



The Secretary General's
Annual Report

2020

The Secretary General's
Annual Report

2020

TABLE OF CONTENTS

Foreword	5
For All Who Serve	8
NATO 2030	10
Deterrence, Defence and Dialogue	13
Deploying Forces, Enhancing Readiness, Accelerating Responsiveness.....	15
NATO's Maritime Posture: Security At Sea	18
Deterrence and Defence in the Air: NATO's Integrated Air and Missile Defence	19
Deterrence and Defence in Cyberspace.....	23
Relations with Russia	25
Resilience: the First Line of Allied Deterrence and Defence.....	26
Non-Conventional Threats	27
Transparency and Risk Reduction	28
Conventional Arms Control in Europe	28
Countering Weapons of Mass Destruction: Chemical, Biological, Radiological and Nuclear Threats.....	29
Small Arms, Light Weapons, Mine Action	30
Safe, Secure and Effective Deterrent.....	31
Fighting the COVID-19 Pandemic	33
On the Front Lines: Coordination and Assistance	35
Adapting the Alliance to Deliver	38
Engaging with NATO Citizens	39
Listening to Citizens: Continued Support for the Alliance in 2020	40
NATO's Communications: 2020 Highlights	44
Investing in Defence	47
Fit for Purpose	53
Investing in Cutting-Edge Capabilities	55
Aviation Capabilities	58
Intelligence, Surveillance and Reconnaissance Capabilities.....	59
Land Capabilities.....	61
Maritime Capabilities	62
Investing in Innovation and Data	63
Accelerating the Adoption of Emerging and Disruptive Technologies.....	63
Working with Industry.....	66
Energy Security	67
The Bigger Picture: Enhancing Intelligence Coordination.....	68
Exercises: Ensuring the Alliance is Ready	69
Key NATO and Allied Multinational Exercises in 2020	71

Projecting Stability	75
Fighting Terrorism	76
NATO in Afghanistan.....	76
NATO in Iraq.....	78
Enhancing Allied Capabilities to Fight Terrorism	79
Projecting Stability at Sea	81
NATO in Kosovo	83
Human Security.....	84
Partnerships: Shared Security through Cooperation and Dialogue.....	85
NATO's Open Door	86
NATO Partnerships at a Glance: Bilateral and Regional Partnerships	87
NATO Partnerships at a Glance: International Organisations.....	90
NATO Partnerships at a Glance: NATO's Activities and Programmes.....	92
Promoting Interoperability, Setting Common Goals.....	92
Assisting Partners in Developing Capacity	92
Support to Ukraine	95
Investing in Training, Education and Interoperability	96
Strengthening Good Governance and Integrity in the Defence and Related Security Sector:	
NATO Building Integrity.....	97
Advancing Science for Peace and Security.....	98
Trust Funds.....	99
Promoting Equality	101
Organisation	109
The Headquarters in 2020	110
North Atlantic Council.....	112
International Staff.....	113
NATO Military Authorities	115
Agencies and Organisations	118
NATO Funding	122
Improving Transparency	124
Annexes	125



FOREWORD



The NATO Headquarters. Brussels, Belgium, May 2020.

NATO 2030: Future-proofing the Alliance

In 2020, the Alliance – like the rest of the world – was impacted by the COVID-19 pandemic. Not only did the virus threaten our societies and economies, it also magnified existing security trends and tensions. But it did not prevent NATO from doing its job: our ability to defend the Euro-Atlantic area remains undiminished, and throughout the year, the Alliance worked to help save lives and keep our people safe.

Across NATO, almost half a million troops supported the civilian response to the pandemic. We delivered much-needed medical equipment and supplies, transported patients and medical personnel, secured borders and built field hospitals to treat many thousands of patients. We established a pandemic response plan, a stockpile of medical supplies and a trust fund for the purchase of urgently needed items. Ventilators and other equipment from the stockpile have been delivered to Allies and partners.

Throughout the year, potential adversaries have been seeking to exploit the crisis to destabilise our societies and undermine our democracies. Based on polls commissioned by NATO in 2020, half the population of Allied countries thought security threats to their nation had increased due to the pandemic.

Against this background, NATO's priority has been to make sure the health crisis did not become a security crisis. We continued to deter aggression, to defend our Allies, and to project stability beyond Alliance borders, keeping our forces safe, vigilant and ready. We sustained our missions and deployments – from the battlegroups in the east of the Alliance, to Kosovo, Afghanistan and Iraq. And we continued to cooperate with a network of partner countries and international organisations to tackle common security challenges.

At the same time, we are working to prepare the Alliance for the future. We launched the NATO 2030 initiative, aimed at making our strong Alliance even stronger in an unpredictable world.

One thing is certain: we can only keep our nations safe if North America and Europe work together,

in strategic solidarity. The level of support for the transatlantic bond remains high, with 79 per cent of citizens believing that the collaboration between North America and Europe on safety and security matters is important. A strong transatlantic bond is the cornerstone of our security and the only way to tackle great challenges, including Russia's aggressive actions, international terrorism, more complex cyber attacks, the rise of China, disruptive technologies and the security implications of climate change. These challenges are too big for any country or continent to tackle alone. Not Europe alone, and not North America alone – but Europe and North America together.

That is why at the NATO Summit later this year, we will set an ambitious and forward-looking transatlantic agenda to future-proof our Alliance.

First, we must reinforce the unity between Europe and North America, which derives from our promise to defend each other. Therefore, we must strengthen our commitment to our collective defence and fund more of deterrence and defence on NATO territory together. We must also strengthen our political unity, by committing to consult on all issues that affect our security, using NATO as the unique platform that brings Europe and North America together every day.

To chart a common course going forward and reaffirm the fundamentals of our Alliance, we should also agree to update NATO's Strategic Concept.

Second, we must broaden our approach to security. To keep our people safe, we need not only strong militaries, but also strong societies. So we need a more integrated approach to resilience, with concrete targets on issues such as critical infrastructure and communications, including 5G and undersea cables. We also need to maintain our technological edge, to remain competitive in a more competitive world.

Lastly, we must protect the international rules-based order, which is being challenged by authoritarian powers. The rise of China is a defining issue, with potential consequences for our security, prosperity

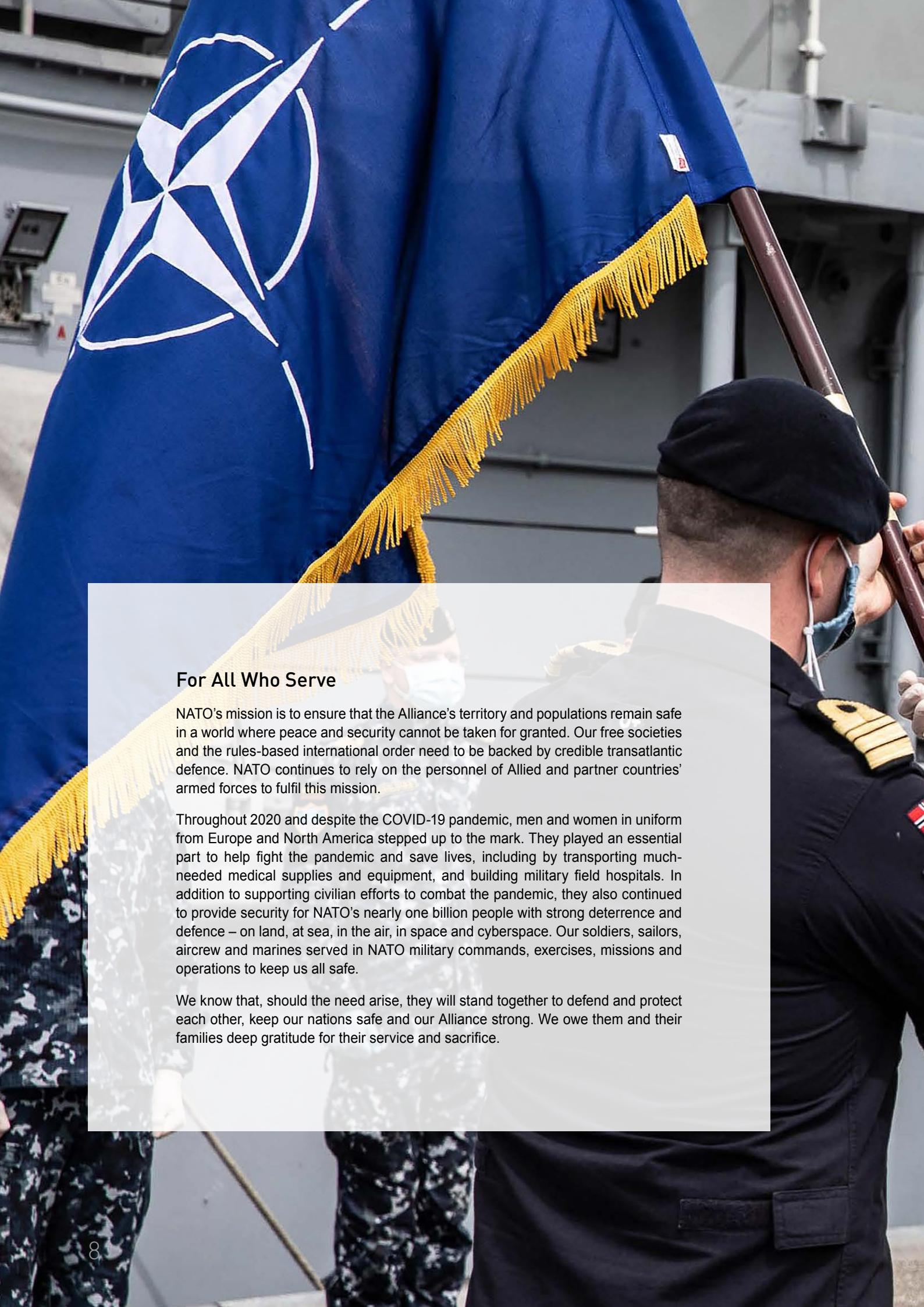
and way of life. That is why we should deepen our relationships with close partners like Australia, Japan, South Korea and New Zealand, and reach out to other like-minded nations around the world.

Protecting the rules-based order starts with protecting our values at home. So we must strengthen our democracies, bolster our institutions and recommit to our values.

We have a unique opportunity to open a new chapter in transatlantic relations. And we all have a responsibility to seize it.

A handwritten signature in blue ink that reads "Jens Stoltenberg". The signature is fluid and cursive, with a large, sweeping loop on the left side.

Jens Stoltenberg
NATO Secretary General



For All Who Serve

NATO's mission is to ensure that the Alliance's territory and populations remain safe in a world where peace and security cannot be taken for granted. Our free societies and the rules-based international order need to be backed by credible transatlantic defence. NATO continues to rely on the personnel of Allied and partner countries' armed forces to fulfil this mission.

Throughout 2020 and despite the COVID-19 pandemic, men and women in uniform from Europe and North America stepped up to the mark. They played an essential part to help fight the pandemic and save lives, including by transporting much-needed medical supplies and equipment, and building military field hospitals. In addition to supporting civilian efforts to combat the pandemic, they also continued to provide security for NATO's nearly one billion people with strong deterrence and defence – on land, at sea, in the air, in space and cyberspace. Our soldiers, sailors, aircrew and marines served in NATO military commands, exercises, missions and operations to keep us all safe.

We know that, should the need arise, they will stand together to defend and protect each other, keep our nations safe and our Alliance strong. We owe them and their families deep gratitude for their service and sacrifice.

Commander Audrius Venckunas, Lithuanian Navy takes over the duty for Standing NATO Mine Countermeasures Group 1 after Commander Henning Knudsen-Hauge, Norwegian Navy. Kiel, Germany, June 2020.





"NATO 2030: your future, your freedom, your alliance". NATO Secretary General Jens Stoltenberg opens the NATO 2030 Youth Summit. Brussels, Belgium, November 2020.

NATO 2030

*My vision for NATO 2030 is not about reinventing NATO.
It is about making our strong Alliance even stronger.
Strong militarily. Stronger politically. And more global.*

NATO Secretary General Jens Stoltenberg on launching the NATO 2030 initiative.
8 June, 2020

At the December 2019 Leaders Meeting, NATO Heads of State and Government asked Secretary General Jens Stoltenberg to lead a forward-looking reflection on NATO's future. This is why he launched 'NATO 2030,' his initiative to further strengthen the Alliance in an increasingly more unpredictable and competitive world.

NATO faces the most complex security environment since the end of the Cold War. Existing threats have not gone away. Russia's behaviour remains assertive and destabilising, and terrorism continues to represent a global security challenge and a threat to stability. At the same time, the rise of China is shifting the global balance of power, with implications for the Alliance's security, values and way of life. It is a world of growing global uncertainty, more sophisticated and disruptive cyber and hybrid threats, and exponential technological change rapidly transforming the way wars are fought. An environment where climate change will continue to exacerbate existing security challenges and generate new ones.

The challenges to Allied security are simply too big for any Ally to face alone. This is why strengthening the transatlantic bond and doing more together,

through NATO, is at the core of the Secretary General's NATO 2030 initiative. To ensure NATO continues to keep Allies safe in the next decade and beyond, the Secretary General established three clear goals for NATO 2030:

First, to **remain a strong military Alliance**. Military strength and solidarity underpin everything the Alliance does. Staying strong militarily is about continuing to invest in defence to ensure NATO has the right capabilities to deter and to defend against tomorrow's threats – on land, at sea, in the air, in space and in cyberspace. It is also about investing in innovation to help Allied militaries retain their technological edge. And it is about boosting the resilience of the Alliance's physical and digital infrastructure, as well as of its critical industry, assets and technologies.

Second, to **make NATO stronger politically**. This means ensuring NATO remains the forum for transatlantic consultation and coordination on all issues that affect the Allies' common security. It also means enhancing NATO's political tools to respond to existing and new security challenges, from cyber and hybrid threats, to terrorism and climate change.

Third, to ensure **NATO adopts a more global approach**. NATO is and will remain a regional Alliance. However, to guarantee the security of the nearly 1 billion NATO citizens, the Alliance needs to understand and respond to global challenges and have a truly global security network. Effectively tackling global challenges ranging from terrorism, to climate change, and from cyber attacks to the security implications of a rising China, requires the Alliance to work more closely with like-minded partners near and far. In the same vein, NATO also needs to strengthen its role in defending the rules-based international order and convening like-minded democracies to consult and address shared security challenges.

To support his work, the Secretary General initiated a number of initiatives to generate creative and bold ideas on how to further strengthen and future-proof the Alliance.

In March 2020, he appointed an independent group of 10 experts, five women and five men¹. To inform its work, the group conducted extensive consultations, including with scholars, leaders from business and the technology sector, parliamentarians, military

officials and government representatives from all 30 Allies, as well as with a number of NATO partner countries and international organisations. In November, this group submitted a report to the Secretary General as an input to the NATO 2030 initiative.

Also in November, the Secretary General welcomed young people from across the Alliance to the NATO 2030 Youth Summit. At the Youth Summit, the Secretary General announced the establishment of the NATO 2030 Young Leaders Group, consisting of 14 emerging leaders² from across the Alliance tasked to provide input to inform his recommendations for NATO 2030.

The Secretary General also held a series of digital roundtables and conferences to engage with the NATO Parliamentary Assembly, youth, civil society and the private sector.

Based on all of these inputs, the Secretary General will continue to consult with Allies and put forward his recommendations for NATO 2030 to NATO Leaders at the Summit in 2021.

NATO 2030 – A Stronger Focus on Responding to the Security Implications of Climate Change

In 2020, NATO laid the groundwork for playing a more ambitious role in climate security. During an online event in September, Secretary General Stoltenberg outlined his vision for NATO's role with regard to climate change and emphasised that "NATO's core task is to keep us all safe. Climate change is making the world more unsafe. So to fulfil our main responsibility, NATO must help to curb climate change."

He explained that there are three reasons why NATO needs to focus attention on climate change. First, climate change is making the world more dangerous. It fuels conflict, exacerbates threats and puts pressure on natural resources like food and water. Second, climate change creates harder conditions in which military forces need to do their jobs. As the climate changes, Allied forces will need to deploy in conditions that are wetter, hotter, dryer, or just more challenging. Global warming, sea level rise, rapid changes in precipitation patterns and an increasing frequency and intensity of extreme weather events also test the resilience of military installations and critical infrastructure. Third, NATO and its Allies also have a responsibility to help reduce climate change by producing fewer emissions.

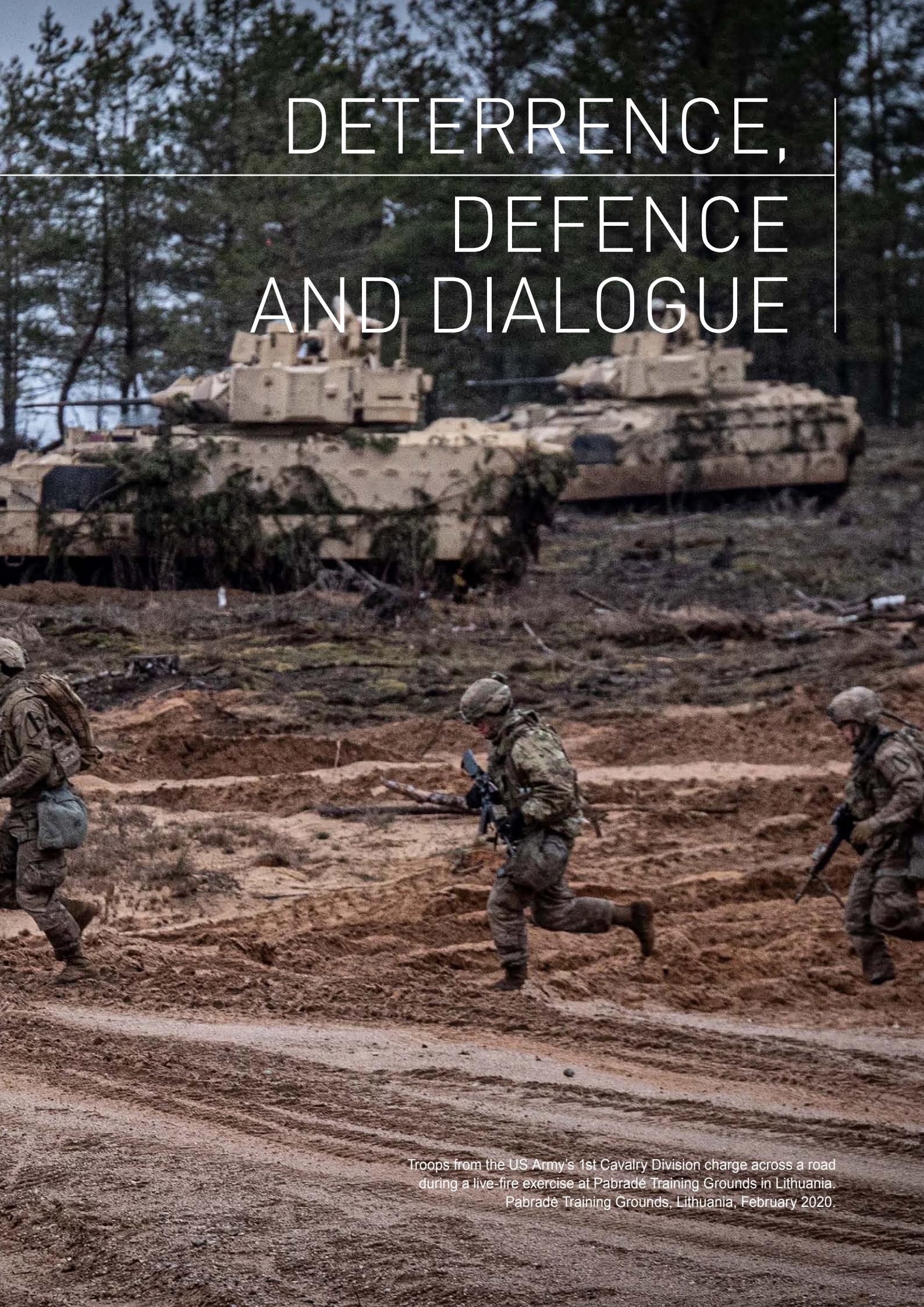
This is why, as part of his NATO 2030 initiative, the Secretary General is focusing on how to step up NATO's climate change and security work. The Alliance is developing a concrete climate and security agenda focused on increasing situational awareness and adapting to the security impact of climate change, for example by enhancing resilience, reducing climate vulnerabilities and integrating climate security challenges into NATO plans, exercises and policies. Allies are also examining ways for NATO to concretely play its part in combating climate change, helping to reduce military emissions and improve operational effectiveness.

¹ The Group was co-chaired by Thomas de Maizière (Germany) and A. Wess Mitchell (United States) and consisted of John Bew (United Kingdom), Greta Bossenmaier (Canada), Anja Dalgaard-Nielsen (Denmark), Marta Dassù (Italy), Anna Fotyga (Poland), Tacan İldeş (Turkey), Hubert Védrine (France), and Herna Verhagen (the Netherlands).

² Alice Billon-Galland (France), Don Ceder (the Netherlands), Martin Dimitrov (Bulgaria), Cori Fleser (United States), Anne-Marie Imafidon (United Kingdom), Gyde Jensen (Germany), Katarina Kertysova (Slovakia), Tania Lațci (Romania), Jan Lukačevič (Czech Republic), Claudia Maneggia (Italy), Andrea G. Rodríguez (Spain), Māra Šteinberga (Latvia), Ulrik Trolle Smed (Denmark) and Kevin Vuong (Canada).



DETERRENCE, DEFENCE AND DIALOGUE



Troops from the US Army's 1st Cavalry Division charge across a road during a live-fire exercise at Pabradė Training Grounds in Lithuania.
Pabradė Training Grounds, Lithuania, February 2020.



A US Army soldier during Exercise Saber Junction, which gathered six NATO Allies and three partners to test the readiness of the US Army's response force based in Europe. Germany, August 2020.



Soldiers setting up medical material in a field hospital. Operation "Balmis" involved more than 2,500 troops from the Spanish Army, Navy, Air Force, Military Emergencies Unit and the Royal Guard deployed in 172 locations throughout Spain in response to COVID-19. Spain, March 2020.

*NATO's core mission continues.
Preserving the peace and deterring aggression.
On land, at sea, in the air, in space and in cyberspace.
From pandemics to infodemics. Cyber attacks to climate change.
Our world keeps on changing, and NATO is changing with it.*

NATO Secretary General Jens Stoltenberg.
NATO 2030 Youth Summit, 9 November 2020.

NATO's main responsibility during the COVID-19 pandemic has been to fulfil its core tasks, while ensuring that the health crisis does not become a security crisis. The Alliance maintained its operational readiness, protected its forces and sustained its missions and operations, from the battlegroups in the east of the Alliance, to Kosovo, Afghanistan and Iraq.

In 2020, NATO further strengthened its collective deterrence and defence posture, on land, at sea, in the air, in space and in cyberspace. It continued to increase the responsiveness and readiness of its forces, to enhance the Alliance's ability to rapidly reinforce any Ally that may come under threat, and to invest in its hybrid and cyber defences to remain at the forefront of technological change.

Substantial progress was achieved over the year to further strengthen Allied resilience, essential to NATO's overall ability to deter and defend against both conventional and hybrid threats.

Work also advanced to address the security implications of Russia's growing arsenal of nuclear-capable missiles. The Alliance is responding by strengthening its advanced conventional capabilities, investing in new platforms – including fifth-generation fighter aircraft – and adapting its exercises, intelligence, and air and missile defence posture. It is doing so while ensuring its nuclear deterrent remains safe, secure and effective. At the same time, NATO remains strongly committed to effective arms control, disarmament and non-proliferation, and continues to call for all actors, including Russia and China, to engage constructively.



Captain Stanley Szumigala gives a briefing to US soldiers during Exercise Tobruk Arrows. Tobruk Arrows was a Latvian-led, multinational short-range air defence exercise intended to enhance interoperability among NATO forces and increase readiness through the integration of land component air missile defence capabilities. Latvia, June 2020.

Deploying Forces, Enhancing Readiness, Accelerating Responsiveness

Since 2014, NATO has implemented the biggest reinforcement of its collective defence in a generation. In 2020, NATO continued to deploy a forward presence in the eastern part of the Alliance. In the Baltic Sea region, it maintained four battalion-sized multinational and combat-ready battlegroups led by the United Kingdom in Estonia, Canada in Latvia, Germany in Lithuania and the United States in Poland. Together with troop contributions from across the Alliance and working side-by-side with host nations' troops, these deployments represent a tangible example of Allied solidarity and a commitment to collective defence. In 2020, the battlegroups conducted over 36 joint training activities and exercises. These are key to sustaining and developing readiness and interoperability between Allied forces. NATO's forward presence is defensive, proportionate and fully in line with the Alliance's international commitments and its aim to preserve peace and stability.



The highlight of my experience in a NATO deployment is the multinational setting. I have made lifelong friends from seven different nations. Communication and feedback is key to mutual understanding.

Sergeant Major Robert Alexander (Canada)

Master Warrant Officer, Enhanced Forward Presence Latvia, Ādaži, Latvia

NATO Forward Presence in 2020



In the Black Sea region, Allies contribute forces and capabilities to support a forward presence on land, at sea and in the air. A multinational framework brigade for training Allies' land forces is in place in Craiova, Romania. In 2020, the Alliance stepped up cooperation on air training and air policing, and increased the activities of the NATO Standing Naval Forces in the Black Sea. The implementation of these measures substantially enhances the Alliance's situational awareness, interoperability and warfighting skills. It also provides opportunities for training together with NATO partners Georgia and Ukraine.

NATO's forward presence is underpinned by a reinforcement strategy to ensure that, in a collective defence scenario, it would be backed by NATO's Very High Readiness Joint Task Force (5,000-troop strong) and the broader NATO Response Force

(approximately 40,000-troop strong), as well as by Allies' additional high-readiness forces and NATO's heavier follow-on forces.

In 2020, Allies continued to bolster the readiness of their national forces in support of NATO's collective defence and crisis response. They contributed to the NATO Readiness Initiative, also known as the 'Four Thirties' and delivered on the commitment to having 30 mechanised battalions, 30 air squadrons and 30 combat vessels, ready to use within 30 days or less. Allies are now working on the implementation of the initiative by establishing larger formations. The NATO Readiness Initiative helps to ensure that the Alliance is able to respond at short notice and can quickly reinforce national forces on land, in the air and at sea – be it for crisis intervention or high-intensity warfighting.



A Lithuanian soldier surveys the railcars at Mockava, Lithuania as Polish armoured vehicles transfer cars during Exercise Brilliant Jump 20. Mockava, Lithuania, November 2020.

Enablement

NATO's ability to deter and defend Allied territory and to deploy beyond NATO's borders for crisis intervention depends on being able to move and sustain military forces by land, sea or air to, within, across and from Europe.

Meeting this objective is at the core of NATO's 'enablement' work. Successfully reinforcing NATO forces requires cooperation and coordination between national civil and military authorities, as well as commercial providers. This is essential to allow swift transit of military assets across national borders, efficient provision of commodities, assets and services – from fuel to water and food supplies – as well as robust physical and communications infrastructure. Given the scope of the task, NATO has adopted a broad, whole-of-government approach, setting enablement targets so that Allies can meet these requirements to support and sustain NATO's posture and operations. The requirements range from having a solid legislative framework in place, to ensuring safe and effective communications networks, to establishing clear crisis procedures.

In 2020, NATO continued to work hand-in-hand with the European Union to improve transport, infrastructure and regulatory aspects of military mobility, with a focus on coordinated border-crossing legislation, regulations and procedures, including for the transportation of dangerous goods.

In 2020, NATO maintained a series of assurance measures designed to reinforce national defences and, in doing so, contribute to the security of the Alliance as a whole. Allies continued to conduct land, sea and air activities along the Alliance's eastern borders. In NATO's southern neighbourhood, Allies increased their commitment to tailored assurance measures for Turkey to respond to potential security challenges in that region. With the continued commitment by Spain, NATO maintained its additional support to Turkey by augmenting its air defence with the deployment of missile defence batteries.

NATO also strengthened its ability to anticipate and respond to developments in its southern neighbourhood. The Alliance invested in capabilities for expeditionary operations and conducted exercises with scenarios relevant to the south, including Exercise Steadfast Jupiter/Jackal 2020. NATO continued to contribute to fighting terrorism, including through its participation in the Global Coalition to Defeat ISIS and regional partnerships. The Alliance's Regional Hub for the South, at Allied Joint Force Command Naples in Italy, also continued to provide situational awareness on trends in the region.

NATO's Maritime Posture: Security At Sea

NATO's posture, operations and missions at sea are fundamental to the Alliance's ability to deter and defend. In 2020, NATO continued to reinforce the Alliance's maritime posture, bolster its ability to provide security at sea and strengthen collective maritime warfighting skills.

The Alliance maintained maritime presence at the highest readiness with its Standing Naval Forces. Joint Force Command Norfolk, NATO's new Atlantic Command in the United States, was declared operational in September 2020. The new Command will ensure crucial routes for reinforcements and supplies from North America to Europe remain secure.

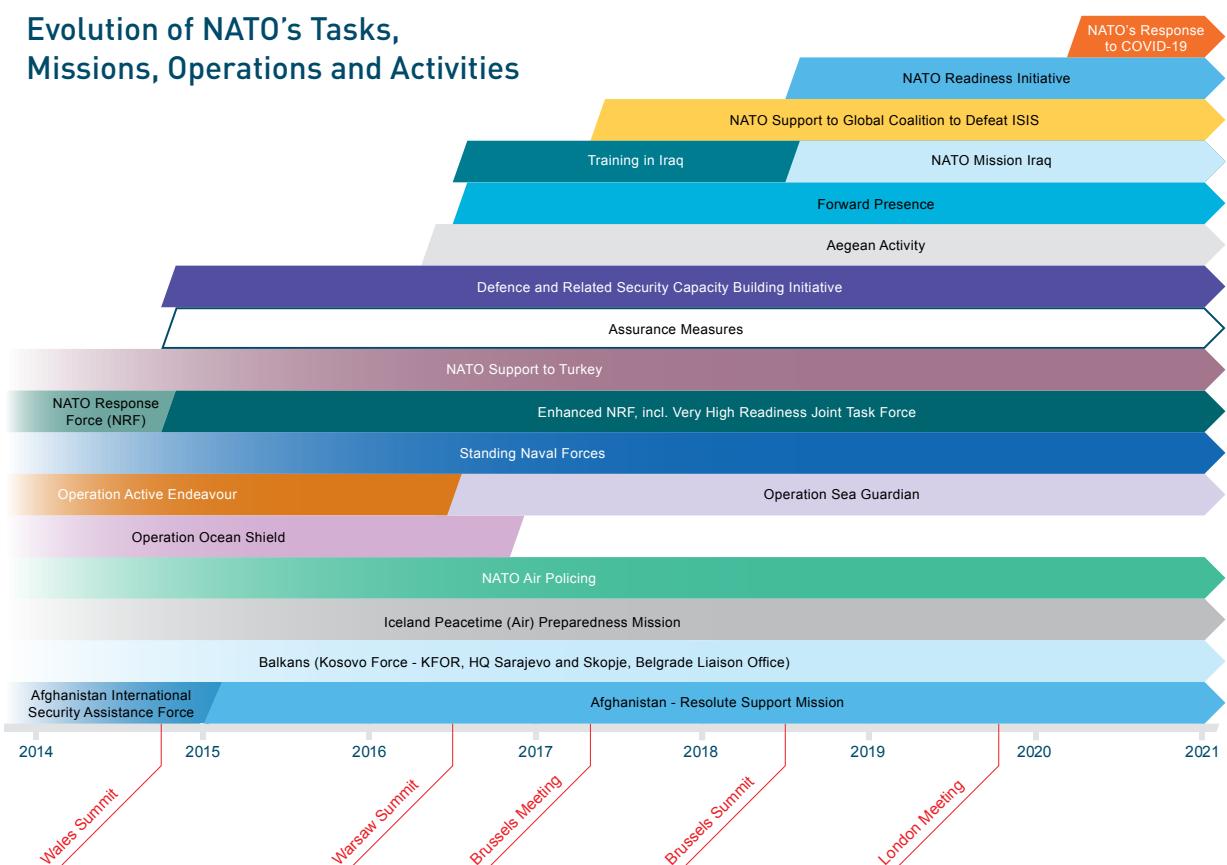
The Alliance also continued to foster interoperability and develop collective maritime warfighting skills in key areas, including anti-submarine warfare and the ability to protect lines of communications.



An active sonar deployed from HNoMS Otto Sverdrup during Exercise Dynamic Mongoose 2020. Iceland, July 2020.

NATO increased its maritime situational awareness by improving maritime surveillance and increasing coordination, connectivity and information-sharing between the Alliance's naval forces as well as with partners, including the EU.

Evolution of NATO's Tasks, Missions, Operations and Activities



Deterrence and Defence in the Air: NATO's Integrated Air and Missile Defence

NATO's Integrated Air and Missile Defence is essential to safeguard and protect Alliance territory, populations and forces against air and missile threat and attack.

It is especially important given that a growing number of states have acquired and deployed ballistic and cruise missiles able to reach NATO territory or put its forces at risk. NATO also needs to account for the development of increasingly sophisticated hypersonic missile systems, such as those showcased by China and Russia. In addition, unmanned aerial systems are also increasingly used by state and non-state actors in ways that compound the potential threat to Allied territory and populations.

To ensure protection against these complex air and missile threats and challenges, NATO has continued to strengthen its Integrated Air and Missile Defence and increase its readiness. These steps are part of the balanced package of responses to the Russian missile arsenal after the demise of the Intermediate-Range Nuclear Forces (INF) Treaty due to Russia's breach. Allies are also acquiring additional advanced radars and interceptors. NATO continues to invest in upgrading its advanced command and control

systems to ensure the effectiveness of NATO's Integrated Air and Missile Defence.

In peacetime, NATO has two main air and missile defence missions: Air Policing and Ballistic Missile Defence.

NATO's Air Policing mission is a tangible expression of Alliance solidarity, as those nations that do not possess full capabilities are protected by other Allies that do. In 2020, Greece and Italy continued to provide Air Policing support to Albania and Montenegro, while Hungary and Italy supported Slovenia. Additionally, NATO has agreed to provide a similar arrangement to its newest member, North Macedonia. Rotational deployments of Air Policing capabilities provided support to the Baltic States and Iceland. In 2020, NATO aircraft were scrambled around 400 times in the framework of NATO's Air Policing mission. The majority of these scrambles were triggered by Russian military aircraft.

The NATO Ballistic Missile Defence mission protects European Allied populations, territory and forces against ballistic missiles potentially launched from outside the Euro-Atlantic area. The mission's main concern remains the Middle East, where missiles that could reach NATO territory have been developed and deployed in countries such as Iran or Syria.

French Mirage 2000 aircraft in flight above Ämari Air Base.
Estonia, July 2020.



Royal Norwegian Air Force Lieutenant Colonel Ståle Nymoen stands in front of one of the F-35 Lightning II fighters sent to Keflavik, Iceland as part of NATO's Air Policing mission. Iceland, March 2020.



Air Policing

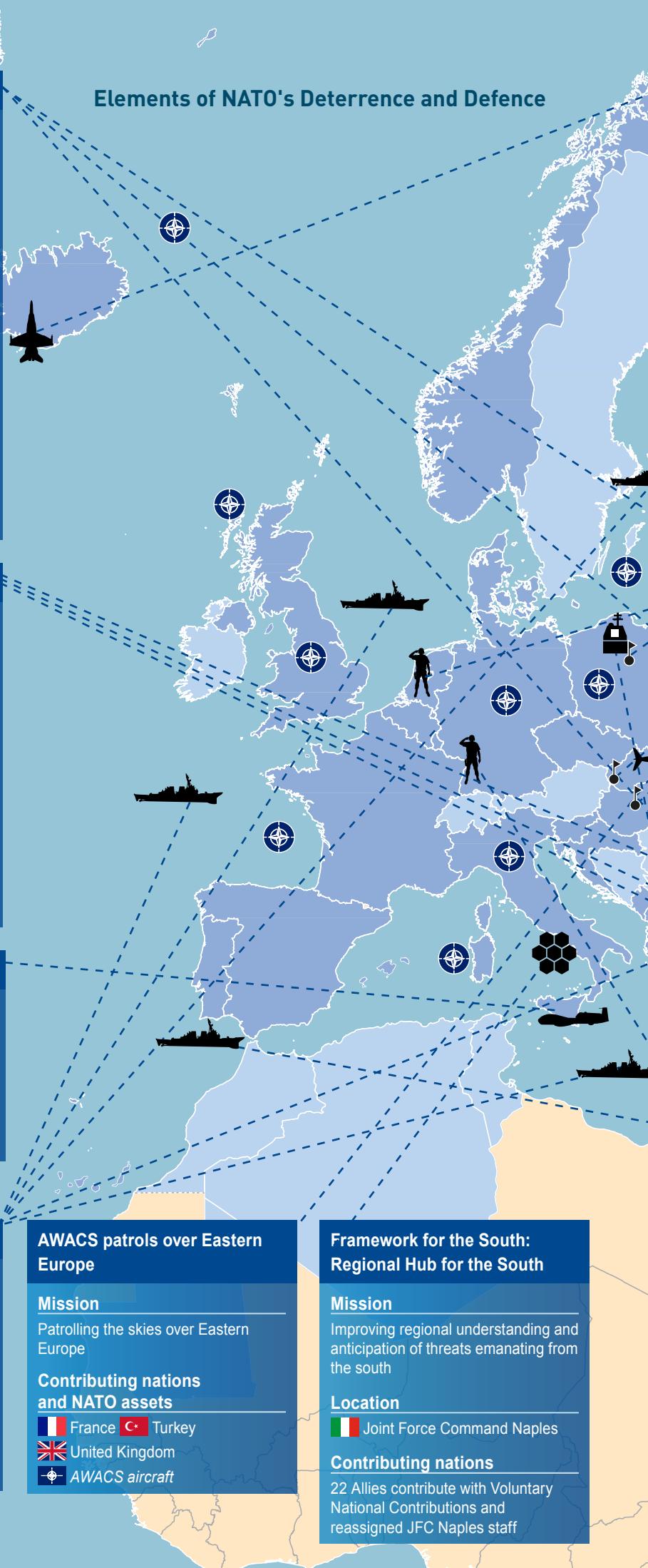
Mission
Protecting the airspace of the eastern flank of the Alliance

Location

- Bulgaria
- Estonia
- Latvia
- Lithuania
- Poland
- Romania

Contributing nations

- Belgium (Šiauliai, Lithuania)
- Canada (Mihail Kogălniceanu, Romania)
- France (Ämari, Estonia)
- Germany (Ämari, Estonia)
- Italy (Šiauliai, Lithuania)
- Poland (Ämari, Estonia)
- Portugal (Malbork, Poland)
- Spain (Šiauliai, Lithuania)
- United Kingdom (Šiauliai, Lithuania)
- United States (Ignatievo, Bulgaria)



Iceland Peacetime Preparedness

Mission

Protecting Iceland's airspace

Location

Iceland, Keflavik

Contributing nations

Italy Norway
United States

NATO Force Integration Units

Mission

Facilitating the rapid deployment of NATO forces

Location

Bulgaria Estonia Hungary Latvia
Lithuania Poland Romania Slovakia

Contributing nations

27 Allies and partner nations

Enhanced NATO Response Force / Very High Readiness Joint Task Force

Mission

Ready to deploy at short notice for crisis management or collective defence

Location

Joint Force Command Brunssum (eNRF 2020)
Poland Spain United Kingdom

Contributing nations

Enhanced NATO Response Force (eNRF): 26 Allies
Very High Readiness Joint Task Force (VJTF): 26 Allies

NATO's Forward Presence

Mission

Strengthening NATO's deterrence and defence

Location

Bulgaria Estonia Latvia Lithuania Poland Romania

Contributing nations

ESTONIA	Framework nation: United Kingdom
	Denmark Iceland
LATVIA	Framework nation: Canada
	Albania Czech Republic Italy Montenegro
	Poland Slovakia Slovenia Spain
LITHUANIA	Framework nation: Germany
	Belgium Croatia Czech Republic France
	Iceland Luxembourg Netherlands Norway
POLAND	Framework nation: United States
	Croatia Romania United Kingdom

BLACK SEA, BULGARIA AND ROMANIA	Bulgaria Canada France Germany Hungary Italy Luxembourg Poland Portugal Romania Spain Turkey
---------------------------------------	--

NATO members

NATO partners

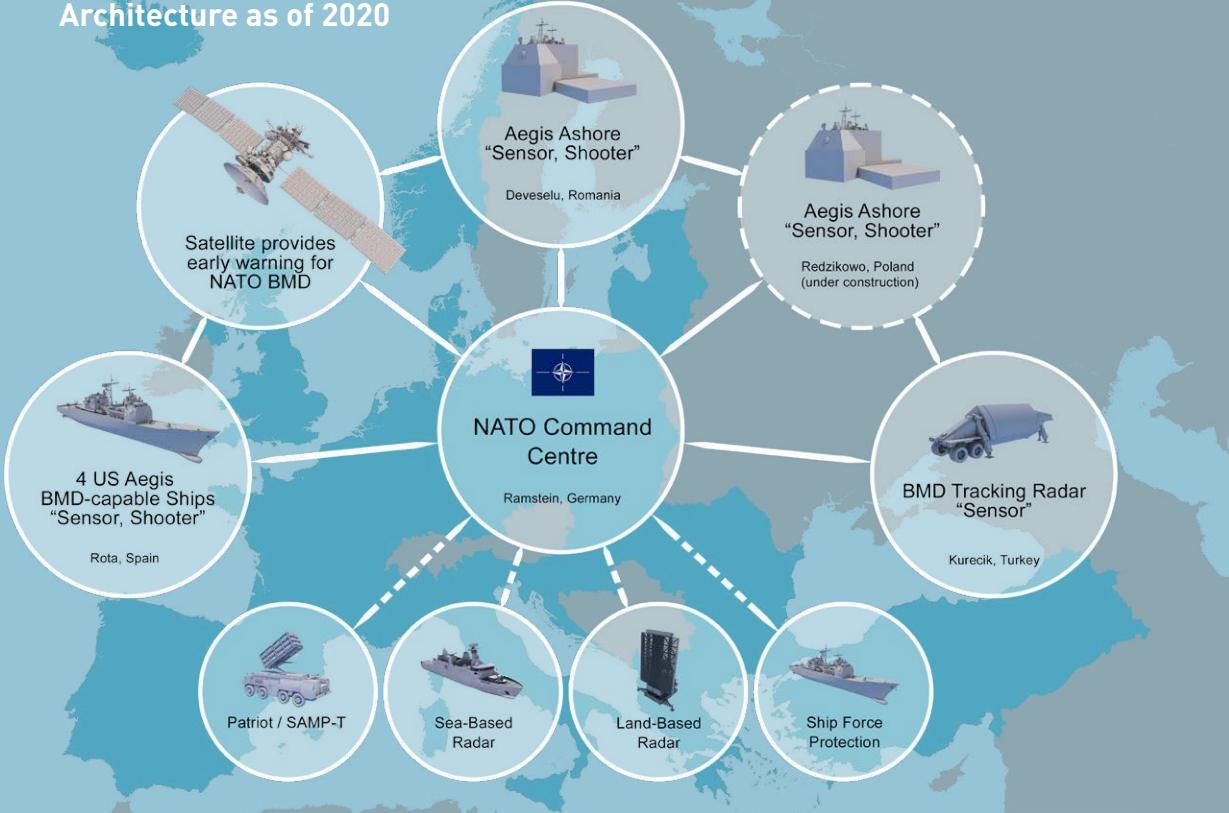
Key NATO and Allied multinational exercises

For more on NATO exercises please refer to pages 70-73

0 500 km

N

NATO Ballistic Missile Defence Architecture as of 2020



NATO's Ballistic Missile Defence mission uses assets provided by Allies and placed under NATO command and control, including US radars and interceptors stationed in Romania, Spain, Turkey

and soon in Poland. Its aim is to provide the platform where national sensors and weapons systems can be plugged in to detect, track and intercept offensive ballistic missiles.

NATO Space Policy

Space is essential for the Alliance's and Allies' security and prosperity. Satellites are key to supporting NATO's activities and operations, enabling communication, navigation and intelligence-gathering. This is why in 2019 Allies recognised space as a new NATO operational domain alongside land, air, maritime and cyberspace. With its work on space, the Alliance seeks to increase coordination, improve the sharing of space services and increase interoperability. In 2020, the Alliance continued its efforts in the space domain, focusing on better situational awareness, training and exercises, as well as capability development and emerging space technologies. In October, Allied Defence Ministers agreed to establish a NATO Space Centre at Allied Air Command in Ramstein, Germany. The Space Centre will serve as a focal point to support NATO missions, share information and coordinate Allies' efforts.



Space is vital for NATO's activities and operations, and we are taking concrete steps forward in this area. The emerging challenges in space require a truly cross-cutting effort across the Alliance.

Martynas Zapolskis (Lithuania)

Policy Officer, Defence Policy,
NATO Headquarters, Brussels, Belgium



NATO Deputy Secretary General Mircea Geoană, speaking at the online CYBERSEC public policy conference, emphasised the need to continue adapting to new threats arising from advances in technology, such as cyber threats. Brussels, Belgium, September 2020.

Deterrence and Defence in Cyberspace

A secure cyberspace is essential to everything the Alliance does. This is why cyber defence is part of NATO's core task of collective defence. NATO has made clear that a severe cyber attack could lead it to invoke Article 5 of the Washington Treaty.

NATO continues to develop doctrines and to conduct training and exercises to ensure it is just as effective in cyberspace as it is on land, in the air and at sea. In 2020, NATO published its first cyber doctrine. This was an important step in providing guidance for the conduct of cyberspace operations.

Cyber Threats during the COVID-19 Pandemic

In 2020, malicious cyber activity, including disinformation, hacking and espionage, were unprecedented in persistence, speed and scale. Technological changes – such as the roll-out of 5G wireless communications and the increasing adoption of connected devices – continued to provide cyber threat actors an array of new opportunities to achieve their objectives. Increasing connectivity trends accelerated by the pandemic rapidly shifted key activities online and provided new vulnerabilities for cyber threat actors to exploit. During the pandemic, malign actors openly targeted critical pandemic response sectors – such as medical facilities and researchers – and seized on the crisis to promote narratives designed to undermine trust in democratic processes and institutions. In June 2020, the North Atlantic Council publicly condemned destabilising and malicious cyber activities taking place in the context of the pandemic. This was an expression of Allied solidarity and mutual support for those dealing with the consequences of attacks including healthcare services, hospitals and research institutes. The statement also called for respect for international laws and norms of responsible state behaviour in cyberspace.

Putting policy into practice, NATO's biggest annual cyber defence exercise – Cyber Coalition – took place in November and brought together approximately 1,000 experts from across the NATO Alliance, plus four partner nations – Finland, Ireland, Sweden and Switzerland – and the EU. Drawing inspiration from current-day threats, the exercise tested participants' real-time responses to cyber incidents, such as attempts to breach classified networks, disruption of communications systems in critical infrastructure, and espionage through smartphone applications.

NATO Allies also continued to enhance their national cyber resilience, in line with the commitment they made at the Warsaw Summit in 2016. Since then, they have strengthened their cyber resilience by issuing and revising strategic guidance, including on dealing with cyber risk to supply chains, implementing organisational reforms and investing in training.

Information-sharing has never been more critical. Allies established the NATO Intelligence on Cyberspace Community of Interest to more regularly exchange information, assessments and best practices — improving NATO's ability to prevent and respond to cyber threats. In addition, the NATO Communications and Information Agency continued to facilitate information exchanges between NATO Allies on cyber threats and incidents through its Cyber Collaboration Network. Twenty-one Allies have joined the network to date.

NATO also increased its engagements with the EU, notably in the areas of information exchange, training, research and exercises. NATO invested in enhancing its ties with the private sector through the NATO Industry Cyber Partnership, including in the areas of threat intelligence and incident response.

A crucial component of effective cyber defence remains having the right people with the right skills. Investments in education, training and exercises therefore continued to be at the heart of NATO cyber defence activities. Many courses offered through NATO's training facilities shifted online and for the first time Exercise Cyber Coalition was carried out virtually.



My 2020 highlights were supporting implementation of the Cyber Defence Pledge and helping prepare a North Atlantic Council statement condemning malicious cyber activities during the pandemic against healthcare services, hospitals and research institutes. This was the first such statement issued by the Council on specific cyber incidents and an example of Alliance unity.

Neil Robinson (United Kingdom)

Cyber Defence Policy Officer,
NATO Headquarters, Brussels, Belgium



NATO Secretary General Jens Stoltenberg and Minister for Foreign Affairs of the Russian Federation Sergey Lavrov in the margins of the Munich Security Conference. Munich, Germany, February 2020.

Relations with Russia

NATO's dual-track approach to Russia is based on two pillars: defence and dialogue.

After the end of the Cold War, NATO made considerable efforts to build a strategic partnership with Russia, based on dialogue and practical cooperation in areas of common interest. Key milestones in the NATO-Russia relationship included the 1997 signing of the NATO-Russia Founding Act and the 2002 creation of the NATO-Russia Council, established to serve as the primary forum for dialogue and cooperation between NATO Allies and Russia.

In 2014, as a consequence of Russia's illegal and illegitimate annexation of Crimea, NATO suspended all practical cooperation with Russia. Allies decided that there can be no business as usual until Russia returns to compliance with international law.

In 2020, Allies remained concerned about Russia's destabilising policies and provocative military activities near NATO's borders, as well as by its conventional and hybrid operations, including in Libya, Syria and Ukraine. Russia continued to conduct no-notice exercises as well as large-scale exercises, such as KAVKAZ 2020, increasing the Alliance's concern regarding regional security. In September, the North Atlantic Council strongly condemned the poisoning of Russian opposition leader Alexei Navalny. Allies called on Russia to bring those responsible to justice, bearing in mind its commitments under the Chemical Weapons Convention.

NATO's dual-track approach allows the Alliance to respond to the deteriorated security environment caused by Russia's actions. This is why Allies continued to strengthen their deterrence and defence capabilities, while remaining open to a focused, periodic and meaningful dialogue with Russia. NATO is committed to discussing critical issues and avoiding misunderstandings, miscalculation and unintended escalation.

In 2020, NATO remained open to dialogue in the NATO-Russia Council to address international security issues, as well as increase transparency and predictability. Since February, NATO has repeatedly invited Russia to convene a meeting of the NATO-Russia Council. Russia has consistently declined these invitations. Consequently, there were no meetings of the NATO-Russia Council in 2020.

Contacts between high-level officials have continued. In February, NATO Secretary General Jens Stoltenberg met with Russian Foreign Minister Sergey Lavrov in the margins of the Munich Security Conference. Issues discussed included NATO-Russia relations, the conflict in Ukraine, transparency and risk reduction, arms control, and the peace process in Afghanistan. The Secretary General underscored NATO's commitment to its dual-track policy towards Russia.

Contacts between NATO military leaders and their Russian counterparts have also been maintained. In February and April, Supreme Allied Commander Europe General Tod D. Wolters engaged with Russian Chief of the General Staff General Valery Gerasimov. In July, the Chairman of the NATO Military Committee, Air Chief Marshal Sir Stuart Peach, had a phone call with General Gerasimov.

NATO continued a dialogue with Russian civil society and Russian media to counter government-led hostile disinformation and set the record straight. These engagements are conducted both in digital form via dedicated vlogs, social media posts and videos and directly with Russian audiences by engaging with students and key opinion formers. In 2020, NATO staff organised eight online seminars with Russian audiences.



A C-17 Globemaster cargo plane, part of the NATO-supported Strategic Airlift Capability, lands at Bucharest Airport with 45 tonnes of supplies to combat the effects of the COVID-19 pandemic. Bucharest, Romania, March 2020.



Spanish troops deployed in response to COVID-19 carrying beds for use at a field hospital. Spain, March 2020.

Resilience: the First Line of Allied Deterrence and Defence

Resilient Allies are essential to NATO's collective security. National resilience remains the first line of Allied defence. As enshrined in Article 3 of the North Atlantic Treaty, being resilient is part of every Ally's commitment to the Alliance, and to each other. The COVID-19 pandemic has been a reminder that a crisis can occur at any time, with little to no warning. Allies need to be prepared to absorb shock and surprise in both their military and civil sectors, which are increasingly interdependent. For example, armed forces rely heavily on civilian infrastructure

and capabilities for transport and on satellites for internet traffic and communications. At the 2016 Warsaw Summit, Allies agreed to seven NATO Baseline Requirements for National Resilience against which member states can measure their level of preparedness. These requirements cover the core functions of continuity of government, provision of essential services to the population and civil support to the military. NATO supports nations in meeting these agreed standards.

NATO's Baseline Requirements for National Resilience:

- Assured continuity of government and critical government services
- Resilient energy supplies
- Resilient food and water resources
- Resilient civil communications systems
- Resilient transportation systems
- Ability to deal effectively with uncontrolled movement of people
- Ability to deal with mass casualties



I am proud to have the opportunity to contribute to NATO's agenda as a national diplomat seconded to the International Staff and to support new approaches to national resilience for the broader benefit of collective defence and security.

Alexandros Dimitrakopoulos (Greece)

Policy Adviser, Enablement and Resilience,
NATO Headquarters, Brussels, Belgium

The COVID-19 pandemic has shown that resilience requires planning, preparation, and regular assessment and evaluation. This is why NATO's Resilience Baselines, Guidelines and Evaluation Criteria are periodically reviewed and updated as the security landscape evolves. In June 2020, Defence Ministers endorsed an update to the Baseline Requirements, which addressed the impact of foreign direct investment and new technologies such as 5G, as well as initial lessons learned from the COVID-19 pandemic. These include the importance of diversifying supply chains, identifying critical personnel to maintain essential functions and integrating cyber security considerations into national resilience and civil preparedness.

Throughout the COVID-19 pandemic, NATO also deepened its cooperation on resilience with the EU. Staff from both organisations shared their respective approaches to resilience and increased awareness about their instruments, with a focus on risk assessments, medical evacuation, countering hybrid threats, responding to mass casualty incidents and critical infrastructure protection.

Non-Conventional Threats

The hybrid combination of military and non-military tools targeting the military, civil society and the private sector can undermine domestic cohesion and Allied unity. For example, cyber attacks can hit Allied nations below the threshold of an armed attack, while hostile information can destabilise political communities without a single soldier crossing a single border.

For these reasons, countering hybrid threats remains a top priority for Allies. In 2020, NATO invested in its ability to deter hybrid threats, including with more intelligence production and sharing on hybrid challenges. Allies also systematically analysed vulnerabilities linked to Chinese and Russian hybrid activity.

Allies continued to enhance their responses to hybrid threats and NATO's coordination role. In the area of emerging and disruptive technologies, NATO examined how potential aggressors could use such technologies in hybrid campaigns as well as how new technologies can assist Allies in countering these campaigns.

Furthermore, NATO deepened cooperation with the EU, with staff from both organisations exchanging views on hybrid threats and responses. NATO and the EU also continued to work closely with the Helsinki-based European Centre of Excellence for Countering Hybrid Threats, including through exercises.



Czech, Estonian and US Joint Terminal Attack Controllers (JTACs) communicate with Allied pilots overhead during Exercise Ample Strike 20. Czech Republic, September 2020.

Transparency and Risk Reduction

Conventional Arms Control in Europe

Verifiable conventional arms control helps to maintain peace and security by limiting military forces in the Euro-Atlantic area, as well as by providing transparency and predictability for military deployments, manoeuvres and exercises. To be effective, however, arms control agreements must be implemented fully and in good faith by all parties.

In 2020, Allies continued to point out the need for Russia to uphold key conventional arms control agreements such as the Vienna Document and the Treaty on Open Skies, as well as to re-implement the Conventional Armed Forces in Europe Treaty. Together, these documents have established the standards for verification, transparency and risk reduction in the Euro-Atlantic region, bringing with them increased predictability and security.

Allies remain determined to preserve, strengthen and modernise conventional arms control in Europe, based on key principles including reciprocity, transparency and host nation consent.

In 2020, Allies continued to pursue the modernisation of the Vienna Document on military transparency, within the Organization for Security and Co-operation in Europe (OSCE). Under the Vienna Document, OSCE participating states commit to confidence- and security-building measures, including annual

exchanges of military information about forces in Europe, consultations about unusual military activities, prior notifications and observations of military activities and inspection visits.

Allies have consistently stood by the letter and the spirit of the Vienna Document. In 2020, they continued to notify the OSCE of military exercises well in advance, in most cases well below the notification thresholds. The COVID-19 pandemic impacted the Alliance's conduct of both military exercises and verification activities, with most inspections scheduled for 2020 cancelled or postponed. Allies also continued to ensure required international observation of manoeuvres, with Russian military personnel present as observers during NATO's major exercise, Cold Response.

Russia, on the other hand, continued to conduct large-scale exercises despite the pandemic. One such exercise was KAVKAZ-2020, for which Russia provided a Vienna Document notification of only 12,900 troops taking part in the active phase of the exercise, while stating publicly that the overall exercise involved about 80,000 troops. In this way, Russia continued to flout its commitments to mandatory military transparency. Since the end of the Cold War, Russia has never opened an exercise for mandatory OSCE Vienna Document observation.



NATO is a unique platform to discuss and take forward conventional arms control verification, transparency and risk reduction, which is critical during this period of increased security concerns.

Doug Peterson (United States)

Officer, Arms Control, Disarmament & WMD Non-Proliferation Centre,
NATO Headquarters, Brussels, Belgium



Czech soldiers decontaminate an armoured vehicle during Exercise Yellow Cross 20, held in the Czech Republic. The exercise helped NATO Allies practise responding to chemical, biological, radiological and nuclear threats and attacks by detecting, assessing and decontaminating personnel and material during simulated strikes. Czech Republic, September 2020.



Czech soldiers garbed in protective gear during Exercise Yellow Cross 20. Czech Republic, September 2020.

Countering Weapons of Mass Destruction: Chemical, Biological, Radiological and Nuclear Threats

In 2020, NATO continued to work with partners and other international organisations to combat the proliferation of weapons of mass destruction and to defend against chemical, biological, radiological and nuclear threats.

NATO reinforced its efforts on nuclear disarmament verification. The NATO Science and Technology Organization led efforts to strengthen Allied understanding of existing verification challenges and made specific scientific contributions to effective verification and nuclear risk reduction.

NATO remained engaged in building capacity for Allies and partners in chemical, biological, radiological and nuclear defence through training held by the NATO School in Oberammergau, Germany and the Joint Chemical, Biological, Radiological and Nuclear Defence Centre of Excellence in Vyškov, Czech Republic. In January, NATO and the EU jointly organised an event focused on strengthening their respective chemical, biological, radiological and nuclear defence capabilities and building resilience.

NATO also redoubled its efforts to support the Treaty on the Non-Proliferation of Nuclear Weapons, including with the North Atlantic Council issuing a statement in support of the Treaty on its 50th anniversary. The statement welcomed the Treaty's remarkable achievements and underscored the enduring Allied commitment to its full implementation. It also underscored Allies' collective opposition to the Treaty on the Prohibition of Nuclear Weapons, or ban treaty.

In November, NATO held its 16th annual conference on Weapons of Mass Destruction, Arms Control, Disarmament and Non-Proliferation. Organised virtually in cooperation with Romania, it was attended by 250 representatives from more than 40 NATO Allies, partners and non-NATO countries, including China, as well as senior representatives from the United Nations, the EU, the International Atomic Energy Agency and other international organisations. Opening the conference, NATO Secretary General Jens Stoltenberg underlined the importance of nuclear disarmament and outlined steps to achieve this goal. Participants extensively discussed how NATO Allies and partners could further support the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) and contribute to a successful NPT Review Conference, scheduled for 2021.

Poland assumed the annually rotating role of Framework Nation of NATO's modernised Combined Joint Chemical, Biological, Radiological and Nuclear Defence Task Force, which provides specialised and sophisticated chemical, biological, radiological and nuclear defence capabilities and ensures NATO forces are able to operate effectively in any environment. The task force continued implementing its new concept of operations and new reinforcement policy, ensuring more balanced and effective capabilities, including for weapons of mass destruction disablement.

Small Arms, Light Weapons, Mine Action

The illicit manufacture, transfer and circulation of small arms and light weapons and their ammunition have devastating security and humanitarian consequences. Mines, improvised explosive devices and other explosive remnants of war kill and maim people long after the end of conflict. These weapons remain the most lethal threat to Allied and partner forces during military operations, including in Afghanistan and Iraq.

Over the past 25 years, NATO has worked with over 40 partner countries to tackle illicit trade in small arms and light weapons, and address the threat of mines. The Alliance's efforts include coordination and information-sharing; integrating small arms and light weapons into security sector reform projects; providing expertise for physical security and stockpile management; and establishing best practices and accountability for weapons and ammunition life-cycle management. NATO continued its courses on small arms and light weapons and mine action through the NATO School in Oberammergau, Germany, in part by holding courses online due to COVID-19.

In 2020, NATO continued to integrate comprehensive weapons and ammunition management into its overall partnership efforts. In particular, NATO supported national and regional initiatives to destroy surplus conventional ammunition, a central plank in efforts to combat the proliferation of small arms and light weapons. In the Western Balkans, for example, the Alliance continued the destruction of remaining national stocks of surplus conventional ammunition, including 416 tonnes of surplus ammunition in Montenegro. In Serbia, NATO supported the process of destroying 164 tonnes of surplus ammunition.

Furthermore, the Alliance remained committed to its demining and disposal activities in NATO operations and in partnership activities, continuing a line of work that has destroyed over 15 million cluster sub-munitions, 5.65 million anti-personnel mines, 2 million hand grenades and over 600,000 other pieces of unexploded ordnance.



First Seaman Nauris Laivenieks with the ship's remotely operated vehicle PAP 104, an underwater robot that helps identify and dispose of mines or unexploded ordnance. The maritime exercise BALTOPS 2020 involved around 30 ships from 19 NATO Allies and partner nations. Baltic Sea, June 2020.





NATO Secretary General Jens Stoltenberg attends NATO's annual nuclear exercise at Volkel Air Base in the Netherlands alongside Dutch Defence Minister Ank Bijleveld. Volkel Air Base, the Netherlands, October 2020.

Safe, Secure and Effective Deterrent

The Alliance continued to work hard in 2020 to maintain a safe, secure and effective nuclear deterrent. Meanwhile, Russia is modernising its nuclear and missile forces in ways that undermine Allied security and create deep uncertainty over Moscow's intentions. Russia's continued investment in nuclear weapons, including many dual-use missile systems, raises serious concerns and creates greater risk of escalation or misperception in a crisis.

In response to Russia's nuclear developments, in June 2020, Allies agreed a balanced package of political and military measures, including strengthened air and missile defence, advanced conventional capabilities, intelligence and exercises. They also decided on additional steps to keep NATO's nuclear deterrent safe, secure and effective. These steps include: to maintain the credibility and effectiveness of NATO's nuclear infrastructure and forces, with a focus on the resilience of dual-capable aircraft capabilities; to ensure that Russia never mistakenly believes that it could use the SSC-8 intermediate-range cruise missile, or any other missile system, to undermine Allied unity or control escalation in a crisis; to further improve NATO's nuclear decision-making capabilities to ensure a timely and effective response to any threat; and to continue enhancing the resilience and effectiveness of nuclear command, control and communications

infrastructure against modern challenges, to stay ahead of emerging technologies and developments in potential adversaries' capabilities.

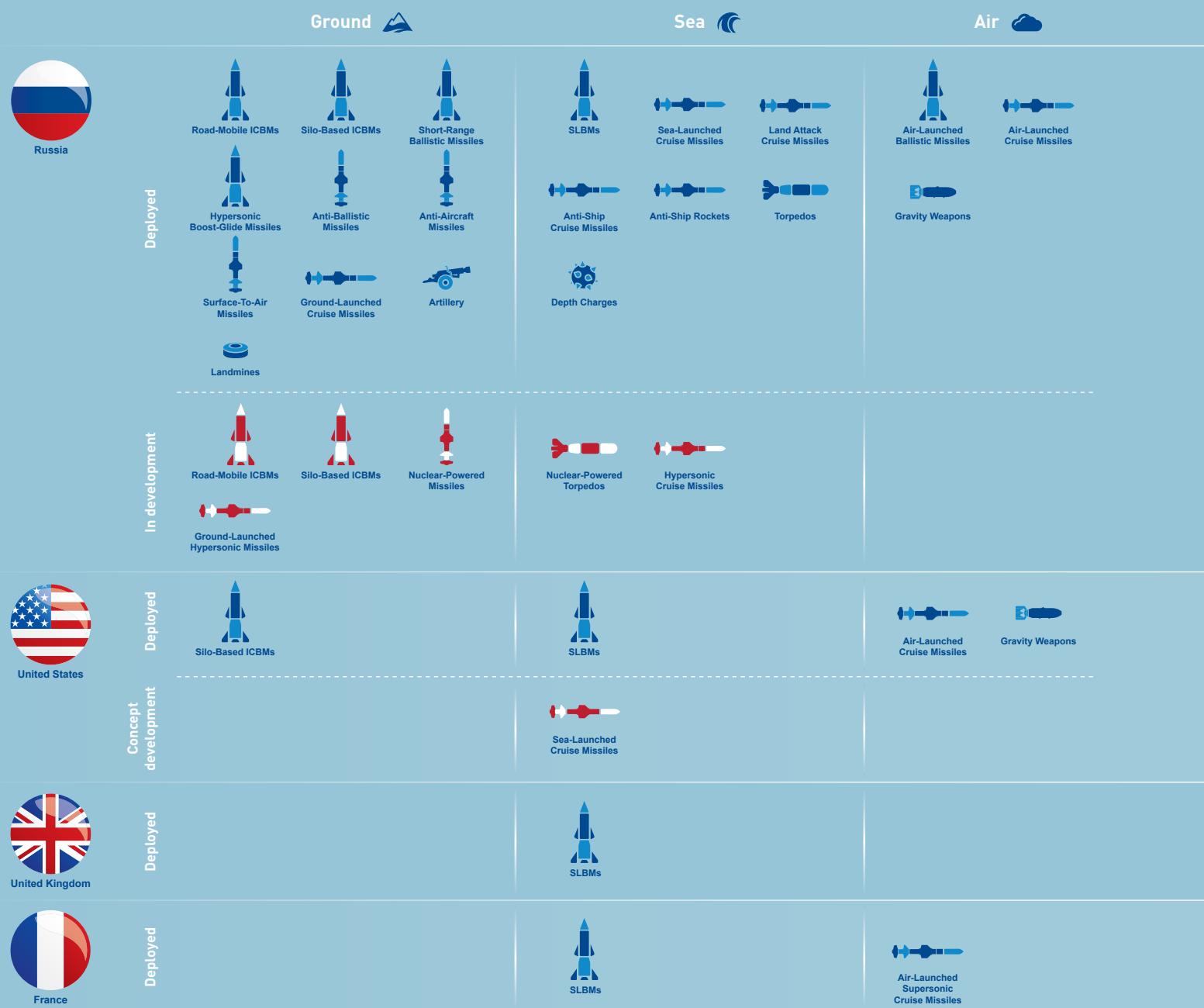
NATO will maintain its deterrence and defence but it will not mirror Russia and has no intention to deploy new land-based nuclear missiles in Europe.

In October, Dutch Defence Minister Ank Bijleveld hosted the Secretary General and the Supreme Allied Commander Europe at Volkel Air Base in the Netherlands, during NATO's annual deterrence exercise. In 2020, the exercise involved more than 50 aircraft from across the Alliance. Training flights took place over parts of Western Europe and the North Sea. "This exercise is an important test for the Alliance's nuclear deterrent," the Secretary General noted. "It is a routine, defensive exercise. The purpose of NATO's nuclear deterrent is not to provoke a conflict but to preserve peace, deter aggression and prevent coercion. In an increasingly uncertain world, our nuclear forces continue to play an important role in our collective defence," adding "NATO aspires to a world without nuclear weapons. Since the end of the Cold War, NATO has reduced the number of nuclear weapons in Europe by around 90 per cent". As long as nuclear weapons exist, NATO will remain a nuclear Alliance.

The Nuclear Weapons Systems of Russia and NATO Allies

Russia is increasing the size and scope of its nuclear arsenal and delivery systems, including by developing a range of new nuclear weapons. The United States, the United Kingdom and France – NATO's nuclear weapons states – have significantly

reduced their arsenals since the end of the Cold War and the Alliance's nuclear posture in Europe has remained unchanged for over a decade. China is also modernising its nuclear capabilities, but Beijing is not transparent about its developments.



ICBM: Inter-Continental Ballistic Missile
 SLBM: Submarine-Launched Ballistic Missile

Note: Russia often has multiple varieties of the same type of weapon, and does not disclose all its nuclear weapons systems, meaning that some may not be listed here.

FIGHTING THE COVID-19 PANDEMIC

NATO's Response as an Alliance



Forty-five tonnes of medical supplies are offloaded from a military plane at Bucharest Airport. Bucharest, Romania, March 2020.

NATO Allies and our militaries have been supporting each other and our partners throughout this pandemic – transporting critical medical supplies, patients and experts; setting up military field hospitals and securing borders; supporting civilian efforts and helping to save lives. At the same time, we remain vigilant and ready, because NATO's main responsibility is to make sure this health crisis does not become a security crisis.

NATO Secretary General Jens Stoltenberg
Riga Conference 2020, 13 November 2020.

AT A GLANCE

Preparedness & Research

Analysis & Response

Coordination & Assistance

In addition to fulfilling its main responsibility to prevent the public health crisis from becoming a security crisis, NATO drew on its experience in crisis management and disaster relief to both adapt to the crisis and support Allies' and partners' efforts, helping to fight the pandemic and save lives.



A truck from the Czech Republic carrying medical equipment to tackle the COVID-19 pandemic is unloaded in Milan, Italy, March 2020.



Throughout the year, heavily marked by the pandemic, we have ensured on a daily basis that this health crisis does not become a security crisis, through continuous assessment, anticipation, flexibility and collective support.

**Brigadier General Dr Laszlo Fazekas
(Hungarian Army) (Hungary)**

Medical Advisor, Allied Command Operations
SHAPE, Mons, Belgium

On the Front Lines: Coordination and Assistance

From the beginning of the crisis, NATO and Allied military personnel have been supporting civilian efforts: providing military airlift, organising flights to deliver critical supplies, setting up field hospitals, sharing medical expertise, and helping to develop innovative responses. Over half a million military personnel supported civilian authorities during the first wave of the COVID-19 crisis.

Since the start of the pandemic, the NATO Euro-Atlantic Disaster Response Coordination Centre coordinated requests for assistance from NATO and partner countries, as well as the United Nations Office for the Coordination of Humanitarian Affairs. Through the Centre, vital medical supplies were delivered to Allies and partners, easing the burden on national healthcare systems and helping to save lives. In July 2020, following a request by the United Nations for airlift support, the NATO Euro-Atlantic Disaster Response Coordination Centre also coordinated the transportation of a field hospital from Europe to Accra, Ghana, with the United Kingdom Royal Air Force and the World Food Programme. The facility is used for frontline aid workers in the region to help fight the COVID-19 pandemic.



I volunteered for NATO's Euro-Atlantic Disaster Response Coordination Centre's pandemic response. I was proud to be part of this civilian-military team, driven by decisive leadership and a selfless sense of mission to serve NATO.

Renata Zaleska (Poland)

Portfolio Management Officer, Defence Institution and Capacity Building, NATO Headquarters, Brussels, Belgium

Military forces from NATO Allies:

flew more than
350 flights
to transport medical personnel

 transported more than
1,500 tonnes
of equipment

 helped build almost
100 field hospitals
and over **25,000** treatment beds

Resilience and Disaster Relief: The Euro-Atlantic Disaster Response Coordination Centre

The Euro-Atlantic Disaster Response Coordination Centre, operational since 1998, is NATO's principal civil emergency response mechanism working with Allies and partners to respond to natural and man-made disasters. It functions as a clearing-house mechanism for the coordination of requests by affected nations and offers of assistance. The Centre is also a recognised leader in disaster response field exercises. It works closely with the United Nations Office for the Coordination of Humanitarian Affairs and with the EU's Emergency Response Coordination Centre, both in exercises and in real-life emergencies. In addition to its coordination role, the Euro-Atlantic Disaster Response Coordination Centre also serves as an information-sharing tool and a platform for innovation in disaster response.



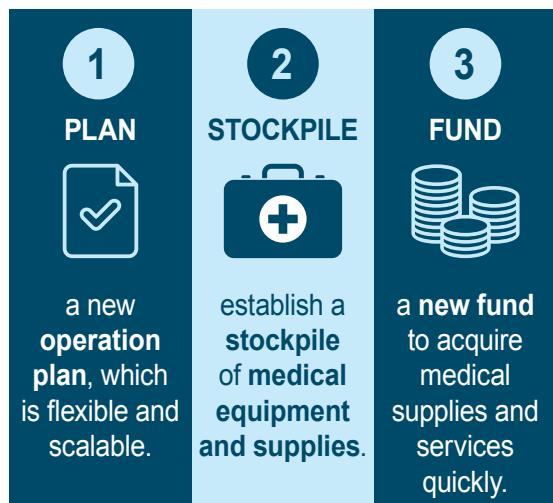
A C-17 Globemaster cargo plane, part of the NATO-supported Strategic Airlift Capability, lands at Bucharest Airport with 45 tonnes of supplies to combat the effects of the COVID-19 pandemic.
Bucharest, Romania, March 2020.



Ventilators from the NATO stockpile stored at the NATO Support and Procurement Agency Southern Operational Centre in Italy are loaded onto a Czech Air Force aircraft at Grottaglie Military Airport on 27 October. Italy, October 2020.

When NATO Defence Ministers met in June 2020, they took important decisions to prepare for a second wave of the COVID-19 pandemic. They decided on a plan to provide support to Allies and partners, agreed to establish a stockpile of medical equipment and supplies as well as a Pandemic Response Trust Fund to enable Allies to quickly acquire medical supplies and services.

In June, NATO Defence Ministers agreed to



The NATO Pandemic Response Trust Fund maintains a stockpile of medical equipment and supplies to provide immediate relief to Allies or partners in need. The NATO Support and Procurement Agency manages the purchase and storage of relief items for the stockpile in its Southern Operational Centre in Taranto, Italy. Romania also offered to host warehousing facilities.

Allies donated medical equipment to the stockpile, including ventilators from Hungary and the United States, and personal protective equipment from Germany. Sixteen Allies made financial contributions totalling EUR 5 million. Throughout the autumn, Albania, the Czech Republic, Montenegro and North Macedonia received dozens of ventilators and a total of around EUR 1.5 million in medical supplies from the stockpile. Some financial contributions were also used to deliver relief to NATO's hardest-hit partners, including Bosnia and Herzegovina, Iraq, the Republic of Moldova, Tunisia and Ukraine.

NATO further supported Allies and partners in the provision of assistance, sourcing nations' medical consumables and equipment, providing storage, augmenting national hospitals through deployable infrastructure and establishing testing laboratories in operational theatres. The NATO Support and Procurement Agency played a key role in transporting urgent relief items to countries in need through the Strategic Airlift Capability and the Strategic Airlift



The Strategic Airlift International Solution (SALIS) completed Polish-tasked missions from 7 April until 3 June 2020. Five AN-124 aircraft transferred 299 tonnes of medical protective equipment and supplies to Wroclaw Airport. In 2020, Strategic Airlift International Solution AN-124 and AN-225 aircraft completed 17 missions in total and airlifted over 950 tonnes of medical supplies in support.

International Solution programmes, as well as through commercial chartered flights and sealift. In total, around 1,500 tonnes of medical supplies and equipment were transported to Allied countries, including Bulgaria, Hungary, the Netherlands and Romania, as well as the Czech Republic, Germany, Poland and Slovakia.

NATO assisted local authorities to fight COVID-19 where the Alliance is deployed. For example, in Afghanistan, the NATO-led Resolute Support Mission contributed to fighting the pandemic with the provision of critical supplies to Afghan security forces in 14 provinces, with several Allies providing essential equipment. In Iraq, essential medical equipment was delivered in coordination with NATO Mission Iraq. In Kosovo, the NATO-led Kosovo Force donated personal protective equipment to hospitals and delivered more than 50 donations of food and clothing to 14 Kosovo municipalities, in coordination with local charities and the Red Cross of Kosovo.

Allies also helped each other through bilateral forms of assistance. For instance, Spain received support from the Czech Republic, Estonia, Germany, Latvia, Lithuania, Luxembourg, Poland and Turkey. Italy was provided assistance by Albania, the Czech Republic, Estonia, Luxembourg, Poland, Slovakia, Turkey and the United States. Critical assistance was also delivered to NATO's newest members: Montenegro received support from Estonia, the



The NATO Support and Procurement Agency delivered a COVID-19 testing laboratory, together with three laboratory technicians, to increase the testing capacity of the NATO-led Resolute Support Mission service members. Afghanistan, May 2020.

Netherlands, Poland, Turkey and the United States; and North Macedonia received assistance from Bulgaria, the Czech Republic, Estonia, Hungary, the Netherlands, Norway, Poland, Slovenia, Turkey and the United States.

Adapting the Alliance to Deliver

NATO set up a COVID-19 response taskforce in early 2020, quickly adapting its way of working, including by modifying its exercise schedules, embracing telework, holding scheduled and emergency

ministerial meetings via secure video conference, and pivoting to virtual press conferences and public diplomacy events.

The Importance of Situational Awareness

The Situational Awareness Integration Team connects stakeholders across NATO Headquarters, manages knowledge and connects expertise to ensure up-to-date and integrated situational awareness. The team played a key role in monitoring the impact of the pandemic on Allies and NATO. It worked closely with NATO's Joint Intelligence and Security Division, which provided intelligence insights to anticipate any signs of the health crisis turning into a security crisis.



Our team provided comprehensive reporting on the strategic impact of the pandemic on the Alliance. Witnessing how effectively NATO responded to an unprecedented public health crisis was a highlight of 2020.

Dr Stella Adorf (Germany)

Head, Situational Awareness Team,
Situation Centre
NATO Headquarters, Brussels, Belgium

NATO also leveraged its work on science and technology to contribute to fighting the COVID-19 pandemic. The NATO Science and Technology Organization quickly activated its network of over 6,000 scientists, researchers and medical experts to harness their knowledge and resources to design innovative responses to the pandemic. In April, the NATO Chief Scientist launched the Chief Scientist Challenge, calling upon the NATO network to develop solutions to reinforce or complement ongoing national efforts in response to the pandemic. In a similar vein, the NATO Science for Peace and Security Programme initiated efforts to combat the pandemic by harnessing NATO's partnerships, for example by launching a project on rapid COVID-19 diagnosis involving Switzerland and supporting mobile analytical laboratories in Morocco and Tunisia.

NATO received over 40 responses to the Chief Scientist Challenge. Among the most impactful are those that are investigating:

- Better understanding disinformation about the pandemic, and how to counter it;
- Keeping armed forces healthy during a pandemic relief operation;
- Applying NATO scientists' analytic tools to planning for future pandemics;
- Improved use of technology to train military leaders in pandemic relief operations;
- Lessons learned from COVID-19 for national defence systems;
- The ethical dimension of military support to pandemic relief operations.

ENGAGING WITH NATO CITIZENS



NATO Secretary General Jens Stoltenberg holds an online press conference ahead of the meeting of NATO Defence Ministers in April 2020 taking place via secure video conference for the first time. Brussels, Belgium, April 2020.



NATO Secretary General Jens Stoltenberg at NATO Headquarters, Brussels, Belgium, February 2020.



Public diplomacy helps increase support for the Alliance's mission and activities.

In 2020, that meant showing how NATO helped prevent a health crisis from becoming a security crisis. The massive shift to online tools enabled us to digitally tell the story of NATO's response, resilience and continued readiness to respond to all threats.

Carmen Romero (Spain)

Deputy Assistant Secretary General,
Public Diplomacy,
NATO Headquarters, Brussels, Belgium

Ensuring that citizens in Allied countries understand and support NATO's mission is an important aspect of the Alliance's work. NATO actively engages with people around the world to explain and promote the Alliance's efforts and activities in Allied countries and beyond. At the same time, it works hard to counter disinformation with fact-based, credible public communications.

Listening to Citizens: Continued Support for the Alliance in 2020

In 2020, NATO commissioned surveys across all 30 Allies to understand perceptions of Allied citizens in the context of the COVID-19 pandemic and to monitor trends in comparison to 2019.³

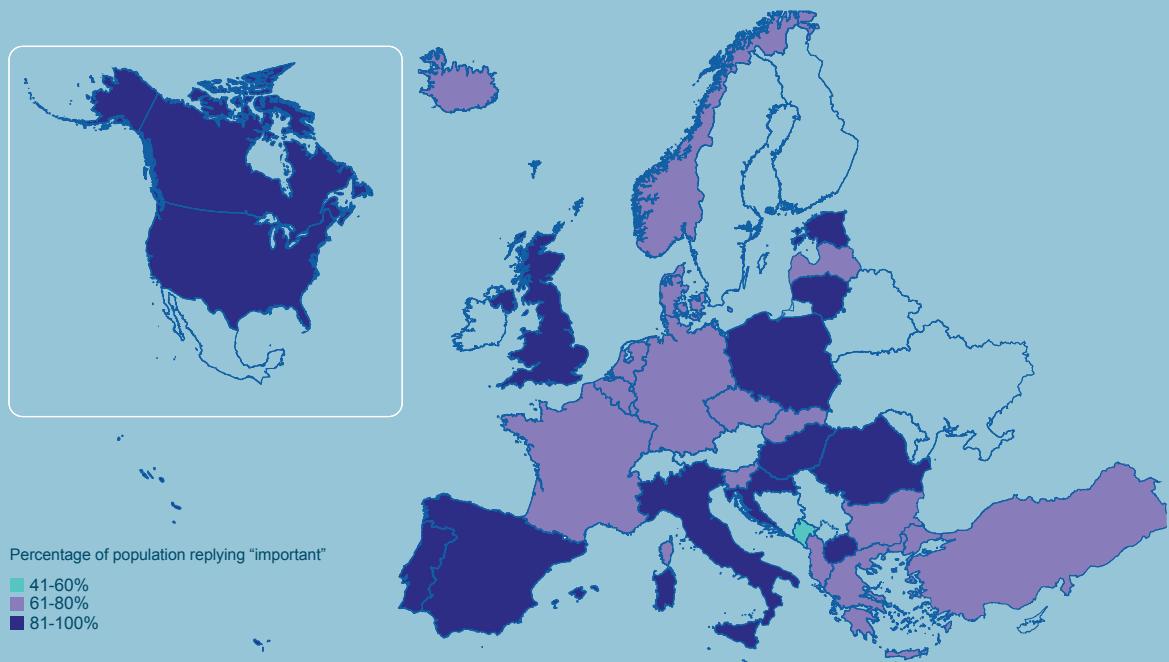
The research found that, in a year of significant upheaval, support for NATO membership remains high: nearly two thirds of NATO citizens would vote for their country to remain a NATO member (62%), with only 11% stating they would vote for their country to leave the Alliance. There is also enduring confidence in the deterrent effect of NATO membership: 58% of Allied citizens consider that NATO membership makes an attack by a foreign nation less likely, with only 16% disagreeing with that statement.

The research also found strong and enduring support for the transatlantic bond and collective defence. Allied citizens continue to believe that the collaboration between North America and Europe on safety and security matters (79%). Agreement with the principle of collective defence remains high. Seventy-six per cent of Allied citizens agree other Allies should defend their nation if attacked, while only 6% disagree, and 69% agree their nation should defend another Ally if attacked, while 9% disagree.

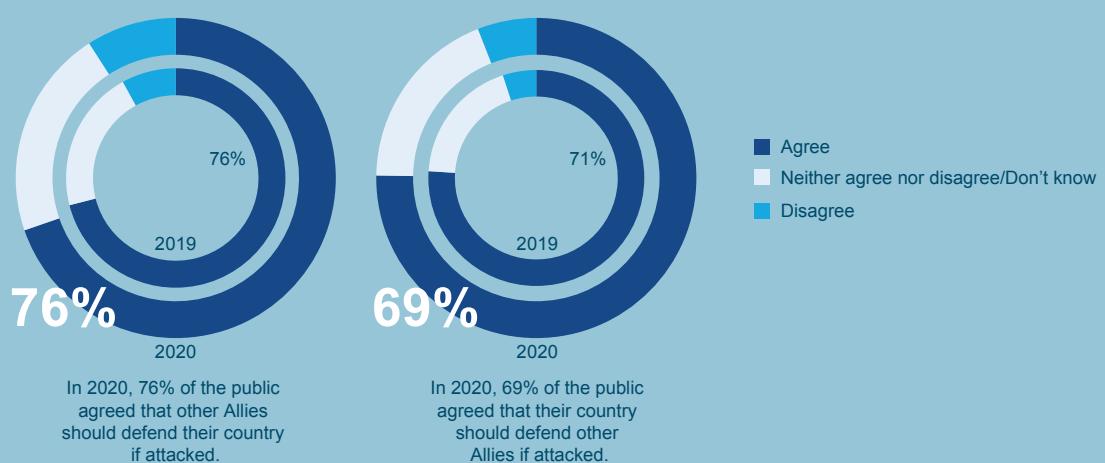
³ Based on surveys of 28,635 adults conducted by Kantar in 30 NATO member countries between 20 July and 8 August, and 28,517 adults between 5 and 23 November 2020. In 2019 a survey of 28,752 adults was carried out by Populus. Interviews were conducted online, except for North Macedonia, Albania and Montenegro where a face-to-face methodology was used due to the limited penetration of online panels in these countries. In all countries polled online a sample of at least 1,000 respondents per country was achieved. In face-to-face countries at least 500 individuals per country were interviewed. Quotas for gender, age and region were set and post-weighting was applied to ensure the samples for each country were representative of the adult population. Total results (across all Allies polled) were weighted to the population distribution of NATO. The surveys referenced are based on non-probability sampling, with an indicative margin of error of ± 3%. For more information, see: <https://www.nato.int/SGReport/2020/audience-insight-en/>

Strong belief in the value of NATO and the transatlantic bond

Support for the transatlantic bond remains strong. Seventy-nine per cent of citizens believe collaboration between North America and Europe on safety and security matters is important, compared to 81% in 2019.

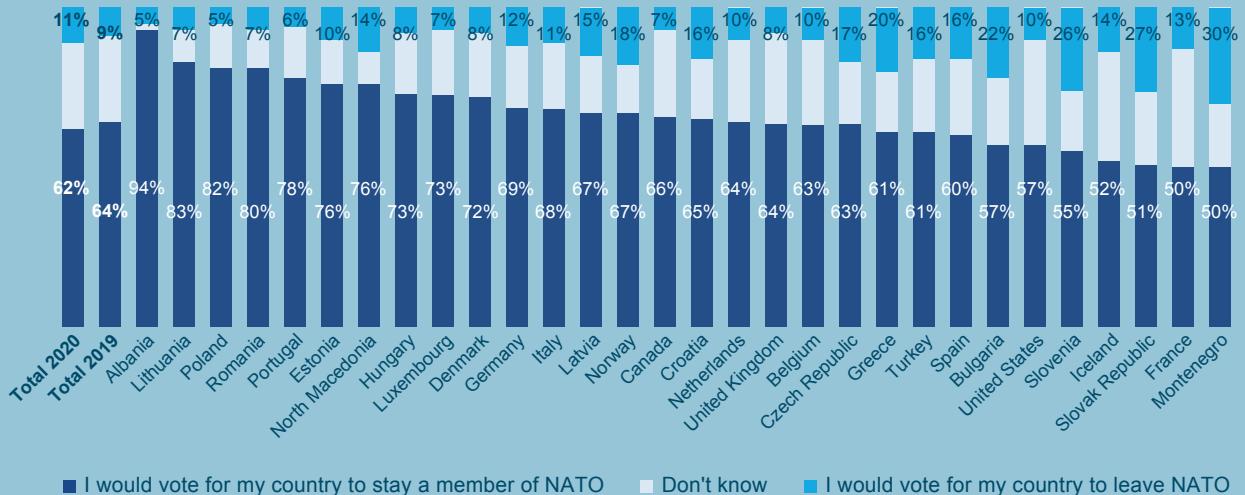


Support for collective defence remains high across the Alliance



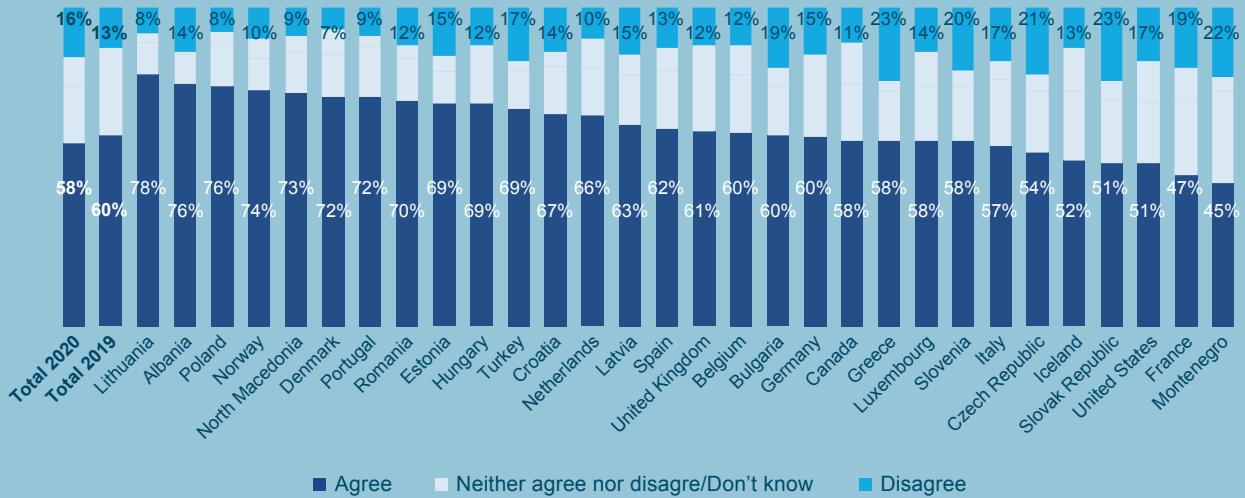
Support for NATO remains high

As in 2019, most citizens would vote for their country to remain a member of NATO in a referendum (62%, compared to 64% in 2019), with only 11% stating they would vote for their country to leave the Alliance. The graph below shows responses to the question “If you could vote for or against your country’s membership in NATO, how would you vote?”.



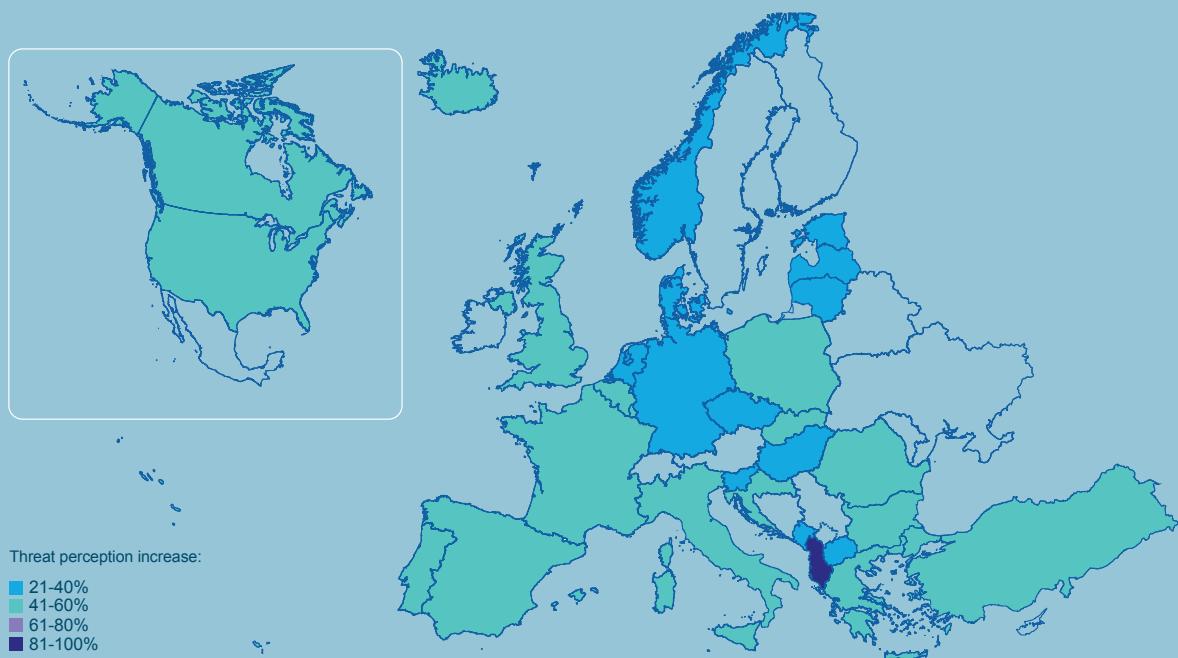
NATO keeps us safe

The majority of Allied citizens (58%) continue to see NATO membership as decreasing the likelihood of attack by a foreign nation, with only 16% disagreeing with that statement. The graph below shows agreement with the statement “Our membership in NATO makes it less likely that a foreign nation will attack our country”.



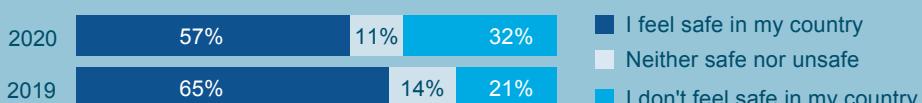
COVID-19: security and the pandemic

Following the first wave of COVID-19, 50% of Allied citizens considered the security threat to their nation had increased due to the pandemic, rising to 56% among 18-24-year-olds.



Perceptions of safety have declined among Allied citizens

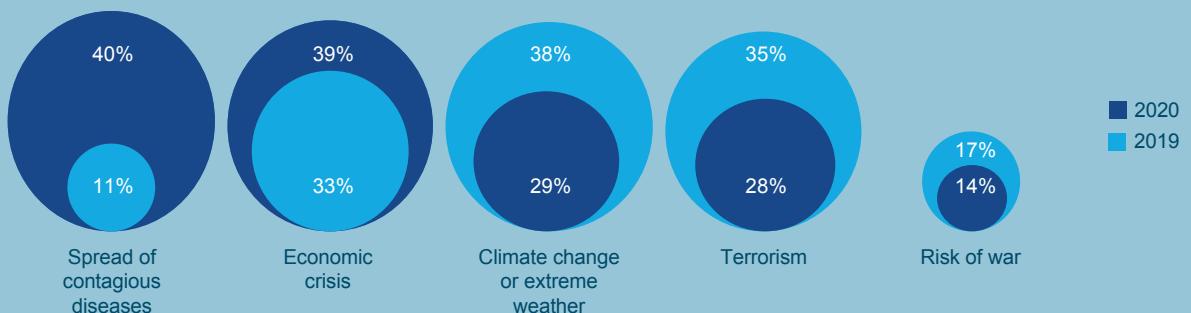
The majority of Allied citizens continue to feel safe in their country, though there was a rise in the proportion of citizens who do not feel secure (32% in 2020, against 21% in 2019).



Spread of contagious disease and economic crisis are primary concerns for Allied citizens

Alliance-wide, concerns about the risk of war remain low (14%).

In 2020, there has been a significant shift in topics of concern among Allied citizens in the context of the COVID-19 pandemic. The priority concern for Allied citizens is contagious disease (40%). These data show responses to the question 'Which of the following are of greatest concern to you?' in November 2019 and November 2020.





The Secretary General's online press conference ahead of the meeting of NATO Defence Ministers is managed from the studio control room. Brussels, Belgium, October 2020.

NATO's Communications: 2020 Highlights

NATO's communications efforts in 2020 included press and media activities, speeches, digital outreach and sponsored conferences, workshops and roundtables. With the COVID-19 pandemic preventing people from meeting in person, NATO quickly adapted its digital platforms and conducted most of its activities and events virtually.

NATO public communications activities focused on new and diverse audiences, with a particular focus on younger citizens and women, engaging on topics ranging from countering hybrid threats, to strengthening cyber security and tackling climate change. The #WeAreNATO campaign is an example of this outreach and aims to tell NATO's story and present NATO's work to less traditional audiences.

NATO also continued to engage with the public using its digital communication channels. The NATO website and social media platforms, including NATO

Social Media

Platforms continued to grow in 2020, with the largest increases by percentage year on year seen on LinkedIn (34%), Instagram (26%), YouTube (23%) and Twitter (14%).

flagship and leadership accounts, actively showcased NATO's deterrence and defence efforts in times of COVID-19. This signalled the Alliance's continued readiness to protect all its citizens against any threat under particularly challenging circumstances.

Engaging Young People

In the context of the Secretary General's NATO 2030 initiative, NATO actively engaged young audiences and sought their views, ideas and recommendations on how to make the Alliance future-proof.

On 28 September 2020, the Secretary General engaged with nearly 800 students from 10 universities across the Alliance. They discussed the challenges that NATO is facing, with a focus on climate change.

On 9 November 2020, the NATO 2030 Youth Summit, organised in cooperation with the Munich Security Conference, brought together hundreds of young people from across the Alliance for an online conversation with the Secretary General and other NATO leaders, and a series of interactive debates focused on keeping NATO strong militarily, making it stronger politically and taking a more global approach. At the event, the Secretary General said, "*You – tomorrow's leaders, both in North America and Europe – have the greatest stake in our security. So NATO 2030 is the chance for you to step up. And safeguard your future. Your freedom. Your Alliance.*"

Protecting Our Citizens against Hostile Narratives and Disinformation

NATO adapted to respond to the proliferation of disinformation, propaganda and misinformation during the pandemic. On this, NATO's principle is clear – the Alliance is committed to fact-based, timely, credible public communications. This allows NATO to have an impact in a contested information space.

The Alliance's approach to disinformation involves a twin-track model. First, NATO seeks to understand the problem by tracking, monitoring and analysing reports on the changing information environment relevant to NATO's mission. This enables NATO to evaluate the effectiveness of its own communications, and to assess the impact of hostile information activities in the information space.

The Alliance then embeds these insights into its response, enabling NATO to engage audiences by tailoring its communications to effectively counter disinformation. For example, in July 2020, NATO launched a targeted social media campaign with the goal of raising awareness about, and building resilience against, misinformation and disinformation in the context of the pandemic. Innovative posts reached out particularly to younger audiences and were widely shared on social media. The campaign was run in Bosnian, Czech, English, French and Russian languages.

These two strands of work are underpinned by coordination with Allies, partners and other institutions, such as the EU, the G7 and the United Nations.

The sophistication of hostile information, including disinformation, is expected to continue to grow. For this reason, building robust resilience over the medium to long term remains necessary. It is also important for citizens to assess the information they receive critically. NATO contributed to these efforts to build societal resilience to disinformation. Non-governmental organisations, think-tanks and universities were invited (through a call for applications at the end of 2020) to submit innovative projects aimed at enhancing societal resilience to disinformation. Of the 62 projects received, 30 were selected for NATO support. The selected projects range from handbooks and techniques on how to detect and counter disinformation, to analytical studies and online education initiatives.



In 2020, NATO quickly adapted to both understand and respond to an increase in hostile information, including disinformation, by engaging Allied citizens with proactive, factual communications that strengthen public support for the Alliance and our belief in freedom, democracy and the rule of law.

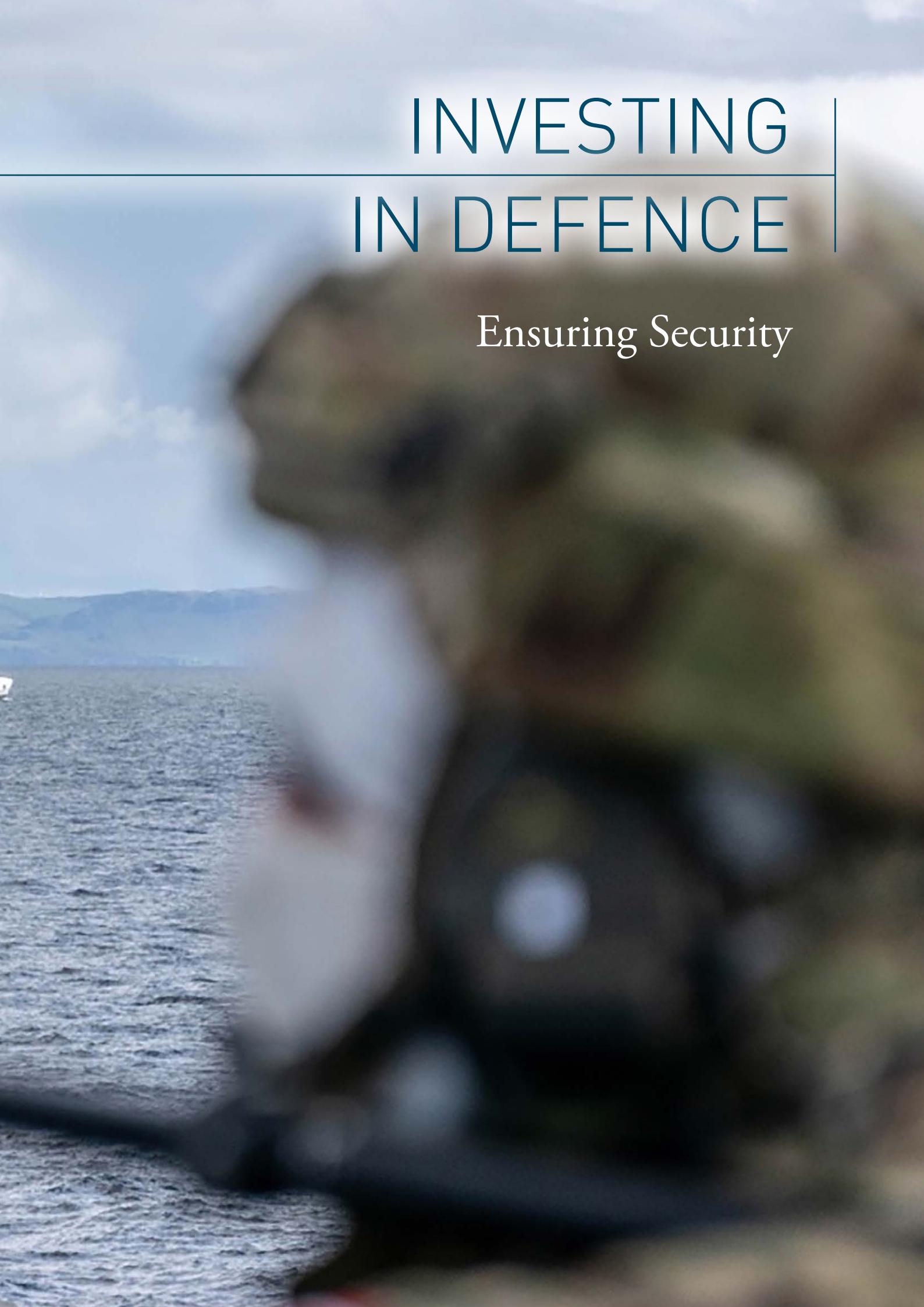
Chris Riley (United Kingdom)

Head, Strategic Communications Unit,
NATO Headquarters, Brussels, Belgium



INVESTING IN DEFENCE

Ensuring Security



While prioritising defence in the middle of a health crisis is not easy, we need to stay the course. Because the threats and the challenges that made us agree to spend more in the first place have not disappeared. Because the pandemic has demonstrated the vital role that our armed forces play in support of civilian efforts. And because we need to maintain our technological edge in a competitive world.

NATO Secretary General Jens Stoltenberg
GlobSec, 7 October 2020.

The security threats and challenges that led to the adoption of the Defence Investment Pledge have not subsided with the pandemic. On the contrary,

COVID-19 has exacerbated existing threats and made the security environment more unpredictable. The need to keep investing in defence remains essential.

The 2014 Defence Investment Pledge

At the NATO Summit in 2014, Allies endorsed the Defence Investment Pledge and recognised that fair burden-sharing is the foundation of the Alliance. The pledge calls for all Allies to aim to meet the NATO-agreed guideline of spending 2% of Gross Domestic Product on defence by 2024, and to spend at least 20% of annual defence expenditure on major new equipment, including related research and development, within the same timeframe. The pledge also commits Allies to ensuring that their land, air and maritime forces meet NATO-agreed guidelines for deployability, sustainability and other agreed metrics, and that their armed forces can operate together effectively, including through the implementation of NATO standards and doctrines.

2020 marked the sixth consecutive year of growth in defence spending by European Allies and Canada, with an increase in real terms of 3.9% from 2019 to 2020. Moreover, 11 Allies met the guideline of spending 2% of their Gross Domestic Product on defence, up from just three Allies in 2014.⁴

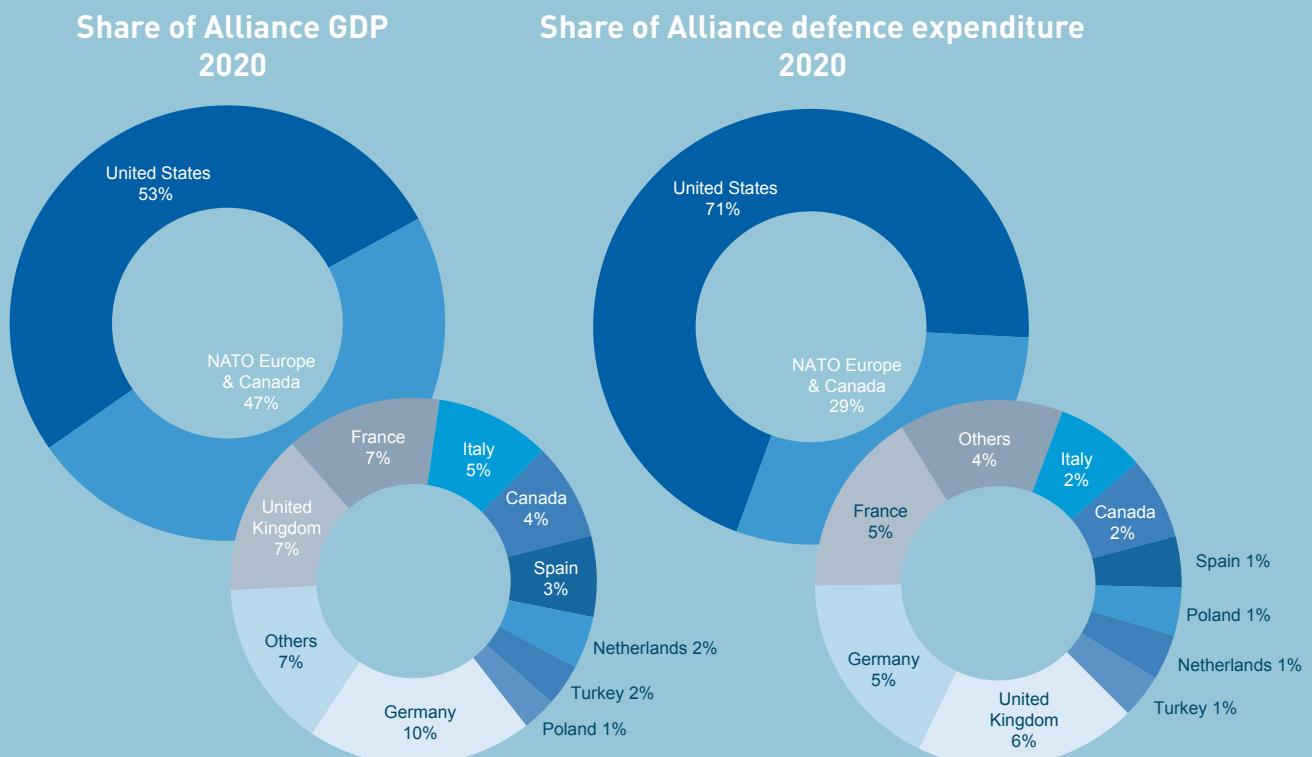
Between 2014 and 2020, European Allies and Canada added a cumulative total of USD 190 billion to their defence budgets.

In 2020, the United States accounted for 53% of the Allies' combined Gross Domestic Product and 71% of combined defence expenditure. The total NATO military spending in 2020 is estimated to have been above USD 1 trillion.

Allies continued to invest in maintaining the capabilities the Alliance needs to defend its citizens. They made progress on the commitment to invest 20% or more of defence expenditure in major new capabilities. Nineteen Allies spent more in real terms on major equipment than they did in 2019. Eighteen Allies met the NATO-agreed 20% guideline compared to seven in 2014.

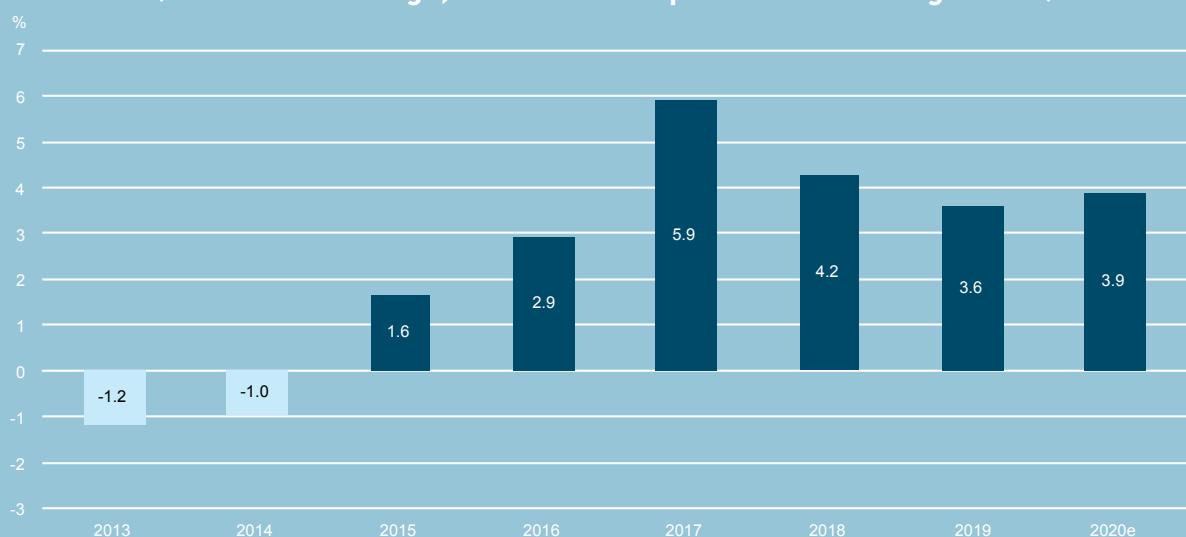
Allies are not just spending more on defence and delivering more of the heavier, high-end capabilities NATO needs. They are also improving the readiness, deployability, sustainability and interoperability of their forces in line with the NATO Capability Targets. These targets aim to ensure that NATO has the capabilities and forces it needs.

⁴ For all the graphs in this chapter of the report, it should be noted that Iceland has no armed forces. The figures presented at aggregate level may differ from the sum of their components due to rounding. All figures for 2020 are estimates.

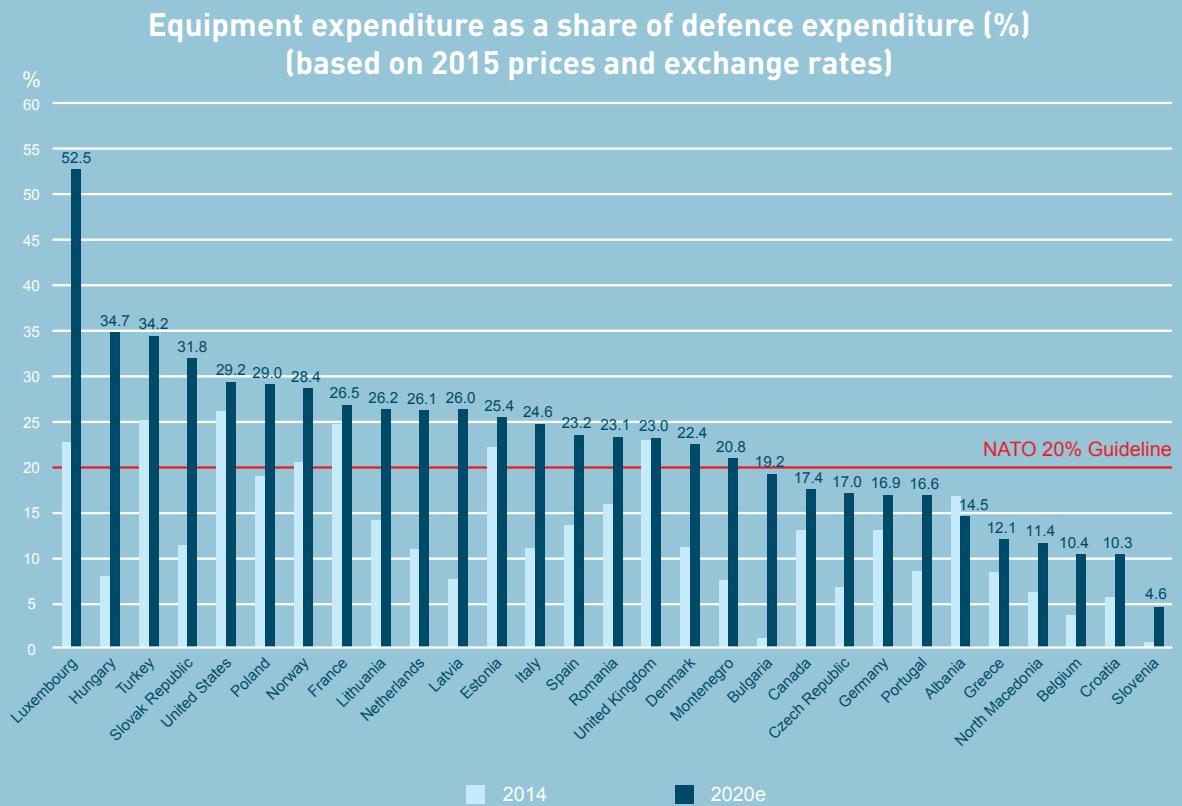
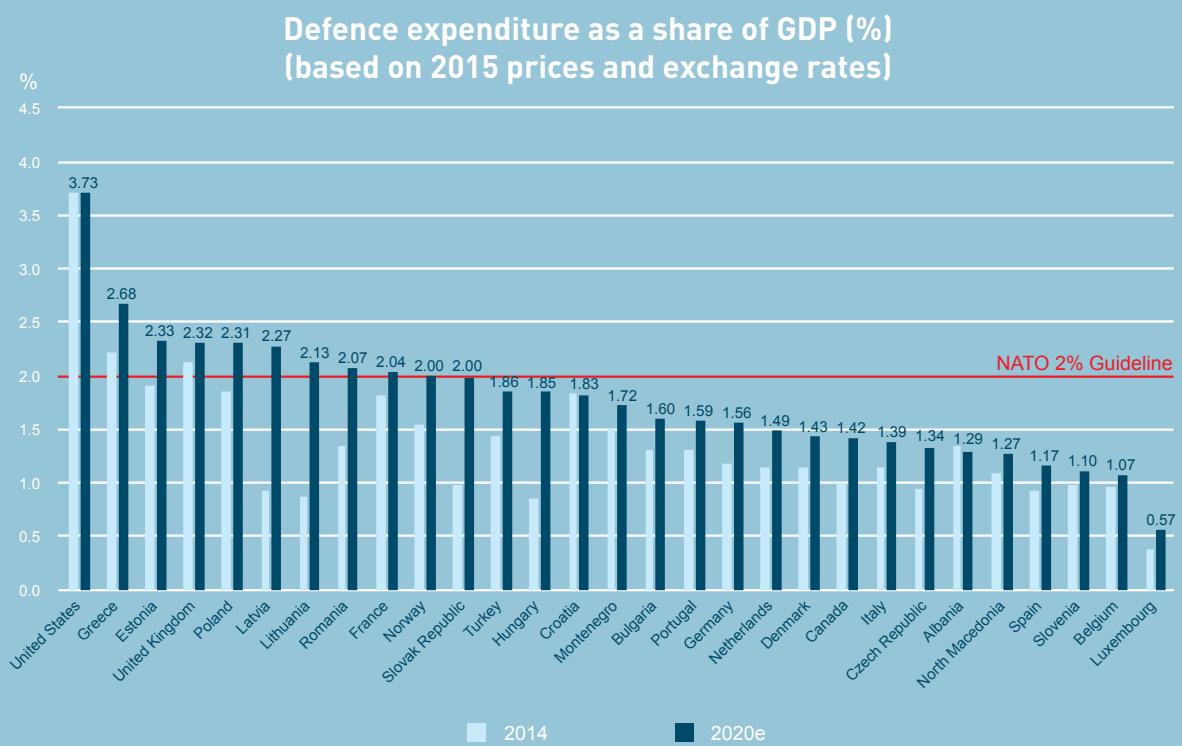


Based on current prices and exchange rates.

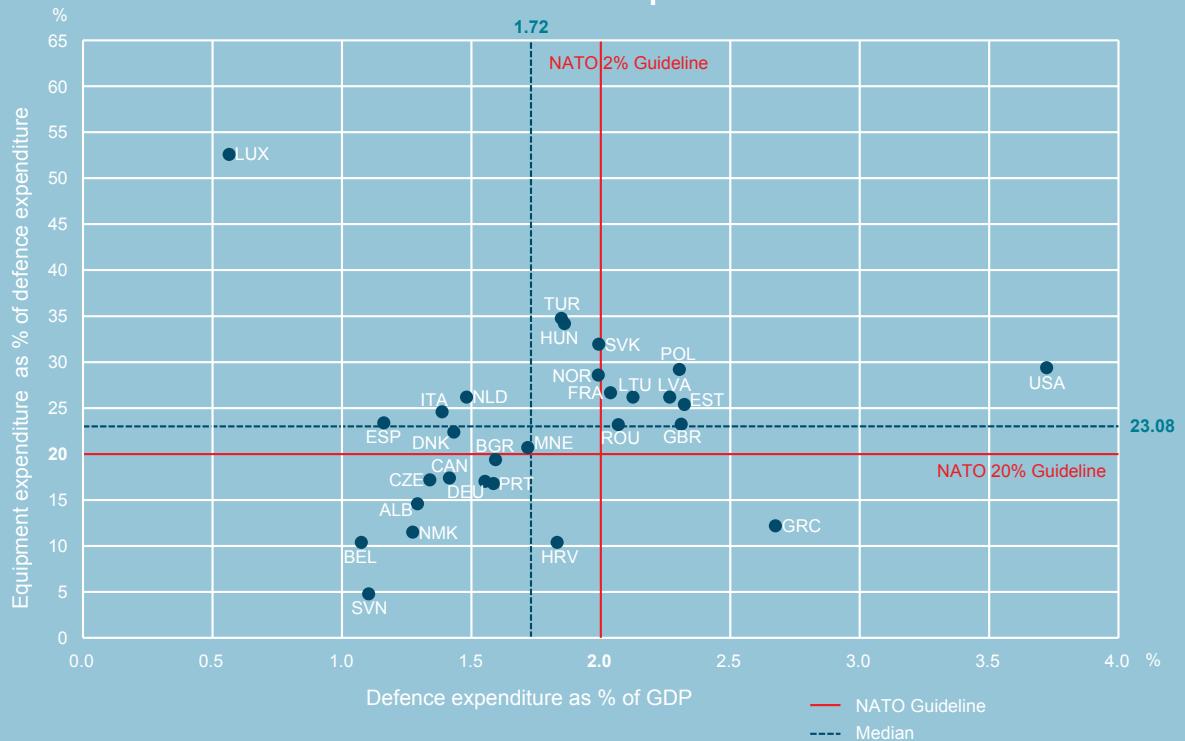
NATO Europe and Canada - defence expenditure (annual real change, based on 2015 prices and exchange rates)



Notes: Figures for 2020 are estimates. The NATO Europe and Canada aggregate from 2017 onwards includes Montenegro, which became an Ally on 5 June 2017, and from 2020 onwards includes North Macedonia, which became an Ally on 27 March 2020.



Defence expenditure as a share of GDP versus equipment expenditure as a share of defence expenditure - 2020





FIT FOR PURPOSE: MODERNISING NATO



*Technological dominance has always been key to NATO's success.
But that dominance is now being challenged by those who do not share our values.
So we must redouble our efforts*

NATO Secretary General Jens Stoltenberg,
GlobSec 2020, 7 October 2020.

One of NATO's greatest strengths is its ability to adapt to the changing security environment – something it has done again and again since its creation in 1949.

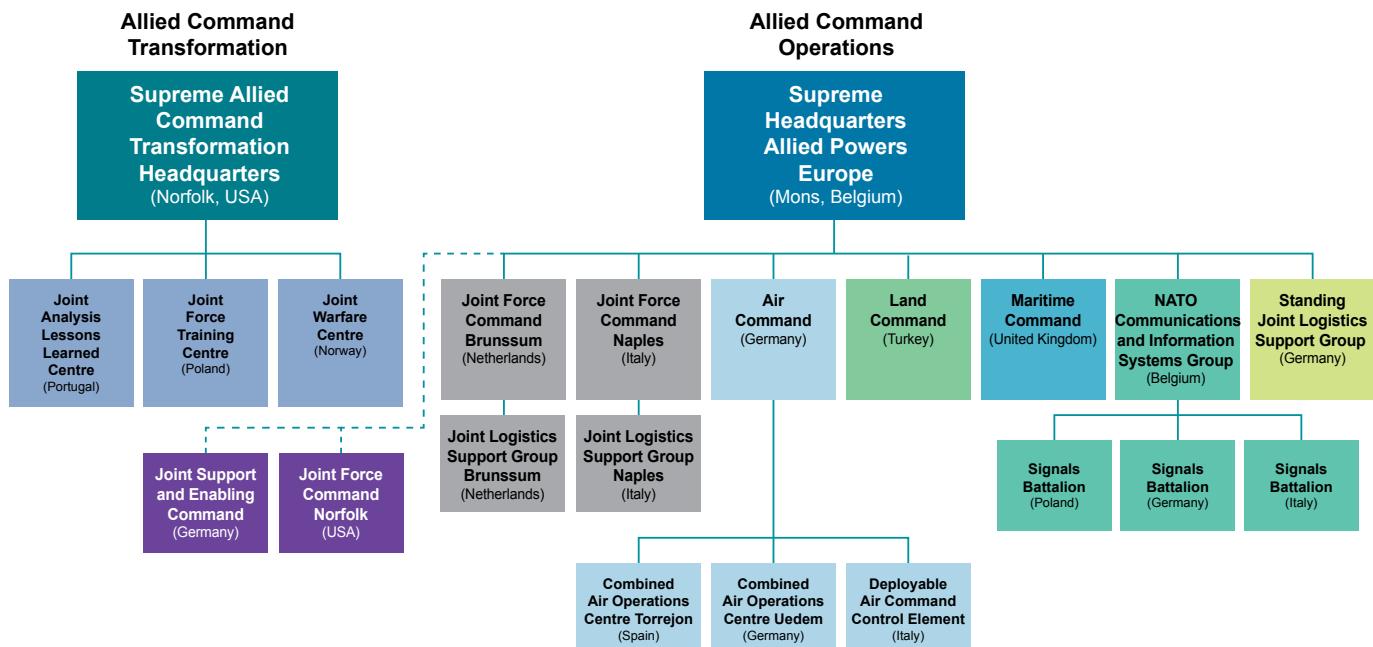
In 2020, NATO adapted to meet the challenges of a more complex security environment. The Alliance continued to modernise its structures and capabilities and redoubled its efforts with respect to emerging and disruptive technologies.

Ongoing Modernisation of the NATO Command Structure

The NATO Command Structure – the military backbone of the Alliance – continued to adapt to a changing security environment. More than 1,200 additional posts have been established since 2018. The operational command in Ulm, Germany (Joint Support and Enabling Command) that supports the rapid movement of troops and equipment into, across and out of Europe, became operational in September 2019. In September 2020, the Joint Force Command in Norfolk, Virginia (United States) reached initial operational capability. This new command focuses on protecting transatlantic sea lines of communication. The Cyberspace Operations Centre at Allied Command Operations in Mons, Belgium also became operational in 2020. This centre coordinates NATO operations in cyberspace, provides cyberspace situational awareness, assesses risks and supports decision-making, planning and exercises.

In October 2020, Allies decided to establish a NATO Space Centre at Allied Air Command in Ramstein, Germany to help coordinate Allied space activities; support NATO missions and operations from space, including with communications and satellite imagery; and protect Allied space systems by sharing information about potential threats. The Alliance also opened two new Joint Logistics Support Groups in Brunssum, the Netherlands, and Naples, Italy.

NATO Command Structure





Investing in Cutting-Edge Capabilities

To carry out all missions and tasks, the Alliance needs interoperable, cutting-edge and cost-effective capabilities. NATO's role is to support Allies in developing and investing in the right capabilities. To do so, NATO invests in a number of multinational High Visibility Projects. These projects are usually launched and advanced by Allied Defence Ministers and address one or more key NATO defence planning priorities. Multinational cooperation on capability development and delivery enables Allies, and in some instances partners, to pool resources and share expertise in order to close key capability gaps.

In a changed security landscape, agreeing the Defence Planning Capability Report was crucial, as this confidential report - almost 2,000 pages - assesses NATO and its 30 Allies' capabilities and forces for the full range of potential operations.

Paul Savereux (Canada)

Director, Defence Planning,
NATO Headquarters, Brussels, Belgium

2020 Multinational Capability Projects



In 2020, 20 Allies⁵ virtually launched four new High-Visibility Projects covering a wide range of capabilities:

- The NATO Flight Training Europe initiative aims to create a network of pilot training campuses across Europe to address the fact that European Allies operate a large number of training facilities that are not systematically connected. The initiative is catered to the entire spectrum of aircrews, including those dedicated to operating fighter jets, fixed-wing aircraft, helicopters, as well as remotely piloted air systems.
- The Modular Ground Based Air Defence project seeks to develop a more versatile and flexible solution to the full range of air and missile threats by building a systematic modular capability around an integrated command and control system.
- The Rapidly Deployable Mobile Counter Rockets, Artillery and Mortar effort focuses on the development and procurement of innovative solutions such as directed energy-based capabilities to increase the resilience of Allied forces.
- The Next Generation Rotorcraft Capability aims to design and potentially develop a brand new multi-role vertical lift platform by leveraging a broad range of advances in technology, production methods, as well as operational concepts.



Eleven Defence Ministers launch the NATO Flight Training Europe initiative in a virtual signing ceremony chaired by NATO Deputy Secretary General Mircea Geoană. 19 June 2020.



The majority of medium-sized helicopters in NATO service have been flying between 40-60 years; the bulk of these airframes will be retired over the next two decades. The Next Generation Rotorcraft Capability will look at emerging technologies like sensory cueing, augmented reality, and assisting flight crews with artificial intelligence and machine learning to ensure major upgrades in NATO's vertical lift capability.

⁵ Belgium, Bulgaria, Croatia, the Czech Republic, Denmark, France, Germany, Greece, Hungary, Italy, Latvia, Montenegro, the Netherlands, North Macedonia, Poland, Romania, Slovenia, Spain, Turkey and the United Kingdom.

2020 also saw significant progress in existing High Visibility Projects:

- Under the Air-to-Ground Precision Guided Munition effort, participating nations received munitions from the second multinational acquisition cycle, achieving cost savings of 15-20 per cent and deliveries up to one year ahead of schedule.



The Air-to-Ground Precision Guided Munition framework enabled the participants to receive munitions from the second multinational acquisition cycle with cost savings of 15-20 per cent and up to one year ahead of schedule.

- The first class graduated from the training module made available under the Multinational Special Aviation Programme, specifically dedicated to train Special Operations Forces aviators. The training facility in Zadar, Croatia officially opened in December 2019.

- The Composite Special Operations Component Command became fully operational in December. It will be able to lead and coordinate Special Operations Forces in support of NATO operations. The three participating Allies – Belgium, Denmark and the Netherlands – will make the command available for the NATO Response Force in 2021.

Existing multinational High Visibility Projects also kept attracting additional participants from both Allies and partners. For example, the Land Battle Decisive Munitions initiative, the largest multinational High Visibility Project, welcomed the Czech Republic and Sweden – bringing the total number of participating nations to 23. Canada, Romania and Australia joined the Maritime Unmanned Systems effort. Australia's joining marks the first occasion of a global partner joining one of NATO's multinational High Visibility Projects, reflecting the growing global appeal of these NATO initiatives.

The first three of nine multi-role aircraft that will make up NATO's future fleet landed at the main operating base in Eindhoven.
The Netherlands, June 2020.



The Multi Role Tanker Transport Capability

Under the Multi Role Tanker Transport Capability framework, developed jointly by NATO and the EU, the first three aircraft were delivered to the multinational fleet in Eindhoven, the Netherlands. In 2020, the ninth aircraft was added to the contract after Luxembourg's decision to increase its participation in the programme from 200 to 1,200 flight hours. The remaining six aircraft will be delivered over the coming years, with the final delivery scheduled for 2023. The fleet will be used by the participants⁶ to provide air-to-air refuelling, vital in supporting operations that require long-range air missions, as well as medical evacuation if needed.

⁶ Belgium, the Czech Republic, Germany, Luxembourg, the Netherlands and Norway.



An Italian air force member stands by as a pallet of medical supplies is offloaded in Rome. Rapid Air Mobility enabled 15,000 kg of COVID-19 relief including masks, surgical gowns and test kits to be delivered from Milan, Italy, May 2020.

Aviation Capabilities

2020 saw continued modernisation of NATO's air capabilities. Significant milestones were achieved in the areas of rapid air mobility, standardization and setting of future requirements, all underpinned by robust civil-military cooperation.

With the outbreak of COVID-19, the North Atlantic Council activated the NATO Rapid Air Mobility process for the first time in March. Originally conceived for crisis deployment, NATO staff adapted the Rapid Air Mobility process to support Allies and partners with the unimpeded air transportation of medical supplies across Europe. The initiative simplifies procedures for military relief flights by using a unique NATO call sign to accelerate air-traffic control and diplomatic clearances – a process which could otherwise take several days. This initiative is possible because of the close cooperation between NATO and the European Organisation for the Safety of Air Navigation (EUROCONTROL).

Rapid Air Mobility

Rapid Air Mobility simplifies procedures for military relief flights by using a designated NATO call sign to expedite air traffic control clearances



Priority handling
for "OAN"
call sign



Achieved through
close cooperation
with Eurocontrol



Enables quick
deployment at
short notice



A-400Ms (above) and C-130Js were among aircraft used by nations for Rapid Air Mobility in 2020

	NAME FIRST RAPID AIR MOBILITY FLIGHT TUR ANKARA	DATE 10 APR 20	FLIGHT OAN	CARGO
				MASKS GLOVES GOWNS
37 FLIGHT LEGS	31 MARCH 2020 NORTH ATLANTIC COUNCIL ACTIVATES RAPID AIR MOBILITY FOR THE FIRST TIME			



When COVID-19 emerged, rapid deployment of medical equipment and supplies was vital in fighting the spread of the pandemic: NATO's Rapid Air Mobility was adapted to meet that need. Allies helping Allies is what NATO is about.

Raluca-Ana Anghelache (Romania)

Airworthiness Coordinator,
Aerospace Capabilities,
NATO Headquarters, Brussels, Belgium

As part of its Total Systems Approach to Aviation, NATO continued to develop its capabilities to ensure appropriate access to airspace by addressing all

aspects related to aviation – including air traffic management, aeronautical technologies, airfield capabilities, manned aircraft and remotely piloted air systems, airworthiness, licensing and training. In 2020, NATO invested in improvements in the readiness of unmanned aircraft capabilities as well as in delivering Allied capabilities in a more coordinated way. Since 2018, through the implementation of the NATO Airworthiness Policy, 10 military and 26 civilian airworthiness authorities have been recognised as able to certify that aircraft owned by NATO or operated on behalf of NATO are safe to fly.

In September, the NATO-led Balkans Aviation Normalisation Meetings process accomplished a crucial development in aviation safety oversight in the airspace over Kosovo. Assisted by Iceland's contribution to the Kosovo Force, the NATO-led process agreed conditions for the opening of new south-west air routes in the lower airspace. This will improve the civil air traffic routing to and from Pristina Airport, with large benefits in terms of reduced delays, lower fuel consumption and reduced pollution.

Intelligence, Surveillance and Reconnaissance Capabilities



NATO Alliance Ground Surveillance Force Commander Brigadier General Houston R. Cantwell (left) and NATO Alliance Ground Surveillance Force Deputy Commander Colonel Stefano Bianca (right) stand in front of the fifth and final aircraft to join the Alliance Ground Surveillance fleet in Sigonella, Italy, November 2020.

The Alliance has been working to ensure NATO commanders enjoy a state-of-the-art capability to conduct ground surveillance, operating at considerable standoff distances and no matter the weather or lighting conditions. The NATO Alliance Ground Surveillance programme ensures access to Joint Intelligence, Surveillance and Reconnaissance capability to the benefit of all NATO Allies. It is a vital new capability for NATO operations and missions. Through this programme, 15 NATO Allies⁷ are acquiring high-altitude long-endurance Intelligence, Surveillance and Reconnaissance capabilities. These acquisitions will enable the Alliance to survey wide areas from remotely piloted aircraft, fully owned and operated by NATO. In addition, all NATO Allies will have the possibility to access the acquired data through national communications and use these data within their national Intelligence, Surveillance and Reconnaissance processes.

⁷ The Alliance Ground Surveillance system is being developed with significant contributions from 15 Allies - Bulgaria, the Czech Republic, Denmark, Estonia, Germany, Italy, Latvia, Lithuania, Luxembourg, Norway, Poland, Romania, Slovakia, Slovenia and the United States.

In 2020, the programme reached its final stages, with three aircraft ferried from the United States to the Alliance Ground Surveillance Programme Main Operating Base in Sigonella, Italy. The aircraft joined the two that had arrived in 2019, completing the NATO Alliance Ground Surveillance Force. Since June, the Force has been undergoing training and familiarisation flights and the first missions are expected to begin in early 2021.

Joint Intelligence, Surveillance and Reconnaissance is a cornerstone of the Alliance's common situational awareness and vital for the success of NATO and Allied operations and missions. In view of today's rapidly changing security environment, NATO Joint Intelligence, Surveillance and Reconnaissance is adapting to ensure that the Alliance has the needed information and intelligence to make the right decisions at the right time. This is why NATO Allies endorsed a new strategy in October. The strategy will help to develop and field interoperable intelligence capabilities in a more agile manner, harvesting the power of cutting-edge technologies, such as big data, artificial intelligence and autonomous systems.

The Alliance also regularly exercises its Joint Intelligence, Surveillance and Reconnaissance



Tracking the arrival of the fifth and final Alliance Ground Surveillance aircraft to its home in Sigonella, Italy was a highlight in 2020 – it marked a major milestone for NATO and launched a new era for shared situational awareness for the Alliance.

Zoe White (United Kingdom)

Executive Officer, Defence Investment,
NATO Headquarters, Brussels, Belgium

capabilities. In June, NATO conducted its biannual Unified Vision event. With over 250 participants from 12 NATO nations⁸ and multiple intelligence systems in space, air, land and sea, the event allowed Allies to exchange and analyse large amounts of intelligence data in an operational environment.

NATO's Future Surveillance and Control Capabilities

The NATO Airborne Warning and Control System (AWACS) has been the backbone for Alliance operations. It has patrolled American skies after 9/11, served to support NATO's operation in Afghanistan and provided assistance to the Global Coalition against ISIS, among other tasks. The Alliance is currently undertaking a major modernisation programme that will equip the AWACS fleet with sophisticated new communications and networking capabilities.

At the same time, under the Alliance Future Surveillance and Control initiative, NATO is working in close partnership with Allied industry to maintain its situational awareness and decision-making advantage. To do so, NATO is looking to develop a follow-on capability that will replace the AWACS fleet after its retirement around 2035. NATO took major decisions in 2020. In March, NATO received six high-level concept proposals developed by six transatlantic firms and consortia, comprising expertise from both defence and non-defence sectors. The concepts encompassed innovative ideas to fulfil the AWACS missions in unique and disruptive ways. In November, Allied leaders selected the best ideas from the six proposals and committed to continue working with industry to develop and refine these options. A new competition will launch in 2021 for a second round of more in-depth industry advice, valued at up to EUR 90 million. NATO is ensuring that it remains relevant and technologically adept, while also benefitting from the widest range of innovative industry developments.

⁸ Belgium, Croatia, the Czech Republic, Denmark, France, Greece, Hungary, Italy, the Netherlands, Poland, the United Kingdom and the United States.



Paratroopers with the US Army's 173rd Airborne assault an objective during Exercise Saber Junction. Germany, August 2020.

Land Capabilities

In 2020, the Alliance also focused on how to enhance soldiers' effectiveness, including by looking at how to lighten our soldiers' carrying burden. Examples include developing new load carrying systems, exoskeletons, centralised and self-generated power, smart textiles and networked intelligent sensors. Exercises, such as Coalition Warrior virtually in June 2020, tested that NATO standards are seamlessly adopted and shared between soldiers of different Allied and partner nations.

2020 was a successful year for multinational cooperation in the land domain. In November 2020, France, Germany, Greece, Italy and the United Kingdom signed a Letter of Intent to launch the Next Generation Rotorcraft Capability. Allies also agreed to join efforts to acquire capabilities together to address the challenges of chemical, biological, radiological and nuclear defence, and are discussing the best ways to develop gap-crossing capabilities to enhance battlefield mobility.



Exercise Dynamic Mongoose is held in the High North every summer, hosted consecutively by Norway and Iceland, where ships, submarines, as well as aircraft converge for anti-submarine warfare and anti-surface warfare training. Iceland, July 2020.

Maritime Capabilities

NATO focused on high-end warfighting capabilities, including by investing in electronic warfare capabilities, creating specialist teams to tackle the threat posed by hypersonic systems, and accelerating interoperability of new technologies with conventional forces to increase the Alliance's readiness. NATO also developed a strategy and technical guidance to ensure its ships are able to operate in the extremely harsh environment in the High North.

Maritime Smart Defence initiatives, such as the Offboard Electronic Warfare Decoy and Anti-Submarine Warfare Target, continue to break new ground and present new ways of warfighting and force generation. Underpinning all efforts is the exploitation of new and disruptive technology through innovation. The flagship initiative in this area is the NATO Maritime Unmanned Systems initiative.

Throughout 2020, this initiative has driven the development of unmanned systems capabilities and of interoperability standards required to integrate these systems into Allied navies. The initiative has grown to 17 nations with Australia, Canada and Romania joining in the autumn⁹. Some of these



Dr Catherine Warner, Director of the NATO Centre for Maritime Research and Experimentation, signs the initiating Letter of Intent for the NATO Smart Defence initiative "Deployable Anti-Submarine Warfare Barrier". La Spezia, Italy, 6 November 2020.

nations, together with NATO organisations such as Allied Maritime Command and the NATO Centre for Maritime Research and Experimentation, have launched a Smart Defence initiative to close the NATO shortfall in anti-submarine warfare. Through innovative use of unmanned systems, the NATO Centre for Maritime Research and Experimentation will engage in a multinational approach to develop a technology demonstrator for a "Deployable Anti-Submarine Warfare Barrier."

⁹ Australia, Belgium, Canada, Denmark, France, Germany, Greece, Italy, the Netherlands, Norway, Poland, Portugal, Romania, Spain, Turkey, the United Kingdom and the United States.

Investing in Innovation and Data

Accelerating the Adoption of Emerging and Disruptive Technologies

NATO's technological edge has always been an essential enabler of its ability to deter and defend against potential adversaries. Preserving NATO's technological edge in today's fast-changing world requires NATO to fully understand the role of emerging and disruptive technologies, as well as to accelerate the adoption of these technologies.

In 2020, NATO implemented the Roadmap on Emerging and Disruptive Technologies, which NATO Leaders adopted in London in 2019. This work sets the foundations to allow NATO to adopt new technologies at the speed of relevance and ensure coherence of NATO's innovation efforts. Work also continued to build a common understanding among Allies on the challenges and opportunities arising from the key technology areas of data, artificial intelligence, autonomy, hypersonic systems, quantum technologies as well as biotechnologies and human enhancements. Throughout the year, NATO conducted a number of workshops in these areas, each involving up to 150 participants, bringing together Allied officials, the private sector as well as academia. The workshops also tackled cross-cutting challenges such as interoperability, financing, arms control and NATO's engagement with non-defence technology companies.

In July, the Secretary General announced the creation of the NATO Advisory Group on Emerging and Disruptive Technologies. The group, composed of 12 experts from academia and industry, advises NATO on its efforts to drive the adoption of new technologies. The experts have led cutting-edge research, driven policy developments on emerging

technologies and have been responsible for the delivery of innovation programmes in their respective domains. In 2020, the group provided advice on how NATO might best fund its innovation efforts, build an operation network of Innovation Centres, promote successful innovation business and operating models, and increase the level of technical literacy across NATO.

Allied Command Transformation in Norfolk, Virginia (United States) continued to lead the work on the transformation of NATO's military structure, forces, capabilities and doctrine. In 2020, Allied Command Transformation led an in-depth assessment of the military implications of critical emerging and disruptive technologies, focusing on how to adapt NATO's operational posture and process to reflect new threats. It also focused on what acquisition policies and procedures need to be developed to exploit emerging and disruptive technologies. The command also invested in its innovation hub, pairing programmers, system administrators and security experts to experiment and bring ideas to life as prototypes. The lab focused on autonomy and underwater communication to address defence planning priorities. The command and the NATO Communications and Information Agency launched various innovation challenges that ran throughout 2020 to support the development of cutting-edge applications. The NATO Communications and Information Agency challenges aimed at improving the performance of aerial radars and the nine most promising entries were presented as part of the Agency's NITEC Connect event, held virtually in November 2020, with the top three pitches being awarded contracts.

Data as a Strategic Resource

NATO is committed to leveraging data as a strategic resource. Priorities include modernise policies on data-sharing, protection, and exploitation, and developing skills, data literacy, and enabling technologies for data science, big data analytics, machine learning and artificial intelligence to more rapidly analyse and exploit its data. For this purpose, NATO established a Data Policy Unit to maintain information superiority and enable data-driven decision-making. The unit advocates, leads and helps manage the use of data as a strategic asset for NATO.

In 2020, NATO continued to invest in a cloud-forward approach and in its data science capabilities. The Alliance increased its capacity to collect and store data to improve its digital preservation and information management capabilities. NATO used data to inform, identify and mitigate COVID-19 risks to NATO functions, aid commanders' situational awareness, assess NATO policies and exercise lessons learned, and improve readiness assessments. NATO's Cyber Threat Assessment Centre undertook a number of cutting-edge proof-of-concept data science projects, including mapping disinformation campaigns and tracking the infrastructure of cyber threat actors.

The Alliance partnered with industry through the NATO Industrial Advisory Group to collect best practices for exploiting the true value of data and defining protection mechanisms for future safer data. NATO also cooperated with academia and research labs to integrate machine learning and deep learning methodologies as part of NATO's work to understand the information environment.



NATO is building a connected, secured, managed and trusted data ecosystem, guided by our future Data Exploitation Framework Policy. These will be underpinned by Alliance core values, strong collaboration and an open data sharing approach.

Mimi Nguyen, M.E. (United States)

Data Policy Officer, Data Policy,
NATO Headquarters, Brussels, Belgium

The NATO Science and Technology Organization in 2020

The NATO Science and Technology Organization delivers advice and scientific solutions to meet the Alliance's evolving needs. In 2020, the NATO Science and Technology Organization carried out activities in the areas depicted below:

2020 highlights include:

- Assessing current and emerging technologies for ice protection of military air and sea platforms, to enable safer and more efficient Alliance operations in cold environments;
- Testing interoperability standards for controlling unmanned ground systems in a multinational operational scenario;
- Developing a report for military operators and decision-makers on the key technical challenges of hypersonic weapons systems;
- Reviewing current state-of-the-art technologies for the verification of the dismantlement of nuclear weapons;
- Defining an Arctic Science and Technology Strategy to identify the critical environmental aspects of the Arctic climate that need to be monitored for anti-submarine warfare;
- Publishing the "Science and Technology Trends: 2020-2040" report, a comprehensive assessment of new technologies, informing decision-makers and providing context for policy development within the Alliance.



Centre for Maritime Research and Experimentation researchers deploying a Slocum Glider equipped with innovative sensing technologies during the Mediterranean-Recognized Environmental Picture 2020. Sicily Channel, Italy, October 2020.



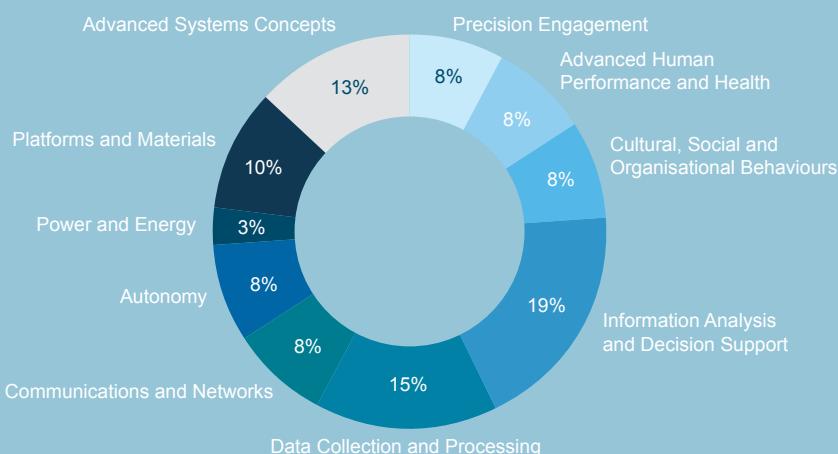
Climate change directly affects our global security, leading to a more unsafe and unstable world. We provide the knowledge to understand and assess how our climate is changing, supporting NATO decision-making and operations.

Dr Sandro Carniel (Italy)

Research Division Head,
Science and Technology Organization,
Centre for Maritime Research and
Experimentation,
La Spezia, Italy

In 2020, the Science and Technology Organization's Centre for Maritime Research and Experimentation in La Spezia, Italy participated in a novel experiment at sea sponsored by Allied Command Transformation. The Mediterranean Recognized Environmental Picture experiment took place in the Sicily Channel in the fall of 2020. Its aim was to assess the capability of state-of-the-art oceanic numerical models to understand and predict the underwater environment. Big data from a range of sensors was imported into the ocean predictions models via advanced data assimilation techniques. Through this activity, NATO is enhancing its ability to conduct rapid environmental assessments of regions where the effects of climate change are harder to determine using traditional methods, like the Arctic Ocean.

2020 NATO Science & Technology Activity



The Young Scientist Award

The scientific committees in the NATO Science and Technology Organization annually recognise the exceptional contributions of their early career scientists through the Young Scientist Awards. These awards are designed to encourage participation of promising young researchers and to enrich diversity in the NATO Science and Technology community. The 2020 winners worked on topics such as the exploitation of social media for intelligence purposes or the military applications of the Internet of Things. One of the 2020 Young Scientist award winner was Mr Manas Pradhan from the Fraunhofer Institute for Communication, Information Processing and Ergonomics in Germany. He has been a key driver of the NATO Science and Technology Organization's research on Military Applications of Internet of Things, in particular for improving NATO's urban operations.

Working with Industry

In 2020, NATO continued to strengthen its relationship with industry. To remain successful, the Alliance relies on consistent, interoperable, affordable, agile and innovative capabilities. These can be delivered at quality and speed only through solid partnerships with industry. The emergence of technologies such as artificial intelligence, big data analytics and quantum technologies further highlight the importance of expanding NATO's network of defence and commercial industry, academia and research establishments.

The NATO Industrial Advisory Group comprises over 5,000 companies, including small and medium-sized enterprises from both sides of the Atlantic. The group undertakes studies and formulates recommendations

to help develop initial concepts for NATO capabilities. In 2020, the NATO Industrial Advisory Group finalised 10 studies and launched 15 new technical advice studies on topics including core communications, data-centric security, emerging and disruptive technologies, human augmentation, above water warfare and underwater unmanned vehicles.

Allied industry supported NATO during the COVID-19 crisis, including by offering access to proprietary information to facilitate the real-time analysis and exploitation of data in order to track the evolution of the pandemic, the changes in supplies and the reaction of supply chains.

Assessing the Impact of Emerging and Disruptive Technologies

The NATO Industrial Advisory Group finalised a report on the impact of emerging and disruptive technologies on NATO capability development. More than 80 experts, representing 45 companies from 13 Allied nations, evaluated the technological maturity and the readiness of the market to absorb critical technologies including artificial intelligence, hypervelocity, biotechnology, quantum technologies, as well as 5G and 6G. They also evaluated the potential of new technological and manufacturing processes such as additive manufacturing, thermoforming and continuous compression molding. The group studied meta- and nano-materials as well as new forms of energy generation and storage. The findings and recommendations of the report are being evaluated with the aim of incorporating these technologies in the NATO Defence Planning Process.

Energy Security

A stable, reliable energy supply is critical to Allied economies, societies as well as militaries. In 2020, NATO continued to discuss global energy developments and their security implications, and analysed the impact of attacks against critical energy infrastructure, and of specific challenges, such as Russia's energy policies vis-à-vis its neighbours. Due to COVID-19, many activities took place online. For example, in November 2020, the NATO Istanbul Cooperation Initiative Regional Centre in Kuwait held an online course on the protection of critical energy infrastructure, with the participation of experts from the region. NATO's Annual Energy Security Roundtable, which features speakers from other international organisations and academia, was held online in December.

Work also continued on enhancing energy efficiency in the military to reduce the dependence on fossil fuel, ease the logistical burden and reduce emissions. For example, in 2020, NATO continued its Science for Peace and Security Programme project on 'Harmonised Energy Monitoring and Camp Simulation Tool for Energy Efficiency'. This project aims to develop and test universal energy monitoring equipment, collect energy data in a harmonised way and build an interoperable military camp simulation model. NATO also successfully concluded projects on the development of safer lithium-sulfur batteries and on using fuel cells to improve the efficiency and operational range in unmanned vehicles.

Improving Operational Effectiveness with Innovative Energy Technology

The NATO Science for Peace and Security Programme energy security project 'Improving efficiency and operational range in unmanned vehicles using fuel cells' upgraded unmanned ground vehicles with hybrid power systems, based on batteries and proton exchange membrane fuel cells. During field demonstrations, the unmanned ground vehicles increased autonomous operating time while maintaining core payload and speed.



The 'Husky' platform from the NATO Science for Peace and Security Programme energy security project aims to upgrade unmanned ground vehicles with hybrid power systems. November 2020, Australia

The Bigger Picture: Enhancing Intelligence Coordination

The Alliance has a holistic, effective and responsive approach to intelligence and security. Intelligence assessments facilitate better understanding of threats and risks, enhance situational awareness and are crucial to the adaptation of Alliance security over time.

In 2020, Allies approved the 2020-2023 Strategy for the NATO Intelligence Enterprise. The Strategy sets a high level of ambition in five key areas: security, intelligence production, communication and information systems, workforce, and intelligence enterprise governance and management.

NATO continued to take steps to improve security within NATO and to increase NATO's ability to defend NATO's personnel, information and physical assets. Robust intelligence-sharing and production supported these efforts.

Allies recognise the critical role that intelligence plays in support of strategic decision-making and in the long-term direction and guidance for the Alliance as a whole. NATO, alongside the Allied intelligence community, continued to provide intelligence assessments that bring the widest possible range of quality reporting and analysis tailored to the needs of senior military and political decision-makers. In 2020, the Organization developed a new daily analytic product focused on situational awareness and warning. In addition, the production of intelligence related to new NATO priority areas, such as cyberspace, space and emerging and disruptive technologies was increased.



Timely and relevant intelligence support from the NATO Intelligence Enterprise is key for NATO leaders. As risks, threats and challenges expand, enhancing our collaboration with Allied services, national experts and partners will be a priority.

Alexis Scudder (United States)

Intelligence Production Manager,
Joint Intelligence and Security,
NATO Headquarters, Brussels, Belgium



A Canadian soldier carries spent light anti-tank weapons following the conclusion of Exercise Steele Crescendo. The exercise allowed NATO's enhanced Forward Presence Battlegroup Latvia to practise coordinated defensive firing using live ammunition. Latvia, May 2020.

Exercises: Ensuring the Alliance is Ready

Despite the COVID-19 pandemic, NATO and Allies carried out 88 of the 113 NATO military exercises originally scheduled for 2020. In addition, 25 Allied national exercises were associated with NATO for improving interoperability.

Exercising side-by-side, NATO multinational forces tested their ability to operate together at the tactical level, as well as their effective use of current and future capabilities in rapidly evolving security environments. All exercises were safely carried out while implementing COVID-19-related restrictions. In order to ensure the protection of NATO troops and Allied nations, 25 NATO exercises were cancelled, three were postponed to 2021 and some were scaled down. These prudent decisions allowed NATO to adapt to the COVID-19 environment while still pursuing a high level of ambition in its exercise programme.

NATO and Allied exercises carry an important element of deterrence and defence messaging, and are one of the most visible demonstrations of the Alliance's posture. Military exercises provide an excellent opportunity to test the Alliance's readiness and responsiveness to security challenges, such as cyber threats, terrorism, crisis response, and much more. Exercises are defensive in nature and proportionate, and provide a platform to test technological innovation.



During COVID-19, attending virtual exercises and interviewing senior leaders to capture as much knowledge as possible was a real challenge and a highlight for me. I witnessed the learning and adaptation taking place to meet exercise aims in real time.

Katie Mauldin (United States)

Senior Operational Research Analyst,
Joint Analysis and Lessons Learned Centre,
Monsanto, Lisbon, Portugal

In 2020, more than 42 per cent of all conducted exercises were open for participation or observation by partners or international organisations. Allies remained fully committed to abiding by international obligations regarding transparency, predictability, arms control and confidence-building measures. Exercises are publicly announced on NATO's website in advance.¹⁰ Allies also regularly go beyond their obligations, for example, by offering observation opportunities to international organisations or non-NATO countries, even when exercises do not reach the threshold requiring the invitation of observers.

¹⁰ www.shape.nato.int/exercises

Defender-Europe 20

The US-led multinational exercise Defender-Europe 20 was originally planned to be the most extensive transfer of US forces to Europe in 25 years, and the third-largest military exercise in Europe since the end of the Cold War. In light of the COVID-19 pandemic and in order to safeguard the health of forces and local populations, the exercise's scope and scale were prudently lowered, while a number of Allied national exercises linked to Defender-Europe 20 were also cancelled.

The exercise was originally planned to involve 37,000 troops (20,000 deploying from the US) from 18 Allied and partner countries. In the end, between January and March, over 6,000 US soldiers were deployed to

Europe. Defender-Europe 20 moved 9,000 vehicles and pieces of equipment from prepositioned stock locations in Europe, and around 3,000 pieces of equipment across the Atlantic. Troops exercised deployment from the United States to Europe, as well as movement through Northern Europe to Poland and the Baltic States. Exercise Defender-Europe 20 provided Allies with a great opportunity to test their ability to rapidly deploy, receive and move large-scale troops and equipment across the Atlantic and through Europe during crisis conditions. The exercise was a practical, strong signal of the US commitment to the defence of Europe and resilience of Allied nations.



US Army soldiers get ready to move their convoy across the Polish-German border as part of Defender-Europe 20. Poland, January 2020.



A British Army support vehicle is driven off a ship in the Port of Antwerp as part of the US-led multinational exercise Defender-Europe 20. Antwerp, Belgium, September 2020.



British Royal Engineers from NATO's Allied Rapid Reaction Corps rehearse 'wide wet gap' crossing drills on their M3 amphibious rigs on the River Weser ahead of the Corps' participation in Exercise Defender-Europe 20. Minden, north-western Germany, February 2020. (Photo by British Army Sergeant Alistair Laidlaw)



US soldiers conduct security rounds at Bremerhaven Port as part of Exercise Defender-Europe 20. Germany, February 2020. (Image: US Army/Jason Johnston).

Key NATO and Allied Multinational Exercises in 2020

NATO Exercises

DESCRIPTION	DATE	LOCATION
DYNAMIC MONGOOSE NATO's annual anti-submarine warfare and anti-surface warfare exercise. In 2020, submarines from France, Germany, Norway, the United Kingdom and the United States trained together with surface ships from Canada, Norway, the United Kingdom and the United States. Allied maritime patrol aircraft also supported the exercise, and host nation Iceland provided logistical support.	29 June – 10 July	Iceland
COALITION WARRIOR NATO's largest interoperability exercise adapted to the COVID-19 crisis and took place virtually in 2020. Representatives from 22 nations, partners and organisations tested, identified and fixed interoperability issues in order to strengthen resilience and enhance readiness. Coalition Warrior focused on enhancing interoperability regarding medical capabilities. Experts tested the exchange of electronic health records, the tracking of patients' data and the monitoring of disease spread.	8-25 June	Virtual
RAMSTEIN ALLOY 20 I, II and III This exercise series brought together NATO and regional partners' air forces, offering live-fly training to Allies executing Baltic Air Policing. The exercises also allowed to display capabilities in the field of air surveillance and control.	20-21 April 29 June – 1 July 21-22 September	Latvia Estonia Lithuania
DYNAMIC MARINER This annual maritime exercise trained the maritime component of the NATO Response Force. Seven Allies (Belgium, France, Greece, Italy, the Netherlands, Spain and the United States) contributed 31 surface ships, 1 submarine, 3 maritime patrol aircraft and other air assets as well as personnel.	28 September – 8 October	France
BRILLIANT JUMP I &II The JUMP series annually tests the readiness and mobility of NATO's Very High Readiness Joint Task Force. The 2020 exercise was divided into two parts. Part one was a maritime exercise conducted off the coast of the United Kingdom. Part two was a land deployment from the Czech Republic, Poland and Spain to Lithuania via road, rail, air and sea. Around 2,500 troops participated in the exercise including a brigade headquarters, spearhead battalion, Special Operations Forces, the Chemical, Biological, Radiological and Nuclear Task Force headquarters from Poland, a mechanised battalion from the Czech Republic, a mechanised company from Lithuania and an infantry battalion from Spain.	28 September – 2 October 28 October – 6 November	UK (Part I) Lithuania (Part II)
LOYAL LEDA One of NATO's largest command post / computer assisted exercises in recent history, LOYAL LEDA was directed from the NATO Joint Force Training Center in Poland, and spread between five NATO Allied nations (Germany, the Netherlands, Poland Romania and the United Kingdom). The exercise included 1,400 participants and tested Allied Rapid Reaction Corps' (ARRC) ability to command multinational forces in land, air, sea, cyber and space domains in an Article 5 situation.	10-19 November	Germany The Netherlands Poland Romania United Kingdom
CYBER COALITION This exercise demonstrated NATO's ability to protect its IT networks from cyber attacks 24 hours a day and created a venue for Allies to share best practices in addressing situational awareness and information-sharing. The cyber defence exercise emphasised decision-making processes, technical and operational procedures, and collaboration between all participants.	16-20 November	Estonia

STEADFAST JUPITER/JACKAL This exercise was NATO's largest strategic, operational and tactical-level joint command post exercise / computer-assisted exercise of 2020. Steadfast Jupiter/Jackal trained and evaluated selected NATO Command Structure and NATO Force Structure, and focused on an out-of-area, non-Article 5 crisis response operation at regional scale in NATO Strategic Direction South.	1-10 December	Belgium, Denmark, France, Germany, Italy, the Netherlands, Norway, Turkey
--	---------------	---

Allied National Exercises (Selected)

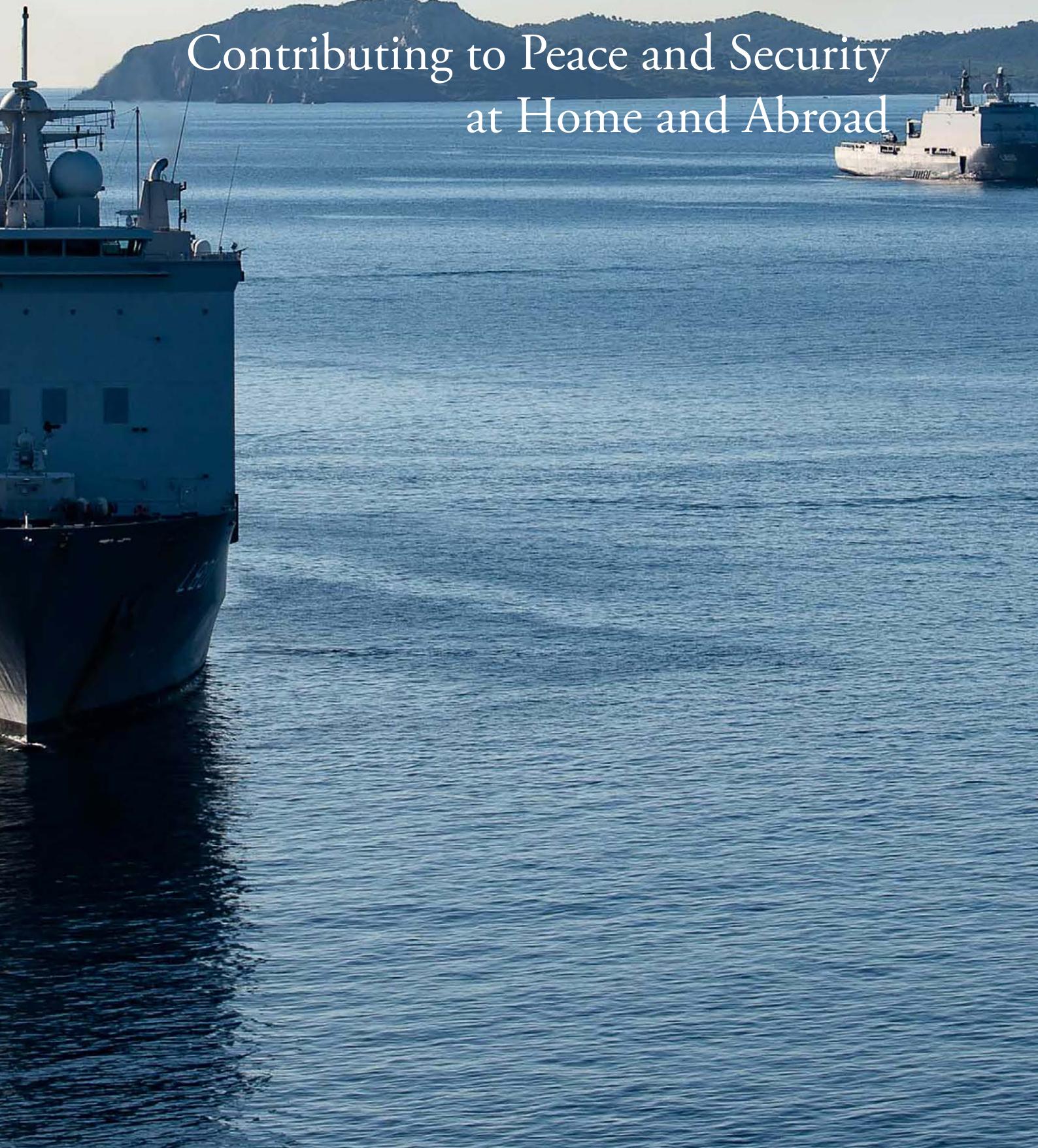
DESCRIPTION	DATE	LOCATION
JOINT WARRIOR The UK-led multinational naval exercise involved over 6,000 personnel, 81 aircraft, two submarines and 28 ships. Fourteen NATO Allies (Belgium, Canada, Denmark, Estonia, France, Germany, Latvia, Lithuania, the Netherlands, Norway, Portugal, Turkey, the United Kingdom and the United States) participated in the exercise. Military personnel from Japan and the United Arab Emirates were also involved. The exercise addressed the full spectrum of joint warfare missions and was designed to ensure maximum preparedness in the face of any threat.	26 March – 9 April 4-15 October	United Kingdom
SPRING STORM The largest annual Estonian exercise involved just 3,200 troops from four NATO Allies (Estonia, Denmark, the United Kingdom and the United States) due to downscaling prompted by COVID-19. In a normal year, the exercise typically involves around 10,000 troops from NATO Allies and partner nations. The exercise, used to test the readiness of the Estonian armed forces and enhance interoperability with Allied forces, included a 24-hour mission in which US B-1 bombers flew from the continental US to Estonia, demonstrating the unique capabilities the US could bring to Europe in a crisis.	25 April - 8 May	Estonia
OPEN SPIRIT In 2020, this annual exercise was led by Latvia. The exercise involved 10 ships as well as personnel from five NATO Allies (Estonia, Germany, Latvia, the Netherlands and Norway). OPEN SPIRIT involved Standing NATO Mine Countermeasures Group One (SNMCMG1) and focused on naval mine warfare to remove historical ordnance from the seabed. Thirty-two pieces of historical ordnance were found and neutralised during the exercise.	4-14 May	Baltic Sea, Latvia
ANAKONDA The annual Polish live exercise was downscaled due to COVID-19 and included about 5,000 national troops, 29 aircraft and 19 ships. The exercise strengthened synchronisation and planning to prepare for the conduct of joint defence operations.	25 May – 18 June	Poland
ALLIED SPIRIT Part of Defender-Europe 20, this exercise was jointly led by the United States and Poland, and involved over 6,000 troops from the two Allies. In response to the COVID-19 pandemic, this exercise was adapted in line with the overall downscaling of Defender-Europe 20. The exercise tested interoperability between US and European forces and the integration of Alliance capabilities. It also established a common intelligence operational framework. The exercise further displayed combined readiness and operability in the COVID-19 environment.	5-19 June	Poland

BALTOPS	7-16 June	Baltic Sea
The annual US-led maritime exercise, held exclusively at sea due to COVID-19, included air defence, anti-submarine warfare, maritime interdiction and mine countermeasure operations. BALTOPS was commanded ashore for the first time by Naval Striking and Support Forces NATO in Lisbon, Portugal. The exercise involved 29 aircraft and 29 ships. Over 3,000 personnel from 17 NATO Allies (Canada, Denmark, Estonia, France, Germany, Greece, Italy, Latvia, Lithuania, the Netherlands, Norway, Poland, Portugal, Spain, Turkey, the United Kingdom and the United States) and two partner nations (Finland and Sweden) participated in this exercise.		
SEA BREEZE	20-26 July	Black Sea, Bulgaria
This exercise, co-led by the United States and NATO partner country Ukraine, strengthened maritime security in the Black Sea region through maritime interdiction operations, air defence, anti-submarine warfare, damage control, and search and rescue operations. SEA BREEZE was held exclusively at sea for the first time due to COVID-19. The exercise involved 26 ships, 9 aircraft and over 2,000 personnel from six NATO Allies (Bulgaria, Norway, Romania, Spain, Turkey and the United States) and two partner nations (Georgia and Ukraine).		
SABER JUNCTION	3-27 August	Germany
The annual US-led exercise took place at US Army training facilities in Germany. The exercise brought together forces from six NATO Allies (Albania, Latvia, Lithuania, North Macedonia, Romania and the United States) and three partner nations (Georgia, the Republic of Moldova and Ukraine) to test the readiness of US Response Force Europe to execute unified operations and to promote interoperability among Allies and partners.		
COMBINED RESOLVE	2-29 September	Germany
The annual US-led exercise took place at US Army training facilities in Germany. It involved 3,500 troops from eight Allies (France, Italy, Lithuania, North Macedonia, Poland, Romania, Slovenia and the United States). NATO partner country Ukraine also participated. The exercise builds readiness and interoperability, promotes regional stability and enhances relationships between Allied and partner nations.		
POSEIDON	30 October – 6 November	Black Sea
NATO participated in the joint Romanian-Bulgarian exercise to improve interoperability when conducting mine countermeasures operations and procedural compliance. Seven NATO Allies (Bulgaria, France, Italy, Greece, Romania, Spain and Turkey) identified six pieces of historical ordnance in the Black Sea. The exercise involved seven ships from Standing NATO Mine Countermeasures Group 2.		



PROJECTING STABILITY

Contributing to Peace and Security
at Home and Abroad



As we look to 2030, we need to work even more closely with like-minded countries.

[...] To defend the global rules and institutions that have kept us safe for decades.

[...] And ultimately, to stand up for a world built on freedom and democracy.

NATO Secretary General Jens Stoltenberg
on launching the NATO 2030 initiative, 8 June 2020

To guarantee the security of its almost one billion citizens, the Alliance must effectively tackle global challenges to the security of Allies, including terrorism, and be able to manage crises and contribute to peace and security beyond its borders. NATO projects stability through political engagement and practical cooperation with a wide

network of partners and international organisations, both in its neighbourhood and globally. In 2020, the Alliance continued to assist its partners in building stronger defence institutions, improving governance, enhancing resilience and more effectively contributing to the fight against terrorism.

Fighting Terrorism

Terrorism in all its forms poses a direct threat to the security of the citizens of NATO countries, and to international peace and stability. The Alliance's contribution to the fight against terrorism began in Afghanistan, following the 9/11 terrorist attacks, but it now extends far wider.

NATO's work on counter-terrorism focuses on improving awareness of the threat, developing capabilities to prepare and respond, and enhancing engagement with partner countries and other

international actors. NATO is also a member of the Global Coalition against ISIS and provides direct support to the Global Coalition with AWACS surveillance aircraft.

In 2020, NATO non-combat missions in Afghanistan and Iraq continued to support the fight against terrorism by training and advising local security forces, a key element in helping those countries fight al-Qaeda, ISIS and other terrorist groups.

NATO in Afghanistan

NATO is engaged in Afghanistan to ensure the country never again becomes a safe haven for international terrorism.

NATO remains committed to training and funding the Afghan security forces and institutions. In 2020, Resolute Support Mission continued to focus on effectively training, advising and assisting the Afghan forces. The COVID-19 pandemic restricted physical interactions with Afghan partners but the mission was able to adapt to the circumstances and continue its essential work. Resolute Support Mission also continued to promote the Women, Peace and Security agenda through training and education activities.

Allies and partners also remain committed to the long-term financial sustainment of the Afghan security forces. The NATO-run Afghan National



The Afghan National Defence and Security Forces and the NATO Resolute Support Mission provided aid and assistance to the victims of floods in the eastern province of Parwan, Afghanistan, August 2020.



NATO Secretary General Jens Stoltenberg with Resolute Support Mission staff celebrate the national days of Estonia (24 February) and Bulgaria (3 March). Kabul, Afghanistan, February 2020.

Supporting a Political Solution to the Conflict

NATO is strongly committed to Afghanistan's long-term security and stability. The only way to ensure this is through an Afghan-owned and Afghan-led peace process that finds a political solution to end decades of conflict. In February, NATO welcomed the US-Taliban agreement and the US-Afghanistan Joint Declaration as significant first steps in pursuit of a peaceful settlement. Allies urged the Afghan government and the Taliban to fulfil their commitments to working toward a comprehensive peace agreement that puts an end to violence and builds on the progress of the last two decades to safeguard human rights, uphold the rule of law, and ensure that Afghanistan never again serves as a haven for terrorists. The start of the peace negotiations, announced in September, marked a positive step in the peace process. At the same time, challenges remain, including high levels of violence, driven especially by Taliban attacks. NATO has consistently called on the Taliban to live up to their commitments, break ties with al-Qaeda and other terrorist groups, reduce violence and negotiate in good faith.

NATO backs the peace process and has agreed to adjust its presence on the ground to support it. NATO's presence in Afghanistan remains conditions-based. Allies continue to assess the situation and consult on the way forward together.

Army Trust Fund is one of three funding streams used by the international community to channel assistance. The fund supports the Afghan National Army and funds literacy and professional military education and capacity-building activities, including for Afghan women working in the security sector. It also supports the implementation of a roadmap launched by the Afghan government to further develop the Afghan security forces and institutions. By the end of 2020, total contributions made to the trust fund since its establishment in 2007 amounted to over USD 3.2 billion. In 2020, Allies and partners

reiterated their commitment to continue providing financial support to the Afghan security forces through the Afghan National Army Trust Fund up to 2024.

NATO's partnership with Afghanistan also provides a framework for political dialogue, regular consultations on a range of topics of mutual interest and enhanced practical cooperation, including to support capacity-building and military education and to foster effective and sustainable Afghan institutions.

NATO in Iraq

NATO Mission Iraq is helping to strengthen the Iraqi security forces and institutions so that they can better prevent the return of ISIS and keep their country secure and stable. In 2020, the mission focused especially on senior-level advising, training and capacity-building and on supporting professional military education institutions. Due to increasing security threats and the COVID-19 pandemic, the mission had to temporarily suspend some training activities and redeploy part of its personnel outside Iraq, but it remained operational throughout the year.

In November, Lieutenant General Per Pugholm Olsen from Denmark took over command of the mission from Major-General Jennie Carignan of Canada.

In April, Allies decided to expand the mission. The Iraqi authorities highlighted their strong interest in continued – and expanded – NATO assistance to strengthen their security institutions and forces. They also reaffirmed Iraq's responsibility as host nation to provide a safe and secure environment for NATO personnel deployed in Iraq and reiterated their interest in a long-term partnership with NATO.

Work has been underway to plan for the expanded NATO Mission Iraq, which will remain a non-combat advisory, training and capacity-building mission. All activities are developed in close consultation with the Iraqi government and are planned to take place



The Office of the President of the Republic of Poland donated 50,000 protective face masks to Iraq's health authorities, following Iraq's request for support in response to the COVID-19 global pandemic. Iraq, June 2020.

both inside and outside the greater Baghdad area. The expanded mission will also include tactical-level training to enhance the highly specialised capabilities of the Iraqi security forces.

NATO's Euro-Atlantic Disaster Response Coordination Centre also supported the Iraqi authorities with their request for COVID-19 assistance.

Supporting Partners in the Fight against Terrorism – Training and Education

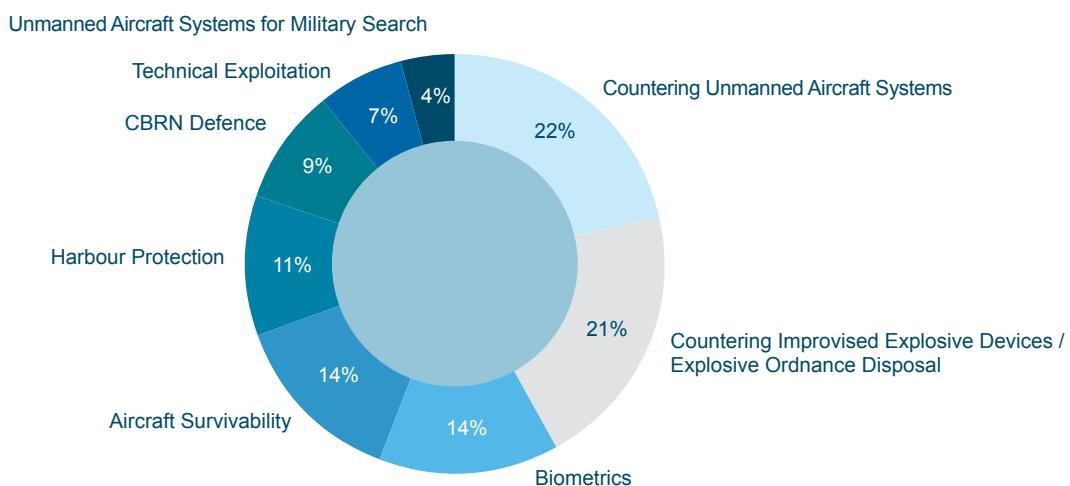
The Alliance supports partners' efforts to fight terrorism, including through training and education. In 2020, NATO launched its first standardized curriculum in counter-terrorism, designed to help interested Allies and partners enhance their capacities to develop their national skills and improve counter-terrorism strategies. NATO also explored how to strengthen its practical cooperation with the African Union in the fields of counter-terrorism education and training and countering improvised explosive devices. It increased its defence capacity building support to Jordan and enhanced its cooperation with Tunisia, including through a project to develop a deployable capability for the detection, identification and monitoring of biological and chemical agents.

Enhancing Allied Capabilities to Fight Terrorism

NATO assists Allies in the fight against terrorism, including through its long-standing Defence against Terrorism Programme of Work. The programme supports capability development, funds innovative and pioneering projects, addresses shortfalls and strengthens interoperability. In 2020, it supported 18 cooperative projects, including on countering

unmanned aircraft systems, harbour protection against seaborne terrorist threats, defence against terrorist use of chemical, biological, radiological and nuclear (CBRN) substances, electronic warfare for aircraft survivability, use and sharing of biometrics data, and countering improvised explosive devices.

Defence Against Terrorism Programme of Work 2020 Activity Domains



Countering Unmanned Aircraft Systems

Recent years have seen great developments in the field of unmanned aircraft systems and robotics. Terrorist groups, including ISIS, are increasingly misusing unmanned aircraft systems to plan, prepare and execute attacks. Preventing, protecting and recovering from such attacks require a coherent and holistic approach. Through the NATO Counter Unmanned Aircraft Systems Working Group, Allies have been able to exchange views, cooperate and learn from each other. In 2020, the group developed guidelines for Allies and partners to better cope with the threat of unmanned aircraft systems through the full protection chain (prevention, detection, identification, tracking, engagement, post-event actions), both when deployed and in their own homeland. NATO also conducted two key trials to assess and drive counter-unmanned aircraft systems technological developments. In 2020, the Netherlands hosted a technical interoperability exercise to create a reference data set to help Allies better detect unmanned aircraft systems, exploiting sensor fusion and machine learning technologies. In addition, Belgium led the testing of traditional weapons capabilities to cope with the unmanned aircraft systems threat.



The NATO Communications and Information Agency provided pilots for the technical interoperability exercise organised in the Netherlands on 28 September – 2 October 2020.



Italian and Belgian teams cooperated during the NATO Non-Lethal Technology Exercise 2020 Counter Unmanned Aircraft Systems (NNTEX-20C) held in Belgium on 15-17 September 2020.

Battlefield Evidence and Technical Exploitation

In October, Allies agreed the first-ever NATO Battlefield Evidence Policy and NATO Practical Framework for Technical Exploitation. The policy facilitates the sharing of information and material from NATO operations and missions in support of law enforcement.

Beyond fighting terrorism, Battlefield Evidence and Technical Exploitation are also key elements in NATO's toolbox for countering the full spectrum of threats facing the Alliance. They provide capacity for collecting technical intelligence on conventional and improvised weapons and use of commercial-based technologies; unmasking anonymous actors; enabling enforcement of embargos; contributing to counter-proliferation and the fight against small arms and light weapons; and supporting the rule of law.

When Allied troops take part in NATO missions and operations, they gather large amounts of information and material, including improvised explosive devices, documents or electronic devices. This information collected on the battlefield can support law enforcement and help to bring foreign terrorist fighters to justice.



My 2020 highlight was the approval of a new NATO Battlefield Evidence Policy to facilitate the use of information obtained by the military during NATO operations in legal proceedings, including to hold foreign terrorist fighters accountable.

Randi Gebert (Germany)

Policy Officer, Counter-Terrorism,
NATO Headquarters, Brussels, Belgium



Latent fingerprint analysis and evidence bag – pictures taken at the German-led multinational Very High Readiness Joint Task Force 2019 Technical Exploitation Exercise in Stetten, Germany.



Dynamic Mongoose: an exercise held in the High North every summer. It is hosted consecutively by Norway and Iceland, where ships, submarines, as well as aircraft and personnel converge for anti-submarine warfare and anti-surface warfare training. Iceland, June 2020.

Projecting Stability at Sea

Through its maritime posture and its operations and missions at sea, NATO contributes to deterrence and defence but also to projecting stability. It works together with partners and other international organisations to enhance maritime situational awareness, build maritime capacity and ultimately provide a safe and secure maritime environment.

In 2020, NATO's Standing Naval Forces continued to represent an important instrument of diplomacy and presence at sea. Through training, exercises and port visits, these forces engaged with partners and contributed to maritime situational awareness.

Operation Sea Guardian in the Mediterranean also supports maritime situational awareness, as well as efforts to counter the threat of terrorism in the region by hailing and boarding suspect vessels. In addition, the operation contributes to maritime capacity building through training, exercises, key leader engagements and port visits. Until March, when EU Operation Sophia terminated its activities, Sea Guardian also supported this EU operation by sharing information.

Operation Sea Guardian undertook a total of five focused operations, involving surface and sub-surface vessels and maritime patrol aircraft. These operations aimed to gather information about maritime activities in the region to help identify potential security concerns.



2020 was the year when NATO maritime operations were put to the test amid unprecedented challenges. Even so, we proved our dedication through team spirit. We certainly have to provide more and do even better in 2021!

Lt Cdr Ahmet Kacar (Turkish Navy) (Turkey)

Staff Officer, Maritime Operations,
NATO Headquarters, Brussels, Belgium

In the Aegean Sea, NATO continued to contribute to international efforts to address the refugee and migrant crisis. Allied ships regularly provided information, surveillance and reconnaissance to help Greece, Turkey and the EU's border and coast guard agency FRONTEX take more effective action to prevent human trafficking.



Italian Navy frigate ITS Carabiniere, then-flagship of Standing NATO Maritime Group Two, sits pierside in Catania harbour prior to the start of Exercise Dynamic Manta 2020. Dynamic Manta is an annual anti-submarine warfare exercise. Catania, Italy, February 2020.

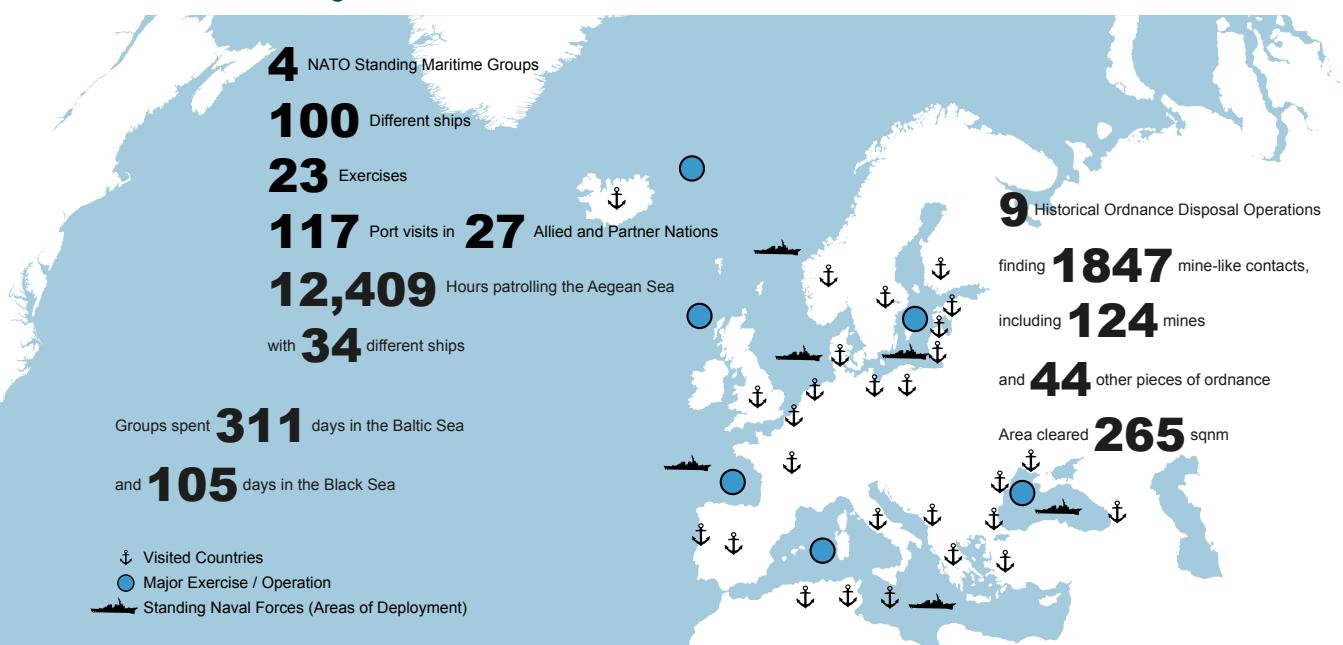


French frigate FS Chevalier Paul conducts a replenishment at sea. France, October 2020.

In light of the tensions between Greece and Turkey in the Eastern Mediterranean, a bilateral military de-confliction mechanism was established in October 2020. The mechanism, which resulted from technical military de-confliction talks initiated by the NATO Secretary General, is designed to reduce the risk of incidents and accidents in the Eastern Mediterranean.

NATO remained engaged in the fight against piracy off the Horn of Africa by maintaining maritime situational awareness and continuing to invest in long-term partnerships with counter-piracy actors. This type of engagement remains important as piracy, while severely impaired, has not yet been eliminated.

NATO Standing Maritime Presence 2020





The Kosovo Force provides assistance to local communities in Kosovo to help fight the COVID-19 pandemic. Kosovo, April 2020.

NATO in Kosovo

NATO's presence in Kosovo remains crucial for the stability of the Western Balkans region. Since 1999, the NATO-led Kosovo Force (KFOR), operating under United Nations Security Council Resolution 1244, has continued its work to maintain a safe and secure environment and freedom of movement for all communities in Kosovo. In close cooperation with the United Nations, the EU and other international actors, KFOR supports the development of a stable, democratic, multi-ethnic and peaceful Kosovo. It also provides assistance to the institutions in Kosovo and the EU Rule of Law Mission, upon their request. In 2020, 27 NATO Allies and partners provided approximately 3,500 troops to KFOR.

In addition to KFOR, NATO also provides capacity-building support to the security organisations in Kosovo through the NATO Advisory and Liaison

Team – a civilian and military team of approximately 40 personnel from 15 countries. In 2020, the team continued to offer advice and assistance in areas such as logistics, procurement, budget execution, human resources management, unit readiness and strategic communications.

NATO supports the EU-facilitated dialogue between Belgrade and Pristina and welcomed its resumption in July 2020. This dialogue remains the main vehicle to reach a long-lasting political solution in Kosovo and the Western Balkans as a whole.



Soldiers inaugurate a playground serving all communities and ethnicities living in Lebane. The project was initiated and finalised by the Italian KFOR Liaison and Monitoring Team operating in the region of Pristina and was funded by NATO. Kosovo, September 2020.

Human Security

NATO's aim of safeguarding freedom and security is often cast in terms of the national governments that are members or partners of the Alliance, but the ultimate beneficiaries of NATO's work are the people who seek to enjoy freedom and live in peace.

NATO's human security agenda includes portfolios on protection of civilians, children and armed conflict, combating human trafficking, preventing and responding to conflict-related sexual violence, and protecting cultural property.

NATO's policy on the protection of civilians highlights the need to minimise and mitigate harm to civilians that might arise from NATO or NATO-led operations, missions or other activities. In 2020, NATO included the protection of civilians in exercises, including Steadfast Jupiter/Jackal 20 – a complex exercise that helped test policies and practices, and provided a valuable opportunity to strengthen civil-military cooperation. The policy also emphasises the importance of working with partners to further develop their capabilities in this area. NATO provided support to Georgia, Iraq, Jordan and Tunisia. Multiple courses on the protection of civilians were

also provided through Partnership Training and Education Centres, including in Colombia, Finland and Kazakhstan.

The Alliance also works to prevent and respond to conflict-related sexual violence. Since 2015, NATO has had military guidelines in place to support commanders and soldiers in preventing and responding to this crime, should they encounter it. In 2020, NATO engaged in a series of dialogues on how to adapt its work to prevent and respond to conflict-related sexual violence. The Secretary General spoke at one of these events in June, saying that "we must all do everything we can to stop this intolerable violence used against so many women and men, boys and girls." A workshop led by NATO's Joint Force Command in Naples examined the potential areas for improvement from a military perspective. Following these discussions, which highlighted the importance of advancing NATO's efforts in this area, Allies agreed to develop a policy to ensure that NATO has a more robust foundation and even better tools at its disposal to support the continued commitment to the fight against sexual violence in conflict.



Prime Minister of Georgia Giorgi Gakharia meets with NATO Secretary General Jens Stoltenberg at NATO Headquarters. Brussels, Belgium, September 2020.

Partnerships: Shared Security through Cooperation and Dialogue

NATO has formal partnerships with 40 countries all over the globe and several international organisations. The Alliance relies on political dialogue and practical cooperation to develop its partnerships, promote security and tackle shared challenges. Of all partners, 19 have established Missions to NATO in Brussels.

In 2020, the COVID-19 pandemic disrupted NATO's engagement and activities with partners, but it did not prevent regular contacts with partner capitals and representatives from other international organisations. Practical cooperation also continued, taking into account the restrictions posed by the pandemic. NATO kept all its liaison and information offices open (in Belgrade, Chisinau, Kyiv, Moscow, Sarajevo, Tbilisi; as well as in Kuwait (Istanbul Cooperation Initiative Regional Centre), New York

(United Nations) and Vienna (Organization for Security and Co-operation in Europe)), while adjusting to local precautionary measures and adopting alternative ways of working.

Partners are part of many of NATO's core activities, from shaping policy to building defence capacity, developing interoperability and managing crises. In 2020, partners were involved in six NATO-led exercises, provided 43 personnel to Partnership Staff Posts positions throughout the NATO Command Structure, and contributed over 2,200 troops to NATO operations and missions, including in Afghanistan, Iraq and Kosovo. Partners also contributed financially to NATO-led Trust Funds and offered in-kind support, for example through the Partnership Training and Education Centres.

NATO Secretary General Jens Stoltenberg meets with First Deputy Minister of Foreign Affairs of the Republic of Iraq Abdul Karim Hashim Aboualgus. January 2020.



Poland dispatches nearly 70 tonnes of medical supplies to Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia and Serbia. May 2020.





A flag-raising ceremony marks the accession of North Macedonia to NATO. Brussels, Belgium, March 2020.

NATO's Open Door

In March 2020, NATO welcomed North Macedonia as the 30th member of the Alliance. Its membership enhances the security of the Western Balkans, a region of great strategic importance to NATO. Membership for North Macedonia also demonstrates NATO's own commitment to its Open Door Policy, which is a founding principle of the North Atlantic Treaty and one of the Alliance's greatest and most tangible successes throughout the years.

NATO's door remains open to all European democracies that share the values of the Alliance, are willing and able to assume the responsibilities and obligations of membership, are in a position to further the principles of the North Atlantic Treaty, and whose inclusion can contribute to the security of the North Atlantic area. Every country must be free to choose its own security arrangements, including whether or not to join any treaty or alliance like NATO. Yet, decisions on enlargement are for NATO itself and require the consensus of all its members.

Throughout 2020, NATO continued to support Bosnia and Herzegovina's reform efforts on the basis of its reform programme, which the country submitted in December 2019. Allies also remained committed to supporting eventual NATO membership of Georgia and Ukraine, in line with the 2008 Bucharest Summit decision, and subsequent Summits.



NATO Partnerships at a Glance: Bilateral and Regional Partnerships

Over more than 25 years, the Alliance has developed a network of partnerships with non-member countries from the Euro-Atlantic area, the Mediterranean and the Gulf region, and other partners across the globe. NATO's partnerships are beneficial to all involved and contribute to improved security for the broader international community.

In the Euro-Atlantic area, Allies engage with 20 partner countries through the Partnership for Peace¹¹ – a major programme of bilateral cooperation. Among these partners, NATO has developed specific structures for its relationships with Russia,¹² Ukraine and Georgia. NATO has an extensive network of partners in the Middle East and North Africa, through the Mediterranean Dialogue and the Istanbul Cooperation Initiative.¹³ It also developed active cooperation with a range of countries that are

not part of these regional partnership frameworks. Referred to as “partners across the globe”, they include Afghanistan, Australia, Colombia, Iraq, Japan, the Republic of Korea, Mongolia, New Zealand and Pakistan.

Since 2014, NATO maintains its Partnership Interoperability Initiative, focused on preserving and deepening interoperability developed with partners during NATO-led operations and missions over the last decades. On this basis, NATO recognised “enhanced opportunities” status to six partners: Australia, Finland, Georgia, Jordan, Sweden, and since 2020, Ukraine. This status offers these countries increased opportunities to engage with the Alliance. It also eases their participation in NATO exercises and enables them to have more regular consultations on security matters.

The North Atlantic Council meets in Foreign Ministers' session via secure videoconference with Asia-Pacific partners and the European Union. Brussels, Belgium, December 2020



11 Armenia, Austria, Azerbaijan, Belarus, Bosnia and Herzegovina , Finland, Georgia, Ireland, Kazakhstan, Kyrgyz Republic, Malta, the Republic of Moldova, Russia, Serbia, Sweden, Switzerland, Tajikistan, Turkmenistan, Ukraine and Uzbekistan

12 In April 2014, following Russia's illegal and illegitimate annexation of Crimea, NATO Foreign Ministers decided to suspend all practical civilian and military cooperation with Russia but to maintain political contacts at the level of ambassadors and above.

13 The Mediterranean Dialogue involves Algeria, Egypt, Israel, Jordan, Mauritania, Morocco and Tunisia.
The Istanbul Cooperation Initiative sees the participation of Bahrain, Kuwait, Qatar and the United Arab Emirates.

NATO's Partners in the Middle East and North Africa in 2020

In 2020, NATO continued the political dialogue and practical cooperation with its partners in the Middle East and North Africa. Despite the pandemic, political exchanges, through in-person meetings and videoconferences, covered a broad range of topics, including the security impact of COVID-19 on NATO and its southern partners and lessons learned from the COVID-19 crisis.

NATO's practical cooperation with its partners in the Middle East and North Africa continued to focus on capacity-building, interoperability, standardization and security sector reform. Key areas of cooperation in 2020 included: counter-terrorism, military medicine, small arms and light weapons, counter-improvised explosive device training, cyber defence, enhanced detection of explosive remnants of war, as well as chemical, biological, radiological and nuclear defence, crisis management and civil preparedness.

Morocco hosted Regional Exercise 2020. The exercise helped develop NATO partners' familiarity with NATO procedures and promoted increased interoperability. Regional partners were active participants in NATO's education and training activities in the Alliance's schools and institutions, many of which were conducted online. The Kuwait-based NATO-Istanbul Cooperation Initiative Regional Centre delivered its first course online in September 2020. Since its inauguration in 2017, the Centre has hosted more than 1,000 participants from the Gulf, as well as more than 200 experts from NATO countries.

NATO and its Middle East and North Africa partners worked together to fight the COVID-19 pandemic. For example, the State of Qatar (together with the United Kingdom) offered to provide its airlift assets coordinated by NATO's Euro-Atlantic Disaster Response Coordination Centre in support of the United Nations' efforts to fight the pandemic.

Cooperation with Finland and Sweden in 2020

NATO, Finland and Sweden share common values and common interests and see the international security environment, and its challenges, in much the same way.

Open and regular political dialogue between NATO, Finland and Sweden ensures common understanding



I am proud of the role I played in strengthening NATO's partnerships with the Middle East and North Africa. Our partnerships improve mutual understanding, strengthen partners' defence capacities while NATO benefits from unique expertise.

Mariem Ben Hassine (France)

Officer, Middle East and North Africa,
NATO Headquarters, Brussels, Belgium

In 2020, NATO Foreign Ministers agreed to strengthen NATO's engagement in the Middle East and North Africa, including with increased support to capacity-building and education and training programmes for the region. They also agreed to do more in the Sahel, notably to follow the critical situation in the area on a more regular basis and find ways to contribute more to regional stability. This includes more help to partners with reforms and capacity-building, NATO-led exercises with the focus on fighting terrorism and deepening partnerships with regional organisations, including the African Union.

and political guidance, shaping practical cooperation. Finnish and Swedish ministers participated in the April 2020 NATO Defence Ministers' meeting and the December 2020 NATO Foreign Ministers' meeting. Both foreign ministers also visited NATO Headquarters in September 2020.

Forces from NATO Allies, Finland and Sweden regularly exercise together to ensure the maintenance of high levels of interoperability. There is also frequent exchange of information and analysis to strengthen cooperation and enhance shared situational awareness.

Finland and Sweden are Enhanced Opportunities Partners. In 2020, they contributed to NATO-led operations and missions in Afghanistan, Iraq and

Kosovo, and continued to support the Alliance's work on important areas, such as human security and Women, Peace and Security.

Cooperation between NATO, Finland and Sweden is particularly relevant in the Baltic Sea region, where the combination of NATO's enhanced Forward Presence, and the national commitments made by Finland and Sweden to defence and to cooperation, enhance regional security and stability.



Minister of Foreign Affairs of Sweden Ann Linde visits NATO and meets with NATO Secretary General Jens Stoltenberg. Brussels, Belgium, September 2020.



Minister of Foreign Affairs of the Republic of Finland Pekka Haavisto visits NATO and meets with NATO Secretary General Jens Stoltenberg. Brussels, Belgium, September 2020.

NATO's Asia-Pacific Partners

In 2020, NATO continued to increase its political dialogue with its Asia-Pacific partners, Australia, Japan, New Zealand and the Republic of Korea. For the first time, Australia participated in a NATO Defence Ministerial meeting in October. In December, Australia, Japan, New Zealand and the Republic of Korea participated in their first NATO Foreign Ministerial meeting.

Practical cooperation remained strong too. Australia and New Zealand continued their valuable

contributions to the NATO-led Resolute Support Mission in Afghanistan, while the Republic of Korea and Japan continued to be major contributors to the NATO-run Afghan National Army Trust Fund. In 2020, the Republic of Korea became a co-chair of this Trust Fund.

In parallel, NATO continued its practical cooperation with Mongolia, including through its important contribution to Resolute Support Mission and through a project on cyber defence.

Dialogue with China

The rise of China poses both challenges and opportunities for NATO. NATO aims to maintain a constructive relationship with China, based on mutual respect and shared interests. On that basis, in 2020, NATO continued to engage with China to enhance mutual understanding, dispel misperceptions and create a space where disagreements can be broached. In February, Secretary General Stoltenberg met for the first time with Chinese State Counsellor and Minister of Foreign Affairs Wang Yi in the margins of the Munich Security Conference. Deputy Secretary General Geoană and China's Ambassador to Belgium Zhang continued to meet regularly. Their discussions focused on arms control, disarmament and non-proliferation, the Democratic People's Republic of Korea, Afghanistan, cyber security and the COVID-19 pandemic.

NATO Partnerships at a Glance: International Organisations

NATO remains strongly committed to closer cooperation with other international organisations. The Alliance engages with the European Union, the United Nations and the Organization for Security and

Co-operation in Europe. It also maintains regular dialogue with the African Union, the World Bank and the International Committee of the Red Cross.

United Nations

Cooperation with the United Nations continued at a strong pace throughout 2020. In response to a request to address challenges in peacekeeping operations, NATO launched a multi-year support training package to further strengthen the United Nations' capacity to mount and sustain peacekeeping efforts by enhancing the operational performance, safety and security of United Nations peacekeepers. It entails a programme of NATO capacity-building expertise in the areas of military performance evaluation processes, medical care, countering improvised explosive devices, and signals and communications.

In its efforts to respond to the COVID-19 pandemic, NATO deepened its relationships with the United Nations Office for the Coordination of Humanitarian Affairs, World Food Programme and the World Health Organization. NATO's Euro-Atlantic Disaster Response Coordination Centre supported the United Nations' response to the pandemic, including by coordinating airlift support to deliver much-needed medical supplies, for instance to Ghana.

The European Union

In 2020, NATO and the EU continued to deepen their long-standing strategic cooperation. Key to this cooperation remains the implementation of 74 common proposals, following the Joint Declarations signed by the NATO Secretary General and the Presidents of the European Council and European Commission in 2016 and 2018.

Progress was made in a number of areas within the 74 common proposals, including those that have emerged as particularly relevant in the context of the COVID-19 pandemic, such as countering disinformation and hostile propaganda, responding to cyber threats and strengthening resilience. NATO and the EU maintained close contacts on their respective COVID-19 responses.



In response to a global request by the United Nations for airlift support due to the COVID-19 pandemic, UK flights, coordinated by NATO's Euro-Atlantic Disaster Response Coordination Centre, transported a field hospital from Europe to Accra, Ghana, June 2020.

In 2020, NATO continued to support the development of European defence initiatives in the spirit of transparency and complementarity, calling for the fullest possible involvement of non-EU NATO Allies.

Political dialogue between both organisations remained robust, with regular interaction between the NATO Secretary General and his EU counterparts, as well as between staffs on all levels, with participation in respective ministerial meetings, mutual briefings and with three meetings of the North Atlantic Council with the EU Political and Security Committee.



NATO Secretary General Jens Stoltenberg and President of the European Commission Ursula von der Leyen make joint press statements ahead of the meeting with the members of the College of Commissioners. Brussels, Belgium, December 2020.

The Organization for Security and Co-operation in Europe

The Organization for Security and Co-operation in Europe remains a key partner for NATO and an important platform for security dialogue, in particular on arms control and confidence- and security-building measures, including with Russia.

Political dialogue between the two organisations remained strong and multi-faceted, supported by the NATO Liaison Office in Vienna. It touched on the latest developments in the Western Balkans, Ukraine, the Southern Caucasus, Afghanistan, the Middle East and North Africa, as well as on cross-cutting issues, such as cyber defence and Women, Peace and Security. The COVID-19 crisis led to enhanced political dialogue on best practices, lessons learned and practical cooperation in the context of the pandemic.



In 2020, I contributed to taking forward NATO's relations with international organisations, notably the International Committee of the Red Cross and Organization for Security and Co-operation in Europe. As a Finnish voluntary national contribution, I was proud to strengthen ties between NATO and Finland.

Anette Parviainen (Finland)

Policy Officer, Multilateral Organisations,
NATO Headquarters, Brussels, Belgium

The African Union

The African Union is an important partner for NATO. Although the pandemic impacted regular training, advising and operational support activities, 2020 saw the main strands of NATO's cooperation with the African Union continue. In addition, a new cooperation package approved in May 2020 is set to enhance practical cooperation on political-military issues over the coming years.

This includes expanding training and mentoring activities for African Union participants and those from the African Union's constituent Regional Economic Communities, opening up access to NATO's Centre of Excellences and to exchange best practice on the African Stand-by Force, which should develop into a standing crisis management and response entity for the African continent.

NATO Partnerships at a Glance: NATO's Activities and Programmes

The Alliance has developed a number of programmes to work with partners. These include initiatives to strengthen interoperability, enhance partners' ability

to participate in NATO-led operations, support defence reform and capacity-building through advising, assisting, training and mentoring.

Promoting Interoperability, Setting Common Goals

The Planning and Review Process is one of the Alliance's main instruments to promote the development of forces and capabilities by partners that are best able to cooperate alongside NATO Allies. It also supports partner nations in their reform of defence and security-related institutions and their armed forces' transformation.

The Planning and Review Process, as a defence planning mechanism, serves as a practical tool to guide and measure progress in defence and security transformation and modernisation efforts, by establishing planning goals for reforms and capability development.

As of 2020, 18 partners actively participate in the process. They consult and work with NATO on issues ranging from defence and strategic planning, to resilience and crisis management, protection of civilians in armed conflict, and supply chain management, among others.

The COVID-19 pandemic heavily affected the Planning and Review Process, with essential in-person coordination postponed. Nevertheless, NATO continued to exchange with each of the participating partners to set and revise their partnership goals.

Assisting Partners in Developing Capacity

The Defence and Related Security Capacity Building Initiative assists partners with strategic advice on defence and security sector reform to build viable, effective and resilient defence institutions. It helps them develop defence capabilities for local forces through education and training. The initiative draws from NATO's extensive expertise in providing advice, support, training, education and mentoring activities. NATO's support enhances partners' resilience and security, and contributes to NATO's own security.

In 2020, despite the challenges posed by the COVID-19 pandemic, existing defence capacity

building activities continued. Allies agreed a new initiative to support UN Peacekeeping Training. All NATO Allies, as well as four partners – Finland, Ireland, Sweden and Switzerland – supported the NATO Defence and Related Security Capacity Building Initiative in 2020 by providing experts, trainers and funding. When feasible, activities took place online.

Here are a few examples of support provided by the Defence and Related Security Capacity Building Initiative to partner countries and to the United Nations in 2020:

Georgia

Practical cooperation continued under the framework of the Substantial NATO-Georgia Package, designed to strengthen Georgia's defence capacities and help Georgia prepare for eventual NATO membership. In addition to implementing existing initiatives, NATO and Georgia worked together to refresh the Substantial NATO-Georgia Package, turning it into a more ambitious, more coherent, more targeted package, which better

reflects the priorities of both Georgia and the Alliance. Altogether, the refreshed package contains 16 initiatives, three more than in the previous one. New initiatives include military medical capacity development, English language capability development, and standardization and codification. The refreshed package envisages enhanced assistance to Georgia, including to develop a cyber lab, establish secure communications between

Georgia and NATO, train military engineers, and improve maritime and airspace situational awareness.

Some 35 resident and visiting experts, provided by Allies and partners, continued to support the implementation of the Substantial NATO-Georgia Package in 2020. Through the Defence Capacity Building Trust Fund projects, Allies funded education and training, including for Georgia's military police, as well as exercises and equipment.

In November, NATO's Joint Force Training Centre (in Bydgoszcz, Poland) and the NATO-Georgia Joint Training and Evaluation Centre in Georgia signed a partnership agreement that sets out the overarching framework for cooperation between the two centres. The agreement ensures continuous support for the NATO-Georgia Joint Training and Evaluation Centre as a NATO-affiliated training centre. In addition, NATO's Multinational Military Police Battalion (Poland) and the Ministry of Defence of Georgia signed a partnership agreement to support the development of Georgia's military police battalions.

Georgia continues to provide significant support to NATO's operations and missions such as Resolute



The Partnership Agreement is signed between the Joint Force Training Centre in Poland and the NATO-Georgia Joint Training and Evaluation Centre in Georgia. November 2020.

Support Mission in Afghanistan and Operation Sea Guardian. Georgia also contributes to the NATO Response Force.

Jordan

In 2020, NATO continued to support Jordan in its efforts to modernise and increase the resilience of its armed forces. Progress was achieved particularly in the fields of civil preparedness, cyber defence, countering improvised explosive devices, logistics, and Women, Peace and Security. Jordan and NATO agreed to step up their cooperation in their efforts to counter terrorism, including in the fields of strategic communications, small arms and light weapons, and the development of a curriculum for Jordan's counter-terrorism education and training. NATO will provide practical support in these areas through the Defence Capacity Building Initiative.

The NATO-supported National Centre for Security and Crisis Management successfully helped coordinate Jordan's national response to COVID-19. In light of the pandemic, NATO adapted its support to Jordan and provided advice on issues such as continuity of government, provision of essential services and psychological effects of the crisis on the resilience of institutions and societies.



NATO Secretary General Jens Stoltenberg and His Majesty King Abdullah II ibn Al Hussein of the Hashemite Kingdom of Jordan at NATO Headquarters, Brussels, Belgium, January 2020.

The NATO Science for Peace Security Programme concluded its project to develop Jordanian Counter-Improvised Explosive Devices capability, training

over 216 Jordanian military and law enforcement personnel, and helping Jordan develop a national Counter-Improvised Explosive Devices policy. In addition, NATO supported Jordan in its review of the Jordanian Armed Forces' logistics systems and capabilities, as well as in its efforts to enhance

the role of servicewomen in the forces. NATO also constructed new facilities for the Military Women's Training Centre of the Jordanian Armed Forces.

Jordan continued to contribute to the NATO Response Force.

The Republic of Moldova

In 2020, NATO continued to assist the Moldovan authorities in the development of their defence and related security capacities. NATO worked with Moldova to support reforms in the country, including in the areas of human resources management, future defence capabilities, professional development of civilian personnel in the defence and security sector, cyber defence and the role of women in the defence sector.

The NATO Liaison Office in Chișinău – a small civilian office – continued to facilitate political dialogue between NATO and Moldova, and to provide information to the public on the nature of the NATO-Moldova relationship. The NATO defence capacity building coordinator provided practical advice to Moldovan officials on how to make best use of NATO's assistance activities. Both the Liaison Office and the coordinator were crucial in keeping the channels of communication open between NATO and Moldova, despite COVID-19 restrictions. This

helped the Alliance better understand Moldova's needs in times of a pandemic and tailor NATO's capacity-building support accordingly.

Following Allies' agreement in 2019 to launch the Professional Development Programme for Moldova, NATO and Moldova developed in 2020 a detailed six-year (2021-2026) programme that will support the professional development of civilian personnel and civil service capabilities to enhance civil and democratic control of the armed forces, deliver priority reform objectives, and augment an integrated government approach to defence and security.

Through the NATO Science for Peace and Security Programme, the Moldovan armed forces successfully developed a cyber incident response capability, including relevant infrastructure and equipment.

The country continues to be a valued contributor to the NATO-led operation in Kosovo.

Tunisia

In 2020, NATO's support to the Tunisian armed forces focused on cyber defence; interoperability; counter-improvised explosive device training; chemical, biological, radiological and nuclear defence; English-language training; and the promotion of good governance.

NATO also invested in a project to develop a deployable capability for the detection, identification

and monitoring of chemical agents. This project — DIMLAB — was adapted to include COVID-19 detection capabilities. Another project is being developed to address Tunisia's need to establish a more effective, vigorous and sustainable counter-improvised explosive device capability.



A Ukrainian soldier sits atop a BMP-1 infantry-fighting vehicle during Exercise Combined Resolve. Held in Hohenfels, Germany, this US-led exercise convened armoured units from nine NATO Allied and partner nations to test their readiness. September 2020.

Support to Ukraine

Throughout 2020, Allies remained firm in their support to Ukraine's sovereignty and territorial integrity. Despite the challenges posed by the COVID-19 pandemic, the NATO-Ukraine Commission met several times during the year to advance the NATO-Ukraine Distinctive Partnership. NATO Allies and Ukraine supported each other with the delivery of medical equipment and expertise.

In June, the North Atlantic Council recognised Ukraine as an Enhanced Opportunities Partner, acknowledging the country's strong contributions to NATO missions and operations, including in Afghanistan and Kosovo, as well as its participation in the NATO Response Force and NATO exercises. These contributions demonstrate Ukraine's commitment to Euro-Atlantic security.

NATO continued to support the reform of Ukraine's security and defence sector. Allied advisers collaborated with their Ukrainian counterparts to develop Ukraine's new National Security Strategy and Law on Intelligence. Both were adopted by Ukraine in September and represent steps forward on Ukraine's path to Euro-Atlantic integration.

NATO also invested in its practical support to Ukraine through 16 different programmes under the Comprehensive Assistance Package for Ukraine. As an example, in 2020, despite the COVID-19 pandemic, the NATO-Ukraine Professional Development Programme delivered training courses to hundreds of Ukrainian professionals from across the government working in the area of Euro-Atlantic integration. The Military Career Transition Programme continued to support Ukraine in further developing the institutional capacities of the Ministry for Veteran Affairs of Ukraine. The programme developed a handbook in support of the establishment of the Ministry's project office, along with a step-by-step guidance handbook on the handling of psychological consequences of post-concussion syndrome and related conditions of the Joint Forces Operation combatants. Work is also underway to prepare for the upcoming review of the Comprehensive Assistance Package for Ukraine to better align this package with Ukraine's current requirements. The review will be finalised in 2021.



Group photo taken at the 4th Multinational Non-Commissioned Officers Workshop on "Focusing on Non-Commissioned Officers Professional Military Education as a Tool for Development of the Non-Commissioned Officers Corps for the XXI Century" under the NATO Defence Education Enhancement Programme. Belgrade, Serbia, 24-27 February 2020.

Investing in Training, Education and Interoperability

Training and education are among NATO's best tools to project stability in the Alliance's neighbourhood.

NATO's **Partnership Training and Education Centres** play a key role in that respect. In 2020, the 33 Centres, located in 26 Allied and partner countries, conducted more than 700 different courses and trained close to 50,000 personnel. Whenever possible, courses were developed and held virtually.

In addition to these training initiatives, NATO also invests in partners' defence education through the **Defence Education Enhancement Programme**. The programme helps partners build, develop and reform their professional military education institutions by establishing common validated references for military education. In 2020, the programme relied on new virtual platforms to conduct 204 events, mostly online, involving 774 Allied and 558 partner subject matter experts, and reaching out to over 2,400 partner faculty and students.

Key achievements of the Defence Education Enhancement Programme in 2020 included:

- Running a 10-month course, together with the European Security and Defence College, to prepare professional military education faculties to operate in an e-learning environment.
- Supporting Serbian and Czech nuclear, chemical and biological experts to help companies quickly respond to the lack of respiratory protective equipment against COVID-19.
- Starting a new programme in support of the



The NATO Defence Education Enhancement Programme conducted a three-day virtual workshop to identify best practices and lessons learned by Allied and partner professional military education institutions in transforming education from residential to non-residential distance learning.

Jordanian Armed Forces Non-Commissioned Officers School.

- Developing a training programme for military leaders of G5 Sahel Armies, together with the G5 Sahel Defence College and the Staff College in Mauritania.
- Organising a clearing house meeting with 99 participants representing 53 defence education institutions to identify partner needs, develop synergies between programmes and harmonise bilateral efforts.
- Conducting a virtual workshop in November to identify best practices and lessons learned by Allied and partner professional military education institutions in transforming education during the COVID-19 crisis. A total of 209 participants exchanged views about training and technology required to make distance-learning courses more effective.

Strengthening Good Governance and Integrity in the Defence and Related Security Sector: NATO Building Integrity

Good governance and integrity are at the core of the Alliance. Allies recognise that corruption and poor governance complicate the security challenges that NATO Allies and partners face. They undermine democracy, rule of law and economic development, but also operational effectiveness, and erode public trust in defence institutions. Through the Building Integrity Programme, NATO is engaged in building efficient and effective defence and security institutions that embed the principles of integrity, transparency and accountability in the management of human and financial resources, including acquisitions and procurement.

Despite COVID-19, Building Integrity activities continued in 2020, with the support of the NATO Building Integrity Trust Fund led by Norway, the United Kingdom, Switzerland and the European Union. The NATO Building Integrity Self-Assessment and Peer Review Process continues to be the backbone of NATO's support to good governance. It provides insight on good practices and gaps, and highlights needs for further integrity reforms. In 2020, Armenia, Colombia, Jordan, the Republic of Moldova and Tunisia were engaged in completing the different steps of the NATO Building Integrity process.

NATO made its online Building Integrity awareness course available to partners and translated it into Russian. The Alliance also launched three ambitious tailored educational packages for Colombia, Georgia and Ukraine, which include the development of Building Integrity national courses and the launch of Building Integrity train-the-trainers programmes.

Building on the existing strategic cooperation with the EU, NATO increased its engagement with other international organisations to enhance good governance, especially in light of the pandemic. For example, in 2020, NATO Building Integrity staff participated for the first time ever in the Organization for Security and Co-operation in Europe high-level conference on the fight against corruption.



Integrity contributes to the Alliance's peace and security. During 2020, we quickly adapted to continue to strengthen good governance, enhance institutional resilience and minimise the risk of corruption in defence establishments.

Bénédicte Borel (France)

Team Leader, Building Integrity,
NATO Headquarters, Brussels, Belgium

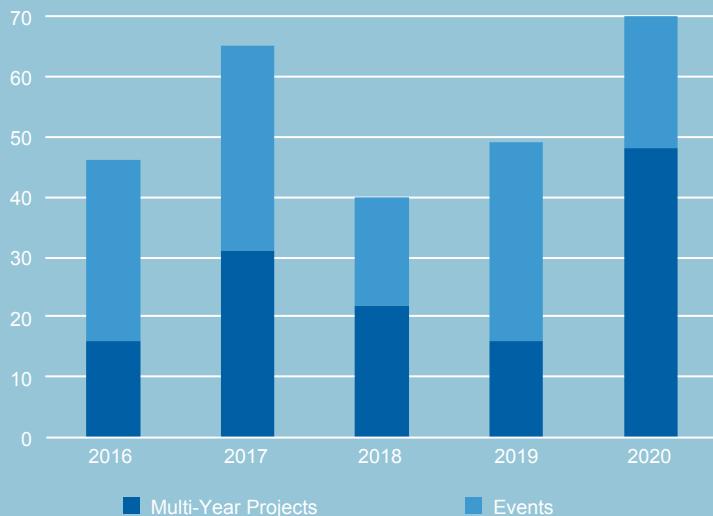
This was an opportunity for NATO to share its experience in dealing with the challenges posed by poor governance in public defence administration. NATO Building Integrity also strengthened consultations with the United Nations' Department of Peace Operations' Office of Rule of Law and Security Institutions sharing its unique expertise of good governance in defence establishments with peers to draw good practices in the domain of integrity and good governance. In December, in an effort to enhance ties with the private sector, NATO launched the NATO Building Integrity Private-Public Partnership initiative to further build integrity in the defence sector.

Advancing Science for Peace and Security

In 2020, the NATO Science for Peace and Security Programme carried out 120 activities and continued to enhance practical cooperation and dialogue between NATO Allies and partner countries. Through online platforms, the programme successfully launched many new research and development

projects, some of which were directly relevant to the fight against COVID-19. The Science for Peace and Security Programme continued supporting activities in priority areas such as innovation and counter-terrorism, as well as advanced technology and explosives detection.

**Science for Peace and Security Programme Activities
Approved by Allies, 2018-2020**



2020 highlights include:

- Adapting the Next-Generation Incident Command System collaborative crisis management tool to the COVID-19 response in North Macedonia. This tool, which enables real-time exchange of information among first responders in case of man-made and natural disasters, has been adapted by the NATO Science for Peace and Security Programme across the Western Balkans, and has been used by NATO's newest member to facilitate coordination, communication and cooperation among institutions involved in COVID-19 response across the nation.
- Approving a new scientific project, "NOCOVID", dedicated to rapid and large-scale diagnostics of COVID-19, and adjusting activities dealing with biological hazards to enhance mobile diagnosis capacity of COVID-19 in the Republic of Moldova, Morocco and Tunisia.

- Launching “PROMEDEUS”, a multi-year project to enhance Mauritania’s telemedicine capabilities, building on two previous initiatives that helped build the country’s crisis management system by establishing a crisis management centre in Nouakchott, with four regional operational coordination centres.
- Broadening the Programme’s portfolio in the field of security-related advanced technologies and innovation, with the approval of new activities in fields such as quantum technologies, artificial intelligence, autonomous systems, sensors and detectors.
- Implementing the DEXTER Consortium: DEXTER aims to develop a system to detect explosives and firearms in real time in a mass transit environment, such as subways, without disrupting the flow of pedestrians.
- Conducting, for the first time online, three tailor-made Advanced Training Courses in cyber defence and critical energy infrastructure protection in the NATO-Istanbul Cooperation Initiative Regional Centre in Kuwait, delivered by the NATO



Project “PROMEDEUS”. Nouakchott, Mauritania, 2020.

School Oberammergau (Germany) and Naval Postgraduate School (United States).

- Successfully completing cyber defence capacity building projects with the NATO Communications and Information Agency, in the Ministries of Defence of the Republic of Moldova and Mongolia.

Trust Funds

Trust Funds generate funding sources for implementing practical projects and assisting partners. These projects are typically in the areas of demilitarization, defence transformation and capacity-building. Allies, partners and international organisations contribute to NATO Trust Funds on a voluntary basis.

In 2020, there were 19 NATO cooperative security Trust Funds. These included Partnership for Peace Trust Funds, Trust Funds in support of Ukraine, the Building Integrity Programme Trust Fund, the Professional Development Programme Trust Fund, as well as NATO’s Defence and Related Security Capacity Building Trust Fund. The latter allows Allies and partners to contribute to specific projects

for recipients of the Defence and Related Security Capacity Building Initiative (Georgia, Iraq, Jordan, Moldova, Tunisia and the United Nations). Since the Trust Fund was established, 25 Allies and four partner nations (Finland, Ireland, Sweden and Switzerland) donated a total of around EUR 27 million. To date, approximately EUR 14.5 million has been allocated to 47 projects. Funded projects include support to the Joint Training and Evaluation Centre in Georgia, crisis management training and advisory support for Jordan, defence planning courses for Iraq, IT equipment for Moldova, intelligence courses for Tunisia and advisory support to the United Nations Peacekeeping Training.



Standing NATO Maritime Group 1, Standing NATO Mine Countermeasures Group 1,
manoeuvring exercise, Photex, CTGS meeting in Baltic Sea at September 21 2020.

PROMOTING EQUALITY

Women, Peace and Security





A US Army sergeant checks cargo onto the M/V Liberty Passion during Exercise Defender-Europe 20 at the Joint Base Charleston Naval Weapons Station, South Carolina, United States. March 2020. (US Air Force photo by Senior Airman Taylor Phifer)

We have made significant progress in the past. Now we must seize the opportunities in the future, to further implement the Women, Peace and Security agenda [...] Because I am convinced that advancing this agenda will make NATO even stronger and fit for the future.

NATO Secretary General Jens Stoltenberg at the Digital Dialogue on the Future of Women, Peace and Security at NATO, 15 October 2020.

2020 marked the 20th anniversary of United Nations Security Council Resolution 1325 on Women, Peace and Security. The anniversary provided an opportunity to reflect on NATO's achievements and to define the future focus and priorities of NATO's work on Women, Peace and Security.

NATO Allies and partners developed the Alliance's first policy on Women, Peace and Security in 2007. That first policy reflected NATO's experience in the years immediately prior – primarily in Afghanistan. It assigned to the military the task of implementing the Women, Peace and Security agenda for NATO, applying it to operational contexts. Since then, NATO has come to understand that the principles of Women, Peace and Security apply to everything NATO does: from how NATO conducts crisis management, to how it provides for the collective defence of NATO Allies, to how it works with partners.

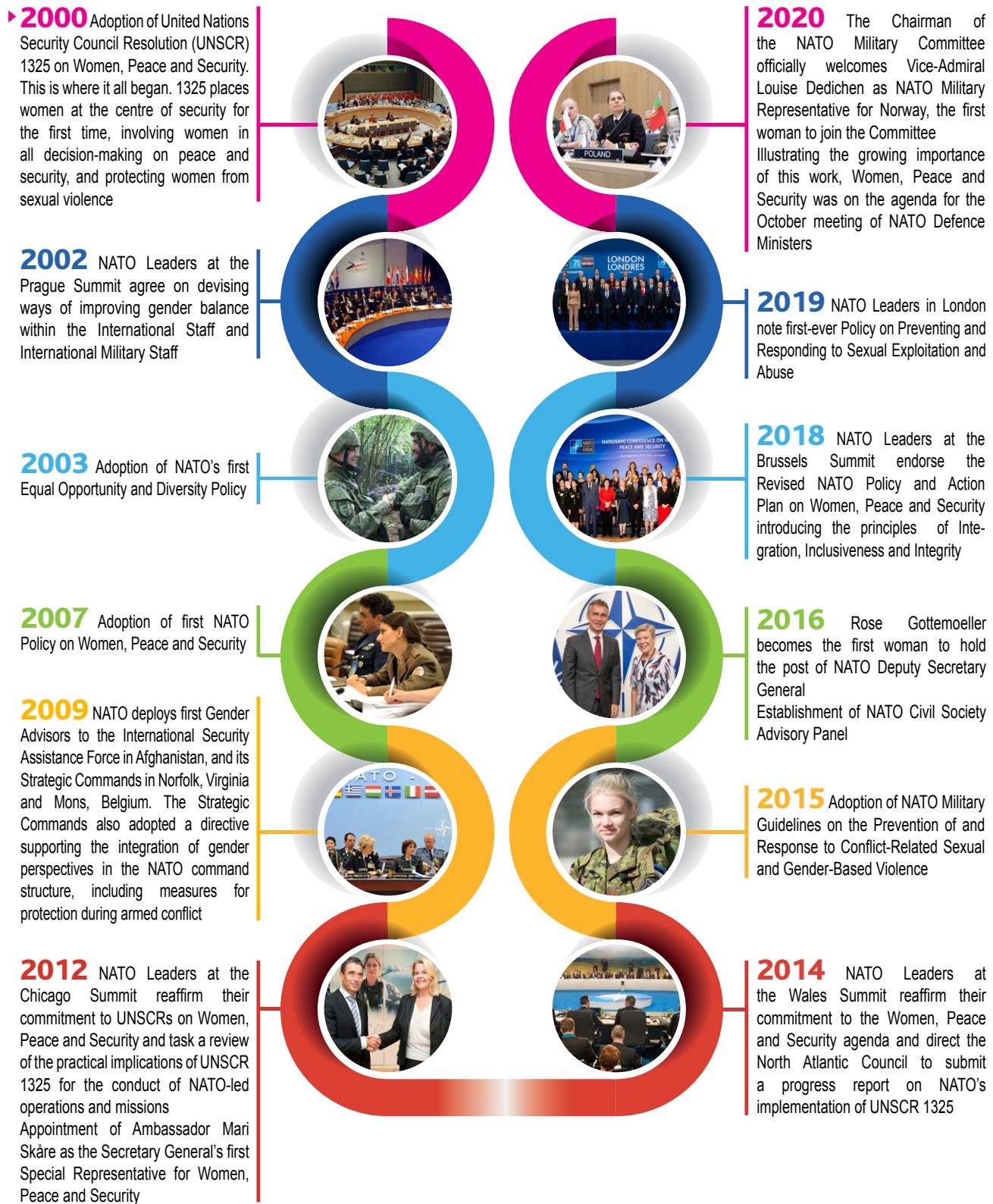


In 2020, we saw a growing recognition of the value of Women, Peace and Security in all NATO does. From the kit our soldiers use, to how we engage communities where we operate, to using inclusive language: when we consider gender we get better results!

Allison Hart (United States)

Deputy Head, Human Security,
NATO Headquarters, Brussels, Belgium

The Story of Women, Peace and Security at NATO





Filming at the Iraqi Ministry of Defence in Baghdad as part of a campaign to raise the profile of women serving in the Iraqi Armed Forces. Baghdad, Iraq, October 2020.

Today, NATO's policy on Women, Peace and Security reflects this understanding and focuses on the principles of integration, inclusiveness and integrity. Integration is about how to include gender in all that NATO does. Inclusiveness promotes the full and meaningful participation of women. Integrity ensures that personnel uphold the highest standards of behaviour, including commitments to protecting women and girls from the scourge of conflict-related sexual violence and other threats to their security. In 2020, the groundwork was laid to update and build upon existing guidelines on preventing and responding to conflict-related sexual violence with a new policy.

Policies are important – and people carry forward their implementation. NATO's Gender Advisors are essential players in this regard. They work across the NATO command structure and deliver advice on the gendered dimensions of all that NATO does. As a result, more of NATO's plans and doctrine incorporate gender perspectives, and more personnel, both military and civilian, understand the value of Women, Peace and Security. More NATO exercises include gender dimensions, so that the Alliance is better equipped to incorporate these in real-world situations. In addition to Gender Advisors, NATO has developed networks of Gender Focal Points across NATO's civilian and military structures to ensure gender perspectives are integrated in



NATO Communications and Information Agency staff volunteered to help girls build drones and experiment with robots. The Hague, the Netherlands, February 2020.

every policy, programme and activity that NATO pursues. They drive innovation, and in 2020, this included efforts to ensure that defence capabilities are developed with all potential users in mind, that NATO's fight against terrorism includes gender dimensions, and that teams across the NATO community have the tools they need to employ more inclusive language.

Other international organisations, non-governmental organisations and civil society play an important role in helping advance NATO's work on Women, Peace



NATO Secretary General Jens Stoltenberg and Clare Hutchinson, the NATO Secretary General's Special Representative for Women, Peace and Security. Brussels, Belgium, October 2020.

and Security. The Civil Society Advisory Panel, established in 2016, gathered virtually on a monthly basis throughout 2020 to discuss various issues, including the gendered impacts of COVID-19. NATO also hosted 'Digital Dialogues' to engage civil society and the broader public on tackling conflict-related sexual violence (June 2020), the future of Women, Peace and Security for NATO (October 2020), and the gendered aspects of technology (November 2020). On the future of Women, Peace and Security, the Secretary General outlined how this agenda contributes to his vision for NATO's future and highlighted the importance of gender perspectives. "To make better decisions, we also need to understand that the challenges we face – and our response to them – can affect women and men differently. This is a reality we should not ignore."

On the occasion of the 20th anniversary of United Nations Security Council Resolution 1325 in October 2020, NATO's work on Women, Peace and Security featured prominently on NATO's agenda. NATO Defence Ministers discussed what the Alliance has done to put the agenda into practice, and how best to build on that progress. In addition to the Women Peace and Security technical task force, the newly established Leadership Task Force on Women, Peace and Security – a key accountability mechanism for NATO's policy – gathered for the first time and discussed opportunities and challenges to implementing the agenda in their respective areas of responsibility. The NATO Committee on Gender

Perspectives convened its annual session with a focus on improving the capacity to integrate gender perspectives in NATO's military activities. Also in October, the Alliance launched a new initiative to integrate gender perspectives into its arms control, disarmament and non-proliferation efforts.



As more women enter the armed forces, I relished the opportunity to contribute to a report highlighting the research completed by the NATO Science and Technology Organization on women in the armed forces.

Eleanor Braithwaite (United Kingdom)

Office of the Chief Scientist,
Science and Technology Organization,
Brussels, Belgium



The NATO Military Committee welcomes Vice-Admiral Louise Dedichen as NATO Military Representative for Norway – the first woman to serve on the Committee. Brussels, Belgium, January 2020.

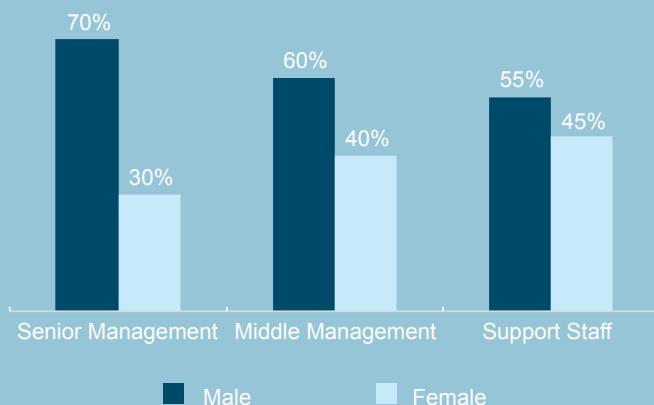
In 2020, the NATO Science and Technology Organization completed an interdisciplinary analysis of the social, cultural and psychological factors impacting gender integration into the armed forces, with a particular focus on the integration of women into ground combat units. This work built upon

previous evidence-based research, coupled with lessons learned from individual Allies. The analysis identified best practices for the integration of women, and will be taken forward as a way to contribute to operational effectiveness.

Gender Balance Statistics

The Women, Peace and Security agenda highlights the essential roles women play in peace and security. The agenda is not about parity alone but does entail working collectively toward full gender equality. NATO is committed to creating inclusive environments that support women's full and meaningful participation. It is also committed to tracking and publishing its gender balance statistics on an annual basis. NATO has yet to achieve full gender balance but it has made steady

progress in the last 20 years. On average, women make up 12 per cent of Allied national forces – double the percentage of two decades ago. They make up a larger percentage of NATO's International Staff than ever before – 41 per cent – and in a more diverse set of roles. The number of women in leadership roles has increased over the years and the percentage of women in senior management on the International Staff reached 30 per cent in 2020.





ORGANISATION



Even in the most heated debate, we should not forget that what unites us is stronger than what divides us. That ultimately, we are NATO Allies. Committed to our core mission. To protect and defend one another. And committed to our core values.

Democracy, individual liberty, and the rule of law. Our voice is more powerful when we stand united.

NATO Secretary General Jens Stoltenberg at the 66th Annual Session of the NATO Parliamentary Assembly, 23 November 2020.

The NATO Headquarters in Brussels houses the Alliance's International Staff and International Military Staff, along with 30 Allied delegations and military representations, 19 partner missions and staff from several NATO Agencies. It is the main forum for the discussions and consultations that shape NATO policy and practice.

The Headquarters in 2020

In 2020, NATO Headquarters has had to adapt to the COVID-19 crisis. From the start of the outbreak, NATO took steps to limit the spread of the virus and minimise risk to personnel and the communities they serve. Preventive measures were quickly put in place: staff were encouraged to work from home, while group visits to the Headquarters and most staff travel were temporarily suspended. Staff, managers and leaders were supported in these unprecedented times through a programme of internal communications, awareness, training and assistance focused on resilience, wellbeing and health.



Due to restrictions imposed to fight the COVID-19 pandemic, we had to move many meetings to a virtual format. Thanks to a motivated team, we were able to implement a secure turnkey solution in a short time, allowing NATO to continue building consensus, but now virtually.

Philip Poels (Belgium)

Head, Audio-Visual Services,
NATO Headquarters, Brussels, Belgium



NATO Deputy Secretary General Mircea Geoană speaks at the unveiling of the art installation "Dandelions" at a ceremony hosted by the Italian delegation to NATO, marking International Holocaust Remembrance Day. Brussels, Belgium, January 2020.

These measures did not prevent NATO from carrying out its work. Rooms were reconfigured taking account of the social distancing measures to allow for essential meetings to take place in person. Meetings of NATO Foreign Ministers and NATO Defence Ministers took place via secure video conference, allowing the Alliance to take important decisions to fight the pandemic and ensure that the health crisis did not become a security crisis.



An art installation placed at NATO Headquarters to mark the 40th anniversary of the Solidarność movement. Brussels, Belgium, September 2020.

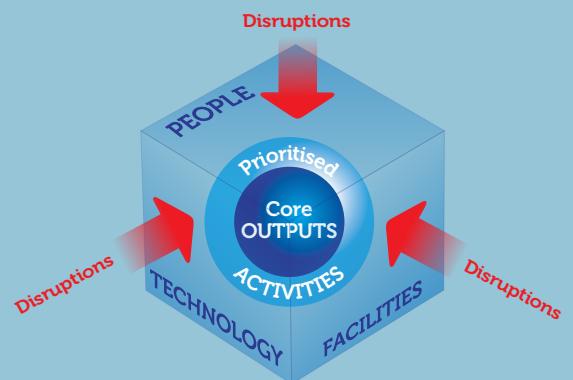
In 2020, NATO Headquarters also continued to invest in sustainability, paying particular attention to waste and energy reduction and eco-mobility. Since April, NATO welcomed three beehives, up to 90,000 bees and new green areas to the Headquarters.

With each hive covering up to a five-kilometre radius, this project underscores the importance of biodiversity preservation in the Headquarters and the surrounding Brussels communities.

The Importance of Business Continuity

The COVID-19 outbreak demonstrated the importance of business continuity planning to ensure NATO's resilience to any major disruption. In 2020, the newly established NATO Business Continuity Office became the focal point for business continuity within NATO. Operational since September 2019, the office played a central role in preparing contingencies and initiating the response to the pandemic. Throughout the crisis, effective contingency plans and prioritisation measures ensured NATO Headquarters always had the people, facilities and technology it needed to fulfil its core mission.

In cooperation with other NATO bodies, the office developed a NATO-wide policy that established essential business continuity requirements. The office also continued to develop a robust Business Continuity Management System building on risk



analysis, international standards and lessons learned from disruptions, including COVID-19. The business continuity capabilities and procedures were tested in a live exercise conducted in December 2020.



View of the North Atlantic Council. Brussels, Belgium, February 2020.

North Atlantic Council

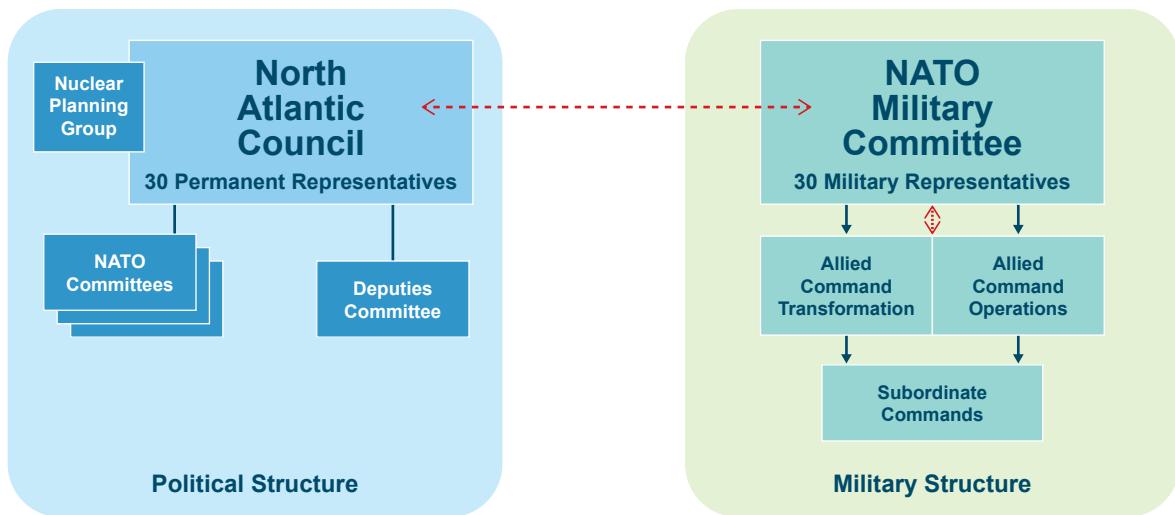
The North Atlantic Council is the main political decision-making body in NATO. It provides a forum for consultation between Allies on all issues affecting their defence and security. It brings together high-level representatives from each Allied country to discuss policy and operational questions requiring collective decisions as well as to consult and coordinate on topics of common interest and concern.

Because decisions are made on the basis of consensus, the policies agreed in the Council are considered the expression of the collective will of all NATO Allies. The Council is chaired by the Secretary General and its decisions have the same status, whether the meeting takes place during a Summit of NATO Heads of State and Government or in permanent session at the level of Ambassadors.



A security dog is tasked to sweep the conference room before a meeting of NATO Defence Ministers at NATO Headquarters. Brussels, Belgium, February 2020.

NATO's Political and Military Structure



International Staff

With a staff of 1,150 civilians, the International Staff supports the Alliance's decision-making process by facilitating dialogue, policy development, and policy and programme implementation.

In 2020, NATO continued to implement the NATO Human Resources Strategy (2019-2023), designed

to attract and develop highly talented people to the Organization. The Alliance launched its Young Professionals Programme, an initiative that allows aspiring entry-level staff to serve in multiple positions at NATO Headquarters, as well as in NATO Agencies and within the NATO Command Structure. A successful outreach programme generated over 15,000 applications from all NATO nations with diverse backgrounds.

Firefighter Laetitia Dauchot with the NATO Headquarters Fire and Emergency Services Unit. Brussels, Belgium, November 2020.



Investing in Diversity and Inclusion

NATO is committed to building a staff that represents the citizens it serves and strives to ensure its workforce reflects the diversity found in its Allied nations.

In 2020, the Alliance commissioned a study to increase inclusion and identify barriers to women's access to management and leadership positions in the full cycle of employment (recruitment, advancement, mobility, mentoring and training). NATO also established concrete and measurable key performance indicators to better monitor and track diversity and inclusion within the organisation.

Also in 2020 NATO established concrete and measurable key performance indicators to better monitor and track diversity and inclusion within the organisation. Allies are regularly updated on the progress related to the key performance indicators.

Fostering an inclusive work environment where everyone is respected, valued and able to express their full potential is just as important as ensuring diversity. Concrete steps adopted in 2020 included:

- Increasing cultural awareness and engagement communications throughout the entire year, NATO-wide, bringing attention to the importance and impact of cultural observances.



In 2020, I was proud to lead projects to help NATO build diversity and inclusion by design, and enjoyed seeing these bearing fruit, as our workforce, headquarters and policies adapted to become more diverse and inclusive.

Berna Cogun-Temiz (Turkey)

Diversity Officer, HR Policy and Strategy Coordination, NATO Headquarters, Brussels, Belgium

- Expanding the NATO mentoring programme to target young professionals under the age of 35 and individuals from nations that are still underrepresented in the International Staff.
- Conducting workshops on inclusive leadership for all NATO senior leaders.
- Updating and strengthening the NATO Policy on the Prevention, Management and Combating of Harassment, Discrimination and Bullying in the Workplace. The updated policy addresses more varied forms of inappropriate workplace behaviours and emphasises the importance of trying to deal with issues of inappropriate behaviour promptly, before it is repeated or escalates. In addition, it sets out the positive aspects of a harassment-free workplace, in terms of promoting a respectful and collegial working environment for everyone.
- Establishing the first NATO-wide employee network to integrate LGBTQI+ perspectives into NATO's work.
- Launching the NATO Communications and Information Agency's ethics programme and building a culture of inclusion programme to provide staff with a framework to understand diversity, inclusion and how to challenge their own internal biases.



British Rifleman Neshum Tamang plays the bugle during a Remembrance Sunday ceremony held at Saint-Symphorien Military Cemetery to honour the fallen from the First World War. Mons, Belgium, 8 November 2020.

NATO Military Authorities

All 30 Allies are present within NATO's military structures. Over 6,500 military personnel and 1,200 civilians work across the International Military Staff and the NATO Command Structure. Military personnel are provided to NATO by the countries they serve and are supported through their national defence budgets.

The Military Committee is the most senior military authority within NATO. It is composed of the Chiefs of Defence of NATO Allies and led by a Chairman, Air Chief Marshal Sir Stuart Peach, United Kingdom Royal Air Force. While NATO Chiefs of Defence convene three times a year – twice at NATO Headquarters in Brussels and once in an Allied country – the Military Committee meets on a day-to-day basis with NATO Military Representatives, who act on behalf of their national Chiefs of Defence.

The role of the Military Committee is to discuss, deliberate and act on matters of military importance, working in the best interest of the Alliance, while at

the same time representing national perspectives and positions. The Military Committee provides the North Atlantic Council with consensus-based military advice. It works closely with the two Strategic Commanders to bring plans, issues and recommendations forward for political considerations.

The **International Military Staff** is the executive body of the Military Committee. It comprises approximately 500 military and civilian personnel from NATO Allied and partner countries. Under the leadership of Lieutenant General Hans-Werner Wiermann from Germany (since July 2019), the International Military Staff is responsible for preparing assessments and analysis on NATO military issues, identifying areas of strategic and operational interest, and proposing courses of action. It also ensures that NATO decisions and policies on military matters are implemented by the appropriate NATO military bodies.

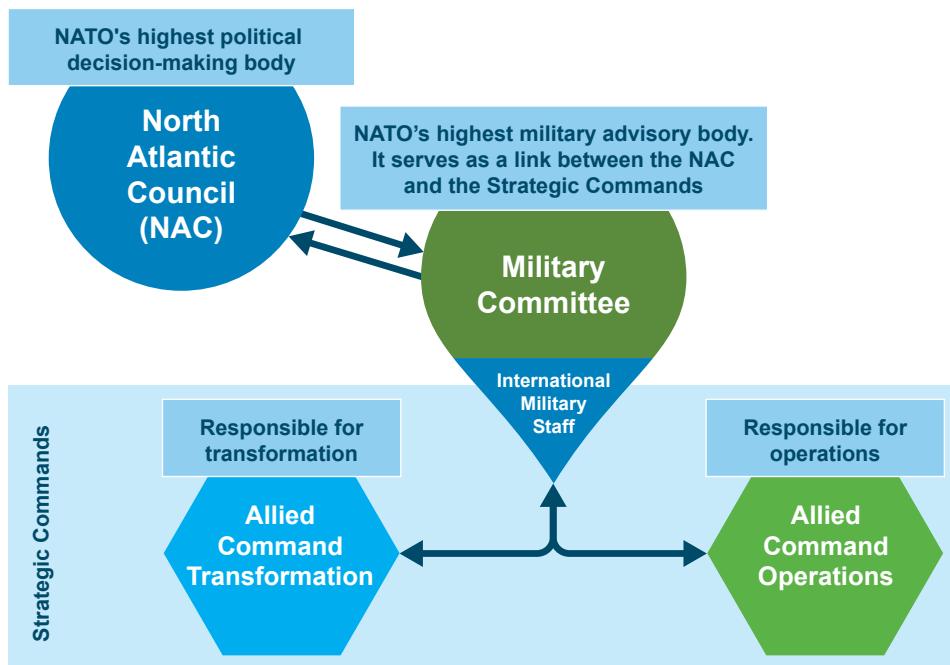


Chairman of the NATO Military Committee Air Chief Marshal Sir Stuart Peach was elected by his fellow Chiefs of Defence at the Military Committee Conference in Split, Croatia in September 2016. He took over the position in June 2018.



The Director General of the NATO International Military Staff, Lieutenant General Hans-Werner Wiermann.

How does the Military Committee fit into the decision-making process?



To carry out its core military functions, the Alliance relies on the NATO Command Structure and the NATO Force Structure.

The **NATO Command Structure** commands and controls the Alliance's joint operations. NATO has two Strategic Commands: Allied Command Operations and Allied Command Transformation.

Allied Command Operations has its main headquarters, Supreme Headquarters Allied Powers Europe, in Mons, Belgium. Under the leadership of the Supreme Allied Commander Europe (SACEUR), General Tod D. Wolters from the United States Air Force (since May 2019), Allied Command Operations is responsible for the planning and execution of all Alliance operations and missions. The SACEUR

also assumes the overall command of operations at the strategic level and issues strategic military direction to the subordinate commanders.

Allied Command Transformation has its main headquarters in Norfolk, Virginia, United States. Under the leadership of the Supreme Allied Commander for Transformation, General André Lanata from the French Air Force (since June 2018), Allied Command Transformation is responsible for the transformation of NATO's military structure, forces, capabilities and doctrine. This command also develops innovative concepts, undertakes experimentation and promotes interoperability throughout the Alliance to improve NATO's military effectiveness.

Adapting NATO's Military Thinking

In 2020, the Alliance agreed a new military concept for deterrence and defence – the first such concept since 1968. Its purpose is to translate the 2019 NATO Military Strategy into practical steps to ensure NATO's deterrence and defence posture remains credible and tackles existing threats, including terrorism, instability across the Middle East and North Africa, and a more assertive Russia. While this concept looks at the immediate future, the Alliance is also developing a concept for the future military capabilities the Alliance will need through 2040.



Despite the challenges of the pandemic, we continued to innovate our deterrence and defence concepts, with broad endorsement. These adaptations will guide commanders on what the Alliance needs to maintain our security in the future.

**Commander Sune Lund
(Royal Danish Navy) (Denmark)**

Staff Officer Transformation Issues,
Strategic Policy and Concepts,
NATO Headquarters, Brussels, Belgium

The **NATO Force Structure** encompasses national and multinational forces and their associated operational headquarters. These are owned by Allies but placed at the Alliance's disposal on a permanent or temporary basis according to specified criteria. These forces form a pool from which NATO can draw to meet the Alliance's requirements for conducting and sustaining operations.



NATO Communications and Information Agency experts participated in Exercise Coalition Warrior 2020. The agency worked hand-in-hand with Allied Command Transformation and the Joint Force Training Centre to plan the event, and provided subject matter experts to conduct capability testing. The Hague, the Netherlands, June 2020.

Agencies and Organisations

The Alliance is served by a number of different agencies. These manage essential tasks such as communications, logistical support and capability development.

NATO Communications and Information Agency

The NATO Communications and Information Agency acquires, deploys and defends NATO's communications systems. It is on the front line against cyber attacks and malicious activity, monitoring, identifying and preventing potential threats, and working closely with governments, industry, academia and research institutes to prevent future attacks. With a dedicated staff of more than 3,000 NATO civilian and military personnel working in 28 locations, the Agency has an annual turnover of EUR 1 billion and works by contracting with industries from Allied nations.

In 2020, the Agency continued its work, while adapting to the COVID-19 pandemic. It developed collaboration portals to support extended telework procedures and enabled NATO Allies to carry out consultations via secure video conference. The Agency also used data to predict the impact and risk that COVID-19 posed to Agency staff and the communications and information services they provide.

The Agency also continued non-COVID-19-related work on emerging and disruptive technologies, developing artificial intelligence tools to aid military planners in assessing large quantities of Alliance

logistics data more quickly. It also began to apply artificial intelligence to better identify threats to Alliance forces by classifying friendly and hostile systems based on the radio signature detected.

The Agency also delivered technology and expertise to support NATO and national exercises, including US-led Exercise BALTOPS, Exercise Coalition Warrior, as well as Exercises Steadfast Cobalt and Steadfast Jupiter-Jackal 2020.

In 2020, the NATO Communications and Information Agency continued to invest in its relations with Allied industries across the Atlantic by hosting its first virtual industry event in November, NITEC Connect. The event was attended by more than 1,300 participants and attracted more than 450 new companies. It provided early insight into upcoming business opportunities and featured a new framework for the Agency to team up with not-for-profit entities.



NATO Communications and Information Agency staff work at their Ballistic Missile Defence lab in The Hague, The Netherlands, 2020.



KFOR Commander Major General Michele Risi inaugurating the COVID-19 testing laboratory delivered by the NATO Support and Procurement Agency at Camp Film City in Pristina, Kosovo, September 2020.

NATO Support and Procurement Agency

The NATO Support and Procurement Agency is NATO's main services provider, delivering a broad spectrum of integrated capabilities for the Alliance, its nations and partners. It delivers acquisition, logistics, medical and infrastructure support and services both under peacetime conditions and in support of NATO's operational engagements in Afghanistan and Kosovo.

As a customer-funded agency, it operates on a "no profit - no loss" basis and provides multinational solutions for its customers. Essential to its success is the capability to consolidate customer requirements and achieve economies of scale for cost-effective solutions. The Agency's annual business volume has continuously increased in recent years, exceeding EUR 3.6 billion in 2020.

The Agency is headquartered in Luxembourg, with duty stations in France, Hungary and Italy. It employs more than 1,500 international civilian personnel, with over 50 staff deployed at any one time managing over 2,100 contractors to support operations.

The Agency's activities in 2020 focused on responding to the COVID-19 pandemic to support NATO Allies and partner nations. The Agency also managed the NATO Pandemic Response Trust Fund on behalf of NATO.



We adapted quickly to help our nations fight COVID-19. Our Logistics Stock Exchange team worked 24/7 and managed – despite many difficulties – to provide thousands of tonnes of urgent medical supplies in a timely manner to our nations in need.

Linda Bengas (France)

E-Supply Section Chief, NATO Support and Procurement Agency, Luxembourg

The NATO Support and Procurement Agency also continued to manage the Strategic Airlift International Solution (SALIS) programme, which provides the nine NATO participating nations¹⁴ with assured access to strategic transport aircraft for outsized cargo. In 2020, a number of NATO Allies used their flying hour quota for 17 missions to airlift urgent medical protective equipment to fight COVID-19.

¹⁴ Belgium, the Czech Republic, France, Germany, Hungary, Norway, Poland, Slovakia and Slovenia.

The NATO Airlift Management Programme based in Hungary, which owns, manages and supports a fleet of three C-17 aircraft, delivered more than 2,000 flight hours in 2020, including the transportation of critical medical supplies in response to the pandemic.

The Agency continued to carry out its regular work, including by delivering services to NATO operations in Afghanistan and Kosovo, by supporting approximately 100 weapons systems, and by continuing to acquire and sustain high-visibility NATO and multinational platforms and systems.

In 2020, the NATO Support and Procurement Agency also played a key role in advancing the Multi Role Tanker Transport Capability. This is an example of strong collaboration between the Organisation for Joint Armament Cooperation and the Agency, as well as of excellent cooperation between participating Allies,¹⁵ the EU and NATO to develop an important new capability for air-to-air refuelling.

The NATO Support and Procurement Agency also manages the Central Europe Pipeline System programme. It operates, maintains and finances the largest multinational pipeline system in NATO, and provides transport and storage services to both military and non-military customers. With a network of 5,100 km, extending through five NATO nations,¹⁶ the resilience of the pipeline is important to secure NATO's energy and bulk petroleum fuel supply. Measures were taken in light of the COVID-19 crisis to allow the Central Europe Pipeline System programme to remain fully operational at all times.

Science and Technology Organization

The NATO Science and Technology Organization delivers innovation, advice and scientific solutions to meet the Alliance's evolving needs. At any one time, the Organization has over 300 projects ongoing, covering topics such as applications of artificial intelligence to anti-submarine warfare, naval mine warfare military capabilities, big data, quantum capabilities, military decision-making and directed energy. Research addressed the COVID-19 pandemic itself, tackling topics such as understanding and countering pandemic

disinformation, as well as improving military training for pandemic relief operations.

Founded on a community of more than 6,000 actively engaged scientists and engineers from Allied and partner countries, the Organization oversees the world's largest collaborative defence and security research network. This network is funded directly by Allied nations and structured around seven scientific and technical committees that cover the full spectrum of defence and security-related science and technology.

The NATO Science and Technology Organization comprises three staff entities: the Centre for Maritime Research and Experimentation in La Spezia, Italy; the Collaboration Support Office in Paris, France; and the Office of the Chief Scientist at NATO Headquarters in Brussels, Belgium. All committees and staff entities are governed by the NATO Science and Technology Board. The NATO Chief Scientist chairs the Board and serves as the scientific advisor to NATO's senior leadership.

NATO Standardization Office

The NATO Standardization Office initiates, coordinates, supports and administers NATO standardization activities to enable interoperability between NATO forces and capabilities. In 2020, the Office supported activities to increase readiness, strengthen deterrence and resilience, and leverage emerging and disruptive technologies. The Office also supported North Macedonia's preparation for accession and contributed to exchanges with NATO partners, including Colombia and partners in the Middle East and North Africa region.

In 2020, NATO celebrated 70 years of standardization. To celebrate the anniversary, the Office published a series of papers on NATO's standardization accomplishments and future challenges. These were used to stimulate a discussion on the future of NATO standardization with Allies, experts and other international organisations.

¹⁵ Belgium, the Czech Republic, Germany, Luxembourg, the Netherlands and Norway.
¹⁶ Belgium, France, Germany, Luxembourg and the Netherlands

NATO Centres of Excellence

NATO's Centres of Excellence are nationally or multinationally funded. They contribute to the Alliance's ongoing adaptation and learning, but are not directly funded by NATO, nor are they part of the NATO Command Structure. The centres offer expertise and experience to the benefit of the Alliance. They assist in doctrine development, identify lessons learned, improve interoperability and capabilities, and test and validate concepts through experimentation. They cover areas such as

cyber defence, military medicine, energy security, naval mine warfare, defence against terrorism, strategic communications, civil-military operations and cold weather operations.

In 2020, the Centres of Excellence network grew with the addition of three new centres: the Maritime Security Centre of Excellence in Istanbul, Turkey; the Integrated Air and Missile Defence Centre of Excellence in Chania, Greece; and the Maritime Geospatial, Meteorological and Oceanographic Centre of Excellence in Lisbon, Portugal. The latter two are finalising their accreditation process.

CENTRE OF EXCELLENCE	LOCATION
Centre for Analysis and Simulation of Air Operations	Lyon, FRA
Civil-Military Cooperation	The Hague, NLD
Cold Weather Operations	Bodø, NOR
Combined Joint Operations from the Sea	Norfolk, Virginia, USA
Command and Control	Utrecht, NLD
Cooperative Cyber Defence	Tallinn, EST
Counter-Improvised Explosive Devices	Madrid, ESP
Counter Intelligence	Krakow, POL
Crisis Management & Disaster Response	Sofia, BGR
Defence Against Terrorism	Ankara, TUR
Energy Security	Vilnius, LTU
Explosive Ordnance Disposal	Trenčín, SVK
Human Intelligence	Oradea, ROU
Integrated Air & Missile Defence*	Chania, GRC
Joint Air Power Competence Centre	Kalkar, DEU
Joint Chemical, Biological, Radiological and Nuclear Defence	Vyškov, CZE
Maritime Geospatial, Meteorological & Oceanographic Centre*	Lisbon, PRT
Maritime Security	Yenilevent/Istanbul, TUR
Military Engineering	Ingolstadt, DEU
Military Medicine	Budapest, HUN
Military Police	Bydgoszcz, POL
Modelling and Simulation	Rome, ITA
Mountain Warfare	Poljče, SVN
Naval Mine Warfare	Oostende, BEL
Operations in Confined and Shallow Waters	Kiel, DEU
Security Force Assistance	Rome, ITA
Stability Policing	Vicenza, ITA
Strategic Communications	Riga, LVA

* Currently finalising the accreditation process

NATO Funding

The costs of running NATO are funded through both direct and indirect contributions by all 30 Allies.

Indirect contributions are by far the largest type of contributions and include Allies' participation in NATO-led operations and missions.

Direct contributions are those made to finance capabilities and initiatives that serve all Allies, such as NATO-wide air defence or command and control systems. Costs for direct contributions are borne collectively through common funding, with all Allies contributing according to an agreed cost-share formula, broadly based on nations' Gross National Incomes. Discussions on fairer burden-sharing among the Allies throughout 2019 culminated with the adjustment of cost-share formulas for application from 2020 until end 2024.

Common funding finances NATO's principal budgets and programme: the Civil Budget, the Military Budget and the NATO Security Investment Programme. A commonly agreed set of financial regulations and an accounting framework are in place to ensure the proper management of funds, and corresponding financial statements are made available to the public.

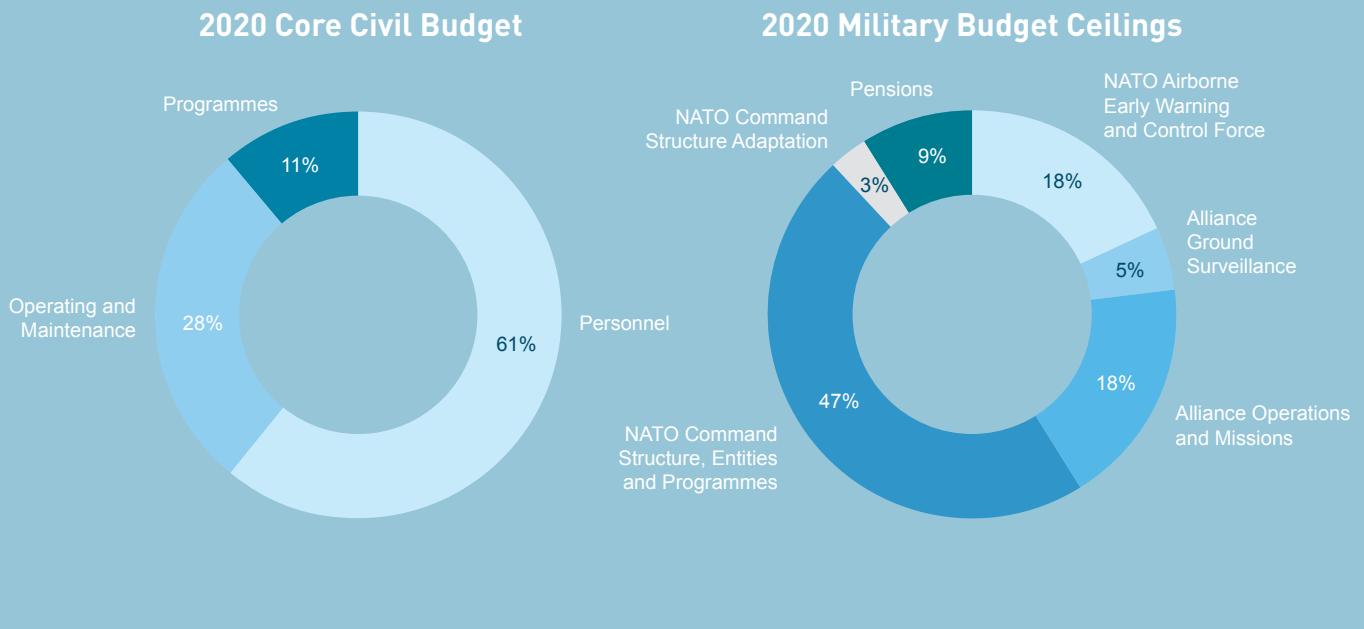
Each NATO military capability is financed through a combination of common funding, joint funding, multinational funding and national funding. Participating nations, in cooperation with the NATO Military Authorities, identify the requirements, the priorities and the funding arrangements, and NATO provides political and military oversight. The common funding process is overseen by the North Atlantic Council, managed by the Resource Policy and Planning Board, and implemented by the Budget Committee and the Investment Committee.



In 2020, my main task was to ensure safety and efficiency of financial operations during this challenging year. Fine-tuned internal control mechanisms and a new model for Trust Funds' management will provide additional assurance that funds entrusted to NATO are well used.

Miroslawa Boryczka (Poland)

Financial Controller,
NATO Headquarters, Brussels, Belgium



Civil Budget for 2020

The Civil Budget funds personnel expenses, operating costs, capital and programme expenditures of the International Staff at NATO Headquarters. In 2020, the International Staff establishment was 1,136 posts. The 2020 Core Civil Budget, excluding pension liabilities, was agreed at EUR 211 million, a 1.7% increase compared to 2019.

The North Atlantic Council approves the Civil Budget and ensures expenditures are aligned with the Alliance's political priorities. In 2020, the International Staff continued improving overall accountability and transparency of its resource management through an objective-based budgeting framework that allows Allies to directly match the resources provided to the Civil Budget with the outputs delivered during the financial year.

Military Budget for 2020

The Military Budget covers the operating and maintenance costs of the NATO Command Structure and other NATO military entities. It is composed of 37 separate budgets, financed through contributions from Allies' national defence budgets according to agreed cost-share formulas, typically from national defence ministries.

The Military Budget is approved by the North Atlantic Council, overseen by the Budget Committee – with representatives from all NATO member countries – and implemented by the individual budget holders. In all cases, the provision of military staff remains a nationally funded responsibility. The military budget ceiling for 2020 was EUR 1.55 billion.

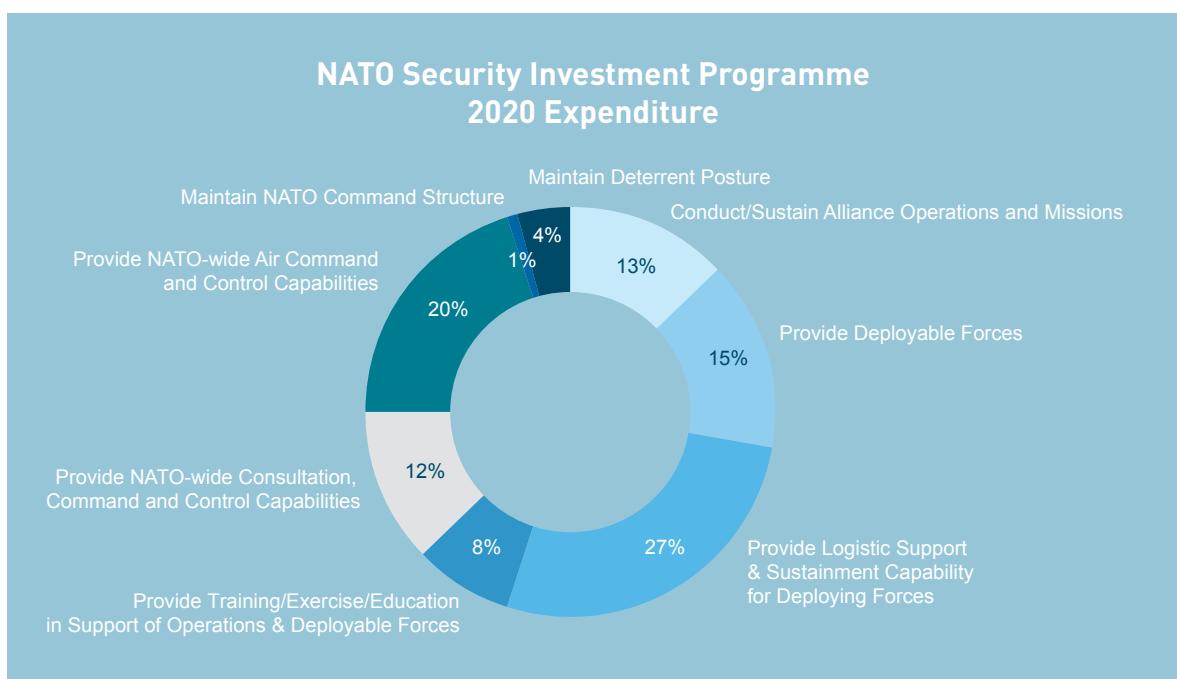
NATO Security Investment Programme

The NATO Security Investment Programme supports NATO's mission through the delivery of common-funded capabilities to the two NATO Strategic Commands: Allied Command Operations and Allied Command Transformation.

Established in 1951, the Programme is executed through capability packages and approved by the North Atlantic Council to fund a number of projects implemented by NATO Allies and Agencies.

Annual funding is around EUR 700 million, with over 3,000 common-funded projects worth almost EUR 16 billion currently under implementation.

In 2020, the NATO Security Investment Programme continued to deliver capabilities such as satellite communications, cyber security, surveillance and control. Additional investments were devoted to supporting upgrades to NATO and Allied airbases, bulk-fuel infrastructure, and facilities to support training, reception and onward movement of NATO forces.



Improving Transparency

NATO is committed to transparency and openness. In 2020, the Alliance declassified and publically disclosed 11,000 historical NATO documents. A number of current documents were also made available to the public, including the NATO Policy on Preventing and Responding to Sexual Exploitation and Abuse and the Information Report of the fourth Annual Meeting of the Civil Society Advisory Panel on Women, Peace and Security.

The public disclosure programme also regularly reviews thematic collections of particular interest, ensuring that thematic disclosures align with areas

of interest to academics and the general public. For instance, to celebrate the 50th anniversary of the Treaty on the Non-Proliferation of Nuclear Weapons, the Alliance disclosed NATO staff files related to the negotiation of the treaty. To assist the public disclosure review process and align it with the public's interest, a virtual workshop with historians and NATO officials was held for the first time in 2020. Participants discussed areas of interest related to NATO's first operations – the Implementation Force (IFOR) and the Stabilisation Force (SFOR), both in Bosnia and Herzegovina. These discussions will help inform the 2021 public disclosure programme.

Resolute Support Mission

The Resolute Support Mission is a NATO-led mission to train, advise and assist the Afghan security forces and institutions. The mission was launched on 1 January 2015, immediately following the stand-down of the International Security Assistance Force.

The legal framework for the Resolute Support Mission is provided by a Status of Forces Agreement, signed in Kabul on 30 September 2014 and ratified by the Afghan Parliament on 27 November 2014. The agreement defines the terms and conditions under which NATO forces are deployed, as well as the activities they are authorised to carry out. The mission is also supported by United Nations Security Council Resolution 2189, unanimously adopted on 12 December 2014.

In 2020, the Resolute Support Mission consisted of approximately 16,000 troops from 38 NATO Allies and partners.

The mission operates with one 'hub' (Kabul/Bagram) and four 'spokes' (Mazar-e-Sharif in the north, Herat in the west, Kandahar in the south, and Laghman in the east). It carries out training, advice and assistance activities in support of the Afghan government's four-year security roadmap (launched in 2017), which aims to increase the effectiveness and accountability of the Afghan National Defense and Security Forces and other Afghan institutions. The roadmap focuses on leadership development, fighting capabilities, unity of command and fighting corruption. The mission also performs supporting functions in several areas. These include operational planning; budgetary development; force generation process; management and development of personnel; logistical sustainment; and civilian oversight to ensure the Afghan security forces and institutions act in accordance with the rule of law and good governance.

Those countries not contributing troops to the Resolute Support Mission are supporting this mission in different ways, as well as the broad effort to strengthen the sustainment of the Afghan National Defence and Security Forces in the long term.

Allies and partner countries also contribute to the financing of the Afghan National Defence and Security Forces, and enhance the partnership with Afghanistan through political consultations with the country and by strengthening practical cooperation in areas of specific interest for Afghanistan.

These efforts are part of the broader engagement of the international community in Afghanistan to ensure that the country is never again a safe haven for terrorism.

Commander: General Austin S. Miller (USA)
NATO Senior Civilian Representative: Ambassador Stefano Pontecorvo (ITA)

Resolute Support Mission (RSM) Command in Kabul
RSM Headquarters

Commander: General Austin S. Miller (USA)
Deputy Commander: Lieutenant General Giles Hill CBE (GBR)

Train, Advise and Assist Command (TAAC) Capital:
Headquarter TAAC(C) in Kabul (TUR)
Commander: Brigadier General Ahmet Yaşar Dener (TUR)

Train, Advise and Assist Command (TAAC) North:
Headquarter TAAC(N) in Mazar-e Sharif (DEU)
Commander: Brigadier General Jürgen Brötz (DEU)

Train, Advise and Assist Command (TAAC) East:
Headquarter TAAC(E) in Laghman (USA)
Commander: Brigadier General Charles J. Masaracchia (USA)

Train, Advise and Assist Command (TAAC) South:
Headquarter TAAC(S) in Kandahar (USA)
Commander: Brigadier General Mike Eastman (USA)

Train, Advise and Assist Command (TAAC) West:
Headquarter TAAC(W) in Herat (ITA)
Commander: Brigadier General Enrico Barduani (ITA)

Train, Advise and Assist Command (TAAC) Air:
Commander: Colonel Scott T. Yeatman (USA)

Kosovo Force

38 Troop-Contributing Nations (as of June 2020)

Albania	99
Armenia	121
Australia	200
Austria	11
Azerbaijan	120
Belgium	92
Bosnia and Herzegovina	66
Bulgaria	160
Croatia	76
Czech Republic	91
Denmark	108
Estonia	45
Finland	65
Georgia	860
Germany	1,300
Greece	11
Hungary	89
Italy	895
Latvia	40
Lithuania	25
Luxembourg	2
Mongolia	233
Montenegro	32
Netherlands	160
New Zealand	9
North Macedonia	42
Norway	61
Poland	360
Portugal	188
Romania	738
Slovakia	20
Slovenia	6
Spain	36
Sweden	13
Turkey	600
Ukraine	13
United Kingdom	950
United States	8,000
Total Strength ¹ :	15,937

The NATO-led Kosovo Force (KFOR) mission contributes to maintaining a safe and secure environment and freedom of movement for all communities in Kosovo, as mandated by United Nations Security Council Resolution 1244 of 1999.

In carrying out its activities, NATO cooperates and assists the United Nations, the EU and other international actors, as appropriate, to support the development of a stable and peaceful Kosovo. KFOR also supports the development of professional, democratic and multi-ethnic security structures in Kosovo.

Commander: Major General Michele Risi (ITA)

27 Troop-contributing Nations (as of June 2020)

Albania	29
Armenia	41
Austria	322
Bulgaria	23
Canada	5
Croatia	37
Czech Republic	9
Denmark	35
Finland	20
Germany	70
Greece	111
Hungary	397
Ireland	13
Italy	542
Lithuania	1
Moldova	41
Montenegro	1
Norway	2
Poland	230
Romania	53
Slovenia	229
Sweden	3
Switzerland	165
Turkey	311
Ukraine	40
United Kingdom	21
United States	660
Total Strength:	3,411

¹ The troop numbers reported reflect the overall presence in Afghanistan of each individual contributing nation. They are based on information provided directly by individual contributing nations and may include forces deployed in a support role for Resolute Support Mission. They should be taken as indicative as they change regularly, in accordance with the deployment procedures of the individual troop-contributing nations.

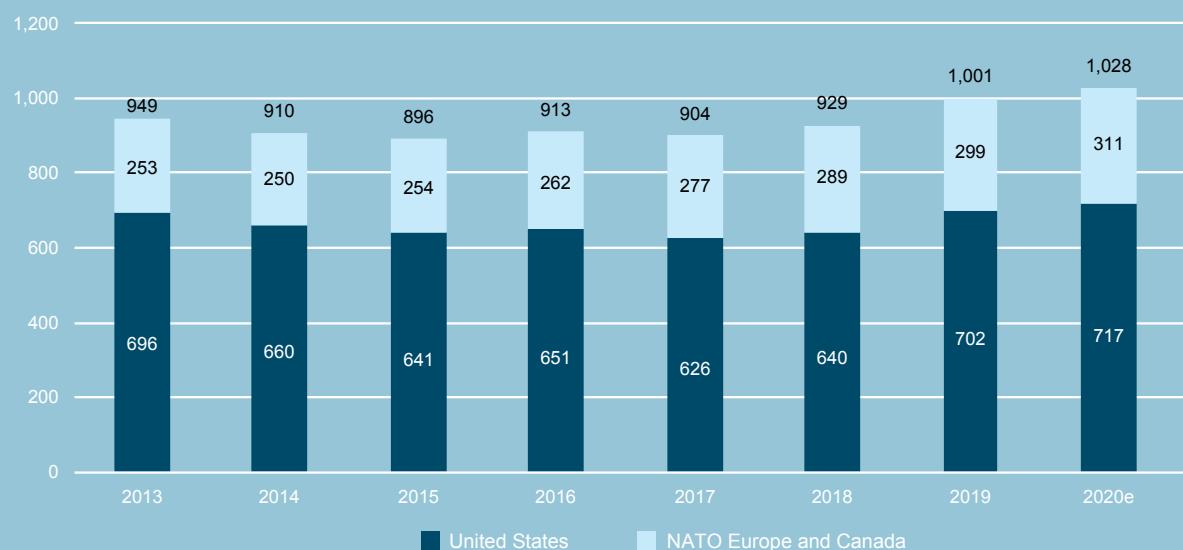
Defence Expenditure of NATO Countries (2013-2020)

NATO collects defence expenditure data from Allies on a regular basis and presents aggregates and subsets of this information. Each Ally's Ministry of Defence reports current and estimated future defence expenditure according to an agreed definition of defence expenditure. The amounts represent payments by a national government actually made, or to be made, during the course of the fiscal year to meet the needs of its armed forces, those of Allies or of the Alliance. In the figures and tables that follow, NATO also uses economic and demographic information available from the Directorate-General for Economic and Financial Affairs of the European Commission (DG-ECFIN), and the Organisation for Economic Co-operation and Development (OECD).

In view of differences between both these sources and national GDP forecasts, and also the definition of NATO defence expenditure and national definitions, the figures shown in this report may diverge considerably from those which are quoted by media, published by national authorities or given in national budgets. Equipment expenditure includes expenditure on major equipment as well as on research and development devoted to major equipment. Personnel expenditure includes pensions paid to retirees.

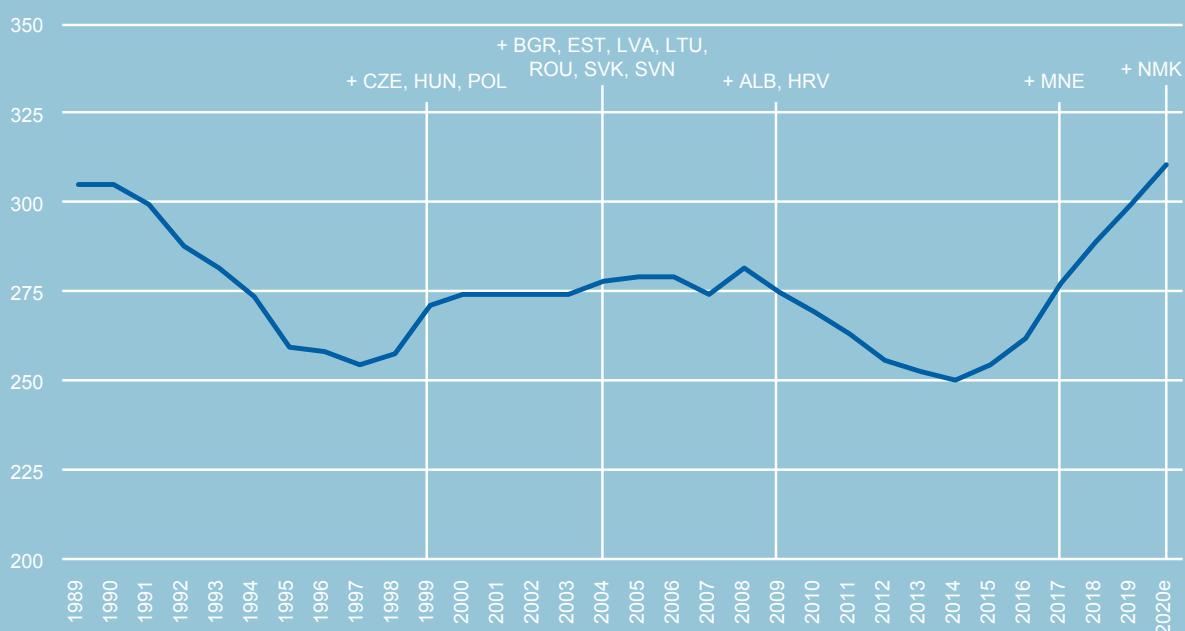
The cut-off date for information used in this report was 4 February 2021. Figures for 2020 are estimates.

Graph 1: Defence expenditure
(billion US dollars, based on 2015 prices and exchange rates)



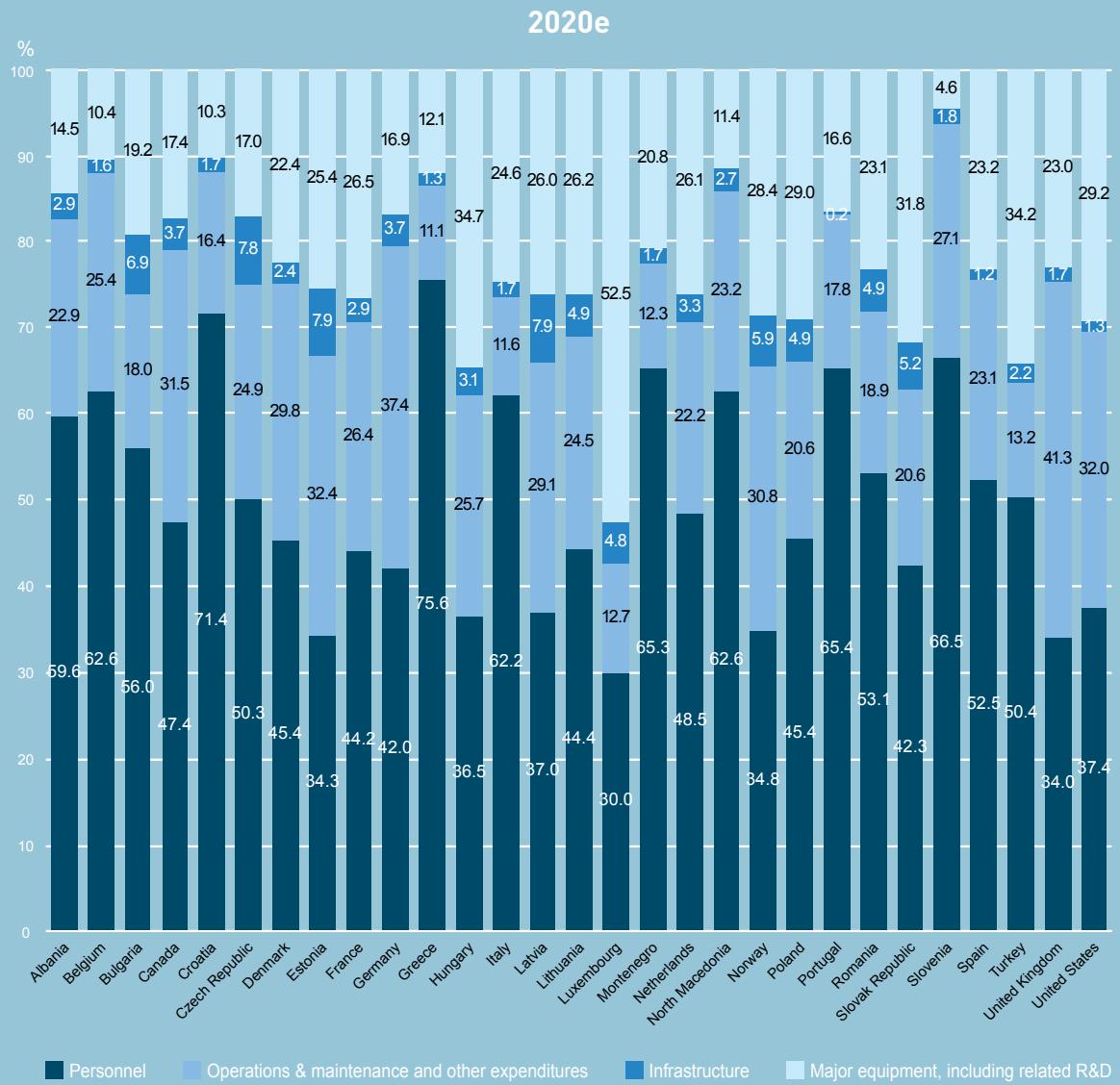
Notes: Figures for 2020 are estimates. The NATO Europe and Canada aggregate from 2017 onwards includes Montenegro, which became an Ally on 5 June 2017, and from 2020 onwards includes North Macedonia, which became an Ally on 27 March 2020.

Graph 2: NATO Europe and Canada - defence expenditure
(billion US dollars, based on 2015 prices and exchange rates)



Notes: Figures for 2020 are estimates. Includes enlargements which took place in: 1999 (3 Allies), 2004 (7 Allies), 2009 (2 Allies), 2017 (1 Ally) and 2020 (1 Ally).

Graph 3: Main categories of defence expenditure (%)
(percentage of total defence expenditure)



Graph 4: NATO Europe and Canada - major equipment expenditure
 (annual real change, based on 2015 prices and exchange rates)



Notes: Figures for 2020 are estimates. The NATO Europe and Canada aggregate from 2017 onwards includes Montenegro, which became an Ally on 5 June 2017, and from 2020 onwards includes North Macedonia, which became an Ally on 27 March 2020.

Table 1: Defence expenditure (million national currency units)

Country	Currency unit (million)	2013	2014	2015	2016	2017	2018	2019	2020e
Current prices									
Albania	Leks	19,022	18,788	16,671	16,250	17,199	18,995	21,987	20,353
Belgium	Euros	3,964	3,913	3,789	3,848	3,932	4,101	4,253	4,755
Bulgaria	Leva	1,196	1,102	1,116	1,186	1,255	1,593	3,772	1,843
Canada	Canadian dollars	18,764	20,076	23,900	23,474	30,761	29,025	29,612	30,815
Croatia	Kunas	4,848	6,113	6,057	5,696	6,120	6,068	6,634	6,700
Czech Republic	Koruny	42,035	41,003	47,264	45,598	52,805	59,752	66,737	74,300
Denmark	Kroner	23,682	22,769	22,633	24,190	24,961	28,787	30,389	32,572
Estonia	Euros	361	386	418	450	479	514	569	615
France	Euros	39,402	39,149	39,199	39,950	40,852	42,748	44,400	46,200
Germany	Euros	34,593	34,749	35,898	37,598	40,265	42,127	46,936	51,610
Greece	Euros	3,999	3,939	4,073	4,190	4,208	4,560	4,326	4,398
Hungary	Forint	286,341	281,402	316,338	362,798	402,793	484,031	596,008	853,196
Italy	Euros	20,078	18,427	17,642	20,226	21,166	21,183	21,042	22,844
Latvia*	Euros	212	221	254	364	430	613	618	664
Lithuania*	Euros	267	322	425	575	724	895	977	1,028
Luxembourg	Euros	176	190	225	213	288	301	345	356
Montenegro	Euros	49	52	51	56	58	64	66	73
Netherlands	Euros	7,702	7,788	7,816	8,234	8,539	9,456	10,800	11,500
North Macedonia	Denars	5,871	5,743	5,853	5,770	5,532	6,232	8,029	8,303
Norway	Kroner	46,057	48,660	49,529	54,022	56,664	61,349	66,318	67,908
Poland*	Zlotys	28,467	31,874	39,940	37,082	37,558	42,824	45,404	52,997
Portugal	Euros	2,457	2,263	2,384	2,364	2,424	2,750	2,946	3,191
Romania*	New Lei	8,160	9,014	10,337	10,738	14,765	17,183	19,527	21,431
Slovak Republic	Euros	729	752	889	907	935	1,098	1,610	1,796
Slovenia	Euros	382	366	361	406	422	463	512	504
Spain	Euros	9,495	9,508	10,000	9,014	10,528	11,172	11,281	12,932
Turkey	Liras	27,466	29,727	32,522	38,203	47,323	68,300	79,987	89,392
United Kingdom	Pounds	39,824	39,902	38,940	41,590	43,257	45,202	46,509	48,260
United States	US dollars	680,856	653,942	641,253	656,059	642,933	672,255	730,149	784,952
Constant 2015 prices									
Albania	Leks	19,426	18,894	16,671	16,354	17,057	18,700	21,441	19,678
Belgium	Euros	4,032	3,952	3,789	3,780	3,799	3,918	3,966	4,407
Bulgaria	Leva	1,228	1,126	1,116	1,160	1,187	1,454	3,233	1,558
Canada	Canadian dollars	18,956	19,894	23,900	23,292	29,769	27,623	27,646	28,803
Croatia	Kunas	4,850	6,115	6,057	5,700	6,058	5,903	6,341	6,360
Czech Republic	Koruny	43,580	41,481	47,264	45,029	51,408	56,954	61,148	65,639
Denmark	Kroner	24,030	22,868	22,633	24,017	24,438	28,065	29,567	31,310
Estonia	Euros	376	390	418	443	454	466	500	547
France	Euros	40,081	39,595	39,199	39,873	40,506	41,993	42,998	43,635
Germany	Euros	35,898	35,439	35,898	37,092	39,121	40,184	43,985	47,686
Greece	Euros	3,908	3,925	4,073	4,195	4,192	4,522	4,330	4,421
Hungary	Forint	302,053	286,921	316,338	359,267	385,004	442,784	515,181	716,958
Italy	Euros	20,771	18,734	17,642	19,769	20,553	20,791	20,301	21,774
Latvia*	Euros	216	221	254	361	413	565	559	599
Lithuania*	Euros	271	323	425	567	685	819	867	903
Luxembourg	Euros	180	190	225	211	280	281	318	318
Montenegro	Euros	51	53	51	54	53	58	57	64
Netherlands	Euros	7,780	7,796	7,816	8,162	8,340	9,041	10,186	10,709
North Macedonia	Denars	6,075	5,858	5,853	5,577	5,201	5,629	7,198	7,574
Norway	Kroner	44,872	47,271	49,529	54,831	55,326	56,164	60,980	64,787
Poland*	Zlotys	28,894	32,185	39,940	36,967	36,758	41,414	42,569	47,855
Portugal	Euros	2,524	2,309	2,384	2,324	2,348	2,616	2,756	2,899
Romania*	New Lei	8,577	9,308	10,337	10,482	13,768	15,089	16,039	17,116
Slovak Republic	Euros	726	750	889	912	928	1,069	1,526	1,670
Slovenia	Euros	387	370	361	403	412	442	478	461
Spain	Euros	9,525	9,560	10,000	8,985	10,360	10,864	10,820	12,293
Turkey	Liras	31,810	32,059	32,522	35,330	39,434	48,859	50,234	49,787
United Kingdom	Pounds	40,781	40,166	38,940	40,714	41,541	42,454	42,782	41,910
United States	US dollars	696,291	660,062	641,253	651,201	626,328	640,277	701,563	716,886

Notes: Figures for 2020 are estimates.

* These Allies have national laws and political agreements which call for 2% of GDP to be spent on defence annually, consequently estimates are expected to change accordingly. For the past years, Allies' defence spending was based on the then available GDP data and Allies may, therefore, have met the 2% guideline when using those figures (In 2018, Lithuania met 2% using November 2018 OECD figures).

Table 2: Defence expenditure (million US dollars)

Country	2013	2014	2015	2016	2017	2018	2019	2020e
Current prices and exchange rates								
Albania	180	178	132	131	144	176	200	182
Belgium	5,265	5,199	4,204	4,259	4,442	4,843	4,761	5,436
Bulgaria	811	747	633	671	723	961	2,159	1,077
Canada	18,215	18,172	18,689	17,708	23,700	22,399	22,319	22,867
Croatia	850	1,064	883	837	924	966	1,002	1,033
Czech Republic	2,148	1,975	1,921	1,866	2,259	2,750	2,910	3,226
Denmark	4,217	4,057	3,364	3,593	3,780	4,559	4,557	4,969
Estonia	480	513	463	498	541	615	637	703
France	52,331	52,009	43,492	44,221	46,150	50,484	49,705	52,814
Germany	45,944	46,164	39,829	41,618	45,486	49,750	52,543	58,999
Greece	5,311	5,232	4,519	4,638	4,754	5,386	4,843	5,027
Hungary	1,280	1,210	1,132	1,289	1,708	1,615	2,051	2,827
Italy	26,665	24,481	19,574	22,388	23,911	25,629	23,556	26,114
Latvia*	281	294	282	403	485	709	692	759
Lithuania*	355	428	471	636	818	1,056	1,093	1,176
Luxembourg	234	253	250	236	326	356	386	407
Montenegro	65	69	57	62	65	75	74	84
Netherlands	10,229	10,346	8,672	9,114	9,646	11,167	12,090	13,146
North Macedonia	127	124	105	104	101	120	146	154
Norway	7,839	7,722	6,142	6,431	6,850	7,544	7,536	7,231
Poland*	9,007	10,104	10,596	9,405	9,938	11,857	11,826	13,527
Portugal	3,263	3,007	2,645	2,616	2,739	3,247	3,298	3,648
Romania*	2,452	2,691	2,581	2,645	3,643	4,359	4,608	5,073
Slovak Republic	969	998	987	1,004	1,056	1,297	1,802	2,053
Slovenia	507	487	401	450	477	546	573	576
Spain	12,610	12,631	11,095	9,978	11,893	13,194	12,629	14,783
Turkey	14,427	13,583	11,957	12,649	12,972	14,145	14,098	12,930
United Kingdom	62,258	65,658	59,492	56,154	55,674	60,307	59,365	61,847
United States	680,856	653,942	641,253	656,059	642,933	672,255	730,149	784,952
NATO Europe and Canada	288,129	289,203	254,406	255,439	275,106	299,994	301,311	322,670
NATO Total	968,985	943,145	895,659	911,498	918,039	972,249	1,031,460	1,107,622

Constant 2015 prices and exchange rates

Albania	154	150	132	130	135	148	170	156
Belgium	4,501	4,400	4,204	4,189	4,204	4,314	4,401	4,889
Bulgaria	697	640	633	655	667	814	1,832	883
Canada	14,828	15,562	18,689	18,219	23,302	21,595	21,619	22,523
Croatia	708	892	883	831	883	858	925	927
Czech Republic	1,770	1,683	1,921	1,833	2,095	2,312	2,486	2,668
Denmark	3,572	3,399	3,364	3,587	3,657	4,194	4,395	4,654
Estonia	416	432	463	487	503	524	555	607
France	44,471	43,931	43,492	44,097	44,857	46,496	47,707	48,413
Germany	39,825	39,270	39,829	41,169	43,499	44,762	48,802	52,909
Greece	4,338	4,357	4,519	4,676	4,678	5,075	4,805	4,905
Hungary	1,094	1,035	1,132	1,281	1,593	1,416	1,844	2,567
Italy	23,046	20,786	19,574	21,934	22,757	23,396	22,525	24,158
Latvia*	240	245	282	401	459	617	621	665
Lithuania*	299	357	471	628	758	905	962	1,002
Luxembourg	201	212	250	235	312	318	352	352
Montenegro	56	59	57	59	59	63	63	71
Netherlands	8,633	8,649	8,672	9,056	9,253	10,031	11,302	11,882
North Macedonia	109	105	105	100	94	101	130	136
Norway	5,564	5,862	6,142	6,799	6,861	6,965	7,562	8,034
Poland*	7,665	8,538	10,596	9,807	9,751	10,987	11,293	12,695
Portugal	2,800	2,562	2,645	2,578	2,605	2,902	3,058	3,217
Romania*	2,141	2,324	2,581	2,617	3,437	3,767	4,004	4,273
Slovak Republic	806	832	987	1,012	1,030	1,186	1,693	1,853
Slovenia	430	411	401	447	458	491	531	512
Spain	10,568	10,607	11,095	9,969	11,494	12,054	12,005	13,639
Turkey	11,695	11,786	11,957	12,989	14,498	17,963	18,468	18,304
United Kingdom	62,305	61,365	59,492	62,202	63,466	64,860	65,362	64,030
United States	696,291	660,062	641,253	651,201	626,328	640,277	701,563	716,886
NATO Europe and Canada	252,768	250,286	254,406	261,825	277,271	289,014	299,342	310,925
NATO Total	949,059	910,348	895,659	913,026	903,599	929,290	1,000,904	1,027,811

Notes: Figures for 2020 are estimates. The NATO Europe and Canada and NATO Total aggregates from 2017 onwards include Montenegro, which became an Ally on 5 June 2017, and from 2020 onwards include North Macedonia, which became an Ally on 27 March 2020.

* These Allies have national laws and political agreements which call for 2% of GDP to be spent on defence annually, consequently estimates are expected to change accordingly. For the past years, Allies' defence spending was based on the then available GDP data and Allies may, therefore, have met the 2% guideline when using those figures (In 2018, Lithuania met 2% using November 2018 OECD figures).

Table 3: Defence expenditure as a share of GDP and annual real change (based on 2015 prices)

Country	2013	2014	2015	2016	2017	2018	2019	2020e
	Share of real GDP (%)							
Albania	1.41	1.35	1.16	1.10	1.11	1.16	1.31	1.29
Belgium	1.01	0.97	0.91	0.89	0.88	0.89	0.89	1.07
Bulgaria	1.46	1.31	1.25	1.25	1.23	1.45	3.15	1.60
Canada	0.99	1.01	1.20	1.16	1.44	1.31	1.29	1.42
Croatia	1.46	1.85	1.78	1.62	1.67	1.57	1.65	1.83
Czech Republic	1.01	0.94	1.02	0.95	1.03	1.10	1.16	1.34
Denmark	1.23	1.15	1.11	1.15	1.14	1.28	1.30	1.43
Estonia	1.90	1.92	2.01	2.05	2.01	2.01	2.03	2.33
France	1.86	1.82	1.78	1.79	1.78	1.81	1.83	2.04
Germany	1.23	1.19	1.19	1.20	1.23	1.25	1.36	1.56
Greece	2.23	2.22	2.31	2.40	2.38	2.54	2.36	2.68
Hungary	0.95	0.86	0.91	1.00	1.19	1.01	1.25	1.85
Italy	1.26	1.14	1.07	1.18	1.20	1.23	1.18	1.39
Latvia*	0.92	0.94	1.03	1.44	1.59	2.06	2.03	2.27
Lithuania*	0.76	0.88	1.14	1.48	1.71	1.97	2.00	2.13
Luxembourg	0.38	0.38	0.43	0.39	0.51	0.50	0.54	0.57
Montenegro	1.47	1.50	1.40	1.42	1.34	1.37	1.33	1.72
Netherlands	1.17	1.15	1.13	1.16	1.15	1.22	1.35	1.49
North Macedonia	1.17	1.09	1.05	0.97	0.89	0.94	1.16	1.27
Norway	1.50	1.55	1.59	1.74	1.72	1.73	1.86	2.00
Poland*	1.73	1.86	2.22	1.99	1.89	2.02	1.98	2.31
Portugal	1.44	1.31	1.33	1.27	1.24	1.34	1.38	1.59
Romania*	1.29	1.35	1.45	1.41	1.72	1.81	1.84	2.07
Slovak Republic	0.98	0.99	1.12	1.12	1.11	1.23	1.71	2.00
Slovenia	1.05	0.97	0.93	1.00	0.98	1.01	1.06	1.10
Spain	0.93	0.92	0.93	0.81	0.91	0.93	0.91	1.17
Turkey	1.51	1.45	1.38	1.45	1.51	1.82	1.85	1.86
United Kingdom	2.24	2.14	2.03	2.08	2.09	2.11	2.10	2.32
United States	4.03	3.73	3.52	3.51	3.30	3.27	3.51	3.73
NATO Europe and Canada	1.47	1.43	1.42	1.44	1.48	1.51	1.55	1.73
NATO Total	2.76	2.58	2.48	2.48	2.40	2.41	2.55	2.77

	Annual real change (%)							
Albania	-4.30	-2.74	-11.76	-1.90	4.32	8.96	15.34	-8.22
Belgium	-2.70	-2.25	-4.44	-0.36	0.36	2.61	2.02	11.10
Bulgaria	9.50	-8.29	-1.07	3.59	1.80	22.05	124.99	-51.81
Canada	-7.68	4.95	20.10	-2.52	27.90	-7.33	0.11	4.18
Croatia	-4.88	25.92	-1.00	-5.88	6.22	-2.80	7.71	0.31
Czech Republic	-3.06	-4.91	14.14	-4.61	14.32	10.32	7.54	7.35
Denmark	-8.37	-4.84	-1.03	6.62	1.98	14.67	4.78	5.89
Estonia	2.08	3.71	7.32	5.18	3.18	4.30	5.73	9.48
France	-0.02	-1.21	-1.00	1.39	1.72	3.65	2.60	1.48
Germany	-6.20	-1.39	1.42	3.36	5.66	2.91	9.03	8.41
Greece	-6.95	0.45	3.71	3.47	0.05	8.48	-5.32	2.09
Hungary	-6.42	-5.32	9.37	13.07	24.42	-11.14	30.27	39.17
Italy	-5.09	-9.81	-5.83	12.05	3.75	2.81	-3.73	7.25
Latvia*	7.95	2.39	14.78	42.29	14.59	34.52	0.51	7.12
Lithuania*	4.73	19.38	31.96	33.13	20.84	19.37	6.20	4.17
Luxembourg	3.71	5.28	17.94	-5.88	32.93	1.86	10.83	-0.02
Montenegro	-8.44	4.49	-3.50	4.33	-1.34	7.29	0.99	11.12
Netherlands	-5.98	0.19	0.26	4.43	2.17	8.41	12.67	5.14
North Macedonia	-1.96	-3.58	-0.09	-4.71	-6.75	8.23	27.89	5.22
Norway	8.06	5.35	4.78	10.70	0.90	1.51	8.58	6.24
Poland*	0.06	11.39	24.10	-7.45	-0.56	12.67	2.79	12.42
Portugal	1.53	-8.52	3.25	-2.51	1.03	11.40	5.38	5.19
Romania*	8.38	8.52	11.06	1.40	31.35	9.60	6.29	6.72
Slovak Republic	-8.62	3.25	18.61	2.50	1.80	15.17	42.77	9.41
Slovenia	-11.19	-4.42	-2.37	11.42	2.44	7.27	8.15	-3.63
Spain	-12.66	0.36	4.60	-10.15	15.30	4.87	-0.41	13.61
Turkey	3.55	0.78	1.44	8.64	11.61	23.90	2.81	-0.89
United Kingdom	7.01	-1.51	-3.05	4.55	2.03	2.20	0.77	-2.04
United States	-6.04	-5.20	-2.85	1.55	-3.82	2.23	9.57	2.18
NATO Europe and Canada	-1.19	-0.98	1.65	2.92	5.90	4.23	3.57	3.87
NATO Total	-4.80	-4.08	-1.61	1.94	-1.03	2.84	7.71	2.69

Notes: Figures for 2020 are estimates. The NATO Europe and Canada and NATO Total aggregates from 2017 onwards include Montenegro, which became an Ally on 5 June 2017, and from 2020 onwards include North Macedonia, which became an Ally on 27 March 2020.

* These Allies have national laws and political agreements which call for 2% of GDP to be spent on defence annually, consequently estimates are expected to change accordingly. For the past years, Allies' defence spending was based on the then available GDP data and Allies may, therefore, have met the 2% guideline when using those figures (In 2018, Lithuania met 2% using November 2018 OECD figures).

Table 4: Defence expenditure real change 2014-2020

Country	2014	2020e	Real change 2014-2020e (%)	Share of real GDP 2014 (%)	Share of real GDP 2020e (%)
Million US dollars (2015 prices and exchange rates)					
Albania	150	156	4.15	1.35	1.29
Belgium	4,400	4,889	11.13	0.97	1.07
Bulgaria	640	883	38.06	1.31	1.60
Canada	15,562	22,523	44.74	1.01	1.42
Croatia	892	927	3.96	1.85	1.83
Czech Republic	1,683	2,668	58.51	0.94	1.34
Denmark	3,399	4,654	36.92	1.15	1.43
Estonia	432	607	40.59	1.92	2.33
France	43,931	48,413	10.20	1.82	2.04
Germany	39,270	52,909	34.73	1.19	1.56
Greece	4,357	4,905	12.58	2.22	2.68
Hungary	1,035	2,567	147.88	0.86	1.85
Italy	20,786	24,158	16.22	1.14	1.39
Latvia	245	665	171.08	0.94	2.27
Lithuania	357	1,002	180.37	0.88	2.13
Luxembourg	212	352	66.55	0.38	0.57
Montenegro	59	71	19.59	1.50	1.72
Netherlands	8,649	11,882	37.38	1.15	1.49
North Macedonia	105	136	29.30	1.09	1.27
Norway	5,862	8,034	37.06	1.55	2.00
Poland	8,538	12,695	48.69	1.86	2.31
Portugal	2,562	3,217	25.58	1.31	1.59
Romania	2,324	4,273	83.89	1.35	2.07
Slovak Republic	832	1,853	122.66	0.99	2.00
Slovenia	411	512	24.57	0.97	1.10
Spain	10,607	13,639	28.59	0.92	1.17
Turkey	11,786	18,304	55.30	1.45	1.86
United Kingdom	61,365	64,030	4.34	2.14	2.32
United States	660,062	716,886	8.61	3.73	3.73

Notes: Figures for 2020 are estimates.

Table 5: Real GDP

Country	2013	2014	2015	2016	2017	2018	2019	2020e
Billion US dollars (2015 prices and exchange rates)								
Albania	11	11	11	12	12	13	13	12
Belgium	446	453	462	468	476	484	493	456
Bulgaria	48	49	51	53	54	56	58	55
Canada	1,503	1,546	1,557	1,572	1,622	1,655	1,682	1,591
Croatia	49	48	50	51	53	55	56	51
Czech Republic	174	178	188	193	203	209	214	200
Denmark	291	296	303	313	321	328	338	325
Estonia	22	23	23	24	25	26	27	26
France	2,391	2,414	2,439	2,464	2,524	2,570	2,608	2,370
Germany	3,241	3,313	3,354	3,426	3,525	3,571	3,592	3,393
Greece	195	196	195	194	197	200	204	183
Hungary	116	120	125	128	133	141	147	139
Iceland	16	17	17	19	19	20	21	19
Italy	1,822	1,823	1,835	1,861	1,893	1,909	1,915	1,742
Latvia	26	26	27	28	29	30	31	29
Lithuania	39	41	41	42	44	46	48	47
Luxembourg	53	55	58	60	61	63	65	62
Montenegro	4	4	4	4	4	5	5	4
Netherlands	740	751	766	782	806	824	838	800
North Macedonia	9	10	10	10	10	11	11	11
Norway	371	378	386	390	399	403	407	402
Poland	443	458	478	493	517	544	569	549
Portugal	194	196	199	203	211	217	221	203
Romania	167	173	178	186	200	209	217	206
Slovak Republic	82	84	88	90	93	97	99	93
Slovenia	41	42	43	44	47	49	50	46
Spain	1,136	1,151	1,196	1,232	1,268	1,299	1,325	1,171
Turkey	776	815	864	893	960	988	997	985
United Kingdom	2,785	2,865	2,933	2,983	3,035	3,073	3,112	2,762
United States	17,258	17,694	18,238	18,550	18,983	19,552	19,975	19,235
NATO Europe and Canada	17,179	17,524	17,868	18,205	18,733	19,084	19,352	17,931
NATO Total	34,438	35,218	36,106	36,755	37,716	38,636	39,326	37,165

Notes: Figures for 2020 are estimates. The NATO Europe and Canada and NATO Total aggregates from 2017 onwards include Montenegro, which became an Ally on 5 June 2017, and from 2020 onwards include North Macedonia, which became an Ally on 27 March 2020.

Table 6: GDP per capita and defence expenditure per capita
 (2015 prices and exchange rates)

Country	2013	2014	2015	2016	2017	2018	2019	2020e
GDP per capita (thousand US dollars)								
Albania	3.8	3.9	4.0	4.1	4.2	4.4	4.6	4.3
Belgium	40.0	40.4	41.0	41.3	41.8	42.4	42.9	39.5
Bulgaria	6.6	6.7	7.1	7.4	7.7	8.0	8.3	8.0
Canada	42.8	43.6	43.6	43.5	44.4	44.6	44.7	41.8
Croatia	11.4	11.4	11.8	12.3	12.8	13.3	13.8	12.5
Czech Republic	16.6	16.9	17.8	18.2	19.2	19.7	20.1	18.6
Denmark	51.9	52.4	53.3	54.5	55.7	56.7	58.0	55.6
Estonia	16.6	17.1	17.5	18.1	19.0	19.8	20.7	19.6
France	36.2	36.4	36.6	36.9	37.6	38.2	38.7	35.0
Germany	40.2	40.9	41.1	41.6	42.7	43.1	43.2	40.8
Greece	17.8	18.0	18.1	18.0	18.3	18.6	19.0	17.1
Hungary	11.7	12.2	12.7	13.0	13.6	14.4	15.0	14.2
Iceland	50.2	50.7	52.6	55.3	56.4	57.1	56.9	51.5
Italy	30.0	30.0	30.2	30.7	31.3	31.6	31.7	28.9
Latvia	12.9	13.1	13.8	14.2	14.8	15.6	16.0	15.4
Lithuania	13.3	13.9	14.3	14.8	15.7	16.4	17.2	16.9
Luxembourg	97.3	99.1	101.4	103.4	103.0	104.1	104.4	97.7
Montenegro	6.2	6.3	6.5	6.7	7.0	7.4	7.7	6.6
Netherlands	44.1	44.5	45.2	45.9	47.0	47.8	48.3	45.8
North Macedonia	4.5	4.7	4.9	5.0	5.0	5.2	5.4	5.1
Norway	73.0	73.7	74.3	74.5	75.6	76.0	76.1	74.7
Poland	11.5	11.9	12.4	12.8	13.4	14.2	14.8	14.3
Portugal	18.6	18.8	19.3	19.7	20.4	21.1	21.5	19.7
Romania	8.3	8.7	9.0	9.4	10.2	10.7	11.2	10.7
Slovak Republic	15.2	15.6	16.3	16.6	17.1	17.8	18.2	17.0
Slovenia	19.9	20.5	20.9	21.5	22.6	23.5	24.0	22.1
Spain	24.4	24.8	25.8	26.5	27.3	27.8	28.1	24.7
Turkey	10.2	10.6	11.1	11.3	12.0	12.1	12.1	11.8
United Kingdom	43.4	44.4	45.0	45.4	46.0	46.3	46.6	41.1
United States	54.5	55.5	56.8	57.4	58.3	59.7	60.7	58.2
NATO Europe and Canada	28.8	29.2	29.7	30.1	30.8	31.3	31.6	29.0
NATO Total	37.7	38.3	39.1	39.6	40.4	41.2	41.7	39.2
Defence expenditure per capita (US dollars)								
Albania	53	52	46	45	47	51	60	55
Belgium	403	393	373	370	370	378	383	424
Bulgaria	96	89	88	92	94	116	263	127
Canada	423	439	523	505	638	583	575	591
Croatia	167	211	210	199	214	210	227	229
Czech Republic	168	160	182	173	198	218	233	249
Denmark	636	602	592	626	634	724	755	797
Estonia	315	328	353	370	382	398	419	457
France	674	662	653	660	669	691	707	716
Germany	494	485	488	500	526	540	587	635
Greece	396	400	418	434	435	473	449	459
Hungary	111	105	115	130	163	145	189	263
Italy	380	342	322	362	376	387	373	401
Latvia	119	123	142	204	236	321	324	350
Lithuania	101	122	162	219	268	323	344	360
Luxembourg	368	379	438	402	523	522	567	555
Montenegro	91	95	92	95	94	101	102	113
Netherlands	514	513	512	532	540	582	652	681
North Macedonia	53	51	51	48	45	49	62	66
Norway	1,095	1,141	1,183	1,299	1,300	1,311	1,414	1,492
Poland	199	222	276	255	254	286	294	331
Portugal	268	246	255	250	253	282	297	313
Romania	107	117	130	133	175	193	207	222
Slovak Republic	149	154	182	186	189	218	311	339
Slovenia	209	199	194	216	222	237	254	243
Spain	227	228	239	215	247	258	255	287
Turkey	154	153	153	164	181	221	224	220
United Kingdom	972	950	914	948	961	976	978	952
United States	2,201	2,071	1,998	2,014	1,925	1,955	2,132	2,168
NATO Europe and Canada	423	417	422	433	456	473	488	503
NATO Total	1,039	991	970	984	968	991	1,063	1,084

Notes: Figures for 2020 are estimates. The NATO Europe and Canada and NATO Total aggregates from 2017 onwards include Montenegro, which became an Ally on 5 June 2017, and from 2020 onwards include North Macedonia, which became an Ally on 27 March 2020.

Table 7: Military personnel (Thousands)

Country	2013	2014	2015	2016	2017	2018	2019	2020e
Albania	6.8	6.7	6.2	5.8	6.8	6.8	6.8	6.7
Belgium	30.7	30.5	29.7	28.8	27.8	26.5	25.5	25.2
Bulgaria	28.0	27.5	24.9	24.7	24.3	24.4	24.6	25.6
Canada	67.5	65.9	70.3	70.5	68.2	70.3	69.4	71.0
Croatia	15.8	15.4	15.1	14.8	14.8	15.0	15.1	15.2
Czech Republic	19.8	20.2	21.5	22.7	23.8	24.7	25.0	26.8
Denmark	18.1	16.9	17.2	17.3	16.7	17.2	18.0	18.1
Estonia	6.3	6.3	6.0	6.1	6.0	6.2	6.4	6.6
France	213.1	207.0	204.8	208.1	208.2	208.2	207.8	208.0
Germany	184.0	178.8	177.2	177.9	179.8	181.5	182.0	186.9
Greece	110.4	107.3	104.4	106.0	106.9	109.2	107.1	107.6
Hungary	18.1	17.5	17.4	17.9	18.7	19.9	23.0	22.7
Italy	188.9	183.5	178.4	176.3	174.6	174.1	176.4	175.5
Latvia	4.6	4.6	4.8	5.2	5.5	5.9	6.4	7.0
Lithuania	8.4	8.6	11.8	11.8	13.5	14.3	14.9	16.3
Luxembourg	0.9	0.8	0.8	0.8	0.8	0.9	0.9	0.9
Montenegro	1.9	1.9	1.7	1.5	1.5	1.5	1.5	1.9
Netherlands	42.2	41.2	40.6	40.0	39.5	39.3	39.7	40.0
North Macedonia	6.8	6.5	6.8	6.6	6.3	6.5	6.4	6.1
Norway	19.9	21.0	20.9	20.5	20.2	20.2	20.7	20.8
Poland	100.0	99.0	98.9	101.6	105.3	109.5	113.1	120.0
Portugal	32.7	30.7	28.3	29.8	27.8	26.9	28.6	28.7
Romania	66.2	65.1	64.5	63.4	64.0	64.0	64.5	..
Slovak Republic	12.3	12.4	12.4	12.2	12.2	12.2	12.5	12.9
Slovenia	6.9	6.8	6.6	6.5	6.3	6.2	6.0	7.0
Spain	121.8	121.8	121.6	121.0	117.7	117.4	121.0	122.5
Turkey	426.6	426.6	384.8	359.3	416.7	444.3	444.8	437.2
United Kingdom	179.4	168.7	141.4	139.5	149.4	146.6	144.4	156.2
United States	1,382.3	1,338.2	1,314.1	1,301.4	1,305.9	1,317.4	1,339.0	1,346.0
NATO Europe and Canada	1,930	1,891	1,811	1,788	1,857	1,893	1,906	..
NATO Total	3,312	3,229	3,125	3,090	3,163	3,210	3,245	..

Notes: Figures for 2020 are estimates. The NATO Europe and Canada and NATO Total aggregates from 2017 onwards include Montenegro, which became an Ally on 5 June 2017, and from 2020 onwards include North Macedonia, which became an Ally on 27 March 2020.

Table 8a: Distribution of defence expenditure by main category
 (percentage of total defence expenditure)

Country	2013	2014	2015	2016	2017	2018	2019	2020e
Equipment (a)								
Albania	16.29	16.65	8.92	8.01	6.96	9.42	16.80	14.50
Belgium	2.84	3.52	3.44	4.72	6.52	10.15	11.06	10.36
Bulgaria	4.52	1.03	3.47	9.15	8.10	9.65	62.12	19.20
Canada	11.16	13.03	10.47	10.61	10.70	11.94	14.80	17.36
Croatia	10.72	5.56	8.01	7.51	5.69	3.37	6.55	10.27
Czech Republic	9.49	6.53	11.75	6.70	11.55	11.16	14.42	17.00
Denmark	11.26	10.99	11.50	13.68	10.39	11.66	18.06	22.35
Estonia	14.48	22.15	12.82	17.86	19.22	16.51	15.50	25.36
France	28.56	24.64	25.04	24.44	24.17	23.66	24.50	26.50
Germany	12.74	12.94	11.93	12.21	11.77	12.36	14.69	16.87
Greece	12.06	8.17	10.40	13.45	11.28	11.03	12.51	12.06
Hungary	11.08	7.76	9.75	13.37	18.54	12.63	23.81	34.73
Italy	12.51	10.92	9.72	19.09	20.68	19.13	17.00	24.59
Latvia	12.09	7.55	13.60	19.05	15.01	31.85	21.65	26.03
Lithuania	9.23	14.06	21.55	30.06	31.61	36.98	37.57	26.19
Luxembourg	14.57	22.61	33.33	30.07	42.06	50.14	51.59	52.53
Montenegro	1.32	7.46	5.43	4.46	4.97	11.14	14.78	20.76
Netherlands	12.57	10.68	11.16	14.14	14.75	16.39	23.90	26.10
North Macedonia	7.34	5.92	11.13	8.37	6.47	11.09	13.82	11.41
Norway	18.58	20.42	21.83	23.37	24.63	25.60	28.76	28.44
Poland	13.90	18.84	33.20	21.62	22.04	27.51	23.24	29.04
Portugal	8.65	8.43	8.70	9.95	11.42	15.48	16.61	16.60
Romania	10.71	15.77	19.65	20.43	33.34	33.47	25.59	23.08
Slovak Republic	7.39	11.12	18.28	15.32	17.74	22.27	40.07	31.84
Slovenia	1.27	0.66	1.85	1.02	4.04	5.98	7.10	4.56
Spain	12.37	13.49	14.82	6.65	20.39	21.83	21.02	23.25
Turkey	26.89	25.08	25.13	25.55	30.30	37.64	34.32	34.20
United Kingdom	21.89	22.82	21.75	21.24	22.29	22.25	22.85	23.00
United States	25.83	25.97	25.41	25.05	25.73	27.06	27.51	29.25
Personnel (b)								
Albania	75.25	68.05	78.15	68.05	68.20	70.70	62.89	59.65
Belgium	77.34	77.84	78.23	76.80	75.20	70.69	68.38	62.61
Bulgaria	65.37	72.84	73.66	65.64	68.33	62.99	29.42	55.96
Canada	52.44	50.90	53.76	53.11	57.37	51.02	47.77	47.39
Croatia	68.06	76.55	72.28	75.40	71.72	76.96	73.71	71.71
Czech Republic	62.03	61.40	55.27	61.97	56.11	54.57	53.16	50.30
Denmark	51.74	51.27	52.01	49.51	47.01	49.88	48.19	45.39
Estonia	39.83	38.62	39.56	38.70	34.89	33.83	34.18	34.33
France	49.23	48.59	47.79	47.94	47.98	46.90	45.81	44.20
Germany	49.86	50.67	49.86	48.35	48.96	47.99	45.26	42.04
Greece	74.56	77.18	72.05	73.13	76.56	78.76	76.88	75.63
Hungary	48.96	49.77	48.21	49.66	37.13	42.33	35.14	36.50
Italy	75.00	76.41	77.55	70.79	67.58	68.16	70.21	62.15
Latvia	52.98	52.97	50.06	43.87	38.59	34.32	33.53	36.95
Lithuania	66.53	57.53	48.49	45.50	40.79	37.47	40.02	44.44
Luxembourg	51.10	49.31	42.77	45.56	34.40	33.42	30.76	29.99
Montenegro	87.68	78.53	78.03	75.32	80.87	73.50	71.57	65.28
Netherlands	58.53	56.50	55.51	51.77	52.19	51.16	48.07	48.45
North Macedonia	71.57	72.49	70.95	71.26	75.25	71.53	61.93	62.65
Norway	42.21	40.64	39.96	38.60	37.08	36.43	34.78	34.84
Poland	57.70	51.45	41.96	47.15	50.04	46.14	48.43	45.44
Portugal	79.85	81.27	81.90	81.38	80.19	74.75	71.67	65.41
Romania	78.99	71.15	63.30	65.01	54.67	54.48	57.90	53.09
Slovak Republic	70.14	69.14	56.24	58.72	58.21	54.74	40.81	42.34
Slovenia	80.52	82.31	82.23	76.03	75.04	72.38	69.09	66.53
Spain	68.25	67.34	65.18	72.61	61.64	59.64	61.86	52.45
Turkey	54.58	56.88	56.82	57.60	51.02	45.18	48.38	50.40
United Kingdom	37.85	36.59	36.80	35.27	34.54	33.75	34.07	33.95
United States	34.38	35.45	36.64	45.01	41.53	39.74	38.93	37.38

Notes: Figures for 2020 are estimates.

(a) Equipment expenditure includes major equipment expenditure and R&D devoted to major equipment.

(b) Personnel expenditure includes military and civilian expenditure and pensions.

Table 8b: Distribution of defence expenditure by main category
 (percentage of total defence expenditure)

Country	2013	2014	2015	2016	2017	2018	2019	2020e
Infrastructure (c)								
Albania	1.17	0.86	1.40	1.37	0.92	1.09	1.64	2.93
Belgium	2.28	1.81	0.93	0.96	1.05	1.43	1.19	1.60
Bulgaria	0.47	0.63	1.27	0.63	0.83	2.62	1.09	6.87
Canada	4.12	3.81	3.63	3.03	2.98	3.58	2.75	3.73
Croatia	1.21	1.24	1.98	1.26	3.59	1.00	1.41	1.65
Czech Republic	2.72	2.34	3.32	3.91	3.99	5.31	7.04	7.80
Denmark	1.16	0.97	1.09	2.16	1.95	1.49	1.74	2.44
Estonia	11.54	8.20	8.45	12.15	11.27	8.52	6.13	7.93
France	2.30	2.33	2.80	2.70	2.88	3.51	3.12	2.87
Germany	3.55	3.75	3.60	3.39	4.06	4.15	3.99	3.68
Greece	0.63	1.10	0.65	0.58	0.79	0.62	0.66	1.26
Hungary	2.32	1.07	1.21	1.13	1.31	1.68	3.50	3.07
Italy	1.57	1.40	1.30	0.70	0.94	1.29	0.67	1.65
Latvia	6.26	8.89	6.64	12.83	15.02	6.45	10.30	7.93
Lithuania	2.04	2.17	2.16	3.59	3.92	2.24	2.40	4.87
Luxembourg	11.81	10.26	7.79	6.64	4.64	5.05	3.16	4.82
Montenegro	0.09	0.96	2.47	2.41	0.88	1.86	1.49	1.67
Netherlands	2.74	4.77	3.19	3.90	3.02	3.46	3.29	3.28
North Macedonia	1.74	1.24	1.67	1.28	1.01	0.95	3.89	2.70
Norway	5.33	5.71	5.30	6.56	6.93	6.67	5.87	5.93
Poland	5.62	5.47	4.74	4.62	4.21	3.45	3.68	4.90
Portugal	0.04	0.11	0.25	0.06	0.03	0.05	0.11	0.19
Romania	1.16	1.09	1.27	2.77	2.09	1.54	3.53	4.91
Slovak Republic	0.29	0.57	1.99	3.75	2.97	2.00	1.17	5.21
Slovenia	1.33	0.65	0.61	1.14	0.45	1.40	0.57	1.84
Spain	0.67	0.66	0.97	0.97	0.68	0.64	0.98	1.21
Turkey	2.72	2.77	2.56	2.42	2.95	2.53	2.26	2.20
United Kingdom	2.04	1.95	1.63	1.87	2.25	2.99	2.11	1.70
United States	2.08	1.71	1.45	1.22	1.23	1.17	1.28	1.33
Other (d)								
Albania	7.30	14.44	11.53	22.57	23.92	18.79	18.67	22.92
Belgium	17.53	16.83	17.40	17.52	17.23	17.72	19.36	25.44
Bulgaria	29.64	25.51	21.60	24.57	22.74	24.74	7.36	17.97
Canada	32.28	32.26	32.14	33.25	28.95	33.46	34.68	31.51
Croatia	20.01	16.65	17.73	15.83	18.99	18.67	18.33	16.37
Czech Republic	25.75	29.73	29.65	27.43	28.35	28.95	25.39	24.90
Denmark	35.84	36.78	35.40	34.65	40.66	36.97	32.01	29.83
Estonia	34.14	31.03	39.18	31.30	34.62	41.14	44.20	32.38
France	19.91	24.43	24.37	24.92	24.97	25.92	26.57	26.43
Germany	33.84	32.63	34.61	36.05	35.20	35.49	36.06	37.41
Greece	12.75	13.55	16.90	12.84	11.37	9.60	9.96	11.05
Hungary	37.64	41.40	40.83	35.84	43.01	43.36	37.54	25.70
Italy	10.93	11.27	11.42	9.42	10.80	11.43	12.11	11.61
Latvia	28.68	30.59	29.69	24.25	31.38	27.38	34.51	29.08
Lithuania	22.20	26.24	27.79	20.85	23.67	23.30	20.01	24.50
Luxembourg	22.52	17.82	16.11	17.73	18.90	11.38	14.49	12.66
Montenegro	10.91	13.06	14.07	17.80	13.27	13.50	12.16	12.29
Netherlands	26.16	28.05	30.14	30.20	30.04	28.99	24.74	22.17
North Macedonia	19.35	20.34	16.25	19.09	17.26	16.43	20.36	23.24
Norway	33.88	33.24	32.90	31.46	31.36	31.30	30.59	30.79
Poland	22.78	24.24	20.11	26.61	23.71	22.89	24.65	20.63
Portugal	11.46	10.19	9.15	8.61	8.35	9.72	11.60	17.80
Romania	9.13	11.98	15.78	11.79	9.90	10.51	12.99	18.92
Slovak Republic	22.19	19.16	23.49	22.22	21.08	20.99	17.95	20.60
Slovenia	16.88	16.38	15.31	21.80	20.47	20.24	23.23	27.06
Spain	18.71	18.50	19.03	19.78	17.28	17.89	16.14	23.09
Turkey	15.80	15.27	15.49	14.43	15.73	14.65	15.04	13.20
United Kingdom	38.22	38.63	39.82	41.62	40.92	41.01	40.97	41.34
United States	37.72	36.87	36.51	28.73	31.52	32.03	32.28	32.04

Notes: Figures for 2020 are estimates.

(c) Infrastructure expenditure includes NATO common infrastructure and national military construction.

(d) Other expenditure includes operations and maintenance expenditure, other R&D expenditure and expenditure not allocated among above-mentioned categories.

NATO defence expenditure

NATO defines defence expenditure as payments made by a national government specifically to meet the needs of its armed forces, those of Allies or of the Alliance. A major component of defence expenditure is payments for Armed Forces financed from within the Ministry of Defence (MoD) budget. Armed Forces include Land, Maritime and Air forces as well as Joint formations such as Administration and Command, Special Operations Forces, Medical Service, Logistic Command, Space Command, Cyber Command etc. They might also include "Other Forces" like Ministry of Interior troops, national police forces, gendarmerie, carabinieri, coast guards etc. In such cases, expenditure is included only in proportion to the forces that are trained in military tactics, are equipped as a military force, can operate under direct military authority in deployed operations, and can, realistically, be deployed outside national territory in support of a military force. Also, expenditure on Other Forces financed through the budgets of ministries other than MoD is included in defence expenditure.

Pension payments made directly by the government to retired military and civilian employees of military departments is included regardless of whether these payments are made from the budget of the MoD or other ministries.

Expenditure for peacekeeping and humanitarian operations (paid by MoD or other ministries), the destruction of weapons, equipment and ammunition, contributions to eligible NATO-managed trust funds, and the costs associated with inspection and control of equipment destruction are included in defence expenditure.

Research and development (R&D) costs are included in defence expenditure. R&D costs also include expenditure for those projects that do not successfully lead to production of equipment.

Expenditure for the military component of mixed civilian-military activities is included, but only when the military component can be specifically accounted for or estimated.

Expenditure on NATO common infrastructure is included in the total defence expenditure of each Ally only to the extent of that nation's net contribution.

War damage payments and spending on civil defence are both excluded from the NATO definition of defence expenditure.

NATO uses United States dollars (USD) as the common currency denominator. The exchange rate applied to each Ally is the average annual rate published by the International Monetary Fund (IMF).

Note to readers:

Iceland has no armed forces. For nations of the Euro zone, and Montenegro, monetary values in national currency are expressed in Euros for all years. Latvia adopted the Euro from 2014 and Lithuania from 2015. Montenegro joined the Alliance in 2017 and North Macedonia in 2020.

To avoid any ambiguity, the fiscal year has been designated by the year which includes the highest number of months: e.g. 2020 represents the fiscal year 2020/2021 for Canada and United Kingdom, and the fiscal year 2019/2020 for the United States. Because of rounding, the total figures may differ from the sum of their components.

Conventional signs:

e	estimated
-	nil
..	not available
	break in continuity of series
.	decimal point

Nomenclature of NATO defence expenditure:

1	Operating costs
1.1	Military personnel
1.1.1	Pay and allowances
1.1.2	Employer's contributions to retirement funds
1.1.3	Other
1.2	Civilian personnel
1.2.1	Pay and allowances
1.2.2	Employer's contributions to retirement funds
1.3	Pensions
1.3.1	Paid to military retirees
1.3.2	Paid to civilian retirees
1.4	Operations and maintenance
1.4.1	Ammunition and explosives (excluding nuclear)
1.4.2	Petroleum products
1.4.3	Spare parts
1.4.4	Other equipment and supplies
1.4.5	Rents
1.4.6	Other operations and maintenance

2	Procurement and construction
2.1	Major equipment
2.1.1	Missile systems
2.1.2	Missiles (conventional weapons)
2.1.3	Nuclear weapons
2.1.4	Aircraft
2.1.5	Artillery
2.1.6	Combat vehicles
2.1.7	Engineering equipment
2.1.8	Weapons and small arms
2.1.9	Transport vehicles
2.1.10	Ships and harbour craft
2.1.11	Electronic and communications equipment
2.2	National military construction
2.3	NATO common infrastructure
2.3.1	Expenditure as host country
2.3.2	Payments to other countries
2.3.3	Receipts from other countries
2.3.4	Land and utilities
3	Research and development
3.1	Devoted to major equipment
3.2	Other
4	Other expenditure
5	Total
6	Statistical discrepancy
7	Adjusted total

Main categories of defence expenditure:

- Equipment (Table 8a) – lines 2.1 + 3.1
- Personnel (Table 8a) – lines 1.1 + 1.2 + 1.3
- Infrastructure (Table 8b) – lines 2.2 + 2.3
- Other (Table 8b) – lines 1.4 + 3.2 + 4



NATO
1110 Brussels - Belgium
www.nato.int

© NATO 2021