

UNLOCKING THE FULL POTENTIAL OF EU SPACE SERVICES

FOR RESILIENCE, DISASTER MANAGEMENT AND CIVIL PROTECTION

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- **Space-Based Solutions**
for a safer and more resilient Europe
- ◆ **Operational Uptake**
to increase impact where it matters
- **Innovation and Industrial Competitiveness**
to build Europe's future capabilities
- ◆ **Coherence and Cooperation**
across EU policies and instruments





Unlocking the full potential of EU Space Services
for Resilience, Disaster management and Civil
Protection
Policy Message Paper
Space Y, July 2026





EXECUTIVE MESSAGE

The key challenge is no longer technology availability, but operational uptake across Member States.

Europe already possesses a comprehensive set of operational space-based capabilities supporting resilience, emergency response and civil protection, including Copernicus, Galileo/EGNOS, secure communications and space situational awareness capabilities.

Despite this strong technological foundation, uptake across Member States remains fragmented, and space-enabled services are not yet embedded in civil protection and emergency management workflows.

This limits their operational impact at a time when civil protection authorities are under increasing pressure, facing more frequent and complex crises with limited resources.

A more integrated implementation approach is therefore needed, ensuring that all concerned communities are involved throughout the lifecycle of EU space capabilities, from requirements definition to deployment and operational use, and that uptake is systematically monitored and incentivised across Member States.

The next Multiannual Financial Framework (2028-2034) represents a key opportunity to address these challenges.

European policymakers are therefore invited to act on two complementary priorities:

- accelerate the **systematic operational uptake** and integration of existing EU space services into civil protection systems at EU and Member State levels, supported by common implementation pathways;
- reinforce support for **innovation and industrial competitiveness**, ensuring the scalability of future operational solutions.

Combining uptake and innovation is essential to maximise the societal and economic return of EU space investments.

UNLOCKING THE FULL POTENTIAL OF EU SPACE SERVICES FOR RESILIENCE, DISASTER MANAGEMENT AND CIVIL PROTECTION

POLICY RECOMMENDATIONS FROM THE EUROPEAN DOWNSTREAM SPACE SECTOR



Operational uptake by default: embedding space services into civil protection systems



Deployment, integration, training and awareness



Support innovation and industrial competitiveness



Enable effective regulatory frameworks and adoption pathways



Ensure greater coherence across EU space, civil protection, security and defence-related policies to maximise the societal and operational benefits of EU space investments



ANNEX: Examples of use of satellite data from the Space Y members



OPERATIONAL UPTAKE BY DEFAULT: EMBEDDING SPACE SERVICES INTO CIVIL PROTECTION SYSTEMS

- ▶ Strengthen the systematic operational integration of EU space-based services into civil protection, emergency response and resilience systems across the EU, ensuring that space-enabled capabilities are embedded in national and EU-level operational frameworks by default.

This requires moving from ad-hoc use to systematic operational reliance on EU space services in crisis management workflows, supported by EU-level operational procedures and harmonised mechanisms to assess, compare and improve uptake across Member States.

Integration should be supported through:

- **Standardised operational pathways and SOPs** (Standard Operating Procedures) for crisis response across Member States, ensuring consistent implementation and comparability of uptake.
- **Systematic incorporation** into civil protection preparedness planning and operational procedures.

- **Improved interoperability** between EU space services and national emergency systems and infrastructure.

- **Structured interfaces** between EU institutions, the European downstream space industry and civil protection authorities to ensure operational continuity and usability, including the ability to assess the level of integration of space capabilities in emergency response across different levels.

This integration should be reflected in national civil protection planning and supported through EU-level coordination frameworks to ensure consistent operational uptake across Member States.



DEPLOYMENT, INTEGRATION, TRAINING AND AWARENESS

- ▶ Support the deployment of space-enabled solutions through procurement mechanisms, integration into operational workflows, interoperability frameworks and data-sharing arrangements.

Establish structured EU-level actions to directly support uptake by end-users and operational authorities, including:

- **Increase awareness among civil protection authorities of existing operational space-based solutions developed by the European downstream space industry.**

Use EU civil protection coordination mechanisms (UCPM), preparedness networks, and structured dissemination of operational use cases and best practices.

- **Strengthen user-industry engagement and knowledge exchange.**

Use structured dialogue formats, technical exchanges, stakeholder forums and applied workshops bringing together civil protection authorities and space solution providers, including Intergroup exchanges and EU-level resilience platforms.

These should not only support requirement definition but also enable joint assessment of integration progress and, where relevant, the design of corrective and incentive mechanisms linked to operational objectives.

- **Support training and capacity-building programmes for civil protection actors.**

Use existing EU frameworks such as UCPM training activities, DG ECHO preparedness initiatives and relevant EU resilience and innovation programmes.

- **Reduce fragmentation in uptake across Member States.**

Promote harmonised guidance, interoperability requirements and improved coordination across EU funding, procurement and deployment instruments.

SUPPORT INNOVATION AND INDUSTRIAL COMPETITIVENESS

- ▶ Ensure continued support for innovation, industrial development and market deployment within the European downstream space sector.

Downstream companies play an essential role in understanding clients' needs, developing adapted services, and supporting them in their operational use.

Supporting the European industry is essential to enable the development of secured equipment and reliable continued services.

To do so, the competitiveness and scalability of European space capabilities are to be strengthened, in particular through support to SMEs and mid-cap companies.

Priority actions include:

- **Reinforcing innovation-to-market pathways**, including demonstration projects, pilot deployments and procurement mechanisms that facilitate the transition from prototype solutions to operational services.

This also implies supporting the development and scaling-up of Earth Observation and space-based services where operational requirements demand improved performance, including higher revisit times, enhanced spatial resolution and faster data delivery for crisis-response applications. High-Altitude Pseudo-Satellites (HAPS) can complement satellite systems by providing persistent coverage and low-latency Earth Observation data in support of such applications.

- Ensuring that **forthcoming regulatory developments**, including the proposed EU Space Act framework, safeguard the competitiveness of the European downstream industry, with particular attention to SMEs and innovation-driven companies.
- Fostering a **competitive and resilient European value** chain for space-enabled services, capable of responding to growing global demand and supporting EU strategic autonomy in critical domains.
- Promoting the **international deployment and use** of EU space-based capabilities for disaster management and civil protection, extending cooperation to partner countries and global resilience frameworks.



ENABLE EFFECTIVE REGULATORY FRAMEWORKS AND ADOPTION PATHWAYS

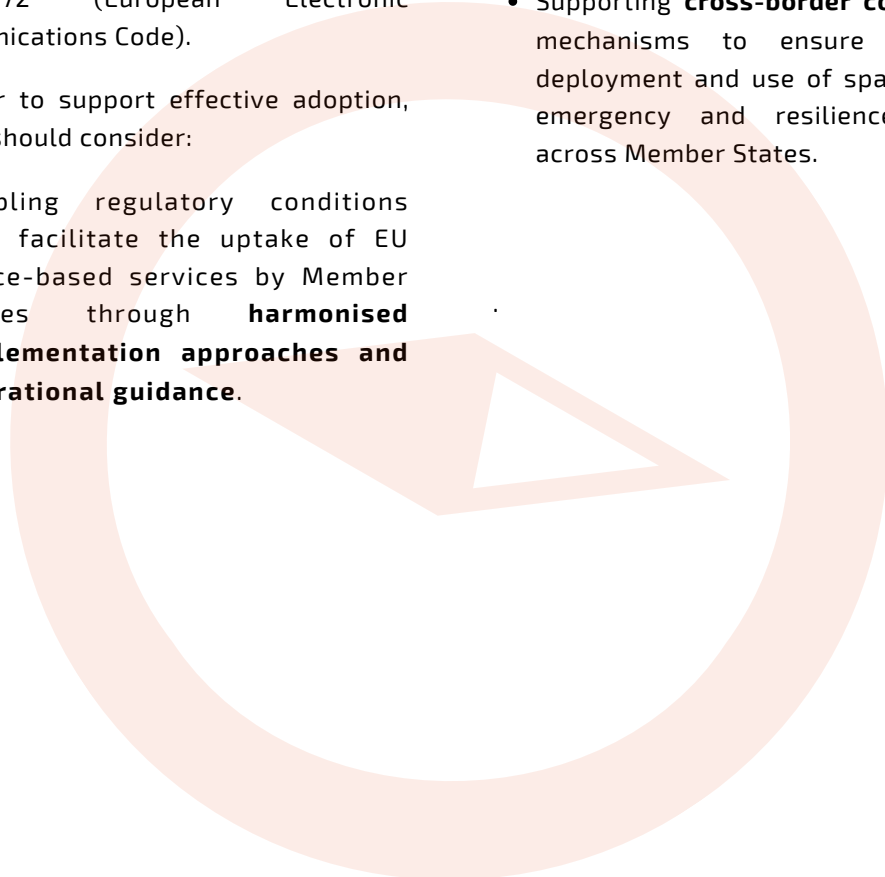
- ▶ Support the development and adaptation of EU regulatory and governance frameworks to enable the systematic operational uptake of EU space-based services in civil protection and emergency management.

This requires strengthened cross-DG coordination within the European Commission, in close cooperation with Member States, to ensure coherent implementation.

Adoption pathways include facilitating the integration and deployment of satellite-enabled services, such as the **Galileo Emergency Warning Satellite Service (EWSS)**, within relevant EU policy frameworks for electronic communications and public warning systems, including the EU Directive 2018/1972 (European Electronic Communications Code).

In order to support effective adoption, the EU should consider:

- Enabling regulatory conditions that facilitate the uptake of EU space-based services by Member States through **harmonised implementation approaches and operational guidance**.
- Strengthening **governance frameworks for data access**, security and responsible use of space-derived information in operational contexts.
- Improving **interoperability** between EU-level space services and national civil protection and emergency management systems.
- Supporting **cross-border coordination** mechanisms to ensure consistent deployment and use of space-enabled emergency and resilience services across Member States.



ENSURE GREATER COHERENCE ACROSS EU SPACE, CIVIL PROTECTION, SECURITY AND DEFENCE-RELATED POLICIES TO MAXIMISE THE SOCIETAL AND OPERATIONAL BENEFITS OF EU SPACE INVESTMENTS

- ▶ EU space capabilities increasingly serve multiple policy domains, including civil protection, emergency response, infrastructure resilience, and security.

A more integrated approach is therefore needed to avoid fragmentation across policy areas and to ensure that investments in space infrastructure deliver tangible benefits for citizens and public authorities.

In this context, the EU should:

- **Promote a coherent dual-use approach** that ensures that space-enabled capabilities developed under EU programmes contribute to both security and civil protection objectives, in line with evolving European resilience and crisis-response needs.
- **Strengthen coordination between relevant EU policy areas** and instruments, ensuring cross-DG cooperation within the European Commission, in close cooperation with Member States and the European External Action Service (EEAS), to support coherent implementation of EU space-enabled capabilities across civil protection and resilience domains.
- Ensure that support for downstream space applications is **mainstreamed** across relevant EU funding instruments **beyond space-specific programmes**, reflecting their cross-sectoral contribution to resilience, security and public services.
- Support a more **integrated understanding of space** as a cross-cutting enabler of public services, rather than a set of isolated sectoral tools.



CONTINUED COOPERATION WITH THE EUROPEAN PARLIAMENT

Space Y welcomes the constructive exchange held with Members of the European Parliament during the meeting of the Intergroup on Resilience, Disaster Management and Civil Protection and the Sky & Space Intergroup on 21 May 2026.

The association remains committed not only to supporting the work of the European Parliament, but also to actively contributing to the follow-up and implementation of the policy directions identified in this paper, in close cooperation with Members of the European Parliament and relevant stakeholders.

Space Y is ready to support this process by providing:

- Operational insights from the European downstream space industry
- Concrete use cases and implementation feedback
- Evidence-based recommendations to improve the uptake and effectiveness of EU space services
- Continued technical and operational engagement to support the translation of policy priorities into deployable solutions and practical uptake pathways.

SPACE Y IS READY TO WORK WITH THE EUROPEAN PARLIAMENT TO SUPPORT THE IMPLEMENTATION OF THE MEASURES PROPOSED IN THIS PAPER



ARTICLES AND POSITION PAPERS FROM SPACE Y/ GALILEO SERVICES

Satellite-based services for a competitive, autonomous, safe and resilient Europe, January 2025

Is Europe Capitalising on the Investments in Space?, Press Release, Space Y, January 2023

Galileo Services evolves into Space Y, Press Release, Space Y, January 2021

Letter to European Commission President Jean-Claude Juncker, Galileo Services, April 2018

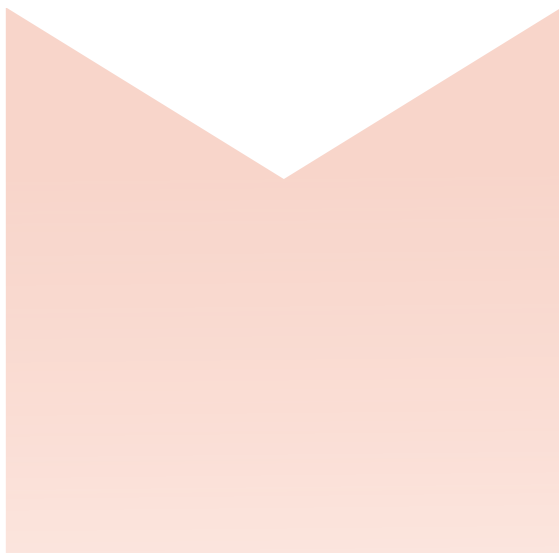
Success of Galileo: Growth of the European GNSS downstream industry, Article, Galileo Services, the Parliament Magazine, Issue 468, January 2018

EU Space Economic diplomacy: Views from the GNSS Downstream Industry, Position Paper, Galileo Services, October 2017

A Space Strategy for Europe – Input from Industry for a Successful GNSS Market Uptake, Position Paper, July 2016

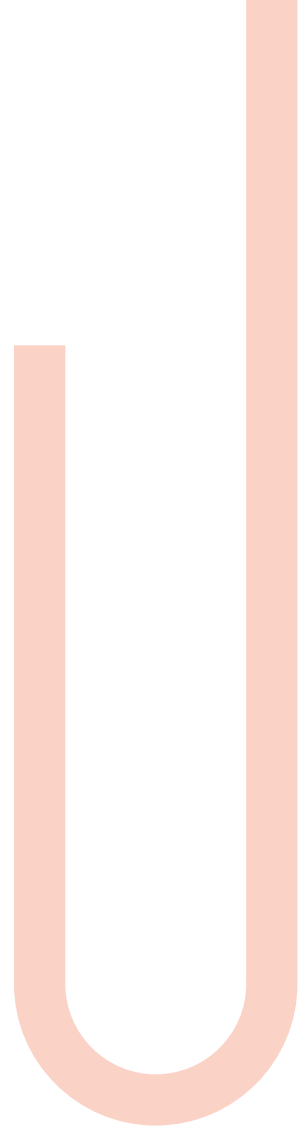
Europe must succeed in the Global Navigation Market Race, Position Paper, Galileo Services, September 2015

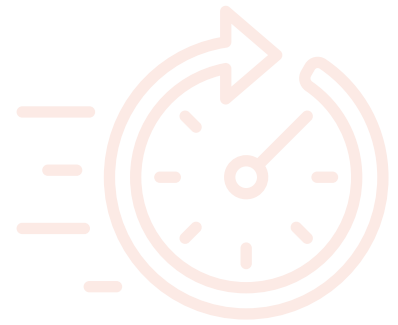
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ANNEX USE CASES

**DEMONSTRATING THE
ADDED VALUE OF
SPACE APPLICATIONS**





ANNEX - USE CASES

DEMONSTRATING THE ADDED VALUE OF SPACE APPLICATIONS TO SUPPORT EUROPE'S RESILIENCE, DISASTER MANAGEMENT AND CIVIL PROTECTION

The following use cases illustrate how EU space-enabled services are being transformed by the European downstream space industry into operational solutions supporting civil protection, disaster management and critical infrastructure resilience.

By combining Earth observation, satellite navigation and satellite communications with advanced analytics and decision-support tools, these applications help public authorities and infrastructure operators improve preparedness, response and resilience across a wide range of crisis scenarios.

From prediction to recovery, EU space assets already enable a complete operational chain for crisis management.

PROACTIVE RESPONSE

BELENOS FIREPREDICT: PREDICTIVE WILDFIRE MODELLING FOR PROACTIVE CIVIL PROTECTION

The Belenos FirePredict Geoportal, currently developed by INECO, is a predictive wildfire modelling platform with a 7-day forecasting horizon. It produces wildfire probability, severity and 2D propagation maps, supporting anticipatory decision-making for emergency managers and critical infrastructure operators.

The service integrates Copernicus Earth Observation data and atmospheric inputs with a Fire Behaviour Prediction engine calibrated to Spanish environmental conditions. Unlike static risk viewers, Belenos simulates fire propagation dynamics, enabling scenario-based analysis and pre-emptive deployment of response resources before ignition or during early development stages.

Belenos is expected to support earlier operational anticipation of wildfire events, enabling preventive deployment of firefighting resources and targeted protection of critical infrastructure, before fire onset or during early propagation phases.

It is also expected to provide legal and technical certainty for decision-makers through formally verifiable modelling outputs, supporting justified emergency measures such as evacuations or infrastructure shutdowns. Once validated in El Bierzo (Spain), the platform is intended to be scalable across Spain and other Mediterranean-climate regions.

POLICY TAKEAWAYS

Belenos demonstrates how EU space-enabled predictive services can support a shift from reactive response to proactive civil protection and resilience management.

To maximise impact, the EU should:

- Support the operational deployment of Earth Observation-based predictive wildfire tools within civil protection authorities.
- Strengthen Earth Observation and atmospheric monitoring capabilities where operational requirements demand higher resolution, faster revisit times and improved responsiveness.
- Use procurement and deployment mechanisms to accelerate the scaling and uptake of predictive wildfire services across Member States.

EARLY DETECTION

PURSUIT: EARLY DETECTION OF MARINE POLLUTION THROUGH COPERNICUS, GNSS AND AI

PURSUIT, developed by INECO, combines Copernicus Earth Observation data, GNSS-based vessel positioning information and artificial intelligence to detect, classify and track marine pollution events.

Through an operational web platform, authorities receive near real-time information on the location of oil spills, their likely direction of movement and their probable origin. By integrating vessel-positioning data, the system can also support the identification of potential polluters and facilitate law enforcement actions.

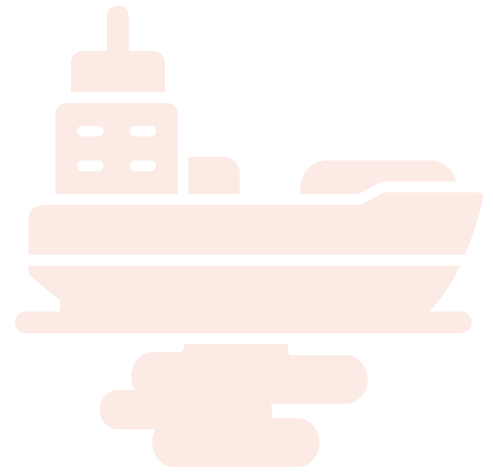
PURSUIT supports earlier intervention, improves situational awareness and enables more effective environmental monitoring without requiring additional equipment from end-users. The service is currently being validated with the Port Authority of Huelva and Huelva Harbor Master's Office, in Spain.

POLICY TAKEAWAYS

PURSUIT demonstrates the value of integrating Earth observation and GNSS data into operational maritime environmental monitoring.

To maximise impact, the EU should:

- Support the wider uptake of Earth Observation services by environmental and port authorities.
- Strengthen integration of Earth observation data and GNSS-enabled Automatic Identification System (AIS) vessel-positioning data into the operational systems of port authorities.
- Ensure that regulatory and procurement frameworks enable scalable uptake of EO-based enforcement and monitoring solutions.



AWARE: ALERTING AND GUIDING CIVIL SOCIETY USING GALILEO EWSS

The AWARE module, developed by FDC within the EU-funded AWARE project, enables for the reception and processing of emergency messages via the Galileo Emergency Warning Satellite Service (EWSS).

The system allows civil protection authorities to disseminate alerts through connected devices in public spaces, including digital panels, sirens and acoustic devices. These urban assets ensure that warnings, instructions and updates can be delivered directly to populations in affected areas;

Tests with national civil protection authorities show that alerts can reach all devices in the target area in less than one minute.

The system improves resilience of emergency communication, ensuring continuity of alerting even when telecom networks fail, and ensuring both indoor and outdoor coverage.

EARLY WARNING

POLICY TAKEAWAYS

AWARE demonstrates how the EU satellite infrastructure can directly enhance civil protection through fast and reliable population alerting.

To maximise impact, the EU should:

- Support the integration and deployment of Galileo EWSS within national public warning and civil protection systems, including compatible dissemination infrastructure across Member States.
- Consider regulatory embedding of satellite-based emergency warning services into electronic communications frameworks (including the EU Directive 2018/1972 - EEC Article 110).
- Strengthen the role of the downstream industry in developing EWSS-compatible alerting systems.

COORDINATED RESPONSE

GEXTRECS: GOVSATCOM-BASED CRISIS COMMUNICATIONS FOR EXTREME EVENTS

GEXTRECS, coordinated by GMV, is a European crisis-management demonstrator that integrates GOVSATCOM with other EU Space Programme components, including Galileo and Copernicus.

The platform enables dynamic allocation of secure satellite communications resources to support emergency operations during extreme events.

It combines resilient connectivity with positioning and Earth observation data to enhance coordination and situational awareness in crisis contexts, even when terrestrial networks are unavailable or overloaded, ensuring continuity of coordination between operational centres and field teams.

POLICY TAKEAWAYS

GEXTRECS demonstrates the operational value of integrated EU space services for resilient crisis management.

To maximise impact, the EU should:

- Accelerate the operational deployment of GOVSATCOM services for civil protection use.
- Support operational platforms that combine satellite communications, navigation and Earth observation services for crisis management.
- Support interoperable crisis communication systems that can be deployed across borders and between authorities.

EMERGENCY.LU: RAPIDLY DEPLOYABLE CONNECTIVITY FOR HUMANITARIAN OPERATIONS

emergency.lu is a rapidly deployable satellite connectivity solution operated by SES TechCom, designed to support humanitarian and institutional operations when terrestrial networks are unavailable.

The service provides fast-deployable broadband connectivity via satellite, enabling field teams, NGOs and authorities to establish communications in disaster zones within hours.

It integrates multi-orbit satellite capabilities (GEO/MEO/LEO) to ensure resilient and flexible connectivity in crisis environments.

emergency.lu enables rapid deployment of communications within 24–72 hours, ensuring continuity of coordination between humanitarian actors and civil protection teams in disaster-affected areas.

It has been deployed in more than 100 missions across over 70 locations worldwide.

HUMANITARIAN AID

POLICY TAKEAWAYS

emergency.lu demonstrates the operational value of rapidly deployable satellite communications for humanitarian and disaster response operations.

To maximise impact, the EU should:

- Strengthen integration of SATCOM solutions into EU and national civil protection frameworks.
- Include deployable connectivity capabilities in civil protection preparedness planning and emergency response procedures.
- Support the role of the European downstream space industry in resilience service delivery.



CRITICAL ENERGY INFRASTRUCTURE MONITORING

The Critical Energy Infrastructure Monitoring service, developed by OHB Digital Solutions, provides satellite-based monitoring for early detection of risks along pipeline corridors.

The service combines automated processing of Earth observation imagery with anomaly detection algorithms to identify relevant surface changes within defined spatial zones.

A web-based application supports visualisation, case management and decision workflows, enabling end-to-end monitoring from detection to operational response.

The service enables continuous monitoring of large and remote infrastructure networks, reducing reliance on costly and emission-intensive field inspections.

It improves operational efficiency by providing timely and automated detection of anomalies, supported by prioritisation tools and traceable case management workflows. This enhances decision-making, increases safety and improves the overall resilience of critical energy infrastructure.

CRITICAL INFRASTRUCTURE

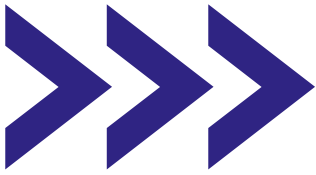
POLICY TAKEAWAYS

This use case demonstrates the role of satellite-based analytics in strengthening monitoring of critical infrastructure resilience.

To maximise impact, the EU should:

- Support the use of EO-based monitoring services by critical infrastructure operators for risk assessment and surveillance activities.
- Promote the use of automated Earth observation analytics for large-scale infrastructure surveillance.
- Support the use of satellite-based monitoring services as part of the implementation of the Critical Entities Resilience Directive (EU 2022/2557).





SPACE Y

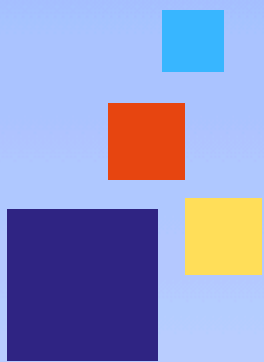
ABOUT SPACE Y

Space Y (former Galileo Services) is the leading international industry association focused on the downstream (i.e. user applications and equipment) side of the European Space Programme.

Federating the voice of the key space downstream industry players in Europe, Space Y's mission is to create value for Europe through the development of applications and the growth of the European downstream space sector.



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