



The Secretary General's  
**Annual Report** | 2018



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# FOREWORD

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## NATO: Fit for the Future

At the end of 2018, I met with our troops during Trident Juncture, NATO's largest exercise since the Cold War. Over 50,000 men and women came from across Europe and North America to take part. They moved heavy equipment – 65 ships, 250 aircraft and 10,000 land vehicles – across borders at record speed. They trained under challenging weather conditions and successfully tested new technologies, such as micro-drones. Trident Juncture demonstrated NATO's strength and readiness to tackle any threat in an unpredictable world.

The story of NATO in 2018 is of a modern Alliance, responding to today's security threats, adapting to new challenges and investing in the future.

Our leaders came together in NATO's new and state-of-the-art Headquarters in July 2018 for the Brussels Summit. They took over 100 decisions to strengthen our deterrence and defence posture, and ensure we are ready and able to protect all Allies – today and tomorrow.

We are turning those decisions into reality: raising the readiness of our forces, increasing our ability to move them across the Atlantic and within Europe, and modernising our military command structure. We are strengthening our cyber defences and have established a new Cyberspace Operations Centre in Mons, Belgium, to tackle complex and disruptive cyber threats. We have set up our new training mission in Iraq to help the country prevent the resurgence of ISIS and other terrorist groups. And we continue to build the defence capacity of our partners, from Jordan and Tunisia to Ukraine and Georgia.

We remain committed to ensuring Afghanistan never again becomes a safe haven for international terrorists. We support efforts to achieve a political settlement and continue to help the Afghan security forces create the conditions for a peaceful solution.

NATO projects stability in different ways, including by bringing new members into our family. Following the historic agreement between Athens and Skopje on the name issue, we invited the government in Skopje to start accession talks. Once all Allies have ratified the Accession Protocol, signed on 6 February 2019, the Republic of North Macedonia will become the 30<sup>th</sup> member of our Alliance.

We are a growing family and we continue to stand strong. Our commitment to protecting each other is steadfast. We are doing more together than ever.

The United States has increased its military presence in Europe with more troops, more equipment and more exercises. European Allies are raising the readiness of their forces, improving their equipment and making more contributions to our operations and missions.

Our collective security does not come for free, and Allies have stepped up with four consecutive years of rising defence investment. At the Brussels Summit, we acknowledged the urgency to spend more and better on defence, and to achieve fairer burden-sharing. Rising national defence spending figures show we are moving in the right direction.

European Allies and Canada have spent an extra USD 41 billion more on defence since 2016. Based on national plans submitted by Allies, this figure will rise to an estimated USD 100 billion by the end of 2020.

In 2019, we will celebrate NATO's 70<sup>th</sup> anniversary. To mark the occasion, Foreign Ministers will gather in Washington D.C. on 4 April, and our leaders will meet in London at the end of the year. These will be opportunities to celebrate seven decades of peace and prosperity, but also to address current and future security challenges.

The return of great power competition; Russia's breach of the Intermediate-Range Nuclear Forces Treaty; instability along our southern borders; and the misuse of disruptive technologies are all challenging our strategic stability.

These are global challenges that no single country can take on alone. We need more international cooperation to find global solutions. Our relations, in particular with the European Union, have never been so strong, and they will only become more important.

Facing up to these challenges, we continue to adapt and modernise. Together, we will ensure that NATO remains fit for the future and able to carry out its core mission: keeping our almost one billion people free and secure.

A handwritten signature in blue ink, reading "Jens Stoltenberg", with a horizontal line underneath it.

Jens Stoltenberg  
NATO Secretary General

The Annual Report outlines NATO's key activities over the previous 12 months. This year, however, it also provides an opportunity to mark an important milestone in NATO's history, its 70<sup>th</sup> anniversary.

To mark the occasion, this report includes a series of special sections which take a historical view of some of the Alliance's achievements since its creation in 1949. These sections are marked with the special logo displayed below.



Achievements include arms control initiatives of the 1980s and 1990s, the collective response to the 9/11 attacks on the United States, and the 'Open Door' policy, which has brought former adversaries into the Alliance, among many others.

The picture these sections paint is of an Alliance that has been uniquely successful in achieving its mission: the preservation of peace. Above all, NATO has provided the foundation for seven decades of peace in Europe – with countless, often immeasurable benefits for its citizens.

To be an effective 21<sup>st</sup> century alliance, NATO continues to adapt, just as it adapted in earlier decades. In 2018, it maintained its ability to fulfil its three core tasks of collective defence, crisis management and cooperative security. It worked to deter and defend against potential adversaries, and to project stability in its neighbourhood. In doing so, NATO remained – and remains – an essential source of stability in an unpredictable world.



## For All Who Serve

NATO's greatest responsibility is to protect and defend the Alliance's territory and populations against any attack. To achieve that mission, we rely more than anything else on the personnel of Allied and partner countries' armed forces.

Throughout 2018, tens of thousands of soldiers, sailors, aircrew and marines from North America and Europe were working under the same NATO flag – from the High North to the Mediterranean Sea, from the North Atlantic Ocean to Afghanistan. It is their skill and determination, above all, which keep our nations safe.

The men and women who serve are the living embodiment of NATO's values. They are the clearest and most powerful expression of everything the Alliance stands for. And we owe them and their families a profound debt of gratitude for the sacrifices they make on our behalf.





# DETERRENCE, DEFENCE AND DIALOGUE





Slovak soldiers scan the battlefield during an exercise as part of NATO's enhanced Forward Presence. Latvia. October 2018.

NATO's greatest responsibility is to prevent conflict and preserve peace. In 2018, the Alliance took important steps to continue to keep its citizens safe.

## 2018 at a Glance

*The Alliance is adapting and responding to the most complex and unpredictable security environment since the end of the Cold War – with a series of challenges and threats from state and non-state actors, including terrorist, cyber and hybrid attacks.*

In the face of this new and challenging environment, all Allies have stepped up, further strengthening NATO's deterrence and defence posture on land, at sea, in the air and in cyberspace.

Key to NATO's deterrence and defence on land has been the deployment of forces in the eastern part of the Alliance, through NATO's forward presence – along with a greater focus on the Alliance's southern flank, and a stronger presence in the Black Sea region.

Allies have continued to reinforce the Alliance's maritime posture and improve maritime situational awareness. A robust programme of military exercises is helping Allies to bolster their ability to fight at sea – including when it comes to anti-submarine warfare

and the protection of sea lines of communications. NATO is also working to ensure its ability to reinforce Allied territory by sea, including from across the Atlantic Ocean.

Allies have agreed a new Joint Air Power Strategy, which supports NATO's peacetime Air Policing and Ballistic Missile Defence missions. This will strengthen NATO's Integrated Air and Missile Defence and improve Allies' ability to operate together, faster and more effectively. Recognising that space is essential to deterrence and defence, in 2018, Allies also agreed to develop an overarching NATO Space Policy.

As NATO continues to adapt to evolving cyber threats, it needs to be able to operate as effectively in cyberspace as in the air, on land and at sea. In 2018, Allies agreed to continue investing in robust cyber defences, including by establishing a new Cyberspace Operations Centre in Mons, Belgium to coordinate NATO operations, planning and exercises.

In 2018, the Alliance further improved its responsiveness – both political and military. Particular efforts have been made to boost the readiness of Allied forces by ensuring troops and capabilities are appropriately trained, deployable and able to work closely together. An important tool for enhancing readiness has been more regular exercises, most notably the collective defence exercise Trident Juncture 18, NATO's biggest exercise since the end of the Cold War.

At the Brussels Summit in July, Allied leaders took more than a hundred decisions to strengthen the Alliance. They welcomed the considerable progress made since 2014 to enhance the Alliance's ability to respond to any threat, be it conventional or non-conventional. Allied leaders also recognised that a more uncertain security environment requires that all Allies continue to invest more in defence, develop the right military capabilities and make the necessary contributions to NATO's military operations and missions.

## A Stronger, Quicker Alliance

*According to Article 5 of the North Atlantic Treaty, NATO is responsible for protecting and defending Allies' territory and populations against armed attack.*

Credible deterrence and defence is essential to preventing conflict. NATO's approach to deterrence and defence is based on a mix of nuclear, conventional and missile defence capabilities; it is defensive, proportionate and fully in compliance with international law.

NATO has a responsibility to respond to changes to the security environment. This is why, over the past years, the Alliance has continued to adapt its posture. Indeed, since 2014, NATO has undertaken the largest reinforcement of its collective defence in

a generation, including by increasing its presence in the northeast and southeast of the Alliance.

**NATO's Forward Presence** in the eastern part of the Alliance has four multinational, combat-ready battlegroups deployed in Estonia, Latvia, Lithuania and Poland. These four battlegroups are led by the United Kingdom, Canada, Germany and the United States, respectively. They comprise more than 4,500 troops from across the Alliance, and are able to operate alongside national home defence forces. The new Multinational Division North-East Headquarters in Elbląg, Poland is now fully operational, able to provide divisional-level command and control in case of a crisis.

## 4 Multinational Battlegroups

### ESTONIA:

United Kingdom  
Denmark  
Iceland

### LITHUANIA:

Germany  
Belgium  
Czech Republic  
France (until August)  
Iceland  
Luxembourg (since August)  
Netherlands  
Norway

### LATVIA:

Canada  
Albania  
Czech Republic  
Italy  
Montenegro  
Poland  
Slovakia  
Slovenia  
Spain

### POLAND:

United States  
Croatia  
Romania  
United Kingdom

 Framework Nation  
 Contributing Nation  
December 2018





A Romanian Navy helicopter prepares to land on the deck of a Romanian frigate during manoeuvres in the Black Sea. Romania. February 2018.

NATO's deployments in the Baltic countries and Poland are defensive and measured. They are a clear demonstration that the Alliance stands united in the face of any possible aggression.

At the same time, NATO has also been developing a **forward presence in the Black Sea region**. A multinational framework brigade for training Allies' land forces is in place in Romania; and new measures at sea and in the air have led to a substantial increase in NATO's activities in the region. These have included increased presence of the NATO Standing Naval Forces in the Black Sea and additional cooperation on air training and air policing. The NATO Standing Naval Forces train and exercise in the Black Sea to build interoperability and warfighting skills, including with the navies of NATO's Black Sea Allies – Bulgaria, Romania and Turkey – and partner countries. In 2018, NATO ships spent 120 days in the Black Sea, up from around 80 days in 2017.

NATO's forward presence is underpinned by a robust rapid-reinforcement strategy to ensure that, in a collective defence scenario, it would be backed by a 40,000-strong **NATO Response Force**, which includes the brigade-sized **Very High Readiness Joint Task Force**, led in 2018 by Italy. A combined Dutch, German and Norwegian-led Very High Readiness Joint Task Force was certified in 2018 – and will be on standby for deployment, if needed, throughout 2019.

In 2018, Allies took further decisions to strengthen the Alliance's ability to have forces ready and available in potential collective defence scenarios. A key step in this direction was the launch, at the Brussels Summit, of the new **NATO Readiness Initiative**, also known as the 'Four Thirties'.





German soldiers from NATO's Very High Readiness Joint Task Force conduct river-crossing training at Camp Røedsmoen, Rena, Norway. October 2018.

This initiative will ensure that more high-quality, combat-capable, high-readiness national forces can be made available to NATO, if needed. Allies will together provide an additional 30 combat naval vessels, 30 heavy or medium battalions and 30 air squadrons, as well as the necessary logistical support, at 30 days' readiness or less. This is not about new forces, but about increasing the readiness of existing national forces.

These forces will be organised and trained as elements of larger combat formations in support of NATO's overall deterrence and defence posture. They will contribute to the Alliance's ability to reinforce any Ally. The NATO Readiness Initiative will significantly improve the Alliance's ability to respond rapidly, be it for crisis intervention or high-intensity warfighting.

### Reinforcement

The Alliance is working to ensure that Allied forces can be quickly mobilised and deployed, if needed. NATO must be able to reinforce and support Allied forces already in theatre in response to any potential threat, conventional or non-conventional. The ability to deter and defend against any potential adversary relies on being able to reinforce Allies quickly and effectively – including from across the Atlantic Ocean.

In 2018, Allies took a number of further steps to ensure more rapid reinforcement, including by working to improve the Alliance's military mobility by land, air, or sea. This, in turn, requires improvements to legislation and procedures, command and control, transport capabilities and capacities, as well as an upgrade of the transport network infrastructure in Europe. The aim, by the end of 2019, is to shorten border-crossing times and minimise the time it takes for administrative approval of land, sea and air movement.

Allies also plan to conduct military mobility exercises more regularly, as a key aspect of preparing for rapid reinforcement. As part of Trident Juncture 18, more than 180 flights and 60 shiploads of equipment and personnel arrived at 27 different points in Norway – including harbours, airports, and railway terminals. Equipment and personnel arrived from as far as San Diego, California – 8,300 kilometres to the west – and Izmir, Turkey – 3,000 kilometres to the south.

NATO continues to work hand-in-hand with the European Union to improve military mobility. Areas of cooperation include coordinated military requirements; customs and border-crossing legislation, regulations and procedures; and transport infrastructure.



Italian and Croatian boarding teams approach British Royal Navy vessel HMS Echo during a boarding exercise as part of Operation Sea Guardian. Mediterranean Sea. September 2018.

NATO's efforts have also focused on responding to **security challenges along its southern borders**, including instability and ongoing crises in the Middle East and North Africa region.

NATO maintains a range of **assurance measures** in place across the Alliance. These exist to deter any potential adversary, and therefore to reassure Allies. The Alliance continues to implement a series of tailored assurance measures for Turkey, including strengthening Turkish air defence with the deployment of missile batteries and air policing.

In 2018, the Alliance continued to contribute to the **Global Coalition to Defeat ISIS**, to support its partners' counter-terrorism efforts through training and capacity-building, and to be present in the Aegean and Mediterranean Seas to contribute to countering terrorism and illegal trafficking.

Experience has shown that building local capacity is one of the best tools in the fight against terrorism. For that reason, the Alliance provides advice and

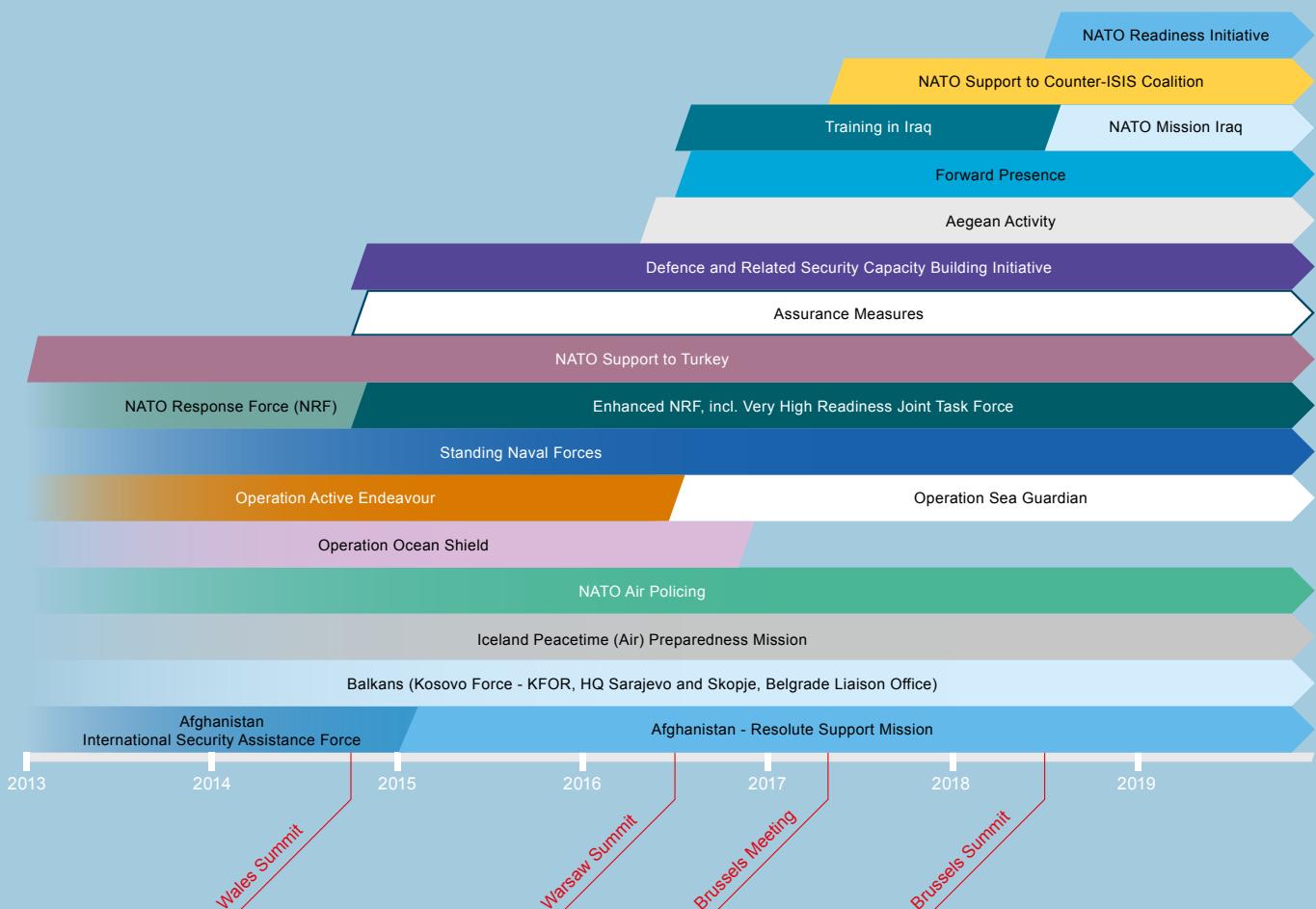
support to partners such as Jordan and Tunisia. Allies have also agreed to launch a new training mission in Iraq, designed to help further professionalise the Iraqi armed forces.

At the Brussels Summit, Allied leaders declared the new **Hub for the South** at Joint Force Command Naples fully operational. The 'Hub' is currently staffed by around 70 military and civilian personnel from more than 20 Allied countries. It is tasked with improving the Alliance's awareness and understanding of challenges from its southern neighbourhood, and boosting cooperation with partners in the region.



Dutch marines during Operation Sea Guardian. Mediterranean Sea. May 2018.

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



## Elements of NATO's Deterrence and Defence

**Baltic Air Policing mission**

**Mission**  
Protecting the airspace of the Baltic States

**Location**  
Estonia Latvia Lithuania Poland

**Contributing nations**

- Belgium (Siauliai, Lithuania) Autumn/Winter
- Denmark (Siauliai, Lithuania) Winter/Spring
- France (Amari, Estonia) Spring/Summer
- Germany (Amari, Estonia) Autumn/Winter
- Italy (Amari, Estonia) Winter/Spring
- Portugal (Siauliai, Lithuania) Spring/Summer
- Spain (Siauliai, Lithuania or Malbork, Poland) Spring/Summer

**Support and Assurance for Turkey**

**Mission**  
Reinforcing Turkey's air defences

**Location**  
Turkey

**Contributing nations**

- Italy (Kahramanmaraş, Turkey) - Surface-to-air missile batteries
- Spain (Adana, Turkey) - Surface-to-air missile batteries
- NATO - AWACS aircraft

**Joint Intelligence, Surveillance and Reconnaissance**

**Mission**  
Supporting decision-makers with timely information and intelligence

**Location**  
Germany Italy United Kingdom

**NATO assets**

- NATO - AGS Global Hawk, AWACS aircraft

**Standing Naval Forces**

**Mission**  
Providing the Alliance with a continuous naval presence

**Location**  
The Atlantic Ocean and the Mediterranean Sea

**NATO assets**

- NATO - Standing NATO Maritime Groups (SNMG1 & 2), Standing NATO Mine Countermeasures Groups (SNMCMG1 & 2)



**AWACS patrols over Eastern Europe**

**Mission**  
Patrolling the skies over Eastern Europe

**Contributing nations & NATO assets**

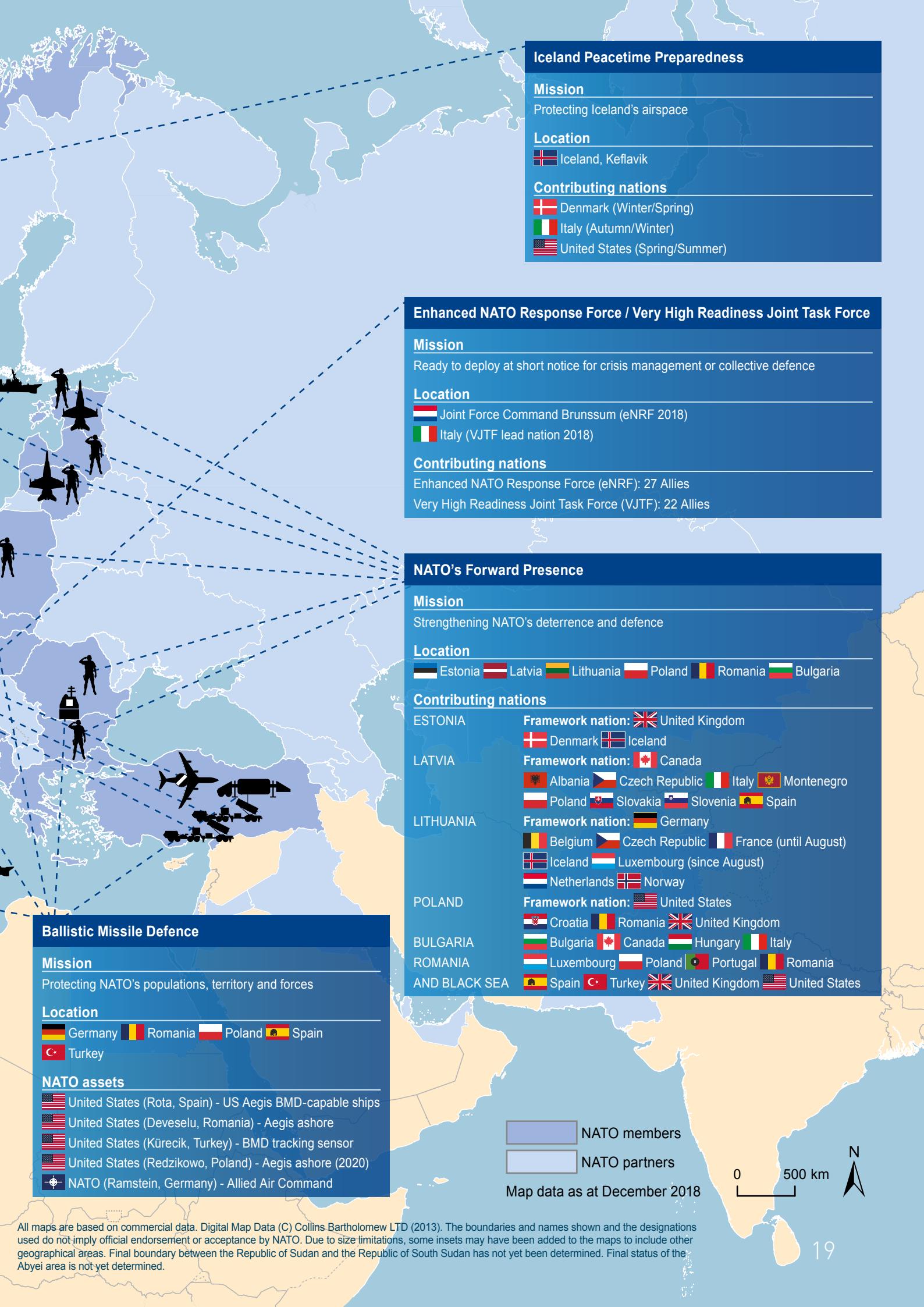
- France
- Greece
- Turkey
- United Kingdom
- AWACS aircraft

**Framework for the South: regional Hub for the South**

**Mission**  
Improving regional understanding and anticipation of threats emanating from the south

**Location**  
Joint Force Command Naples

**Contributing nations**  
21 Allies contribute with Voluntary National Contributions and reassigned JFC Naples staff



## Relations with Russia

In the years following the Cold War, NATO worked hard to build a strategic partnership with **Russia**. This involved developing dialogue and practical cooperation in areas of common interest.

However, in 2014, as a consequence of Russia's illegal and illegitimate annexation of Crimea, all practical cooperation between NATO and Russia was suspended. Russia's aggressive actions in Ukraine, its destabilising military behaviour and use of hybrid actions against nations across the Euro-Atlantic region have significantly altered the international security environment – reducing stability and security, and increasing unpredictability.

In 2018, Russia's pattern of destabilising behaviour continued.

In March 2018, Allies condemned the attack involving a military-grade nerve agent in Salisbury, United Kingdom. Allies stood in solidarity with the UK's assessment that Russia is highly likely to have been responsible for the attack.

In October, the Netherlands and the United Kingdom briefed Allies about the attempted hacking of the Organisation for the Prohibition of Chemical Weapons, which they assess was carried out by Russian military intelligence.

At the end of November, Russia used military force against three Ukrainian naval vessels in international waters in the Black Sea, near the Sea of Azov and the Kerch Strait. Allies called for calm and restraint and urged Russia to release the Ukrainian sailors and ships it had seized. Allies reiterated their full support for Ukraine's sovereignty and territorial integrity within its internationally recognised borders and territorial waters. They also committed to providing further political and practical support to Ukraine.

In December, NATO Foreign Ministers concluded that Russia had developed and fielded a missile system that violates the Intermediate-Range Nuclear Forces Treaty and called on Russia to return urgently to full and verifiable compliance.

At the Brussels Summit, NATO leaders reaffirmed that the nature of the Alliance's relations with Russia will be contingent on a clear, constructive change in Russia's actions – one that demonstrates compliance with international law and its international obligations and responsibilities.

NATO's policy towards Russia remains consistent: **defence and dialogue**. The Alliance maintains a firm position, based on a dual-track approach of strong deterrence and defence complemented by periodic, focused and meaningful dialogue with Russia.

NATO's dialogue with Russia primarily takes place in the **NATO-Russia Council**, which serves as an important platform to address international security issues, while also working to increase transparency and predictability of military activities which, in turn, helps avoid misunderstanding, miscalculation and unintended escalation. In addition, high-level meetings between NATO and the Russian leadership continue, alongside NATO's military leaders maintaining a channel of communication with their Russian counterparts. NATO is committed to ensuring this channel remains open and ready for use, including in a crisis situation.

In 2018, the NATO-Russia Council met twice – in May and October. At the top of the agenda of each meeting was the conflict in and around Ukraine, including the need for the full implementation of the Minsk Agreements. Both Council meetings also addressed issues relating to arms control, military activities, transparency and risk reduction, including by addressing the Intermediate-Range Nuclear Forces Treaty. In 2018, the issue of 'hybrid' or asymmetric techniques was discussed in the NATO-Russia Council for the first time.

The NATO-Russia Council also continued the practice of reciprocal briefings on upcoming military exercises. During both Council meetings in 2018, NATO briefed on Exercise Trident Juncture 18 and Russia briefed on its exercise Vostok 2018. This practice has the potential to contribute to greater predictability and risk reduction in the Euro-Atlantic area. However, NATO continues to make clear that voluntary briefings in the NATO-Russia Council cannot replace mandatory transparency under the Vienna Document.



A Danish military helicopter lands in Oppdal to deploy guardsmen during Exercise Trident Juncture 18. Oppdal, Norway. November 2018.

## Keeping the Alliance's Skies Safe

*NATO's Integrated Air and Missile Defence is an essential, round-the-clock mission. It contributes to the deterrence of potential adversaries, and to the security and freedom of action of the Alliance. It helps to safeguard and protect Allied populations, territory and forces from air and missile attacks.*

State and non-state actors continue to acquire and use weapons such as ballistic missiles, cruise missiles, and unmanned aerial vehicles or 'drones'. As a result, NATO faces an increasing number of air and missile threats from weapons that are, at the same time, becoming more accurate, mobile and reliable.

In this context, **NATO's Integrated Air and Missile Defence** remains essential to the Alliance's collective defence. In peacetime, the Alliance has two key air and missile defence missions: **Air Policing** and **Ballistic Missile Defence**. The former helps to safeguard the integrity of Allied airspace. The latter is designed to defend Allied populations, territory and forces in Europe against the growing threat from ballistic missiles from outside the Euro-Atlantic area.

The Air Policing mission is carried out by aircraft owned and operated by NATO Allies and is designed to safeguard the integrity of Allies' airspace by responding to unidentified aircraft or those operating in an unusual or unsafe manner.

Allies also contribute to NATO Air Policing with their national air surveillance systems or air traffic management. Allies which do not have the necessary air policing assets in their own militaries are supported by those of others. This ensures a single standard of security for all NATO members.

In 2018, Allies provided NATO Air Policing support to Estonia, Latvia, Lithuania and Slovenia (all since 2004); Iceland (since 2008); Albania (since 2009); and Montenegro (since 2018).

NATO also declared Initial Operational Capability for a new Rapid Air Mobility Process. This process accelerates the diplomatic clearance for pre-designated aircraft used to support NATO's Very High Readiness Joint Task Force in the case of a crisis. It relies on a unique NATO call sign that requires the approval of the North Atlantic Council, NATO's highest political decision-making body.

NATO's Ballistic Missile Defence represents a long-term investment against a serious threat and is purely defensive. NATO's missile defence architecture relies on Allies' voluntary national contributions and on common-funded Command and Control.

## A More Resilient NATO

*Resilience is the ability to resist and recover from a major shock – whether a natural disaster or an armed attack; conventional or hybrid. Resilience and civil preparedness in Allied nations are essential to NATO's collective security and defence. Resilience represents a first line of defence.*

Today's armed forces rely heavily on civilian infrastructure and capabilities, including for the supply of food and water, communications and transport. That means that the resilience of a country's civilian infrastructure is just as important as that of its military infrastructure.

Around 90% of military transport for large operations relies on civilian railways and aircraft. Three-quarters of host-nation support for NATO operations is provided by commercial infrastructure and services – including essentials such as food, water and fuel. At the same time, cyber attacks can paralyse civilian infrastructure and seriously impede NATO forces. For these reasons, civil preparedness is essential to NATO's deterrence and defence.

NATO Allies are committed to achieving a series of **Baseline Requirements for National Resilience**. These focus on ensuring continuity of government and essential services to the public, guaranteeing protection of critical infrastructure and supporting military operations with civilian means.

### The NATO Baseline Requirements for National Resilience are:

- assured continuity of government and critical government services
- resilient energy supplies
- the ability to deal effectively with uncontrolled movement of people
- resilient food and water resources
- the ability to deal with mass casualties
- resilient civil communications systems
- resilient transportation system

In 2018, Allies made significant progress in implementing this commitment. In February, NATO completed an Alliance-wide assessment of national resilience, helping to generate an overview of the state of civil preparedness. The 2018 Report on the State of Civil Preparedness, endorsed by NATO's Defence Ministers, has helped to raise awareness of the importance of building resilience. The Report identified areas where further effort is required to enhance resilience and ensure the ability to deal with threats such as terrorism and chemical, biological, radiological and nuclear incidents.

In 2018, NATO also developed planning guidance to help national authorities to deal with large population movements and mass-casualties events; improve resilience in national and cross-border energy networks and transport infrastructure; develop priority access arrangements for civil telecommunications; and mitigate identified risks and vulnerabilities in the food and water sectors.

Civil preparedness elements were also included in a number of NATO military exercises, including Trident Juncture 18.

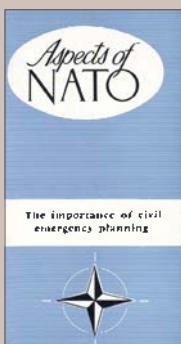
NATO continues to support its partners' efforts to enhance their own resilience and civil preparedness. Initiatives include a three-year joint project with the United Nations to enhance chemical, biological, radiological and nuclear civil preparedness in Jordan. In 2018, the Alliance also provided related support and advice to Georgia and the Republic of Moldova.



Display on civil emergency planning. Denmark. October 1981.

## The History of NATO's Civil Preparedness

NATO's work on civil preparedness, initially referred to as civil emergency planning, was an original consideration of the North Atlantic Treaty. In fact, Article 3 commits Allies to maintaining and developing 'their individual and collective capacity to resist armed attack'.



"The importance of civil emergency planning" - a pamphlet produced in October 1963 by the NATO Information Service.

NATO's own civil emergency planning took shape in the 1950s. The catalyst was the catastrophic North Sea floods, which struck a number of Allies in 1953. The Senior Civil Emergency Planning Committee was created in 1955 to help Allies strengthen their resilience to armed attack and to natural disasters.

During the Cold War, civil emergency planning's chief focus was ensuring that infrastructure such as railways,

ports, airfields and power grids was available for use by military authorities during a crisis. It also sought to help national authorities protect their populations against different types of threats.



Part of the exhibition "Civil Emergency Planning, a Contribution to Partnership for Peace". Moscow, Russia. April 1997.

In the 1990s, NATO's work in this area expanded to include cooperation with partner nations. In 1998, Allies established the Euro-Atlantic Disaster Response Coordination Centre as the primary tool for enhancing practical cooperation during disasters.

In 2014, 'civil emergency planning' was renamed 'civil preparedness'. This signified a greater focus on improving national resilience.

While building resilience is primarily a national responsibility, NATO now plays an important role in developing policies and plans to ensure coherence across the Alliance. Enhancing resilience through civil preparedness has also become a key part of NATO's assistance to partner nations and its efforts to project stability in the Alliance's neighbourhood.

Today, resilience and civil preparedness are essential to NATO's collective security and defence.



NATO Secretary General Jens Stoltenberg at the first annual Conference on the Cyber Defence Pledge. Paris, France. May 2018.

## Securing Cyberspace

*2018 was an important year for the Alliance's cyber defence. NATO remains determined to employ the full range of capabilities, including cyber, to deter, defend against and counter all types of cyber threats.*

NATO is increasingly able to conduct operations in cyberspace. At the Brussels Summit in July, Allies made it clear that cyber defence is part of NATO's core task of collective defence, and that the Alliance must be able to operate as effectively in cyberspace as it does in the air, on land and at sea.

The first priority remains protection of NATO's own networks around the world. In 2018, guided by the **Cyber Defence Pledge**, Allies also continued work to make their own national networks more resilient.

### The Cyber Defence Pledge

The Cyber Defence Pledge, adopted in 2016, has helped to focus political attention on cyber resilience among Allies. A first assessment of Allied progress in implementing the Pledge was presented to NATO leaders at the Summit in July 2018. The report showed that many Allies have established robust policy frameworks and structures to tackle cyber risks, but that more still needs to be done, including on recruitment and retention of expert staff, training and education, and situational awareness. To raise public awareness for the need to invest in cyber defence, France hosted a major conference on the Cyber Defence Pledge in Paris in May.

NATO does not have its own offensive cyber capabilities, and has no plans to develop such capabilities. As in other domains, NATO will have access to capabilities offered by Allies. In line with political principles agreed in 2017, a number of NATO Allies publicly offered their own national cyber capabilities to be integrated into Alliance operations and missions, if needed. This approach will not change the defensive nature of the Alliance.

Work also continued to implement cyberspace into NATO operations, including through training and exercises such as Trident Juncture 18, an effort supported by the NATO Cooperative Cyber Defence Centre of Excellence.

Cyber defence remains an important area of cooperation with the European Union (EU). NATO and EU staff increasingly participate jointly in exercises involving cyber elements – such as NATO's Cyber Coalition and the EU's Parallel and Coordinated Exercise, both of which were conducted in November 2018. Since the Joint Declaration by NATO and European leaders in 2016, the two organisations have exchanged extensive details on their respective approaches to dealing with cyber crises.



Irish soldiers work in the Operation Centre as part of Exercise Cyber Coalition 2018. Tartu, Estonia. November 2018.

### Attack against the Organisation for the Prohibition of Chemical Weapons

The extent to which malicious exploitation of cyberspace has become a strategic instrument for states was revealed in October 2018, when a combined Anglo-Dutch operation foiled an attempt to infiltrate computer networks of the Organisation for the Prohibition of Chemical Weapons in The Hague. The Netherlands and the United Kingdom attributed the attack to Russian military intelligence. On the same day, the United Kingdom also identified Russian military intelligence as being responsible for a range of other cyber attacks. NATO Secretary General Jens Stoltenberg issued a statement expressing NATO Allies' solidarity with the decision by the Netherlands and the United Kingdom to call out Russia on its attempts to undermine international law and institutions. He also called on Russia to halt its pattern of reckless behaviour.



Exercise Locked Shields. NATO Cooperative Cyber Defence Centre of Excellence, Tallinn, Estonia. April 2018.

## Countering the Hybrid Threat

*The line between war and peace has become blurred. In an age of hybrid war, states may not know they have been attacked until serious damage has been done.*

**Hybrid methods of warfare**, such as propaganda, deception, sabotage and other non-military tactics, have long been used by states and non-state actors to destabilise adversaries. What is new about the attacks of recent years is their speed, scale and intensity, facilitated by rapid technological change and global interconnectivity.

NATO has a strategy for countering hybrid warfare and stands ready to defend the Alliance and all Allies against hybrid attacks. Although the primary responsibility for responding to hybrid threats or attacks rests with the targeted nation, NATO is prepared to assist any Ally against hybrid threats as part of collective defence.

At the Brussels Summit, NATO leaders agreed to establish specialist **Counter-Hybrid Support Teams**. These will provide tailored assistance to Allies, if requested, in order to help them prepare for and respond to hybrid attacks. The teams are comprised of experts from across the Alliance.

In 2018, NATO also continued to strengthen its coordination with partners, including the European Union, to counter hybrid threats. Cooperation with the EU has been boosted by the work of the European Centre of Excellence for Countering Hybrid Threats in Helsinki, Finland. The Centre of Excellence serves as an important forum for debate and communication between NATO and the European Union, and has produced valuable work on education, training, table-top exercises and building resilience to hybrid threats.

## Transparency and Risk Reduction

*NATO has a firm and longstanding commitment to transparency, predictability and risk reduction in the Euro-Atlantic area. In that spirit, the Alliance seeks*

*ways to avoid misunderstanding, miscalculation or accidents that could lead to unintentional conflict.*





Observers from member nations of the Organization for Security and Co-operation in Europe at Trident Juncture 18. Norway. November 2018.

## Conventional Arms Control

**Conventional arms control agreements** are a cornerstone of the European security architecture. Verifiable arms control adds to Allies' security by limiting military forces in the Euro-Atlantic area, and by providing transparency and predictability of military deployments, manoeuvres and exercises.

At the Brussels Summit, Allies reaffirmed their longstanding commitment to conventional arms control as a key element of Euro-Atlantic security, and emphasised the importance of full implementation and compliance to rebuild trust and confidence. They also stressed their commitment to strengthening and modernising conventional arms control in Europe, based on key principles including reciprocity, transparency and host-nation consent.

In this context, NATO Allies continue to stress that Russia's unilateral military activity in and around Ukraine has undermined peace, security and stability across the region, and that Moscow's selective implementation of the Vienna Document, the Treaty on Open Skies and longstanding non-implementation of the Conventional Forces in Europe Treaty have eroded the positive contributions of these arms control instruments.

In 2018, Allies continued to call on Russia to fully adhere to its commitments. First, they called on Moscow to fully implement the letter and spirit of the **Vienna Document** – a vital confidence-building mechanism for arms control – and to work to update it in discussions at the Organization for Security and

### Modernising the Vienna Document

Given significant changes in the security environment, Allies have made more than a dozen proposals on how to modernise the Vienna Document. They include:

- Improving the risk reduction chapter of the Vienna Document to address concerns about military activities that appear unusual or threatening to other nations
- Lowering the thresholds for notification and observation of military exercises
- Closing loopholes that allow countries to avoid notification and observation of exercises, including no-notice - or "snap" - exercises
- Strengthening verification by improving inspections and evaluations and by providing additional opportunities to visit military deployments and facilities in Europe
- Enhancing military-to-military lines of communication

As of the end of 2018, Russia had refused to engage in these discussions, going as far as to withdraw its own proposals for Vienna Document modernisation.

Co-operation in Europe (OSCE) in order to make its provisions more relevant to the realities of 21<sup>st</sup> century security.

Allies also remain concerned about Russia's selective implementation of the Vienna Document more generally. NATO Allies have consistently stood by the letter and the spirit of the Vienna Document. In 2018, they continued to notify the OSCE of military exercises well in advance, even when they were below the notification thresholds.<sup>1</sup> They have also consistently made provisions to facilitate international observation of large-scale manoeuvres.

In 2018, notification of Allied exercises throughout the year allowed **Russian military personnel to visit 16 Allied military exercises in 2018, including the high-visibility Exercise Trident Juncture 18**. Russia invited members of the Moscow Military

Diplomatic Corps, including the NATO representative, to participate in the Distinguished Visitors Day event for its large-scale exercise Vostok 2018. However, this event did not meet the standard of exercise observation as defined by the OSCE Vienna Document, which requires, among other things, detailed briefings, overflight and opportunities to speak to participating troops.

In addition, Allies have continued to point out the need for Russia to uphold other key conventional arms control agreements such as the Budapest Memorandum and the Helsinki Final Act, which lay out the principles for relations among states in the Euro-Atlantic area and form the basis for the OSCE. Similar worries remain with respect to the Treaty on Open Skies, which Russia continues to violate, including with regard to flights over the Kaliningrad region.

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

In 2018, NATO continued to work with Allies, partner nations and other international organisations to combat the proliferation of **weapons of mass destruction (WMD)** and to defend against **chemical, biological, radiological and nuclear (CBRN) threats**.

NATO has a Combined Joint CBRN Defence Task Force designed to perform a full range of related missions related to CBRN events and attacks against NATO populations, territory or forces. The taskforce is led by an individual Ally on a 12-month rotational basis. In 2018, Germany took over as lead nation.

In 2018, the Alliance continued to help build capacity for members and partners in the area of CBRN defence. For instance, the NATO School in Oberammergau, Germany held 14 different training courses on CBRN defence and WMD non-proliferation. The Joint CBRN Defence Centre of Excellence, based in Vyškov, Czech Republic, also organised a mobile training course in Kuwait to further develop Kuwait's civil crisis response capabilities.

In October, NATO held an annual conference on WMD and CBRN issues in Reykjavík, Iceland, gathering over 100 participants from 45 countries, as well as high-level representatives from the United Nations, the European Union, the Organisation for the Prohibition of Chemical Weapons and the Comprehensive Nuclear Test-Ban Treaty Organization. The meeting focused on the state of global arms control treaties.

<sup>1</sup> Signatories of the Vienna Document are required to notify the OSCE when they conduct exercises involving 9,000 or more troops; observation is obligatory for exercises involving 13,000 or more troops.

## Nuclear Deterrence

NATO continues to ensure that all components of its nuclear deterrence remain safe, secure and effective. The fundamental purpose of NATO's nuclear capability is to preserve peace, prevent coercion and deter aggression.

In 2018, the Alliance's Nuclear Planning Group met at both the Ministerial and Ambassadorial level to consider the actions of Russia – which has been modernising its strategic systems, announcing new nuclear weapons programmes, deploying dual-capable missiles, using irresponsible and aggressive nuclear rhetoric, and developing and deploying intermediate-range ground-launched cruise missiles in violation of the Intermediate-Range Nuclear Forces Treaty.

At the 2018 Brussels Summit, Allies urged Russia to address concerns about the development of a new missile system, noting widespread doubts about Russian compliance. In December, Allies formally concluded that Russia was in violation of the Intermediate-Range Nuclear Forces Treaty and called for Russia to return to compliance with its Treaty obligations, noting that the United States was adhering fully to its Treaty commitments.

Taking into account the challenges posed by an uncertain world, the Nuclear Planning Group has taken careful and measured decisions to maintain the effectiveness and coherence of NATO's nuclear deterrence, including decisions on adaptation to maintain the credibility of the Alliance's nuclear-capable forces.

NATO continues to exercise nuclear deterrence capabilities to demonstrate effectiveness, with a growing emphasis on the coherence of NATO's conventional operations and nuclear deterrence, recognising that nuclear weapons are unique and that the circumstances in which they might have to be used are extremely remote.

NATO remains committed to arms control and disarmament as an essential contribution to achieving the Alliance's security objectives, but regrets that the conditions for achieving full disarmament have not become more favourable.

In 2018, NATO continued to work to improve understanding of nuclear issues across the Alliance. It did this by organising a series of visits to nuclear bases and facilities, running a series of courses on elements of nuclear deterrence for military and civilian audiences from both NATO Headquarters and member nations, and by sponsoring an annual Nuclear Policy Symposium in Washington, D.C.

Aside from the independent nuclear capabilities of the United States, the United Kingdom and France, and the national contributions of dual-capable aircraft and associated infrastructure, NATO works to achieve the broadest possible participation of Allies in the nuclear deterrence mission.



Participants in exercise SRBIJA 2018 assess how to respond to a mock chemical, biological, radiological, nuclear incident. Mladenovac, Serbia. October 2018.



## NATO and Arms Control

NATO has pursued arms control, disarmament and non-proliferation for decades. The Alliance first put forward a comprehensive disarmament package in 1957, and, following the end of the Cold War, dramatically reduced the number of nuclear weapons stationed in Europe and the reliance on nuclear weapons in its strategy.

Throughout its 70-year existence, NATO has strongly supported the negotiation and implementation of landmark agreements such as the Treaty on the Non-Proliferation of Nuclear Weapons and the Intermediate-Range Nuclear Forces Treaty. Importantly, the Alliance has provided a crucial platform for Allies to coordinate their policies and negotiating positions on arms control.



German Federal Minister of Foreign Affairs Hans-Dietrich Genscher (left) with German Permanent Representative to NATO Hans-Georg Wieck (right) at a NATO Ministerial Meeting, Paris, France. June 1983.

This coordinated approach was boosted by the 1967 Harmel Report, which explicitly recognised how strong deterrence could act as the basis for dialogue, and declared that the ‘way to peace and stability in Europe rests in particular on the use of the Alliance constructively in the interest of détente’.

In the aftermath of the Harmel Report, NATO became recognised as the main platform for coordination of North American and European negotiating positions on arms control and non-proliferation. Allies soon came to regard arms control as an integral part of NATO’s efforts to assure the security of its Allies and make the strategic situation between East and West more stable and predictable.



Soviet leader Mikhail Gorbachev and US President Ronald Reagan sign the Intermediate-Range Nuclear Forces Treaty, Washington, D.C., United States. December 1987.

In December 1979, recognising that the Warsaw Pact held a significant advantage in both conventional forces and medium-range nuclear-armed ballistic missiles in Europe, NATO leaders adopted a new, dual-track strategic approach. On the one hand, they decided to modernise their nuclear capabilities in Europe to strengthen deterrence; and, on the other hand, they agreed to launch negotiations to eliminate medium-range nuclear-armed ballistic missiles altogether.



An event at the Egmont Palace in Brussels, organised by the Belgian Ministry of Foreign Affairs to commemorate the 50th anniversary of the publication of the Harmel Report. Didier Reynders, Minister of Foreign Affairs of Belgium, with NATO Secretary General Jens Stoltenberg, Brussels, Belgium, December 2017.

Negotiations with the Soviet Union, led by the United States, began in 1981. Throughout six years of talks (1981–87), Allies contributed to the negotiations, discussing drafts and changes to the proposals with the US negotiators before and after each round of talks. A special high-level consultative body was constituted to support the US negotiating effort, meeting weekly and reporting regularly on progress to NATO Foreign and Defence Ministers on a six-monthly basis.

The Intermediate-Range Nuclear Forces Treaty was finally signed on 8 December 1987.



Turkish first responders operate a decontamination point during disaster relief exercise SRBIJA 2018. Serbia. October 2018.

## *Small Arms, Light Weapons, Mine Action*

The proliferation of small arms and light weapons and their ammunition has a serious impact on security. NATO has long been involved in efforts to tackle the illicit trade of small arms and light weapons. Over the past 25 years, the Alliance has established and strengthened regional and cross-regional cooperation with more than 40 partner countries and developed related coordination and information-sharing mechanisms.

To date, NATO's efforts have helped to destroy the following equipment:



Over the years, NATO has also trained thousands of munitions experts. In 2018, NATO conducted approximately 20 training courses on small arms, arms control, CBRN defence and non-proliferation at the NATO School in Oberammergau, Germany. NATO experts also contributed to numerous other courses at NATO Centres of Excellence and affiliated training centres in Allied and partner countries.

NATO continues to integrate its approach to small arms and light weapons into its work on issues such as security sector reform, counter-terrorism and anti-corruption initiatives. The Alliance provides technical and military expertise to assist stockpile and ammunition management in parts of the world where it is most needed. It has also developed and implemented guidelines for including gender perspectives on the issue.



# INVESTING IN SECURITY

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A Fairer Alliance



Fair burden-sharing is the foundation of everything NATO does. Effective defence is impossible without investment in the capabilities the Alliance needs.

At the 2014 Summit in Wales, NATO leaders endorsed a **Defence Investment Pledge**. The pledge called for all Allies that did not already meet the NATO-agreed guideline of spending 2% of Gross Domestic Product (GDP) on defence to stop cuts to defence budgets, gradually increase spending, and aim to move towards spending 2% of GDP on defence within a decade. Allies also agreed, in that same time-frame, to move towards spending at least 20% of annual defence expenditure on major new equipment, including related research and development.

Finally, the Pledge committed 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.

Since 2014, Allies have made considerable progress – with four consecutive years of real growth in defence expenditure by European Allies and Canada. Allies

have increased the amount they spend on defence in real terms, and the majority of Allies have national plans in place to spend 2% of their GDP on defence by 2024.<sup>2</sup>

At the same time, a majority of Allies are spending more than 20% of their defence expenditure on major equipment, including related research and development. According to 2018 national plans, 24 Allies will meet the 20% guideline by 2024.

Allies are not just delivering more of the heavier, high-end capabilities NATO needs, they are also improving the readiness, deployability, sustainability and interoperability of their forces.

The number of activities in which Allies are engaged has also increased, and Allies continue to make valuable force and capability contributions that benefit the security of the Euro-Atlantic area through NATO's operations, missions and other activities, as well as through operations and missions conducted under national authority and the authority of other organisations.

## 2018: A Year of Investment

*At the Brussels Summit in July, NATO leaders agreed there is a new sense of urgency to invest 2% of GDP on defence and to have credible national plans on how to meet this goal.*

NATO Allies will continue to invest in developing, acquiring and maintaining the capabilities the Alliance needs to defend its nearly one billion citizens. The Alliance attaches great importance to ongoing efforts to ensure fair burden-sharing in all three elements of the Defence Investment Pledge: defence expenditure; investments in capabilities; and contributions to NATO's operations, missions and activities.

In 2018, the United States accounted for half of the Allies' combined GDP and almost 70% of combined defence expenditures.

At the same time, European Allies and Canada are continuing to spend more on defence.

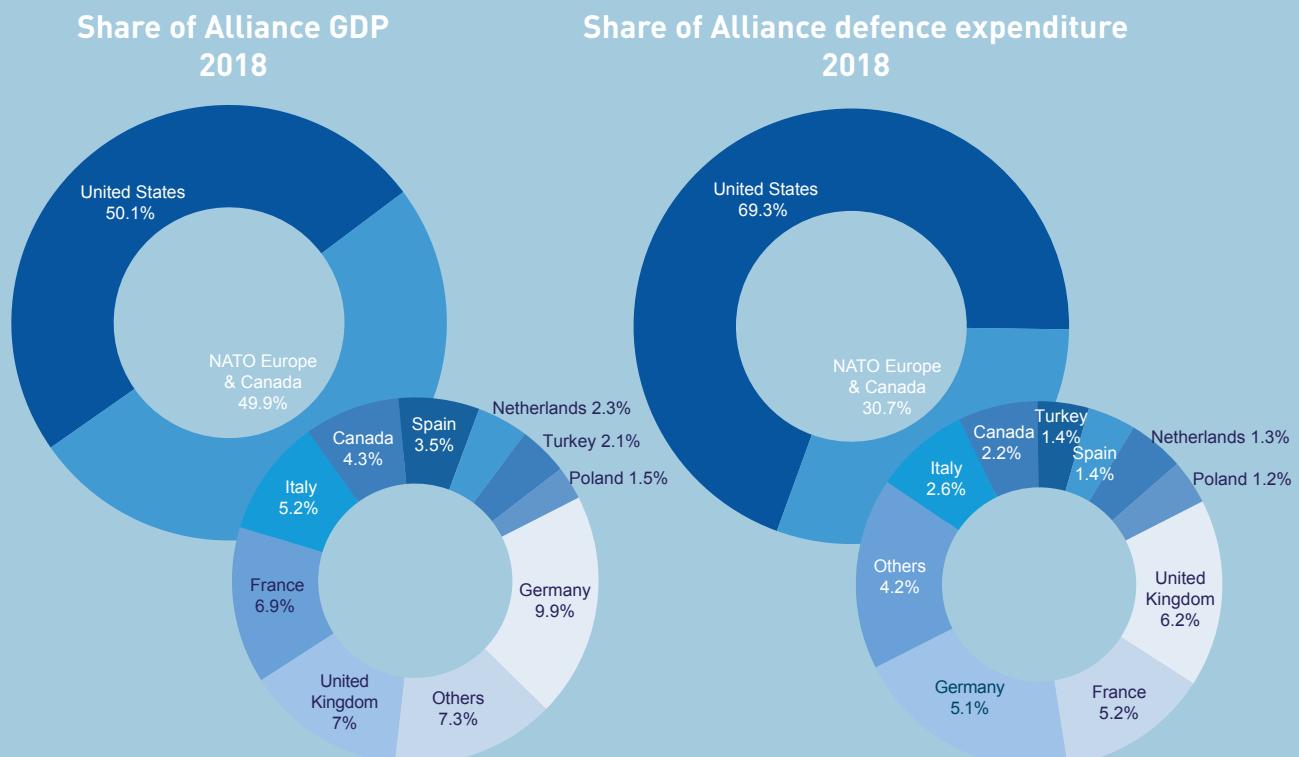
In 2018, seven Allies reached the 2% defence spending guideline, up from three in 2014. In real terms, defence spending among European Allies and Canada increased by almost 4% from 2017 to 2018. Furthermore, in the period from 2016 to 2018, they have contributed an additional cumulative spending of over USD 41 billion.

Allies also made progress on the commitment to invest 20% or more of defence expenditure in major new capabilities. In 2018, 25 Allies spent more in real terms on major equipment than they did in 2017. The number of Allies meeting the NATO-agreed 20% guideline rose to 16 in 2018.

<sup>2</sup> For all the graphs in this chapter of the report, it should be noted that Iceland has no armed forces. Note: The figures presented at aggregate level may differ from the sum of their components due to rounding.

Allies continue to implement their capability targets, as part of the NATO Defence Planning Process. These targets set out areas where NATO aims to improve its capabilities, including for heavier and more high-end equipment, and forces able to move at even shorter notice. The targets aim to ensure that NATO has the necessary capabilities and forces to fulfil its mission.

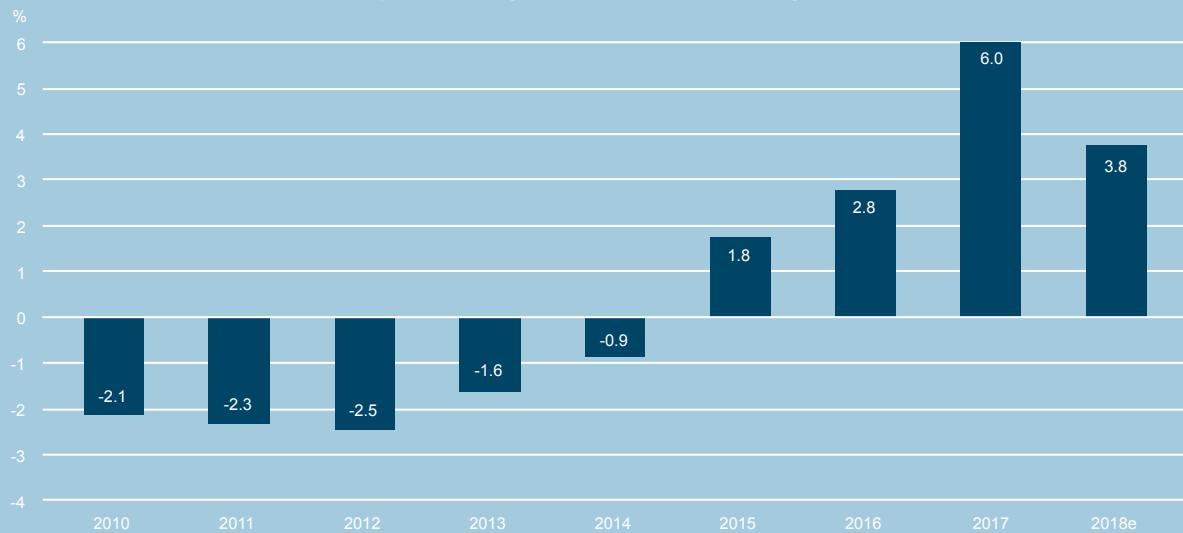
The Alliance faces numerous and complex security challenges. Continued investment in defence remains essential. The progress achieved in recent years means the Alliance is well positioned to respond to today's security environment.



Based on current prices and exchange rates.  
Figures for 2018 are estimates.

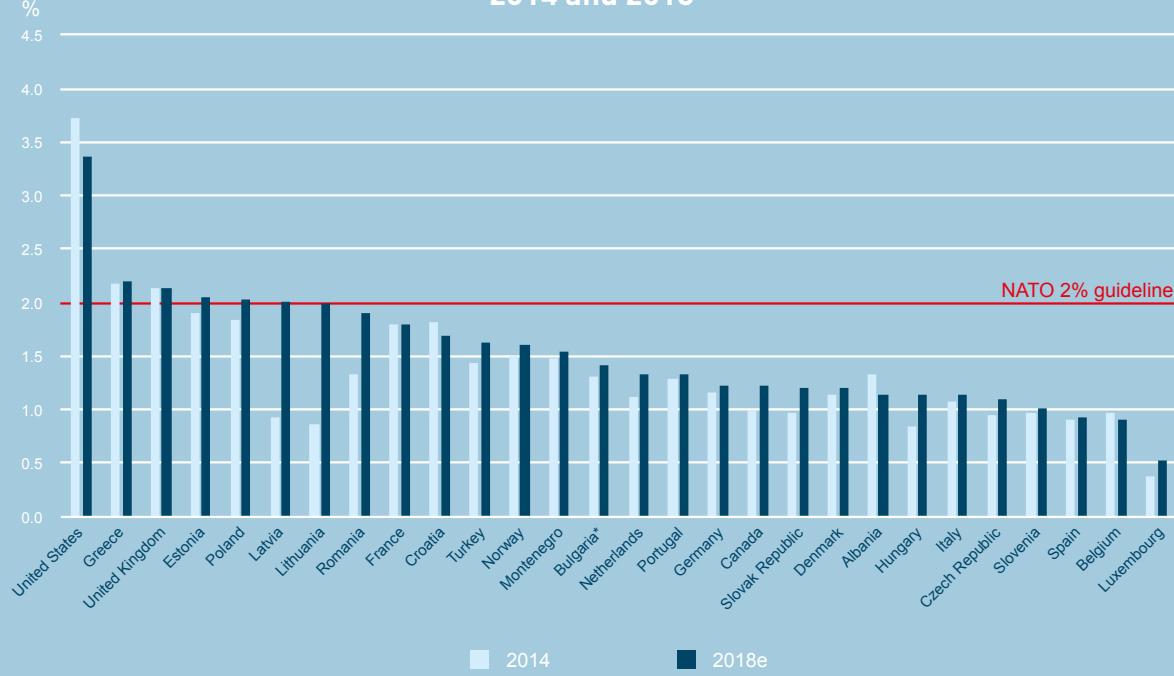
Based on current prices and exchange rates.  
Figures for 2018 are estimates.

## NATO Europe and Canada - defence expenditure (percentage annual real change)



Based on constant 2010 prices and exchange rates. Figures for 2018 are estimates.

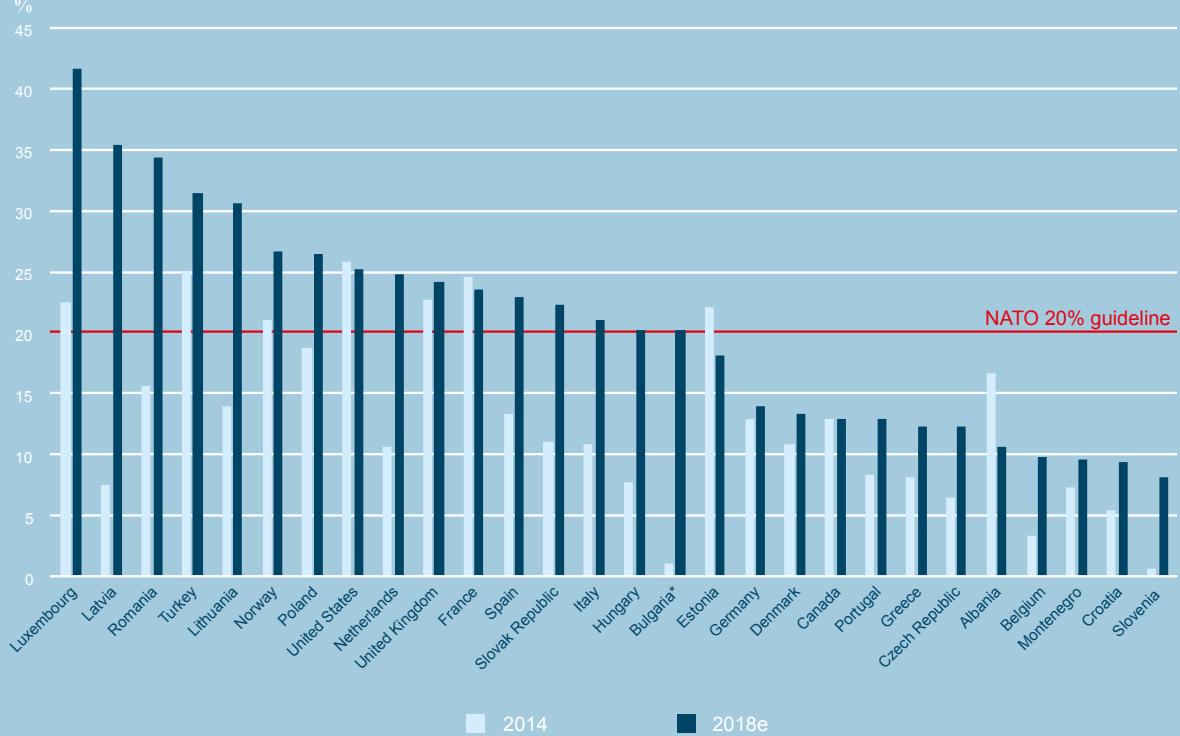
## Defence expenditure as a share of GDP (%) 2014 and 2018



Based on constant 2010 prices and exchange rates. Figures for 2018 are estimates.

\* Defence expenditure does not include pensions.

### Equipment expenditure as a share of defence expenditure (%) 2014 and 2018



Based on constant 2010 prices and exchange rates. Figures for 2018 are estimates.  
\* Defence expenditure does not include pensions.

### Defence expenditure as a share of GDP versus equipment expenditure as a share of defence expenditure - 2018



Note: Figures for 2018 are estimates.  
\* Defence expenditure does not include pensions.



# FIT FOR PURPOSE: MODERNISING NATO



In 2018, the Alliance continued to modernise – ensuring that it has the right political and military structures in place, and that it is as responsive, efficient, effective and accountable as it needs to be in a more dangerous world.

## Taking Stock of 2018

*2018 was a year of far-reaching reforms for NATO.*

First, Allies took important decisions to adapt and strengthen the **NATO Command Structure**, the military backbone of the Alliance. The new Command Structure will help the Alliance's Strategic Commanders to prepare for any threat to the Alliance.

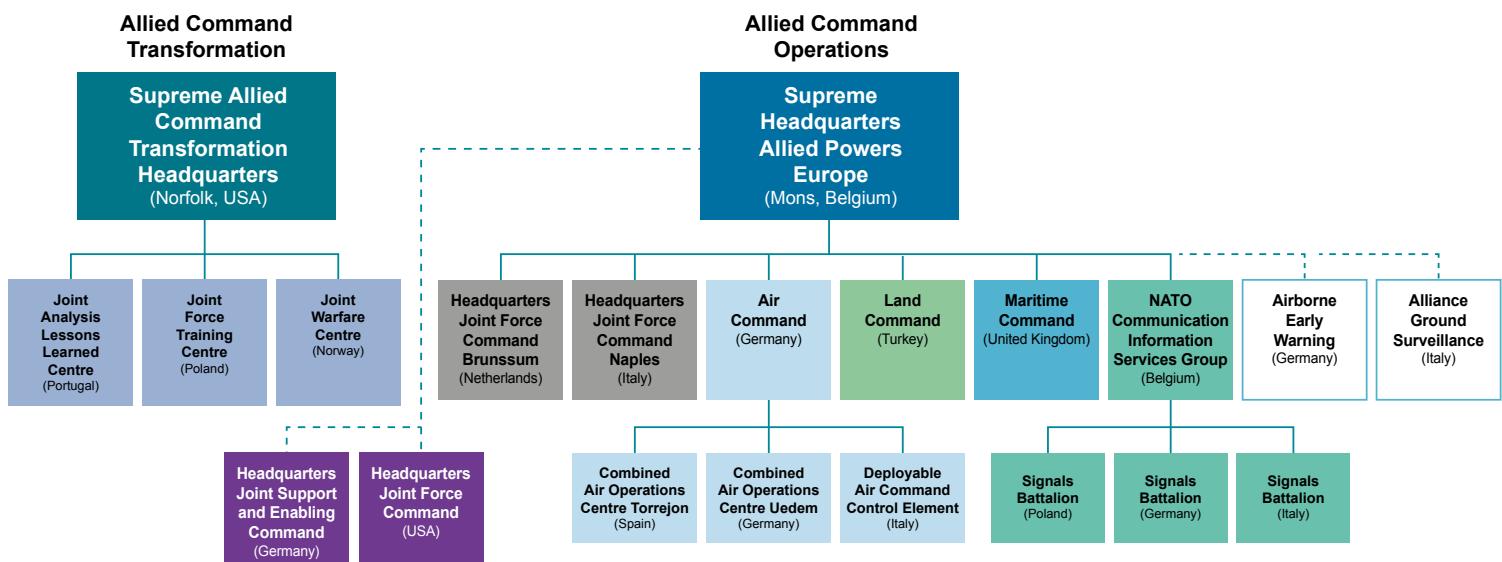
At the Summit in July, NATO leaders agreed to a major update of the Command Structure, with more than 1,200 additional personnel and two new Joint Force Commands: one in Norfolk, the United States, to focus on protecting transatlantic sea lines of communication; and one in Ulm, Germany, to support the rapid movement of troops and equipment into, across and out of Europe. The two new Commands will become operational in 2019.

In August, a Cyberspace Operations Centre was also established at the Supreme Headquarters Allied Powers Europe (SHAPE) in Belgium. The new Centre will coordinate NATO operations in cyberspace, provide cyberspace situational awareness, assess risks, and support decision-making, planning and exercises.

In 2018, Allies also endorsed a series of measures to modernise NATO Headquarters in Brussels. The reforms, agreed in 2018 at the end of an internal functional review process, place speed, innovation and resilience at the centre of the way NATO works, and will ensure the Headquarters continues to adapt to meet the challenges of the current security environment.

In addition, at the Brussels Summit, Allied leaders agreed wide-ranging improvements to the way military capabilities are delivered through NATO common funding. The changes – which have been designed to reflect international best practice – will reduce unnecessary bureaucracy and complexity, and better align the work done by Allies, NATO Agencies and NATO's Strategic Commands. Effective implementation of the changes will improve the Alliance's agility and responsiveness by delivering required capabilities within expected timelines and agreed cost. This will help to sustain NATO common funding, a pillar of Alliance solidarity, for years to come.

## NATO Command Structure





Group shot of SHAPE's first command group. Left to right: Air Chief Marshal Saunders (UK) - Air Deputy; General Eisenhower (USA) – SACEUR; Admiral Lemmonier (FRA) - Naval Deputy; Field Marshal Montgomery (UK) - Deputy SACEUR; General Gruenther (USA) - Chief of Staff, SACEUR. October 1951.

## The Evolution of NATO's Structures

In its early days, the North Atlantic Alliance did not have an integrated military structure, just a Defence Committee, which established, among other things, Regional Planning Groups charged with drawing up plans for the defence of their regions.

All this changed after the outbreak of the Korean War in June 1950. The conflict raised fears that Europe could face a similar conflict over divided Germany. By the end of 1950, Allies agreed to create an integrated military structure with a Supreme Allied Commander Europe (SACEUR). The first person to hold this position was General Dwight D. Eisenhower. The position of NATO Secretary General was created in 1952; Lord Ismay was the first person to hold the post.

On 2 April 1951, General Eisenhower signed the activation order for Allied Command Europe and its headquarters at Supreme Headquarters Allied Powers Europe. On the same day, Allied Command Europe's subordinate headquarters in Northern and Central Europe were activated, with the Southern Region following suit in June.

In April 1952, the second NATO supreme commander, the Supreme Allied Commander Atlantic (SACLANT), based in Norfolk, Virginia, United States, became operational. His command, Allied Command Atlantic, was responsible for the defence of the vital shipping lanes between Europe and North America.

This integrated military command structure was created to ensure that if a crisis occurred, NATO would be able to defend itself in an efficient and coordinated manner. An integrated military structure also helped facilitate joint training, establish multinational standards and integrate various militaries into a single coherent entity.



An encounter between NATO air forces. The aircraft include four F104G Starfighters, whose acquisition and production were coordinated by NATO. Chaumont, France. April 1964.

Allied Command Europe would evolve significantly during the Cold War, as its purpose and mission changed.

With the end of the Cold War and the reorienting of NATO's mission towards 'out-of-area operations', the Alliance was required once again to update its command structure.

That process of adapting as the world itself changes continues to this day.



Sixteen NATO Allies and three partners sign a Memorandum of Understanding for the Provision of Land Battle Decisive Munitions at the Brussels Summit, Brussels, Belgium. July 2018

## Developing the Capabilities the Alliance Needs

*The 2014 Defence Investment Pledge reversed the trend of shrinking national defence budgets. This has, in turn, strengthened Allies' ability to develop and acquire the capabilities they need.*

Part of NATO's job is helping Allies make informed investment decisions on military capabilities. One way it does this is by supporting joint multinational efforts to develop new capabilities – in other words, helping Allies to work together to design, manufacture and acquire the high-end equipment their militaries need.

In 2018, there were significant developments on seven different multinational projects.

Two new projects were launched: the Maritime Battle Decisive Munitions project and the Maritime Unmanned Systems project. The former will help participants to procure and manage stockpiles of key maritime munitions more cheaply and flexibly. The latter will create a framework for the introduction of unmanned capabilities that contributes to a wide range of naval missions from logistics, to peacekeeping, to full-scale naval warfare.

Two existing multinational projects attracted the involvement of additional Allies. The Maritime Multi Mission Aircraft project – which was joined by Canada and Poland<sup>3</sup> – will replace aging Maritime Patrol Aircraft fleets. The project to develop a multinational fleet of air refuelling tankers – the so-called Multi-Role Tanker Transport Capability – was joined by Belgium<sup>4</sup>.

Cooperation on three additional projects was formalised through memoranda of understanding. The results will be a joint training centre for air crews conducting insertion and extraction of Special Operations Forces; a multinational command for Special Operations Forces; and a framework for managing the acquisition and storage of land munitions. In August, participants in the Air-to-Ground Precision Guided Munitions framework received the first batch of new munitions.

<sup>3</sup> Canada and Poland joined France, Germany, Greece, Italy, Spain and Turkey.

<sup>4</sup> Belgium joined Germany, Luxembourg, the Netherlands and Norway.

## Inventory of 2018 NATO Multinational Capability Projects



### Innovating for the Future

At the Brussels Summit, Allied leaders stated that they would '*continue to foster innovation to maintain our technological edge*'. To preserve the Alliance's strategic military advantage – including its technological edge – in the face of a more challenging

security environment, NATO needs a coherent and structured approach to research and development.

In this context, NATO has developed a framework to facilitate innovation, covering 85 critical activities.

### Preparing NATO for the Digital Age

NATO's ability to harness the digital revolution is critical to the Alliance's success. Innovations such as cloud computing, edge computing, big data analytics, machine learning and artificial intelligence are transforming the way large organisations operate.

The Alliance is determined to take advantage of opportunities provided by the digital age and to become a data-driven organisation as a key step towards improving information-sharing and collaboration.

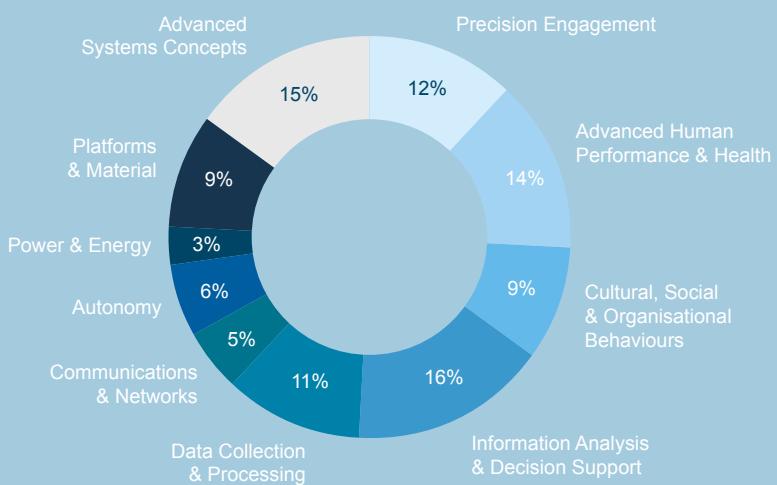
For instance, Allies are adopting a new approach to digital technologies for Consultation, Command and Control capabilities, and information and communications technology services. This will help ensure a more effective and coherent use of information technology across NATO's civilian and military structures. The new approach means that by 2025 all NATO entities will use a standardized set of information technology applications and services. This will also improve the ability of Allies and partners to work together on operations.

NATO is also working in partnership with industry to explore the application of analytics and artificial intelligence. For example, the NATO Industrial Advisory Group has conducted studies on human machine teaming, big data analytics and autonomy, focusing on the impact of these technologies on NATO. Allied Command Transformation partnered with individual companies, including on how to improve decision-making on defence planning and on developing tools to shape and test future scenarios.

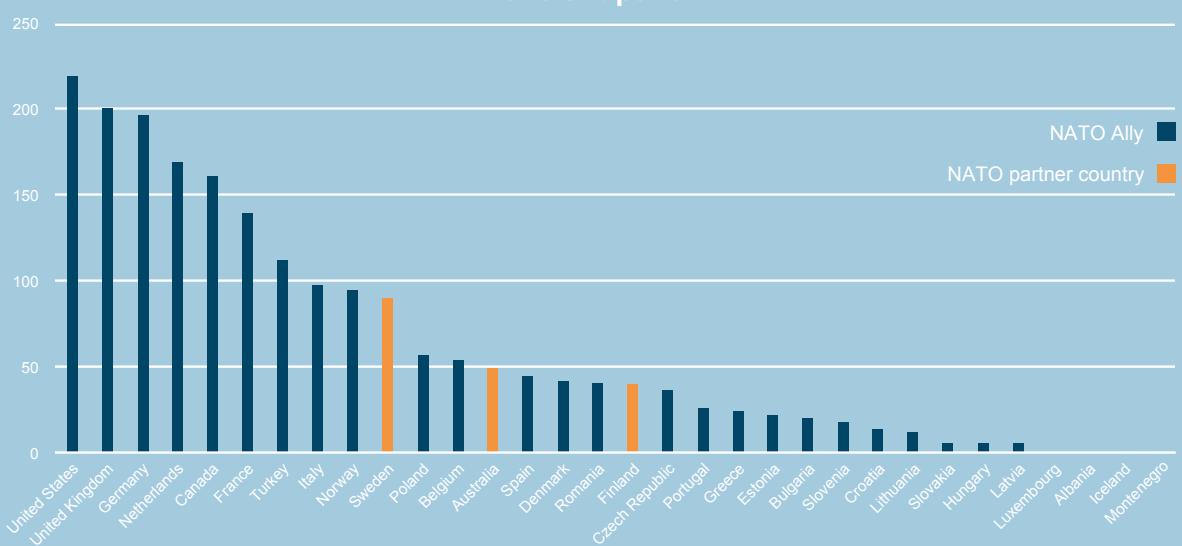
In addition, in 2018, the Alliance devised a new NATO Science and Technology Strategy to guide the development of military capabilities. It will also help to deliver timely and targeted advice to decision-makers, and to build capacity through partnerships.

In 2018, the NATO Science and Technology community focused its work on the following 10 key areas:

### 2018 NATO Science & Technology Activity



### NATO Science and Technology Organization Collaborative Programme of Work Number of Projects per Nation 2018 Snapshot



In 2018, the Programme comprised in total more than 250 research projects, each planned and executed by experts from at least four nations.

## Science and Innovation: 2018 Highlights

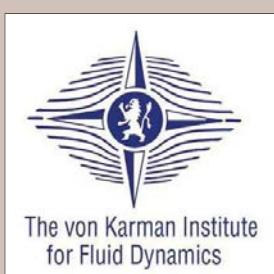
Key innovation initiatives in 2018 included:

- Cryogenics in aerodynamic testing to improve predictions of aircraft performance and stability
- Human performance and medical treatment during cold weather operations
- Mental performance programming to optimise human cognitive and psychological performance, in particular among NATO Special Operations Forces
- Robustness and accountability in machine-learning systems
- Human-machine trust – to enhance collaboration within ‘human-machine teams’
- Fuel cells for dismounted soldiers to identify fuel cell technologies that are wearable or portable
- Swarms systems for intelligence, surveillance and reconnaissance



## NATO and Innovation: The von Karman Institute

The von Karman Institute for Fluid Dynamics is just one example how the Alliance has ensured its capabilities are at the cutting edge of new technologies. An international educational and research association, the Institute was founded in 1956 under the auspices of NATO's Advisory Group for Aerospace Research and Development. Today, it is financially supported by a consortium of 15 NATO Allies and located in Brussels, Belgium.



For more than 60 years, the Institute has been a hub for advanced education and research on critical flow technologies, with important applications in aerospace, defence and security. Current projects focus on advanced computing; stratospheric flight; the study of heat and mass transfer; gas evolution and fluid turbulence in electrochemical systems; and the cooling of aero-engine turbine blades.



The North Atlantic Council visits the von Karman Institute, Brussels, Belgium. October 2017.

Hypersonic speed has received renewed attention over the last years. A major problem in its development is the heating and thermal protection of an object travelling so fast. Thanks to its Mach 12 wind tunnel, originally commissioned in 1966 with support from NATO, the Institute has recently been able to revisit problems associated with hypersonic speed, using high-speed camera visualisation and stability computations to better understand the challenges involved.



Lieutenant Katarzyna Tomiak-Siemieniewicz, Poland's first female MiG-29 fighter pilot. Poland. April 2018.

## NATO's Integrated Air and Missile Defence System

The **NATO Integrated Air and Missile Defence System** is a network of interconnected national and NATO assets made up of sensors, command and control facilities, and weapons systems. Ensuring that the many elements of this system are properly integrated – and can operate seamlessly – is essential.

Among those common-funded capabilities that are key to the Integrated Air and Missile Defence System are the NATO Air Command and Control System and the Ballistic Missile Defence Programme.

The **NATO Air Command and Control System** programme is one NATO's most substantial investments. It will replace existing national systems – which are too often incompatible – with an overarching Alliance-wide network. This will enable much more effective command and control of Allied air operations.

In 2018, NATO launched an initiative called Transition to Operations to accelerate execution of this complex programme. At present, the Air Command and Control System is operational at one site: Poggio Renatico in Italy. If the Transition to Operations initiative is successful, three other sites will become operational.

**NATO's Ballistic Missile Defence Programme** provides a platform into which national sensors and weapons systems, offered voluntarily by Allies, can be plugged to detect, track and intercept attacking ballistic missiles. The Programme currently relies on US Ballistic Missile Defence elements deployed in Europe – including a radar station in Turkey, four ships based in Spain and a ground-based interceptor site in Romania. It also relies on additional national contributions by a number of European Allies.



A NATO E-3A Sentry Airborne Warning and Control System aircraft sits on the tarmac. Konya, Turkey. March 2018.

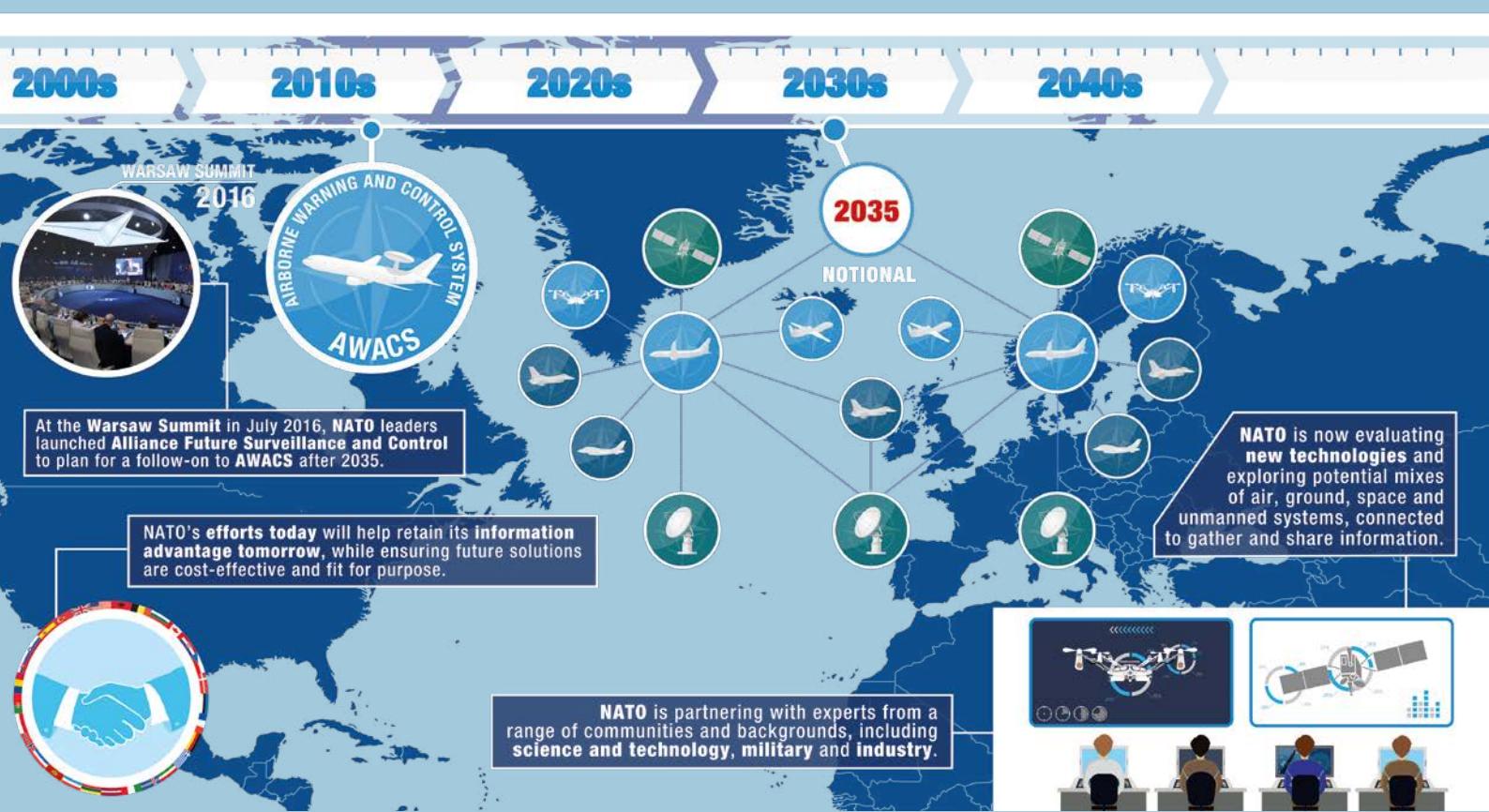
## NATO's AWACS Fleet

The **NATO Airborne Warning and Control System** (AWACS) surveillance aircraft remain a workhorse of the Alliance, and a symbol of NATO across its operations and activities. Throughout 2018, NATO AWACS maintained its high level of contributions to NATO operations and activities, in particular in support of the Global Coalition to Defeat ISIS.

While NATO's AWACS fleet is more than 35 years old, it has remained relevant thanks to a cycle of upgrades and modernisation. The most recent modernisation effort – the Follow-On Upgrade Programme – retrofitted all aircraft with modern glass cockpits, providing NATO aircrews with the latest digital technology. Improved flight simulators have also been delivered to the AWACS force in Geilenkirchen, Germany.



A patch from NATO's AWACS in support of the Global Coalition to Defeat ISIS, March 2018.



## Alliance Future Surveillance and Control

NATO is actively planning for the AWACS fleet's retirement around the year 2035, through the Alliance Future Surveillance and Control initiative.

All 29 NATO Allies are involved in the planning and resourcing of the initiative, which has investigated, among other things, how combinations of air, ground, space or unmanned systems could be networked together to collect and share information. It has also assessed the applicability of transformative technologies like artificial intelligence, unmanned systems, miniaturisation, big data and the Internet of things.

In December 2018, the North Atlantic Council declared the first phase of the Alliance Future Surveillance and Control Concept Stage complete, on schedule and on budget, and agreed to begin the second phase. Through this first phase, the Alliance was able to determine what requirements the new system will need to meet and what technologies it should be able to integrate. On this basis, beginning in 2019, a series of industrial competitions will be launched to invite the involvement of the private sector in finding related solutions.

The Alliance Future Surveillance and Control initiative is a clear demonstration of NATO's ability to innovate and to collaborate closely with industry.

## The View from Above: Alliance Ground Surveillance

Fifteen NATO Allies are acquiring a high-altitude long-endurance Intelligence, Surveillance and Reconnaissance capability through the **Alliance Ground Surveillance** Programme. The new capability will enable the Alliance to perform surveillance over wide areas from remotely-piloted aircraft, fully owned and operated by NATO.

As a result, Allied commanders will have a state-of-the-art capability with which to conduct ground surveillance, operating at considerable stand-off distances in any weather or light conditions.

In addition, Allies will be able to access data acquired by Alliance Ground Surveillance, which will be archived at the Main Operating Base in Sigonella, Italy. Allies will then be able to use this data to support national intelligence processes.

NATO expects delivery of the new capability in the summer of 2019. The preparations will continue at the host base at Sigonella, including test flights, and integration and interoperability activities.

## Joint Intelligence, Surveillance and Reconnaissance

**Joint Intelligence, Surveillance and Reconnaissance** is strategically essential for the Alliance. It ensures NATO has the right information and intelligence to make the right decisions, and is therefore able to carry out operations and missions successfully.

In June 2018, NATO organised Unified Vision 18 to test the Alliance's ability to conduct Joint Intelligence, Surveillance and Reconnaissance. Unified Vision 18 involved approximately 1,250 personnel, military and civilian, from 17 NATO Allies, two partner nations and 10 NATO bodies.

Nations participated in various ways, using assets connecting remotely from their home bases, and

linking them in a distributed network. The trial connected more than 35 locations across Europe and North America and allowed participating nations to learn important lessons.

Historically, NATO had struggled to develop a common situational awareness picture based on different assets. With the new Joint Intelligence, Surveillance and Reconnaissance capability that has changed.

In October 2018, Allied Defence Ministers endorsed the completion of the latest tranche of related capability development efforts, focusing on the effective use of Alliance Ground Surveillance, on NATO's internal capabilities and capacities, and on improving Allies' own capabilities.

## Unified Vision 2018

### NATO's Joint Intelligence, Surveillance & Reconnaissance trial

*Joint Intelligence, Surveillance and Reconnaissance is a vital capability that provides NATO decision-makers with a better situational awareness of what is happening on the ground, at sea or in the air.*

**Unified Vision 2018 (UV18)** was designed to ensure that Joint Intelligence, Surveillance and Reconnaissance assets from NATO Allies and partners are able to operate together to counter security challenges ranging from conventional threats to terrorism.

#### Facts and figures



Live activities' locations - Belgium, the Czech Republic, France, Germany, Italy, the Netherlands, Norway, Poland, Spain, the United States and the North Atlantic.

#### How does it work?

##### Testing the art of the possible

During **UV18**, NATO Allies and partners connected and tested collective and national Joint Intelligence, Surveillance and Reconnaissance assets distributed across Alliance territories to ensure they can work seamlessly together.

All this is tested in a fictitious scenario, where the latest technology and capabilities are used to locate and identify fictitious adversaries.



**Did you know?**  
Unified Vision takes place every two years.

##### Learning by pushing systems and processes to their limits

During **UV18**, NATO Allies and partners pushed systems, networks and processes to their limits. The lessons identified and learned will help the Alliance to further enhance Joint Intelligence, Surveillance and Reconnaissance and maximise the ability of Allies and partners to work together in the future. **UV18** is a tangible example of Allied burden-sharing, across Europe and North America.



Better intelligence means better decisions.



Danish Navy pilots during Exercise Dynamic Mongoose 18. Norway. July 2018.

## Undersea Warfare

In 2018, NATO established a plan for an adaptable, resilient and sustainable NATO anti-submarine warfare capability. The plan provides guidance for future capability development and interoperability requirements.

NATO's maritime community is working with the Science and Technology community to develop new technologies that will allow NATO forces to better detect, identify and track advanced enemy underwater platforms.

In 2018, a major workshop involving national armaments representatives and the NATO Science and Technology Organization helped launch a number of projects to improve NATO's sonar capabilities. These include operational experimentation with unmanned systems such as gliders and multi-static operation of sonars to increase the detection of submarines. The Alliance is also exploring the use of predictive aids to detect submarines based on environmental data.

An Anti-Submarine Warfare Supervisor reports the underwater situation while participating in Trident Juncture 18. Norway. November 2018



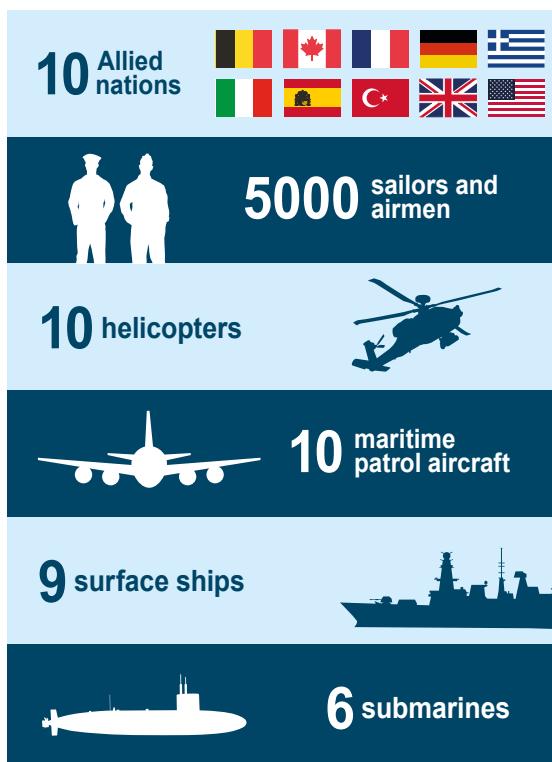
### Anti-Submarine Warfare Exercises in 2018

Anti-submarine warfare was a NATO focus in several exercises conducted in 2018. For example, in addition to training national and NATO personnel, NATO conducted experiments involving unmanned systems and Rapid Acoustic Predictive Service in exercises Dynamic Mongoose, Trident Juncture, BALTOPS and Dynamic Manta.

Exercise Dynamic Manta, involving 10 nations, six submarines and nine surface ships, used complex scenarios to challenge NATO's anti-submarine and anti-surface warfare specialists. Exercise Dynamic Mongoose conducted experiments involving unmanned sensors to collect environmental data. This data was used to improve prediction models for submarine detection.

In 2018, the Alliance began to develop a new vision for future mine warfare operations. In this context, Exercise Rapid Environmental Picture demonstrated a new proof of concept for the use of unmanned systems for mine detection and classification.

### Dynamic Manta 2018



An Italian Carabinieri vessel during Exercise Dynamic Manta. Ionian Sea, April 2018.



Liguria Sea. 2018.



NATO Research Vessel. Ligurian Sea. 2003.

## The Centre for Maritime Research and Experimentation

In the mid-1950s, at the height of the Cold War, NATO found itself in an arms race on submarine technology. Recognising the challenge, the Alliance decided to establish a collaborative research centre for anti-submarine warfare. On 2 May 1959, the Supreme Allied Commander Atlantic commissioned the establishment of the Anti-Submarine Warfare Research Centre in La Spezia, Italy.

Sixty years later, and after several name changes, the Centre for Maritime Research and Experimentation continues to be a hub for maritime research, developing and delivering cutting-edge, field-tested technologies.

The Centre conducts pioneering research on a number of topics, including the effects of active sonar on marine mammals. In 1999, the Centre established one of the world's first research programmes on this topic, now known as the Active Sonar Risk Mitigation programme. One of the benefits of the project was that an increasing number of independent scientific and environmental organisations began to collaborate with the Centre on this issue. Active Sonar Risk Mitigation policies, procedures and technologies have since been implemented, and continue to be developed to minimise the potential impact of sonar on marine mammals.

The Centre is currently at the forefront of research into Allied robotic capabilities at sea including research and development of autonomous underwater systems, interoperable communication protocols, and the use of big data tools for decision-making. NATO has established a Maritime Unmanned Systems Initiative, supported by 13 Allied nations.<sup>5</sup>

<sup>5</sup> Belgium, Denmark, Germany, Greece, Italy, the Netherlands, Norway, Poland, Portugal, Spain, Turkey, the United Kingdom and the United States.



The Secretary General delivers a keynote speech at the fifth NATO-Industry Forum. Berlin, Germany. November 2018.

## Working with Industry

*For NATO to succeed, the Alliance needs to maintain its technological edge. That, in turn, means embracing technologies such as artificial intelligence, big data analytics, autonomous vehicles, quantum technology and blockchain. To do that, NATO must continue to work closely with industry.*

The Alliance needs a thriving defence industry – to nurture innovation and to develop and manufacture the cutting-edge capabilities NATO needs. Working hand-in-hand with the defence industry helps to identify and apply new technologies, to evaluate how best to use those technologies in the military domain, and to acquire them as efficiently and economically as possible.

NATO pursues a dialogue with industry through a number of standing platforms. The NATO-Industry Forum has become a key event for officials and military commanders from Allied and partner countries to meet with executives from the defence

and security industry, as well as think-tanks and academia. In November 2018, the Forum, hosted by Germany, focused on innovation and disruptive technologies. Four hundred and fifty experts from all over the world discussed issues such as logistics and enhancing military decision-making.

The **NATO Industrial Advisory Group** also makes an important contribution to the Alliance's engagement with industry. To date, the Group has published more than 230 studies on topics like human-machine teaming, autonomy and big data. The Group gives the Alliance access to more than 5,000 companies, including small and medium-sized enterprises. In 2018, the Group celebrated its 50<sup>th</sup> anniversary.

NATO's Allied Command Transformation and NATO Agencies also work closely with industry, engaging with dozens of start-up companies each year in their innovation hubs and challenges.



Dutch soldiers during Exercise Scorpion Strike.  
Lithuania. March 2018.



Canadian soldiers during Exercise Tomahawk.  
Latvia. December 2018.

## Exercises: Ensuring the Alliance is Ready

*Military exercises help ensure the Alliance is ready and able to defend itself against any threat.*

Exercises test NATO's decision-making processes, its systems and tactics and the overall ability to work together as an Alliance, as well as with partner countries.

Exercises are also an important element of deterrence: they help to develop new capabilities and demonstrate NATO's military strength to any potential adversary.

In 2018, NATO conducted 104 exercises. These exercises varied in scope, duration and form, ranging from live-fire exercises involving thousands of troops and heavy equipment, to command-post exercises engaging commanders and their staffs, and testing communications within and between headquarters.

In 2018, half of NATO's exercises were open to partners and international organisations, including the European Union, either as active participants or observers. In addition, 188 national exercises were associated with NATO – improving interoperability and strengthening NATO's deterrence messaging.

NATO is fully committed to transparency and predictability, in accordance with its international obligations. To that end, exercise schedules are

published months in advance on NATO's website.<sup>6</sup> NATO Allies strictly abide by their commitments on arms control and confidence and security measures. For example, they regularly offer observation opportunities to international organisations and non-member countries. Allies also often give advance notice of small-scale exercises that fall below the notification threshold set by the Vienna Document.

NATO also holds crisis management exercises to prepare the Alliance for future security threats. In 2018, the annual crisis management exercise was replaced by the NATO Parallel and Coordinated Exercise 18, where NATO supported the European Union during its own crisis management exercise, as part of a pilot project for exercising in a parallel and coordinated manner with the EU. The NATO Parallel and Coordinated Exercise 18 involved an unprecedented degree of cooperation between NATO and the European Union. NATO and EU staff participated side-by-side in the exercise for one week.

The scenario involved a fictional hybrid crisis situation, in which NATO and EU staffs tested their decision-making processes, and their procedures for communicating and exchanging information. NATO-EU staff-to-staff interaction focused

<sup>6</sup> [www.shape.nato.int/exercises](http://www.shape.nato.int/exercises)



British Royal Navy minehunters during Trident Juncture 2018. Norway. November 2018.



A Dutch Navy helicopter takes off to conduct an anti-submarine warfare mission during Exercise Dynamic Mongoose. Norway. June 2018.

particularly on four areas related to countering hybrid threats: situational awareness, strategic communications, cyber defence, and crisis prevention and response.

The exercise provided an important opportunity for Allies to practice responding to a wide range of malicious cyber activities with knock-on effects on energy infrastructures and operational capabilities in the Euro-Atlantic area.

The exercise was conducted at the same time as the command-post element of Trident Juncture 18. This meant NATO staff were required to respond to two fictitious crises at the same time, in line with the Alliance's all-round approach to security threats.



Joint capability demonstration, Trident Juncture 18. Trondheim, Norway. October 2018.

Involving a total of 50,000 personnel, 250 aircraft, 65 ships and 10,000 vehicles from 29 Allies, Finland and Sweden, Trident Juncture 18 was NATO's largest Article 5 military exercise since the end of the Cold War. Hosted by Norway, it comprised a computer-assisted command-post exercise and a live exercise. The latter took place in Norway, Iceland, the Northern Atlantic and the Baltic Sea from 25 October to 7 November 2018. A Distinguished Visitors Day was held on 30 October near Trondheim, Norway.

With air, sea and land elements, Trident Juncture 18 was designed to increase NATO's ability to integrate Allied command and force structures in operations on its territory. It also provided a venue for the certification of the different elements of the NATO Response Force for 2019, and offered an opportunity to exercise NATO's ability to reinforce Allies, including from across the Atlantic Ocean.

The cold weather posed additional challenges for the forces involved, giving them valuable experience of operating in extreme conditions.

As a high-visibility exercise, Trident Juncture 18 served as a conspicuous sign of NATO's ability to prepare and deploy forces as part of a major collective defence operation. It demonstrated that Allied forces would be able to work seamlessly together during a crisis, anywhere on Alliance territory.

**Who**

Around 50,000 participants from NATO and partner countries



**What**

Some 250 aircraft, 65 ships, up to 10,000 vehicles



**When**

From 25 October to 7 November 2018



**Where**

Norway, Iceland and the surrounding areas of the North Atlantic and the Baltic Sea



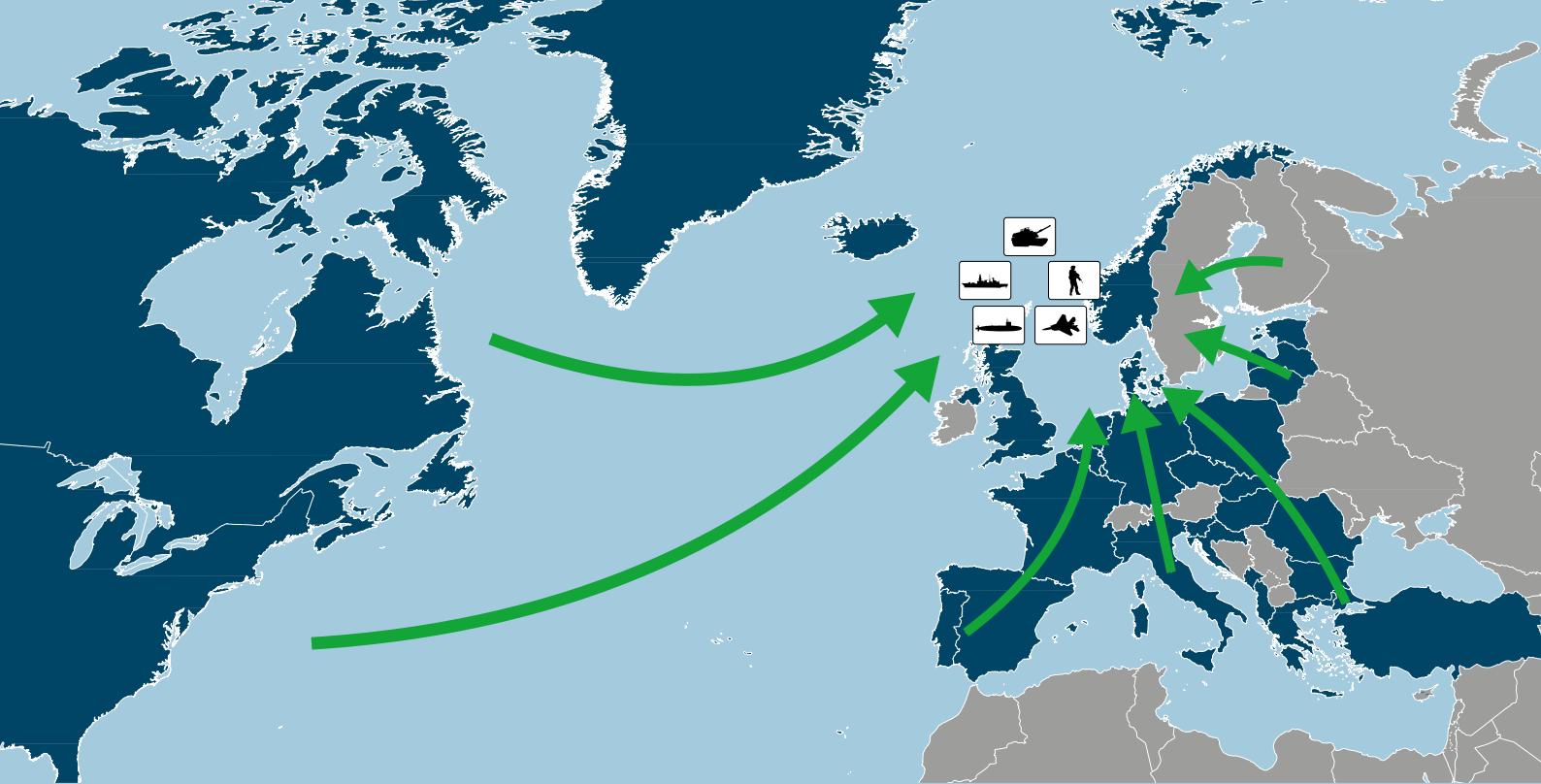
**Why**

NATO forces are trained, able to operate together and ready to respond to any threat



Footage from the exercise was broadcast more than 8,000 times across more than 330 television outlets in more than 70 countries





Trident Juncture 18 tested both the ability to deploy and to receive troops. The exercise involved capabilities and equipment supplied by all 29 Allies, as well as partners Finland and Sweden. Moving troops and equipment across borders on such a scale requires a truly multinational effort. For instance, German tanks arrived in Norway on a Danish ship, were unloaded by German troops, checked by Norwegian specialists, and fuelled by a Belgian fuel truck. They were then loaded onto Dutch and Polish transporters for transit by road and rail to their final destination; this was supervised by an American movement control team, and coordinated by Bulgarian logistics experts.



The commander of the Very High Readiness Joint Task Force brigade determines further courses of action during Trident Juncture 18. Norway. November 2018.



NATO vessels during Trident Juncture 18. Norway. October 2018.



A Belgian F-16 takes off from Rovaniemi Air Base as part of Trident Juncture 18. Finland. October 2018.

## Key NATO and Allied Multinational Exercises in 2018

### NATO Exercises

DESCRIPTION	DATE	LOCATION
<b>DYNAMIC MANTA</b> An annual maritime exercise testing anti-submarine warfare capabilities. Nine NATO nations contributed ships, submarines, aircraft and crews: Belgium, Canada, France, Greece, Italy, Spain, Turkey, the United Kingdom and the United States. The exercise focused on collective defence and crisis response operations.	5-16 March	Italy, Mediterranean Sea
<b>RAMSTEIN ALLOY 18 I, II and III</b> This exercise series brings together regional Allied and partner air forces for tactical training. In 2018, the exercises were hosted by Estonia, Latvia and Lithuania, and involved common scenarios and drills for NATO Air Policing. The last exercise in the series, Ramstein Alloy III, took place in Lithuania and involved aircraft from Belgium, Germany, Lithuania and Poland, as well as partners Finland and Sweden. A NATO AWACS surveillance plane also participated.	16-18 April 25-27 June 24-26 September	Estonia, Latvia and Lithuania
<b>DYNAMIC MONGOOSE</b> An annual NATO-led anti-submarine warfare exercise. In 2018, it involved naval and air forces from Denmark, Germany, the Netherlands, Norway, Poland, Spain, Turkey and the United States. Norway was the host nation. Seven surface ships, two submarines and three maritime patrol aircraft participated.	25 June - 6 July	Norway
<b>BRILLIANT JUMP</b> The Jump exercise series tests the readiness of the Very High Readiness Joint Task Force as well as core elements of NATO's Readiness Action Plan. In 2018, Brilliant Jump was linked to Trident Juncture 18, and involved more than 4,000 troops.	10-20 October	Norway
<b>TRIDENT JUNCTURE</b> Trident Juncture 18 was NATO's largest exercise since the end of the Cold War. It involved training for the deployment and employment of the Very High Readiness Joint Task Force and the NATO Response Force 2019. The exercise involved more than 50,000 personnel, almost 10,000 vehicles, 250 aircraft and 65 ships – with equipment supplied by all 29 Allies, as well as partners Finland and Sweden.	25 October - 7 November	Norway
<b>CYBER COALITION</b> NATO's flagship cyber exercise is one of the biggest of its kind. It generally hosts around 900 experts from 27 Allied and partner countries, and other institutions. This year's exercise was held in Estonia. Representatives from academia and the private sector also participated.	26-30 November	Estonia

## Allied National Exercises (Selected)

DESCRIPTION	DATE	LOCATION
<b>JOINT WARRIOR</b> A UK-led, joint multinational exercise involving warships, aircraft, marines and other troops. Standing NATO Maritime Group 1 and Standing NATO Mine Counter-Measures Group 1 both participated. Over 11,600 military personnel from 17 NATO and partner nations were involved in the exercise.	21 April - 3 May	United Kingdom (Northern Ireland and Scotland)
<b>SIIL 18 (HEDGEHOG 18)</b> An annual Estonian national land exercise to test the readiness of the Estonian armed forces and enhance interoperability with Allied forces. More than 15,000 forces participated in the exercise, from 15 Allies (Belgium, Canada, Denmark, Estonia, France, Germany, Iceland, Italy, Latvia, Lithuania, Poland, Slovakia, Slovenia, the United Kingdom and the United States) and two partners (Finland and Sweden).	3-14 May	Estonia
<b>SEA SHIELD</b> A Romanian-led multinational exercise to promote interoperability at sea. Around 2,300 troops, 21 military ships, 10 fighter aircraft and a submarine participated. These came from Bulgaria, Greece, Spain, Turkey, the United States and partner country Ukraine.	7-11 May	Black Sea
<b>BALTOPS 18</b> A US-led multinational exercise to improve interoperability with regional partner nations on land, at sea and in the air. The exercise involved around 4,700 troops, 44 ships and submarines, and over 60 air assets from Belgium, Denmark, France, Germany, Latvia, Lithuania, the Netherlands, Norway, Poland, Romania, Spain, Turkey, the United Kingdom and the United States, as well as partners Finland and Sweden. The exercise linked with Saber Strike 18.	5-14 June	Baltic Sea Region
<b>SABER STRIKE 18</b> A longstanding US Army Europe-led training exercise that helps facilitate cooperation between the United States, Estonia, Latvia, Lithuania, Poland and other Allied and partner nations. Some 18,000 Allied and partner troops from 19 countries participated in this year's exercise: Canada, Croatia, the Czech Republic, Denmark, Estonia, France, Germany, Italy, Latvia, Lithuania, the Netherlands, Norway, Poland, Romania, Spain, the United Kingdom and the United States, as well as partner countries Finland and North Macedonia.	4-22 June	Estonia, Latvia, Lithuania and Poland
<b>SEA BREEZE</b> An annual US-led multinational exercise to enhance interoperability and flexibility in the air, land and maritime domains. More than 3,000 troops participated from NATO Allies (Bulgaria, Canada, Denmark, Estonia, Greece, Italy, Lithuania, Norway, Poland, Romania, Turkey, the United Kingdom and the United States) as well as NATO partners Georgia, Moldova, Sweden and Ukraine. Ukraine co-hosted the exercise.	9-21 July	Black Sea, Ukraine
<b>IRON WOLF</b> A Lithuanian-led, multinational land exercise to enhance force readiness. It involved around 3,000 troops from 13 NATO Allies: Belgium, Canada, the Czech Republic, Estonia, Germany, Italy, Lithuania, Luxembourg, the Netherlands, Norway, Slovenia, the United Kingdom and the United States, as well as partner country Ukraine.	1-30 November	Lithuania
<b>ANAKONDA 18</b> A biennial Polish-led multinational exercise involving around 12,500 troops from 11 NATO Allies: the Czech Republic, Estonia, Germany, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Turkey and the United States. The exercise also certified the Multinational Division North East, which coordinates the activities of NATO's defensive multinational battlegroups deployed in the Baltic States and Poland.	7-17 November	Poland

## Energy Security

*Energy is crucial for the day-to-day functioning of societies, as well as for the military.*

NATO is working with Allies and partner nations to raise awareness about energy security and to develop its own ability to support the protection of critical energy infrastructure.

NATO also plays an important role in helping enhance energy efficiency in the military to strengthen the operational effectiveness of its armed forces. In 2018, NATO's activities covered many dimensions of energy and security. For instance, energy-related scenarios were integrated into major NATO exercises, providing political and military decision-makers with a better appreciation of the importance of assured energy supply in crisis and conflict.

In March, the North Atlantic Council discussed global energy developments and their security implications with energy experts from the European Commission, the International Energy Agency and the US State Department.

NATO also organised, co-organised and supported events and training courses throughout the year. These included the fourth annual Energy Security Strategic Awareness Course at the NATO School in Oberammergau, Germany; a course on Critical Energy Infrastructure Protection at the NATO-Istanbul Cooperation Initiative Regional Centre in Kuwait; and a conference and exhibition called 'Innovative Energy Solutions for Military Applications' at the NATO Energy Security Centre of Excellence in Vilnius, Lithuania.

## The Bigger Picture: Enhancing Intelligence Coordination

*The Alliance relies on accurate intelligence and situational awareness to make the right decisions.*

NATO's Joint Intelligence and Security Division was established in 2017 to provide decision-makers with accurate and real-time intelligence assessments, and therefore facilitate rapid decision-making. The Division brings together civilian and military intelligence analysts, making their combined output more effective and efficient, and thereby helping the Alliance be better prepared for the complex and rapidly changing security environment it faces.

Since the Division was created, intelligence production at NATO Headquarters has increased by more than 40%. At the same time, through the division's Hybrid Analysis Branch and Terrorism Intelligence Cell, the Alliance has enhanced the way it monitors and analyses hybrid, cyber and terrorist threats. The creation of the intelligence division has also improved civil-military coordination within NATO, as well as intelligence-sharing with the European Union and other partners.

Following the attempted murder of Sergei Skripal and his daughter Yulia in the United Kingdom in March 2018, Allies offered their support to the British Government in the conduct of the ongoing investigation. This led to an intelligence-based decision by the North Atlantic Council to expel seven undeclared Russian intelligence officers from the NATO Headquarters.

NATO armed forces at the NATO Summit, Brussels, Belgium, July 2018.







# PROJECTING STABILITY

Countering Terrorism,  
Working with Partners



NATO Secretary General Jens Stoltenberg at the National September 11 Memorial and Museum, New York City, USA. September 2018.

NATO is a source of stability and security in today's world. The Alliance helps to project stability in many different ways – including through its operations, by training partner countries' armed forces, and through political engagement and dialogue.

In 2018, NATO's efforts to project stability included contributing to the fight against terrorism; sustaining NATO operations and missions in the Alliance's neighbourhood; deepening and widening political consultations with, and support for, partners; launching a new training mission in Iraq; agreeing new areas of cooperation with the European Union; and inviting North Macedonia to begin accession talks with NATO.

NATO's operations and missions are an essential contribution to projecting stability beyond its

borders, as is NATO's role in the fight against terrorism. Projecting stability involves supporting NATO partners in their efforts to make their countries more stable, secure and peaceful. It also requires acknowledging that contemporary security threats often transcend national boundaries and need to be addressed in cooperation with partner countries and other international organisations.

At the same time, in a period of increased geopolitical tension, deepening political dialogue helps to foster regional understanding and the exchange of expertise.

## Fighting Terrorism

*Terrorism affects every NATO Ally. It is a long-term threat to Allies' values, freedom and way of life – a global challenge that knows no border, nationality or religion, and that the international community must tackle together.*

NATO Allies stand in solidarity against terrorism. At the Summit in July, Allies restated their commitment to tackling terrorism through a coherent, significant and long-term effort. NATO's counter-terrorism work largely focuses on improving awareness

and understanding of the threat, developing the capabilities to respond, and boosting engagement with partner countries and other international actors.

The Alliance's contribution to the fight against terrorism began in Afghanistan, following the 9/11 terrorist attacks against the United States, but it now extends far wider.

NATO has been a full member of the **Global Coalition to Defeat ISIS** since 2017. In 2018, NATO continued to support the Coalition by providing situational



A Spanish trainer with Iraqi soldiers at Besmaya Range Complex during Exercise Scorpion Strike, Iraq, February 2018.

awareness and early warning through its Airborne Warning and Control System intelligence flights.

In addition, NATO's counter-terrorism efforts focus on building local capacity, working with partners. In 2018, the Alliance increased the support it provides with a range of training and defence capacity building programmes. The goal is to help them defend themselves against terrorist threats, while strengthening their institutions.

At the Brussels Summit, Allies agreed to launch a new training mission in Iraq, to help the country to further develop effective national security structures and military institutions. Allies also agreed to add 3,000 trainers to the Resolute Support Mission in Afghanistan, and extend financial support to the Afghan Security Forces until at least 2024.

In 2018, NATO Foreign Ministers also agreed to update the 2017 NATO Action Plan, ensuring momentum in counter-terrorism efforts. The updated Action Plan enhances and consolidates NATO's role in the international community's fight against terrorism.

The Alliance pursues this work in cooperation with key international partner organisations. For instance, NATO and the European Union have committed to working together to tackle terrorism. The two organisations, together, can support partners on issues such as legislation and policing, security sector reform, civil emergency planning and the disposal of explosive ordnance and small arms.

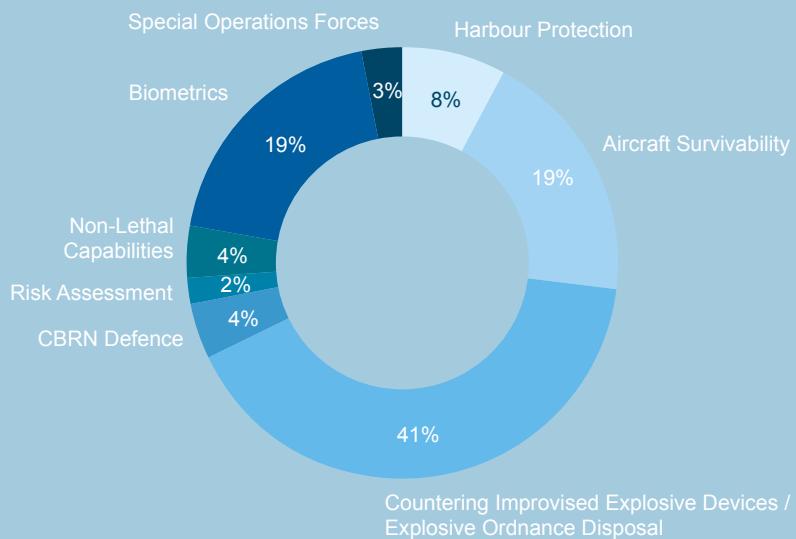
The Alliance is also boosting its ability to understand and monitor regional threats related to terrorism, including through the new Hub for the South in Naples. At NATO Headquarters, a Terrorism Intelligence Cell is now up and running, providing intelligence on evolving threats. In 2018, the Alliance conducted major projects on issues such as resilience and response to attacks with chemical, biological and radiological materials; challenges associated with the use of drones; and information-sharing.

### The Defence Against Terrorism Programme of Work

NATO's support to Allies in defending against terrorism is underpinned by the longstanding Defence Against Terrorism Programme of Work. This facilitates cooperation in the development of capabilities to prevent, protect against, and respond to terrorist threats.

In 2018, the Programme supported more than 20 projects in areas such as harbour protection against seaborne terrorist threats; defence against terrorist use of chemical, biological, radiological and nuclear agents; aircraft survivability; countering improvised explosive devices; explosive ordnance disposal; non-lethal combat capabilities; biometrics; technical exploitation; and capabilities associated with Special Operations Forces. The Programme engages regularly with partner countries, other international organisations and industry. There is also extensive cooperation with NATO Centres of Excellence.

**Defence Against Terrorism Programme of Work  
2018 Activity Domains**



### Gender and Counter-Terrorism

The rise of violent extremism, often linked to terrorism, has prompted NATO to seek a better understanding of gender-related aspects of the phenomenon. The integration of gender perspectives into early-warning analysis can contribute to better situational awareness. NATO is also working with other international organisations. For instance, a joint NATO-EU workshop on early-warning indicators was held in November 2018. NATO offers a wide range of related training and education opportunities and is developing a training module on Gender in Terrorism Education.



The air campaign against the Taliban was bolstered with the arrival of a squadron of A-10C Thunderbolt II ground attack aircraft in Kandahar, Afghanistan. January 2018.

## NATO in Afghanistan

*2018 was an important year for Afghanistan. While Taliban violence continued, momentum towards a political settlement also grew.*

Ordinary Afghans showed their desire for peace and representative government when they cast their vote for a new parliament in October. Voters, one third of them female, ignored the threat of violence and came to the polls in the first election completely administered and secured by Afghans. However, insurgent violence continued throughout the year, with further civilian casualties.

Against this complex background, at the Brussels Summit, NATO Allies and partners restated their shared commitment to Afghanistan's long-term security and stability. The Afghan government, in turn, reiterated its commitment to leading on security, peace and reform.

By maintaining support for a more professional and self-sustaining Afghan security sector, NATO Allies and partners are helping set the conditions for an inclusive and durable political settlement. This support is delivered through three pillars: the Resolute Support Mission to train, advise and assist the Afghan forces; NATO's political and practical partnership with Afghanistan; and financial support to the Afghan forces.

Resolute Support is a non-combat, train-advise-and-assist mission to build the capacity of the Afghan security forces and institutions. Its activities include operational planning, budgetary development, force generation, personnel management, logistics and civilian oversight.

In line with a plan for security sector improvements developed by the Afghan government, Resolute Support stepped up its efforts in 2018. Force levels increased from 13,000 to almost 17,000 personnel. The United Arab Emirates and Qatar are in the process of joining Resolute Support, bringing the number of troop-contributing nations to 41.

NATO's partnership with Afghanistan also includes a series of programmes to support capacity-building and military education, which further foster effective and sustainable Afghan institutions.

NATO provides financial assistance to Afghanistan's security forces and institutions. At the Brussels Summit, Allies and partners pledged contributions to the Afghan National Army Trust Fund until at least 2024. The NATO-run Trust Fund is one of three funding streams used by the international community to channel support. To date, the total contribution made to this Trust Fund is around USD 2.5 billion.



Sodia, an Afghan National Army soldier, receives a certificate during a graduation ceremony from the Afghan National Army Sergeant Major Academy. Camp Qurgha, Afghanistan. August 2018.



General John Nicholson (Commander of the Resolute Support Mission between March 2016 and September 2018) with local leaders. Afghanistan. February 2018.

In 2018, Afghan forces made tangible progress in areas such as leadership, operational effectiveness and countering corruption. The Afghan Special Security Forces and Afghan Air Force continue to demonstrate improvement. The Ministries of Defence and Interior and the Office of the National Security Council are also becoming increasingly sustainable security institutions. Afghanistan has introduced a number of new reforms which will allow for the merit-

based appointment of the next generation of Afghan officers to senior leadership positions.

Afghanistan as a whole is transforming. A new, younger generation of leaders are gaining influence, the population, including women, is better connected and more engaged, and the Afghan economy is gaining importance as its trade, energy, transport, and digital connections to Central and South Asia grow.

## NATO in Iraq

*2018 saw the launch of the NATO Mission Iraq, a scaled-up, non-combat mission designed to support the development of more sustainable, transparent and effective national security structures and military institutions.*

In 2018, NATO continued to support the Iraqi security forces and institutions under the framework of NATO's training and capacity-building effort in Iraq. Training activities in Iraq take a 'train-the-trainer' approach – identifying and training Iraqi personnel who will, in turn, become skilled instructors.

By October 2018, this training had been conducted in a number of priority areas, including countering improvised explosive devices; explosive ordnance disposal and demining; civil-military planning support to operations and civil-military cooperation; civil emergency preparedness; and technical training on Soviet-era armoured vehicle maintenance.

Security sector reform efforts also continued in 2018, including advising on the reform of the Iraqi security institutions, and helping Iraq develop a sustainable force structure. Good governance and



NATO Secretary General Jens Stoltenberg at the NATO Training Camp Base-Iraq. Camp Besmaya, Iraq. March 2018.

building integrity were key topics of engagement with Iraqi institutions in 2018, with outreach to more than 200 officials from across 20 ministries as part of three capacity-building activities to strengthen transparency, accountability and integrity in the defence and related security sector.

At the Summit in July, and at the request of the Iraqi government, Allied leaders agreed to scale up NATO's efforts in Iraq, formally approving the creation of the NATO Mission Iraq.

The new mission, launched in October 2018, will be operational in early 2019 and include several hundred personnel from many Allies, with additional contributions from partners Australia, Finland and Sweden.

The new Mission is designed to provide technical advice to Iraqi defence and security officials in the Ministry of Defence and Office of the National Security Advisor, and to train instructors at military

institutions. Efforts have also begun to boost the institutional capacity of the Ministry of Defence to conduct strategic and force-structure planning, and to reform the responsibilities, functions and processes of the Ministry itself.

The NATO Mission Iraq is the first NATO mission with gender perspectives integrated into every stage of the initiating, concept and planning process. A gender adviser is deployed as part of the senior advisory group, and gender issues are considered throughout the planning, guidance, future review and assessment processes.

The Mission will work closely with others on the ground. These include individual NATO Allies, the Global Coalition to Defeat ISIS, the United Nations, the European Union, the Iraqi government and Iraqi civil society.



NATO Allies and Istanbul Cooperation Initiative partners from the Gulf region gathered in Kuwait for the 4<sup>th</sup> Istanbul Cooperation Initiative Policy Advisory Meeting, Kuwait City, Kuwait, January 2018.

## Resilience: Helping NATO's Partners in the Middle East and North Africa

*NATO pursues dialogue and cooperation with its neighbours on a wide range of issues. In its southern neighbourhood, this cooperation is structured through the Mediterranean Dialogue and the Istanbul Cooperation Initiative.*

The **Mediterranean Dialogue** involves Algeria, Egypt, Israel, Jordan, Mauritania, Morocco and Tunisia. The **Istanbul Cooperation Initiative** involves Bahrain, Kuwait, Qatar and the United Arab Emirates. In recent years, NATO's political dialogue with partner countries in the Mediterranean Dialogue and Istanbul Cooperation Initiative has become more frequent and more substantial.

In 2018, meetings between NATO and its Middle East and North Africa partners represented an important opportunity to exchange views and consult on a range of topics, including the 2018 Summit agenda. Tunisia and Jordan both participated in the Summit itself, during which Allies adopted new defence capacity building measures for Tunisia, and reaffirmed their support to the Jordanian Armed Forces.

Practical cooperation with countries in the region continues to grow. NATO has Individual Partnership and Cooperation Programmes with all Mediterranean Dialogue and Istanbul Cooperation Initiative partners. In 2018, the Alliance renewed these programmes for six Mediterranean Dialogue countries as well as Bahrain and Kuwait.

The implementation of these programmes – tailored to specific national security needs and priorities – helps NATO's partners modernise their defence and security institutions and armed forces. This, in turn, helps them respond to the security challenges and threats they face. It supports capacity-building in areas such as non-proliferation, energy security, border security, environmental security, training to counter improvised explosive devices, radiation-protection procedures, cyber defence and mine detection.

Regional partners' active participation in NATO's education and training activities and in NATO exercises has helped them to modernise their armed forces, to increase their interoperability with NATO, and, in some cases, to become security providers themselves by participating in NATO-led operations and defence capacity building efforts.

At the same time, NATO Trust Fund projects have helped the Alliance's Mediterranean Dialogue partners to construct safe ammunition depots, destroy obsolete ammunition (including portable surface-to-air missiles), prepare former military personnel for civilian life, and develop the role of women in the armed forces.

In January, the Istanbul Cooperation Initiative Regional Centre in Kuwait completed its first full year of activities. Since its inauguration in early 2017, the Centre has run 14 separate courses and activities. Almost 500 military officers from the region have participated.



A Turkish Navy Special Forces team conducts an opposed boarding drill, while participating in Operation Sea Guardian. Mediterranean Sea. September 2018.

## Maritime Activities

NATO's operations at sea are a crucial element of the Alliance's ability to deter and defend against any potential adversary, and its ability to project stability in areas of strategic importance.

**Operation Sea Guardian**, launched in November 2016, is enhancing maritime situational awareness, supporting maritime counter-terrorism efforts and contributing to capacity-building. Sea Guardian currently operates in and around the Mediterranean. Its activities have been instrumental to NATO gaining a more comprehensive picture of the daily activities and pattern of life in the Mediterranean Sea.

In 2018, Operation Sea Guardian carried out six operations in the eastern, central and western Mediterranean regions. These operations provide a valuable opportunity for force integration and interoperability training between surface vessels, sub-surface vessels and maritime patrol aircraft.

Operation Sea Guardian has also continued to provide the European Union's Operation Sophia with information and logistics support, for instance, by helping re-fuel EU vessels. In the context of the arms embargo against Libya, NATO can also assist the European Union, if requested, by accompanying vessels diverted by the EU to the port of Marseille, France.

**NATO's activity in the Aegean Sea** continued in 2018, with NATO ships regularly providing information on illegal trafficking activities to the Greek and Turkish coastguards and the European Border and Coast Guard Agency, Frontex.

While NATO no longer has a direct operational role in fighting piracy off the Horn of Africa, the Alliance continues to monitor the situation and maintains close links with those still involved in counter-piracy. The NATO Shipping Centre at NATO Maritime Command in Northwood, the United Kingdom, provides advice to the maritime industry on security trends and risks.

## NATO Standing Maritime Forces in 2018

**4** NATO Standing Maritime Groups

**85** Allied Ships throughout the year

**26** Major Exercises

**127** Port Visits to Allied and Partner Nations

Port Visit  
Major Exercise / Operation

**5** Historical Ordnance Disposal Operations  
finding **896** mine-like contacts,  
including **61** mines and **25** other pieces of ordnance  
**48** of these have been destroyed

Groups spent **263** days in the Baltic Sea  
and **120** days in the Black Sea

**16,200** hours patrolling the Aegean Sea



KFOR International Day, Kosovo. July 2018.

## NATO in Kosovo

*NATO is committed to helping bring stability and security to the Western Balkans, which is of strategic importance to the Alliance.*

The NATO-led Kosovo Force (KFOR) was first deployed in 1999. Twenty years on, it is NATO's longest running operation to date.

In 2018, KFOR force levels remained largely unchanged, averaging 3,500 troops from NATO Allies and partner countries. At no point in 2018 was KFOR required to intervene to provide security in Kosovo.

While KFOR continues to represent the core of NATO's presence in Kosovo, it is one of three NATO pillars

of engagement alongside the NATO Advisory and Liaison Team and the Enhanced Interaction initiative.

In 2018, NATO continued to provide capacity-building support to the Kosovo Security Force and related civilian structures through the NATO Advisory and Liaison Team. Located in Pristina, the Team is made up of around 40 civilian and military personnel from 13 Allies, and provides advice and assistance in areas such as logistics, procurement and finance, force development and planning, and leadership development.



Press briefing by Supreme Allied Commander Europe, General Wesley Clark, presenting the findings of the Kosovo Strike Assessment Team, 16 September 1999.

## The Kosovo Force

The Kosovo Force derives its mandate from United Nations Security Council Resolution 1244 and from a so-called Military-Technical Agreement between NATO and the Federal Republic of Yugoslavia and Serbia. KFOR was established as a peace-enforcement operation under Chapter VII of the UN Charter.

KFOR was initially composed of some 50,000 men and women from NATO Allies, partner countries and other non-NATO countries under unified command and control. Over time, as the security situation has improved, KFOR has become a smaller and more flexible force.



German soldiers deliver humanitarian goods to non-governmental organisation 'Handikos'. Kosovo. December 2000.



Trident Juncture 18. US Marines provide camp tours to Norwegian school children. Norway. October 2018.



Special Envoy for the United Nations High Commissioner for Refugees Angelina Jolie meets with NATO gender advisors at NATO Headquarters. Brussels, Belgium. February 2018.

## Protecting Civilians

*Mitigating the impact of conflict on civilians and assisting Allies and partners to become fully able to protect and defend their civilian population is a NATO priority. The Alliance is particularly focused on the protection of children and women.*

A new NATO Human Security unit was established in 2018 in the Office of the Secretary General. The Human Security unit will support the implementation of the mandates that underpin efforts on children and armed conflict, protection of civilians, cultural property protection, youth and security, and conflict-related sexual violence.

Throughout 2018, NATO continued to incorporate its policy on the protection of civilians into all relevant missions, operations and plans. Efforts are also being made to raise awareness of the issue across the Alliance. In addition, NATO carried out an extensive mapping of related training courses organised by NATO, Allies and partners. This will guide development of future training opportunities.

The Alliance also continues to invest in its work on protection of children in armed conflict. Protecting children from the effects of armed conflict is essential to breaking cycles of violence. In 2018, NATO leaders reaffirmed their commitment to promoting a robust policy to protect children during NATO-led operations and missions, pledging to expand training, exercise and education opportunities in cooperation with the United Nations.

In 2018, further progress was made in the implementation of UN Security Council Resolutions on Children and Armed Conflict in NATO-led missions and operations. A senior child protection advisor position was established at Supreme Headquarters Allied Powers Europe. In close cooperation with international partner organisations, NATO created a child protection policy for the Afghan Ministry of Defence. Training on children and armed conflict is also provided for personnel deployed to NATO's Resolute Support Mission.



President Giorgi Margvelashvili of Georgia with NATO Secretary General Jens Stoltenberg, Brussels Summit, Brussels, Belgium. July 2018.



Exercise Winter Sun 2018, Boden, Sweden. March 2018.

## Partnerships: Stability through Cooperation and Dialogue

*The political and practical opportunities offered by NATO partnerships are of great value to the Alliance.*

Political dialogue is a key tool for fostering regional understanding and exchanging expertise. It is a necessary first step to establish and develop practical cooperation with partners – something that in turn helps build resilience, improve institutional capacity in the defence and security sectors, and enhance interoperability.

NATO has partnership arrangements with 41 countries, across Europe, Asia, the Middle East and North Africa, the Pacific Region and Latin America. Of these partners, 19 have established

Missions to NATO in Brussels. The Alliance also has a network of liaison and information offices, including in Belgrade, Chisinau, Kuwait City, Kyiv, Moscow, New York City, Sarajevo, Skopje, Tbilisi and Vienna.

In 2018, partners participated in 17 NATO-led exercises, contributed 107 personnel to the NATO Command Structure, and participated in NATO missions, including in Kosovo and Afghanistan. Partners also contribute financially to NATO-led Trust Funds and offer in-kind support, for example through the Partnership Training Centres.



## NATO and its Global Partners

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 with other partners across the globe.

NATO has pursued dialogue and practical cooperation with these nations on a wide range of political and security-related issues – and through a number of different mechanisms including the Partnership for Peace Programme, the Mediterranean Dialogue and the Istanbul Cooperation Initiative. NATO's partnerships benefit all involved and contribute to improved security for the wider international community.

Two of the most far-flung partners are Australia and Japan.



Australia is one of the top non-NATO troop contributors to NATO-led efforts in Afghanistan. Afghanistan. July 2009.

NATO has been strengthening and deepening relations with Australia since 2005. Australia was one of the largest non-NATO troop contributors to the International Security Assistance Force in Afghanistan, and continues to support NATO's Resolute Support training mission. It also participates in the NATO Mission Iraq.



NATO Secretary General Joseph Luns with officials from the Japanese Ministry of State for Defence Affairs at NATO Headquarters. Brussels, Belgium. July 1981.



NATO and Japanese ships conduct a joint exercise. Baltic Sea. August 2018.

Cooperation has been underpinned by regular high-level political dialogue, including a biennial bilateral Strategic Dialogue. Speaking alongside Australian Prime Minister Malcolm Turnbull in April 2018, Secretary General Jens Stoltenberg praised the Alliance's relationship with Australia, saying that, *"although Australia is far from here, you are one of NATO's closest partners. We share the same values: democracy, human rights and the rule of law. By working together, we make a stronger contribution to international security."*

Japan was NATO's very first so-called 'global partner'. NATO and Japan have engaged in dialogue and cooperation since the early 1990s.

During the 1990s, Japan played a role in helping to bring stability to the Western Balkans, assisting several NATO peace-support operations. Japan has also supported the International Security Assistance Force and the wider reconstruction and development efforts in Afghanistan.

In a speech in Tokyo in October 2017, Secretary General Stoltenberg recognised NATO and Japan's shared *"commitment to preserving the rules-based international order"*, calling the two *"natural partners"*.

Practical cooperation continues to develop in areas such as cyber defence, maritime security, humanitarian assistance and disaster relief, non-proliferation, defence science and technology, and Women, Peace and Security.



The President of Colombia, Ivan Duque Marquez, and NATO Secretary General Jens Stoltenberg. Colombia is NATO's first partner in Latin America. Brussels, Belgium. October 2018



The shoulder patch of a Montenegrin member of NATO's enhanced Forward Presence Battlegroup Latvia. December 2018.

## NATO's Open Door

At the Brussels Summit, Allies reaffirmed their commitment to the **Alliance's Open Door Policy**, and invited North Macedonia to begin accession talks to join NATO. Implementation of the Prespa agreement between Athens and Skopje on the name of the country opened the door to full membership. Accession talks began in July, and ran throughout the autumn of 2018. The talks included detailed discussion of the responsibilities and obligations of membership, as well as Skopje's plans for the continuation of reforms during and after the process of accession. The goal of the talks was to ensure the country is fully prepared for membership by the time all Allies have ratified the Accession Protocol. This is expected in spring 2020.

At the meeting of NATO Foreign Ministers in December 2018, Allies agreed that NATO is ready to receive an Annual National Programme from Bosnia and Herzegovina, should the country decide to submit one. The Annual National Programme is a key tool for supporting reforms in a partner country and is an important element for countries aspiring to join NATO.

At the Brussels Summit, NATO leaders reconfirmed the 2008 Bucharest Summit decision that Georgia will become a member of the Alliance.

In light of Ukraine's restated aspirations for NATO membership, Allies also stand by their decisions taken at the Bucharest Summit and subsequent Summits.



## NATO Enlargement and the 'Open Door'

The end of the Cold War, and the uncertainty it created in Europe, presented NATO with an enormous challenge.

Recognising this, in 1989 NATO Secretary General Manfred Wörner stressed the responsibility for the Alliance to support reforms in former Warsaw Pact countries. NATO, he said, must function increasingly *"as a conceptual focus for defining the Western role in the management of change in Eastern Europe.... Our offer of co-operation with the East is the vital stepping-stone to a new world order, one that will give the twenty-first century a hopeful start and which – because of NATO – will enable the second half of this momentous twentieth century of ours to atone for the sins of its first half."*

In the years that followed, NATO sought new links with the states of Central and Eastern Europe and those of the former Soviet Union through the North Atlantic Cooperation Council and, later, the Partnership for Peace.

Article 10 of the North Atlantic Treaty states that the Alliance can invite any other European State to join NATO as long as they are *'in a position to further the principles of this Treaty and to contribute to the security of the North Atlantic area'*. At the Brussels Summit in 1994, the leaders of the then 16 NATO member states reaffirmed that the Alliance was open to new members. In 1995, Allies commissioned a Study on Enlargement. This study laid out the

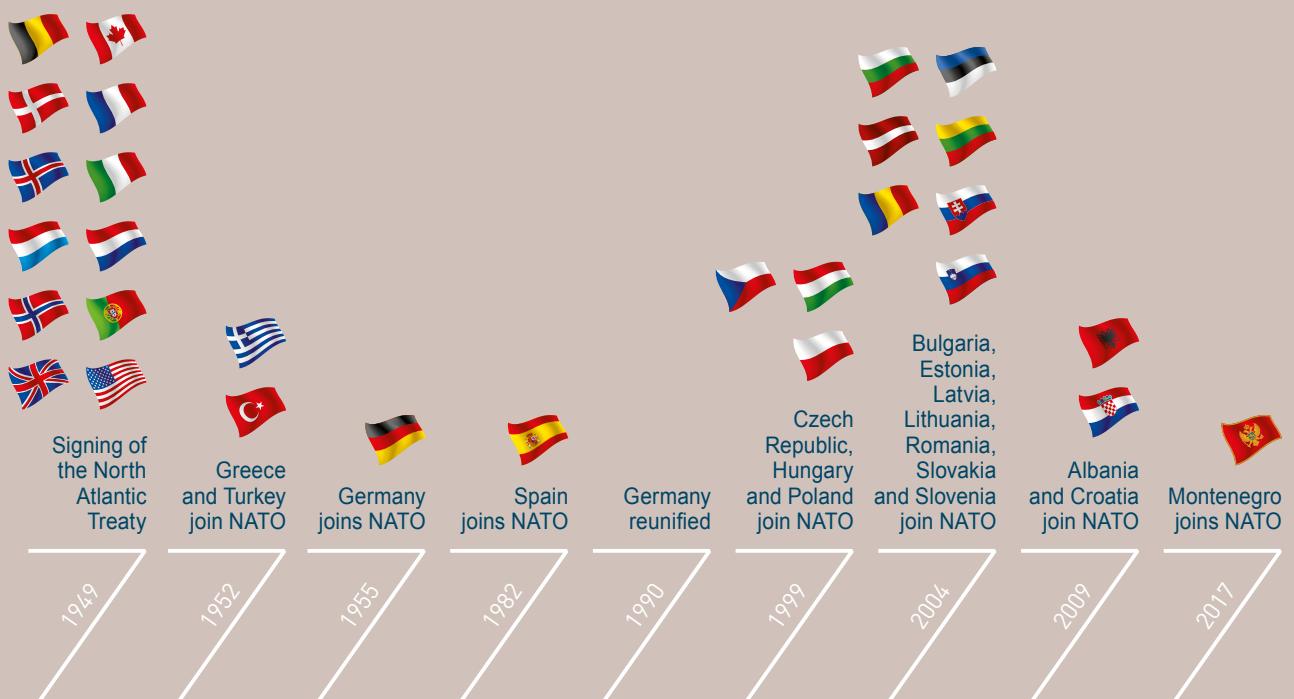
principles for the enlargement process, including the standards new Allies should meet. In line with the principles contained in the Helsinki Final Act of 1975, the study reaffirmed that every state had the right to determine its own defence and security arrangements, including which alliances it chooses to join.

The first countries to be invited to join the Alliance following the end of the Cold War were the Czech Republic, Hungary and Poland. At the 1999 Washington Summit, following their completion of a political and military reform programme, these three countries took their seats as full Alliance members.

At the 2002 Prague Summit, the Alliance invited Bulgaria, Estonia, Latvia, Lithuania, Romania, Slovakia and Slovenia to join NATO, stating that the accession of these seven new members would strengthen security for all in the Euro-Atlantic area, and help achieve the common goal of a Europe whole and free.

In 2009, NATO welcomed Albania and Croatia, and in 2017 Montenegro became the 29<sup>th</sup> member of NATO.

Addressing the Parliament in Skopje on 18 January 2018, Secretary General Stoltenberg said that *"NATO has shown that the path to joining the Alliance is open to countries who are willing and able to meet the responsibilities involved... Today, the door is open: to reform, to better transatlantic relations and to better relations with your neighbours, to the Euro-Atlantic community and NATO, and to a new, brighter and more prosperous future."*





Women in the Afghan National Army train to search a compound. Kabul, Afghanistan. July 2018.

## Shoulder-to-Shoulder: Improving Interoperability with Partners

The **Partnership Interoperability Initiative** is a mechanism for ensuring that partners who wish to do so can maintain their ability to work closely with the Alliance in military operations. The Initiative is a platform for discussion about the needs of partners in the interoperability field, and how to best use NATO's cooperation instruments to meet those needs. More than 20 partners participate in the Partnership Interoperability Initiative.

In 2014, Allies granted five partners – Australia, Finland, Georgia, Jordan and Sweden – so-called Enhanced Opportunity status. This status was subsequently renewed in November 2017. Enhanced

Opportunity Partners receive expedited preferential access to NATO exercises and courses, and are able to engage in more detailed political and military discussions with NATO.

Another important tool for promoting interoperability is the **NATO Planning and Review Process**. This allows the Alliance to assist partners in promoting interoperability, developing capabilities and building effective, affordable and sustainable armed forces, while fostering wider defence and security sector reforms. In 2018, NATO developed partnership goals packages for 17 partners, providing them with planning targets up to 2024 and beyond.

## Developing Capacity

The **Defence and Related Security Capacity Building Initiative** helps NATO's partners to enhance their resilience and security.

The Initiative builds on NATO's extensive expertise in providing advice, assistance, support, training, education and mentoring activities. NATO's support ranges from strategic advice on defence and

security sector reform, to the development of local forces through education and training.

All NATO Allies, as well as six partners – Finland, Ireland, Jordan, Serbia, Sweden and Switzerland – support NATO capacity-building packages, by providing experts, trainers and funding, among other things.

## Georgia

Georgia is a critical partner for the Alliance. It aspires to NATO membership, and Allies have consistently reaffirmed their commitment to Georgia's eventual membership. Georgia is also a significant contributor to NATO's operations and missions.

Defence and related security capacity building for Georgia is provided through the Substantial NATO-Georgia Package. The Package is designed to strengthen Georgia's defence capacities and therefore help Georgia prepare for eventual NATO membership.

The Substantial NATO-Georgia Package comprises 15 initiatives: the NATO-Georgia Joint Training and Evaluation Centre; the Defence Institution Building School; a logistics capability; the Special Operations Forces; intelligence; secure communications; cyber defence; acquisition; aviation; air defence; maritime security development; military police; strategic communications; counter-mobility; and crisis management.

The Package is supported by approximately 40 resident and non-resident experts from all Allies and partners Finland and Sweden. Allies and partners also provide funding for training, participation by Georgia in international exercises, and light equipment.

Six of the initiatives are on track to achieve all of their objectives in 2019. Georgia has made significant progress on aviation and air defence, in developing transparent acquisition legislation, in improving its cyber defence and logistics capabilities, and in bolstering the strategic communications capacity of the Ministry of Defence. Other initiatives, such as the Joint Training and Evaluation Centre and the Defence Institution Building School, are already offering numerous training events to military and civil students.

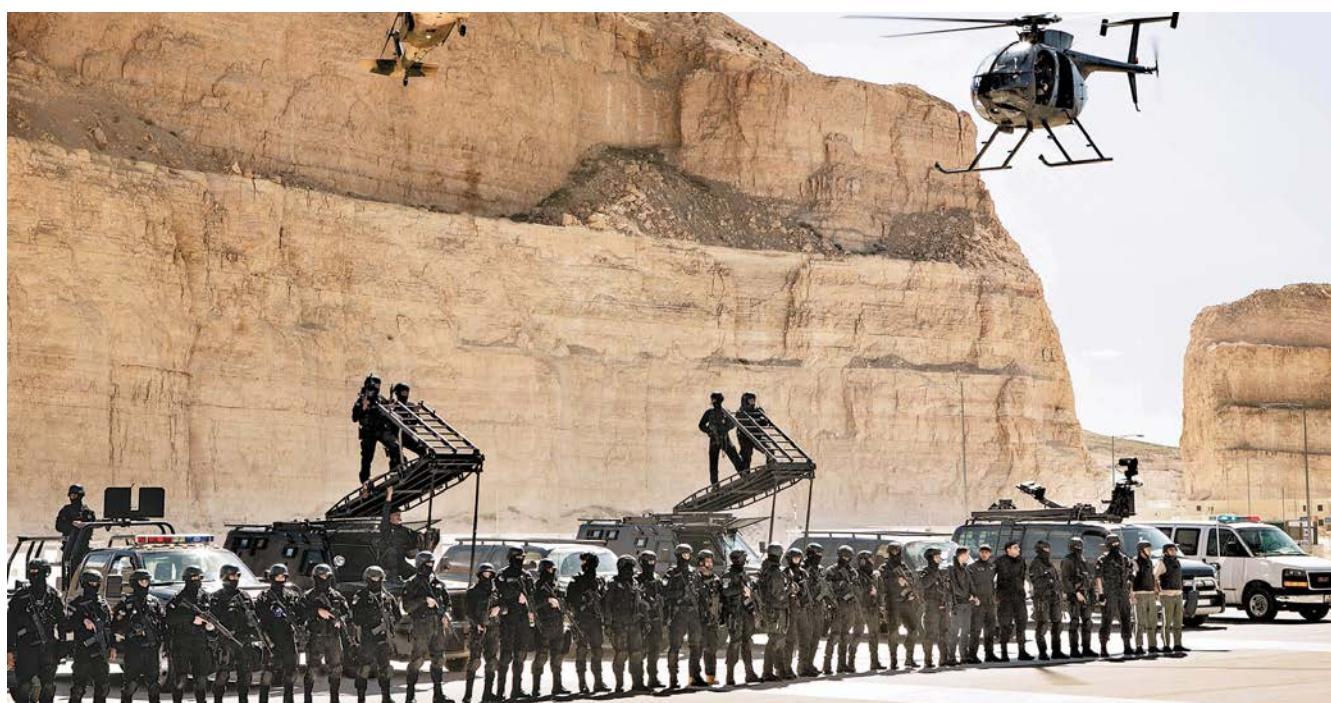
In 2018, Allies expressed their readiness to enhance their support to Georgia, including in the areas of counter-mobility, training and exercises, and secure communications.

## Iraq

For more information on NATO's activities in Iraq – including the NATO Mission Iraq – see page 68.

## Jordan

Jordan has been a NATO partner for more than 20 years. Practical cooperation includes Alliance efforts to help modernise the country's armed forces.



King Abdullah II Special Operations Training Center, Jordan. April 2018.

NATO's defence capacity building efforts in Jordan cover nine areas: information protection; cyber defence; military exercises; countering improvised explosive devices; support to the national strategic defence review; personnel management; logistics systems; civil preparedness and crisis management; and border security.

In 2018, Jordan accepted a NATO proposal to establish a small coordination team in Amman. The team will work closely with the Jordanian Armed Forces to improve the implementation of capacity-building measures.

Jordanian staff officers also participated in Trident Juncture 18 in November 2018. This participation helped improve the ability of Jordanian forces to work alongside Allied forces.

### The Republic of Moldova

Moldova cooperates with NATO on a range of issues, including as a valued contributor to the NATO-led peace-support force in Kosovo.

Moldova and NATO are working together to support reforms in the country, including on democratic reform, parliamentary oversight of the defence and security services, and the fight against corruption. The NATO Liaison Office in Chisinau, a small, civilian office, provides practical advice to Moldovan officials on how to make best use of NATO assistance activities; it also provides information to the public on the nature of the NATO-Moldova relationship. NATO's support is provided with full respect for Moldova's neutrality and is designed to meet Moldova's own requirements.

NATO is helping the Moldovan authorities to develop their national defence and military strategies and a new force structure. NATO has also begun to support Moldova in the area of civil preparedness. In 2018, Moldovan authorities began preparations for the transformation of its Armed Forces. This was a precondition for moving to the next phase of NATO's capacity-building support, which will include practical assistance for the transformation of the Armed Forces.

Work also continues in areas such as building integrity, defence education, cyber defence and United Nations Security Council Resolution 1325 on Women, Peace and Security.

### Tunisia

NATO is increasing its support for Tunisia, including by providing expert advice in areas such as counter-terrorism.

New capacity-building measures for Tunisia were endorsed by NATO leaders at the Brussels Summit in July 2018. These will support the Tunisian Armed Forces in implementing the Partnership Goals identified under the framework of the NATO Planning and Review Process.

NATO's support to Tunisia complements bilateral and other international efforts on issues including cyber defence, counter-Improvised Explosive Device training and the promotion of financial transparency.



Joint statement by President Petro Poroshenko of Ukraine and NATO Secretary General Jens Stoltenberg. Brussels, Belgium. July 2018.

## Assistance to Ukraine

A sovereign, independent and stable Ukraine, firmly committed to democracy and the rule of law, is key to Euro-Atlantic security.

Since Russia's illegal and illegitimate annexation of Crimea in 2014, NATO has stepped up political and practical support to Ukraine. This commitment was reconfirmed at the Brussels Summit in July 2018, where NATO leaders met with President Petro Poroshenko of Ukraine, together with President Giorgi Margvelashvili of Georgia.

In 2018, the NATO-Ukraine Commission (established in 1997) continued to discuss the security situation in and around Ukraine, including in Crimea, in eastern Ukraine and in the Black Sea. It also discussed Ukraine's wide-ranging reforms aimed at implementing Euro-Atlantic principles and standards against the background of Ukraine's aspirations for NATO membership.

NATO's commitment to assisting Ukraine's security and defence sector reforms through the Comprehensive Assistance Package – including 10 Trust Funds – remains high.

In 2018, the advisory effort of the NATO Representation to Ukraine focused on the development and implementation of the framework Law on National Security. Medical rehabilitation of wounded soldiers and support to Ukraine's medical institutions, as well as NATO's resettlement programme for former military personnel continued.

Since 2014, NATO has also assisted Ukrainian military personnel to manage the psychological injuries caused during the conflict.

A new NATO Science for Peace and Security project to enable real-time detection of explosives in public transport was launched in June. Follow-on projects are under development on cyber defence and radioactive waste disposal. In response to a request from Ukraine following a series of explosions at ammunition depots, NATO has developed specific projects to enhance secure and safe storage of ammunition.

## *Building Integrity*

NATO is a leader in promoting good governance in the defence and security sectors. As of 2018, 53 nations support the NATO Building Integrity Policy and Action Plan.

NATO recognises that corruption and poor governance complicate every security challenge it faces.

Through its Building Integrity Programme, NATO provides support to individual nations on request. In 2018, the Alliance provided tailored support to 20 nations, including 12 partners. Allied efforts focused especially on Afghanistan, Iraq, Ukraine and the Western Balkans. Almost 2,500 civilian and military participants took part in Building Integrity activities.

### **Impact**

In June 2018, an independent assessment of the impact of NATO's Building Integrity activities conducted by the Stockholm International Peace Research Institute concluded that NATO's efforts are having a positive impact on national institutions and practices in the following ways:

- 11 nations have introduced change to legislation
- 12 nations have introduced new business practices
- 15 nations have introduced new education and training
- 16 nations have established permanent structures to help build integrity more widely

In November 2018, NATO presented plans for a new phase of Building Integrity activities for Allies and partners. The scaled-up programme – which will run from 2019 until 2022 – has an estimated budget of EUR 4.7 million, EUR 2 million of which will be contributed by the European Commission.

NATO will also continue to cooperate with the United Nations Office on Drugs and Crime, civil society and the private sector on the development of new education and training tools.



A Jordanian bomb disposal trainee heads back to his command post after rigging a blasting charge. Jordan. February 2018.

## *Investing in Training and Education*

One of the best ways NATO can project stability in the Alliance's neighbourhood is by training local forces and investing in defence education to support institutional reform in partner countries. When NATO's neighbours are more stable, the Alliance is more secure.

A key tool for practical cooperation with partners is NATO's **Partnership Cooperation Menu**. In 2018, the Partnership Cooperation Menu organised close to 1,400 events. These included training courses, seminars and conferences. Around 2,300 participants from partner nations participated in more than 500 courses on more than 30 topics, including interoperability, language training, countering improvised explosive devices, counter-terrorism, maritime, cyber and the implementation of UN Security Council Resolution 1325 on Women, Peace and Security.

Allied and partner countries have also established **NATO-recognised Partnership Training and Education Centres**. These Centres offer courses on wide-ranging topics, from crisis management, to the role of gender in military operations, to cultural

awareness. There are currently 32 Centres in partner countries such as Bosnia and Herzegovina, Finland, Georgia, Jordan, Sweden and Switzerland, as well as in Allied countries. In 2018, Partnership Training and Education Centres conducted 1,300 different courses – 715 of which were for NATO Allies and partners – involving close to 50,000 personnel. More than 11,800 other international participants attended related events.

NATO also established the Defence Education Enhancement Programme to support training in the security and defence domain. The aim of the Programme is to help partners build, develop and reform their professional military education institutions. This typically involves peer-to-peer discussion on institutional adaptation, faculty development and curriculum development.

In 2018, there were 13 individual country programmes, with different areas of focus and at different stages of development, engaging Afghanistan, Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Mauritania, Moldova, Mongolia, North Macedonia, Serbia, Tunisia, and Ukraine.

## *NATO's Trust Funds*

Allies create Trust Funds to generate additional funding for practical projects. These are typically in the areas of demilitarisation, defence transformation and capacity-building. Allies and partner nations contribute to these Trust Funds on a voluntary basis.

Over the years, NATO Trust Funds have assisted partners in key areas. These include the safe destruction of surplus and obsolete anti-personnel landmines, weapons and munitions; demining and munition stockpile management; and support to wider defence transformation initiatives, such as the

resettlement of former military personnel, promoting transparency and gender mainstreaming.

In 2018, NATO had more than 20 Trust Funds. Together, Trust Funds helped provide support to the Afghan security forces, to defence reforms in Ukraine, and to capacity-building initiatives in five other countries.

These include the Defence and Related Security Capacity Building Trust Fund, established in 2015 to provide additional support and resources to implement NATO's Defence and Related Security Capacity Building Initiative. This allows Allies and partners to contribute to specific projects in

recipient countries, and contribute to a financial pool to support future projects. Since the Trust Fund was established, 18 Allies and two partner nations have made financial contributions totalling around EUR 14.9 million. To date, the Trust Fund has spent or committed approximately EUR 7.7 million on 29 projects.

Several Trust Fund projects were successfully concluded in 2018, including the destruction of more than 1,200 tonnes of dangerous chemicals in Moldova; the clearance of unexploded ordnance and mines from a former firing range in Azerbaijan; and the provision of multiple training courses for the Iraqi Armed Forces.

## Advancing Science for Peace and Security

*In 2018, NATO celebrated the 60<sup>th</sup> anniversary of its Science Programme. The Programme was originally designed to foster transatlantic ties, but now helps to engage NATO partners in security-related civil science and technology.*

Today, the Science for Peace and Security Programme facilitates practical cooperation among experts and scientists from Allied and partner countries. It provides funding, scientific and technical advice in the form of multi-year projects, advanced training courses, and expert workshops. The Programme focuses in particular on science,

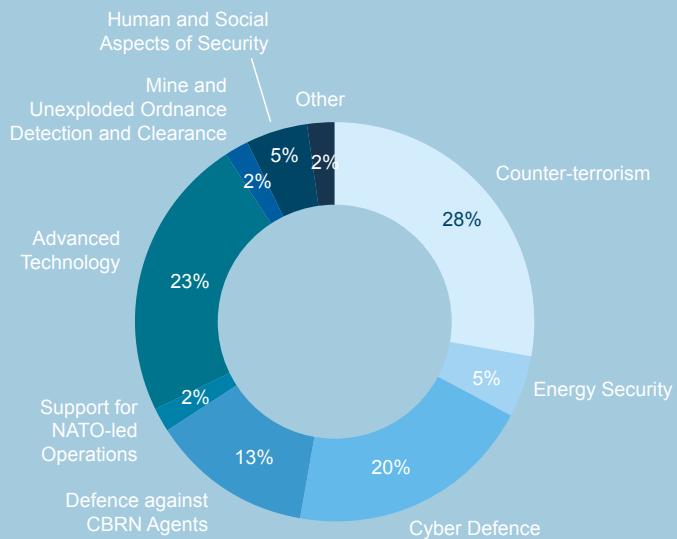
technology and innovation addressing emerging security challenges such as cyber defence, counter-terrorism, energy security, and defence against chemical, biological, radiological and nuclear threats.

The Programme's activities contribute to the development of advanced technologies as they apply to the field of security, and contribute to the human and social dimension of security, for instance with regard to the Women, Peace and Security agenda. It also assists NATO-led missions and operations. In 2018, NATO member countries agreed to fund 40 new Science for Peace and Security activities.

A Science for Peace and Security exhibition at NATO Headquarters marking the 60<sup>th</sup> anniversary of the Programme's creation. Brussels, Belgium. November 2018.



## Science for Peace and Security 2018 Activities



### 2018 Selected Highlights

- Developed a new flagship initiative focused on the detection of explosives
- Worked with the United States Department of Homeland Security, among others, in support of the Next-Generation Incident Command System in the Western Balkans
- Offered assistance to Iraq and Jordan through tailor-made activities to counter improvised explosive devices and established a Cyber Incident Response Capability in Moldova
- Contributed to the development and adoption of a National Action Plan for the implementation of UN Security Council Resolution 1325 on Women, Peace and Security
- Fostered strong cooperation with NATO's partners in the Middle East and North Africa, including with training courses in the areas of CBRN defence, energy security and cyber defence
- Supported a training course on stress management and resilience to strengthen the capacity of the psychologists from the Serbian Ministry of Defence to prepare and train professional soldiers



## Sixty Years of NATO's Science for Peace and Security Programme

The NATO Science for Peace and Security Programme is the Alliance's leading initiative for science, innovation and research. It was created in 1958 to promote the training of scientists, encourage the sharing of knowledge, and build networks of experts.

Over the years, the Programme has grown into one of NATO's major partnership tools, covering a wide range of issues, including cyber defence, responding to terrorism, and increasing energy security. It has created an international network of scientists and experts, with a total of 22 Nobel Laureates associated with the Programme so far.



The report of the "Three Wise Men", submitted to the Council in December 1956 by the Foreign Ministers of Norway, Italy and Canada, laid the foundation of today's Science for Peace and Security Programme. From left to right: Foreign Ministers Halvard Lange of Norway, Gaetano Martino of Italy and Lester B. Pearson of Canada. Brussels, Belgium. 1956.



The first Science Committee meeting took place on 29 March 1958. NATO's first Science Advisor was Professor Norman F. Ramsey, who was later awarded the Nobel Prize for his contributions to Atomic Physics. Paris, France, 1958.



Dealing with the Cold War legacy in Uzbekistan and Azerbaijan, the Science for Peace and Security Programme rendered 2,400 tons of highly toxic and corrosive substance harmless. Clear-up site in Baku, Azerbaijan. 2006.



After the signing of the Founding Act between NATO and the Russian Federation in 1997, the Science for Peace and Security Programme developed activities with Russian scientists in the field of counter-terrorism and transport security, including the real-time detection of explosives in a mass transit environment. Security officer in a metro station. St. Petersburg, Russia. 2011.



In 2016, the Science for Peace and Security Programme concluded its 'SILK' Afghanistan project, providing internet access to 150,000 Afghan students at 44 Afghan universities and to the Ministry of Higher Education. Kabul University, Afghanistan. 2009.



NATO Deputy Secretary General Rose Gottemoeller opens the Euro-Atlantic Disaster Response Coordination Centre celebration event.  
Brussels, Belgium. November 2018.

## Disaster Relief: The Euro-Atlantic Disaster Response Coordination Centre

*Since 1998, the Euro-Atlantic Disaster Response Coordination Centre has served as NATO's principal response mechanism for civil emergencies.*

The Centre operates all year round on a 24/7 basis and covers the geographical area of all Allied and partner countries.

The Centre functions as a clearing house for coordinating requests for, and offers of, international assistance, usually in response to natural and man-made disasters.

The Centre works closely with the United Nations Office for the Coordination of Humanitarian Affairs and with the European Union's Emergency Response Coordination Centre, both in exercises and in real-life emergencies. During an international disaster relief operation, the United Nations retains the primary coordinating role.

The Centre supports and complements UN efforts through its regional coordination mechanisms.

When the Centre receives requests for international assistance, its role is to pass them to its network. Individual Allies and partners then decide whether they can provide assistance, based on information they receive from the Centre.

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. For instance, in 2018, the Centre organised a conference on the use of artificial intelligence and other emerging technologies in disaster response.

In 2018, the Centre celebrated its 20<sup>th</sup> anniversary at an event opened by the NATO Deputy Secretary General.

### Key Euro-Atlantic Disaster Response Coordination Centre Activities in 2018

- Albania was heavily affected by floods in December 2017. Following a request for assistance through the Centre, Albania received international assistance from December 2017 until March 2018, from 15 NATO and partner countries – Austria, Bosnia and Herzegovina, Bulgaria, Canada, Greece, France, Israel, Italy, Kuwait, Lithuania, Montenegro, Serbia, Slovakia, Slovenia and Turkey. International organisations and bodies such as Save the Children and the Red Cross also contributed to the international effort.
- In July 2018, the Centre received a request for assistance from Latvia, following the outbreak of large forest and turf fires. Latvia requested aerial firefighting capabilities in order to reach inaccessible areas. Belarus and Lithuania provided firefighting helicopters.
- Drought and unusually high temperatures led to around 40 active forest fires in Sweden during the summer of 2018. Several countries offered assistance on a bilateral basis and through the European Civil Protection Mechanism. Following a Swedish request through the Centre, a total of 15 Allied and partner nations offered or provided assistance.



Heavy floods affecting Albania



Over the summer of 2018, forest fires affected several countries, including Latvia and Sweden



A simulated casualty is rescued from a roof as part of a combined operation of Bosnian and Romanian urban search and rescuers. Samot, Serbia, October 2018.



NATO Secretary General Jens Stoltenberg and President of Serbia Aleksandar Vučić open Exercise SRBIJA 2018. October 2018.

In addition to emergency response, the Euro-Atlantic Disaster Response Coordination Centre conducts annual large-scale field exercises with realistic scenarios. These improve interoperability between NATO and partner countries, and enhance innovation in disaster response. Since its establishment in 1998, the Centre has organised 18 large-scale disaster response exercises in cooperation with different host nations.

The 2018 exercise SRBIJA 2018 was jointly organised by the Centre and the Serbian Ministry of Interior.

Contributions to the exercise consisted of emergency response teams, exercise planners and evaluators. Involving around 2,000 personnel from almost 40 countries, it was the Centre's largest-ever exercise, and the first hosted by partner country Serbia.

Activities on the ground were based on an earthquake scenario consistent with the geological and environmental challenges faced by Serbia. The scenario provided an opportunity to practise international cooperation and strengthen the ability of teams from different nations to work effectively together across a wide range of relief operations. These included urban search and rescue, emergency medical teams, water rescue, as well as detection, protection and decontamination teams.

It was the Centre's first exercise to feature the use of artificial intelligence in disaster response. It was also the first time that teams were deployed to real and virtual exercise sites simultaneously. This is an important trend in exercises and training which NATO is using to complement its conventional table-top and field exercises.

## The Common Good: Working with International Organisations

*NATO is committed to cooperating and consulting closely with other international organisations.*

The Alliance engages with a number of international organisations, including the European Union, the United Nations, the Organization for Security and Co-operation in Europe, the African Union, the League of Arab States and the Gulf Cooperation Council.

In 2018, cooperation with both the European Union and the United Nations continued to grow. Meetings

by NATO Secretary General Jens Stoltenberg and his Deputy Rose Gottemoeller with their respective African Union counterparts also helped to strengthen a political dialogue, complementing the existing military cooperation between the two organisations.

NATO has maintained its continuing dialogue with major international non-governmental organisations such as the International Committee of the Red Cross.

### *The European Union*

In 2018, NATO and the European Union decided to further deepen their longstanding strategic cooperation. Key to this was the second Joint Declaration signed by NATO Secretary General Stoltenberg, European Council President Donald Tusk and European Commission President Jean-Claude Juncker, on the margins of the NATO Summit in Brussels in July. The Declaration builds on the first Joint Declaration signed in Warsaw in July 2016, which set out the principles and areas of cooperation.

The 2018 Brussels Joint Declaration highlighted key issues such as the encouragement to involve, to the extent possible, non-EU Allies and non-NATO Member States in EU and NATO initiatives, respectively. It also reiterated NATO's 2014 Wales Defence Investment Pledge, for those EU Member States that are also NATO Allies. It welcomed EU defence initiatives, including the Permanent Structured Cooperation and the European Defence Fund, as a potential contribution to fairer burden-sharing; and it acknowledged NATO's core tasks, including its continuing importance as the cornerstone of Euro-Atlantic security.

In 2018, further significant progress was made in the implementation of 74 mutually agreed proposals for NATO-EU cooperation. For example, cooperation and coordination between maritime operations Sophia and Sea Guardian was enhanced through regular information-sharing and logistical support. NATO and the EU also worked together in developing situational awareness, training and exercises, and strategic communications to counter



Signing of the Joint Declaration on cooperation between NATO and the European Union. Press statements by Donald Tusk (President of the European Council), NATO Secretary General Jens Stoltenberg and Jean-Claude Juncker (President of the European Commission).  
Brussels, Belgium. July 2018.

hybrid and cyber threats. Particular emphasis was also given to new areas such as counter-terrorism, military mobility and the Women, Peace and Security agenda.

The two organisations are working to better complement each other in assisting partner nations to build up their capacities and resilience. For instance, the European Commission will provide financial support to NATO's Building Integrity Programme.



Field Marshal Bernard Montgomery with Supreme Allied Commander Europe General Dwight D. Eisenhower. Once the decision was made to transfer the Western Union Defence Organization's capacities to Supreme Headquarters Allied Powers Europe, Montgomery resigned as Chairman of the Commanders-in-Chief on 31 March 1951 and took the position of Deputy Supreme Allied Commander Europe on 1 April 1951.

## NATO and European Integration

Rising from the ashes of the Second World War, NATO and what is now the European Union were created with a crucial goal: preventing the horrors of another war in Europe.

Since then NATO, a unique alliance between Europe and North America, has been the cornerstone of European security. As such, it has also helped the European Union to achieve peace, prosperity and political cooperation.

Since NATO's creation in 1949, a number of different organisations have played a part in bringing security to the European continent, either as precursors to NATO bodies, or as partners to the Alliance.

The Western Union, and its affiliated Western Union Defence Organization, for instance, was created in March 1948 by the Brussels Treaty. A predecessor to NATO, the Western Union Defence Organization had a combined Allied military headquarters, but lacked a command structure.

When Allied Command Europe and Supreme Headquarters Allied Powers Europe (SHAPE) were activated on 2 April 1951, they inherited many of the Western Union Defence Organization's roles,

responsibilities and plans. Most of the Western Union Defence Organization's personnel joined SHAPE and the Allied Command Structure, with the head of the Western Union Defence Organization, Field Marshal Viscount Montgomery of Alamein, becoming Deputy Supreme Allied Commander Europe. The building which housed the Western Union Defence Organization, at Fontainebleau in France, became Allied Forces Central Europe.



The majestic Chateau de Fontainebleau, located southeast of nearby Paris, served as the headquarters of the Western Union Defence Organization from 1948 to 1951. The headquarters at Fontainebleau served as NATO's Headquarters, Allied Forces Central Europe until 1966.

The Western European Union, a successor to the Western Union, existed from 1954 until 2011. Initially a means of giving what became the European Union its own independent military capability, the work of the Union culminated in several peacekeeping missions in the late 1980s and the 1990s.

In the mid-1990s, NATO and the Western European Union worked closely on the enforcement of United Nations embargoes and through missions in the Adriatic and Bosnia and Herzegovina. The Western European Union was dissolved in 2011 and some of its functions were transferred to the European Union's overall structures. Its mutual defence clause was included in the European Union's Treaty of Lisbon, which entered into force in 2009.

## *The United Nations*

A meeting between NATO Secretary General Jens Stoltenberg and United Nations Secretary-General António Guterres in September 2018 led to the conclusion of an Updated Joint Declaration to frame and guide the cooperation of the NATO and UN Secretariats' for the years ahead. Concluded on the 10<sup>th</sup> anniversary of the original Joint Declaration, the document acknowledges the positive developments in NATO-UN relations over the past decade and includes a commitment to strengthening cooperation and dialogue on new issues, such as cyber defence, counter-terrorism and human security.

The Declaration capped a year of successful collaboration. In close cooperation with the Department of Peace Operations and the Medical

Services Division, NATO has continued to support UN peace operations, for example, through training on countering improvised explosive devices, and in the area of military medicine.

Human security issues also remain central to the relationship, including cooperation on the development of training material on the protection of civilians, and continued mutual support for the implementation of UN Security Council Resolution 1325 and related resolutions on Women, Peace and Security.

As both NATO and the UN continue to adapt to new challenges, the Updated Joint Declaration lays the groundwork for cooperation in new areas, including cyber defence and counter-terrorism.

## *The Organization for Security and Co-operation in Europe*

At a time of complex security challenges in the Euro-Atlantic area, the Organization for Security and Co-operation in Europe (OSCE) remains a key partner for NATO. NATO values the role the OSCE plays as an important platform for security dialogue, including on arms control and confidence and security-building measures, and continues to support the strengthening and modernisation of its unique set of political military tools, in particular the Vienna Document.

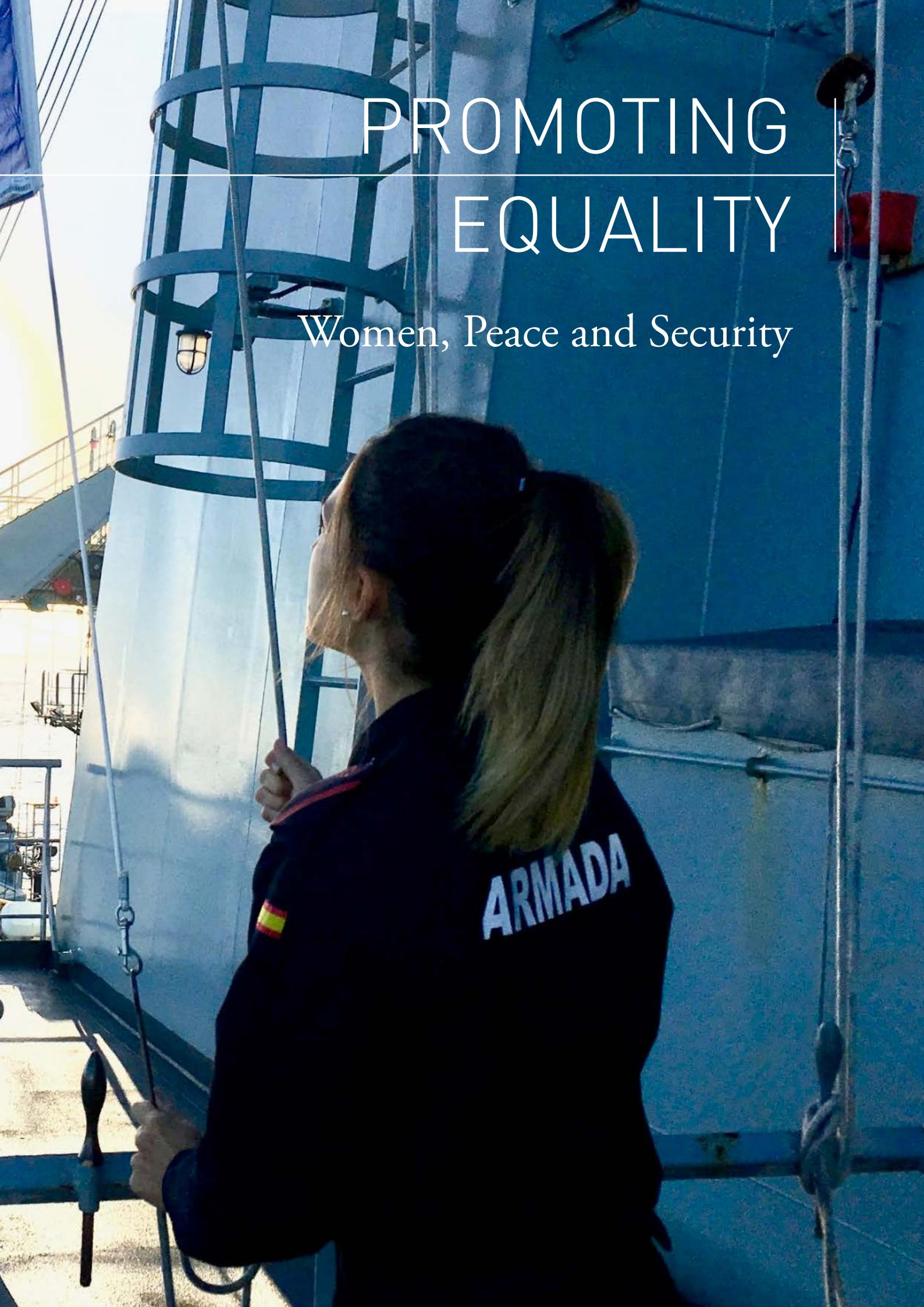
In 2018, cooperation between the OSCE and NATO was further strengthened with the opening of a NATO Liaison Office in Vienna in May.

The Liaison Office supports and facilitates regular contacts and exchange of information between the two organisations in areas of mutual interest, including on security issues in the Western Balkans, Ukraine, the South Caucasus, Central Asia, Afghanistan, and the Middle East and North Africa.

The NATO-led Kosovo Force and the OSCE Mission in Kosovo have continued their close cooperation in the field.



# PROMOTING EQUALITY



Women, Peace and Security



A Greek Air Force pilot and an Italian Air Force pilot after returning from a successful training mission during Trident Juncture 18. Norway, November 2018.

NATO recognises the disproportionate impact conflict and post-conflict situations have on women and girls, and acknowledges the importance of ensuring women's active and meaningful participation in decision-making roles at NATO and in security institutions more broadly.

At the Brussels Summit in July 2018, NATO leaders stressed their commitment to promoting the full implementation of **United Nations Security Council Resolution 1325 and related resolutions on Women, Peace and Security**. NATO as a political

and military alliance contributes to the Women, Peace and Security agenda by systematically integrating gender perspectives into planning and execution of operations, training, exercises, and policies, as well as dialogue and partnerships.

### **NATO and Action Plan on Women, Peace and Security**

At the 2018 Summit, Allied leaders adopted a new policy and action plan on Women, Peace and Security, building on a framework of three guiding principles: Integration, Inclusiveness and Integrity.

- **Integration:** to embed gender into all NATO policies and activities.
- **Inclusiveness:** to dismantle all existing barriers standing in the way of the full implementation of the Women, Peace and Security agenda.
- **Integrity:** to enhance accountability and promote the highest standards of professional and personal conduct, both within NATO civilian and military staff.

NATO Allies aim to make the policy and action plan an integral part of their everyday business in both civilian and military structures. This will contribute to a more modern, agile, ready and responsive Alliance. In addition, 22 NATO Allies and 18 partners have adopted national action plans for the implementation of Resolution 1325.



The 2018 NATO Committee on Gender Perspectives Annual Conference was attended by more than 140 participants from 43 NATO member and partner nations. Brussels, Belgium. May 2018.



Civil Society Advisory Panel meeting held at NATO Headquarters in Brussels, Belgium. October 2018.

Additional key developments and activities carried out in 2018 include:

- Continuing to conduct training on the prevention of, and response to, conflict-related sexual and gender-based violence.
- Launching the first mentoring and coaching programme for the gender focal points network at

NATO Headquarters, to ensure they are trained and able to mainstream the Women, Peace and Security agenda into all of NATO's main activities.

- Advancing dialogue with civil society through the Civil Society Advisory Panel on Women, Peace and Security.

## Gender Balance Statistics

In 2018, the proportion of female staff NATO-wide was 27% percent (up from 26% in 2017). In 2018, women made up 40% of the International Staff, holding 25% of senior leadership positions,<sup>7</sup> a slight increase on 2017, when women represented 39% of the International Staff and held 20% of senior leadership positions. The number of women in senior leadership positions has been increasing since the beginning of the Gender Balance and Diversity Programme in 2002.

Allies have also sought to increase the number of women working in the International Military Staff. In 2018, women represented 16.8% of personnel among the International Military Staff.

In the North Atlantic Council, 10 Permanent Representatives to NATO are women; six women were serving as Ministers of Defence in NATO nations at the end of 2018.

<sup>7</sup> 'Senior Leadership' is defined as grades U1-U4, A5-A7 (and L-grade equivalents).

NATO Deputy Secretary General Rose Gottemoeller with the inaugural class of the 'Peace with Women' Fellowship at the Halifax International Security Forum. Halifax, Canada. November 2018.





# ORGANISATION

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NATO Headquarters. January 2018, Brussels, Belgium.

## NATO Headquarters and Structures

*NATO Headquarters in Brussels houses the Alliance's International Staff and International Military Staff, along with 29 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.*

In spring 2018, the Alliance moved to a new, state-of-the-art Headquarters campus in north-east Brussels. The new Headquarters is just across the

street from the former Headquarters, a building which had been used by NATO since 1967.

The new campus is designed as an adaptable and cutting-edge home for the Alliance – one which allows it to adapt to future, unforeseen changes in the security environment. The modern architecture and high-tech facilities of the new Headquarters also support the development of new working methods, guided by the ambition to make NATO's decision-making process quicker and more efficient.

## Moving to a New Headquarters

Following extensive preparations, staff moved to the new campus between March and June 2018. More than 4,000 staff were relocated – including 29 national delegations and military representations, NATO's International Staff and International Military Staff and five NATO Agencies.

Despite the inevitable disruption involved in such an operation, the work of the Headquarters continued unhindered – with two ministerial meetings held in April and June. In July, the new Headquarters was the venue for a two-day summit of NATO leaders.

## The NATO Move in Numbers

more than **4100** staff moved



**23,887** crates moved



mobile devices issued



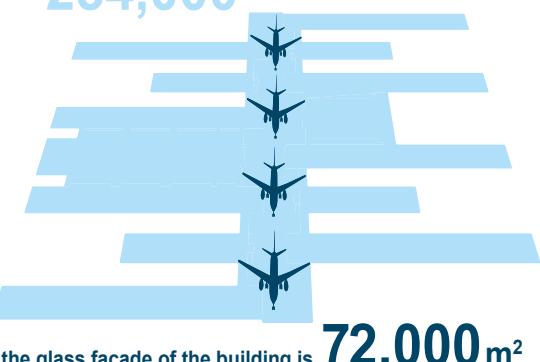
**700** iphones

**130** tablets



more than **1570** laptops

**254,000 m<sup>2</sup>**



**72,000 m<sup>2</sup>**



**18** conference rooms

**36** staff meeting rooms



more than **4000** desks



## The Alliance's homes: seventy years, five headquarters

### 13 Belgrave Square, London (1950-1952)



NATO Headquarters in London, United Kingdom.

NATO's first Headquarters was in Belgrave Square in London. It was the Headquarters of the North Atlantic Council and hosted the meetings of the Council Deputies, the national representatives on the Council. The Headquarters also housed an international secretariat that attended to the needs of the Council Deputies. The first meeting at the Headquarters in London took place on 25 July 1950.

In 1952, NATO decided to move its political Headquarters to Paris to be closer to the military Headquarters, the newly activated Supreme Headquarters Allied Powers Europe located in Rocquencourt. This brought together the Alliance's political, economic and military agencies.

### Palais de Chaillot, Paris (1952-1960)



Palais de Chaillot, opposite the Eiffel Tower in Paris, France. This building was originally constructed for the United Nations General Assembly in 1948.



On 5 April 1952, NATO moved its political Headquarters to Palais de Chaillot in Paris, France. At the time, the move from London to Paris was the biggest furniture-removal operation ever undertaken by air in or from the United Kingdom. Normal shipping methods were rejected because the resulting delay would have disrupted the work of the Headquarters.

The Palais de Chaillot was only a temporary home. In 1954, the Council accepted a French offer to build a new Headquarters at the Porte Dauphine.

### Porte Dauphine, Paris (1960-1967)



The 'Porte Dauphine' Headquarters was built on a 16,000 square metre plot of land near Place de la Porte Dauphine in Paris. Nicknamed the 'Palais de l'OTAN', the building was designed by Jacques Carlu, the architect responsible for the Palais de Chaillot. December 1959.

In early 1960, NATO moved to its new purpose-built Headquarters at Porte Dauphine, on the edge of the Bois de Boulogne in Paris. A NATO press release at the time said that "*a utilitarian building has been produced, as a manifestation of fifteen nations' resolve to work in harmony on the task of defending their common heritage*". The design of the building deliberately symbolised harmony and unity, including through the A-for-Alliance shape of the building.

Following France's decision in March 1966 to withdraw from NATO's integrated military structure, the Council decided, in October 1966, to move its Headquarters to Brussels, Belgium. In November that same year, the Defence Planning Committee decided to relocate the Military Committee from Washington D.C. to Brussels. In December 1966, the Belgian Government made a new site available: a former airfield of about 50 acres – or 20 hectares – on the highway between the city and Brussels Airport.

### Brussels (1967-2018)

The construction of the Headquarters in Evere – a municipality in Brussels, Belgium – took just six months. In October 1967, Secretary General Manlio Brosio opened the new Headquarters to national delegations, International Staff and International Military Staff.



NATO Headquarters in the municipality of Evere. August 1988.

The move from Paris was a huge logistical undertaking. Over the course of approximately two weeks, a 'rolling bridge' of trucks moved 140 tonnes of documents and 4,700 cubic metres of office equipment to Brussels.

The new Headquarters was initially conceived as a temporary home, but, in 1969, the Council decided to make the Evere Headquarters permanent.

### Brussels (2018 - )

In 1999, NATO leaders acknowledged that the Alliance's enlargement process meant that the Evere Headquarters was no longer adequate. Construction of a new building across the road began in 2010 and was completed in 2017.



Inside the new NATO Headquarters. Brussels, Belgium. February 2018.



2018 NATO Summit, Allied leaders meet in the North Atlantic Council chamber. Brussels, Belgium. July 2018.

## The North Atlantic Council

The North Atlantic Council is the principal political decision-making body in NATO. It provides a forum for wide-ranging consultations between Allies on all issues affecting their peace and security. It brings together high-level representatives from each member country to discuss policy and operational questions requiring collective decisions.

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 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 at the level of Permanent Representatives.



2018 NATO Summit, official portrait and opening ceremony at the new NATO Headquarters. Brussels, Belgium. July 2018.



## Famous Visitors to the Council

As NATO's highest political decision-making body, the North Atlantic Council has been visited by many of modern history's most significant figures.



US President John F. Kennedy. Paris, France. June 1961.



US Secretary of State Dr. Henry Kissinger with Secretary General Joseph Luns. Brussels, Belgium. March 1974.



Her Majesty Queen Elizabeth II. Brussels, Belgium. November 1980.



Polish President Lech Walesa. Brussels, Belgium. July 1991.

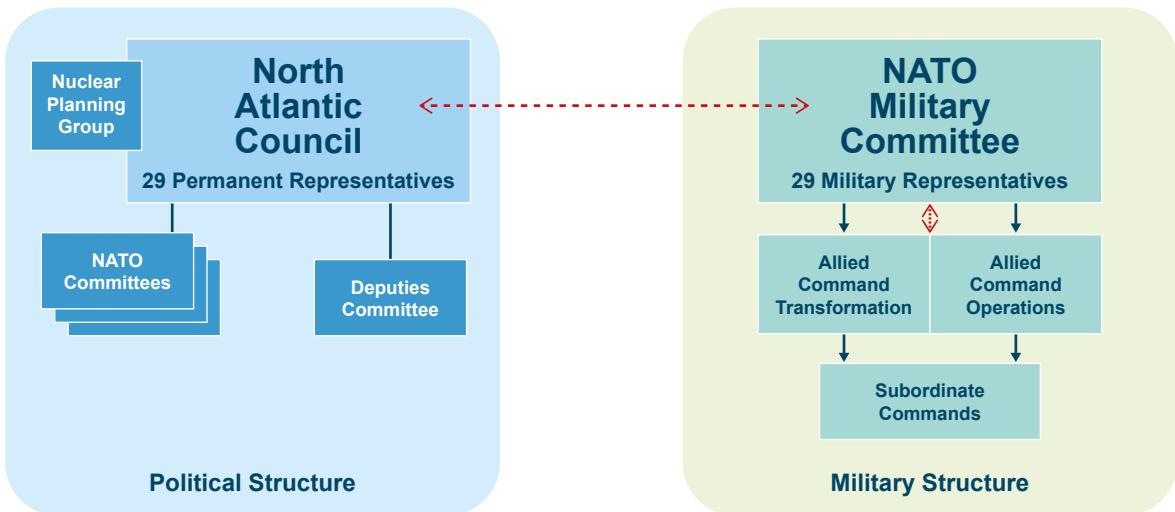


United Nations Secretary-General Kofi Annan. Brussels, Belgium. January 1999.



United Nations High Commissioner for Refugees Special Envoy Angelina Jolie with NATO Deputy Secretary General Rose Gottemoeller. Brussels, Belgium. January 2018.

## NATO's Political and Military Structure



### The NATO Military Authorities

The **Military Committee** is the senior military authority within NATO. It is composed of the Chiefs of Defence of NATO member countries and is led by a Chairman, currently Air Chief Marshal Sir Stuart Peach, British Royal Air Force.

While NATO Chiefs of Defence convene several times throughout the year, the Military Committee meets on a day-to-day basis with Military Representatives, who act on behalf of their national Chiefs of Defence.

The role of the Military Committee is to discuss and take action on matters of military importance, working in the best interests of the Alliance while representing national perspectives and positions. The Military Committee provides the North Atlantic Council with consensus-based military advice. It works closely with the two NATO Strategic Commanders to bring military plans, issues and recommendations forward for political consideration by the Council.

The executive body of the Military Committee is the **International Military Staff**, led by a Director



General Petr Pavel, outgoing Chairman of the NATO Military Committee and Air Chief Marshal Sir Stuart Peach, incoming Chairman. Brussels, Belgium. June 2018.

General, currently Lieutenant General Jan Broeks from the Netherlands. With a staff of approximately 500 people, 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.

To carry out its core military functions, the Alliance relies on the **NATO Force Structure** and the **NATO Command Structure**. The International Military Staff at NATO Headquarters and in the NATO Command Structure together comprise over 6,300 military personnel and more than 700 civilians. All 29 Allies are represented in NATO's military structures.

The NATO Force Structure encompasses national and multinational forces and their associated operational headquarters, placed at the Alliance's disposal on a permanent or temporary basis under

specified readiness criteria. These provide a pool of forces to meet the Alliance's requirements for conducting and sustaining operations.

The NATO Command Structure's role is to command and control the Alliance's joint operations. It consists primarily of **Allied Command Operations**, **Allied Command Transformation** and their subordinate commands and headquarters.

Allied Command Operations is responsible for the planning and execution of all Alliance operations and missions. Its main headquarters is in Mons, Belgium and it is headed by the Supreme Allied Commander Europe (SACEUR), currently General Curtis M. Scaparrotti, United States Army. Allied Command Transformation leads the transformation of NATO's military structure, forces, capabilities and doctrine. Its main headquarters is in Norfolk, Virginia in the United States. It is headed by the Supreme Allied Commander Transformation (SACT), General André Lanata, French Air Force.

## *The International Staff*

There are just over 1,000 civilians in the **International Staff** at NATO Headquarters, providing advice, guidance and administrative assistance to the 29 national delegations. The International Staff supports the consensus-building and decision-making process of the Alliance and helps to implement the decisions that are made. NATO has a merit-based recruitment process and strives to build a staff that represents the nearly one billion citizens it serves. In 2018, nationals of all member nations, except new NATO member Montenegro, were employed at NATO Headquarters.

NATO is committed to working to achieve better diversity and gender parity in the Organization. There are a number of plans in place to identify and address barriers to diversity and create policies and programmes that promote inclusion. Following a 2018 Functional Review of the NATO Headquarters, the Alliance will also be investing in additional practical measures to improve diversity and recruit younger staff.

NATO Staff at NATO Headquarters. Brussels Belgium. October 2018.



## Agencies and Organisations

The Alliance is served by a number of different NATO Agencies. These manage essential tasks such as communications, finance and capability development.

### The NATO Communications and Information Agency

The **NATO Communications and Information Agency** operates and secures NATO's networks, develops advanced technology, and recruits some of the most skilled technology talent from across NATO's 29 nations.

The Agency supports NATO's operations and exercises on land, at sea, in the air and in cyberspace. The Agency's work ensures NATO's networks are resilient and provides decision-makers and NATO's operational community with robust situational awareness, communications, and the command and control they need to defend NATO territory.

In 2018, the NATO Communications and Information Agency supported seven NATO military operations and 27 major exercises. In the case of Trident Juncture 18, it provided real-time situational awareness through secure and resilient communications to 41 participating units across 30 locations involving more than 14,000 users.

The Agency partners with high-tech companies from the 29 member nations in support of NATO's ongoing digital transformation. These areas include ballistic missile defence; air command and control system; cyber security; joint intelligence, surveillance and reconnaissance; and the delivery of infrastructure services across the Alliance. In 2018, the Agency also supported NATO in the fight against terrorism, including by countering unmanned aircraft systems threats.

The Agency operates in 33 locations, from North America to Afghanistan, with headquarters in Brussels, Belgium; and campuses in The Hague, Netherlands; Mons, Belgium; and Oeiras, Portugal.

### The NATO Support and Procurement Agency

The **NATO Support and Procurement Agency** provides logistics support to Allies, partners and other international organisations. The Agency focuses mainly on support to operations; lifecycle management of weapons systems; and management and coordination of the Central Europe Pipeline System. The Agency also manages three Boeing C-17 aircraft in support of the Heavy Airlift Wing as part of the Strategic Airlift Capability, an initiative aimed at giving NATO nations as well as partners access to strategic airlift.

The Agency, headquartered in Luxembourg, contributes to all NATO exercises as well as NATO operations and missions in Afghanistan, Iraq and Kosovo, and manages a number of Trust Fund activities on behalf of the contributing nations. For example, in 2018, the Agency was responsible for medical rehabilitation facilities for disabled service personnel and clearance of radioactive



NATO Support and Procurement Agency staff assist the Afghan National Army's counter-insurgency capability with explosive detection dogs – or 'sniffer' dogs. Kabul, Afghanistan. January 2018.



Grand Duke Henri and Grand Duchess Maria Teresa of Luxembourg and NATO Secretary General Jens Stoltenberg attend a ceremony to mark the 60<sup>th</sup> anniversary of the NATO Support and Procurement Agency. Capellen, Luxembourg. June 2018.

contamination in Ukraine, as well as building a training facility for military women in Jordan and providing explosive ordnance disposal equipment and robots to the army and police in Afghanistan. In 2018, the Agency celebrated its 60<sup>th</sup> anniversary.

### The NATO Science and Technology Organization

The **NATO Science and Technology Organization** delivers innovation, advice and scientific solutions to meet the Alliance's evolving needs. It is the world's largest collaborative defence and security research forum, and nurtures a community of more than 5,000 actively engaged scientists and engineers from Allied and partner countries.

The NATO Science and Technology Organization's annual programme of work includes over 300 projects. These cover a wide spectrum of topics such as anti-submarine warfare, artificial intelligence, big data, directed energy, naval mine warfare, quantum capabilities, military decision-making, and military operations in contested urban environments. These projects contribute to NATO's capability development, support threat mitigation, and provide advice to decision makers.

The NATO Science and Technology Board governs and directly administers the Organization's Scientific and Technical Committees and its three Executive

Bodies: 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. The NATO Chief Scientist chairs the Board and serves as the scientific advisor to NATO senior leadership.

### The NATO Standardization Office

To operate together coherently, effectively and efficiently, Allies' forces and capabilities require agreed and compatible standards. The **NATO Standardization Office**, an integrated civil-military office, supports the development and updating of these standards.

In 2018, in cooperation with Allies and NATO staffs, the Office improved standardization management procedures and tools, and increased related education and training. In addition, Allies agreed on new, streamlined procedures to develop and update NATO interoperability standards. These will help to keep NATO's common standards relevant in the face of new technologies and tactics.

In 2018, the Office also supported partners' efforts to modernise and professionalise their militaries, helping in turn to increase their interoperability with NATO. This included delivering training in Belgrade and Kyiv, and engaging with partner delegations at NATO Headquarters.



NATO Deputy Secretary General Rose Gottemoeller visits the NATO Strategic Communications Centre of Excellence. Riga, Latvia. February 2018.

## The NATO Centres of Excellence

**NATO Centres of Excellence** are nationally or multi-nationally sponsored entities that offer recognised expertise to the benefit of the Alliance. They are not official NATO bodies but contribute to the Alliance's ongoing adaptation and learning.

With the North Atlantic Council endorsement of the NATO Security Force Assistance Centre of Excellence in Rome in November 2018, the Centres of Excellence family has now grown to 25 accredited Centres, with more under development.

These Centres train and educate leaders and specialists from NATO member and partner countries in a variety of topics such as civil-military operations, propaganda and disinformation, cyber defence, military medicine, energy security, naval mine warfare and defence against terrorism, among many others.

Allied Command Transformation has overall responsibility for NATO Centres of Excellence and is in charge of their establishment, accreditation and periodic assessment.

CENTRE OF EXCELLENCE	LOCATION
Analysis and Simulation for Air Operations	Lyon Mont Verdun, FRA
Civil-Military Cooperation	The Hague, NLD
Cold Weather Operations	Elverum, 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 and Disaster Response	Sofia, BGR
Defence Against Terrorism	Ankara, TUR
Energy Security	Vilnius, LTU
Explosive Ordnance Disposal	Trenčín, SVK
Human Intelligence	Oradea, ROU
Joint Air Power	Kalkar, DEU
Joint Chemical, Biological, Radiological and Nuclear Defence	Vyškov, CZE
Military Engineering	Ingolstadt, DEU
Military Medicine	Budapest, HUN
Military Police	Bydgoszcz, POL
Modelling and Simulation	Rome, ITA
Mountain Warfare	Begunj na Gorenjskem, 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

## NATO Funding

*The costs of running NATO are funded through both direct and indirect contributions by its member states.*

**Indirect contributions** – the largest type – include Allies' participation in NATO-led operations and missions. **Direct contributions** are those made to finance capabilities and initiatives that serve the interests of all 29 Allies, such as NATO-wide air defence or command and control systems, and are not the responsibility of any single member. These costs are borne collectively through common funding, with all 29 members contributing according to an agreed cost-share formula, based on their Gross National Income.

Common funding finances NATO's principal budgets: 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.

Projects can also be jointly and/or multi-nationally funded, which means that participating countries identify the requirements, the priorities and the funding arrangements, but NATO provides political and financial oversight. The 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.

NATO also ensures financial oversight for a number of Trust Funds used to facilitate the participation of non-NATO nations on specific country- or issue-based projects. These are funded through voluntary national contributions.

### A Commitment to Transparency and Efficiency

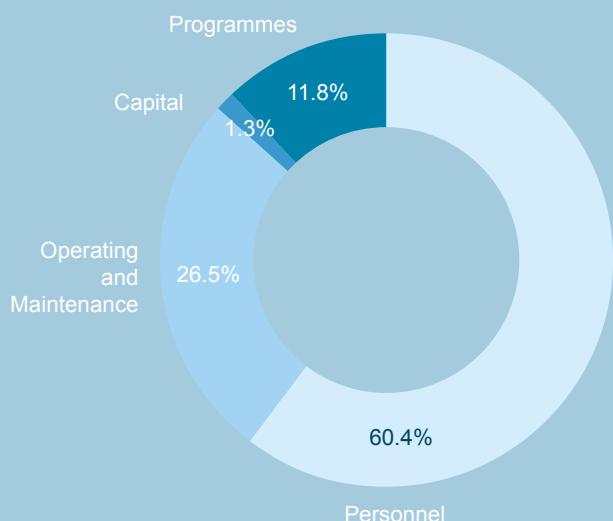
In 2018, NATO continued to reform and modernise its financial regulatory framework to advance transparency and accountability, in line with best practices in public finance. This included updating key areas of its financial rules and procedures relating to asset management, funding, contracting and cash management.

The Alliance publishes a wide range of financial documents and reports, including its key financial policies and annual financial statement audit reports.

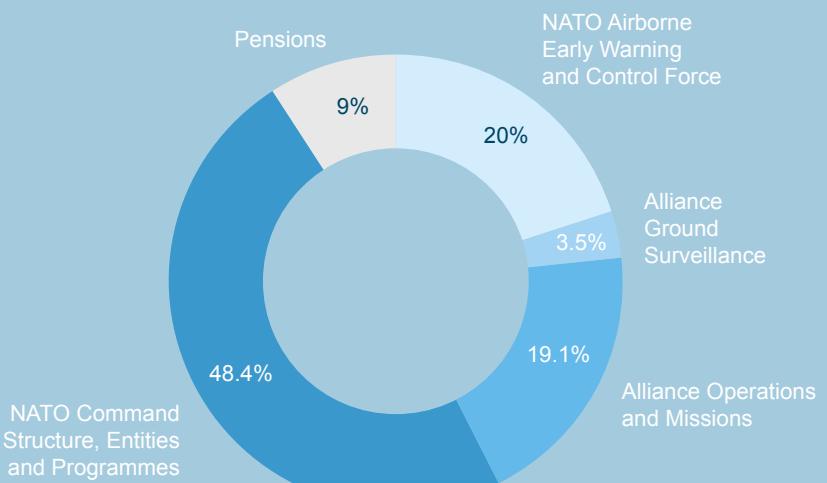
In recent years, NATO has sought to improve financial management, and is making good progress in updating processes, implementing new IT systems, training personnel, and publishing financial results publicly, with the goal of increasing overall accountability and transparency.

The independent International Board of Auditors for NATO ensures the highest level of integrity in the use of common funding. The Organization has seen steady progress in the results of the financial and performance audits of NATO bodies.

## 2018 Core Civil Budget



## 2018 Military Budget Ceilings



### The Civil Budget for 2018

The **Civil Budget** funds personnel expenses, operating costs, and capital and programme expenditures of the International Staff at NATO Headquarters. The North Atlantic Council approves the Civil Budget and ensures expenditures are aligned with the Alliance's political priorities.

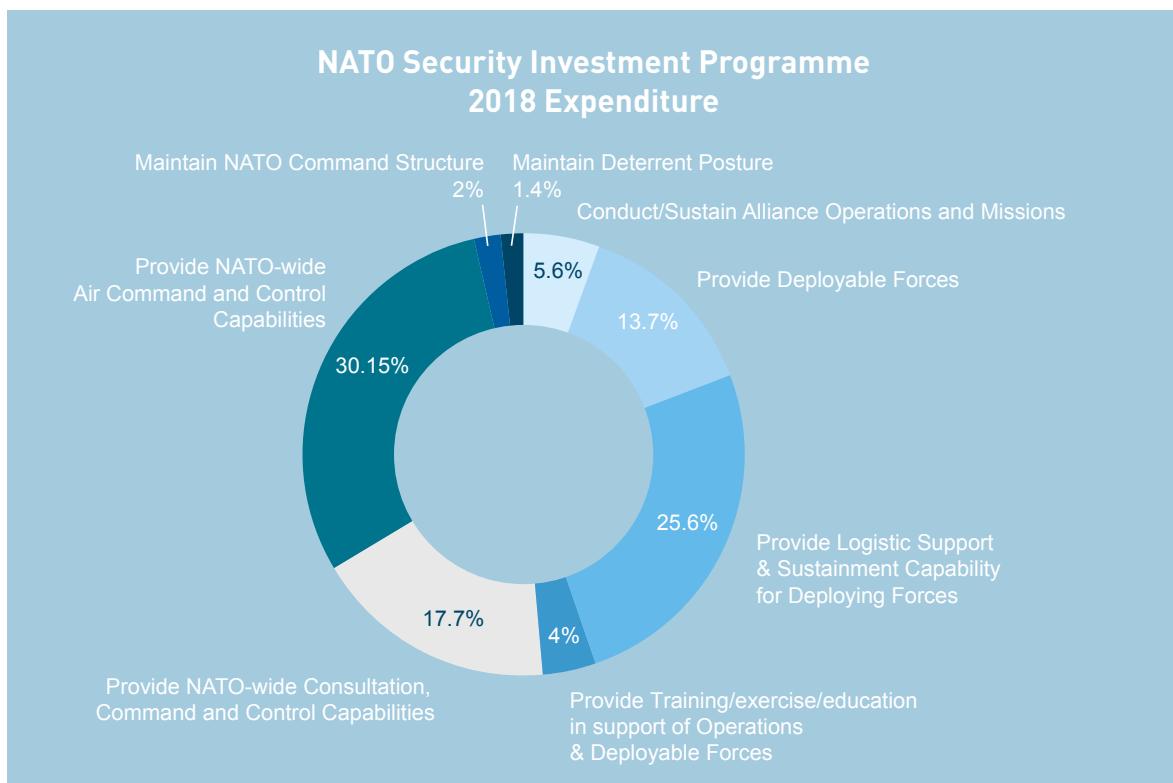
The core Civil Budget for 2018, excluding pension liabilities, was agreed at EUR 202 million, an increase of 4.6% on 2017.

### The Military Budget for 2018

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

In 2018, NATO continued to work to improve the overall accountability and transparency of its resource management. Among other measures, it implemented a new efficiencies plan and a mechanism for tracking and improving savings in the running of the International Staff.

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 2018 was EUR 1.3 billion.



## The NATO Security Investment Programme

The **NATO Security Investment Programme** supports NATO's mission through the delivery of common-funded capabilities to the NATO Strategic Commanders.

Established in 1951, the Programme is executed through capability packages approved by the North Atlantic Council. These packages fund a number of projects implemented by NATO Allies and Agencies. Annual ceiling is around EUR 700 million, with a total of EUR 7.6 billion-worth of projects under implementation.

Since 2016, 22 capability packages worth more than EUR 4.9 billion have been approved by the Council. Accordingly, capabilities packages such as satellite communications, cyber security, surveillance and control are being developed and delivered; with additional investments devoted to supporting upgrades to NATO and Allied airbases. These efforts will result in improved NATO offensive and defensive air operations, air-to-air refuelling, air transportation and other multi-purpose air capabilities.

## Air Basing Capabilities

### Defensive and Offensive Air Assets in SACEUR's Area of Responsibility (2018-2033)

23 € 656

### Air-to-Air Refuelling Assets (2017-2025)

12 € 337

Nations involved

NSIP funding required (in € million)

### Bulk Fuel Assets for NATO Airfields (2017-2037)

20 € 605

2020

2025

2030

2035

111



NATO Secretary General addresses civil society at 'NATO Engages: The Brussels Summit Dialogue'. Brussels, Belgium. July 2018.

## Engaging with NATO Citizens

*NATO takes very seriously its responsibility to be transparent. The Alliance invests in speaking to people around the world – especially in Allied countries, in the Alliance's immediate neighbourhoods and in those countries where NATO has ongoing operations.*

NATO engages with people around the world to explain the Alliance's purpose and role: who NATO is, what NATO does, and why NATO is relevant. Actively engaging with the citizens is key to promoting the Alliance's efforts and activities both at home in Allied countries and in partner countries, as well as in other places where NATO is present.

At a time when the information environment is more complex and competitive, NATO works hard to maintain the support of its citizens, and counter

disinformation. To do so, it uses a wide variety of tools, including press and media activities, workshops, speeches, the dedicated web portal 'Setting the Record Straight', digital channels and briefing programmes at NATO Headquarters in Brussels.

NATO's public diplomacy agenda in 2018 was ambitious, involving most notably the NATO Brussels Summit and the high-visibility exercise Trident Juncture 18. A particular highlight at the Summit was the side event 'NATO Engages: The Brussels Summit Dialogue'. This event, which gathered 580 participants from 58 countries, raised the public profile of NATO, in particular among women (40% of participants) and young people (35% of participants).



Trident Juncture 18. A Slovenian soldier gives an interview to the media during the final press conference. Trondheim, Norway. November 2018.

### Exercise Trident Juncture 2018

The exercise provided a unique platform to tell NATO's story and show Alliance unity, readiness and transparency.

It generated 500 reports in key media with a potential reach of 133 million people. Over 90% of the monitored coverage was positive or neutral.

### Digital Outreach

NATO recognises the value of social media. By late 2018, the Alliance had a total of almost 3 million followers across its official social channels. The fastest growing platforms in 2018 were Instagram (+266%) and LinkedIn (+49%).

### Setting the Record Straight

Setting the Record Straight is a one-stop shop for the facts about NATO's relations with Russia. NATO relaunched the portal in 2018 with a focus on multimedia to better explain NATO's work and to expose disinformation targeted against the Alliance.

The objective is to increase transparency and make it possible for everyone – citizens in NATO countries, Russians and anyone else – to learn the facts about NATO-Russia relations, free from bias or propaganda.



## Seventy Years of Public Engagements and Communications



A 'NATO Caravan' in a public plaza in Italy in 1955. These travelling exhibition caravans, officially known as NATO Mobile Information Centres, continued to be part of NATO's public diplomacy activities well into the early 1990s.

As NATO has changed and grown over the decades, so its story – and the means of telling that story – has changed too. Today, the Alliance can use its many social media platforms to stay in instant contact with millions of people around the world. But, of course, it hasn't always been that way.

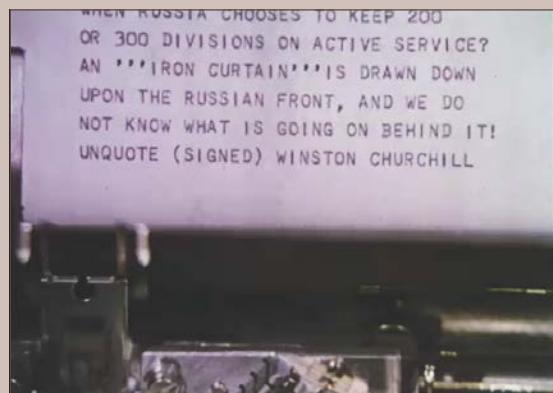


The NATO Exhibition caravans were equipped with outdoor film projection to help inform local populations in NATO countries about the Atlantic community.

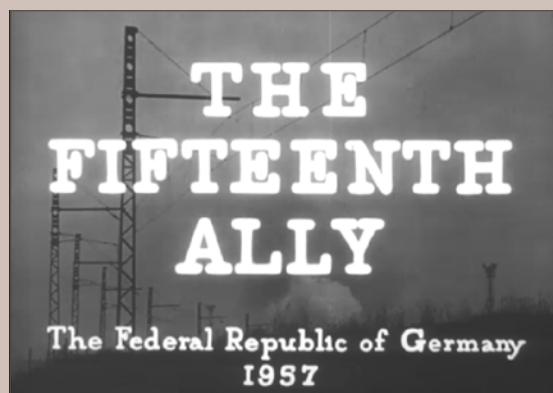
In its infancy, NATO used more traditional ways to reach mass audiences. In 1951, for instance, the NATO Information Service – the Alliance's nascent communication unit – produced a series of films about the new organisation for presentation in movie houses and cinemas.

Even in the early days, the Alliance knew it needed to engage with the public. That was the rationale, for instance, behind the tour made by a specially designed exhibition caravan at the time of Greece and Turkey joining the Alliance in 1952.

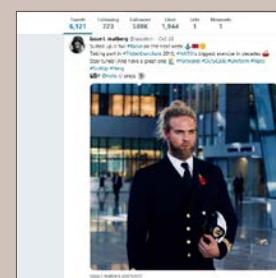
Seventy years later, with Montenegro as NATO's newest member, the Alliance remains proactive in communicating its message to the world.



A sequence taken from the 1983 NATO film 'Barriers', which described aspects of post-war European history, and how East and West was then divided. The voiceover narration for the film was provided by American actor Charlton Heston.



The title screen for the 1957 NATO film 'The Fifteenth Ally', which introduced West Germany as the newest member of the Alliance. The NATO Information Service (later the Public Diplomacy Division) began producing films to spread the word about NATO in 1951.



NATO began its first foray into the social media landscape in 2009. Social media provide an important tool for informing the world about the activities of the Alliance. With blogs, apps, Facebook, Twitter and other platforms, NATO reaches new audiences directly through their mobile devices. By late 2018, the Alliance had a total of almost 3 million followers across its official social media channels.

## NATO's Archives: Improving Transparency

*The NATO Archives were established for the 50<sup>th</sup> anniversary of the Alliance in 1999. The Archives hold official records of the Alliance from 1949 until the present. They promote transparency by enabling access to NATO information via a public disclosure programme. Forty thousand boxes of material are held in the Archives, with an annual increase of around 100,000 records.*

In 2018, NATO began the public disclosure of 1,000 newly declassified Supreme Headquarters Allied Powers Europe (SHAPE) documents from

the 1950s. In total, approximately 13,000 historical documents were disclosed to the public in 2018, including records of informal Council meetings discussing the Treaty on the Non-Proliferation of Nuclear Weapons.

In 2018, efforts continue to improve information accessibility through the NATO Archives website. The move to the new Headquarters has also allowed NATO to improve researchers' access to physical records in the new Library and Archives Reading Room.







## 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 Status of Forces 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.

The mission carries out training, advice and assistance activities in support of the Afghan government's security roadmap, which aims to increase the effectiveness and accountability of the Afghan national security forces and institutions.

Those countries not contributing troops to the Resolute Support Mission are supporting the 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.

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

Commander: General Austin S. Miller (USA)  
NATO Senior Civilian Representative: Ambassador Cornelius Zimmermann (DEU)

Resolute Support Mission Command (RSM) in Kabul  
RSM Headquarters  
Commander: General Austin S. Miller (USA)  
Deputy Commander: Lieutenant General Salvatore Camporeale (ITA)

Train, Advise and Assist Command (TAAC) Capital  
Headquarters TAAC(C) in Kabul (TUR)  
Commander: Brigadier General Tayyar Aydin (TUR)

Train, Advise and Assist Command (TAAC) North:  
Headquarters TAAC(N) in Mazar-e Sharif (DEU)  
Commander: Brigadier General Gerhard Ernst-Peter Klaffus (DEU)

Train, Advise and Assist Command (TAAC) East:  
Headquarters TAAC(E) in Laghman (USA)  
Commander: Brigadier General John W. Brennan Jr. (USA)

Train, Advise and Assist Command (TAAC) South:  
Headquarters TAAC(S) in Kandahar (USA)  
Commander: Brigadier General Jeffrey D. Smiley (USA)

Train, Advise and Assist Command (TAAC) West:  
Headquarters TAAC(W) in Herat (ITA)  
Commander: Brigadier General Francesco Bruno (ITA)

Train, Advise and Assist Command (TAAC) Air:  
Commander: Brigadier General Joel L. Carey (USA)

### 39 Troop-Contributing Nations (as at December 2018)

Albania	136
Armenia	121
Australia	300
Austria	18
Azerbaijan	120
Belgium	82
Bosnia and Herzegovina	63
Bulgaria	159
Croatia	106
Czech Republic	364
Denmark	155
Estonia	39
Finland	29
Georgia	870
Germany	1,300
Greece	10
Hungary	93
Iceland	3
Italy	895
Latvia	40
Lithuania	50
Luxembourg	2
Mongolia	233
Montenegro	29
Netherlands	160
New Zealand	13
North Macedonia	50
Norway	55
Poland	315
Portugal	193
Romania	693
Slovakia	36
Slovenia	8
Spain	60
Sweden	29
Turkey	501
Ukraine	14
United Kingdom	1,100
United States	8,475
Total Strength <sup>1</sup> :	16,919

<sup>1</sup> The troop numbers reported reflect the overall presence in Afghanistan of each individual contributing nations. They are based on information provided directly from 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.

## Kosovo Force

The NATO-led Kosovo Force's mission is to contribute to maintaining a safe and secure environment as mandated by United Nations Security Council Resolution 1244. In carrying out its mission, NATO cooperates and assists the United Nations, the European Union and other international actors, as appropriate, to support the development of a stable and peaceful Kosovo. KFOR supports the development of professional, democratic and multi-ethnic security structures in Kosovo.

Commander: Major General Lorenzo D'Addario (ITA)

### 28 Troop-Contributing Nations (as at December 2018)

Albania	28
Armenia	40
Austria	429
Bulgaria	22
Canada	5
Croatia	33
Czech Republic	10
Denmark	35
Finland	20
Germany	200
Greece	109
Hungary	385
Ireland	12
Italy	542
Lithuania	1
Moldova	41
Montenegro	1
Norway	2
Poland	260
Portugal	3
Romania	55
Slovenia	242
Sweden	3
Switzerland	190
Turkey	248
Ukraine	40
United Kingdom	31
United States	655
Total Strength:	3,642

## **Defence Expenditure of NATO Countries (2011 – 2018)**

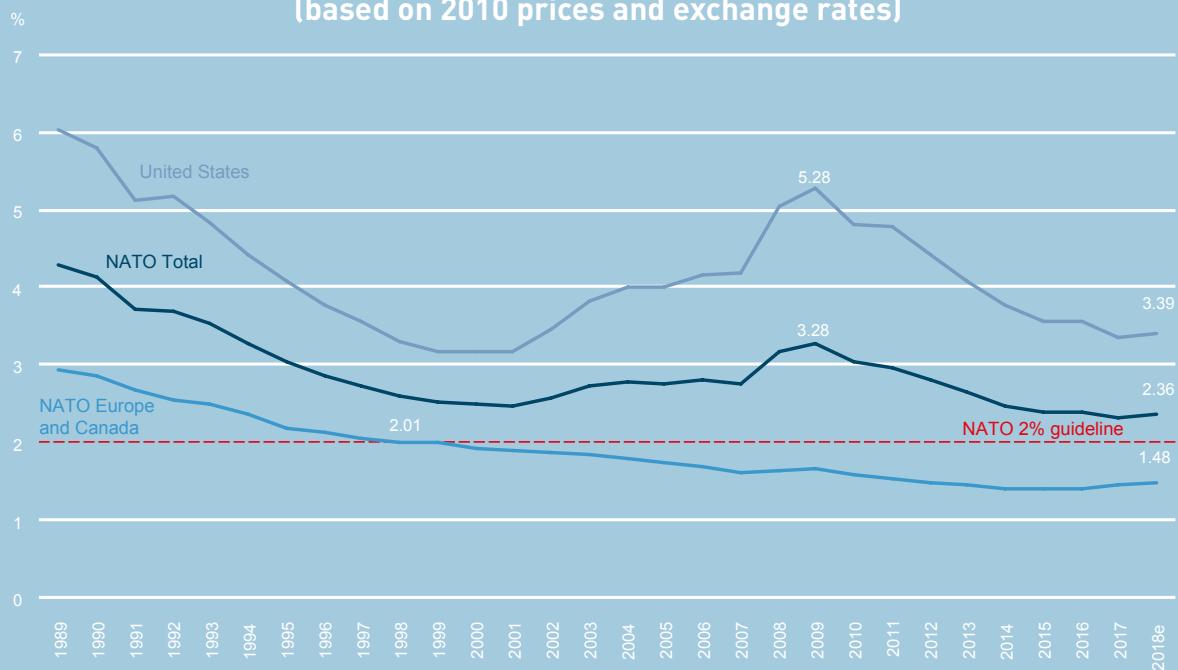
NATO collects defence expenditure data from Allies on a regular basis and presents aggregates and subsets of this information. Each Allied country's Ministry of Defence reports current and estimated future defence expenditure according to an agreed definition of defence expenditure. The amounts represent payments by a national government actually made during the course of the fiscal year to meet the needs of its armed forces or those of Allies.

NATO also makes use of up-to-date economic and demographic information available from the Directorate-General for Economic and Financial Affairs of the European Commission and the Organisation for Economic Co-operation and Development. In view of the differences between this definition and national definitions, the figures shown may diverge considerably from those which are quoted by media, published by national authorities or given in national budgets.

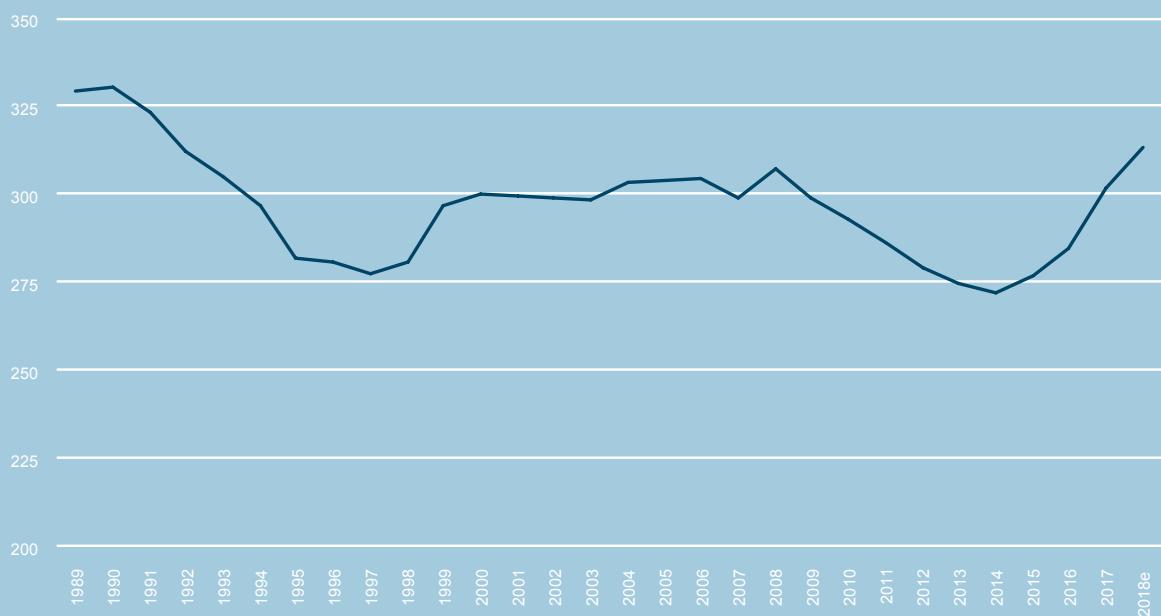
Equipment expenditure includes both spending on major equipment and on Research & Development expenditure devoted to major equipment. Personnel expenditure includes pensions paid to retirees.

The cut-off date for information used in this report is 12 February 2019. Figures for 2018 are estimates.

**Graph 1 : Defence expenditure as a share of GDP (%)  
(based on 2010 prices and exchange rates)**



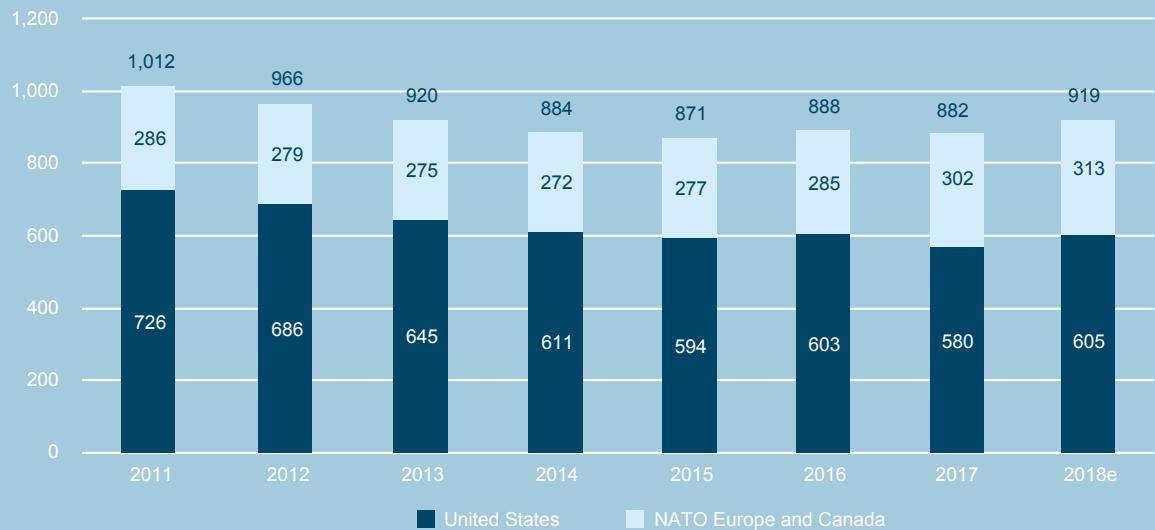
**Graph 2 : NATO Europe and Canada - defence expenditure  
(billion US dollars, based on 2010 prices and exchange rates)**



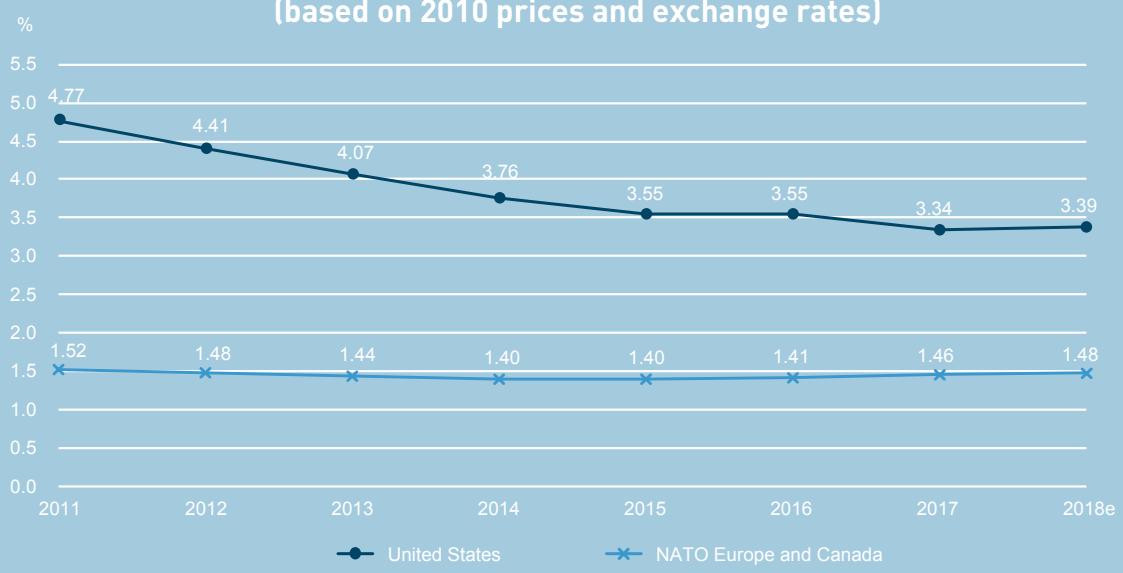
Notes: Includes enlargements which took place in: 1999 (3 Allies), 2004 (7 Allies), 2009 (2 Allies) and 2017 (1 Ally).

Figures for 2018 are estimates.

**Graph 3 : Defence expenditure**  
**(billion US dollars, based on 2010 prices and exchange rates)**



**Graph 4 : Defence expenditure as a share of GDP (%)**  
**(based on 2010 prices and exchange rates)**



Notes: Figures for 2018 are estimates. The NATO Europe and Canada aggregate from 2017 includes Montenegro, which became an Ally on 5 June 2017.

**Table 1 : Defence expenditure  
(million national currency units)**

Country	Currency unit (million)	2011	2012	2013	2014	2015	2016	2017	2018e
<b>Current prices</b>									
Albania	Leks	19,877	19,820	19,022	18,788	16,671	16,250	17,199	19,492
Belgium	Euros	3,956	4,023	3,964	3,913	3,789	3,901	3,997	4,199
Bulgaria*	Leva	1,066	1,099	1,196	1,102	1,116	1,186	1,255	1,535
Canada	Canadian dollars	21,808	19,978	18,764	20,076	23,900	23,474	30,207	27,559
Croatia	Kunas	5,323	5,059	4,848	6,113	6,057	5,696	6,120	6,560
Czech Republic	Koruny	43,131	42,780	42,035	41,003	47,264	45,598	52,714	58,810
Denmark	Kroner	24,259	25,618	23,682	22,769	22,633	24,190	24,961	26,700
Estonia	Euros	280	340	361	386	418	450	479	524
France	Euros	38,443	39,105	39,402	39,149	39,199	39,950	40,852	42,748
Germany	Euros	34,630	36,168	34,593	34,749	35,898	37,598	40,447	41,913
Greece	Euros	4,934	4,384	3,999	3,939	4,073	4,190	4,213	4,111
Hungary	Forint	295,967	297,650	286,341	281,402	316,338	362,798	402,793	484,031
Italy	Euros	21,741	20,600	20,078	18,427	17,642	20,226	21,166	21,183
Latvia**	Euros	206	193	212	221	254	364	470	594
Lithuania**	Euros	248	252	267	322	425	575	724	895
Luxembourg	Euros	167	167	176	190	225	213	288	316
Montenegro	Euros	57	53	49	52	51	56	59	71
Netherlands	Euros	8,156	8,067	7,702	7,788	7,816	8,234	8,686	10,701
Norway	Kroner	40,534	41,560	43,518	46,234	46,900	50,937	53,460	57,791
Poland**	Zlotys	26,979	28,365	28,467	31,874	39,940	37,082	37,558	43,082
Portugal	Euros	2,627	2,366	2,457	2,263	2,384	2,364	2,398	2,728
Romania**	New Lei	7,255	7,282	8,160	9,014	10,337	10,738	14,765	18,165
Slovak Republic	Euros	766	794	729	752	889	907	935	1,098
Slovenia	Euros	479	423	382	366	361	406	422	466
Spain	Euros	10,059	10,828	9,495	9,508	10,000	9,014	10,528	11,276
Turkey	Liras	22,807	24,956	27,466	29,727	32,522	38,203	47,323	60,925
United Kingdom	Pounds	39,204	36,563	39,824	39,902	38,940	41,590	43,257	45,421
United States	US dollars	740,744	712,947	680,856	653,942	641,253	656,059	642,936	684,360
<b>Constant 2010 prices</b>									
Albania	Leks	19,427	19,172	18,347	17,845	15,745	15,422	16,101	17,576
Belgium	Euros	3,879	3,868	3,772	3,697	3,544	3,584	3,612	3,733
Bulgaria*	Leva	1,006	1,021	1,119	1,026	1,017	1,057	1,082	1,289
Canada	Canadian dollars	21,123	19,117	17,676	18,546	22,246	21,717	27,325	24,450
Croatia	Kunas	5,236	4,901	4,660	5,875	5,819	5,476	5,820	6,099
Czech Republic	Koruny	43,121	42,154	40,836	38,869	44,288	42,193	48,077	52,668
Denmark	Kroner	24,105	24,865	22,783	21,681	21,458	22,771	23,170	24,711
Estonia	Euros	266	313	321	333	357	379	389	410
France	Euros	38,081	38,292	38,286	37,822	37,443	38,087	38,691	40,109
Germany	Euros	34,259	35,240	33,056	32,633	33,056	34,156	36,187	36,802
Greece	Euros	4,894	4,365	4,078	4,091	4,246	4,378	4,377	4,249
Hungary	Forint	289,420	281,929	263,697	250,477	276,151	313,617	336,109	386,625
Italy	Euros	20,949	19,521	18,526	16,709	15,735	17,632	18,331	18,544
Latvia**	Euros	194	175	189	194	223	317	396	484
Lithuania**	Euros	235	233	244	291	383	511	617	743
Luxembourg	Euros	159	155	161	170	201	189	250	267
Montenegro	Euros	57	52	48	50	48	50	50	60
Netherlands	Euros	8,057	7,827	7,359	7,374	7,393	7,721	8,024	9,699
Norway	Kroner	39,465	39,622	40,244	41,985	41,299	44,006	45,077	47,932
Poland**	Zlotys	26,135	26,847	26,865	29,931	37,220	34,449	34,222	39,029
Portugal	Euros	2,634	2,382	2,418	2,211	2,283	2,225	2,223	2,494
Romania**	New Lei	6,991	6,746	7,312	7,938	8,872	8,995	11,821	13,654
Slovak Republic	Euros	754	771	705	728	862	883	899	1,032
Slovenia	Euros	474	416	370	352	344	384	393	424
Spain	Euros	10,056	10,817	9,452	9,484	9,923	8,919	10,290	10,920
Turkey	Liras	20,994	21,376	22,225	22,351	22,640	24,611	27,489	30,480
United Kingdom	Pounds	38,466	35,323	37,768	37,205	36,151	37,831	38,566	39,736
United States	US dollars	725,959	686,410	644,939	611,382	593,960	603,175	580,184	605,371

Notes: Figures for 2018 are estimates.

\* Defence expenditure does not include pensions.

\*\* With regard to 2018, these countries have either national laws or political agreements which call for at least 2% of GDP to be spent on defence annually, consequently these estimates are expected to change accordingly.

**Table 2 : Defence expenditure  
(million US dollars)**

Country	2011	2012	2013	2014	2015	2016	2017	2018e
<b>Current prices and exchange rates</b>								
<b>NATO Europe</b>	<b>281,525</b>	<b>264,517</b>	<b>269,434</b>	<b>270,430</b>	<b>235,336</b>	<b>237,326</b>	<b>250,862</b>	<b>281,665</b>
Albania	197	183	180	178	132	131	144	181
Belgium	5,500	5,169	5,264	5,192	4,202	4,315	4,504	5,029
Bulgaria*	758	722	811	747	633	671	723	937
Croatia	996	865	850	1,064	883	837	924	1,057
Czech Republic	2,437	2,185	2,148	1,975	1,921	1,866	2,255	2,754
Denmark	4,518	4,423	4,217	4,057	3,364	3,593	3,780	4,279
Estonia	389	437	480	513	463	497	540	627
France	53,441	50,245	52,316	51,940	43,474	44,191	46,036	51,200
Germany	48,140	46,470	45,931	46,102	39,813	41,590	45,580	50,199
Greece	6,858	5,633	5,309	5,226	4,517	4,635	4,748	4,924
Hungary	1,472	1,322	1,280	1,210	1,132	1,289	1,468	1,820
Italy	30,223	26,468	26,658	24,448	19,566	22,373	23,852	25,371
Latvia**	286	248	281	293	281	403	530	711
Lithuania**	344	324	355	427	471	636	816	1,071
Luxembourg	232	214	234	253	249	236	325	378
Montenegro	80	68	65	69	57	62	66	85
Netherlands	11,339	10,365	10,226	10,332	8,668	9,108	9,788	12,817
Norway	7,232	7,143	7,407	7,337	5,816	6,064	6,463	7,222
Poland**	8,947	9,574	9,007	10,104	10,596	9,405	9,938	12,156
Portugal	3,652	3,040	3,262	3,003	2,644	2,615	2,702	3,267
Romania**	2,380	2,100	2,452	2,691	2,581	2,645	3,643	4,678
Slovak Republic	1,065	1,020	968	997	986	1,003	1,053	1,316
Slovenia	666	543	507	486	401	449	476	558
Spain	13,984	13,912	12,607	12,614	11,090	9,971	11,864	13,506
Turkey	13,616	13,895	14,427	13,583	11,957	12,649	12,972	13,898
United Kingdom	62,852	58,016	62,258	65,658	59,492	56,154	55,672	61,622
<b>North America</b>	<b>762,784</b>	<b>732,941</b>	<b>699,077</b>	<b>672,092</b>	<b>659,938</b>	<b>673,770</b>	<b>666,213</b>	<b>705,843</b>
Canada	22,040	19,994	18,221	18,150	18,685	17,711	23,277	21,483
United States	740,744	712,947	680,856	653,942	641,253	656,059	642,936	684,360
<b>NATO Total</b>	<b>1,044,308</b>	<b>997,459</b>	<b>968,512</b>	<b>942,522</b>	<b>895,274</b>	<b>911,096</b>	<b>917,075</b>	<b>987,508</b>
<b>Constant 2010 prices and exchange rates</b>								
<b>NATO Europe</b>	<b>265,661</b>	<b>260,551</b>	<b>257,465</b>	<b>254,164</b>	<b>255,451</b>	<b>263,686</b>	<b>275,405</b>	<b>289,697</b>
Albania	187	184	177	172	151	148	155	169
Belgium	5,137	5,123	4,996	4,896	4,694	4,747	4,784	4,944
Bulgaria*	681	691	757	694	689	715	732	873
Croatia	952	891	848	1,068	1,058	996	1,059	1,109
Czech Republic	2,258	2,207	2,138	2,035	2,319	2,209	2,517	2,758
Denmark	4,286	4,421	4,051	3,855	3,816	4,049	4,120	4,394
Estonia	352	414	426	442	473	502	515	543
France	50,436	50,715	50,706	50,091	49,590	50,443	51,243	53,121
Germany	45,374	46,673	43,780	43,220	43,781	45,237	47,927	48,741
Greece	6,482	5,782	5,401	5,419	5,623	5,799	5,796	5,627
Hungary	1,392	1,356	1,268	1,205	1,328	1,508	1,616	1,859
Italy	27,746	25,853	24,536	22,130	20,840	23,352	24,278	24,560
Latvia**	256	232	250	257	295	419	525	641
Lithuania**	312	309	323	385	507	676	817	984
Luxembourg	210	206	213	225	266	250	331	353
Montenegro	75	69	63	66	64	66	67	79
Netherlands	10,670	10,367	9,747	9,766	9,791	10,225	10,627	12,845
Norway	6,530	6,556	6,659	6,947	6,833	7,281	7,458	7,931
Poland**	8,376	8,605	8,610	9,593	11,929	11,041	10,968	12,509
Portugal	3,489	3,155	3,203	2,929	3,023	2,946	2,944	3,303
Romania**	2,200	2,123	2,301	2,498	2,792	2,831	3,720	4,296
Slovak Republic	999	1,022	934	964	1,142	1,170	1,190	1,367
Slovenia	627	551	490	467	455	508	520	562
Spain	13,319	14,327	12,519	12,560	13,143	11,812	13,628	14,462
Turkey	13,970	14,224	14,789	14,873	15,065	16,377	18,292	20,282
United Kingdom	59,422	54,566	58,344	57,475	55,846	58,441	59,576	61,384
<b>North America</b>	<b>746,463</b>	<b>704,967</b>	<b>662,097</b>	<b>629,384</b>	<b>615,554</b>	<b>624,255</b>	<b>606,708</b>	<b>629,104</b>
Canada	20,504	18,557	17,158	18,002	21,594	21,081	26,524	23,733
United States	725,959	686,410	644,939	611,382	593,960	603,175	580,184	605,371
<b>NATO Total</b>	<b>1,012,124</b>	<b>965,518</b>	<b>919,562</b>	<b>883,549</b>	<b>871,005</b>	<b>887,941</b>	<b>882,114</b>	<b>918,801</b>

Notes: Figures for 2018 are estimates. The NATO Europe and NATO Total aggregates from 2017 include Montenegro, which became an Ally on 5 June 2017.

\* Defence expenditure does not include pensions.

\*\* With regard to 2018, these countries have either national laws or political agreements which call for at least 2% of GDP to be spent on defence annually, consequently these estimates are expected to change accordingly.

**Table 3 : Defence expenditure as a share of GDP and annual real change  
(based on 2010 prices)**

Country	2011	2012	2013	2014	2015	2016	2017	2018e
<b>Share of real GDP (%)</b>								
<b>NATO Europe</b>	<b>1.55</b>	<b>1.52</b>	<b>1.49</b>	<b>1.44</b>	<b>1.42</b>	<b>1.44</b>	<b>1.46</b>	<b>1.51</b>
Albania	1.53	1.49	1.41	1.35	1.16	1.10	1.11	1.16
Belgium	1.04	1.04	1.01	0.98	0.92	0.92	0.91	0.93
Bulgaria*	1.32	1.34	1.46	1.32	1.26	1.26	1.24	1.43
Croatia	1.60	1.53	1.46	1.84	1.78	1.62	1.67	1.71
Czech Republic	1.07	1.05	1.03	0.95	1.03	0.96	1.04	1.11
Denmark	1.31	1.35	1.23	1.15	1.11	1.15	1.15	1.21
Estonia	1.68	1.90	1.91	1.93	2.02	2.07	2.03	2.07
France	1.87	1.87	1.86	1.82	1.78	1.79	1.78	1.82
Germany	1.28	1.31	1.22	1.18	1.18	1.19	1.23	1.23
Greece	2.38	2.29	2.21	2.20	2.30	2.37	2.34	2.22
Hungary	1.05	1.03	0.95	0.86	0.92	1.02	1.05	1.15
Italy	1.30	1.24	1.20	1.08	1.01	1.12	1.15	1.15
Latvia**	1.01	0.88	0.93	0.94	1.04	1.45	1.74	2.03
Lithuania**	0.79	0.76	0.76	0.88	1.14	1.48	1.72	2.00
Luxembourg	0.39	0.38	0.38	0.38	0.44	0.40	0.52	0.54
Montenegro	1.75	1.66	1.47	1.50	1.40	1.42	1.36	1.55
Netherlands	1.24	1.22	1.15	1.13	1.11	1.14	1.15	1.35
Norway	1.51	1.47	1.48	1.51	1.46	1.54	1.55	1.62
Poland**	1.72	1.74	1.72	1.85	2.22	1.99	1.89	2.05
Portugal	1.49	1.41	1.44	1.31	1.33	1.27	1.23	1.35
Romania**	1.30	1.23	1.28	1.35	1.45	1.40	1.72	1.92
Slovak Republic	1.09	1.09	0.98	0.99	1.13	1.12	1.10	1.21
Slovenia	1.30	1.17	1.05	0.97	0.93	1.01	0.98	1.02
Spain	0.94	1.04	0.93	0.92	0.92	0.81	0.90	0.93
Turkey	1.64	1.59	1.52	1.45	1.39	1.46	1.52	1.64
United Kingdom	2.38	2.16	2.26	2.16	2.05	2.11	2.12	2.15
<b>North America</b>	<b>4.42</b>	<b>4.08</b>	<b>3.76</b>	<b>3.49</b>	<b>3.33</b>	<b>3.32</b>	<b>3.15</b>	<b>3.18</b>
Canada	1.23	1.10	0.99	1.01	1.20	1.15	1.41	1.23
United States	4.77	4.41	4.07	3.76	3.55	3.55	3.34	3.39
<b>NATO Total</b>	<b>2.97</b>	<b>2.80</b>	<b>2.64</b>	<b>2.48</b>	<b>2.39</b>	<b>2.39</b>	<b>2.32</b>	<b>2.36</b>
<b>Annual real change (%)</b>								
<b>NATO Europe</b>	<b>-3.15</b>	<b>-1.92</b>	<b>-1.18</b>	<b>-1.28</b>	<b>0.51</b>	<b>3.22</b>	<b>4.44</b>	<b>5.19</b>
Albania	0.55	-1.32	-4.30	-2.74	-11.76	-2.05	4.40	9.16
Belgium	-2.07	-0.27	-2.48	-1.99	-4.13	1.13	0.77	3.36
Bulgaria*	-18.22	1.54	9.53	-8.29	-0.84	3.88	2.33	19.19
Croatia	3.55	-6.41	-4.91	26.07	-0.94	-5.90	6.28	4.79
Czech Republic	-15.13	-2.24	-3.13	-4.82	13.94	-4.73	13.94	9.55
Denmark	-4.83	3.15	-8.37	-4.84	-1.03	6.12	1.75	6.65
Estonia	6.04	17.71	2.72	3.75	7.12	6.11	2.55	5.40
France	-2.95	0.55	-0.02	-1.21	-1.00	1.72	1.59	3.67
Germany	-1.91	2.86	-6.20	-1.28	1.30	3.33	5.95	1.70
Greece	-17.97	-10.81	-6.59	0.33	3.77	3.12	-0.04	-2.92
Hungary	3.03	-2.59	-6.47	-5.01	10.25	13.57	7.17	15.03
Italy	-3.18	-6.82	-5.09	-9.81	-5.83	12.05	3.97	1.16
Latvia**	2.27	-9.53	7.94	2.55	14.79	42.29	25.14	22.12
Lithuania**	-4.32	-0.90	4.72	19.15	31.60	33.37	20.79	20.49
Luxembourg	-15.16	-2.29	3.70	5.33	18.60	-6.04	32.39	6.66
Montenegro	0.63	-8.11	-8.44	4.49	-3.50	4.33	0.28	18.43
Netherlands	-4.90	-2.84	-5.98	0.19	0.26	4.43	3.93	20.87
Norway	0.47	0.40	1.57	4.32	-1.63	6.55	2.43	6.33
Poland**	2.06	2.73	0.07	11.41	24.35	-7.44	-0.66	14.05
Portugal	-1.45	-9.56	1.51	-8.56	3.24	-2.55	-0.08	12.19
Romania**	5.44	-3.50	8.39	8.57	11.76	1.39	31.41	15.50
Slovak Republic	-12.23	2.31	-8.63	3.22	18.53	2.44	1.74	14.82
Slovenia	-18.77	-12.07	-11.19	-4.74	-2.39	11.55	2.34	8.07
Spain	-9.66	7.57	-12.62	0.33	4.64	-10.12	15.37	6.12
Turkey	-1.16	1.82	3.97	0.57	1.30	8.71	11.69	10.88
United Kingdom	-1.50	-8.17	6.92	-1.49	-2.83	4.65	1.94	3.03
<b>North America</b>	<b>0.99</b>	<b>-5.56</b>	<b>-6.08</b>	<b>-4.94</b>	<b>-2.20</b>	<b>1.41</b>	<b>-2.81</b>	<b>3.69</b>
Canada	9.71	-9.50	-7.54	4.92	19.95	-2.38	25.82	-10.52
United States	0.77	-5.45	-6.04	-5.20	-2.85	1.55	-3.81	4.34
<b>NATO Total</b>	<b>-0.13</b>	<b>-4.60</b>	<b>-4.76</b>	<b>-3.92</b>	<b>-1.42</b>	<b>1.94</b>	<b>-0.66</b>	<b>4.16</b>

Notes: Figures for 2018 are estimates. The NATO Europe and NATO Total aggregates from 2017 include Montenegro, which became an Ally on 5 June 2017.

\* Defence expenditure does not include pensions.

\*\* With regard to 2018, these countries have either national laws or political agreements which call for at least 2% of GDP to be spent on defence annually, consequently these estimates are expected to change accordingly.

**Table 4 : Real GDP**

Country	2011	2012	2013	2014	2015	2016	2017	2018e
Billion US dollars (2010 prices and exchange rates)								
<b>NATO Europe</b>	<b>17,173</b>	<b>17,167</b>	<b>17,295</b>	<b>17,628</b>	<b>18,002</b>	<b>18,355</b>	<b>18,862</b>	<b>19,230</b>
Albania	12	12	13	13	13	13	14	15
Belgium	492	493	494	501	509	517	526	533
Bulgaria	52	52	52	53	55	57	59	61
Croatia	60	58	58	58	59	61	63	65
Czech Republic	211	209	208	214	226	231	241	248
Denmark	326	327	330	335	343	352	359	364
Estonia	21	22	22	23	23	24	25	26
France	2,699	2,710	2,726	2,753	2,781	2,812	2,876	2,923
Germany	3,536	3,561	3,583	3,661	3,715	3,795	3,888	3,949
Greece	272	252	244	246	245	244	248	253
Hungary	133	131	134	139	144	147	154	161
Iceland	14	14	15	15	16	17	18	18
Italy	2,138	2,077	2,041	2,044	2,061	2,081	2,114	2,135
Latvia	25	26	27	27	28	29	30	32
Lithuania	39	41	42	44	45	46	48	49
Luxembourg	55	54	56	59	61	63	64	65
Montenegro	4,3	4,2	4,3	4,4	4,5	4,7	4,9	5,1
Netherlands	859	850	850	862	879	897	924	949
Norway	433	445	450	459	468	473	483	490
Poland	486	494	501	518	538	554	581	611
Portugal	234	225	222	224	228	232	239	244
Romania	170	173	179	185	192	202	216	224
Slovak Republic	92	94	95	98	101	105	108	113
Slovenia	48	47	47	48	49	50	53	55
Spain	1,417	1,376	1,352	1,371	1,421	1,466	1,510	1,548
Turkey	854	895	974	1,023	1,083	1,118	1,201	1,240
United Kingdom	2,493	2,529	2,580	2,657	2,719	2,768	2,816	2,852
<b>North America</b>	<b>16,889</b>	<b>17,260</b>	<b>17,589</b>	<b>18,027</b>	<b>18,513</b>	<b>18,800</b>	<b>19,232</b>	<b>19,774</b>
Canada	1,664	1,693	1,735	1,785	1,802	1,828	1,884	1,924
United States	15,225	15,567	15,854	16,243	16,710	16,972	17,349	17,851
<b>NATO Total</b>	<b>34,061</b>	<b>34,428</b>	<b>34,884</b>	<b>35,655</b>	<b>36,515</b>	<b>37,155</b>	<b>38,094</b>	<b>39,005</b>

Notes: Figures for 2018 are estimates. The NATO Europe and NATO Total aggregates from 2017 include Montenegro, which became an Ally on 5 June 2017.

**Table 5 : GDP per capita and defence expenditure per capita  
(2010 prices and exchange rates)**

Country	2011	2012	2013	2014	2015	2016	2017	2018e
<b>GDP per capita (thousand US dollars)</b>								
<b>NATO Europe</b>	<b>30.8</b>	<b>30.7</b>	<b>30.8</b>	<b>31.3</b>	<b>31.8</b>	<b>32.3</b>	<b>33.1</b>	<b>33.6</b>
Albania	4.2	4.3	4.3	4.4	4.5	4.7	4.9	5.1
Belgium	44.8	44.6	44.4	44.8	45.3	45.8	46.3	46.8
Bulgaria	7.0	7.1	7.1	7.3	7.6	8.0	8.3	8.7
Croatia	13.9	13.7	13.6	13.7	14.1	14.7	15.3	15.8
Czech Republic	20.1	19.9	19.8	20.3	21.4	21.9	22.8	23.4
Denmark	58.6	58.5	58.8	59.4	60.4	61.4	62.3	62.7
Estonia	15.8	16.5	16.9	17.4	17.8	18.4	19.3	19.9
France	41.3	41.3	41.3	41.5	41.8	42.1	42.9	43.4
Germany	44.1	44.3	44.4	45.2	45.5	46.1	47.0	47.5
Greece	24.5	22.8	22.3	22.6	22.6	22.7	23.1	23.7
Hungary	13.3	13.2	13.5	14.1	14.7	15.0	15.7	16.5
Iceland	43.7	44.0	45.4	45.9	47.4	50.2	51.0	52.5
Italy	35.6	34.4	33.6	33.6	33.9	34.3	34.9	35.3
Latvia	12.3	12.9	13.4	13.8	14.3	14.7	15.6	16.4
Lithuania	13.0	13.7	14.3	14.9	15.4	15.9	16.9	17.6
Luxembourg	105.0	102.2	103.3	105.2	107.3	107.1	106.4	107.1
Montenegro	6.9	6.7	6.9	7.0	7.3	7.5	7.9	8.2
Netherlands	51.5	50.8	50.6	51.1	51.9	52.7	53.9	55.0
Norway	87.5	88.7	88.5	89.3	90.1	90.4	91.5	92.1
Poland	12.6	12.8	13.0	13.5	14.0	14.4	15.1	15.9
Portugal	22.2	21.4	21.2	21.5	22.0	22.5	23.2	23.8
Romania	8.4	8.6	9.0	9.3	9.7	10.2	11.0	11.5
Slovak Republic	17.0	17.3	17.5	18.0	18.7	19.3	19.9	20.7
Slovenia	23.5	22.9	22.6	23.2	23.7	24.5	25.6	26.7
Spain	30.3	29.4	29.0	29.5	30.6	31.6	32.4	33.2
Turkey	11.6	11.9	12.9	13.3	14.0	14.3	15.2	15.5
United Kingdom	39.4	39.7	40.3	41.1	41.8	42.2	42.6	42.9
<b>North America</b>	<b>48.7</b>	<b>49.4</b>	<b>50.0</b>	<b>50.9</b>	<b>51.9</b>	<b>52.3</b>	<b>53.1</b>	<b>54.2</b>
Canada	48.5	48.7	49.4	50.2	50.3	50.4	51.3	51.9
United States	48.8	49.5	50.1	50.9	52.0	52.5	53.3	54.4
<b>NATO Total</b>	<b>37.7</b>	<b>37.9</b>	<b>38.2</b>	<b>38.8</b>	<b>39.6</b>	<b>40.1</b>	<b>40.8</b>	<b>41.6</b>
<b>Defence expenditure per capita (US dollars)</b>								
<b>NATO Europe</b>	<b>476</b>	<b>465</b>	<b>458</b>	<b>451</b>	<b>452</b>	<b>464</b>	<b>483</b>	<b>506</b>
Albania	64	64	61	59	53	52	54	59
Belgium	467	463	449	438	418	420	421	433
Bulgaria*	93	95	104	96	96	100	103	124
Croatia	222	209	199	252	252	239	256	269
Czech Republic	215	210	203	193	220	209	238	260
Denmark	770	791	722	683	672	707	714	758
Estonia	265	313	322	336	360	381	391	412
France	772	772	768	755	745	754	764	788
Germany	565	580	543	534	536	549	580	586
Greece	584	523	493	497	520	538	541	526
Hungary	140	137	128	122	135	154	165	190
Italy	462	428	405	364	343	385	401	406
Latvia**	125	114	124	129	149	214	271	333
Lithuania**	103	103	109	131	175	236	290	353
Luxembourg	405	387	391	402	468	428	555	579
Montenegro	121	111	102	106	102	107	108	128
Netherlands	639	619	580	579	578	601	621	745
Norway	1,318	1,306	1,311	1,352	1,316	1,391	1,413	1,489
Poland**	217	223	224	249	310	287	285	325
Portugal	330	300	306	282	292	285	286	322
Romania**	109	106	115	125	141	144	189	220
Slovak Republic	185	189	172	178	211	215	219	251
Slovenia	306	268	238	226	221	246	252	272
Spain	285	306	269	270	283	254	293	310
Turkey	189	190	195	194	195	209	231	253
United Kingdom	939	857	910	890	858	890	902	924
<b>North America</b>	<b>2,155</b>	<b>2,019</b>	<b>1,882</b>	<b>1,776</b>	<b>1,724</b>	<b>1,736</b>	<b>1,674</b>	<b>1,723</b>
Canada	597	534	488	507	603	581	723	641
United States	2,326	2,183	2,037	1,917	1,849	1,865	1,781	1,846
<b>NATO Total</b>	<b>1,119</b>	<b>1,062</b>	<b>1,007</b>	<b>962</b>	<b>944</b>	<b>957</b>	<b>946</b>	<b>980</b>

Notes: Figures for 2018 are estimates. The NATO Europe and NATO Total aggregates from 2017 include Montenegro, which became an Ally on 5 June 2017.

\* Defence expenditure does not include pensions.

\*\* With regard to 2018, these countries have either national laws or political agreements which call for at least 2% of GDP to be spent on defence annually, consequently these estimates are expected to change accordingly.

**Table 6 : Military personnel  
(Thousands)**

Country	2011	2012	2013	2014	2015	2016	2017	2018e
<b>NATO Europe</b>	<b>2,004</b>	<b>1,956</b>	<b>1,862</b>	<b>1,825</b>	<b>1,740</b>	<b>1,718</b>	<b>1,774</b>	<b>1,791</b>
Albania	10	7.9	6.8	6.7	6.2	5.8	6.8	6.8
Belgium	32	31	31	31	30	29	28	27
Bulgaria	29	26	28	27	25	25	25	25
Croatia	16	16	16	15	15	15	15	15
Czech Republic	22	22	20	20	21	23	24	25
Denmark	19	19	18	17	17	17	17	17
Estonia	5.9	6.0	6.3	6.3	6.0	6.1	6.2	6.2
France	227	219	213	207	205	208	208	208
Germany	205	192	184	179	177	178	180	183
Greece	117	110	110	107	104	106	106	105
Hungary	19	19	18	17	17	18	19	19
Italy	192	189	189	183	178	176	175	180
Latvia	4.8	4.7	4.6	4.6	4.8	5.2	5.5	6.3
Lithuania	8.0	8.3	8.4	8.6	12	12	13	15
Luxembourg	0.9	0.8	0.9	0.8	0.8	0.8	0.8	0.8
Montenegro	1.9	1.9	1.9	1.9	1.7	1.5	1.5	1.5
Netherlands	45	44	42	41	41	40	39	41
Norway	21	21	20	21	21	20	20	20
Poland	97	98	100	99	99	102	105	118
Portugal	35	34	33	31	28	30	28	30
Romania	66	66	66	65	64	63	62	69
Slovak Republic	13	13	12	12	12	12	12	13
Slovenia	7.2	7.1	6.9	6.8	6.6	6.5	6.3	6.8
Spain	127	125	122	122	122	121	118	121
Turkey	495	495	427	427	385	359	416	386
United Kingdom	191	184	179	169	141	139	137	145
<b>North America</b>	<b>1,493</b>	<b>1,467</b>	<b>1,450</b>	<b>1,404</b>	<b>1,384</b>	<b>1,372</b>	<b>1,379</b>	<b>1,394</b>
Canada	68	68	68	66	70	71	71	71
United States	1,425	1,400	1,382	1,338	1,314	1,301	1,307	1,323
<b>NATO Total</b>	<b>3,497</b>	<b>3,423</b>	<b>3,312</b>	<b>3,229</b>	<b>3,125</b>	<b>3,090</b>	<b>3,152</b>	<b>3,184</b>

Notes: Figures for 2018 are estimates. The NATO Europe and NATO Total aggregates from 2017 include Montenegro, which became an Ally on 5 June 2017.

**Table 7a : Distribution of defence expenditure by main category  
(percentage of total defence expenditure)**

Country	2011	2012	2013	2014	2015	2016	2017	2018e
<b>Equipment (a)</b>								
Albania	13.36	14.44	16.29	16.65	8.92	8.01	6.96	10.72
Belgium	6.27	3.57	2.84	3.52	3.44	4.66	6.41	9.80
Bulgaria *	6.33	3.68	4.52	1.03	3.47	9.15	8.10	20.30
Canada	9.67	8.31	11.16	13.03	10.47	10.61	10.89	13.05
Croatia	15.79	14.72	10.72	5.56	8.01	7.51	5.69	9.45
Czech Republic	13.30	14.78	9.49	6.53	11.76	6.70	11.12	12.39
Denmark	9.68	9.03	11.26	10.99	11.50	13.68	10.39	13.43
Estonia	10.11	13.69	14.48	22.15	12.82	17.86	19.22	18.15
France	28.17	30.58	28.56	24.64	25.04	24.44	24.17	23.66
Germany	16.41	16.45	12.74	12.94	11.93	12.21	13.75	14.13
Greece	5.86	7.47	12.06	8.17	10.40	13.45	15.47	12.40
Hungary	12.29	5.84	11.08	7.76	9.75	13.37	15.34	20.35
Italy	11.74	8.87	12.51	10.92	9.72	19.09	20.68	21.12
Latvia	10.78	10.45	12.09	7.55	13.60	19.05	17.22	35.37
Lithuania	9.38	11.20	9.23	14.06	21.55	30.06	31.61	30.59
Luxembourg	21.86	17.11	14.57	22.61	33.33	30.07	42.06	41.77
Montenegro	1.73	4.44	1.32	7.46	5.43	4.46	4.89	9.66
Netherlands	14.43	13.41	12.57	10.68	11.16	14.14	16.80	24.93
Norway	17.04	17.76	18.89	21.17	22.49	24.05	24.70	26.69
Poland	16.13	15.16	13.90	18.84	33.20	21.62	22.04	26.54
Portugal	12.07	9.34	8.65	8.43	8.70	9.95	10.02	12.97
Romania	7.57	4.14	10.71	15.77	19.65	20.43	33.20	34.36
Slovak Republic	7.15	9.56	7.39	11.12	18.28	15.32	17.74	22.27
Slovenia	5.70	1.20	1.27	0.66	1.85	1.02	4.04	8.22
Spain	6.74	22.86	12.37	13.49	14.82	6.65	20.39	23.04
Turkey	24.57	21.21	26.89	25.08	25.13	25.55	30.60	31.55
United Kingdom	22.01	19.54	21.89	22.82	21.75	21.24	22.29	24.14
United States	26.99	26.97	25.83	25.97	25.41	25.05	25.73	25.27
<b>Personnel (b)</b>								
Albania	77.07	69.97	75.25	68.05	78.15	68.05	68.20	68.19
Belgium	75.88	78.52	77.34	77.84	78.23	77.11	75.60	72.06
Bulgaria *	67.36	64.71	65.37	72.84	73.66	65.64	68.33	58.04
Canada	47.11	49.10	52.44	50.90	53.76	53.11	56.59	48.87
Croatia	67.17	68.13	68.06	76.55	72.28	75.40	71.72	71.30
Czech Republic	56.28	61.66	62.03	61.40	55.27	61.97	56.19	55.26
Denmark	52.22	49.05	51.74	51.27	52.01	49.51	47.01	46.22
Estonia	32.28	29.75	39.83	38.62	39.56	38.70	34.89	31.75
France	49.35	49.11	49.23	48.59	47.79	47.94	47.98	46.90
Germany	52.29	50.60	49.86	50.67	49.86	48.35	48.75	46.97
Greece	76.03	73.19	74.56	77.18	72.05	73.13	72.19	71.36
Hungary	50.64	47.69	48.96	49.77	48.21	49.66	42.41	39.98
Italy	74.78	77.05	75.00	76.41	77.55	70.79	67.58	65.66
Latvia	51.31	56.15	52.98	52.97	50.06	43.87	37.26	32.06
Lithuania	66.87	66.78	66.53	57.53	48.49	45.50	40.79	40.51
Luxembourg	52.29	54.23	51.10	49.31	42.77	45.56	34.40	32.29
Montenegro	82.88	82.68	87.68	78.53	78.03	75.32	79.56	71.65
Netherlands	54.66	57.54	58.53	56.50	55.51	51.77	50.97	43.69
Norway	43.43	42.38	41.02	39.36	38.70	37.28	36.10	34.47
Poland	57.80	57.34	57.70	51.45	41.96	47.15	50.04	45.99
Portugal	78.30	78.39	79.85	81.27	81.90	81.38	81.52	71.79
Romania	79.11	84.00	78.99	71.15	63.30	65.01	54.67	52.53
Slovak Republic	69.47	66.53	70.14	69.14	56.24	58.72	58.21	54.74
Slovenia	74.63	78.91	80.52	82.31	82.23	76.03	75.05	72.43
Spain	64.81	57.19	68.25	67.34	65.18	72.61	61.64	57.29
Turkey	53.02	56.02	54.58	56.88	56.82	57.60	51.02	45.28
United Kingdom	37.55	38.90	37.85	36.59	36.80	35.27	34.54	33.71
United States	33.01	32.12	34.38	35.45	36.64	45.01	41.22	38.70

\* Defence expenditure does not include pensions.

(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 7b : Distribution of defence expenditure by main category  
(percentage of total defence expenditure)**

Country	2011	2012	2013	2014	2015	2016	2017	2018e
<b>Infrastructure (c)</b>								
Albania	0.78	0.64	1.17	0.86	1.40	1.37	0.92	1.08
Belgium	1.69	1.59	2.28	1.81	0.93	0.95	1.04	1.49
Bulgaria *	1.53	0.76	0.47	0.63	1.27	0.63	0.83	0.48
Canada	5.48	5.47	4.12	3.81	3.63	3.03	3.03	4.36
Croatia	0.71	0.57	1.21	1.24	1.98	1.26	3.59	1.07
Czech Republic	2.51	1.61	2.72	2.34	3.32	3.91	4.00	4.98
Denmark	1.45	1.24	1.16	0.97	1.09	2.16	1.95	2.22
Estonia	13.57	8.85	11.54	8.20	8.45	12.15	11.27	7.98
France	2.68	3.42	2.30	2.33	2.80	2.70	2.88	3.51
Germany	4.13	3.53	3.55	3.75	3.60	3.39	3.91	3.94
Greece	1.26	0.79	0.63	1.10	0.65	0.58	0.37	0.14
Hungary	1.31	2.11	2.32	1.07	1.21	1.13	1.64	4.85
Italy	1.31	1.02	1.57	1.40	1.30	0.70	0.94	1.92
Latvia	9.29	4.16	6.26	8.89	6.64	12.83	17.56	8.15
Lithuania	1.37	1.47	2.04	2.17	2.16	3.59	3.92	4.97
Luxembourg	7.18	8.20	11.81	10.26	7.79	6.64	4.64	6.85
Montenegro	2.50	0.03	0.09	0.96	2.47	2.41	0.87	2.68
Netherlands	3.77	3.70	2.74	4.77	3.19	3.90	3.34	4.03
Norway	4.22	4.86	5.64	6.00	5.60	6.96	7.35	7.79
Poland	4.80	4.76	5.62	5.47	4.74	4.62	4.21	3.61
Portugal	0.01	0.04	0.04	0.11	0.25	0.06	0.03	0.37
Romania	1.47	1.19	1.16	1.09	1.27	2.77	2.09	3.65
Slovak Republic	1.01	0.37	0.29	0.57	1.99	3.75	2.97	2.00
Slovenia	2.61	2.02	1.33	0.65	0.61	1.14	0.45	0.49
Spain	1.88	0.85	0.67	0.66	0.97	0.97	0.68	0.39
Turkey	2.91	3.70	2.72	2.77	2.56	2.42	2.95	2.38
United Kingdom	1.64	1.91	2.04	1.95	1.63	1.87	2.25	2.48
United States	3.14	2.38	2.08	1.71	1.45	1.22	1.23	1.38
<b>Other (d)</b>								
Albania	8.79	14.95	7.30	14.44	11.53	22.57	23.92	20.01
Belgium	16.15	16.31	17.53	16.83	17.40	17.28	16.95	16.65
Bulgaria *	24.78	30.85	29.64	25.51	21.60	24.57	22.74	21.19
Canada	37.75	37.12	32.28	32.26	32.14	33.25	29.48	33.72
Croatia	16.33	16.58	20.01	16.65	17.73	15.83	18.99	18.17
Czech Republic	27.91	21.95	25.75	29.73	29.65	27.43	28.69	27.37
Denmark	36.65	40.68	35.84	36.78	35.40	34.65	40.66	38.13
Estonia	44.04	47.71	34.14	31.03	39.18	31.30	34.62	42.12
France	19.80	16.89	19.91	24.43	24.37	24.92	24.97	25.92
Germany	27.17	29.42	33.84	32.63	34.61	36.05	33.58	34.96
Greece	16.84	18.55	12.75	13.55	16.90	12.84	11.97	16.10
Hungary	35.76	44.35	37.64	41.40	40.83	35.84	40.62	34.82
Italy	12.17	13.06	10.93	11.27	11.42	9.42	10.80	11.30
Latvia	28.62	29.23	28.68	30.59	29.69	24.25	27.96	24.42
Lithuania	22.39	20.56	22.20	26.24	27.79	20.85	23.67	23.94
Luxembourg	18.67	20.46	22.52	17.82	16.11	17.73	18.90	19.10
Montenegro	12.89	12.85	10.91	13.06	14.07	17.80	14.67	16.01
Netherlands	27.14	25.34	26.16	28.05	30.14	30.20	28.90	27.35
Norway	35.31	35.00	34.45	33.46	33.21	31.71	31.84	31.05
Poland	21.27	22.73	22.78	24.24	20.11	26.61	23.71	23.85
Portugal	9.62	12.22	11.46	10.19	9.15	8.61	8.43	14.87
Romania	11.85	10.68	9.13	11.98	15.78	11.79	10.04	9.46
Slovak Republic	22.38	23.55	22.19	19.16	23.49	22.22	21.08	20.99
Slovenia	17.05	17.87	16.88	16.38	15.31	21.80	20.46	18.87
Spain	26.58	19.11	18.71	18.50	19.03	19.78	17.28	19.27
Turkey	19.49	19.07	15.80	15.27	15.49	14.43	15.43	20.79
United Kingdom	38.80	39.64	38.22	38.63	39.82	41.62	40.92	39.67
United States	36.86	38.53	37.72	36.87	36.51	28.73	31.83	34.65

\* Defence expenditure does not include pensions.

(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 on Armed Forces financed 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 etc. They might also include "Other Forces" like Ministry of Interior troops, national police forces, gendarmerie, carabinerie, coast guards etc. In such cases, expenditure should be 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 should be included in defence expenditure.

Pension payments made directly by the government to retired military and civilian employees of military departments should be 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 to be included in defence expenditure. R&D costs should 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 NATO country only to the extent of that country'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 IMF. The values for defence expenditure are expressed in current prices; constant prices; current prices and exchange rates; as well as constant prices and exchange rates.

### Note to readers

Prior to 2010, the defence data relating to France is indicative only. Iceland has no armed forces. For countries of the Euro zone, monetary values in national currency are expressed in Euros for all years. Estonia adopted Euros from 2011, Latvia from 2014, and Lithuania from 2015. Montenegro joined the Alliance in 2017.

To avoid any ambiguity, the fiscal year has been designated by the year which includes the highest number of months: e.g. 2018 represents the fiscal year 2018/2019 for Canada and the United Kingdom and the fiscal year 2017/2018 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
//	not applicable
.	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 7a) – lines 2.1 + 3.1
- Personnel (Table 7a) – lines 1.1 + 1.2 + 1.3
- Infrastructure (Table 7b) – lines 2.2 + 2.3
- Other (Table 7b) – lines 1.4 + 3.2 + 4





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