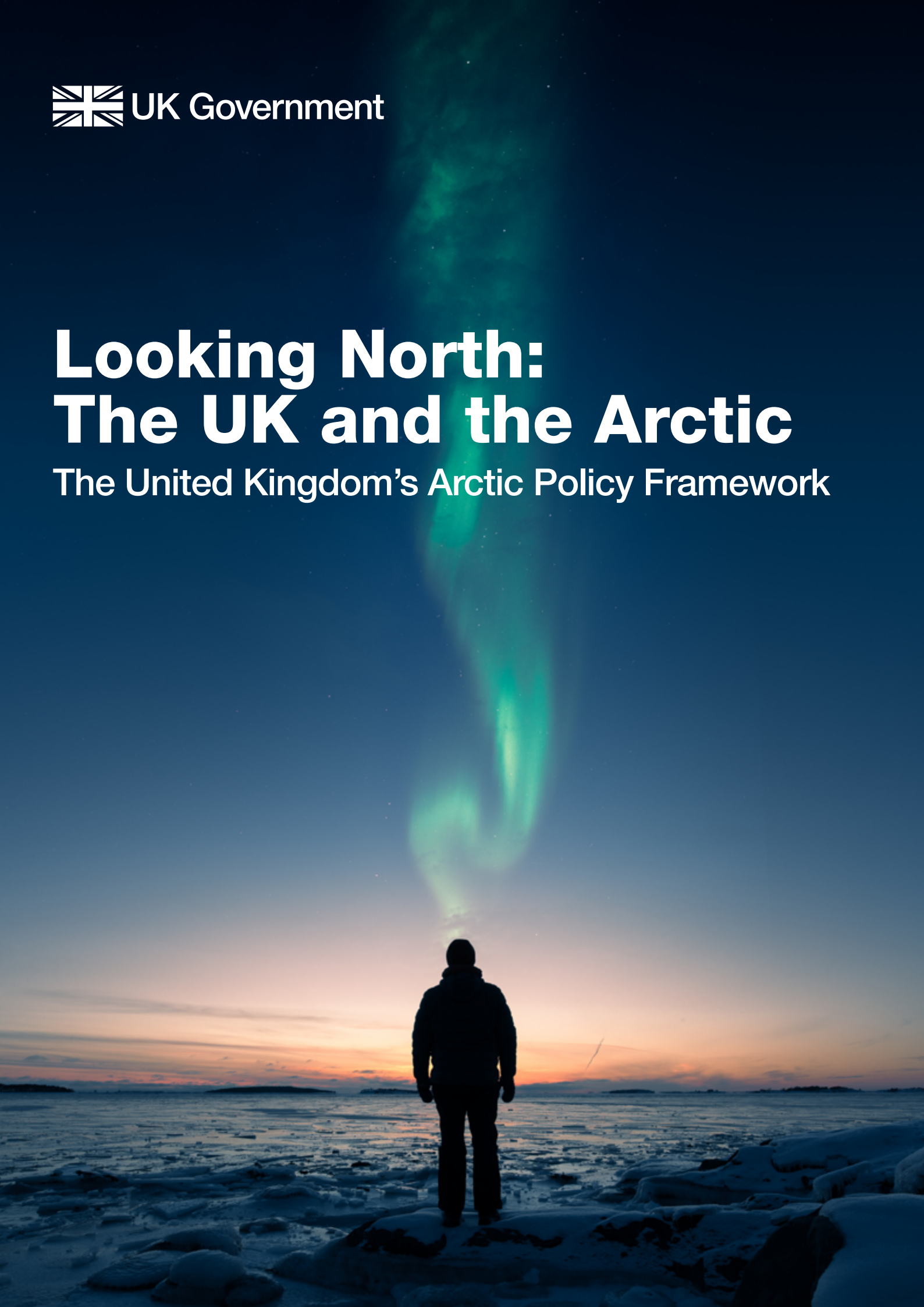


Looking North: The UK and the Arctic

The United Kingdom's Arctic Policy Framework



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The United Kingdom's Arctic Policy
Framework

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Foreword

The Rt Hon Lord Goldsmith
Minister of State responsible for the Polar Regions

The Arctic is one of the most rapidly changing regions of the world. While the United Kingdom is not an Arctic State, we have a strong and enduring connection to the region as the Arctic's nearest neighbour. We know that changes in the Arctic environment are already affecting the UK through global sea-level rise, changes to our climate and weather patterns, and threats to our shared biodiversity.

We have for many years committed to maintaining the Arctic as an area of high cooperation and low tension, and this remains the UK's long-term strategic aspiration, but changes in the Arctic are bringing increased interest from Arctic and non-Arctic States alike. Russia's full-scale invasion of Ukraine has threatened the stability of the region, and has fundamentally undermined the peaceful cooperation that had characterised the Arctic Council since its inception in 1996. We will work with our Arctic partners and Allies to contest malign and destabilising behaviours and activity in the region, and we will support efforts to reduce strategic dependence on Russia. We stand ready to protect and, where appropriate, assert our rights against those who wish to challenge the international order and freedom of navigation.

Climate change poses an existential threat to the Arctic as we know it, with the region experiencing warming at four times the global average. The impacts on Arctic ecosystems and biodiversity will be devastating unless action is taken to tackle global climate change. Under the UK's Presidency at COP26 in 2021, the UK used our focus on



nature and tackling the challenges of climate change and biodiversity loss together to secure ambitious action through the Glasgow Climate Pact to reduce emissions and achieve a Net Zero transition that will protect and restore ocean health and resilience.

We also recognise that the fragile Arctic environment must be protected against the impacts of increased activity in the region. Any development and economic activity in the region must be conducted to the highest standards, and in a safe and sustainable way to protect uniquely precious Arctic ecosystems.

This new policy framework sets out our enduring interest in the region, and our commitment to working with our Arctic partners and Allies to share experience and expertise for the benefit of all. We are taking a positive and proactive approach to achieve our ambition for a stronger, cleaner, safer and more prosperous Arctic, while also standing up for our shared values across the world.



Photo by Jamie Anderson, British Antarctic Survey



Executive Summary

The UK and the Arctic

The Arctic matters to the United Kingdom. We are not an Arctic State, but as the nearest neighbour to the region, the Arctic is critical for UK interests, most notably in respect of our future climate and security. The UK fully respects the sovereign rights of the eight Arctic States and indigenous people of the region, and is keen to play its part in ensuring the region remains peaceful.

The UK published its first Arctic Policy Framework in 2013. *Adapting to Change* set out the UK's approach towards the Arctic, based upon three principles of respect, cooperation, and appropriate leadership. These principles endured through the UK's updated policy framework that was published in 2018, *Beyond the Ice*.

Looking North continues to be guided by these principles as we refresh the UK's approach to the Arctic in response to observed geopolitical,

climatic, and environmental changes, both across the Arctic and in the UK. This latest policy framework brings together all the UK's policies and strategies relevant to the Arctic under a single, integrated framework. It outlines the full range of UK interests in the region, and sets out the long-term priorities and objectives which shape our engagement and actions on the Arctic. Our approach will remain dynamic and responsive to changes in the region and across the globe.

Through this new framework, the UK will take a whole-of-government approach to the Arctic. Drawing on the diplomatic excellence of our Diplomatic Missions across the region, the defence capabilities of the UK's Armed Forces, and the world-class scientific expertise of the UK Arctic research community, we will work with our partners and Allies to help maintain the Arctic as a place that is safe, secure, peaceful, and well-governed, protecting its environment and the communities who call the Arctic their home.

UK priorities for the Arctic

In 2021 the UK published its Integrated Review of Security, Defence, Development and Foreign Policy—*Global Britain in a competitive age*¹. The document signals a change in the UK's approach to adapt to a more competitive and fluid international environment, to do more to reinforce parts of the international architecture that are under threat, and to shape the international order of the future by working with others. It sets a vision for the UK in 2030, including the UK emerging from the Covid-19 pandemic with renewed determination and optimism, ensuring that we are stronger, safer, and more prosperous than before. The government will soon publish a refresh of the Integrated Review, setting out how systemic competition has accelerated sharply and started to tip over into confrontation, and how wider global instability is worsening. It will explain how the UK will strengthen our security and resilience, and bolster our work with a network of allies to pursue shared interests with a renewed sense of unity and purpose.

The 2021 Integrated Review confirmed the UK's commitment to maintaining the Arctic region as one of high cooperation and low tension. It set out that we would maintain a significant contribution to Arctic science, focused on understanding the implications of climate change. It also outlined our commitment to working with our partners to ensure that increasing access to the region and its resources is managed safely, sustainably and responsibly.

The UK has strong interests in both the Arctic and Antarctic. While there is no commonality in their geopolitical status or governance arrangements, there are commonalities in

respect of the impacts of climate change, in malign influences which prioritise exploitation and control above cooperation, and threats to the international order that has maintained peace and stability. The UK is one of only a small number of nations with a focus on the challenges affecting both Polar Regions.

Russia's invasion of Ukraine on 24 February 2022 fundamentally undermined the peaceful cooperation that had characterised the Arctic Council since its inception. The UK strongly supported the decision of the seven other Arctic States to pause their engagement with the Russian Chairmanship in March 2022, pending consideration of how to continue the Council's important work. The UK also welcomed their decision in June 2022 to implement a limited resumption in their work in the Arctic Council, in projects that do not involve the participation of the Russian Federation. We will continue to engage with our Arctic partners and Allies to contribute to ongoing critical work, and we stand ready to recommence participation in multilateral cooperation across the Arctic region when appropriate.

1 <https://www.gov.uk/government/publications/global-britain-in-a-competitive-age-the-integrated-review-of-security-defence-development-and-foreign-policy>

In pursuit of the UK's long-term objectives in the Arctic, the UK will focus activity across four priority areas:

Partnering and collaborating

The UK is open to the world, with a global network of friends and partners, and with the opportunity to forge new and deeper relationships.

- We remain committed to the Arctic Council through our role as a State Observer, recognising that the Council has been the preeminent intergovernmental forum promoting cooperation in the Arctic. We look forward to working with the incoming Norwegian Chairmanship from May 2023.
- We will reinforce our participation in multilateral fora and strengthen our bilateral relationships with our Arctic partners and Allies, exploring opportunities for achieving shared objectives.

Protecting the climate, people and environment

The Arctic is, first and foremost, a home to the people that live there. But climate change poses an existential threat to the Arctic as we know it, and to all who rely on its ecosystems and biodiversity.

- We will continue to raise awareness of climate change, and take action to tackle its impacts and increase climate resilience in the Arctic, as well as pushing for global delivery on the Paris and Glasgow Climate agreements.
- We will continue to respect the rights, views, and interests of the people of the Arctic, including of the region's indigenous people through increased engagement on issues affecting Arctic indigenous communities.
- We will work with our partners to protect the Arctic's biodiversity, tackle environmental threats and promote sustainable management of the region's marine and terrestrial resources.
- We will continue to be a leading producer of Arctic science and an active partner in international research collaborations, including to contribute to global understanding of climate change.

Preserving security and stability

The Arctic has, for many years, enjoyed constructive international co-operation and has, historically, been characterised by low tension. The UK remains committed to the long-term stability and security of the Arctic region.

- We will work to ensure that the Arctic remains secure. We will uphold and, where appropriate, assert our rights against those who challenge the international order and freedom of navigation, or threaten the stability of the region in other ways. We will protect our Critical National Infrastructure in the High North and our other national interests, and those of our Allies.
- We will continue to support the existing legal framework and constructive international cooperation in the region.
- We will support British nationals overseas through our consular services and by promoting safe and responsible activity in the region.

Promoting our shared prosperity

The UK aims for a prosperous Arctic, where economic and commercial development is achieved in a way that is safe, responsible and sustainable. The people who live in the Arctic should benefit from increasing prosperity in the region.

- We will promote prosperity across the region, supporting the green transition through sustainable and responsible economic development and promoting economic opportunities for UK businesses, including in areas such as green shipping and sustainable fishing.

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The 2021 Integrated Review set out the UK's renewed commitment as an outward-facing, ambitious country and trusted ally, an openness as a society and economy, and an increased determination to seek multilateral solutions. All this is underpinned by a shift to a more robust position on security and deterrence.

For the Arctic, this means that we will work internationally to advance prosperity and security in the region, and to understand and find solutions to global challenges like climate change. We will continue to nurture and enhance our existing relationships with Arctic partners, seeking further opportunities for collaboration to tackle common objectives, while also actively seeking to develop new partnerships. We will also continue to enhance and exchange expertise for the benefit of the region.

Arctic Council

The Arctic Council has been the leading intergovernmental forum promoting cooperation, coordination and interaction on common Arctic issues since its inception in 1996. Celebrating its 25th anniversary in 2021, its longevity is a testament to the important role the Council has played in promoting peace and cooperation in the Arctic.

The UK has been a State Observer to the Arctic Council since its first meeting, and our status was most recently reaffirmed at the

12th Ministerial meeting of the Arctic Council in Reykjavik in May 2021. The UK has continued to be represented at all of the Ministerial and Senior Arctic Official meetings, and we have participated actively in the Council's work.

The UK has played a particularly prominent role in the Arctic Council's Protection of the Marine Environment (PAME) Working Group, recently helping frame the Polar Code (The International Maritime Organization's International Code for Ships Operating in Polar Waters), and establishing the Arctic Shipping



Best Practice Information Forum to support the exchange of information and best practice. We supported the development of the Marine Litter Regional Action Plan, which works to reduce the impact of marine litter, including micro-plastics in the Arctic seas. Together with Canada and Iceland, the UK also co-led the Arctic Marine Tourism project to analyse passenger vessel trends in the Arctic region.

Russia's invasion of Ukraine on 24 February 2022 fundamentally undermined the peaceful cooperation that had characterised the Arctic Council since its inception. Russia's war on Ukraine violated the principles of respect for sovereignty and territorial integrity under international law which underpinned the Council's work, and which allowed for cooperation in the Arctic to continue despite previous geopolitical tensions elsewhere.

The UK will continue to engage with our Arctic partners and Allies to contribute to ongoing critical Arctic Council work, and we will continue to contribute expertise and research to the Council's Working Groups and Expert Groups. We look forward to engaging with the incoming Norwegian Chairmanship from May 2023, including to look for further opportunities to enhance our contribution to the work of the Council in areas of mutual interest and global importance, such as climate change and marine pollution. The UK stands ready to recommence participation in broader multilateral cooperation across the Arctic region when appropriate.

Bilateral relations

The UK has strong and multidimensional relationships with our Arctic partners and Allies, working with them bilaterally and in multilateral fora to achieve common objectives. While the future of multilateral cooperation in the region may remain uncertain, the UK will seek to strengthen our bilateral relationships with our Arctic partners and Allies to continue to make a positive contribution as the region's nearest neighbour.

Canada

The UK and Canada already enjoy close cooperation on Arctic issues. Our 2008 Memorandum of Understanding (MOU) on Polar Research and broader 2017 science MOU, which focusses on climate change, guide our cooperation on Arctic science and research. In 2017 we launched a bursary scheme which enables UK researchers to join Canadian-led Arctic research projects and use Canadian infrastructure. Defence cooperation centres on working with a key Ally to support the security of this vital region. Additionally, as a mark



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of shared cultural interests, in 2018 the UK transferred the wreckage of the historic Franklin expedition ships (HMS *Terror* & HMS *Erebus*) to Parks Canada and the Inuit Heritage Trust for development as a cultural heritage museum.

Since 2018, we have continued to work to deepen collaboration with Canada in areas of science and technology, and defence and security. In 2021 we launched the Canada-Inuit Nunangat-United Kingdom Arctic Research Programme, which will offer around £12million (£8m from UK) of research funding between 2022 and 2025 for new projects on issues such as climate adaptation and mitigation, economics of Arctic change, resilience, sustainability, and Inuit community health and wellbeing. It will put the needs and skills of indigenous communities front and centre to support Inuit decision-making in research.

On defence collaboration, the UK will develop new activities under the 2021 MOU between the Royal Navy and Canadian Coast

Guard and seek opportunities to undertake UK cold weather training in Canada.

We will continue to strengthen our cooperation with Canada in the Arctic to contribute to achieving shared objectives, allowing the UK to learn from Canada's expertise as an Arctic nation.

Kingdom of Denmark

The UK and the Kingdom of Denmark share a commitment to a prosperous, peaceful, and sustainable future for the Arctic.

The UK welcomed the Government of Greenland's intention to join the Paris Agreement at COP 26 in November 2021. Building on our COP26 presidency, the UK is working to share best practice and knowledge in developing a national climate strategy with the Government of Greenland when such work commences. We welcome Greenland's desire to develop renewable generation, Power-to-X and green shipping opportunities, and the UK shares interests in promoting sustainable

fisheries with both Greenland and the Faroe Islands. The UK will continue to pursue opportunities to cooperate further with the Kingdom of Denmark on climate policy and the protection of the Arctic environment.

In January 2022, the UK and Greenland launched Free Trade Agreement (FTA) negotiations to re-establish preferential bilateral trade and identify new areas of mutual interest for future cooperation and negotiations. Such an agreement could lay the ground for further cooperation on areas spanning minerals and energy to education and gender equality. The UK and Greenland also share best practice on fisheries management.

The Faroe Islands are also an important near neighbour and partner to the UK, with whom we share deep historical, cultural, and economic links. In 2019, we signed an FTA with the Faroe Islands, and in 2020 signed a Fisheries Framework Agreement which provides the platform for our annual bilateral fisheries negotiations. The UK continues to develop links with the Faroe Islands in areas including green energy transition, digital and transport connectivity, and sustainable tourism. The UK and Faroe Islands signed a Memorandum of Understanding on space launches in April 2020, with work ongoing with the Greenlandic Government to agree handling of launch debris in the waters around Greenland.

A significant number of UK based researchers visit Greenland to conduct Arctic science and humanities research (such as for the Iceland-Greenland Seas project (2016-2020)). Several UK research institutions enjoy academic collaborations with scientific institutions in all parts of the Kingdom of Denmark, including the Greenland Climate Research Centre, to increase our understanding of the Arctic climate. To further enhance our cooperation, the UK recently launched a

research bursary programme (2023-2024) to support joint research projects in Greenland. The programme will enable new collaborations between both research communities across Arctic science disciplines, and provide access to fieldwork, infrastructure and data sets, while empowering indigenous communities as researchers and delivery partners.

As NATO Allies, the UK and Kingdom of Denmark have a shared security interest in the Greenland-Iceland-UK (GIUK) Gap, and have increased our focus on this area in recent years, including as members of the Joint Expeditionary Force (JEF) and the Northern Group. The UK will continue to develop military capability in collaboration with Denmark, to allow it to operate in the region and in order to safeguard UK interests and those of its Allies.

Finland

Finland is an important and like-minded partner on the Arctic, and the UK shares Finland's ambition to protect the Arctic's climate, environment, and the rights of its inhabitants, and to maintain Arctic expertise, infrastructure and logistics. Finland's 2021 *Strategy for Arctic Policy* places special emphasis on sustainable development and leading-edge research, and we would like to explore opportunities in areas of Finnish expertise, such as clean technologies and the bio-economy.

The UK's scientific research and expertise underpins much of our engagement with Finland on the Arctic. UK and Finnish higher education organisations actively cooperate under the University of the Arctic, including through the Thematic Network on Climate Justice in the Arctic and the Thematic Network on Teacher Education for Social Justice and Diversity in Education. Finland has unique research infrastructure for observing climate

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and environmental change in the Arctic region, as well as for space and ice research.

Finland is an important like-minded partner on climate change, having passed one of the world's most ambitious climate targets into law. The Finnish Parliament adopted a new Climate Change Act in May 2022, enshrining in law the goals for the country to be carbon neutral by 2035.

Finland is an increasingly important security partner to the UK. In May 2022, the UK and Finland agreed a joint declaration in Helsinki reiterating our shared desire for deeper defence and security cooperation. We have intensified our defence cooperation activities since then.

The UK strongly supported Finland's decision to seek NATO membership. Finland should be integrated into the Alliance as soon as possible; their accession will strengthen the collective security of Europe. This will offer us further opportunities to strengthen our cooperation as fellow NATO Allies, including on issues related to the Arctic. Finland remains an active member of the JEF, hosting the June 2021 JEF Defence Ministers meeting and Table-Top exercise. Finland is also hosting an increasing number of joint exercises with UK forces who will continue to draw on Finnish Arctic expertise.

Iceland

While UK-Iceland collaboration on the Arctic has previously focussed on Arctic research and fisheries issues, including for example through a bilateral Memorandum of Understanding that seeks to foster cooperation in international fisheries fora, we are now also broadening into collaboration on defence and security. We are both founding members of NATO, and the UK was pleased to welcome Iceland in joining the JEF in 2021. In addition, the UK-EEA/EFTA States Free Trade Agreement (between the UK, Iceland, Liechtenstein and



Norway) came into effect with Iceland in 2022, while the UK and Iceland also signed a Memorandum of Understanding in 2021 on education, research, innovation and space.

Iceland's new Arctic policy, published in 2021, places a strong emphasis on environmental protection and action to counter climate change, but also focuses on security and defence issues. Development of emerging technology is a priority for both the UK and Icelandic governments. We are exploring opportunities to work together on the development of new and greener technologies to help tackle climate change, and to deliver our shared long-term objective of an Arctic region characterised by high cooperation and low tension.



Norway

The UK and Norway are NATO Allies and close partners. It is a partnership rooted in shared polar heritage and history, but remains bound by continuing common interest. In March 2021 the UK and Norway signed an updated High Level Arrangement on Cooperation on Polar Affairs. Commitments included to work to identify opportunities for increased cooperation on Polar research, to work together to highlight the implications of climate change on the Polar Regions, and to identify projects to support Arctic Council activities where UK/Norwegian bilateral endeavours would be appropriate and of mutual benefit. It will underpin the next decade of cooperation between our two countries. In the coming years we hope to see cooperation broaden to include new areas, such as space collaboration and a joint focus on marine litter.

The UK-EEA/EFTA States Free Trade Agreement, which entered into force with Norway in 2022, provides the platform for the further deepening of economic ties. The UK and Norway have a shared interest in ensuring the long-term conservation and sustainable management of marine living resources in Arctic waters, including as set out in the UK-Norway Fisheries Framework Agreement, signed in September 2020.

The UK-Norway Joint Declaration signed in May 2022 emphasised a shared approach to tackling climate change, with Arctic research playing a crucial role. Strengthening research collaboration is key both for our bilateral relationship and in enhancing the UK's contribution in the Arctic.

As a signatory to the Svalbard Treaty, the UK has an enduring interest in Svalbard, including through the UK Arctic Research Station located within the Ny-Ålesund Research Station. With the increasing need to study and understand the Arctic to address global issues such as climate change, and the importance of stability and predictability in the region, Svalbard will remain an area of close UK-Norway cooperation.

Our Arctic defence and security ties are enduring, extensive and of strategic significance to both our countries, with a longstanding history of close cooperation. UK Forces have now been regularly training in the Norwegian Arctic for over 50 years. Each year, Royal Marines and aircraft from the Joint Helicopter Command travel to Norway to undertake their cold weather training alongside their Norwegian counterparts—learning how to operate in one of the world's most extreme climates. The Royal Navy is a routine visitor to Norwegian and neighbouring Arctic waters and our Air Forces coordinate closely in the region. Both countries are members of the

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JEF, with Norway hosting the JEF Defence Ministerial meeting and Table-Top exercise in June 2022. Cooperation and training opportunities will continue to increase in future.

Sweden

The UK shares Sweden's ambition for the region's peace, stability and sustainable development, as outlined in Sweden's Arctic Strategy published in September 2020. The UK greatly values Sweden's long-standing support for the UK's Observer status at the Arctic Council; both countries agree that well-functioning international cooperation between Arctic and non-Arctic countries can achieve meaningful international action to address climate, environment and biodiversity challenges and deliver sustainable economic development for Arctic communities.

The UK's bilateral engagement with Sweden is focussed on environmental challenges facing the Arctic. We share Sweden's concerns that the Arctic's indigenous communities are particularly vulnerable to climate change. The UK and Sweden enjoy a close relationship in science and innovation, for example collaborating closely on the transition to net zero, life sciences and space.

The UK is fully committed to its strong longstanding defence and security relationship with Sweden. In May 2022, the UK and Sweden agreed a bilateral political declaration of solidarity, confirming our shared desire for closer, stronger defence and security cooperation to reinforce our key strategic partnership.

At the 2022 NATO Summit in Madrid, Allies agreed to invite Sweden to join the alliance. The UK strongly supported Sweden's application. Sweden should be integrated into the Alliance as soon as possible; their accession will strengthen the collective security of Europe.

Sweden is also an important member of the JEF, hosting a UK military headquarters during Exercise Joint Protector in 2021 and hosting the JEF Chiefs of Defence conference in February 2022. Sweden is an invaluable partner on Arctic security issues.

We look forward to further close cooperation with Sweden, bilaterally and multilaterally, on key areas of Arctic interest.

United States of America

The US is a key NATO Ally and close partner for the UK. We share the vision of the recently published US National Strategy for the Arctic Region, for a region that is peaceful, stable, prosperous, and cooperative, where guardrails will manage competition and resolve disputes without force or coercion.

We are strengthening our joint military training, exercises and personnel exchange programmes with the US, with a particular focus on enhancing interoperability to ensure we are prepared to respond to any eventuality, including any that may occur in the Arctic region. In 2020, the UK recommenced routine naval operations in the High North alongside the US. Most recently, in March 2022, thousands of UK and US military personnel worked side-by-side in the ninth iteration of the multidomain Norway-led Exercise Cold Response 2022 and in May 2022, the UK and the US announced plans to coordinate more closely through our continued work between the Royal Navy and the US Coast Guard, including in the Arctic region.

The UK and the US worked closely together during and in the run-up to our COP26 Presidency on environmental and climate change issues. With a shared ambition for taking further action to protect the Arctic environment, we will explore opportunities for cooperation with the US on key issues,

including on efforts to improve the resilience of our oceans and preserve and restore coastal marine ecosystems. The UK will continue to work closely with the US Administration to build on the successes of our COP26 Presidency.

The UK continues to work with the US National Science Foundation (NSF) to provide strong frameworks for scientific collaboration in the Arctic, particularly on tackling environmental issues. We share the US's commitment to protect the region's environment, including from the impacts of climate change.

Russia

Russia's invasion of Ukraine on 24 February 2022 changed the context for UK-Russia cooperation on Arctic issues. As part of the response to the Russian invasion of Ukraine, the UK suspended existing government-to-government engagement, including through our science and innovation network team in Russia and their collaborative research projects. As such, collaboration on Arctic issues remains limited to only essential work as appropriate and necessary, subject to further review.

Non-Arctic States

The UK shares many interests with other non-Arctic States, including other State Observers to the Arctic Council. We will look to strengthen our cooperation with our partners across Europe and the Indo-Pacific in the pursuit of our shared objectives in the Arctic.

Multilateral engagement

The UK remains a strong advocate of a stable and peaceful international order. We recognise the importance of negotiated and consensus-driven agreements through

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multilateral organisations, treaties and conventions such as the United Nations Convention on the Law of the Sea (UNCLOS), International Maritime Organization (IMO) and the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR). Such arrangements continue to provide an additional platform for cooperation and collaboration between the Arctic States and with the wider international community.

UNCLOS provides the legal framework for the exercise of the rights and responsibilities of coastal states, including in the Arctic, and for regulating the various uses of Arctic waters. It is a critical part of the international system, and the UK will continue to work with the international community to uphold it.

The UK will continue to support its partners and Allies, through both bilateral partnerships and multilateral fora to ensure the peace and stability of the region. The UK remains committed to its status as a member of the Arctic Security Forces Roundtable (ASFR), utilising the opportunity to share information on the changing environment, de-conflict activity in the Arctic, and identify opportunities for further co-operation.

A number of NATO Allies have sovereign territory in the High North—including Finland and Sweden whose accession to the Alliance began at the Madrid Summit in 2022. NATO must be able to defend every inch of Allied territory if the need arises, and to preserve our freedom of navigation and reinforcement. Finland and Sweden's accession to NATO will underscore the Alliance's interests and capabilities in the High North. The UK will advocate for NATO to take a more proactive long-term approach to the High North, acknowledging the leadership and expertise of our Arctic Allies. This approach should be calibrated and proportionate. It should also



acknowledge the region's significance, within a 360-degree approach to our collective deterrence and defence, particularly its crucial importance in enabling reinforcement across the North Atlantic. It will build on the success of exercise Trident Juncture in 2018 and the Cold Response series of exercises. The 2021 NATO Summit Communiqué was the first to address the High North. The new (2022) Strategic Concept now recognises that in the High North, Russia's capability to disrupt Allied reinforcements and freedom



of navigation across the North Atlantic is a strategic challenge to the Alliance.

The five Nordic Arctic states comprise half of the ten members of the UK-led Joint Expeditionary Force (JEF). Through exercising regularly, developing common plans, improving interoperability, and conducting activity, the JEF will ensure it maintains an ability to operate in the High North, in support of its Participating Nations' goals and priorities. The Northern Group (also a UK-led initiative) will continue to provide a valuable forum for information-

sharing and the discussion of defence and security issues relevant to the wider region.

The UK will also look to strengthen multilateral relationships with Arctic States through collaboration as members of the High Level Panel for a Sustainable Ocean Economy—a global initiative to drive the transition to a sustainable ocean economy that the UK announced it will join at the UN Ocean Conference 2022.

We recognise that some Arctic issues have purely regional implications, and that it is appropriate for organisations to discuss these at a regional level. We continue to encourage the Barents Euro-Arctic Council, Northern Dimension, and other regional organisations to be transparent and inclusive to build trust and confidence between partners and beyond. The Northern Science Ministerial also provides an opportunity for informal liaison between research ministers on this and other areas of mutual interest.

We recognise that the growing interest in the Arctic, together with the need for wide cooperation on Arctic issues, has led to the development of a number of Arctic conferences, including the Arctic Circle Assembly, Arctic Frontiers, and Arctic Futures to name but a few. These events provide valuable opportunities for discussion and the sharing of ideas and learning for the benefit of all. The UK will continue to encourage engagement in such meetings, bringing together academics, civil society, scientists, businesses and governments.

2. Protecting the climate, people and environment

Climate change poses an existential threat to the Arctic as we know it, and to the people that live there, and changes in the Arctic will have implications for the rest of the world. The Arctic Monitoring and Assessment Programme (AMAP) *Arctic Climate Change Update 2021* report² highlighted that the increase in Arctic annual mean surface temperature between 1971 and 2019 was three times higher than the increase in the global average during the same period. Further research has indicated the Arctic is now warming four times higher than the global average.

The UK recognises the importance of the Arctic environment for a wide variety of species and for the livelihoods of the people who live there. We also recognise that the vast majority of litter and pollutants affecting the Arctic environment originate from outside of the region, and that it is essential for all countries to take action domestically to reduce impacts in the Arctic, including by reducing emissions and pursuing a net zero transition. Safeguarding the environment from unnecessary pollutants and chemicals is essential if we are to ensure a healthy, safe and productive Arctic. The UK has consistently been at the forefront of international regulatory developments that aim to protect the Ocean and we will continue to do so.

Climate change and new challenges

Climate change will continue to have a devastating impact on Arctic ecosystems and communities, with increases in the frequency and intensity of rapid sea-ice loss events, melt events on the Greenland Ice Sheet, wildfires and permafrost thaw. Unique ecosystems are at risk and some are vanishing, and the change in climate is threatening the subsistence, harvest-based livelihoods of small Arctic communities—especially indigenous communities.

The impact of changes will also be felt far beyond the Arctic. As a result of absorbing excess heat and human CO₂ emissions, negative impacts on the ocean and associated ecosystems are being seen. Sea levels are rising, the ocean is becoming more acidic and warmer, ocean oxygen levels are declining and much of the ocean is becoming less productive. Warmer seas are less able to absorb CO₂, so more will stay in the atmosphere and further amplify the impacts of global warming. Reduced biological productivity and absorption of carbon will reduce the effectiveness of the ocean as part of the global carbon cycle as a key carbon storage reservoir.

2 <https://www.amap.no/documents/download/6759/inline>



Action must be taken to tackle climate change, and minimise the devastating impacts on the Arctic and the rest of the world.

In November 2021 the UK hosted the 26th United Nations Climate Change Conference (COP26). As COP President, the UK explicitly recognised the need to tackle the challenges of climate change and biodiversity loss together and called for ambitious action to protect and restore ocean health and resilience. The UK also ensured that the voices of indigenous people, including from the Arctic, were represented throughout COP26.

All 197 Parties agreed to the Glasgow Climate Pact, agreeing collectively to work to reduce the gap between existing emissions reduction plans and what is required to reduce emissions, so that the rise in global average temperature can

be limited to 1.5 degrees. The Glasgow Climate Pact, combined with increased ambition across adaptation, finance and mitigation, means that 1.5 degrees remains in sight, but only with concerted and immediate global efforts to achieve a worldwide net zero transition.

The pact will speed up the pace of climate action this decade, with countries requested to revisit and strengthen their emission reduction targets in 2022, as well as developed countries agreeing to double support for action on adapting to climate change by 2025.

Further action to reduce emissions will be driven by a yearly synthesis report from the UNFCCC and an annual high-level ministerial event to increase countries' ambition.

2. Protecting the climate, people and environment



UNFCCC COP26 Parties also agreed to ask all relevant parts of the UN climate change convention to integrate the ocean in their work, and to start a bespoke annual dialogue on the ocean to strengthen action. This outcome is helping to raise the visibility of the ocean within the UNFCCC and strengthen ocean-climate action. In June 2022, the UK joined the International Alliance to Combat Ocean Acidification, a collaborative partnership which includes many of the Arctic nations, and which works to elevate urgency for climate action and increase the visibility and importance of ocean acidification in policy development.

The UK has continued to work with other countries to deliver on the Glasgow Climate Pact and drive further action. At COP27, under Egypt's Presidency, Parties agreed under the Sharm El Sheikh Implementation Plan to maintain momentum and ambition

for ocean-climate action, building on the Glasgow Climate Pact, by improving the annual dialogue process, encouraging national ocean-based action, and recognising the impact of climate change on the cryosphere.

People

The Arctic is, first and foremost, a home to the people who live there. The differing descriptions of the region provide a range of between four and ten million people defined as living in the Arctic. The region is home to a vibrant mix of communities and cultures, languages and traditions; a region that stretches from the remote frozen tundra and boreal forest, to vibrant cities with jobs, universities and football teams.



The UK recognises the diversity of Arctic indigenous communities, and respects their rights, views, interests, culture and traditions. We support the special status and role of indigenous people in the Arctic Council. We will increase our engagement with the region's indigenous communities on relevant issues. The UK welcomed the Inuit Circumpolar Council (ICC)'s recently published 'Circumpolar Inuit Protocols for Equitable and Ethical Engagement'.

We realise that climate change is likely to have a profound effect on many Indigenous people's ways of life, and recognise the great value of Indigenous experience and expertise in tackling the challenges posed by climate change. We welcomed discussions with the Sámi community through the Sámi Parliament, ahead of COP26 in 2021, and ensured

indigenous people's voices, including from the Arctic, were represented throughout COP26.

Together with Canada, the UK also looks forward to collaborating with the Inuit community to further understanding of environmental change in Inuit Nunangat. The UK is investing up to £7.6m in a new partnership between UKRI and Polar Knowledge Canada (POLAR), National Research Council of Canada (NRC), Fonds de Recherche du Quebec (FRQ), Parks Canada and Inuit Tapiriit Kanatami (ITK) in Canada to deliver Arctic science in genuine co-development and partnership with indigenous communities. The Canada-Inuit Nunangat-United Kingdom Arctic Research Programme 2021-25 addresses the impact of environmental change in Inuit Nunangat, including the social, human, engineering and health consequences of these changes.

The UK looks forward to developing this approach across other areas of Arctic research, and we hope that there will be further opportunity for similar collaborations in the future.

Environment, biodiversity and nature

Marine conservation

The Arctic faces environmental threats from climate change and ocean change (such as changes to salinity and acidification), which will potentially affect ocean currents. These changes will have a profound impact on the marine environment. Threats to the Arctic marine environment are exacerbated by increasing accessibility to the region for resource exploitation, commercial activity, tourism, fishing and transport.

2. Protecting the climate, people and environment

The UK supports increased protection of Arctic ecosystems, and conserving the Arctic's biodiversity remains a UK priority. The UK considers that the best way to ensure the protection of those species reliant on the Arctic environment is to continue our active involvement with international agreements and through close working with our Arctic partners and Allies.

The UK played a leading role in the development and agreement of the Kunming-Montreal Global Biodiversity Framework, adopted at COP15 of the Convention on Biological Diversity (CBD) in December 2022. The new framework includes an ambitious package of global goals and targets, and a central mission to halt and reverse biodiversity loss by 2030. Crucially for the ocean and the Arctic, the framework includes targets to ensure fisheries and aquaculture are sustainable, tackle pollution, the impacts of climate change and ocean acidification, and protect at least 30% of the land and of the ocean globally by 2030 ('30by30'). The evidence indicates that effective protection of at least 30% of the global ocean will help to reverse adverse ecological impacts, preserve fish populations, increase resilience to climate change, and sustain long-term ocean health, including in the vulnerable Arctic region. It also serves as a good example of a nature-based solution/ecosystem-based approach.

As leader of the Global Ocean Alliance and Ocean Co-Chair of the High Ambition Coalition for Nature and People, the UK led calls for ambitious outcomes for the ocean from COP15, including 30by30. Following COP15, the UK will continue to lead the Global Ocean Alliance, and play a central role within the High Ambition Coalition for Nature and People, continuing to advocate for international ocean action and supporting implementation of the 30by30 target. Achieving 30by30 will require a global effort across all regions. For

example, OSPAR, the regional sea convention for the North East Atlantic has committed to delivering 30by30 across its waters which include a large portion of the Arctic.

Nearly two thirds of the global ocean lies in areas beyond national jurisdiction—and this includes part of the Arctic. The UK Government is continuing to work to conclude negotiations on a new implementing Agreement under UNCLOS for the conservation and sustainable use of marine biological diversity in areas beyond national jurisdiction (BBNJ Agreement). The UK considers that the best way to deliver globally accepted marine protected areas in areas beyond national jurisdiction would be through the BBNJ Agreement. The BBNJ Agreement will also ensure rigorous Environmental Impact Assessments are undertaken for new activities in the high seas,



and the sharing of the benefits of scientific research on marine genetic resources.

The UK is strongly opposed to the hunting of any cetaceans (whales, dolphins and porpoises), other than some limited activities by Indigenous communities for clearly defined purposes. The UK strongly supports the global moratorium on commercial whaling and we lead calls for those countries that still engage in commercial whaling practices to stop.

Where whaling is conducted by Indigenous communities for subsistence purposes, we want this to be sustainable, well-regulated and done to the highest welfare standards as set out by the International Whaling Commission.

The UK has a high regard for animal welfare, and as a result has banned commercially importing and marketing all seal products and any related products. Limited exceptions exist for subsistence products from traditional

hunts conducted by Indigenous communities and items for travellers' personal use. A key objective for the UK is to honour the rights of communities to engage in traditional practices.

The UK has consulted on whether to extend the ban on the commercial dealing of elephant ivory in the UK to other ivory bearing species, including narwhal and walrus. The response to the consultation will be published in due course.

Pollution and Marine litter

The Arctic is a sink for global pollutants, such as plastics, chemicals and air pollutants, which are transported long distances and deposited in the region through wind and ocean currents. Local Arctic air pollution can be severe and significantly exceed air quality standards, impairing public health and affecting ecosystems. Marine noise from shipping has also found to have increased substantially from 2013-2019.

Over 350,000 chemicals are estimated to be on the global market and the size of the global chemicals industry is expected to double by 2030. Chemical pollutants have been found in the ice and within the bodies of wildlife, including polar bears, seals and whales. Persistent Organic Pollutants (POPs) and heavy metals like mercury pose a risk to wildlife and the indigenous communities who depend heavily on local wildlife as a traditional food source. In a changing environment, retreating sea ice, melting glaciers and warming permafrost can release chemicals and microplastics that had previously been trapped.

Marine litter, particularly marine plastic pollution, is a serious and growing threat to our environment. Between 4.8 and 12.7 million metric tonnes of plastic enter the ocean annually, and science estimates that the annual plastic flow into the ocean will triple



2. Protecting the climate, people and environment

between 2016 and 2040. The momentum to address this across the life-cycle of plastic through a system change has continued to grow across governments and the public.

Increasing volumes of marine traffic create additional risks of environmental damage from maritime accidents and increased marine litter. As Arctic shipping routes become more open, the UK continues to advocate for the highest possible shipping standards and adherence to regulations under conventions, such as the International Convention for the Prevention of Pollution from Ships (MARPOL), to prevent marine pollution.

Since many pollutants and marine litter impacting the Arctic originate outside of the region, global action is required. The UK has committed to improve the situation through domestic and international action, both of which will contribute to protecting the Arctic.

Arctic waters constitute approximately 40% of the OSPAR maritime area. The UK is working with other Contracting Parties to OSPAR to prevent and significantly reduce marine litter in the North-East Atlantic, including through the new OSPAR Regional Action Plan on Marine Litter published in June 2022. The UK also participates in monitoring programmes to assess regional trends in marine litter and reports this monitoring data to OSPAR.

The UK is playing a leading role in the development of a new strategic approach to international chemical and waste management (SAICM) to strengthen global regulatory systems and reduce the risks posed by chemicals and wastes, including risks to the Arctic environment. The UK is a Party to the Minamata Convention on Mercury, the Stockholm Convention on Persistent Organic Pollutants, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International

Trade, the Basel Convention on movement of hazardous waste, and the Convention on Long-Range Transboundary Air Pollution (CLRTAP). The Basel Convention's Secretariat cooperates with a range of international bodies and initiatives, including the Arctic Council, to understand issues of sustainable development and environmental protection in the Arctic.

The UK is a leading voice in tackling marine plastic pollution, co-sponsoring the proposal to prepare a new international, legally binding treaty at the United Nations Environment Assembly in March 2022, and taking an ambitious stance at the Intergovernmental Negotiating Committee meetings that aim to prepare the new treaty by the end of 2024. The UK supports a treaty that will restrain the production and consumption of plastic to sustainable levels, address plastic design and encourage more recycling and re-use of plastic. The UK is also a founding member of the High Ambition Coalition to End Plastic Pollution, a group of over 50 countries calling for a target under the treaty to stop plastic from flowing into the environment by 2040. The coalition includes Arctic partners such as Canada, Denmark, Finland, Norway and Sweden. Due to the transboundary nature of plastic pollution, measures such as these will address this issue globally, including in the Arctic.

The UK is also leading the establishment of an independent, intergovernmental science-policy panel for chemicals, waste and pollution, after the adoption of a United Nations Environment Assembly resolution which seeks the formation of an open-ended working group to create the panel by the end of 2024. The panel will help raise the profile of pollution with the public and policymakers, providing scientific evidence from across the chemicals and waste landscape to inform international policy.

Migratory Birds

The links between the UK and the Arctic are not limited to our climate systems and marine environment. Due to our proximity to the Arctic, our shared biodiversity includes many migratory birds. The Joint Nature Conservation Committee (JNCC), through the Wetland Bird Survey and Goose and Swan Monitoring Programme, has been monitoring breeding Arctic waterbird populations in the non-breeding seasons. The many decades of data and information collected by these schemes are available for research use and have been used in a large number of research projects and publications over the last five years.

JNCC contributes technical input to the work of the Arctic Council's Conservation of Arctic Flora and Fauna (CAFF) Working Group's Circumpolar Seabird Expert Group (CBird), and the Arctic Migratory Birds Initiative (AMBI).

CBird promotes, facilitates, and coordinates conservation, management and research activities among circumpolar countries and improves communication between seabird scientists and managers inside and outside the Arctic. Recent UK contributions include research into habitat preferences in Iceland and contributing to the *Seabirds Count* census.

The UK is engaged with AMBI, which aims to improve the status and secure the long term sustainability of declining Arctic breeding migratory bird populations. The UK contributions to priority objectives include helping Guinea-Bissau secure intertidal habitat of Arctic-breeding shorebirds, supporting implementation of the Circumpolar Biodiversity Monitoring Programme (CBMP), and implementing African Eurasian Waterbird Agreement (AEWA) International Single Species Action Plans.

The UK is also a Contracting Party to AEWA, a multilateral environmental agreement which aims to coordinate international effort for the conservation and management of migratory waterbirds including seabirds. The UK is heavily engaged in AEWA, and the Agreement contributes significantly to many Arctic biodiversity policy objectives, including that of AMBI and other CAFF initiatives. Amongst significant UK contributions we continue to promote and encourage the full implementation of AEWA international species action plans for relevant arctic-breeding waterbirds such as Greenland White-fronted Goose, Barnacle Goose and Bewick's Swan.

Deep Sea Mining

The UK recognises the growing pressure to extract deep-sea resources and is deeply concerned about the potential impacts of mining activities on the fragile marine environment. Under UNCLOS, it is the role of the International Seabed Authority (ISA) to regulate and control all mineral-related activities in the seabed, ocean floor and subsoil beyond the limits of national jurisdiction — “the Area” — for the benefit of mankind as a whole. In so doing, the ISA has the duty to ensure the effective protection of the marine environment from harmful effects that may arise from deep-seabed activities. Part of the Arctic seabed falls within the Area, and there are potential mineral resources in the Arctic region, meaning the ISA regulates and controls such mineral-related activities in the Arctic. The UK will continue to push for the highest environmental standards in negotiations at the ISA.

The UK Government has also committed not to sponsor or support the issuing of any exploitation licences for deep-sea mining projects unless and until there is sufficient scientific evidence about the

2. Protecting the climate, people and environment

potential impact on deep-sea ecosystems, and strong and enforceable environmental regulations and standards have been developed by ISA and are in place.

Science, research and innovation

The UK is committed to utilising the best available evidence in policy development. The UK's approach to Arctic science, research and innovation is to support independent and rigorous research of the highest quality to address the most important questions, to better understand the role the Arctic plays within the global system (past, present and future), and to develop practical responses in the face of unprecedented change. The UK's approach recognises that increasing international and multidisciplinary collaboration is vital for tackling the most pressing research questions, and solving global challenges for the benefit of all.

Support for UK Research

The 2021 Integrated Review put science and technology at the heart of the UK's foreign policy and set out the importance of international partnerships to achieve this. The 2021 Spending Review backed this up with a significant increase in funding for science to achieve the UK's ambition to be a Science, Technology and Innovation Superpower. In keeping with these aspirations, UK research, including social sciences and humanities, is at the heart of international efforts to understand the changing Arctic, as well as the implications of those changes on the wider planet. According to a study published in 2016, Arctic scientists based in the UK are ranked fourth in the number of published research articles, with their papers cited around twice as often as the



Photo by Pete Bucktrout, British Antarctic Survey



global average³. We are committed to continue to deliver Arctic research of the highest quality.

The Natural Environment Research Council (NERC) supports most of the UK's natural science research in the Arctic. This is via national capability funding to research centres such as the British Antarctic Survey, British Geological Survey, the National Centre for Atmospheric Science, the National Oceanography Centre and research grants to universities and research centres, including major Arctic-themed programmes. Since 2012, researchers based in the UK have received over £56m in Arctic science funding, in addition to investment in infrastructure and other assets.

The NERC Arctic Office promotes the work and impact of UK-based Arctic researchers, and represents the UK in a number of international Arctic science settings. The Office connects to policy and decision-makers, and supports the development of major new bilateral and international Arctic science initiatives.

The UK's Arctic Research Station within the international research station at Ny-Ålesund, Svalbard (Norway) is funded by NERC and operated by the British Antarctic Survey. It provides facilities and accommodation for researchers to carry out environmental science research. In 2021 the Station celebrated its 30th anniversary and has seen significant new investment in logistics and science equipment, as well as in the fabric of the Station itself. Access by international researchers is welcome through partnership with teams based in the UK or through the EU's INTERACT Horizon programme. The UK also has the expertise to organise and deliver remote field camps, on glacial ice, sea ice and land within remote and difficult-to-access regions of the Arctic.

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 3 Arctic Research Publication Trends: A Pilot Study, University of the Arctic et al, August 2016.

2. Protecting the climate, people and environment

The UK, through NERC, maintains research vessels and vehicles capable of supporting Arctic research activities. The ice-strengthened vessel RRS *Sir David Attenborough* provides a step-change in the UK's ability to carry out complex and multi-task research in Polar Regions, while the RRS *James Cook* and RRS *Discovery* are 'blue water' vessels capable of Arctic work. Our six specially-equipped aircraft are capable of carrying out scientific measurements and logistical support to science projects in the Arctic.

Our research centres, including National Oceanographic Centre, British Antarctic Survey, and the Scottish Association for Marine Sciences, operate a fleet of autonomous vehicles, and develop new capabilities, including under-ice endurance and navigation.

International Science Collaboration

Understanding the changing Arctic is a shared endeavour, and the UK is playing its part. UK scientists make prominent contributions to the work of the Arctic Council Working Groups, as well as other international Arctic fora.

International collaboration in Arctic research is key to fully understand climate change, and for setting evidence-based and science-shaped policies and targets to address this global challenge. Climate is affecting all strands of our activities in the Arctic, which underlines the importance of our strong science capabilities and international partnerships. Scientific cooperation with the Arctic states is particularly strong, and we will look to continue and enhance this bilateral and multilateral cooperation.

The Head of the NERC Arctic Office is the current chair of the International Arctic Science Committee (IASC), and the UK plays a full role within IASC's decision-making and thematic science working groups and special action

groups. The UK recognises and welcomes the importance of IASC's role in supporting practical international cooperation and looks forward to hosting the Arctic Science Summit Week in 2024, in Edinburgh.

The UK welcomes the growth of the University of the Arctic and, from 2021, nine universities from across the UK are members of this growing network which offers valuable opportunities for joint funding, networking and student exchange. Through the UK Arctic and Antarctic Partnership and the biannual UK Arctic Science Conferences, there are positive opportunities for the wider research community to think and act collectively to maximise its impact.

The UK Science and Innovation Network (SIN), has played an important role across the Arctic States in facilitating collaborative international Arctic research by supporting bilateral agreements and research programmes, building ties with Arctic stakeholders in each country and projecting the UK's influence through international science meetings. The team also provide practical support through project work, for example to facilitate exchanges between the academic sector, events to highlight particular issues and UK excellence, and laying the groundwork for strategic cooperation in the future.

The UK is also committed to the need to empower and ensure the full involvement of indigenous researchers as respected partners in Arctic research. Closer links with indigenous communities in research, especially on resource management and indigenous people's rights is vital. Enhanced collaboration with rural northern communities is also a focus for the Scottish Government, given the common challenges presented by rurality in Scotland and the Arctic States.

The UN Decade of Ocean Science for Sustainable Development (2021-2030) provides a common framework to drive ocean action through international collaboration on transformative ocean science. This will facilitate a better understanding of the ocean system, ensure that science delivers greater benefit for society, and will support us in taking action to reverse the decline in ocean health. UK experts have contributed to the development of a Decade Arctic Action Plan, identifying actions, priorities and an implementation plan for the Arctic Ocean in the Ocean Decade. The UK also used its 2021 G7 Presidency to agree a Navigation Plan for collaborating and advancing our collective work on ocean science, ocean observing and ocean action. The Arctic is a common area of interest for many of the G7 and there are opportunities to explore building on scientific partnerships. In 2021 the Japan-UK Joint Committee on Cooperation in Science and Technology expressed its expectation to further enhance cooperation in the field of Marine Science and shared the view to promote the cooperation on the Arctic research development between research agencies and institutions in the UK and the Japan Agency for Marine-Earth Science and Technology (JAMSTEC)

NERC's £20m Changing Arctic Ocean Programme (2017-2022) explored the effects of changes to the physical environment (ice and ocean) on the marine ecosystem and the associated biogeochemical functioning of the Arctic Ocean. Its 16 projects involved over 170 investigators from 15 countries in addition to the UK and Germany. Three seasons of science cruises in the Barents and Greenland Seas have been completed, over 40 other science cruises with other international partners, as well as additional field work in other locations. The programme is substantially funded through the UK's first at-scale Arctic research collaboration with BMBF (Germany). The programme has

led to over 200 publications in peer-reviewed journals so far, with many more expected (www.changing-arctic-ocean.ac.uk).

UK scientists remain active in a number of EU-funded Arctic initiatives, including the ICE-ARC (Ice, Climate, Economics—Arctic Research on Change) programme, which unites researchers and scientists from 24 institutions to assess current and future changes to Arctic sea ice from changing atmospheric and oceanic conditions.

Space and the Arctic

Space technologies can contribute to Arctic policy priorities in a number of ways, including supporting communications across rural communities, providing data to support scientific research and facilitating safe and efficient navigation.

The UK's National Space Strategy, published in 2021, sets out the government's ambitions for the UK in space, including the ambition to become a partner of choice in space activities.

The UK is already a key partner in current and planned satellite systems including, through the Centre for Polar Observation and Monitoring's (CPOM) CryoSat2 operated by the European Space Agency (ESA), which measures the thickness of sea ice and monitors changes to the Greenland ice sheet, and its successor, CRISTAL, in development by ESA and the European Commission.

The British Antarctic Survey was also one of the initiators of Polar View, the international consortium which provides a variety of earth observation products. Use of the service helps minimise delays, improves efficiency, and supports the taking of action to avoid life-threatening safety hazards, damage to vessels and potentially severe consequences for the environment.

3. Preserving security and stability

As the 2021 Integrated Review makes clear, the UK will contribute to maintaining the Arctic as a region of high co-operation and low tension. We are committed to working with our partners to ensure that increasing access to the region and its resources is managed safely, sustainably and responsibly.

The UK's *Defence Contribution in the High North*⁴, published in March 2022, sets out in more detail the actions the UK will take to support its aim to preserve the stability and security of the Arctic. This made clear that 'the High North and maintaining security in the defence of the North Atlantic remains of great importance'. The UK will ensure that it remains prepared and capable of protecting its Arctic interests.

A secure and stable Arctic

The Arctic is changing as a consequence of climate change, with melting sea ice exposing open water, which absorbs more solar heat and thus exacerbates further melt. Aside from the dramatic environmental consequences of melting ice, there will also be economic implications. Less sea ice will offer opportunities for shorter transit routes to Asia and beyond and increasing access to substantial reserves of natural resources. There is likely to be a rise in tourism and an

associated increase in visitor numbers, which could offer opportunities to work closely with all Arctic states to ensure safety at sea. But the opening-up of the Arctic brings risks of heightened economic competition, and of insecurity between state actors.

The opening-up of the Arctic space also raises the potential for defence and security concerns, not just emanating from the region itself, but spreading into it from state competition and conflict elsewhere around the globe, including from Russia's invasion of Ukraine on 24 February 2022. Heightened competition between both state and non-state actors



⁴ <https://www.gov.uk/government/publications/the-uks-defence-contribution-in-the-high-north>

across the Euro-Atlantic and beyond mean the era of Arctic exceptionalism may be ending.

Russia views the Arctic as strategically vital to its prosperity and security. Russia is increasingly militarising its Arctic territory, establishing a new Northern Joint Strategic Command, reopening Cold War-era bases above the Arctic Circle and investing further in Arctic-capable equipment. Russia assesses that melting sea ice will provide it with considerable economic and development opportunities but will further expose its northern flank, increasing naval activity and volumes of maritime traffic in the region, including along the Northern Sea Route (NSR). The UK recognises that, as an Arctic state, Russia has a significant presence in the region, which it will seek to enhance in response to environmental changes; in doing so, we expect Russia to comply with international law.

China's economic, strategic and security interests in the Arctic are rising. President Xi

Jinping has expressed China's aspiration to become a 'Polar Great Power'. It was granted Observer status at the Arctic Council in 2013 and published its first Arctic Policy in 2018. China is seeking natural resources, trade and energy supply routes and is promoting investment in the region through its Polar Silk Road. It has identified deep sea and polar exploration as one of seven "key scientific and technological frontier fields" in its 14th Five Year Plan. We can be confident that their interest and engagement will continue to grow.

The UK has strong relationships with almost all Arctic states and has a responsibility to support our partners and Allies to preserve the stability and security of the region; we have been operating there for many years. We need to be prepared to protect and, where appropriate, assert our rights against those who wish to challenge the international order and freedom of navigation, or threaten the stability of the region in other ways. As a founding member of the NATO Alliance, the UK is prepared to defend our Arctic Allies and respond to aggression if the need arises. We will contest malign and destabilising behaviours and activity which threaten our interests and the stability of the region. Within the Alliance, the UK plays a leading role, including through the capabilities we dedicate to protecting underwater Critical National Infrastructure and ensuring our freedom to operate in the North Atlantic.

The UK will continue to collaborate with, and support our partners and Allies, through NATO, the JEF and the Northern Group, in order to protect our Critical National Infrastructure and our other national interests and those of our partners and Allies. The UK remains committed to its status as a member of the Arctic Security Forces Roundtable (ASFR), utilising the opportunity to share information on the changing environment,



3. Preserving security and stability

de-conflict activity in the Arctic, and identify opportunities for further co-operation.

The UK has close relationships and bilateral defence co-operation agreements with the majority of Arctic States. These provide a strong basis for partnership. Royal Marines and Joint Helicopter Command cold weather warfare training with Norwegian and United States personnel in Norway remains an important High North-focused partnership. This is underpinned by a 10-year plan for Royal Marines training and exercising in the region (Project Heimdall). Royal Marines co-operation with Dutch counterparts has the potential to expand the number of participating forces to four. Links with Norway and the United States will be further bolstered by a trilateral co-operation on the use of P-8A Maritime Patrol Aircraft to improve our regional situational awareness, and by acquisition of the F35 Lightning II (also by Denmark, Finland, and the Netherlands). The UK seeks to work with our partners and Allies in the region to reinforce international rights to freedom of access and navigation in the Arctic. To this end, Royal Navy ships recommenced activity in the Arctic in 2020, alongside Arctic Allies such as Denmark, Norway, and the US, including to protect the centrality and integrity of UNCLOS.

We need to be able to increase our ability to respond appropriately to the changing regional dynamic arising from the receding ice. The High North and Arctic will potentially play a major role in meeting our energy demands in the years to come, and the potential for more accessible navigation routes may offer economic opportunities for UK trade in the future. This, the UK's proximity to the region, and the shifting strategic context lead us to conclude that our national interest in the Arctic will only increase.

Building on commitments made in the 2021 Defence Command Paper, UK Defence will examine options to bolster its cold weather

capability to ensure that Arctic-appropriate equipment, activity and infrastructure are all developed and maintained at a credible level. We will ensure that our investments in science and technology help develop the right cold weather capabilities now and in the future, including looking at the potential of autonomous systems and new space-based capabilities. We will ensure that cold weather requirements drive science, technology and capability planning so that our future equipment and personnel can operate in the High North when required.

As we look ahead to address future challenges in the region, civil and defence space capabilities will become increasingly important to provide high fidelity, multi-spectral data to monitor the region and to enhance resilience to critical national infrastructure, including communications within the region. The UK's Defence space mission, as set out in the Defence Space Strategy, seeks to generate, integrate and operate space capabilities to protect and defend our interests in support of global operations. Recognising the importance of international collaboration to achieving our mission, the UK will champion a focus on space within the JEF construct and with close Allies in the region.

The UK has also committed to establish a standing response force built around the Littoral Response Group (North). We will look to continue to support Icelandic air policing on a rotational basis, and will seek opportunities for periodic deployments and participation in exercises with our newly-acquired P-8A Maritime Patrol Aircraft. The UK's investment in a new generation of Anti-Submarine Warfare frigates will ensure our freedom to operate routinely in the North Atlantic, including in the GIUK Gap.

Safety

Arctic tourism and visiting British nationals

The Arctic offers so many different, and often unique, experiences for visitors. As the Arctic's climate changes and people's appetite for alternative travel experiences increases, so does the number of visitors. The joint Canada-Iceland-UK Arctic Marine Tourism Project (for the Arctic Council's Protection of the Arctic Marine Environment Working Group), demonstrated a total increase of 35% in the number of individual passenger vessels operating within the Arctic (as defined by the Polar Code) between 2013 and 2019. The number of passengers carried by vessels throughout the Arctic Region has increased over the same period, not only due to an increase in overall numbers of individual passenger vessels operating in the area, but also due to an increase in size and overall passenger occupancy on-board these vessels.

While the majority of visits to the region are trouble-free, more visitors put greater strain on modest search and rescue capability, and increase the potential for harm to the fragile environment. We support the work of the Association of Arctic Expedition Cruise Operators (AECO) and its goal to manage responsible, environmentally friendly and safe tourism in the Arctic and its efforts in striving to set the highest possible operating standards.

When visiting the Arctic, we want British nationals to be safe and to ensure that all international travellers and operators refrain from harming the Arctic environment. The UK therefore supports safe, responsible and sustainable tourism in the Arctic that enables visitors to experience the uniqueness of the region, which respects the preserve of local

communities while supporting their economy and protects the fragile environment for future generations. The Foreign, Commonwealth & Development Office (FCDO) supports British nationals around the world. Consular support in the Arctic falls to the Embassy or High Commission in whose jurisdiction a British national is travelling. For travellers considering a visit to the region the FCDO has developed specific Arctic travel advice, in consultation with representatives of the travel industry, which is available via the GOV.UK pages.

Search and rescue

In view of the rapid rise of tourism in the Arctic, and particularly the prospect of large passenger ships sailing in Arctic waters, the consideration of Search and Rescue (SAR) has been at the forefront of the development of the Polar Code. SAR resources in Arctic waters are scarce and Arctic States have made attempts through the Arctic Council to address this issue with increased resources and a binding SAR agreement.

While the responsibility for SAR rests with the Arctic States, the UK is actively involved in many aspects of discussions regarding further developments as an Observer in the Arctic Council's Emergency Prevention, Preparedness, and Response (EPPR) Working Group, as well as other established coast guard fora and ongoing research projects.

We will continue to monitor and assist, as appropriate, in the further development of plans for SAR in the region. Recognising the benefits of close cooperation, the UK maintains bilateral SAR cooperation agreements with Arctic States bordering its Search and Rescue Region, including Canada, Denmark, Norway, and the United States.

4. Promoting our shared prosperity

The UK has a clear vision for a prosperous Arctic, where economic and commercial development is achieved in a way that is safe, responsible and sustainable. As well as being a place of fragile beauty, many people in the Arctic rely on it for their livelihoods. The UK supports their right to pursue prosperity and economic stability, and believes that the people who live in the Arctic should benefit from increasing prosperity that comes from changes in the region. However, it is important that commercial development does not damage the Arctic's natural environment, or destabilise peaceful cooperation, which are fundamental to the prosperity of many Arctic communities.

Changes in the Arctic mean that the region is seeing growing interest from both industries and countries around the world. The UK already has excellent economic ties with most of the Arctic States, enhanced by the presence of Department for International Trade (DIT) teams in the Arctic States, supporting UK companies to succeed in the region. We will continue to support UK businesses looking to invest in the Arctic, and as part of this, we will undertake further analysis of current and future economic opportunities, working with our partners.

We recognise the role of the Arctic Economic Council (established by the Arctic Council in 2014) as an independent organisation to facilitate business and responsible economic development through sharing of best practices, technological solutions and standards. We will continue to encourage UK companies to engage through the Arctic Economic Council.

Trade routes

Currently, half of the world's volume of trade travels through the South China Sea. But warming temperatures and declining sea-ice (annual Arctic sea ice minimum is declining at a rate of 13% per decade) have exposed areas of Arctic waters previously hard to access, creating potential for new shipping



routes transporting goods between Asia and northern Europe. It is conceivable that seasonal maritime routes will open through the Arctic, though it is less clear when, and to what extent, year-round routes could open.

Transit through the Arctic region could reduce travel time between Asia and northern Europe by 10-12 days. As well as the time saving, this would also cut fuel costs and emissions, therefore incentivising shipping companies to utilise these routes with greater frequency. The UK's geographical position means we stand to benefit significantly from the opening-up of these new maritime trade routes.

There are, however, specific challenges which would need to be overcome. For instance, new

technology will be required in order to meet the challenges of transport via the Arctic and to ensure the safety of crew, cargo, and vessel. Alongside this, it is highly likely that there would be implications for insurance, environmental and labour regulation, and international agreement over territorial boundaries.

The UK is committed to working on the international stage to ensure effective governance and environmental protections are in place to regulate ships operating in Arctic waters as they become more accessible. At present, shipping vessels' use of Heavy Fuel Oil (HFO) and emissions of black carbon are two of the most prominent environmental issues pertaining to shipping in the Arctic. An HFO spill would severely harm the fragile marine and coastal Arctic environment, with serious long term detrimental effects. Black carbon increases the amount of light absorbed into the ice surface and can cause localised melting, which in turn contributes to the destabilisation of the ice sheet as a whole and an increased loss of ice mass. On both issues, the UK is working in the International Maritime Organization (IMO) to establish measures that can mitigate such detrimental impacts on the Arctic environment.

China's 2018 Arctic Policy white paper first stated an intention to build a 'Polar Silk Road' through the development of Arctic shipping routes as part of the Belt and Road Initiative, with further development included in China's 14th Five Year Plan for 2021 to 2025. We recognise the potential implementation risks that could be involved in delivering the Belt and Road Initiative. It is important that projects meet international standards and best practice, such as responsible lending, sustainability and alignment with the objectives of the Paris Agreement, appropriate project design, and transparent procurement. As the Initiative develops, we advocate an approach that minimises negative impact



4. Promoting our shared prosperity

on the Arctic environment while maximising the economic benefit for communities, which will also suffer the most disruption.

The opening up of the route to increased amounts of shipping is not risk free. As a member of the IMO, the UK played an active and influential role in the development of The International Code for Ships Operating in Polar Waters (the Polar Code), which is mandatory under both the International Convention for the Safety of Life at Sea, 1974 (SOLAS) and the International Convention for the Prevention of Pollution from Ships, 1973 (MARPOL). Through goal-based standards, the Polar Code covers the full range of design, construction, equipment, operational, training, search and rescue and environmental protection matters relevant to ships operating in the waters surrounding the two poles.

The environmental aspects of the Polar Code were already implemented in UK law, and the safety related requirements of the Code were implemented in the UK through the Merchant Shipping (Polar Code) (Safety) Regulations 2021. The UK continues to play an active role in developing the Polar Code at the IMO, including developing Phase 2 covering the application to non-SOLAS ships, including fishing vessels, private yachts and small cargo ships (under 500GT).

As Arctic shipping routes become more open, the UK continues to advocate for the highest possible shipping standards and adherence to the Polar Code.

The UK is also committed to working through international organisations to boost and reform seafarer protections and welfare globally.

The UK Hydrographic Office (UKHO), as a global leader in producing charts and publication services to support international maritime navigation, continually develops

its publications to take account of changing shipping patterns and new trading routes. To do so, UKHO maintains strong links with Arctic nations to ensure access to the best available data to serve the needs of the international mariner. Furthermore, the UKHO is developing marine capability in geospatial information management to support the UK's Arctic interests. Such capability will ensure that UK expertise, scientific research, hydrographic surveying, marine cartography and nautical information is suitably integrated to provide comprehensive and efficient information management.

The UK will continue to seek Associate Member status of the Arctic Regional Hydrographic Commission for the UKHO, in order to maintain close links with other nations in the region and to share the UK's knowledge and expertise of Arctic hydrography.

Energy, mining and critical minerals

The UK Government welcomes the outcomes of COP26 and strongly endorses the need to work together to deliver on the Paris Agreement, the Glasgow Climate Pact and the transition to a Net Zero World by 2050, in order to limit global temperature rise to 1.5 degrees. While we expect other countries to deliver on these joint climate commitments, we also respect their right to determine the route they take to meeting these goals, including how they regulate the production and use of hydrocarbons.

The Government welcomes the action taken by the Arctic States through the Arctic Council to collaborate on pollution prevention, preparedness and response, and on research, technology and community participation



in relation to oil and gas activities. We will continue to support such moves to ensure robust protection and pollution response arrangements are in place across the Arctic.

Successful mining operations—including those for critical minerals—that meet the needs of customers, investors and local communities require strong governance frameworks and clear human rights policies. Underpinning this governance is the need for effective communication at a local, regional and national level to ensure that the ‘Social Licence to Operate’ can be maintained throughout the life of mine and beyond. While decisions on what regulations should apply are matters for national authorities, the UK encourages all countries to adopt the highest standards of Environment and Social Governance. The UK plays a leading role in shaping these governance frameworks through participation in initiatives such as the Voluntary Principles on Security and Human Rights in the Extractive Industries, and the Extractives Industries Transparency Initiative, which apply to mines in the Arctic and elsewhere.

Fisheries

The UK is committed to being a world leader in the delivery of a sustainable, ecosystem-based approach to fisheries, by working with key partners.

The UK has a direct interest in the fisheries within the Arctic region. Separately, a significant proportion of the fish consumed in the UK originates in the Arctic Ocean and neighbouring waters. Between January and November 2021, 70% of the UK’s seafood imports came from countries within the Arctic region. Norway, Iceland, and the Faroe Islands are the three largest import locations for the UK’s seafood trade in value terms⁵.

The impacts of climate change on the Arctic and the wider world are expected to become more pronounced, and so it is critical that we work in partnership with our neighbouring coastal States in the Arctic region to promote the sustainable use of stocks and responsible management of our respective waters. One way in which we do this is through formal annual consultations underpinned by international

⁵ Source: HMRC trade data from January 2021, covering the period of Jan-Nov 2021 for relevant seafood lines: <https://www.uktradeinfo.com/>

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agreements, such as our fisheries framework agreements with Norway and the Faroe Islands, and memoranda of understanding with Greenland and Iceland. In respect of highly migratory and straddling fish stocks, we engage with coastal States and other relevant States in a number of multilateral fora. We also work together in relevant Regional Fisheries Management Organisations (RFMOs) in relation to the regulation of fisheries in the high-seas.

The UK is committed to continuing to play its role in the sustainable management of fisheries in the Arctic. We will continue to take a science-led, precautionary and ecosystem-based approach to the management of existing fisheries in which we have an interest, as well as working with Arctic coastal States on the management of any potential fisheries that might emerge as a result of changing migratory patterns in the central Arctic Ocean.

The UK was supportive of the development of the Agreement to prevent unregulated high seas fisheries in the Central Arctic Ocean (also known as the Central Arctic Ocean Fisheries Agreement – CAOFA) which came into force in 2021. This Agreement is important for the UK as, due to the integrated nature of ecosystems, changes in the Arctic Ocean will have an impact on the distribution of North Atlantic biological resources. Protecting vulnerable habitats and species in the Arctic ecosystems will support building resilience in the North Atlantic. Furthermore, the Agreement is in line with the UK's ambition to strengthen measures to tackle Illegal, Unreported and Unregulated (IUU) fishing. The UK will therefore seek to join the Agreement at the earliest opportunity, and is keen to contribute to the international cooperation on relevant scientific research and monitoring.



Connectivity

Digital connectivity through increased internet fibre cables and good broadband coverage already benefits developed parts of the Arctic. In the underdeveloped and remote parts of the Arctic, including at sea, the technological challenge is greater. Facilitating research and development into innovative technical solutions, which have the views and needs of indigenous people and those in remote communities at their heart, will bridge this gap.

Maritime and financial services

The UK is a global financial centre and world leader in financial and professional services,



including insurance, risk management, financial and legal services. Our financial institutions have a reputation for developing innovative products. Their significant expertise covers a range of sectors operating in the Arctic including, maritime, hydrocarbons and mineral extraction, and are well placed to provide bespoke services. The UK maritime business services sector provides services to international shipping industry vital to enabling the world to trade and the global economy to function. Shipbrokers in the UK operate at the centre of the international shipping business. Shipbrokers are represented at the Baltic Exchange, which has the world's only independent source of maritime market information for trading and settlement of physical and derivative contract.

We are a world leader across maritime finance because the UK has the world's most open and international financial services centre

with a historical tradition for innovation. The UK Ship Register, part of the Maritime and Coastguard Agency, continues to fly the flag for UK shipping and has access to maritime finance experts with unrivalled maritime knowledge and experience. The UK Flag offers world class surveyors, regulation and policy support—vital assets for any business looking to grow and expand. The recently launched UK Shipping Concierge service builds on this and offers a 24/7 worldwide service to any maritime business that needs assistance navigating UK government departments, trade associations and related maritime specialists.

As the implementation of global climate commitments develop, the transition to Net Zero will form an increasingly important part of the UK's maritime services sector. The falling cost of renewable energy, fossil fuel diversification, increased industry and financial competition and high demand for green finance products are all driving growth. The UK continues to lead international efforts in reducing emissions from international shipping at the IMO, integral if we are to retain our status as a world leader within maritime. At COP26, the UK was proud to sign the “Declaration on Zero Emission Shipping by 2050” alongside other leading climate nations, as well as launching two initiatives – the Clydebank Declaration for green shipping corridors and Operation Zero to accelerate the decarbonisation of operations and maintenance vessels in the North Sea offshore wind sector.

In March 2021 the UK launched the Clean Maritime Demonstration Competition— which allocated over £23m of research and development funding to 55 green maritime projects across the UK. As we move towards refreshing our Clean Maritime Plan, the UK Government will continue to promote the UK as a centre of maritime commercial expertise.

Acronyms

CAOFA

Central Arctic Ocean Fisheries Agreement

CBD

Convention on Biological Diversity

EEA

European Economic Area

EFTA

European Free Trade Association

EU

European Union

FCDO

Foreign, Commonwealth and Development Office

JEF

Joint Expeditionary Force

JNCC

Joint Nature Conservation Commission

IMO

International Maritime Organization

INTERACT

International Network for Terrestrial Research and Monitoring in the Arctic

NATO

North Atlantic Treaty Organisation

NERC

Natural Environment Research Council

OSPAR

The Convention for the Protection of the Marine Environment of the North-East Atlantic

SIN

Science and Innovation Network

UKHO

UK Hydrographic Office

UNCLOS

United Nation Convention on the law of the Sea

UNFCCC

United Nations Framework Convention on Climate Change

Arctic States: the Member States of the Arctic Council

Canada
 The Kingdom of Denmark (including Greenland and the Faroe Islands)
 Finland
 Iceland
 Norway
 Russian Federation
 Sweden
 The United States of America

Arctic Council

Working Groups

ACAP—Arctic Contaminants Action Program
 AMAP—Arctic Monitoring and Assessment Programme
 CAFF—Conservation of Arctic Flora and Fauna
 EPPR—Emergency Prevention, Preparedness and Response
 PAME—Protection of the Arctic Marine Environment
 SDWG—Sustainable Development Working Group

Expert Groups

EGBCM—Expert Group on Black Carbon and Methane

State Observers to the Arctic Council

(and the date of the meeting at which observer status was confirmed):

Germany, 1998
 Netherlands, 1998
 Poland, 1998
 United Kingdom, 1998
 France, 2000
 Spain, 2006
 China, 2013
 India, 2013
 Italy, 2013
 Japan, 2013
 South Korea, 2013
 Singapore, 2013
 Switzerland, 2017



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