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**NOTE**

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From: Permanent Representatives Committee (Part 1)  
To: Council

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No. prev. doc.: 13788/19

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Subject: Council conclusions on "Space solutions for a sustainable Arctic"  
- *Adoption*

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**I. INTRODUCTION**

1. The Council Conclusions on "Space solutions for a sustainable Arctic" have been prepared in view of the Competitiveness Council to be held on 29 November 2019. Partly as a follow-up of the Council Conclusions on "Space as an enabler" adopted on 28 May 2019, the conclusions focus on the importance of the space infrastructure, data and services to the Arctic area, in particular for monitoring of climate change and for economic activities.

2. With the conclusions, the Presidency wishes to stress that space can act as a true enabler in the Arctic, especially in combatting climate change and ensuring economically, socially and environmentally sustainable growth in the area.

## II. STATE OF PLAY

3. The Space Working Party examined the draft Council Conclusions on three occasions since 8 October 2019.
4. The text presented in the Annex to this Note reproduces the text set out in the Annex to doc. 13788/19 agreed in the Permanent Representatives Committee on 13 November 2019. The Committee agreed to forward the draft conclusions to the Council (Competitiveness) of 29 November 2019 for adoption.

## III. CONCLUSION

5. The Council (Competitiveness) is therefore called upon to adopt the conclusions set out in the Annex.

**Draft Council conclusions on "Space solutions for a sustainable Arctic"**

THE COUNCIL OF THE EUROPEAN UNION

RECALLING

- A. the Treaty on the Functioning of the European Union (TFEU) that establishes an EU competence in Space<sup>1</sup>;
  - B. the Joint Communication on an integrated European Union Policy for the Arctic<sup>2</sup> adopted on 27 April 2016 by the European Commission and the High Representative as well as the Council Conclusions of 12 May 2014 on developing a European Union policy towards the Arctic Region<sup>3</sup> and the Council conclusions on the Arctic on 20 June 2016<sup>4</sup>;
  - C. the Communication from the Commission on the Space Strategy for Europe adopted on 26 October 2016<sup>5</sup> and the Council Conclusions on "A Space Strategy for Europe" of 30 May 2017<sup>6</sup>;
1. STRESSES that space solutions play a crucial role for the priority areas of the integrated EU Arctic policy: mitigating and adapting to climate change and safeguarding the Arctic Environment; ensuring sustainable development in and around the Arctic; as well as advancing international collaboration on Arctic issues;

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<sup>1</sup> In particular Articles 4 and 189.

<sup>2</sup> doc. 8408/16.

<sup>3</sup> doc. 9746/14.

<sup>4</sup> doc. 10400/16.

<sup>5</sup> doc. 13758/16.

<sup>6</sup> doc. 9817/17.

2. RECOGNISES that the Arctic as a vast area with sparse population and currently limited observation points can greatly benefit from space-based services; NOTES that many of the challenges and needs of the Arctic are similar to those of other coastal and remote areas, seas and oceans and that synergies and coordination are to be enhanced with other regional initiatives, including those for integrated maritime management; STRESSES that Earth observation, satellite navigation, satellite communications, and space weather observations covering the Arctic already contribute to or have the potential of contributing to addressing the challenges in the region;
3. NOTES that the effects of climate change are changing Arctic environment rapidly and dramatically; RECOGNISES the significance of these changes for Europe and globally and STRESSES the role of space capabilities in monitoring such changes.
4. NOTES that the Commission proposal for the Regulation on the EU Space Programme<sup>7</sup> acknowledges the importance of the Arctic and Polar regions while the EU Arctic Policy recognises the importance of the European space programmes; RECOGNISES that Europe already has remarkable capabilities, in particular in Earth observation and satellite navigation, covering the Arctic;
5. ACKNOWLEDGES that Copernicus Sentinel satellites, in polar orbits, together with Copernicus contributing missions, already bring a valuable contribution in the Arctic region; NOTES that the six Copernicus thematic services answer to the user needs in the fields of atmosphere monitoring, marine environment monitoring, land monitoring, climate change, emergency management and security;

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<sup>7</sup> doc. 9898/18.

6. RECOGNISES that there are still gaps in the monitoring capacities and services, including high resolution greenhouse gas monitoring and climate services, and thus WELCOMES the evolution of Copernicus, to address in particular the objectives raised in the EU Arctic Policy and to ensure operational, reliable, stable and continuous monitoring of key variables, including Arctic sea water temperature and salinity, precipitation, changes in fresh waters, sea-ice extension and greenhouse gas levels, such as CO<sub>2</sub> and methane and the possible development of dedicated Copernicus missions and services, based on the ESA architecture review and a decision by the Commission in 2021 as well as on the customary user requirement analysis;
7. RECOGNISES the availability of a vast quantity of Earth observation data, including of the Arctic region, and WELCOMES their exploitation in order to develop new downstream applications and services fostering the European competitiveness, in particular SMEs, and spin offs;
8. NOTES that due to the specific circumstances and vastness of the Arctic area, accurate and safe navigation for different means of transportation as well as for search and rescue are vital, UNDERLINES that Galileo provides very accurate positioning and timing data for the Arctic region as well as Search and Rescue capability and RECALLS that the Arctic needs should be considered when developing the future services of Galileo, including the Galileo High Accuracy Service (HAS).
9. RECALLS the importance of synergies between Galileo and Copernicus for safe transport operations, economic activities and environmental monitoring, meeting the needs of users located in the Arctic region and ENCOURAGES the Commission, the European GNSS Agency, ESA, EUMETSAT and the other Copernicus entrusted entities, according to their respective missions, to make use of such synergies when developing “multi-dimensional” (positioning/Earth observation/satellite communications) applications, products and services;

10. ACKNOWLEDGES that although the EGNOS services were extended in March 2019 to cover most of the EU Northern area in the Arctic, there are still gaps in service level and URGES the Commission to ensure, that EGNOS services are provided for the territory of all Member States geographically located in Europe, in line with the applicable legal framework, as soon as possible;
11. NOTES that space weather may cause danger to space-based and ground-based infrastructure leading to potential disruption of the smooth functioning of society in the Arctic, affecting both local communities and other activities in the Arctic (disruption of satellite navigation and communication impacting polar flights, disruption of power grids); ENCOURAGES the Commission, within the Space Situational Awareness (SSA) component of the EU Space Programme, to enhance the observation and understanding of space weather events, allowing to prepare for and prevent their effects.
12. STRESSES that lack of terrestrial communication systems in the Arctic region means that space infrastructure will play an increasingly important role in guaranteeing reliable communications and high speed network connectivity; NOTES that availability of continuous satellite communications capacity in the Arctic still has gaps and that such connectivity gaps have consequences for the Arctic region in adapting to an increasingly digital society and economy; ENCOURAGES the Commission to further analyse how this capacity can be developed ensuring a coherent approach across the components of the EU Space Programme; NOTES that in the future GovSatCom component of the EU Space Programme could provide solutions for the needs for secure communication for public authorities in the region, in particular as regards communication associated with search and rescue;

13. NOTES that meteorological weather prediction services in the Arctic can be further improved and ENCOURAGES Member States, ESA, EUMETSAT and ECMWF<sup>8</sup>; to further analyse those needs, possibilities and efficiency to promote the development of such services, where relevant also making use of existing and potential future Sentinel observations.
14. RECOGNISES that research, development and innovation for space and the Arctic is encouraged and deployed through relevant Union programmes, such as Horizon Europe, including international cooperation with third countries;
15. ENCOURAGES the Commission and the European GNSS Agency to actively collaborate with ESA, EUMETSAT and other Copernicus entrusted entities, according to their respective missions and avoiding unnecessary overlaps and duplication, together with their international partners and in particular with local communities and indigenous peoples, taking into account needs of the users, to foster space solutions for a sustainable Arctic;
16. RECOGNISES that the opportunities provided by New Space can foster the provision of new space-enabled services and solutions for the Arctic needs and ENCOURAGES the Commission and the European GNSS Agency together with ESA to actively enhance such opportunities according to their respective missions and avoiding unnecessary overlaps and duplication;
17. RECOMMENDS that the Commission and the High Representative consider updating the 2016 Joint Communication to take account of the new challenges and opportunities, including as regards space solutions, in the Arctic, and the growing international interest.

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<sup>8</sup> European Centre for Medium-Range Weather Forecasts.