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Subject: Use of satellite data, in particular from Earth Observation constellations, for civil protection and crisis management
- Council conclusions (23 May 2025)

Delegations will find in the annex the Council conclusions on *Use of satellite data, in particular from Earth Observation constellations, for civil protection and crisis management*, approved by the Council at its 4097th meeting held on 23 May 2025.

**COUNCIL CONCLUSIONS ON THE USE OF SATELLITE DATA, IN PARTICULAR
FROM EARTH OBSERVATION CONSTELLATIONS, FOR CIVIL PROTECTION AND
CRISIS MANAGEMENT**

THE COUNCIL OF THE EUROPEAN UNION

RECALLING

- A. The Council conclusions of 28 May 2021 on ‘New Space for People’¹, which recognised the new opportunities created by the availability and accessibility of high resolution data to foster the convergence of Earth observation and artificial intelligence (AI) in order to improve the delivery of solutions to non-technical users and thus provide benefits for European citizens;
- B. The Council conclusions of 10 June 2022 on ‘Copernicus by 2035’², which underlined the importance of Earth observation data as a critical asset in supporting EU security, autonomy, and resilience, recognising the new environmental challenges and stressing the importance of the inclusion of new digital technologies in the space security services and capabilities, including AI, and which confirmed Copernicus as a civil, operational, user-focused EU-led programme, based on an open data policy, in support of the Green Deal, the digital transition and civil security;
- C. The Council conclusions of 13 November 2023 on an ‘EU space strategy for security and defence’³, which stressed the need to enhance the use of space for security and defence purposes by better integrating the space dimension into other domains, and welcomed the assessment of options for developing a potential new EU Earth observation governmental service that would complement existing and planned capabilities, respond to identified needs, and take into account existing initiatives;

¹ 8956/21.
² 10070/22.
³ 14512/23.

- D. The Council conclusions of 23 May 2024 on ‘strengthening Europe’s competitiveness through space’⁴, which highlighted the growing importance of space in many socio-economic challenges and policies, including the collection of data to better understand and prepare for climate change;
- E. The Council conclusions of 29 November 2024 on ‘the interim evaluation of the European Union’s Space Programme’⁵ which emphasised the need to address the growing threats to the safety and resilience of the infrastructure supporting critical EU services, including space-based assets, in view of increasing risks, including those related to cybersecurity;

I. Introduction

1. RECOGNISES the dynamic development of space technologies, in particular Earth observation constellations, and ACKNOWLEDGES the significant potential of a coordinated use of satellite data and services to increase resilience; such data and services could provide further critical support to Member States and Union-level responses in strengthening crisis management frameworks, enhancing citizen safety, and anticipating and addressing both natural and human-induced threats; RECALLS in this regard the need to fully respect Member States’ competences, including on national security and defence, and their sovereign decision to share sensitive space data;
2. RECOGNISES the existing programmes and instruments that support crisis management and civil protection, including the Copernicus services, and SUPPORTS their further development; ACKNOWLEDGES that while artificial intelligence (AI) in Earth observation is advancing rapidly, its capabilities remain unevenly distributed across sectors, and human expertise remains critical for preprocessing, validation, and decision-making;

⁴ 10142/24.

⁵ 16128/24.

3. UNDERLINES the need to increase cooperation between Member States and with the EU and leverage existing or planned capabilities, including national infrastructures and projects, utilise commercial data, and eventually develop new solutions, wherever appropriate, for the efficient collection, processing, analysis, exchange and distribution of satellite data from all available satellites, both public and private, in particular Earth observation satellites, such as Copernicus satellites, in the face of increasingly complex challenges posed by climate change, natural disasters, and human-induced and humanitarian crises, including migration, which impact stability and security within Europe and beyond;
4. HIGHLIGHTS the importance of the application of AI, which already enhances threat identification, threat prediction and the real-time monitoring of crisis events, thus contributing to Europe's resilience and preparedness; RECOGNISES the need for capacity building, the broad dissemination of Earth observation data for territorial and crisis management, and tools to enable more efficient user uptake by reducing technical barriers and complexity, including via the use of AI to improve decision-making and facilitate real-time situational awareness in crisis response scenarios; and WELCOMES in this regard the work undertaken within the Copernicus Data Space Ecosystem;

II. Benefits of a coordinated use of satellite data for resilience and preparedness

5. RECOGNISES that coordinated, near real-time access to satellite data, including high resolution satellite data, calibrated to the specific needs of potentially threatening events, enables the EU and its Member States to respond more swiftly to crisis situations, such as natural disasters, environmental hazards, and public health threats; the ongoing and further development of new space systems, in particular, Copernicus and Member States' and commercial Earth observation constellations in Europe, represents an opportunity to further coordinate activities, reduce latency and integrate data from various High Altitude Platform Stations, long-duration atmospheric balloons, drones and satellites, resulting in a rapid provision of operational information and an increased revisit time, which is essential for early warning and emergency response in cases of large-scale wildfires, floods, and earthquakes;

6. NOTES that space-supported systematic environmental monitoring allows for the forecasting, early detection and assessment of hazards and of environmental risks, including in areas sensitive to climate change or natural disasters, directly enhancing citizen protection and safeguarding critical infrastructure and economic resources and assets;
7. ACKNOWLEDGES the significance, as well as the underused potential, of satellite data in identifying and tracking risks, including potential economic damage, environmental pollution, natural hazards including floods and wildfires, the degradation of land, forests and natural resources, irregular migration flows, public health issues and other phenomena affecting the quality of life within the Union; UNDERLINES that regular and precise updates on environmental changes support preventive measures, ensuring that Member States are better prepared to protect citizens' well-being at local and regional levels, and WELCOMES the crucial enabling role of the Copernicus component of the EU space programme, as an Earth observation system under civil control, for global environmental monitoring and safety, including disaster management; HIGHLIGHTS the importance of synergies with other EU space initiatives in that regard, including the components of the EU Space Programme, the Union Secure Connectivity Programme, the Destination Earth initiative and dual-use projects, such as the potential future Earth observation governmental service; TAKES NOTE of relevant European Space Agency programmes, including those supporting crisis management, environmental monitoring, and advanced Earth observation capabilities; ACKNOWLEDGES the existing capabilities of commercial constellations; and HIGHLIGHTS the need to avoid overlaps and ensure full complementarity to further strengthen Europe's resilience and preparedness;
8. STRESSES that the coordinated management of space data requires and fosters cooperation across borders and between various actors at Union and Member State levels, enabling mutual support and solidarity in response to crises of both European and global dimensions, particularly those involving shared natural and human-induced threats;

- 9 NOTES the support provided by the Copernicus Security Service to security users with operational capabilities in border surveillance, maritime surveillance, and support for EU external and security actions, as well as the support provided by the Copernicus Emergency Management Service to civil security users and the Union Civil Protection Mechanism; and TAKES NOTE of the existing commercial near real-time services for security;

III. The use of AI in satellite data analysis for resilience and preparedness

10. RECOGNISES that AI plays an increasingly essential role in the rapid processing and analysis of large datasets from satellite observations, enabling the automated classification of at-risk areas and the identification of patterns and anomalies, and that the integration of satellite and supplementary data, in particular imagery acquired from High Altitude Platform Stations or drones, significantly enhances the operational value of the resulting information; NOTES that AI applications contribute to faster decision-making processes and a more effective allocation of resources, which is crucial in high-stakes crisis scenarios;
11. HIGHLIGHTS the importance of machine learning algorithms and Digital Twins in forecasting potential crises, such as floods, fires, droughts and migratory flows as well as multi-hazard and cascading crises, as the analysis of historical satellite data and long-term trends by AI enhances the capacity to predict and model anticipated crises that could impact the safety and well-being of EU citizens and the resilience of European societies; NOTES the role played by the Commission, the EU Agency for the Space Programme, the European Space Agency and other entrusted entities that implement Copernicus, including the European Organisation for the Exploitation of Meteorological Satellites, the European Environment Agency, Frontex, the European Maritime Safety Agency, the European Union Satellite Centre and the European Centre for Medium-Range Weather Forecasts and Mercator Ocean International, as well as national operators, in supporting Member States in the processing, analysis, and distribution of this data, providing researchers, policymakers, and industries with actionable insights for informed decision-making in high-stakes situations;

12. LOOKS FORWARD to the implementation and enforcement of the AI Act⁶ as regards AI solutions in satellite data analysis, in particular a rigorous adherence to data privacy and security standards; in this context, UNDERLINES that AI solutions must be subject to a rigorous regulatory framework including testing, evaluation and validation to ensure reliability, accuracy, and operational effectiveness in crisis management applications, for instance to safeguard the integrity of data against emerging threats such as deep fake geography imagery;

IV. Challenges and recommendations

13. UNDERLINES that, while satellite data infrastructure is being developed, it is important to ensure that it is integrated into or interoperable with existing systems and that standardised data formats and exchange procedures are used, as the effective use of satellite data relies on interoperability between the Union and Member States' systems and accessible shared resources; therefore, RECOMMENDS that the relevant Member States use existing benchmarks and standards and, if necessary, establish unified standards and supporting initiatives aimed at harmonising procedures while enhancing the accessibility and uptake of space data outputs across the Union;
14. STRESSES the importance of protecting satellite data collection and processing systems against cyber threats to safeguard critical infrastructure and ensure the availability and integrity of data and the continuity of data access, and CALLS FOR the implementation of solutions that enhance the security of sensitive data and actively monitor potential risks to mitigate possible incidents or attacks, taking into account the requirements of the Union's cybersecurity legislation as applicable to the space sector, including the NIS2 Directive⁷;

⁶ Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act), OJ L 144, 12.7.2024, p. 1.

⁷ Directive (EU) 2022/2555 of the European Parliament and of the Council of 14 December 2022 on measures for a high common level of cybersecurity across the Union, amending Regulation (EU) No 910/2014 and Directive (EU) 2018/1972, and repealing Directive (EU) 2016/1148 (NIS 2 Directive), OJ L 333, 27.12.2022, p. 80.

15. UNDERLINES the importance of Earth system (geosphere, biosphere, cryosphere, hydrosphere and atmosphere) research, development and training activities in advanced technologies, such as big data processing, the integration of satellite and aerial data, machine learning, and predictive modelling to exploit AI's full potential to enhance resilience and efficiency in satellite data analysis and make full use of high performance computer capabilities and AI factories to support start-ups and SMEs in developing applications using Earth observation data; NOTES that furthering awareness of and education in the use cases of satellite data will increase uptake by relevant stakeholders and STRESSES the need to leverage collaboration between the public sector, academia, and industry to drive innovation in resilience-enhancing solutions and promote demand for Earth observation satellite data;

V. Next steps

16. RECOGNISES the importance of a coordinated use of satellite data, especially from public and private Earth observation constellations and its role in reducing the gaps in information about the Earth; INVITES the Commission and Member States to work towards this approach in ongoing and future actions as it will significantly support resilience and preparedness-building efforts in security and crisis management, thus improving the protection of EU citizens, and foster interoperability and the competitiveness of European operators;
17. WELCOMES the ongoing integration of AI, including machine learning and on-board data processing, to enable more efficient data processing and strengthen predictive capabilities, which is essential given the growing number of challenges and risks with both European and global impacts;
18. HIGHLIGHTS the importance of supporting interoperable satellite infrastructure for data sharing, establishing common standards that allow the integration of data and services from commercial, national and EU-level initiatives, and ensuring the implementation of robust and risk-based cybersecurity measures, and CONSIDERS these conclusions to be a critical step towards enhancing resilience, preparedness, security, and stability across Europe and improving effective crisis management while upholding citizens' rights and ensuring data protection.