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**JOINT COMMUNICATION TO THE EUROPEAN PARLIAMENT, THE COUNCIL,
THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE
COMMITTEE OF THE REGIONS**

A stronger EU engagement for a peaceful, sustainable and prosperous Arctic

INTRODUCTION

The European Union (EU) is in the Arctic. As a geopolitical power, the EU has strategic and day-to-day interests, both in the European Arctic and the broader Arctic region. The EU also has a fundamental interest in supporting multilateral cooperation in the Arctic and in working to ensure that it remains safe, stable, sustainable, peaceful and prosperous. Being a major economic player, it shares the responsibility for global sustainable development, including in the Arctic regions, and for the livelihood of inhabitants, including Indigenous Peoples. The EU exerts a significant impact on the Arctic through its environmental footprint and demand for resources and products originating there.

Climate change is the most comprehensive threat the Arctic is facing and has reached an unprecedented crisis point¹. The Arctic is especially sensitive to global warming - it has warmed three times as fast as the planet on average during the last 50 years. Current Arctic sea ice cover is at its lowest level since at least 1850 and is projected to reach practically ice-free conditions at its summer minimum at least once before 2050. In addition, the Greenland ice sheet is declining, and permafrost across the Arctic is increasingly thawing. These interconnected Arctic changes cause sea levels to rise, disturb weather systems, and lead to coastal erosion, biodiversity loss, and the destruction of associated ecosystems. The loss of reflection due to shrinking sea ice - the albedo effect - and the release of greenhouse gases due to permafrost thawing further accelerate climate change and could contribute to triggering tipping points in the climate system. The dire consequences, exacerbated by environmental degradation, extend to the whole planet, and profoundly affect nature and people in multiple ways, some of which are only just becoming apparent. Indigenous Peoples are particularly hard-hit and the worsening situation will undermine the prospects for future generations. The recent Intergovernmental Panel on Climate Change (IPCC) report stresses again the urgency to act now and decisively².

This is the make or break decade in the fight against the climate and biodiversity crises. The EU is a global leader in these efforts, and is ready to play its full part and assume its global responsibility, through its new climate law and the “Fit for 55” package³, ahead of COP26. Climate action is of particular importance to the Arctic, given the immense knock-on effects of Arctic warming. The legislative proposals under the European Green Deal (EGD)⁴, will be at the heart of the EU’s Arctic engagement, together with the EU’s new approach for a sustainable blue economy⁵, supported by science, innovation and regional investment.

The Arctic States⁶ have the primary responsibility for tackling challenges and opportunities within their territories. However, many challenges extend beyond national borders and the region’s boundaries, and can be more effectively addressed through regional or multilateral cooperation. In this context, the EU’s role as legislator for part of the European Arctic must also be taken into account.

Intensified interest in Arctic resources and transport routes could transform the region into an arena of local and geopolitical competition and possible tensions, possibly threatening the EU’s interests. Global demand for products from Arctic sources underlines

¹ IPCC Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (<https://www.ipcc.ch/report/ar6/wg1/>)

² Idem.

³ The “Fit for 55” proposals combine application of emissions trading, increased use of renewable energy; greater energy efficiency; faster roll-out of low emission transport modes alignment of taxation policies, measures to prevent carbon leakage; and tools to preserve and grow natural carbon sinks.

⁴ COM(2019) 640

⁵ COM(2021) 240

⁶ Canada, Kingdom of Denmark, Finland, Iceland, Norway, Russia, Sweden, United States of America.

that Arctic development is not driven by local political and economic forces only.

These challenges and opportunities are interlinked and many of them can best be tackled in a coordinated manner and in close cooperation with Arctic states, regional authorities and local communities. **The EU's full engagement in Arctic matters is a geopolitical necessity.** EU action must be based on its values and principles, including the rule of law, human rights, sustainable development, gender equality, diversity and inclusion, support for rules-based multilateralism⁷ and the respect of international law, notably the United Nations Convention on the Law of the Sea (UNCLOS).

OBJECTIVES

Building on its policy as set out in previous Joint Communications on Arctic matters^{8 9}, and based on the 2016 Global Strategy for the European Union's Foreign and Security Policy and the political priorities of the Commission, the EU will strengthen its Arctic engagement through:

- contributing to maintaining peaceful and constructive dialogue and cooperation in a changing geopolitical landscape, to keep the Arctic safe and stable, by raising Arctic matters in its external contacts, intensifying regional cooperation and developing strategic foresight on emerging security challenges;
- addressing the ecological, social, economic and political challenges arising as a consequence of climate change and taking strong action to tackle climate change and environmental degradation, making the Arctic more resilient, through environmental legislation, concerted action on black carbon and permafrost thaw, and by pushing for oil, coal and gas to stay in the ground, including in Arctic regions;
- supporting the inclusive and sustainable development of the Arctic regions to the benefit of its inhabitants and future generations, focusing on the needs of Indigenous Peoples, women and the young, and investing in future-orientated jobs and the blue economy.

1. A REGION OF PEACEFUL COOPERATION IN THE NEW GEOPOLITICAL SETTING

The EU will enhance its strategic foresight, mainstream Arctic matters in its external diplomacy and build on regional cooperation. To mitigate safety concerns, it will extend civil protection capacities and search and rescue cooperation and intensify research into permafrost thawing.

Recent years have brought a stark increase in the number of countries taking an interest in the Arctic regions. This risks transforming the Arctic into an arena of geopolitical competition and harming the EU's interests. Alongside growing interest in Arctic resources and transport routes, there has been a sharp increase in military activity in many parts of the Arctic. The EU is committed to upholding a safe, stable, sustainable and prosperous Arctic, which must

⁷ JOIN(2021) 3.

⁸ COM(2008) 763, JOIN(2012) 19 and JOIN(2016) 21.

⁹ Council Conclusions on Climate and Energy Diplomacy delivering on the external dimension of the EGD, 25 January 2021.

remain a region of low tension and peaceful multilateral cooperation. In its conclusions on climate and energy diplomacy of January 2021⁸, the Council of the EU noted the importance of environmental issues and climate change for security and defence, and the need to cooperate closely with partner countries, international organisations such as the United Nations (UN) system, and through multilateral partnerships.

Military build-up across the Russian Arctic seems to reflect both global strategic positioning and domestic priorities, including dual use of infrastructure. In addition to increasing security challenges, it could also further aggravate the consequences of climate change. It is likely taking place partly because the long northern coastline is becoming much more accessible, but is largely related to non-Arctic issues¹⁰. Many countries, including the US, Norway, UK, Denmark, Canada and Iceland are following these developments closely, as is the North Atlantic Treaty Organisation (NATO), with a view to responding to Russia's increased assertiveness in Arctic waters and airspace. There has also been an upturn in the activities of other actors, including China, and growing interest in areas like ownership of critical infrastructure, the construction of sea cables, global shipping, cyberspace and disinformation.

The increase in applications for observer status at the Arctic Council reflects the new geopolitical environment. With a view to further enhancing its engagement in Arctic Council Working and Expert Groups, the EU reiterates its application for official Observer status. The EU will continue to contribute to the work of the Arctic Council in line with the Arctic Council Declaration in Kiruna of May 2013¹¹. The EU will work in cooperation with observers, including with EU Member States, as appropriate.

Enhancing strategic foresight

The EU is following security developments closely and, in certain respects, with concern. Arctic security encompasses environmental, economic and political-military elements, which cannot be seen in isolation from each other. Climate change and melting ice are leading to greater geopolitical interest with a high potential for increased strategic competition. The EU will enhance its strategic foresight capabilities, in line with various action areas of the 2021 Strategic Foresight report¹², to better understand the security implications of the climatological changes in the Arctic region, and their impact on the global security environment. It will work with its partners, including the US, Canada, Norway and Iceland, and will also cooperate with NATO on strategic foresight, looking at the medium to longer term security impact of climate change and sharing studies and data, as part of the broader ongoing exchange with NATO on climate change and security.

With economic and military activities increasing in the region, the EU Satellite Centre (SatCen) offers secured geospatial analysis, which will support the EU's efforts to monitor the security situation in the Arctic region, enhancing stability by enabling confidence-building measures and the prevention of unforeseen incidents. Galileo is already offering Search and Rescue services and can offer other security related services. The Galileo Public Regulated Service will ensure unlimited and uninterrupted access to robust navigation services in the Arctic to its authorised users, enhancing the security of operations in the region.

¹⁰ Cf. Joint Communication on EU-Russia relations, JOIN(2021) 20.

¹¹ Arctic Council Secretariat, Kiruna Declaration, Kiruna Sweden, 15 May 2013.

¹² COM(2021) 750 final of 8.9.2021 – “2021 Strategic Foresight Report - The EU's capacity and freedom to act”

Building on the EU's mutually supportive policies

The EU's policy is built upon the principles set out in UNCLOS, the UN 2030 Agenda and the Sustainable Development Goals, as well as its involvement in the work of the Arctic Council, the Barents Euro-Arctic Council and the Northern Dimension policy framework (cf. focus box 1).

FOCUS 1: The EU and the Northern Dimension

The Northern Dimension (ND) is a common policy of the EU, Russia, Norway and Iceland.

The four ND Partnerships deal with: i) Environment (including nuclear safety); ii) Public Health and Social Wellbeing; iii) Transport and Logistics; and iv) Culture.

The Northern Dimension Environmental Partnership (NDEP) improves wastewater treatment in the Baltic Sea catchment area and tackles black carbon emissions. Projects are implemented through the NDEP Support Fund (EUR 350 million in total) managed by the European Bank for Reconstruction and Development (EBRD), which was extended till 2027. The Nuclear Window of the NDEP is a multilateral funding mechanism aimed at addressing risks associated with the Soviet-era nuclear legacy in North-West Russia. The Barents Sea area has one of the largest accumulations of spent nuclear fuel and radioactive waste in the world. Contributors have provided EUR 166.3 million to the Nuclear Window since 2002. The EU has contributed EUR 44 million for the environmental window and EUR 40 million for the nuclear window. NDEP projects have dramatically improved the environmental condition of the Baltic Sea and reduced the danger of radiological contamination in Arctic waters.

The EU has built strong international networks on Arctic research as a diplomatic tool¹³, including bilateral Science and Technology Cooperation Agreements with Canada, Russia and the US. Since 2016, the EU has supported science diplomacy via the Arctic Science Ministerial meetings¹⁴. The All Atlantic Ocean Research Alliance has been mobilised to strengthen Arctic research, and the EU will work towards an All Atlantic ocean research alliance from Pole to Pole. The EU will mainstream Arctic matters into its dialogues with Arctic and other players, including the US, Canada, Norway, Iceland, Russia, China, Japan, Republic of Korea and India, as well as regional bodies. The creation of the post of Special Envoy for Arctic Matters within the European External Action Service gives the EU a focal point for its Arctic diplomatic outreach.

The EU has important ties with Greenland and the Faroe Islands. Both are part of the Kingdom of Denmark, and both are seeking closer relations with the EU. In order to further consolidate and enhance the longstanding cooperation between the European Commission and Greenland, the European Commission will establish an office to be located in Nuuk. This office will manage EU support to Greenland as well as facilitating further strengthening and deepening of the partnership between the European Commission and the Government of Greenland, including through cooperation and dialogue in areas of common interest, in close cooperation with the Special Envoy for Arctic Matters.

FOCUS 2: Greenland

Under the Overseas Association Decision, Greenland has a wide-ranging political and policy dialogue with the EU, preferential trade arrangements to access the EU market and is one of the largest recipients of EU support

¹³ The EU Programmes for Research and Innovation offer a unique basis for international cooperation, with five of the eight Arctic countries being EU Member States (Finland, Sweden, Kingdom of Denmark) or associated countries (Norway, Iceland). Faroe Islands have a specific status and participate as associated country, even if part of the Kingdom of Denmark.

¹⁴ Arctic Science Ministerial meetings are intergovernmental events, hosted on a biannual basis by countries with an interest in Arctic research.

per capita in the Overseas Countries and Territories (EUR 225 million foreseen between 2021 and 2027). This supports Greenland's sustainable development and diversification of its economy. So far, long-term EU cooperation has in particular contributed to strengthening the education system and enhancing learning opportunities, as knowledge and skills are essential for Greenland's socio-economic development.

The 2021 renewed EU-Greenland Sustainable Fisheries Partnership Agreement is an important milestone in the long-standing cooperation between the two, promoting sustainable use of marine resources. The EU is seeking to deepen and broaden its partnership with Greenland, including possible cooperation on issues related to green growth.

A permanent presence of the EU in Greenland would be a strong signal to enhance our partnership and the visibility of EU actions on the ground, for example through the establishment of a European Commission office on Greenlandic territory.

Cooperating on civil protection, civilian safety and security challenges in the Arctic regions

Increasing interest in Arctic science, resources, infrastructure, transport and tourism requires enhanced safety and security systems, such as satellites to collect data on the environment, weather, ice, biology, shipping and air traffic and to improve communication. Wildfires and flooding are also becoming more commonplace in Arctic regions due to the effects of climate change, and the Arctic Council is now monitoring these developments¹⁵. Consequently, emergency response capacities are increasingly in demand.

The EU's tools and experience in crisis response to environmental disasters will be of considerable use in the European Arctic and beyond. The EU will cooperate with key partners through the Union Civil Protection Mechanism (UCPM)¹⁶ and its Emergency Response Coordination Centre. The UCPM is already present in the Arctic through Denmark, Finland, Sweden, Iceland and Norway, and similar cooperation is expected with other Arctic States, including through the Arctic Council's Emergency Prevention, Preparedness and Response Working Group.

The EU's Copernicus Emergency Management Service already offers monitoring, early warning and mapping, both before and in the immediate aftermath of a disaster. The EU's Global Disaster Alert and Coordination System (GDACS)¹⁷ will improve alerts and coordination after major sudden-onset disasters. The EU will boost the capacity of Copernicus and the European Marine Observation and Data Network (EMODNet) to better anticipate the effects of extreme weather events, with a special focus on the Arctic. The future Galileo Emergency Warning Service will be used to reach out directly and warn populations threatened by a looming disaster, in particular in remote areas not covered by terrestrial connectivity networks.

Timely and efficient search and rescue (SAR) operations are crucial in the Arctic because of its severe climate, unpredictable weather, and the huge distances involved. Galileo SAR significantly reduces the time needed to rescue people at sea. The new Galileo Return Link Service offers new functions for sailors and pilots operating in hostile environments, and is currently offered uniquely by Galileo, worldwide and free of charge.

¹⁵ There is evidence that in the past ten years, 83% of all disasters triggered by natural hazards were caused by extreme weather- and climate-related events, such as floods, storms and heatwaves. International Federation of Red Cross and Red Crescent, 2020 World Disaster Report.

¹⁶ The EU's UCPM strengthens cooperation on civil protection between the EU Member States and six Participating States (including Iceland and Norway).

¹⁷ GDACS is a cooperation framework between the UN, the Commission and disaster managers worldwide to improve alerts, information exchange and coordination in the first phase after major sudden-onset disasters anywhere on Earth.

Further work will be done on maritime SAR, making greater use of EU satellite systems and the services provided by EU Agencies. In line with the EU Maritime Security Strategy Action Plan¹⁸, cooperation between Coast Guards will be promoted, particularly through the Arctic Coast Guard Forum. To upgrade vessel safety in the Arctic, the EU supported the International Maritime Organisation (IMO) safety guidelines for fishing vessels and recreational craft in the Arctic as well as the development of mandatory measures on voyage planning and navigation - phase 2 of IMO's Polar Code.

FOCUS 3: The thawing permafrost

There is an urgent need to address the adverse effects of thawing permafrost and associated gas hydrates, which present a clear danger to the Arctic environment and its people, and which have wider repercussions beyond the Arctic as well.

- *Climate change: greenhouse gases released from thawing permafrost threaten to cause irreversible changes in the Arctic and other regions. The EU will improve knowledge of this process, using satellite observation and measurements from aircraft, ships and ground stations.*
- *Infrastructure: thawing permafrost weakens infrastructure and increases coastal erosion. Over 70% of Arctic infrastructure and 45% of oil extraction fields are built on permafrost. Potential measures include developing devices and methods for local cooling and stabilisation, providing satellite data on subsidence and erosion in permafrost areas and setting tougher building standards.*
- *Health aspects: risks to human, animal and plant health will be monitored and evaluated by national health authorities. These include risks from pathogens, such as anthrax, or contaminants like mercury contained in permafrost, damage to sewage pipelines, and pathogen transport into permafrost areas due to species migration and human activities.*

Further research is needed to develop adaptation and mitigation measures and increase knowledge of the impact on communities and sustainable development. The EU already supports these activities under Horizon 2020 in the Nunataryuk project. The Arctic Passion project will build on this work, monitoring and forecasting permafrost thaw and mapping permafrost parameters using Copernicus satellites and in situ observations, including data provided by indigenous groups.

A key goal will be closer cooperation with the Arctic states, particularly Russia, in creating data and services for permafrost areas to improve environmental and health security and develop mitigation measures. There is also a need to understand better the possible links between climate change, permafrost thaw and the release of new and old pathogens with epidemic potential. A monitoring system could be set up as part of the Northern Dimension Partnership in public health to detect such pathogens and for modelling and early warning in the region.

The Health Emergency Preparedness and Response Authority (HERA) will play a key role in anticipating future health threats, including possible reactivation of thawing germs which have been locked in permafrost. In a potential future health emergency, HERA will reinforce the European health security architecture to respond to threats, with the involvement of agencies including the European Centre for Disease Prevention and Control.

The EU will

- *enhance its strategic foresight on Arctic security risks, in particular associated with climate change, working with partner countries and NATO.*
- *establish a European Commission Office in Nuuk, Greenland in order to strengthen and enhance EU-Greenland cooperation.*
- *enhance the EU's involvement in all relevant Arctic Council working groups.*
- *push for an All Atlantic ocean research alliance from Pole to Pole.*

¹⁸ EU Maritime Security Strategy and its implementing Action Plan adopted on 24 June and 16 December 2014.

- *contribute to improving maritime SAR, making greater use of EU satellite systems and cooperation between coastguards, in particular the Arctic Coast Guard Forum.*
- *work with key partners and regional fora through the UCPM to strengthen response capacities and cooperation on civil protection in the region.*
- *promote research and collection of data on the long-term implications of thawing permafrost, to assess the potential impacts on communities, health and sustainable development and develop mitigation measures.*
- *use HERA to anticipate future health threats in the Arctic, including possible reactivation of thawing germs which have been locked in permafrost.*

2. MAKING THE ARCTIC MORE RESILIENT TO CLIMATE CHANGE AND ENVIRONMENTAL DEGRADATION

The EU recognises and will continue to assess its own impact on the region¹⁹. It aims to tackle this impact in a coordinated manner, in close cooperation with national, regional and local authorities, and Arctic communities. The EU will act against major sources of pollution affecting the Arctic regions in the air, on land and at sea, such as plastics/marine litter, black carbon, chemicals, and transport emissions as well as unsustainable exploitation of natural resources.

Climate change and biodiversity: two sides of the same coin

Climate change and biodiversity are interdependent. The EU is a leading force in the negotiations under the UN Framework Convention on Climate Change (UNFCCC) and the Convention on Biological Diversity (CBD). The EU recently adopted a climate law, which sets the goal of becoming climate neutral by 2050 and strengthening resilience and reducing vulnerability to climate change. The proposed “Fit for 55” package aims to make the EU's climate, energy, land use, transport and taxation policies able to reduce net greenhouse gas emissions by at least 55% by 2030, and will be translated into sound policies and commitments that will benefit the Arctic. The EU also supports the global ‘30*30’ goal of protecting 30% of land and 30% of the ocean by 2030 through establishing a network of Marine Protected Areas and Other Effective Conservation Measures (OECMs). The EU is also a strong proponent of an UNCLOS implementing agreement on the conservation and sustainable use of marine biodiversity of areas beyond national jurisdiction (BBNJ).

The conservation and sustainable use of Arctic marine living resources, including fish stocks, is crucial. The EU is a Party to the Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean²⁰ (cf. focus box 4).

FOCUS 4: Making the Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean a success

The coming into force of this agreement is a success story for the Arctic. It protects marine ecosystems by applying a precautionary and science-based approach to any future fisheries in the Central Arctic Ocean. The EU contributed significantly to the negotiations and the preparatory work before the agreement entered into force. The EU will support its swift implementation, including the establishment of the joint scientific programme, conservation and management measures for exploratory fishing, and necessary institutional

¹⁹ Overview of EU actions in the Arctic and their impact, Office for Economic Policy and Regional Development, EPRD, Poland, June 2021 (‘EPRD Report’). EU Partnership Instrument funded study report.

²⁰ Council Decision (EU) 2019/407 of 4 March 2019 on the conclusion, on behalf of the European Union, of the Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean (OJ L 73, 15.3.2019, pp. 1-2)

arrangements. The EU will also conduct research in the Central Arctic Ocean as part of its contribution to the joint scientific programme.

To protect the Arctic, the EU also supports the designation of Marine Protected Areas in the Arctic Ocean, including in the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR).

The EU's joint Earth System Science Initiative with the European Space Agency has been vital for understanding climate change. The Copernicus programme operates a dedicated Arctic Ocean monitoring and forecasting centre and specialises in sea ice observation and monitoring. The EU will further expand the Arctic services of Copernicus, and use knowledge and data gathered by projects like Arctic Passion under Horizon2020. It will explore the establishment of a Copernicus Arctic thematic hub to present as a one-stop-shop all relevant services to monitor the poles, both inland and at sea.

Addressing plastics/marine litter pollution

The EU has plastic litter and micro-plastics reduction targets of 50% and 30% respectively by 2030²¹. The EU is looking to secure a Global Plastics Agreement to combat plastic pollution, using a circular economy approach and addressing the entire life cycle of plastics. In addition, through the Zero Pollution Action Plan on air, water and soil, the EU will push for a toxic-free environment worldwide. The EU is actively engaging in the work of the Arctic Council and OSPAR, which specifically addresses marine litter including plastics.

Promoting collective responses to reducing black carbon in the Arctic

The reduction of black carbon emissions that impact the Arctic continues to be an important challenge. As a short-lived climate pollutant, black carbon causes strong regional warming by darkening highly reflective surfaces and absorbing solar radiation while airborne. It is also an air pollutant harmful to health. The EU is responsible for around 36% of Arctic black carbon deposition²², leading to the warming of both the atmosphere and the land and ice surface. As such, the EU promotes a comprehensive policy to tackle this challenge (cf. focus box 4).

FOCUS 5: Black carbon

The EU supports the Arctic Council's indicative target of reducing black carbon emissions that reach the Arctic by as much as 33% below 2013 levels by 2025, and will endeavour to contribute to this target.

The EU encourages all Arctic states to ensure that their Arctic communities operate on renewables, reducing diesel (for electricity) use and reducing black carbon emissions.

The EU will seek to reduce black carbon emissions through a multilateral approach with the US, Canada and others, building on the work in the Arctic Council^{23 24}, in line with the action announced in the recent Zero Pollution Action Plan.

The EU will also promote cooperation to limit black carbon from fires (forest and peat), in particular by proposing that Arctic states and others consider building and sharing aerial and terrestrial forest firefighting means, which could be set up through regional cooperation, such as the Union Civil Protection Mechanism.

The EU will continue to work closely with the Arctic Monitoring and Assessment Programme of the Arctic Council²² on black carbon, building on the previous Partnership Instrument funded action.

The NDEP will also support black carbon projects in Russia. An important step would be to establish a network of measuring stations.

The Commission will further explore black carbon emissions reduction as part of the review of the National

²¹ COM/2021/400.

²² EPRD report, p.5

²³ Report from the Arctic Council Expert Group on Black Carbon and Methane, Summary of Progress and Recommendations 2021, Reykjavik (para.22).

²⁴ <https://eua-bca.amap.no/>

Emission Reduction Commitments Directive (EU) 2016/2284 by 2025.

The Copernicus Global Wildfire Information System will monitor the impact of fires in the Arctic and their emissions, which have grown dramatically in the last few years²⁵.

The EU will continue to strengthen the capacity of the Copernicus Atmosphere Monitoring Service to provide global forecasts for black carbon aerosol values²⁶.

Supporting the Arctic's renewable potential

The Arctic has a huge potential for renewables (geothermal, wind, green hydrogen and hydroenergy). The development of clean energy technologies is in the interest of the Arctic and the EU; which is why the EU will strengthen clean energy cooperation, increase exchanges in this field, and explore the supply of clean energy and energy transition.

Curbing chemical pollution

Local, regional and multilateral work towards zero chemical pollution in the environment will help reduce pollution of the Arctic. The EU is probably responsible for 6-8% of mercury deposited north of the Arctic Circle²⁷, and supports strong action under the Minamata Convention on Mercury to further curb mercury pollution. The upcoming revision of the Mercury Regulation²⁸ will also contribute to these objectives.

Lowering the carbon and environmental footprint of maritime transport

The EU is responsible for 31% of CO₂ and 16.5% of black carbon emissions from maritime transport in the Arctic²⁹. The Sustainable and Smart Mobility Strategy³⁰ sets out the European transport system's path towards a green and digital transformation in line with the European Green Deal and allows sparsely populated areas in the Arctic to remain connected and become more resilient.

The EU will lead the drive for Zero Emission and Zero Pollution shipping in the Arctic Ocean, in line with our Green Deal objectives and the Fit for 55 package³¹. The EU recognises the recent adoption of the International Maritime Organisation (IMO) Heavy Fuel Oil ban from Arctic shipping, and will push for its rapid and full implementation. The EU and its Member States will promote both in the IMO and at EU level faster and more ambitious emission reductions for Arctic shipping.

Ensuring sustainable and responsible extraction and processing for climate-neutrality

The EU³² consumes 20% of the world's mineral products while producing only 3% of them. It is dependent on a few or single source-countries for many critical minerals, with China for example providing 98% of Rare Earth Elements and 93% of magnesium. The eight Arctic States are potentially significant suppliers of critical and other raw materials, and there are already important mineral extraction activities in the European Arctic: Sweden plans to produce iron ore in a carbon neutral way by 2035 for instance. Such activities can be an important economic driver for creating local value added products and mid-downstream industries, thereby promoting growth and jobs.

The EU will promote environmental, economic and social assessments and best practices for mining, waste management and accident response, as well as supporting area-based

²⁵ <https://erccportal.jrc.ec.europa.eu/getdailymap/docId/3662>

²⁶ <https://atmosphere.copernicus.eu/global-forecast-plots>

²⁷ EPRD report, p. 60.

²⁸ Regulation (EU) 2017/852.

²⁹ EPRD report, p. 94.

³⁰ COM/2020/789

³¹ COM/2021/551; COM/2021/559; COM/2021/562.

³² EU plus the UK, EPRD Report, p. 114.

management and implementing circular economy initiatives. The EU Action Plan on Critical Raw Materials³³ aims to ensure a sustainable and secure supply of critical raw materials for EU industry, with full respect for and involvement of local and indigenous communities. The EU principles for sustainable raw materials underline the importance of sound environmental management and biodiversity protection, promote efficient energy use, support climate change mitigation and adaptation, and contribute to the resilience of indigenous people in the face of climate change effects. They call for increased circularity through safe use, recycling, disposal, and recovery of raw materials from mining and processing waste and other secondary resources. They also address social aspects, such as respect for human rights, local cultures, customs and values, as well as a constructive, transparent and active dialogue with the local community.

Building resilient EU value chains through sustainable raw materials extraction and processing will help the Arctic region to develop sustainably through innovation and circularity, ensuring health and safety at work and the creation of future-oriented decent jobs. While achieving cleaner and more sustainable extraction and processing, a greater local and EU uptake of secondary raw materials, enabled by clean green technologies, is needed to increase circularity in the region, phase-out the current linear model, and ultimately minimise environmental impacts of extractive industries. Given the Arctic region's unique pristine character and its high sensitivity to climate change, the EU will champion with global partners the setting of the highest standards for reducing the environmental impact of processes for exploitation and processing - in line with the EU Action Plan. To this end, raw materials research and innovation topics under Horizon Europe will cover environmentally friendly, sustainable sourcing in line with biodiversity protection, circularity, and the use of Earth Observation technologies for environmental monitoring.

Other global players are already moving fast to secure supplies. Access to sufficient resources is key for the EU's open strategic autonomy. The EU must also diversify sourcing from outside the EU to meet the growing demand. We are developing strategic partnerships with resource rich countries like Canada, and are offering closer integration of our respective value chains, cooperation on R&I and alignment on ambitious environmental, social and governance standards, in return for clean and ethically sourced raw materials.

The EU is also an importer of oil and gas extracted in the Arctic³⁴. It is committed to achieving the targets under the Paris Agreement by implementing the European Green Deal. Building on the partial moratoriums on hydrocarbons exploration in the Arctic³⁵, the EU is committed to ensuring that oil, coal and gas stay in the ground, including in Arctic regions. An important consideration in this regard is the specific difficulty, due to the prevailing weather conditions, for response and clean-up, in case of industrial or maritime accidents.

To this end, the Commission shall work with partners towards a multilateral legal obligation not to allow any further hydrocarbon reserve development in the Arctic or contiguous regions, nor to purchase such hydrocarbons if they were to be produced.

Strengthening the Arctic's ocean governance

The Arctic Ocean and the adjacent subarctic seas are at the centre of global transformations caused by climate change³⁶. The most obvious change to the Arctic Ocean is the retreating sea ice during the summer months, with some models predicting an ice-free summer in the Arctic Ocean within a decade. Changes in temperature affect ocean currents, including the

³³ COM (2020) 474.

³⁴ The EU imports 87% of the liquefied natural gas produced in the Russian Arctic (EPRD Report, p. 104).

³⁵ In parts of the US, Canada, and Greenland.

³⁶ <https://www.ipcc.ch/srocc/>

Gulf Stream. The acidification of seawater as well as the rapid change in temperature zones will have a marked impact on Arctic marine and coastal ecosystems. These impacts could be catastrophic.

UNCLOS provides a framework for managing the Arctic Ocean, including the peaceful settlement of disputes. The EU will contribute to strengthening international ocean governance and will support partners to ensure that the oceans are clean, healthy and sustainably managed³⁷.

The EU will continue to develop sustainable relationships with its partners in the region, such as Iceland, Norway, the UK, Greenland and the Faroe Islands, including through fisheries agreements. The international legal regime that governs Svalbard and its waters must be fully respected. Under the EU's exclusive competence for conservation of marine biological resources, it represents 22 EU Member States that are Parties to the 1920 Treaty of Paris on Spitzbergen (Svalbard).

The EU will strengthen the capacity of the Copernicus Marine Environment Monitoring Service to address the specific needs of the Arctic Ocean.

The EU will

- *promote sustainable and responsible solutions in the European Arctic for extracting critical materials needed for the green transition, and seek strategic partnerships with resource-rich third countries.*
- *promote with global partners the setting of the highest standards for reducing the environmental impact of processes for exploitation and processing.*
- *push for oil, coal and gas to remain in the ground, including in Arctic regions, building on partial moratoriums on hydrocarbons exploration in the Arctic.*
- *support and contribute to the Arctic Council indicative target to reduce the quantity of black carbon emissions which reach the Arctic by as much as 33% below 2013 levels by 2025.*
- *negotiate for a strong agreement on BBNJ and contribute to the implementation of the Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean.*
- *support the designation of Marine Protected Areas in the Arctic Ocean.*
- *boost Earth and ocean observation, forecasting and climate prediction through greater capacity for Copernicus and EMODnet to better anticipate the effects of global warming and extreme weather events.*
- *support the possible implementation of a Copernicus Arctic thematic hub to present as a one-stop shop all relevant services to monitor the poles, both inland and at sea.*
- *fund research to improve the understanding of the long-distance transport of plastic waste in the North Atlantic and air transport of micro plastics.*
- *lead the drive for Zero Emission and Zero Pollution shipping in the Arctic Ocean.*
- *promote faster and more ambitious emission reductions for Arctic shipping.*

3. STIMULATING AN INNOVATIVE GREEN, BLUE AND DIGITAL

³⁷ JOIN(2016) 49

TRANSITION

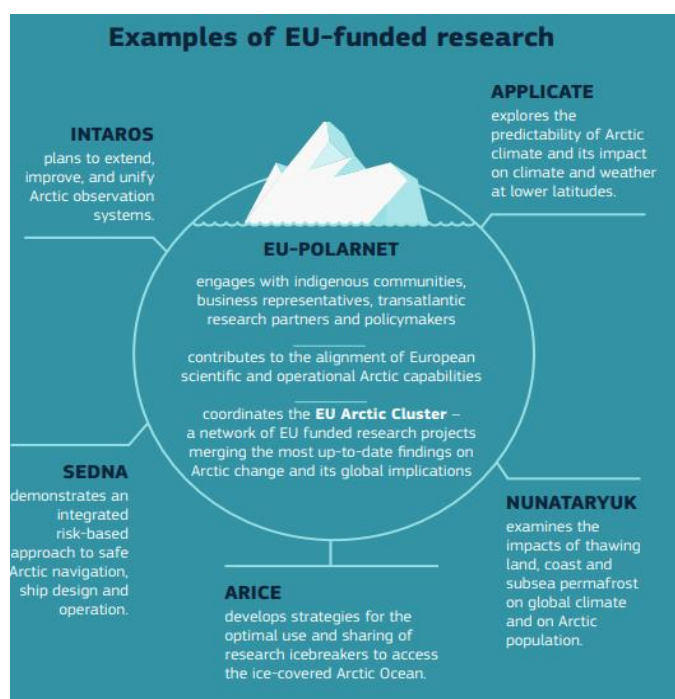
By implementing the European Green Deal, including the new approach for a sustainable blue economy, and pursuing priorities at international level, the EU seeks to mitigate, adapt to and recover from climate change-related problems and offer European solutions to ensure a robust green and blue transition.

Promoting science, research and innovation for the benefit of the Arctic

Science, research, innovation and technology are at the heart of EU policies and actions in the Arctic. The EU's approach to science and innovation³⁸ is to lead by example, promoting multilateralism, openness and reciprocity in its cooperation for green, digital, health and innovation solutions, but also a fair and inclusive transition. The EU invested around EUR 200 million in Arctic-related research under Horizon 2020 between 2014 and 2020, and will support Arctic science via the Horizon Europe Programme (2021-2027)³⁹.

Innovative technologies, such as satellites, big data, artificial intelligence and advanced modelling, are likely to transform the Arctic economy. They can enable sectors such as shipping, fisheries and tourism to improve their sustainability and circularity, while emerging sectors such as blue technologies, offshore renewable energy, hydrogen and maritime security also rely on innovation and technology.

The Horizon 2020 project EU-PolarNet 2 (2020-23), the successor to EU-PolarNet 1 (2015-2019) on 'Coordinating and co-designing the European Polar Research Area', will strengthen a European Polar research community.



³⁸ COM(2021) 252.

³⁹ Horizon Europe encompasses three new initiatives, which will help to advance the societal impact of research in the Arctic region in the next 10 years:

- the Mission on healthy ocean, seas, coastal and inland waters;
- the Mission on adaptation to climate change, including societal transformation; and
- a co-funded Partnership for a climate-neutral, sustainable and productive blue economy.

Most Arctic projects funded under Horizon 2020 engage with local and Indigenous Peoples, who possess historic and local knowledge of the unique Arctic ecosystems. Further work in this direction will be developed via dedicated workshops under EU-PolarNet 2 (cf. focus box 6) and through the All Atlantic Ocean Research Alliance.

FOCUS 6: EU-Polar Net

EU-PolarNet coordinates the EU Polar Cluster, consisting of the European Polar Board, the Svalbard Integrated Arctic Earth Observing System and 21 EU-funded Polar projects. The projects investigate: drivers and changes in Arctic biodiversity; transitions in Arctic coastal systems; ice sheets and sea level rise projections; adaptation and sustainable development in the Arctic; capacity building in Arctic standardisation.

The Marie Skłodowska-Curie actions provide grants for the training of early career researchers and for mobility of researchers, including for the Arctic area, for all stages of researchers' careers. Several on-going Horizon 2020 funded projects have also delivered training schemes for young scientists in close cooperation with the Association of Polar Early Career Scientists.

Prioritising people living in the Arctic

Arctic regions are expected to be increasingly affected by both demographic and migration processes as a result of the ever-accelerating climate and socio-economic pressures. While the total Arctic population is projected to remain relatively constant in the future, substantial differences are expected in growth rates and migration processes between different Arctic regions. The EU will invest in the future of people living in the Arctic, stimulating better education, sustainable growth and jobs, including more involvement of young people, women and Indigenous Peoples in Arctic decision-making, on issues such as innovation and research, job creation, digital skills and education.

People are the key to sustainable development and resilient societies. The Arctic regions are diverse in terms of ethnicities, governance, economies, demographics, migration patterns and social realities. A sustainable way forward requires inclusive dialogue, diversity and meaningful participation in decision-making at all levels.

The Arctic Stakeholders' Forum and the Indigenous Peoples' Dialogue are now an integral part of the EU's Arctic policy. The EU has regular discussions with business groups such as the Arctic Economic Council, organisations representing municipalities, like the Arctic Mayors' Forum, and Arctic-wide representatives, including the Northern Sparsely Populated Areas network. The EU also maintains regular contact with the Sámi Council.

The COVID-19 pandemic underlined the need to improve understanding of health threats from the impact of climate change in the Arctic (cf focus box 7).

FOCUS 7: Health and resilience

The EU will aim to run specific projects with the World Health Organisation and the authorities of the most affected Arctic regions to strengthen and share knowledge and best practices on disease outbreaks, natural disasters, and other threats to wildlife, plants and humans from climate change and environmental degradation. It will support the work of the 'One Arctic, One Health' project, managed by the Arctic Council's Sustainable Development Working Group; the Arctic Council pays particular attention to the situation of Indigenous Peoples.

EU cohesion policy programmes, in particular the Interreg Northern Periphery and Arctic programme (NPA), provide support for Sámi and Inuit culture, livelihoods and entrepreneurship. Interreg provides a framework for people-to-people contacts across borders, tailored to the specific characteristics of the Arctic, including cooperation with partners. The COVID-19 Response Project (CORE), which includes Russia, is based on

NPA's long legacy in eHealth.

The UN Declaration on the Rights of Indigenous Peoples is integral to the EU's human rights policy. The EU will promote Indigenous Peoples' rights and freedoms in line with the International Labour Organisation (ILO) Convention No 169, and encourage full consultation and cooperation with Indigenous Peoples, bearing in mind the principle of free, prior and informed consent, before adopting and implementing measures that may affect them directly.

The EU will maintain the close contacts established with young people across borders during the public consultation on its Arctic policy, and establish regular consultations with youth representatives from the Arctic. Youth organisations in the Arctic are already participating in actions funded by the Erasmus+ programme to develop projects and offer information about work and training opportunities, learning mobility or other opportunities to become active citizens. Iceland and Norway are fully associated to the programme.

True sustainable development is not possible without gender equality. The EU's commitment to Arctic science can support a better understanding of gendered and human insecurities associated with climate change, environmental changes, migration patterns and industrial development. The EU welcomes the fact that women make up a significant part of the leadership of the Sámi Council and, based on the work of the Arctic Council and the EU's core principles, the EU will ensure that women's voices are heard in drawing up policies applicable to the Arctic. Under the Neighbourhood, Development and International Cooperation Instrument, the EU will finance programmes for young people and women in the Arctic and contribute to cooperation between cities.

Promoting sustainable regional development

The EU's Arctic policy aims to stimulate an innovative green transition, where the Arctic regions can showcase future-compatible job creation in innovative sectors, including: green energy, hydrogen, sustainable extractive industries, e-based learning, e-health, connectivity and infrastructure, sustainable tourism, green technologies, fisheries and agriculture (cf focus box 8).

EU Arctic funding is disbursed within the cohesion and rural policy programmes for Northern Sweden and North-East Finland, while the Interreg programmes extend the reach of EU actions by involving the Faroe Islands, Iceland, Greenland, Norway and Russia. These programmes are key instruments for the EU to steer developments taking place in the Arctic. The Long-term Vision for Rural Areas initiative develops a common European vision for stronger, connected, prosperous and resilient rural areas, which include the Arctic regions⁴⁰.

In 2021-2027, the EU's cohesion programmes will focus on green and digital transition, providing support for smart economic transformation through continuous smart specialisation strategies, funding for entrepreneurship, and initiatives for young people in the Arctic. The northern Finnish and Swedish regions are eligible for the new Just Transition Fund which aims to alleviate the social and economic costs resulting from the transition to a climate-neutral economy.

FOCUS 8: InvestEU for the Arctic

The InvestEU Programme consists of the fund, the Advisory Hub and the web portal, and also applies to the Arctic. The EIB Group⁴¹ will play a key role in implementing InvestEU, alongside other implementing partners, including National promotional banks or International Financial Institutions, such as the Nordic Investment Bank. Any non-EU country can be associated by contributing to InvestEU.

⁴⁰ COM(2021) 345

⁴¹ Consisting of the European Investment Bank (EIB) and European Investment Fund (EIF).

The EU budgetary guarantee provided through the InvestEU Fund is expected to be able to mobilise EUR 370 billion in public-private investments to finance projects in key policy areas, including the green and digital transitions, research and innovation, new action areas in the European health sector and strategic technologies.

Existing and new EU programmes (e.g. Interreg Aurora, the NPA, Karelia and Kolarctic) and organisations (the European Investment Bank Group) that can support sustainable development in the European Arctic will be made more visible for beneficiaries, through a dedicated online investment and information portal: <https://eeas.europa.eu/headquarters/headquarters-homepage/100774/arctic-funding-en>

Smart specialisation can support development of innovative technologies and solutions for the green transition, helping European Arctic regions benefit from investments from the EU Recovery Plan, which emphasises energy efficiency, sustainable energy and industrial transitions. In addition, the EU Climate Action Innovation Fund supports demonstration projects of low-carbon technologies in the marine environment.

The EIB will support green energy in the Arctic. Financing and investment is available for projects that implement the circular economy by increasing resource efficiency and by progressing on sustainable production processes, as well as other circular projects across products' life cycle.

Connecting the Arctic

Space infrastructures provide essential services to businesses and communities in a region that has limited terrestrial connectivity infrastructures.

In the absence of comprehensive terrestrial connectivity in the Arctic, the EU through its spacebased secure connectivity initiative will offer reliable and functional means to provide:

- (i) governmental secure communications and sensitive data, protection of critical infrastructures in the harsh Arctic environment, crisis management, telemedicine, maritime and air space surveillance;
- (ii) commercial secure communications for 5G/6G integration, Internet of Things, e-health, in-flight and maritime connectivity, and smart education; and
- (iii) high-speed broadband availability removing dead zones and ensuring cohesion across the Arctic and the Member States, addressing digital imbalances to underpin a fully functioning Single Market even in the sparsely populated northern regions.

The digital component of the Connecting Europe Facility will be opened up to Arctic regions, offering the possibility to provide financing for a range of projects including 5G cross-border corridors, 5G smart communities, connecting high performing computer centres, the European Cloud Federation and submarine cable systems.

The ports of Luleå, Kemi, Oulu, Narvik and Hammerfest are TEN-T ports, forming important interlinks between maritime and land transport. The Corridor extensions were adopted with the Connecting Europe Facility 2021-2027, with the aim to transport freight originating in the Arctic regions on land and potentially via the Northern Sea Route.

The EU will

- *invest in Arctic research under Horizon Europe, including cooperation with indigenous knowledge holders.*

- *enhance knowledge of health threats linked to Arctic climate change and support the 'One Arctic One Health' project, possibly via the European Climate and Health Observatory.*
- *lead by example in sustainable solutions in the European Arctic and promote their uptake in other Arctic regions and other parts of the world with harsh climatic conditions.*
- *advance research on the societal and demographic impact of changes in the Arctic.*
- *involve women and young and Indigenous people more in relevant decision-making processes.*
- *boost digital connectivity in Arctic regions through EU space programmes and the Connecting Europe Facility.*
- *through EU funding programmes, stimulate an innovative green transition where Arctic regions can showcase future-compatible job creation.*
- *make EU funding possibilities more visible through an online 'one-stop-shop'.*
- *improve transport connectivity through TEN-T corridor extensions.*

CONCLUSION

This Joint Communication commits the EU to increased engagement in and around the Arctic region, in response to the geopolitical, environmental, economic, security and social challenges they face, and to working with others to manage new opportunities there. It presents a range of EU actions in the Arctic, building on ongoing work and in new areas of expertise. The Commission and the High Representative will work with the European Parliament, the Council and other institutions to implement these actions, and take note of the Parliament's Report on the opportunities, concerns and security challenges in the Arctic. The EU will extend its cooperation with all key partners and stakeholders in the Arctic and beyond, taking account of the shared responsibility to work for a safe, sustainable, prosperous and peaceful region, which is in the interest of the entire world.