

Address underlying causes
Third, a security approach must accelerate decarbonization to mitigate climate change as the underlying cause of the escalating threat. European climate and energy policies have helped cut EU27 emissions to approximately 35 per cent below their 1990 levels, but the EU27 is still responsible for 3.2 gigatonnes of greenhouse gas emissions annually, or six per cent of global emissions. Europe's decarbonization matters not only for reducing emissions but also

for its global signalling effect in encouraging other countries to follow suit. Preparedness and adaptation can reduce casualties and damage, but they cannot keep pace indefinitely with worsening heat, drought, floods and fires. Europe is the world's fastest-warming continent. Its existing policies and climate pledges will not be sufficient to adapt fully to the expected 2.4°C to 3.9°C increase in global mean temperature this century. Investment in resilience must therefore be accompanied by rapid emissions reductions and

stronger political commitment to decarbonization. This is the principal way to prevent the threat from becoming progressively more severe and unmanageable.

Public involvement
Fourth, building societal resilience to climate shocks will depend on governments working with the public. This does not mean just issuing one-off instructions during emergencies. People need trustworthy information, practical guidance and opportunities to participate in local preparedness activities.

Examples include "heat-health" plans to protect people from heat-related risks, water conservation to cope with drought, and evacuation exercises and support for vulnerable neighbours. Such measures are all part of the basic infrastructure that allows society to continue functioning during a crisis.

Benefits outweigh the costs
What will all this cost? Assessments suggest the EU needs to invest approximately €70 billion a year in climate adaptation until 2050 to prevent the worst

impacts. The UK needs to invest around £11 billion annually, according to a May report by the UK Climate Change Committee. Although these sums may appear substantial, they are modest compared with the escalating cost of inaction. Climate-related disasters caused a yearly average of €45 billion in direct EU losses during 2020–2024, while inadequate adaptation could cost the UK £60–260 billion annually by 2050. Many measures will pay for themselves several times over. For example, according to the European Commission's Joint Research Cen-

tre, every euro invested in protection against coastal flooding can avoid around €6.35 in damages while also saving lives and protecting other resources. The estimated costs for adaptation are small compared to the risks averted and damage avoided. Climate adaptation should therefore be understood not as an environmental expense, but as a cost-effective and necessary investment in European national security and strategic autonomy.

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Melting ice, power shifts

By Sharon Hudson-Dean
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OPINION

The Trump administration has once again churned up the frozen waters of the Arctic. This time by ending federal support for an annual Arctic climate report. On August 10, the National Oceanic and Atmospheric Administration (NOAA) announced it will no longer produce the well-respected Arctic Report Card, which for two decades has collated, analyzed and published key data on the health and changes of the greater Arctic environment. More than 100 international scientists and organizations have fed NOAA information ranging from ice coverage measurements to sea depth and weather patterns, expanding US situational awareness and scientific leadership of the Arctic. Trump's team now says that someone else must take the lead. While detrimental to both the US and the greater Arctic research community in the short term, this is an opportunity for an allied Arctic nation or organization to take the lead — with the potential to gain both a strategic and data edge. The Arctic is in the crosshairs of almost all top geopolitical interests — including energy, defence, tech, transportation, minerals and fishing — and is changing quickly as ice melts and previously unnavigable areas open. Controlling data collection, priority-setting and analysis at a time when data is one of the most valuable assets to have should be high on the list of many nations. It certainly is for China. Although it is a non-Arctic nation, China has seven polar research stations — compared to America's four — a fleet of dual-purpose ice breakers, and prioritizes polar research within its annual \$1 trillion research budget. It is ironic that the Trump administration is diminishing the US position in the Arctic research community while at the same time raising the alarm about Chinese and Russian ambitions in Greenland and the North Atlantic. US military leaders know well that their ability to defend against submarine and other incursions in the north will depend on a continuous research and development process using every scientific input available. Even the US's own Arctic Research Commission has stressed the link between national security and research. In 2025, it identified research topics within four key sectors — military, community, energy and economy — which "inform both domestic and for-

The Norwegian icebreaker research vessel Kronprins Haakon sails through the sea ice, in eastern Spitzbergen, in the Svalbard archipelago, on April 6, 2025.
● OLIVIER MORIN/AFP



foreign policy, ideally, in a mutually reinforcing manner, and are often interlinked". The key to securing the vast North American Arctic area is cutting edge research and knowledge, from reinforcing US national scientists to linking arms with partners, allies and indigenous communities. This is not the first time the Trump administration has made counterintuitive policy moves in the Arctic. Key to Trump's foreign policy doctrine is the concept of geographical spheres of influence. US control of Greenland — an autonomous territory of US ally Denmark — as a geographical security imperative has become a regular talking point for Trump. It has also inspired significant new European and Canadian activity in the region. European governments are stepping up under the rubric of increasing Arctic security against Russian and Chinese expansion.

This is a good outcome from an unnecessarily tense standoff with their American ally. Indeed, underneath it all, Trump's concern about Chinese and Russian activity in the Arctic is well founded. And it requires concrete European Arctic leadership and action. Such recent action includes a growing strategic presence in Greenland. Norway, France, Canada and the European Union all have (or soon will have) diplomatic offices in Nuuk. Meanwhile, European leaders and their defence teams have met regularly this year to discuss Arctic security and Greenland, while the seven Arctic NATO members (Canada, Denmark, Finland, Iceland, Norway, Sweden and the US) gather as a NATO subgroup. In May, following a NATO foreign ministers meeting in Sweden, they called out the shift in American policy in a joint statement, noting the increased role played by Europe and Canada.

More recently, Denmark announced that it has begun to rotate groups of new conscripts through Greenland for training, while the UK sent a carrier strike group to the North Atlantic/High North as part of NATO's new Arctic Sentry mission, completing its first phase in July. This increased activity is well timed. Russia and China are taking historic steps this summer that signal future intentions. In an unprecedented operation, Russia is sending a convoy of tankers carrying up to one million tonnes of oil along a rarely used route north of 81.5°N, accompanied by nuclear-powered icebreakers. Meanwhile, six Chinese carriers have signed up to use Russia's northern sea route (NSR) this month to avoid the treacherous Red Sea. For the first time, the ships will go from Ningbo-Zhoushan to Felixstowe, saving an estimated 22 days. Crucial-

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Danish conscripts in the Royal Life Guards during the REX tour
● LEONORA FRYDENBERG SEPSTRUP/BLADET SOLDATEN

ly, it is also the first time Chinese ships will have access to predictive rather than observational ice data from the Chinese Ministry of Transportation — made possible thanks to China's years of investment in Arctic research. This should be a wake-up call for the US and its allies. Domain awareness is and will continue to be the linchpin for success for all nations with interests in the Arctic. To take the lead, European allies and Canada should focus on three key areas. One, they should extend and resource initiatives that enhance shared domain-awareness assets: satellite coverage; underwater sensor arrays in the GIUK gap (the open waters between Greenland, Iceland and the UK) and the Barents Sea; and maritime patrol aircraft rotations. A priority satellite project could be the Hybrid Alliance Layered Operations in Space (HALO), launched at this year's NATO summit, through which seven European allies and Canada have agreed to connect and integrate their military satellites into a shared "mega constellation" architecture. For underwater awareness, both the UK's new Atlantic Bastion and NATO's Arctic Sentry programmes are building underwater sensing technology networks. In the air, Germany and Denmark have new or planned Boeing P-8 capabilities to add to substantial operations already run by the UK, Norway and Canada. Two, Arctic research and development should be prioritized in national planning and budgeting processes. This should include establishing a joint Europe-Canada Arctic data consortium — within or tightly connected to the existing research architecture to avoid duplication of efforts — to take on the Arctic Report Card work and build a top-in-class digital research infrastructure. European and Canadian leaders should also reorient the Arctic Council to overcome the stagnation stemming from Russia's suspended engagement following the full-scale Ukraine war, compounded by a consensus system that makes formal workarounds difficult. They must also work to resolve a key Arctic research dilemma: the current lack of Russian data. As Norwegian polar explorer Roald Amundsen famously said: "adventure is just bad planning." While there was arguably never a time for adventure in the Arctic — it's too brutal, too vast and too changeable — now is the moment to take the lead in both Arctic research and security. One without the other would be a foolish adventure.

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