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Arctic Connections:

A Trust Building Arctic Cooperation on Energy, Security and Blue Economy

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Napoli

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PRELIMINARY CONSIDERATIONS

A TRUST BUILDING ARCTIC COOPERATION ON ENERGY, SECURITY AND BLUE ECONOMY

FRANCO FRATTINI
President of SIOI

The theme that will be our subject represents one of the issues that are currently the key to globally addressing all the main geo-strategic challenges.

Our goal is to create synergies between the human population and environmental reactions, with a specific focus on the Arctic region, in particular the Arctic climate change and how it can affect areas outside of the Arctic.

The situation in the Arctic resulting from climate change and the dramatic increase in the rate of ice melting is a matter of growing concern not only for and in the Arctic region, and underlines the geopolitical, economic, scientific interest of the High North. The Italian Government and the Italian scientific institutions pay great attention to the issues concerning the Arctic and the surrounding areas. What happens in the Arctic doesn't stay in the Arctic.

The Arctic is an area of opportunities and challenges, linked to the sustainable development of local populations, the exploitation of fishing and mining resources, new maritime routes, energy, scientific research, security and governance.

But the Arctic has emerged also as a vast part of the Planet that is now increasingly a vulnerable and fragile place, with its biodiversity and its peoples at risk from climate change and globalization.

As a matter of fact, scientists see the Arctic as a privileged area which offers a unique opportunity to better understand global climate evolution.

It is clear to everyone that the development prospects in the Arctic Region are related to major global issues certainly of geostrategic – and therefore – political importance, not to mention the people living in the Arctic. Human, geostrategic and political issues are therefore at stake in the Arctic.

As an Italian, I have a particular feeling and dependence on this Region. When I was Minister for Foreign Affairs, on many occasions,

I declared great interest in the Arctic regions in light of Italian scientific research in the polar regions: a commitment that I took very seriously, in particular when the Italian government has been admitted as a Permanent Observer State to the Arctic Council. In particular, that is an achievement we are very proud of, particularly because it emphasizes even more the importance of our history in the Region, since the "Norge expedition" by Umberto Nobile, who on May 11th 1926 (93 years ago) flew over the North Pole.

Nobile opened polar routes hitherto unexplored – that is precisely the theme of the presence, the guarantee of protection of those Arctic populations who represent a piece of ancient history of Humanity. Those populations, from the Inuit of Greenland or Alaska, to the Sami in the Northern Scandinavian Peninsula – to name but a few – represent a value and a good for all humanity. They represent a cultural, historical and traditional heritage, that we must know better and better in order to respect and protect them.

The protection of environment in the Arctic region is inextricably linked to the security and the history of those populations. These people, who live in the Arctic and at the same time "live the Arctic", are the first ambassadors and guarantors of the protection of the environment in which they live. We cannot decide first in Washington, Moscow, Beijing or Rome the best way in which the environment of the polar bear can be protected, or how best to protect the Arctic from the destruction of the ice-pack.

A world that fails to protect those populations would certainly be a very poor world, a world where our children and our grandchildren would live without knowing and without appreciating the treasure of wisdom, culture, respect for nature that those peoples have been able to express for centuries and millennia.

More dramatic weather phenomena are taking place such as flooding, the change in vegetation, and some animal species are no longer found in their traditional areas during certain seasons. Weather is becoming increasingly unpredictable and local landscapes, sea landscapes ad ice landscapes are becoming unfamiliar. Together with scientists, researchers, and especially people from the Arctic populations, we must necessarily find a way that corresponds to the wise story that for centuries has been able to harmonize survival hunting with respect for nature and the history of those regions.

This is a commitment the Arctic Council should invite countries to firmly undertake, because too little has been done to reduce

greenhouse gas emissions into the atmosphere, and the commitments are too weak, particularly those of the major polluting powers (China, United States, India).

There are also aspects of strategic and geo-strategic dimension that are just as delicate: it is no secret that the contrasts among some great powers of the world (United States, West, and Russian Federation) may have repercussions on the race to settle in the Arctic, ensure strong positions in a devastating new cold war strategy. We all have the duty to prevent and reduce that danger. Fortunately, we managed to deal with this situation during the 1990s, and we should try to manage it again in the near future.

In this contest, the Arctic Council is the only circumpolar forum for good international collaboration able to reach important objectives in that Region. Since 1996 it has been a unique meeting place for the eight Arctic countries (Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden and the United States), as well as for indigenous peoples and a range of observers. And it is thanks to the role of the Observers that the Arctic Council addresses not only the geopolitical issues inherent to the strategic importance of this or that global power in the Arctic context, but it certainly has the great merit of being the place where different interests confront each other and – I hope – seek a common road.

For the Arctic, perhaps more than for other regions of the world, or as in the case of other equally strategic regions of the world, the vision of a better world cannot and must not be merely an economically oriented vision aiming at its exploitation, at profit, at the resources extracted from the subsoil: a vision that looks at the Earth in terms of the hoarding of rare earths.

On the contrary, there must be a rather positive race and vision, looking at the human dimension, children, women, men growing up in the region where their grandparents, great grandparents, and their ancient generations were born, and who have the right to stay there and to live well. Looking also to the unique Arctic fauna!

Nature is fragile in the Arctic and there is nowhere else in the world: we must therefore preserve it, through cooperation, scientific research, the reduction of pollution, the drastic reduction of emissions into the atmosphere.

The Arctic is so important to us: that is why SIOI decided to invest in the knowledge and training a new generation of diplomats and international experts in a Key Region that plays a key role in

global geopolitics, and which will certainly experience an increasingly dynamic economic development in the years to come. As you know, since September 2018, SIOI has been a member of the University of the Arctic and this is one more reason to take care of the Arctic.

I should like to conclude by making a proposal along these lines. Aware that the protection of the Arctic must be addressed at a global level and that the answers to the problems of the Arctic need to be global – I would like to launch an idea: raise the call for the creation of a Global Arctic Compact.

The *Global Arctic Compact* aims to create guidelines, based on shared common principles, to encourage a greater cooperation among States, to enable them to work better together and find a common strategy.

The guiding principles could facilitate and encourage Arctic Council States and Observer States with the support of stakeholders and universities to jointly support policies to safeguard the Arctic environment while respecting responsibility and sustainability.

The main outcome of the Global Compact would be to deepen and strengthen the links among the different issues: environmental protection and the fight against climate change, human dimension, security, energy, the blue economy, sustainable use of resources; these issues would not be addressed individually but would become components of a common and unique strategic dimension.

If this idea finds consensus it could lead to:

1) The creation of a working group to prepare a draft document to be sent to the Arctic Council during the Icelandic Presidency;

2) the organization of a next event that will adopt the document to be presented at the next meeting of the Arctic Council (or in May 2021 with the arrival of the next Russian presidency- Iceland until May 2021, the next Russian from May 2021 to 2023).

SIOI, UNA Italy and member of the UArctic network – is ready to play as a contact point with Senior Arctic Officials (SAO), Arctic Council and at UN level, as well as with the study centres and universities of the UArctic network.

As I have already had occasion to mention on other occasions, let's remember that the Arctic region can and must be preserved, saved, improved : the younger generations have the right to see the world of ice, the Arctic world, improved in twenty years from now, not only entrusted to some film footage. We must make every effort to ensure that we are not leaving the world poorer than we found. The

Global Compact for Arctic could actually be an important step towards achieving this goal.

THE ARCTIC AS AN AREA OF LOW TENSION AND INTERNATIONAL COOPERATION

MARGIT TVEITEN
Ambassador of Norway to Italy

The second Norwegian-Italian Arctic seminar of SIOI is the right occasion to emphasize that the Arctic is exactly a hard and fascinating work at the same time. I would like to add: – and a great responsibility.

What do I mean by "hard work"? The Arctic is an area of low tension and international cooperation. Why? Because the States in the region have worked hard to achieve this. We have succeeded in cooperating on fisheries resources, in protecting the very fragile natural environment, in sharing information on our continental shelves, in reaching agreement on territorial disputes and maritime limitations, to name but a few.

Other States outside the region are invited to contribute. Italy is among them, being an observer State in the Arctic Council since 2013. Italy also contributes in many other ways.

However, making and maintaining the Arctic as an area of cooperation and low tension cannot be taken for granted despite its untapped natural resources and geopolitical importance. We must constantly work to keep it that way. It is our responsibility to maintain this success.

We have international law which helps us to cooperate and resolve conflicting interests. For instance, it took 40 years of negotiations on the maritime delimitation between Norway and Russia to reach an agreement. Finally, they were concluded successfully. How did we manage? By consistently referring to international law, as it has developed over time. The Arctic is not a region without rules. We have applicable international law. Furthermore, we sometimes must draw up new rules, for example on the protection of fisheries in the Central Arctic Ocean.

I have also said that the Arctic is fascinating. It is beautiful, it is fragile, and it is far away. This fascination must not prevent us from being rational. We must use natural resources and other opportunities there with caution. However, obviously natural resources must be

used in a sustainable way. Simply because the world needs the resources to be used. In the Arctic as elsewhere in the world.

The Arctic is a cornerstone of Norwegian domestic and international politics. We live there, we depend on it, we have knowledge and we have a responsibility as an Arctic State and a Coastal State.

With reference to President Frattini's proposal for a Global Compact for the Arctic, it is important to underline that there is an existing regulatory regime for the Arctic. There are rules made by the Arctic States and there are global rules of international law. There is no need for a Global Compact in the sense of international law. But for instance scientific contributions and a cooperation by all interested States would always be useful.

THE STRATEGIC RELEVANCE OF THE ARCTIC REGION

BRUNO VALENSISE
Vice Director, Italy's Intelligence System for the Security of the Republic

Right after becoming Deputy Director General of the Department of Information for Security, just a few days ago, I had a round-table discussion with our analysts at DIS and I was surprised to hear the Arctic mentioned among the main topics of interest of the Italian intelligence community. A partial surprise, actually, since the strategic relevance of the region is unquestionable, also for our own national security.

This importance goes beyond Italy's traditional and dedicated effort in the Arctic in favour of scientific research, environmental protection, sustainable development and, of course, peace. A national and committed effort that is proved by several events, both ancient and recent: the Polar expedition in 1899 by Luigi Amedeo di Savoia, Duke of Abruzzi; the flight over the Arctic Ocean by Umberto Nobile in 1926; the establishment in 1997 of an Italian scientific base in the region, managed by the National Research Council; the fact that Italy joined the Arctic Council as an observer country in 2013.

Italy is present in the region not only with its widely recognized inclination to dialogue and its capacity for mediation, but also with its industrial and technological excellence.

The energy sector is at the forefront. Extracting resources from deep sea waters requires highly advanced technologies and decades of experience, otherwise workers and the environment will be at risk. We are present in Alaska and, even more, in Norwegian waters, where operates one of the most sophisticated floating platforms.

Italian firms also contribute to major infrastructure. We are helping to build a huge LNG terminal on the Gydan peninsula in Russia, one of the most challenging industrial complexes currently under construction in the Polar region.

It is also worth mentioning our ship-building industry. It builds big icebreakers and cruise ships that can navigate in the region always meeting the highest emission standards. It thus brings to the extreme corners of the world our ability to combine care for people with care for the environment: that is part of our industries' DNA.

Satellites are another of our crown jewels in the Arctic. High-tech and safety meet in our participation to international projects whose aim is to allow safe navigation in Arctic waters.

Although the increasingly hot waters of the Mediterranean may lead some to think differently, Italy is fully part of the Arctic Connections and gives the region the best of itself: a great attention to the environmental and social impact of its projects, advanced technologies and scientific research.

From the point of view of strategic intelligence, it is really surprising how much the Arctic has become part of the so-called "global space", thus becoming a new frontier for economic and commercial development.

As Arctic sea ice continues to melt, we have to ask ourselves how this will affect access to offshore natural resources and whether it will open new maritime routes, which may be shorter, and perhaps even safer, than the southernmost shipping routes.

All this is happening at a time when the great world Powers' rivalries are playing more and more in the geo-economic sphere and in a framework of strategic confrontation often taking place in the periphery of the world, also with regard to access to resources.

This trend is accelerating, as shown by the strong focus on the Arctic by all Global players, as well as by the coastal Countries.

The US and Russia are naturally at home in the Arctic and are full members of the Arctic Council. Even China, however, has clearly projected its power and influence in the region in the recent years.

China calls itself a "close to the Arctic State" in order to prove the legitimacy of its projections in the Deep North. A careful strategic planner, Beijng has immediately identified the connections between its Arctic policy (its first White paper on the subject was published in 2018) and its major geopolitical project, the Belt and Road Initiative, a network of macro-regional connections including the commercial, financial and digital sectors, with both land and sea routes. The Polar Silk Road would be the symbolic cornerstone of such a grand project, connecting East and West via the Northern Routes.

China's interest in Arctic resources and trade routes has inevitably stimulated a reaction from the US and Russia.

The US is deeply aware of the need to strengthen its Arctic fleet, a time-consuming process, considering that icebreaker construction can take 5 to 10 years. President Trump's offer to buy Greenland from Denmark must be seen in this context, given that the US have adopted

two important documents this year: the Arctic Strategy by the Department of Defense, and the Arctic Strategic Outlook by the Coast Guard.

Moscow has long reactivated the old network of Soviet military installations in the Arctic, which had since fallen, and has established a Joint Command coordinating all the military forces in the region. Russia's interest in its part of the Arctic (the largest of all) has both economic and strategic dimensions:

- ✓ revitalizing the Arctic is indeed a key part of the modernization of Russian territory to the East of the Urals, a national priority for the Kremlin at least since 2013;
- ✓ the Arctic holds resources of hydrocarbons, precious metals and rare earth minerals which the Kremlin counts as a valuable asset to gradually replace the resources from Siberia, which are now close to depletion.

The huge geo-strategic interests at play could therefore turn the Arctic into a new arena in which the US, China and Russia clash (with Beijing and Moscow perhaps aligned to each other), adding another hot spot to the many we already have in the world.

This, in itself, is a sufficient reason for the Italian intelligence community to closely follow developments in the Arctic or related to it, since the Region -while at first glance far away from our national borders – has in fact become extremely important in the present "great game" of international competition and, therefore, very significant for national and international security.

THE ITALIAN PRESENCE IN THE ARCTIC

CARMINE ROBUSTELLI
Special Envoy for the Arctic, Italian Ministry of Foreign Affairs

Italy boasts an ultra-centennial history in the Arctic, dating back at least to the 1899 expedition of Duke of Abruzzi and the missions of Umberto Nobile in 1926 and 1928. The ties of Italy with the Arctic continued over time with the activities carried out by explorers and scientists, quoting a couple for all: Silvio Zavatti, anthropologist, who dedicated his life to the studies of the people of the North, and Guido Monzino, who reached the North Pole in 1971 on sleighs pulled by dogs.

Scientific research continues to represent the primary engine of the Italian presence in the Arctic, which stemmed in the '90s from the establishment of a 'polar community' created with the National Antarctic Research Programme (PNRA). Scientific activities were therefore performed in the 'Dirigibile Italia' Base in the Svalbard Islands, inaugurated in 1997, and at the THAAO International Observatory in Thule (Greenland). Many more research projects have been carried out since then, often in the context of international collaborations and European Union programmes.

Such highly appreciated contributions to Arctic research, together with the economic interests of some large companies, represent the basis for the Italian request to the Arctic Council to obtain the status of Observer State, which was accepted in 2013. To prepare this request, the Ministry of Foreign Affairs set up the Arctic Task Force (Tavolo Artico), a forum coordinating the actions of Ministries, agencies and companies, which meets on a regular basis and represents an important moment of reflection and interaction between Italian institutional and industrial stakeholders in the Arctic. The Arctic Task Force developed a policy document in 2015-2016, entitled "Towards an Italian Strategy for the Arctic – national guidelines".

In line with its role as an Observer State in the Arctic Council, Italy's approach to Arctic issues respects several fundamental principles: respect for the sovereignty of Arctic States and the international law applicable to the Arctic, primarily by enforcing the Law of the Sea; promoting the protection of local and indigenous peoples'

traditions and cultures, as well as international, multilateral and bilateral cooperation on Arctic issues; contributing to the economic development of the Arctic with the involvement of the business community, in compliance with the highest environmental protection standards and the principles of sustainable development.

In view of the growing importance of the Arctic on the international scene, in 2016- 2017 the Foreign Affairs Committee of the Italian Chamber of Deputies carried out a survey on the Italian strategy for the Arctic, organizing hearings with Italian and international institutional representatives, members of the scientific community and companies. The Committee on Foreign Affairs itself promoted the constitution of a Scientific Committee for the Arctic (CSA) and the creation of the Arctic Research Programme (PRA), allocating dedicated funds for the period 2018-2020, to provide further support to Italian research in the Arctic.

The objectives and topics of PRA are: monitoring Arctic eco-system changes; quantitative understanding of the causes of Arctic amplification; paleoclimate reconstructions; assessment of the changes of Arctic seas atmospheric and water column; analysis of the effects of climate change on wellness of Arctic inhabitants and conservation of indigenous cultures. Actions include, inter alia, open calls for research projects, implementation of a data system and a post graduate course on polar issues.

Major Italian companies work in the Arctic and fully participate in the Arctic Task Force (Tavolo Artico). They operate in the Arctic with cutting-edge technology to ensure maximum respect for a particularly delicate environment. They also seek to involve local and indigenous communities in their activities, aware of the fact that such populations have a legacy of knowledge linked to their territory and traditions. The work of Italian companies in the Arctic, in synergy with other Italian stakeholders, represents a contribution to the concrete implementation of the concept of sustainable development in the region.

Finally, another important aspect is supporting the dissemination of Arctic–related issues. In this context, a prominent role is played by the Italian Society for International Organization (SIOI). Among other initiatives, SIOI holds a Master course on "Sustainable development, geopolitical resources and Arctic studies", (the first was organized in 2016), and in September 2018 SIOI was the first Institute of a

Mediterranean country to become a member of the UArctic (University of the Arctic) network.

We can therefore reaffirm the commitment of the Italian Ministry of Foreign Affairs and International Cooperation and of the other Italian stakeholders on Arctic issues.

THE GEOPOLITICAL SITUATION IN THE ARCTIC: EU AND NATIONAL STRATEGIES

EUROPEAN UNION'S ARCTIC POLICY AND ITS STRONG ENGAGEMENT ON THE ARCTIC

MARIE-ANNE CONINSX
Ambassador at Large for the Arctic

Italy – an Observer from the Arctic Council – is really active on the Arctic file. Earlier this year, I addressed the University of Padua on the Arctic. In May, I participated in Milan at the world's largest Conference on Earth Observation – 4000 participants were attending – were I spoke about the key role of EU space policies and programs for the Arctic.

It reveals that the Arctic is important for the European Union as a whole, and not only for northern EU Member States that are members of the Arctic Council. In my presentations, I always stress that the European Union is an "Arctic entity" precisely because part of EU territory is part of the European Arctic, or – to put it differently, because part of the Arctic is part of the European Union. I make this statement after I heard US Senator Murkowski from Alaska explaining that "the US is an Arctic State because of Alaska", a territory that is part of the Arctic. Hence, it is absolutely natural and very important that all Member States of the European Union feel that the Arctic affects them all, and that their active engagement is necessary.

With this in mind, in October 2019 the European Union organised for the first time a very important high-level EU Arctic Forum in Sweden, at Umeå.

Andreas Østhagen asked me to talk about geopolitics and the Arctic, so I am not going to deal specifically with climate change or environmental protection, although these issues are absolutely crucial when addressing the challenges that the Arctic is facing. Moreover, these issues are so closely interrelated. Indeed, precisely because of climate change, Arctic warming has geo-economic and geo-political implications. And I would like to to add that addressing climate change and protecting the fragile Arctic environment, is one of the three pillars of EU's Arctic Policy.

Speaking about security, it is important to set the EU's Arctic Policy into the right context, namely the 2016 EU Global Strategy. This specifically indicates that the European Union has a strategic interest in the Arctic, remaining an area of low-tension, based on constructive cooperation, including political and security cooperation.

The EU's Arctic Policy – the latest edition since 2016, is an integrated and comprehensive policy, with three key objectives: fighting climate change and protecting the environment; promoting sustainable development; and strengthening international cooperation. In addition, the EU has a number of regional policies and programs that are very relevant for the Arctic region, such as the Barents Euro-Arctic cooperation (BEAC) and the Northern Dimension Partnership. Without going into detail, I would like to say that the key objective of EU's commitment to the Arctic, is to help ensure a safe, stable, sustainable and prosperous Arctic, and this is in the interest of the Arctic itself and its people, in the interests of Europe and the rest of the world.

The European Union is likely to update or develop a new Arctic policy in the near future. This will not be the case tomorrow, however, because the presentation of a new strategy or a new Arctic policy, is a complex internal procedure for the European Union, combined with a broad consultation process. Why should we adapt our Arctic policy? Not that the current EU Arctic Policy of 2016 would not work well, but mainly because of the far-fetched Arctic developments that are taking place at the moment and need to be addressed. In particular, we should take into account the multiple geo-economic and geo-political implications of Arctic warming and also the security aspects. These three elements are so closely interconnected.

The geo-economic implications of Arctic arming are important for the European Union, being one of the world's major economic powers, and therefore have a direct effect on many EU internal policies, such as energy, mining and navigation. To give some examples, which are also very relevant for Italy.

With Arctic warming, there are massive developments in energy production in the Arctic region, particularly in the gas or LNG sector. To illustrate this, only because of gas production in the Russian Arctic – in the Yamal Peninsula which started in December 2018, Russia became in 2019 the fifth biggest LNG producer in the world. And LNG is a global market, which is also important for Italy that imports LNG from Qatar and the North.

Another example concerns mines and minerals. The European Commission has identified some 24 minerals which are absolutely essential for the production of new technologies, such as electric cars and modern electronics. For the time being, the European Union imports most of these minerals from China. However, there is an abundance of key minerals in the European Arctic, from which we currently import only 2 to 3 percent. The EU therefore has an economic and sustainable interest in extracting and using these minerals from the European Arctic. Indeed, it would reduce the EU's dependence on imports, and promote sustainable development in the region.

An example concerns maritime transport: the opening of "new" maritime routes in the Arctic, which are increasingly accessible routes due to the melting of ice, will have an impact on global maritime transport. Here, again, for Italy, this aspect is important, since the marine business cluster is one of the more dynamic economic sectors in Italy.

Last but not least, an example of the transport and connectivity sector: the European Union has something unique in its Arctic policy, namely that we regularly consult stakeholders. In the most recent stakeholders process, we asked them what the objective of future EU Arctic Policy should be. The answer was clear: the EU must promote connectivity within the Arctic and connect the Arctic with the outside world. Connect people and focus on digital connectivity and transport. If this were to happen, it would also mean a better link between Northern and Southern Europe.

All the mentioned geo-economic implications have a direct effect on geopolitics. The Arctic has been considered one of the most dynamic geopolitical dossiers of recent years. These geopolitical aspects are most volatile and are developing rapidly. This is also very important for the European Union as a global political player, and we must therefore take greater account of geopolitics in the future Arctic policy of the European Union.

Some examples illustrating geo-politics and the Arctic: the case of Russia. The Arctic is of fundamental importance for Russia's economic development and national security. It is well known that there are some clouds in the relations between the EU and Russia. That said, we are working constructively with Russia on the Arctic-Nordic issues, on the Northern Dimension, including in the Barents Euro-Arctic Council, of which both the EU and Russia are members.

The case of China: there is a lot of discussion about China, following China's increased interest and commitment to the Arctic, which is often met with suspicion and concern. For the European Union, "inclusion" is essential. This means that we want to connect and engage with all the Arctic and non-Arctic States that have an increasing interest in the Arctic, on issues of common interest and concern. Why? Because to address global issues, such as climate change, and to ensure compliance with international law, including the UN Convention on the Law of the Sea (UNCLOS), you need everyone on board. The EU's strategy is therefore based on cooperation, inclusion and respect of the rule of law.

As mentioned, the EU's Global Security Strategy states that we need solid cooperation on political and security issues, including for the Arctic. The more economic activities you have in the Arctic, the more geo-political implications. It also influences the Arctic. A former Finnish Minister of Foreign Affairs stated at the conference in the margins of the ministerial meeting of the Arctic Council in 2019: "You cannot put the mark 'do not disturb' on the Arctic". For us, the greatest security risk for the Arctic is represented by the problems arising from *outside* the Arctic, and thus *entering* the Arctic.

I note that there are expectations that the European Union intensifies its security involvement in the Arctic, beyond the issues already addressed today by the EU's Maritime Security Strategy. I am referring to the new German Arctic policy of August 2019, which indicated the need for greater involvement of the EU and NATO in security policies. Furthermore, Finland as the current EU Council Presidency shares this view, and puts the Arctic at the top of the EU agenda, a place where it belongs.

NORWAY'S NATIONAL STRATEGY IN THE ARCTIC

RUNE JENSEN
Norwegian Ministry of Foreign Affairs

Let me say that we sometimes refer to the Arctic as *a single* entity while obviously there are several Arctic regions with important differences. For my government, for the Norwegian government, the Arctic is a top national priority, both nationally and in terms of foreign policy. Around ten per cent of our population lives North of the Arctic circle and we have some of the most sustainable and export-oriented businesses in these regions.

Most of these companies are ocean-based and we need further economic growth in the blue sector, innovation, and future-oriented jobs to support the development of most of our northern communities. Maintaining a positive and future-oriented population level in the north is also a matter of national security. Therefore, our government is preparing a new "White Paper" on the Arctic, which will be presented to Parliament next Autumn, Autumn 2020. Address a wide range of issues, from foreign and security policy to business development, innovation and climate issues.

In Norway we know that several other actors and States have Arctic policies and strategies, and when it comes to security issues, we know the tendency to focus a lot on the potential for geopolitical tensions and conflicts in the Arctic. I understand that this is more fascinating from a geopolitical perspective, although it would be desirable to concentrate on acts relating to cooperation. I am not saying that it is not important, but in general the former is more debated than the latter. The fact is that the Arctic remains a region of low tension and cooperation. This is the result of the hard work of the Arctic countries and many good partners. Of course, the current situation that we are enjoying should not be taken for granted. We therefore continue to cooperate bilaterally, with our neighbours, in other countries, and multilaterally, in organizations such as the Arctic Council and the Barents Euro-Arctic Council to protect this situation and make it last.

As far as the Arctic Council is concerned, it is right for Member States to assess challenges and solutions differently. However, we all

agree that the Arctic Council is *the* main framework for the discussion of Arctic issues, and the Law of the Sea provides a clear and coherent framework for this. This is also the key message of the ministerial declaration signed in Greenland in 2008. There is no legal vacuum in the Arctic, the Law of the Sea provides for important rights and obligations, it also deals with the external limits of the continental shelf, the protection of the marine environment, freedom of navigation, marine scientific research and other uses.

Norway shares a land border of almost 200 kms with Russia, our bilateral dialogue with Russia and our practical cooperation in the North contribute to the stability of the region. The joint management of fisheries, the Incidents at Sea agreement, the cooperation of our coastguard and the direct line between the Norwegian army headquarters and the Northern Russian military fleet are concrete examples of this.

In addition, within the framework of the Barents Euro-Arctic Council, we cooperate closely with both Russia, our Northern neighbourhood and the European Commission, on concrete and long-term cross-border cooperation in our northern regions.

In two days' time, Norway will take over the chairmanship of the Barents Euro-Arctic Council from Sweden for a two-year period, and we will focus on people for people-to-people cooperation, health issues and issues that are close to the population in the Arctic and in our region.

At the same time, of course, we recognize that some developments in our northern areas are more challenging. Russia is building up its military dimension and is developing military infrastructure in the Arctic, including the Kola Peninsula, not far from the Norwegian North border. We do not believe that this military activity is directed specifically against Norway, yet it is a strategic challenge for NATO and requires Alliance vigilance. We will therefore continue to monitor these developments very closely.

And let's come to the United States: strong transatlantic unity is important both for both the United States and Europe. The United States is our most important ally and US/Norway security and defence cooperation is probably closer than ever, both bilaterally and as NATO allies. An example of this is our strategic capabilities such as F-35 fighter and P-8 maritime patrol aircraft.

I would like to conclude by briefly touching on China. China obviously has an increased involvement in the Arctic. Norway is in

favour of China's constructive engagement in existing international law, structures and mechanisms. It is important to maintain a clear, coherent and predictable Arctic policy towards China and all other countries and actors.

So, coming to the end, let me conclude by saying how much I appreciate this opportunity to have this dialogue and share the perspectives and analysis with our Italian hosts.

ITALY'S ARCTIC STRATEGY: FROM SKETCH TO ACTION

ALESSANDRO POLITI
Director, NATO Defense College Foundation

If one looks at a national Arctic strategy, one should read carefully between the lines, something that is certainly an Italian specialty but that does not fit well with international politics that are very direct and concrete among the actors who want to lead a path of action.

The main document available was drafted by the Italian MFA (MAE 2015, Verso una strategia italiana per l'Artico, Linee-guida; MFA 2015, Towards an Italian Arctic Strategy, Guidelines) and, in addition to its usefulness, is clearly a first approach to the issue. Its main points are:

- Italy has a century-old history of presence and explorations;
- The Arctic Council is the centre of the regional political dimension;
- Italy is very careful in respect of the different sovereignties in the area;
- It is ready to assume its responsibilities in addressing global problems through its scientific and technological knowledge and its major companies;
- It aims to contribute to balanced [and sustainable] development while respecting the ecosystem and indigenous populations;
- The human dimension is fundamental and it is therefore important to engage, together with the Arctic countries, in raising public awareness on this issue, while strengthening international coordination and participation;
- The EU dimension is important, of course;
- The Italian Arctic strategy has two dimensions: scientific and energy. The scientific dimension also requires better coordination among countries and within the EU. The energy dimension means developing oil and gas, both onshore and offshore, taking care of the environment through carbon pricing mechanisms. ENI is the central

company in this dimension[1].

A first rather obvious consideration is that, five years later, the document needs an update on the following points:

- After the "America First" political principle introduced by the US Presidency, issues of global problems, balanced development, ecosystem and indigenous populations are divisive and not consensus building. Even without Greta Thunberg, Rome cannot confine itself to setting out desirable principles, but must concretely choose what kind of interests it intends to propose.
- Scientific research is no longer a neutral issue, because Arctic research has a very important dimension of climate change.
- The loss of the United Kingdom to the European dimension means the absence of an important regional power with a clear perception of Arctic policy in three dimensions (projecting global influence, protecting people and the environment, promoting prosperity), leaving on the shoulders of Sweden and Finland the direct and visible burden of an Arctic policy within the EU.
- Finally, the energy dimension has to take more deeply into account the very strong growth of renewable energies in the European market and in other key developed markets. ENI will invest €1,5 billion in renewables on a total of €33 bn, mainly dedicated to fossil energy, by 2022. It is clear that the main energy choices are not the responsibility of the Italian MFA, but a real policy must be aware of three important aspects: the *energy security of supply* (after Malta, Cyprus and Luxemburg we are the fourth most energy dependent country in the EU)[2], which is characterized by considerable imports from a number of unstable countries; the *transition to real decarbonisation* through the Green Deal, that is also the reduction of gas imports, and the need to *support major oil and gas producers in the transition to renewable sources from fossil energy*[3].

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1 ENI (Ente Nazionale Idrocarburi – National Hydrocarbons Body) was a state conglomerate, privatised in 1992, but with of 30,10% of its shares still owned by the Italian government.

2 With regard to gas, we are dependent in order of importance from Russia, Algeria, North Sea countries, Qatar (LNG), Libya. Regarding oil we depend on Azerbaijan, Iraq, Iran and Saudi Arabia. In future TAP (reasonably by end 2020) and Eastmed pipelines could provide further diversification. Nevertheless, Eastmed could be completed by 2025, but the Poseidon connector to Italy has been shelved by the current government.

3 In other words, one should try to avoid Venezuelan scenarios in other oil/gas producing countries.

That said, it is quite interesting to note that in this document there is no NATO dimension. Suffice to say that: the Arctic is vital for the surveillance of strategic nuclear delivery systems; the same area is vital for the surveillance of nuclear and conventional attack submarines; during the whole Cold War the AMF (Allied Multinational Force) has carried out the dissuasive deployment of air and land forces in Norway; finally Greenland (still a Danish territory) plays a very important role. A new version of a fully fledged policy could easily include facts such as NATO's Trident Juncture 18 major NATO military exercise and the re-opening and upgrading of the critical Keflavik air base (closed in 2006) by neutral Iceland.

These facts are also absent in the Italian MoD DPP 2019 (Documento di Pluriennale di Pianificazione– Multi-year Planning Document) where we consider only the possible opening of commercial routes in an Arctic without ice.

To complete this short national survey, one may add an interview of the Hon. Sen. Roberta Pinotti, former Italian Minister of Defence and a think-tank analysis. The former Minister acknowledges the absence of the EU, denies that Russia is the pivot of the region and notes that the Russia, PRC and USA competition objectively undermines and weakens Europe. The Parliamentary Observatory is a regular publication on international policy in favour of deputies and senators, subsidised by Parliament itself. The analysis prepared by the CESI think-tank (Osservatorio Parlamentare n. 124, January 2017) confirms the importance of the Italian MFA document and of the Italian major of nergy, ENI.

Why this silence on the Alliance? After all, Italy is a major contributor to NATO especially in terms of its capabilities and commitments, despite being below the famous and misleading 2% GDP/Defence spending ratio. Probably the causes are very simple: bureaucratic distraction, political disconnection between the "Russia vs terrorism" political debate vis-à-vis the Arctic region considered as far away and distant, lingering distrust toward an "American" alliance, and finally the wish not to rock the apparently stable boat of the Arctic Council.

To be fair, even within NATO the discussion is not fully developed *et pour cause*. Typically, the NATO Parliamentary As-

sembly has opened the debate with an appropriate report.[4] Its main points are:

- Arctic littoral states are still cooperating but the situation could quickly change;
- The PRC is contesting the UNCLOS in the South and East China Sea, the same convention that also regulates the Arctic;
- The Warsaw Summit (8-9 July 2016) decided to give the allies' a global awareness of the situation in the North Atlantic, with obvious impacts on the adjacent Arctic region;
- The rapporteur proposes:
  - dialogue and information among NAC allies in order to obtain expert advice on the latest climate change developments;
  - an "Arctic working group" at NATO Headquarters to review Allied infrastructure needs, identify vulnerabilities in the High North, assess NATO's global position in the region, analyse Russia's and China's position, Arctic operations and strategies, strengthen military exercises.

Another brave foray is an article on the NATO Review[5] where the Arctic, once stable, is diagnosed through the symptoms of the mutual hardening of attitudes of Russia and the United States and the increased presence of China; the conclusion is that a revenge of Realpolitik is taking place. Realpolitik is a broad word covering very different political choices, some of which turn out to be wildly unrealistic and damaging, because the real Arctic status quo, for instance, is a wise and practical balance of different interest at the lowest possible cost for all stakeholders. That said, NATO's Review is an official house organ for debate, but it does not necessarily express the collective position of the organisation.

Indeed, the Alliance itself has not consistently mentioned the Arctic since 2016 in its press releases and statements (Warsaw Communiqué 8-9 July 2016; Brussels Declaration 11-12 July 2018; Brussels Declaration 11-12 July 2018 and London Declaration 3-4 December 2019).

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[4] NATO Parliamentary Assembly, Political Committee, NATO and security in the Arctic, Report, Gerald E. Connolly (United States) Rapporteur Sub-Committee on Transatlantic Relations, October 2017.

[5] NATO Review, *The changing shape of Arctic security*, by Marc Lanteigne, 28 June 2019. Interestingly Prof. Lanteigne works at the Arctic University of Norway (Tromsø) and is a specialist on Chinese foreign policy.

The only very indirect mention (spotted and politically used by the mentioned NPA report) is in the Warsaw Communiqué, para 23 «In the North Atlantic, as elsewhere, the Alliance will be ready to deter and defend against any potential threats, including against sea lines of communication and maritime approaches of NATO territory. In this context, we will further strengthen our maritime posture and comprehensive situational awareness». "Elsewhere" disappeared quietly afterwards and the reasons are explicitly mentioned again by the NATO Parliamentary Assembly report in para 26 «While NATO Allies among the Arctic littoral states hold different views on whether or not there should be a role for NATO in the security of the region».

To summarize: a dog did not bark, but is it a dog or an elephant quietly sitting in the room?

The lack of consensus among allies is a fact, but one should also consider the consequences if, in an already negatively evolving situation, this lack of consensus could not be paid dearly vis-à-vis another bold and surprising initiative by Russia or other powers. From the top nuclear level (INF demise and possible re-deployment of medium range missiles, plus the parlous state of START reductions), passing to the evident dynamism of Russian policies and the need to plan a serious conventional deterrent for the Nordic Allies (during the Cold War the AMF was sufficient, probably not today) and ended with the naval consequences of climate change (opening of Arctic routes and lifting of waters affecting important naval bases) makes sense for the Alliance to have full visibility and awareness of the Arctic without unnecessary escalation.

And what about Italy? The problem is not doing more, it is getting out of a somewhat self-imposed Cinderella complex and clearly affirming a reasonable Arctic strategy, that takes into account also the national interest, and its implementation. It is a matter of normal politics that Italian interests deserve.

SCOTLAND'S NEW ARCTIC POLICY FRAMEWORK: FOSTERING PARTNERSHIPS IN THE NORTH

DARIA SHAPOVALOVA
University of Aberdeen, UK

On 23 September 2019, Scotland launched its Arctic policy, 'Arctic Connections: Scotland's Arctic Policy Framework'. This document is distinct from the UK-wide Arctic policy document, updated in 2018. This important step raises questions: not only the participation of non-Arctic States in Arctic governance, but also the meaning of adopting an Arctic policy and its interpretation in a wider geopolitical context.

Provocation or fostering partnerships? – Scotland's development of its own separate Arctic policy is not entirely unpredictable. Rachel Lorna Johnstone discussed the possibility of a Scottish Arctic policy back in 2012 (see also Cruse 2016). She emphasised the close geographic proximity, cultural connections, and potential cooperation in maritime activities between Scotland and the Arctic. In October 2016, Prime Minister Sturgeon addressed the Arctic Circle Assembly in Reykjavik, constituting an international foundation for Scottish interests in the Arctic. The Scottish Government has since consistently expressed its interest in the Arctic. In November 2017, the Government hosted an Arctic Circle Forum in Edinburgh, where ambitions to develop its own Arctic Strategy were announced. In October 2018, the Secretary of the Cabinet for the Culture, Tourism and External Affairs, Fiona Hyslop, delivered a speech on Scotland: A New Arctic Strategy at the 2018 Arctic Circle Assembly in Reykjavik, outlining the priorities of the next policy document. It is also not uncommon for regional or non-State actors to adopt their own Arctic policy documents, as the Faroe Islands, European Union, and Inuit Circumpolar Council have done.

The adoption by Scotland of a separate Arctic policy is also neither provocative nor illegitimate. Scotland's political status of a devolved constituency as such does not prevent it from formulating an Arctic policy, but only affects the scope that such policy can cover. Under the 1998 and, more recently, 2016 Scotland Acts, Westminster

is competent to formulate a defence, foreign affairs and trade policy. The powers devolved by the Scottish government include education, the environment, tourism and economic development. This separation is evident from Scotland's Arctic Policy Framework.

Contents of Scotland's Arctic Policy Framework – Scotland's Arctic Policy devotes a considerable length to establishing a close connection between Scotland and the Arctic, going back to the Nordic heritage of place names, polar exploration and citing the current links between Scotland and the Arctic through the European Union, migration, and research. The Policy Framework adopts the now omnipresent term of the 'quasi-Arctic State' devised by the Chinese Arctic policy, but emphasises close proximity and calls Scotland a 'European Gateway to the Arctic'.

The contents of the document reflect the limitations of decentralization. While the UK's policy emphasises its observer role in the Arctic Council, the 'vision of Global Britain', UK Arctic research, and deals *inter alia* with defence and security; the focus in the Scottish document is especially on cooperation in education, culture, research, climate change, rural connections, and maritime activities, such as renewable energies and decommissioning. Scotland's experiences in community-based grids and low carbon energy development in remote areas would be of particular relevance in the Arctic context, where many off-site communities still rely on diesel for heating and electricity. At the same time, the policy acknowledges the importance of oil and gas development for the low carbon energy transition 'in terms of transferable skills and infrastructure'. There are also some associated economic opportunities for Scotland in developing Arctic resources – Policy promotes Scotland's credentials as a 'key near-Arctic maritime transport and logistics partner, looking for opportunities to build a world-class hub'.

The Policy concludes with Scotland's Offer to the Arctic: establish an Arctic Unit within the Scottish Government's Foreign Affairs Directorate (following Johnstone's 2012 advice); and create a fund to support projects and activities promoted by the third sector and the community-based organisations that raise awareness of Scottish-Arctic links and create new opportunities for international collaboration with the Arctic.

And what about Brexit? – The Scottish policy document does not recognize UK observer status, nor does it mention UK Arctic policy. In this context, it is important to note, that during the formulation of the UK's Arctic policy, Scotland would be excluded from the process. Instead, it expresses concern about the UK's exit from the European Union, and the potential risk to Scotland's international partnerships, including with the Arctic countries. 'We are determined to protect Scotland's reputation as an open and outward looking-nation and we are re-doubling our efforts to promote Scotland as a good global citizen.' The timing of policy in the Brexit context is peculiar, but as discussed above, Scotland is pursuing legitimate interests in adopting its Arctic policy, and it would be difficult to attribute it only to Brexit and gather support for another independence referendum.

Concluding thoughts – The scope of Scotland's Arctic Policy Framework is consistent with its devolved powers and, for what it's worth, the Arctic and European partners welcome this development. The EU Ambassador at large to the Arctic spoke at the event and expressed her support for this policy and praised the extent to which the Scottish Government has outlined potential avenues for fruitful cooperation.

SUSTAINABLE DEVELOPMENT:
THE KEY OF THE DEVELOPMENT

THE EU ARCTIC POLICY AND SUSTAINABLE DEVELOPMENT

TORJUS KLEIVEN KANDAL
Special Advisor EU Affairs, North Norway European Office

First, briefly about Northern Norway European Office and the region I represent. The office consists of five Brussels-based people representing the regional level of North Norway, namely Nordland and the counties of Troms & Finnmark. Our mandate is to represent Northern Norway's interests within different EU polices in EU bodies. One of the most important topics is Arctic issues.

Northern Norway is the Arctic part of Norway with approximately 500.000 people. The way of life is very similar to other places in Norway and Europe. Some of us are fishermen, others are nurses or doctors, some of us work in banks or supermarkets and some of us are Sami people. In particular fishing, fish farming, oil and gas, minerals are important industries in the region, to name a few. Other jobs in my region are the same as in Italy, like tourism, local shops and the public sector. The region has two universities which are important for a strong regional development.

After other contributors have examined the major Arctic policies, which is an important aspect, I will now turn to another important although more concrete, aspect. I refer to the people who live there and to the issue of sustainable development.

Northern Norway is happy with the EU's commitment to the Arctic. This is necessary to ensure our livelihood both in the short and the long term. Climate change and the melting of ice are one of the main reasons why the EU has its own Arctic policy. In my region we are already witnessing the climate change with a warmer and wetter climate. The tree line is moving higher in the mountains, new types of fish are entering our waters, extreme weather is increasingly common.

The biggest threat to the Arctic is what happens outside the Arctic. It is important that EU takes responsibility.

Save the Arctic. Make an Arctic treaty. We need a moratorium to close down activities in the Arctic. These are statements we often hear

in Brussels, read in international media or elsewhere. We believe this is not the way to take care of the Arctic or the planet as a whole. It will probably only make things worse and can increase the tension between the Arctic players.

Actually, in many cases, green gas emissions will be reduced if industries move from the continent to the Arctic. Access to green energy, cold climate and raw materials would make production cleaner will less emissions.

As the Arctic gets more accessible, there is a growing interest in obtaining economic benefits. We believe that EU and countries like Italy, are important partners in ensuring that the Arctic continues to be a zone of peace.

The turning point in EU Arctic policy from 2016, compared to earlier EU Arctic policies, is the second pillar on supporting sustainable development in the Arctic region, besides of climate actions and international cooperation. Investing in research, cooperation, infrastructure and development is crucial: an engagement that gives EU a unique knowledge and expertise in the Arctic. And a good reason to play an active role in the region. We believe that this is the way the EU can influence the Arctic so that we, the Arctic people, can continue to live a peaceful, sustainable and positive life.

The Nordic countries, Russia and the EU are part of the Barents cooperation. The point is to promote unity and closer contact among the people of the region and to lay the bases for sustainable development. Wide-ranging cooperation between peoples and high-level political dialogue within the Barents cooperation is particularly important for maintaining the Arctic as a low-tension area and developing cooperation with Russia.

The EU should put the Barents cooperation on top of the Arctic agenda.

When I moved to Brussels six years ago, there were few Arctic events. Interest is growing, and today there are many Arctic events. As we speak, the politicians of the European Parliament are working to set up a friendly group where MEPs can meet to discuss the subject. Furthermore, the EFTA delegation to the European Parliament changed its name to Northern Cooperation and EFTA countries. Also, the Intergroup for Seas, rivers, islands and coastal areas includes Arctic.

Culture is increasingly visible in the Arctic debate. To understand our culture, the diversity of Arctic cultures is very important to

understand the High North. That is why we are focusing more on culture in our Arctic activities in Brussels and elsewhere.

Last week Bodø was chosen as the European Capital of culture 2024, and I am sure that one of the reasons for that was the Arctic dimension in their application. This will be the first European Capital of culture above the Arctic circle ever. I hope, and believe, that with this title Bodø will include the whole of Europe in the Arctic culture. This is a major contribution to future Arctic policy.

HOW THE SPACE INDUSTRY HELPS FACILITATE A SUSTAINABLE DEVELOPMENT IN THE HIGH NORTH

JAN PETTER PEDERSEN
Vice President, Kongsberg Satellite Services

Coming from a world leading space service company Kongsberg Satellite Services, or KSAT, located in Tromsø in the hearth of the High North, it is a pleasure for me talking about how space technology is being used to facilitate sustainable development in the Arctic region.

KSAT is a company in constant growth in terms of business and number of employees, with a yearly growth rate of around 20% in both areas. Today we are close to 250 employees, our main office is in Tromsø, but with a global network of ground stations and customers. The largest polar satellite ground station is our station located at Svalbard, with around 80 antennas operating on a 24/7 basis to serve both commercial and institutional customers. Svalbard is together with our ground station located in Inuvik in Canada two of the core stations of the major Copernicus program in Europe. These two stations are very important in providing regular and repeated 24/7 access to data and information about conditions in the high North which is important for climate, resources, safety and security.

First of all, the Arctic region is one of the most important for resources, including fisheries and oil and gas. At the same time, it is characterized by vast areas, large oceans, small and largely spread population, and where weather and climate may change very fast and become a danger for the humans and their activities. In the geopolitical perspective we also recognize an increasing attention to the region. The dissemination of information has been challenging due to technical limitations and costs: important information may not reach a user when he needs it.

On communication we now see a change in which space systems become increasingly available – with greater capacity for affordable costs. OneWeb and Iridium represent two of the new innovative systems. In addition, in the next three years Norway will launch a two-satellite-constellation that will provide continuous broadband

availability. We at KSAT are proud to use our ground stations and services to support all these systems.

Space data is today a critical source for many applications, including weather forecasts, climate understanding, and the provision of reliable and updated information on ice for operational safety and safety in maritime transport, fishermen, offshore oil and gas and research activities. An interesting user community is that of the Inuit in Northern Canada, that use space-based information for their daily hunting on the ice-covered lakes and rivers.

The region is also one of the most important areas for our natural resources, including fisheries. Space technology is used for operational monitoring of environmental conditions, fishing vessels and oil and gas activities. The offshore oil and gas industry operating on the Norwegian continental shelf is required to monitor and report on their activities. KSAT delivers radar-based services for the detection of oil spills as well as information on ice and MetOcean. The operational status is very good and very few environmental incidents have been reported in recent years.

Satellite radar data have been used for years to improve the monitoring of fishing activities. Information about vessels at sea are used by the authorities and coastguard to establish sustainable exploitation of fisheries resources and now even more for national sovereignty. The neighbouring countries have established a successful resource management scheme for fisheries, and illegal fisheries do not exist in the region. The result is that fisheries and offshore oil and gas industry can operate in the ocean areas in the European Arctic under conditions of high safety and security.

What are keys to success for the use of space technologies?

First of all, geography. A polar orbiting satellite passes over the area roughly every 100 minutes and thus frequently provides access to data for operational use. The location of the ground station at Svalbard is also ideal for accessing the satellite overpasses.

Communication challenges are also being addressed, paving the way for a better flow of information to and from the region, which will improve the daily life in the region.

Climate, environment and human activity monitoring services have been developed with the direct involvement and commitment of end users. Today these services are fully implemented in these systems of administration, monitoring and user management.

What about the future?

Today for some applications, space technology is already operationally used, while for others we are still at the early stages.

New constellations for space-based communication will be available and the competition among the operators will result in improved capacities at lower costs.

New Earth Observation satellites will be available and provide new and improved data at lower costs for use. The free and open Copernicus data policy is paving the way for the future, and this puts pressure on the other data owners.

We have the largest polar ground station in the world in Svalbard and together with other ground stations in the High North this will ensure data access. I believe that we will see an increasing number of new and innovative applications in the coming years.

Finally, already today space data and services made available by a competitive space industry are an important contribution to sustainable development in the High North, but I believe that it will be even more important in the future due to a strong and growing focus on the North. We will also recognize an increasing number of new and growing service industry that will accelerate this development.

ENERGY AND BLUE ECONOMY:
CHALLENGES AND OPPORTUNITIES

THE ARCTIC REGION AND THE FUTURE OF INTERNATIONAL RELATIONS AND TRADE

LUCA SISTO
General Director, Confitarma

The Arctic is undoubtedly one of the most challenging developments for the future of international relations and trade.

In the last decade the melting ice has opened up previously inaccessible Arctic sea routes. In August 2018, Mærsk sent the first container ship through Russia's Northern Sea Route from Vladivostok to St Petersburg, thus reducing its normal distance by 40% by going North instead of South. In June 2019, Mærsk announced that it would cooperate with the primary icebreaker operator Atomflot, which shows that there is an increased willingness to explore these new opportunities. China is also showing great interest in the new potential offered by the melting of sea ice[6]. The Northeast Passage, the Northwest Passage, and the Transpolar Sea Route have now become available for navigation for longer periods of the year.

The 2600 nautical miles long route, going from the Novaja Zemlia (*Nova Zemblia*) archipelago to the Bering Strait is entirely included in the Territorial Sea and in the Exclusive Economic Zone of the Russian Federation. However, the peculiarity of indented Siberian coasts, characterized by a chain of small islands, coves and archipelagos, has favoured the development of at least two or three complementary routes. Similarly, the 3000 nautical miles long Northwest Passage develops among a multitude of Canadian islands through a labyrinth of canals, which eventually multiply transit routes. In addition, the melting of the ice cap is opening up prospects for navigation along the Trans-polar Sea Route, connecting most directly the Strait of Bering and the Atlantic Ocean of Murmansk through the North Pole, which largely avoids the territorial waters of Arctic states and lies in high international seas.

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6 Mads Qvist Frederiksen, 4 ways climate change is opening the Arctic up for business, 27 September 2019, at https://www.weforum.org/agenda/2019/09/4-ways-climate-change-is-opening-the-arctic-up-to-business/.

The commercial interest of Arctic shipping routes lies in the shorter travel distances they offer between several economic poles, such as Northern Europe and Eastern Asia. The NSR has been touted as a potential rival of the Suez Canal because it could drastically reduce some travel times between Asia and Europe. For example, a ship travelling from South Korea to Germany would take roughly 34 days across the Suez Canal and 23 through the NSR[7]. Alternatively, a Japanese ship sailing from Yokohama to Hamburg could save up to 12 days through the Transpolar Route, 11 days through the Northwest Passage, and 9 days taking the NSR, compared to the "traditional" Southern route passing through the Indian Ocean, the Red Sea and the Mediterranean.

However, it is easier said than done, since time is not the only factor that shipping companies look at when they are choosing their route. For example, the NSR presents some disadvantages: a navigation season of three to four months a year, unpredictable ice conditions, high insurance fees, expensive specialised vessels, lack of search-and-rescue teams and support infrastructure[8]. More specifically, it is uncertain to what extent the decreasing perennial ice cover is a confirmed trend or simply a part of a long-term climate cycle. It is also difficult to predict annual variations in ice cover, underlining unstable sailing conditions[9]. Secondly, the economic activity around the Arctic Circle is very limited, which means that the navigation services crossing the Arctic have almost no chance of unloading and picking up cargo as they pass. Therefore, unlike other long distance commercial shipping routes, there is a limited revenue generation potential for the shipping lines along the Arctic route, which forbids the emergence of transhipment hubs[10]. Thirdly, bathymetry in the Arctic is usually shallow, which limits the size of ships that could operate in these waters. Ships also need to be certified to operate under Arctic conditions, which increases costs and undermines the economic benefits of the route. Traffic requires a convoy driven by an ice breaker, which is subject to additional costs.

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7 *What is the Northern Sea Route*?, The Economist explains, 24 September 2018, at https://www.economist.com/the-economist-explains/2018/09/24/what-is-the-northern-sea-route.

8 *Ibidem*.

9 J. Rodrigue, Polar Shipping Routes, in The Geography of Transport Systems, Fourth Edition, Routledge, New York 2017, at https://transportgeography.org/?page_id=412.

10 *Ibidem*.

Insurance rates are also much higher to take care of the risks involved, including the environmental ones, which are not clear to assess[11]. Nonetheless, interesting prospects may open up for oil and LNG tankers for serving the single markets, without stopping. For example, in July 2018, the Arc7 ice-class LNG tanker "Vladimir Rusanov" completed for the first time the Northern Sea Route from the Yamal LNG project, at the port of Sabetta, to China's port of Tianjin. Ultimately, however, the Arctic remains a frontier in terms of weather forecasts, mapping and building a navigation system, which implies uncertainties and unreliability for navigation[12].

These, among others, are the reasons why experts believe that the NSR will not become an economically viable alternative before 2040[13], although the Russian Federation already has a strategic vision to take control of these maritime areas. In fact, the Russian Authority for the Northern Sea Route has recorded the transit of 27 ships in 2017 (8 more than in 2016, but with a significant decrease of 44 units compared to the 2013 records) for a total of 513.676 tons. In the same year, 17.550 ships for a total of 1.041 million tonnes have transited through the Suez Canal. Similarly, in 2017, only 32 vessels have transited through the Northwest Passage, of which only one containership (the rest were pleasure boats, icebreakers, cruise ships and just a single oil tanker). Therefore, it seems appropriate to ask whether and how the new Arctic routes will have a substantial impact on international maritime trade and, in particular, on those well-established shipping routes, such as the Suez and Panama canals, and the Strait of Malacca. Last but not least, particularly from the perspective of Italy and other Southern European countries, it is feared that new Arctic routes will lead to the marginalization of the Mediterranean.

It is our opinion, that, although the opening of new maritime routes in the Arctic is an interesting development for the global ship market, to anticipate a revolution in global trade routes and a subsequent tectonic change in the relations between superpowers seems premature. The new Arctic routes could become complementary to the current most trafficked maritime routes, but they are unlikely to replace them. In fact, it will take at least ten or fifteen more years

11 J. Rodrigue, Polar Shipping Routes, id.

12 J. Rodrigue, id.

13 What is the Northern Sea Route?; id.

before the Arctic routes, and particularly the North Sea Route, which is currently the most widely used and still frozen for six months, actually become competitive. As a consequence, polar routes remain a niche market that has a potential, but the nature and extent of this market remain unclear.

In the final analysis, however, cost considerations are not the only issues to be considered. The fragility of Arctic ecosystems, combined with the objective difficulty of navigating under such harsh conditions, raises questions in relation to the safety of ships and crews, in order to balance economic reasons and environmental protection. The IMO's International Code for Ships Operating in Polar Waters (the so-called Polar Code), which entered into force on 1 January 2017, is mandatory under both the International Convention for the Safety of Life at Sea (SOLAS) and the International Convention for the Prevention of Pollution from Ships (MARPOL), and represents a significant step in the right direction. Led by Lloyd's of London in collaboration with the Nordic Association of Marine Insurers, the International Union of Marine Insurance and Lloyd's Register, and with the close cooperation of the Arctic and Antarctic States, the Polar Code covers the full range of projects, construction, equipment, operation, training, research and rescue and environmental protection issues relating to ships operating in the inhospitable waters surrounding the two poles. Let me underline the importance of the training of masters and crews: we have witnessed many cases in which having received adequate training made a substantial difference. There are reasons to think that this will be even more true in the inhospitable polar environment.

To conclude: even if the Arctic routes do not seem to be an economically advantageous alternative to the traditional maritime trade routes, we, as Italian shipowners, are ready to accept the challenge. However, we are equally conscious of the importance of the Arctic region for the future of humanity and we hope for an even more shared governance considering business opportunities and environmental protection. For these reasons, we will continue to support the active participation of our Country in the Arctic Council.

For years, the Arctic has not been the centre of major news and policies but a whole new area is opening up for business – and policy makers need to have a ready plan.

HYDROGRAPHY AND BLUE ECONOMY IN THE HIGH NORTH

LUIGI SINAPI
Rear Admiral, Director, Hydrographic Institute Italian Navy

Cooperation between Norway and Italy includes not only many military fields, but also hydrography, bilaterally – even in the Mediterranean Sea – and within the framework of the common International Hydrographic Organization (IHO).

Hydrography can extensively contribute to the Blue Economy in the ARCTIC, through the increase of ocean knowledge as a basis for a «Sustainable Blue Growth» in the polar region.

Norway and Italy are able to express important capacities in the Arctic thanks to their research Vessels. Some of them are:

•The NATO Oceanographic Ship Alliance, with an Italian Navy crew and Commander, has contributed in the last two years – and in the next few days will be underway to the High North – to collect important data in unprotected areas beyond 80° N parallel ;

•The new Polar Vessel "*Laura Bassi*", recently acquired by the Italian Ministry of Education, University and Research. The ship, managed by the Oceanographic and Experimental Geophysics Centre (OGS) will be employed in the next years in Polar expeditions;

•The new Norwegian icebreaking polar research vessel "*Kronprins Haakon*" jointly owned by the University of Tromso, the Norwegian Polar Institute and the Norwegian Institute for Marine Research. The icebreaker was built at the Italian Fincantieri shipyard, as a clear sign – once more – of the strong collaboration and cooperation between Norway and Italy.

The recent Polar expeditions carried out by Alliance, which contribute to the study of the Arctic Ocean, are examples of application of the principles contained in the proclamation of the United Nations «Decade of Ocean Science for Sustainable Development (2021-2030)».

The Decade of Ocean Science for Sustainable Development (2021-2030) supports efforts to reverse the cycle of decline in ocean health and gather ocean stakeholders worldwide. One of the two

objectives is to "provide ocean science, data and information to inform policies for a well-functioning ocean in support of all sustainable development goals of 2030 Agenda".

The United Nations, in 2014 set the Sustainable Development Goals of its 2030 Agenda; a special mention must be deserved to "Goal 14 – Conserve and sustainable use the oceans, seas and marine resources for sustainable development".

The Decade represents a unique opportunity to involve the ocean science community in the production of scientific knowledge, underpinning infrastructures and partnerships necessary for the sustainable development of the ocean. The Decade will stimulate action over the next ten years in areas of critical importance to the planet, such as the Poles.

Historically, these interests are related to the Hydrographic world, which deals with the study and representation of territory and its evolution, especially in the field of maritime navigation.

Hydrography aims to study the physical features of the marine environment from the past into the future. This description of the Oceans, which is made from data, is used for all marine activities. Data collection at sea is a very expensive activity and should be oriented to data quality rather than data use as it was the case in the past.

In 2005, the General Assembly of the United Nations (UN) adopted Resolution A/60/30 on the oceans and the Law of the sea, which welcomed the adoption by the IHO of the World Hydrography Day, on the 21st of June each year.

World Hydrography Day (WHD) is an opportunity to raise public awareness of the vital role that hydrography plays in everyone's lives. The 2019 WHD motto is "Hydrographic information driving marine knowledge".

In the wake of the 2019 WHD, the IHO and its 93 Member States, including Norway and Italy, reaffirmed that there is an increasing need for marine data, critical for the development of a sustainable blue economy, the protection of the marine environment, and the prevention or mitigation of consequences of marine disasters or climate change. There is no conservation and sustainable use of the oceans, seas and marine resources without hydrographic data, crucial in supporting important decisions.

At IHO level, one of the 15 Regional Hydrographic Commissions in the world is the Arctic Regional Hydrographic Commission

(ARHC) which embraces 8 States, 7 Arctic States (of which 5 Full Members and 2 Associate Members) and 1 Non-Arctic Associate Member, which is Italy.

In 2017, Italy became the eighth Associate Member of the Arctic Regional Hydrographic Commission, under the Norwegian chairmanship, thanks to its commitment to Arctic researches.

Some of the main objectives of the Arctic Commission are:

1. To stimulate the expansion of hydrographic activity in the Arctic Ocean Region;
2. To define the needs for new hydrographic products and services including surveys and charts and, where appropriate, develop cooperative approaches to meet those needs;
3. To facilitate the exchange of information concerning surveys, research or scientific and technical developments.

In this regard, Italy undertakes to share the data collected during the geophysical campaigns in the Arctic to contribute to the Arctic Marine Spatial Data Infrastructure, mentioned at the last 9th Session of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) on 05 AUG 2019, as the best example to follow in terms of Spatial Data Infrastructure.

The ARHC is working on data sharing across borders, in order to enable regional collaboration and partnerships, and to ensure that governments and related stakeholders can discover, access and apply data to coordinate, address and respond to issues and emergencies.

This intent is based on the implementation of a Future Cooperation/Organization between ARHC and the Arctic Spatial Data Infrastructure (SDI) already existing amongst the 8 Arctic Member States. The Cooperation/Organization will facilitate an infrastructure linking users, across domains, to the spatial data assessed to support research, planning and decision making in the Arctic, through the active contribution and participation of International Organizations (such as IHO), International project as GEBCO (General Bathymetric Chart of the Oceans), European Initiatives (such as the geo-portal EMODNET), and the Open Geospatial Consortium (OGC).

The Italian Navy has often made their specific knowledge and their innovating technologies available to the international community and scientific research. So, 89 years after their last expedition in the Arctic, the Italian Navy – acting as the national marine focal point for Arctic research activities –decided to launch in 2017 the Pluriannual

Joint Research Program in the Arctic named "*High North*", in line with the National Strategy for the Arctic.

The Program aims to contribute to Oceans' knowledge, hydrographically and, more generally scientifically. Data sharing, Ocean knowledge, Exploration, Monitoring, New technology and Education represent the main messages of the Program.

In the first two campaigns – 2017 and 2018 – of the *High North Program*, there were scientists and researchers from the Italian Hydrographic Institute, NATO-CMRE, Norwegian Defense Research Establishment and Sorbonne University, 4 Italian Institutes and Research Centres, and private industry active in the field of Earth observations from satellite, research and monitoring and drone design and construction.

"Full data sharing" policy is one of the key elements of the *High North Program.* Newly acquired data and the multibeam ancillary information have been shared with the Norwegian Defense Research Establishment (FFI) and the Norwegian Fisheries Directorate, as well as with GEBCO, to populate the International Bathymetric Chart of the Arctic Ocean (IBCAO) database, in order to contribute to the Oceans' knowledge. In fact, only 15% of the Arctic ocean has been surveyed and mapped so far.

Special mention should be made of the global SEABED 2030 initiative. It is a collaborative project between GEBCO and the Nippon Foundation with the aim of facilitating the complete mapping of the global ocean floor by the year 2030. This ambitious initiative is driven by a strong motivation to empower the world to make policy decisions, to use the ocean sustainably and to undertake scientific research based on detailed bathymetric information of the Earth's seabed.

In terms of national contribution to Ocean's knowledge, the *High North Program* hydrographic surveys carried out so far have focused on 5 main areas: INBIS channel, Storfjiorden, Hornusund, Kongsfjord, Yermak Plateau/Ice edge (those north of the Svalbard Islands).

As you well know, if we look at the Electronic Nautical Charts of the Arctic Ocean, it is largely unexplored. This part of our planet has no bathymetric information, being permanently covered by ice. It is a virgin area, hydrographically – and bathymetrically – speaking. In fact, the area north of the Svalbards, is widely unsurveyed. During the HN18 campaign, multibeam investigations were conducted in the grey

area, along the Alliance route up to 81°50' N latitude. They will be used by the Charting Authority – NORWAY for instance – responsible for mapping this area, to update the Nautical Charts (Electronical and Paper) and contribute to the safety of navigation.

Therefore, Hydrography is vital in Polar areas, where environmental knowledge is the basis of any other activity related to research, sustainable development and environmental knowledge and protection.

The Italian Hydrographic Institute has examined specific areas in Antarctica and the Arctic. These surveys resulted in several nautical charts in Antarctica, while in the Arctic Sea – in cooperation with the main Italian Research Centres (CNR-OGS-ENEA) and NATO CMRE – they contributed with significant scientific data to understanding the dynamics of the global climate change and new commercial routes.

In short, in order to effectively preserve the maritime environment, any use of the seas should be safe (to prevent pollution by incidents), clean and respectful of preservation areas.

Hydrography is essential for a better «blue knowledge» and, consequently, for safer seas, especially in those basins such as the Mediterranean and the Arctic Ocean, crossroads of traffic routes, commercial flows and different cultures.

We can say that without hydrography no ships sails safely, no ports can be built or expanded, no coasts or islands can be protected from natural or man-made damage, and no coastal infrastructures can be developed. Furthermore, no marine environmental plans can be implemented, and no maritime boundaries can be established and enforced.

So, the IHO recommends that its Member States encourage a wider dissemination of «hydrographic knowledge» all over the world, making the «blue element» better known and consequently safer, not only to build nautical charts for safe navigation, but in a more holistic perspective.

THE ENI-CNR CENTRE ON THE ARCTIC CRYOSPHERE

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The 2030 UN Agenda is an action plan to support global development, promote human welfare and protect the environment. The embedded Sustainable Development Goals are an appeal for everyone to act to promote prosperity and protect the planet. They recognize that the end of poverty must go hand in hand with strategies that build economic growth and address a range of social needs including education, health, social protection and employment opportunities, while addressing environmental protection and climate change.

ENI and CNR signed in 2019 a joint research agreement on research into sustainable economic and environmental development in Italy and the rest of the world through four research centres. Researchers from the CNR and ENI will work in line with the key sustainable development objectives of the UN 2030 agenda, to reduce the carbon footprint of the energy sector, to deepen knowledge on climate change, promote the circular economy and economy in general, develop water systems and test innovative and sustainable farming techniques.

The four centres are dedicated to Arctic climate change, magnetic confinement for the creation of energy from clean fusion, sustainable and innovative management of the water cycle, agricultural methods with lower CO2 emissions.

The joint research at the ENI-CNR laboratory named after "Aldo Pontremoli" in Lecce analyses the climate processes caused by the destabilization of the Arctic cryosphere and in particular permafrost, evaluating the effects of the melting on the Arctic Ocean.

This centre is named after the Italian scientist who died during the Zeppelin campaign organized by Nobile. He was the only Italian scientist to participate in this campaign, and went to the Arctic not only to explore, but especially to acquire knowledge in order to obtain some valuable data. This is also the centre's ambition: to produce

advanced knowledge on climate change in order to promote action in the best possible way.

Climate change is affecting all countries on every continent. It is affecting national economies and lives. Climate change is a global challenge that does not respect national borders. It is an issue that requires solutions that need to be coordinated internationally to help developing economies move towards a low-carbon economy.

"Aldo Pontremoli" will be the first multidisciplinary centre in Italy for integrated research on Arctic cryosphere and the study of Arctic permafrost in particular. It will use specific laboratories and specialist expertise, carry out field measurements, carry out satellite observations and use numerical models.

The Arctic and the Mediterranean region are regarded as the hotbed of global warming. The Arctic is warming faster than regions at lower latitudes, and the Arctic cryosphere (continental glaciers, permafrost and snow cover) is shrinking at a great rate. These deglaciation processes involve the instability of buildings and infrastructure, changes in the hydrological cycle and, in any case, changes in soil structure and composition and ecosystems. Particularly important are the effects on water and carbon flows between soil, vegetation and atmosphere, with possible (and significant) feedback mechanisms (Arctic amplification).

Soils are the largest carbon reservoirs in terrestrial ecosystems. This is even more true for permafrost. Permafrost-infested soils cover almost 9% of the earth's surface but retain between 25 and 50% of the soil's organic carbon. These approximate estimates show that permafrost soils are a very important carbon pool containing more carbon than the one released after the industrial revolution from anthropic sources.

The joint ENI-CNR research centre in Lecce aims to examine and quantify the different climatic and environmental findings resulting from the thermal destabilisation of the Arctic cryosphere. These feedbacks can accelerate the current global warming and worsen the quality of the environment. Although their impact is evident, the speed with which the Arctic cryosphere is changing and its potential effects are still uncertain, mainly due to the limited access to remote Arctic regions that reduce the acquisition of ground measurements.

In order to understand undergoing processes underway and their future evolution, the international scientific community has implemented multi-annual research programs with a strong inter-

disciplinary character. The joint ENI-CNR effort follows this line in order to reduce uncertainties related to the potential impact of Arctic soils in a global warming scenario.

The Centre's research activities focus on three key feedback: (i) life-cycle radiative forcing of short-lived air pollutants (black carbon, O3, CH4, etc.), (ii) the corresponding land and marine emission of polluting organic carbon, (iii) the interaction with the terrestrial hydrological system and ecosystems. All feedback is mutually produced by permafrost dissolution and generates synergistic effects globally. Therefore, the main objective is to understand the feedback to climate change in an evolving Arctic: a double difficulty that requires a combined and synergistic effort, associated with the best resources and technologies.

In this regard, the join Centre can leverage the CNR base at Ny-Alesund on Svalbard Island and its "best in class" infrastructure. The remote location (almost 79°N) offers a perfect site to make measurements away from anthropic sources, so mostly related to the overall effect, and consequently very useful for a more general and global interpretation and modeling. Precisely in modeling, the Centre can exploit another rather unique infrastructure: ENI High performing Computer (HPC).

Thanks to this super-computing device it is possible to model the entire Northern hemisphere with a very precise detail, to match weather and climate models, as well as quantify the effects of Arctic feedback globally: a powerful simulation tool to be used to improve knowledge and strategies (mitigation, impact reduction and early warning) in a climate action perspective, as set out in UN Agenda 2030 objective 13.3.

This alignment with the United Nations Agenda 2030 is of fundamental importance for ENI: our mission is inspired directly by the Agenda and the SDGs. Our mission statement reinforces the principles on which the business model of our company is based. ENI recognizes that the biggest challenge in the energy sector is to balance maximum access to energy with the fight against climate change.

Our model dictates how to integrate sustainability in all our operations: from the reduction of greenhouse-gas emissions to respect for the environment, from human rights to staff training, and from promoting local development to universal access to energy. That is why we changed our energy mix so we could reduce our impact on the planet.

To promote sustainability and responsibly act is key to acquiring the best knowledge, especially where quick changes are progressing. This explains why we have jointly launched the ENI-CNR Centre on the Arctic cryosphere and its feedbacks on the planet.