Therefore, it is necessary to raise awareness and to sensitise personnel at all levels in a targeted and appropriate manner for the implications of climate change for security, defence and the area of responsibility of the Federal Ministry of Defence.

1 In the following, this is subsumed under the term “training”.

The following objectives must be achieved in this field of action:

⇨ The impacts of climate change on security and defence are incorporated into existing and - where necessary - new training and qualification measures and exercises. The curricula of the Bundeswehr education and training facilities encompass these impacts, tailored to target groups and according to the requirements of the Bundeswehr.

⇨ Predeployment training covers the impacts of climate change on mandate implementation as well as deployed personnel and materiel. Appropriate attention is given to the importance of adapted risk reduction and prevention measures.

⇨ Personnel with expertise regarding the impacts of climate change on security and defence is further qualified.

⇨ Concrete implications of climate change for different operational scenarios are integrated into military and civil-military exercises. Cooperation with partners or as part of multinational formats will be sought, if possible.

⇨ Innovative methods – such as technology-based training, modelling and simulation, operations research or conflict simulation – are continuously evaluated. They are made available to ensure the implementation of training and qualification measures and exercises at all times. These methods are used to consider potential implications of climate change for operational readiness and/or mission accomplishment.

⇨ Multinational training opportunities, for instance with the EU, NATO or the UN, are used to raise awareness and train national personnel. The Federal Ministry of Defence and its area of responsibility will, in cooperation with partners and national training facilities, provide expertise in the form of a regular training program.

⇨ Existing awareness measures – focusing on sustainability, climate protection and the impacts of climate change – are consistently continued.

Field of action 6 – Defence-relevant infrastructure

To fulfil the missions of the Bundeswehr, defence-relevant infrastructure[2] must be available and ready-to-use at all times. However, the effects of climate change may result in damage to defence-relevant infrastructure - such as harbour facilities, mobility corridors, energy grids or telecommunications infrastructure - which could profoundly compromise the Bundeswehr's ability to accomplish its mission. The resilience of defence-relevant infrastructure and its proper functioning must be ensured even in case of more frequent extreme weather situations. A distinction must be made in this context between military infrastructure and civilian infrastructure of military relevance.

The concrete determination of defence-relevant infrastructure in Germany is a necessary and ongoing process that must always keep abreast of the changing situation and requirements and therefore goes beyond the scope of this Strategy. In order to assess the vulnerability of this infrastructure to the impacts of climate change in Germany and to infer the necessary measures for adaptation, a comprehensive risk analysis as well as protection targets and their operationalisation are necessary.

Requirements for military infrastructure in terms of resilience, self-reliance and energy supply must be reviewed and adapted. The entire spectrum of possible solutions for increasing the resilience of military infrastructure must be considered wherever feasible, useful and sustainable. One example in this context is the use of renewable energies, which partly reduces dependency on external suppliers and fossil energy sources, thus increasing resilience and contributing to climate protection.

Civilian infrastructure of military relevance must be reliable as well. This requires a regular exchange across federal ministries and sectors as well as established processes of civil-military cooperation with the competent civilian agencies. The reliable supply of energy, goods, equipment and services is crucial for the Bundeswehr and for mission accomplishment and therefore must be ensured. Possible implications of climate change must therefore be taken into account with a view to preserving the necessary supply infrastructure.

2 Defence-relevant infrastructure comprises military infrastructure and civilian infrastructure that has military relevance for deployments and other tasks of the Bundeswehr as part of national and collective defence, standing operational tasks, permanent civil-military cooperation and disaster relief. Military infrastructure in this context includes facilities and organisations of the Federal Ministry of Defence and the Bundeswehr as well as of NATO, the EU and allied armed forces. Civilian infrastructure in this context stands for civilian infrastructure of military interest, civilian information and communications infrastructure, infrastructure necessary to maintain the functioning of state and government, as well as critical infrastructure.

The following objectives must be achieved in this field of action:

⇨ Possible impacts of climate change are considered in the determination and evaluation of defence-relevant infrastructure in Germany.

⇨ The vulnerability of defence-relevant infrastructure to the impacts of climate change has been assessed in a systematic risk analysis.

⇨ Any need for action regarding military infrastructure concluded from this analysis is introduced as a request into the existing infrastructure procedures and the conditions needed for implementation are created. This action should be taken in line with the "Sustainability and Climate Protection Strategy" of the Federal Ministry of Defence and its area of responsibility.

⇨ An internal alert management process to protect defence-relevant military infrastructure against extreme weather events is established and in use.

⇨ The use of training, exercise and operations infrastructures necessary to ensure operational readiness and deterrence is guaranteed even under changing climatic conditions.

⇨ Military infrastructure is resilient against the impacts of climate change.

⇨ Exchange and cooperation formats to protect military infrastructure are established at the national and international levels. Links between these formats are identified and used, also to avoid duplication.

⇨ Collaboration with scientific institutions is systematically used to identify appropriate innovative solutions for military infrastructure, taking into account specific requirements.

⇨ Possible implications of climate change for the Bundeswehr's supply with energy, goods, equipment and services are identified.

Field of action 7 – Military assistance in Germany and abroad

The increasing occurrence of natural disasters and extreme weather events caused by climate change will lead to a rise in the frequency and intensity of humanitarian crises both at home and abroad and therefore to an increasing demand for emergency support and disaster relief. Against this backdrop, an increase of requests for Bundeswehr assistance can be expected, despite the fact that the competent civilian authorities must generally be able to ensure civil protection and disaster relief without support by the armed forces. The responsibility for this lies with civilian structures at all levels of administration as well as civilian relief organisations, which have the necessary capacities in place.

The Bundeswehr can use resources and capabilities that are available at the given time to provide support as part of administrative assistance in the event of natural disasters or particularly grave incidents in Germany and abroad. In the context of climate change, a continuous monitoring of the foreseeable increase in the demand for military assistance is necessary to allow for a timely response. Reliable civil-military cooperation structures established before the onset of a crisis or disaster are essential. These structures can contribute to a better management of the impacts of natural disasters and extreme weather events. The established and proven structures and procedures of the Territorial Network of the Bundeswehr in cooperation with civilian authorities must therefore continuously be trained and further developed. The procedures to provide bilateral or international support or to request such support must also be considered.

The following objectives must be achieved in this field of action:

⇨ Internal procedures in the event of natural disasters or extreme weather events and the possible assistance provided by the Bundeswehr have been reviewed and improved to speed up the provision of necessary assistance with available resources.

⇨ The existing structures and procedures of the Territorial Network of the Bundeswehr in cooperation with civilian authorities have been practiced, reviewed and are continuously adapted to the dynamic developments.

⇨ The exchange with the competent federal ministries and other authorities at all levels of administration is intensified to ensure close cooperation and a continued flow of information.

⇨ International civil-military cooperation has been increased, e.g. with the UN Office for the Coordination of Humanitarian Affairs (UN OCHA), the UN Country Teams (UNCT), NATO's Euro-Atlantic Disaster Response Coordination Centre, and the EU's Emergency Response Coordination Centre.

Field of action 8 – Cooperation and partnerships

As shown in the previous fields of action, there are various possible ways of tackling the security and defence challenges posed by climate change together with partners. Existing channels and dialogue formats at the national, bi- and multilateral level should therefore increasingly be used to identify and exploit cooperation potential and synergies. As multilateral organisations such as the EU, NATO, the OSCE and the UN are increasingly paying attention to the security and defence implications of climate change, and with the commitment of EU Member States in the Strategic Compass, there is a particular momentum for greater engagement.

The Federal Ministry of Defence and its area of responsibility must therefore actively contribute to dealing with the security and defence implications of climate change. At the national level, this means deepening and expanding the exchanges with the other ministries of the Federal Government, national research facilities and think tanks. At the European and international level, bilateral partnerships as well as multilateral exchange and cooperation within the EU, NATO, the OSCE and the UN play a crucial role across all fields of action of this Strategy.

The following objectives must be achieved in this field of action:

⇨ Interdepartmental exchange has been deepened and consolidated.

⇨ Exchange and cooperation with think tanks, research institutes, non-governmental organisations and other stakeholders has been expanded.

⇨ Bilateral and multilateral exchange and cooperation formats as well as projects are used to highlight the importance of the issue, identify potential for cooperation and implement joint initiatives.

⇨ Different Bundeswehr elements abroad are mandated to collect and exchange relevant information and to identify potential for cooperation.

⇨ The Federal Ministry of Defence advocates within the EU, NATO, the OSCE and the UN to increase efforts to address the impacts of climate change and to raise awareness for the challenges of climate change for security and defence.

⇨ The Federal Ministry of Defence actively participates in the “Climate and Defence Network” of the EU Member States and EU institutions as a central forum of exchange on defence-re-

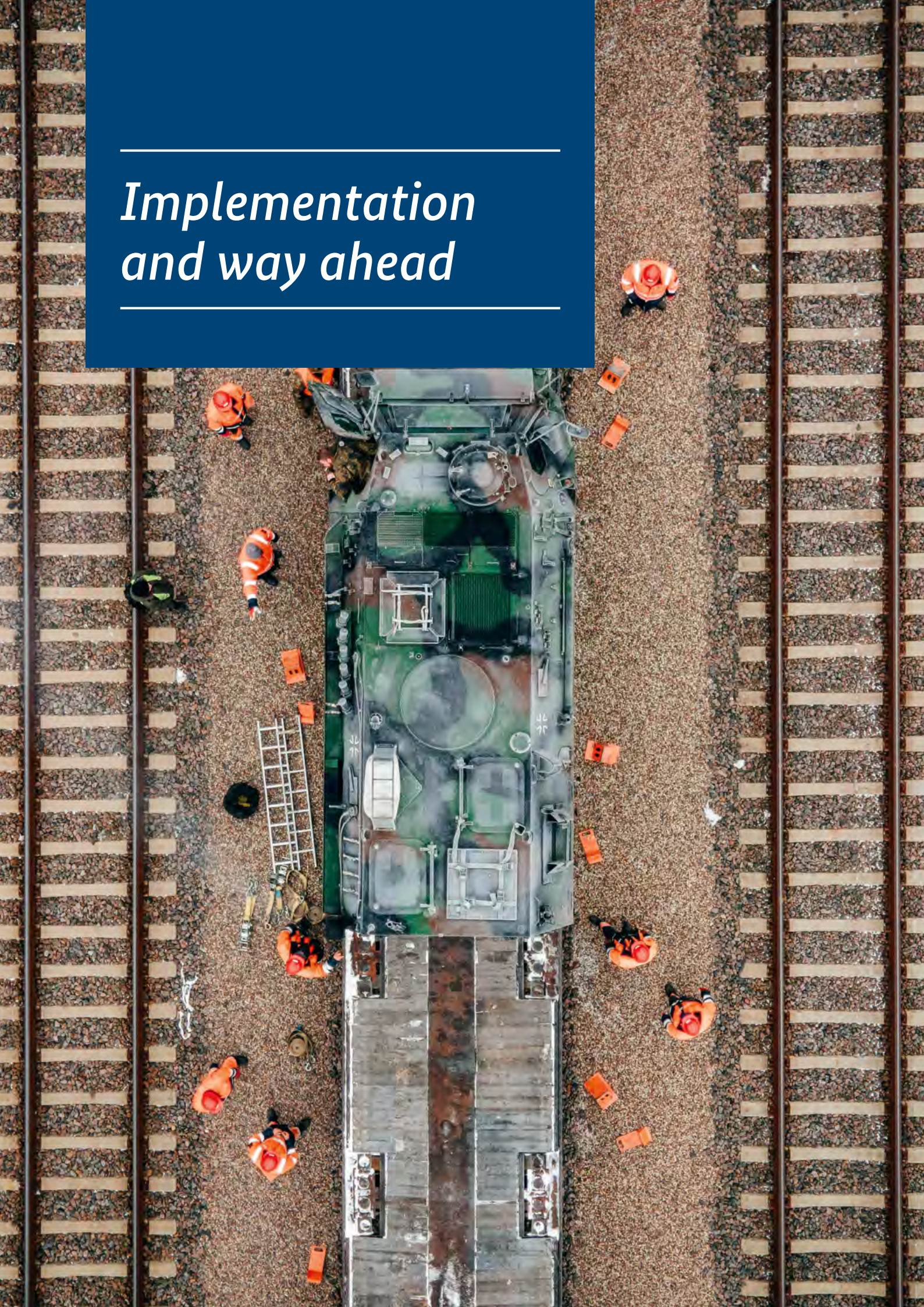
lated aspects of climate change and is committed to increasing joint engagement. This also includes a deeper integration of the issue into existing defence initiatives.

⇨ Opportunities for cooperation with the NATO Climate Change and Security Centre of Excellence in Canada and the NATO Energy Security Centre of Excellence in Lithuania, both of which are supported with personnel from the Federal Ministry of Defence, will be used.

⇨ Within the OSCE, the Federal Ministry of Defence strengthens its advocacy for dealing with the impacts of climate change on politico-military aspects of security in the OSCE area and also introduces and supports initiatives.

⇨ The Federal Ministry of Defence promotes the issue within the UN. This includes enabling the UN Secretariat and peace operations as well as providing support to troop contributors. The peacekeeping ministerial process is supported with contributions towards enhancing Operational Resilience.

Implementation and way ahead



The Strategy on Defence and Climate Change sets the course for preparing the Federal Ministry of Defence and its area of responsibility for the challenges of climate change in a comprehensive and future-oriented manner. It thereby contributes to ensuring the continued and unrestricted operational readiness of the Bundeswehr to fulfil its tasks and missions.

The eight fields of action of this Strategy define clear objectives. After the Strategy has been published, these objectives will be operationalised in internal action plans for the different fields of action and then translated into concrete measures and responsibilities with fixed timelines. These action plans will be drawn up by the responsible Directorates-General of the Federal Ministry of Defence by the end of 2024. Their implementation will be internally monitored on a continuous basis.

In addition, a "Defence and Climate Change" conference of the Federal Ministry of Defence and its area of responsibility will be held at regular intervals. This conference will provide updates on the state of measures implemented as part of the Strategy on Defence and Climate Change. It will also serve as a platform for exchange with selected national and international partners, research facilities, think tanks and industry representatives to discuss the dynamic developments regarding the security and defence implications of climate change, to assess the implemented measures and to identify new potential for action.

This Strategy will be updated as needed in order to keep up with the dynamic developments of climate change.

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