

Executive Summary

The draft EU SPACE ACT (the "Act") represents a landmark initiative toward establishing a comprehensive and harmonized legal framework for space activities across the European Union. It promises enhanced safety, accountability, and the long-term sustainability of space operations. However, the Act also poses potential risks for European competitiveness if regulatory requirements are not carefully calibrated and aligned with established global practices. Excessive compliance costs and fragmented international coordination could undermine Europe's strategic position relative to other space-faring powers that operate under comparatively flexible frameworks that incentivize innovation and commercial growth.

While supporting Europe's sustainability and security objectives under the Green Deal and Secure Connectivity (IRIS²) programmes, the Act should ensure that compliance mechanisms remain proportionate and consistent with the EU Industrial Strategy's goal of fostering agile, globally competitive SMEs. Closer alignment with trusted third country partners is critical to the success of the Act. Specifically, India has emerged as a reliable and strategic space partner, offering cost-efficient launch capabilities, advanced satellite data applications, and a rapidly growing private-sector ecosystem. European companies have already benefited from collaborations with Indian counterparts in both upstream (launch services, satellite manufacturing) and downstream (Earth observation, satellite data, telecom applications) domains. Strengthening these partnerships, while ensuring proportionality and interoperability, will help maximize the positive impact of the Act on global cooperation and competitiveness.

The response advocates for a globally aligned Act that promotes harmonisation, avoids regulatory duplication, ensures proportional and predictable oversight through mutual recognition, supports international STM interoperability, aligns with broader trade and cooperation frameworks, and provides regulatory continuity and transitional certainty for existing operators. Taken together, these principles below aim to ensure that the Act strengthens Europe's leadership in sustainable and inclusive space development while fostering global trust and cooperation.

1. Avoiding Duplication Where Global or National Frameworks Already Exist

The EU Space Act should recognise existing global and national frameworks (ITU, UN-COPUOS, ISO, IADC, FCC, Ofcom, IN-SPACe) to prevent redundant regulation and promote harmonisation and interoperability.

2. Qualified Technical Bodies (QTBs) - Managing Potential Bottlenecks

Mutual recognition of trusted non-EU assessments, proportional review mechanisms, and transparency on fees and timelines are essential to ensure efficiency, fairness, and predictable access for operators. For instance, duplicate technical reviews by multiple QTBs could extend licensing timelines by six to nine months and increase mission preparation costs.

3. Space Traffic Management (STM) - Preventing Regulatory Fragmentation

STM requires global coordination; the EU framework should complement UN-COPUOS, ISO, and IADC efforts and recognise equivalent national STM systems (e.g., ISRO/IN-SPACe) to support interoperability.

4. Alignment with Broader Trade and Cooperation Frameworks

Consistency with recognition mechanisms in existing EU agreements (U.S. TTC, Japan EPA, Korea FTA, UK TCA) will reinforce predictability and strengthen trusted global partnerships, including with India.

5. Transitional and Grandfathering Provisions

Clear transitional and grandfathering measures are needed to safeguard ongoing authorisations, launches, and contracts, ensuring business continuity as the new regulatory regime takes effect.

Introduction

The Act seeks to consolidate Europe's regulatory environment by establishing a unified legal and coherent framework for space activities. The goal is to ensure safety, legal clarity on liability, and environmental sustainability while reducing regulatory fragmentation among Member States.

While the Act marks a significant milestone, the scope and depth of its regulatory obligations must be carefully calibrated. Lighter regulatory constraints for start-ups and small and medium enterprises (SMEs) shall be crucial to maintaining Europe's competitiveness and strengthening its relationships with key third country partners. India, Japan, Australia and United States are particularly relevant third country partners, having demonstrated both technical capability and policy maturity in space governance.

As the Act foresees adoption of equivalence decisions with these trusted third-countries, the European Commission should already proactively initiate discussions with these partners to adopt such decisions, based on bilateral or multilateral agreements, without waiting for final adoption of the Act. Such early engagement would strengthen Europe's global competitiveness while supporting the growth of resilient and trusted partnerships across the international space sector.

A prescriptive authorization framework could unintentionally deter innovation in nano-satellite and in-orbit servicing markets. SMEs depend on short development cycles and iterative design updates; repeated certifications or QTB reviews for every minor modification could freeze agile innovation and divert scarce capital from R&D to compliance.

The EU-India Space Relationship

Europe and India share a long-standing and mutually beneficial record of space cooperation in space exploration and applications. Over the past two decades, the Indian Space Research Organisation (ISRO) has launched

over 30 European satellites using its cost-effective and reliable PSLV system, providing European institutions and private enterprises with reliable access to space.

On the downstream side, Indian startups, such as KaleidEO, Pixxel, Galaxeye are working with European agritech and climate-monitoring firms to provide advanced Earth Observation (EO) data. Airbus has also established enduring industrial collaborations with Indian manufacturers, notably Ananth Technologies, which supplies critical subsystems for European satellites.

Such partnerships demonstrate the interdependence of the European and Indian space ecosystems. The Act should build on this foundation, by facilitating regulatory coherence and reciprocity, rather than risk introducing barriers, that could constrain future cooperation and innovation.

The figures below illustrate the scale and strategic importance of EU-India

India's space economy is valued at approximately USD 8.4 billion (2022) and is projected to reach USD 44 billion by 2033 (In-space Decadal Vision, 2024).

The sector has grown from fewer than five private firms in 2014 to over 200 start-ups in 2024, signalling strong international engagement potential.

EU-India trade in goods reached approximately €120-124 billion in 2023, while services trade totalled €59.7 billion (European Commission, 2024). The EU remains India's secondlargest trading partner.

Over the past two decades, ISRO has launched more than 30 European satellites on its PSLV platform, generating ~€292 million (≈ US\$304 million) in revenue from EU customers (ISRO data via LiveMint, 2024).

Major industrial linkages already exist: Airbus – Ananth Technologies (subsystems manufacturing), Pixxel – EU agritech/climate partners (hyperspectral imaging), and Eutelsat OneWeb (LEO broadband

Potential Risks for European Competitiveness and attractiveness of the EU Space Market

While the Act aims at creating a robust, safe and sustainable space ecosystem, there remains a risk of regulatory overreach. European companies especially SMEs may face higher compliance costs, delays in licensing, and increased administrative burdens compared to their counterparts in the US, India and other major space-faring nations. Such disparities can make EU space market less attractive to global investors and partners in international supply chains.

Ensuring consistency with recognition and equivalence mechanisms embedded in existing EU trade and cooperation agreements - such as the U.S.-EU Trade and Technology Council (TTC), the EU-Japan Economic Partnership Agreement (EPA), the EU-Korea Free Trade Agreement (FTA), and the EU-UK Trade and Cooperation Agreement (TCA) - will reinforce predictability, competitiveness and trusted global partnerships, including with India.

For example, India's PSLV launch vehicle, has historically offered European satellite operators significant cost advantages compared to Ariane or US launch vehicles. If additional layers of EU compliance were to restrict or complicate such cooperation, European firms could lose access to affordable launch options. Similarly, downstream collaborations for data-sharing contracts with European agritech and climate-monitoring firms could face delays if excessive regulatory requirements impede cross-border data flows.

Why Stronger Alignment with Third Country Partners is Essential

The Act should explicitly recognise and build upon existing global and national frameworks (ITU, UNCOPUOS, ISO, IADC, and national regulatory bodies such as the FCC, Ofcom, IN-SPACe) to prevent redundant regulation and promote harmonisation and interoperability. Similar to how the EU recognises third-country adequacy under the GDPR framework, a structured equivalence mechanism for space safety, STM, and cybersecurity would provide predictability and continuity for global operators. International alignment is crucial for Europe to remain competitive and ensuring that both upstream and downstream space sectors continue to benefit from cross-border cooperation and open supply chains.

- Upstream: Launch services, manufacturing partnerships, and technology transfer. Airbus-Ananth
 partnerships show how Indian supply chains and engineering expertise strengthen European
 competitiveness and resilience.
- Downstream: Earth observation data, telecommunications, and navigation applications rely on unrestricted global data exchange. Indian startups like Satsure and Pixxel are becoming key providers of specialized datasets that complement European climate and agritech capabilities.

Without regulatory coherence and mutual recognition mechanisms, EU companies may face competitive disadvantages vis-à-vis third country counterparts, operating under more flexible frameworks. Europe must avoid creating a regulatory environment that inadvertently isolates its own industry or builds new layers of administrative burdens on trusted global partners.

We encourage the European Commission to convene structured dialogues with trusted third-country regulators to define equivalence criteria and practical cooperation pathways ahead of the Act's adoption.

Conclusion

The Act has the potential to be a cornerstone of Europe's future space governance reinforcing safety, sustainability, and accountability across the sector. However, to ensure long-term competitiveness and innovation, the EU must strike the right balance between regulatory oversight and commercial flexibility. Stronger alignment with Third Country Partners, particularly India, is not optional but essential. Such alignment will underpin mutual market access, interoperability, and shared standards of responsible space conduct.

In addition, clear transitional and grandfathering provisions are needed to safeguard ongoing authorisations, launches, and contracts, ensuring business continuity as the new regulatory regime takes effect.

Therefore, building on existing collaborations in launch services, satellite manufacturing, and data applications will ensure that the Act strengthens rather than undermines Europe's global position in the space sector.

EU Space Act – Key Issues For Operators in the Space Industry

The Act's key issues are expanded below to highlight the operational impact, regulatory complexity, and strategic risks for EU and third country stakeholders in the Space ecosystem.

1. Definition & Scope Uncertainty

- Undefined "Establishment": The Act makes "establishment in the Union" the threshold for determining whether operators fall under Union rules, yet the term itself remains undefined. As seen under GDPR, such ambiguity around "establishment" can lead to interpretive uncertainty and, in some cases, litigation. If read broadly, even a minimal commercial presence such as a liaison or sales office could trigger comprehensive compliance obligations. This would create a disproportionate burden on third country operators. The objective to ensure that operators with 'substantive operations in the Union' are covered by Union rules is both valid and necessary. To meet this aim while safeguarding competitiveness, we recommend that the Act clarify "establishment" as referring to 'substantive operational activities, such as mission control centres, manufacturing sites, or technical facilities'.
- Ambiguous Dual-Use Definitions: The Act brings dual-use assets within scope when under civil control and used for civil purposes and excludes those exclusively or temporarily under defence control. While this is a step forward, it leaves Member States retain discretion to determine when assets shift between civil and military use, creating the risk of inconsistent application. For operators of modern satellites that regularly serve both civilian and defence roles (e.g. imaging, navigation), this raises compliance uncertainty and could complicate timely data-sharing for safety functions such as collision avoidance.
- Expanded Supply Chain Coverage: Expanded Supply Chain Coverage: The Act's reach extends to
 every entity involved in EU-linked space projects, not just satellite operators. Launch companies,
 ground segment operators, component manufacturers (even Indian or third-country suppliers),
 and subcontractors who are several layers removed from the end customer may be indirectly
 required to meet EU standards. This means firms can be subject to further EU authorisations' and
 reporting requirements even without direct contractual ties to EU buyers or operators.

2. Authorisation & Compliance Burdens

- Triple Licensing for Third-Country Operators: Third-country operators already require licences in their home jurisdiction. Under the Act, they must additionally register their space objects in the Union Register for Space Objects (URSO), which is maintained by the European Union Agency for the Space Programme (EUSPA), and obtain an e-certificate issued by EUSPA. However, because URSO focuses only on safety, resilience, and sustainability, individual Member States may still require separate authorisations for matters such as liability, insurance, or security. In practice, this can result in three layers of approvals, i.e., home country, EUSPA, and Member State creating procedural duplication, delays, and higher compliance costs. While Union operators benefit from a single national authorisation, third-country space actors face overlapping reviews that risk making the Union market less attractive.
- Rigid Constellation Rules: Under Article 9, a single authorisation for a constellation is only available
 if all satellites are identical, perform the same tasks, and are launched on the same vehicle from
 the same site. This rigid condition diverges from industry practice, which relies on staggered
 deployments, design upgrades, and multiple launch providers. In effect, operators introducing
 even minor design changes or diversified launch strategies would need multiple authorisations,
 multiplying administrative burden and discouraging adoption of innovation and sustainability
 features.

The case of LEO Mega-Constellations

The Act's constellation authorisation framework presents particular difficulties for large LEO deployments. Under Article 9, a single authorisation is only possible if all satellites are identical and launched from the same site and vehicle. This framework does not reflect industry practice, where frequent refreshes, design iterations, and diversified launch strategies are essential. Equally, obligations on collision avoidance are especially acute in dense LEO, where the absence of clear liability allocation between operators risks creating disputes. For third country operators, the challenge is compounded: access to the EU market requires URSO registration, an EU e-certificate, and in some cases additional Member State approvals on top of existing licences from authorities such as the FCC, Ofcom or IN-SPACe. This duplication adds cost and slows service availability, reducing Europe's attractiveness as a customer base.

- Legal Representative Requirement: Third-country operators are compelled to appoint an EU-based legal representative who can interact with authorities, facilitate inspections, and manage compliance communications. This person must be empowered to provide operational access and handle sensitive facility/data requests, increasing both governance complexity and potential local liability for remote operators.
- Supervisory & Enforcement Powers: Authorisations are subject to ongoing supervision. EUSPA
 is empowered to demand information, monitor activities, and conduct on-site inspections even
 outside the EU (with consent). Inspections may expose proprietary or sensitive technologies to
 EU officials, risk conflicts with home-country authorities, and create adverse effects on non-EU
 investment in EU market projects. Will the EU be ready to offer reciprocal rights is also a question
 and given the recent geopolitical situation, this question is more relevant than ever.

3. Standards, Recognition, & Market Barriers

- Equivalence Pathways: The Act theoretically allows recognition of foreign regimes as "equivalent" but sets criteria so stringent requiring near-identity with evolving EU obligations (debris mitigation, cybersecurity, environmental calculations) that few jurisdictions will qualify. Even if granted, equivalence can be revoked at any time, undermining stability for long-term planning and forcing most foreign firms into duplicative compliance systems. In the case of GDPR, the equivalence discussions did not bear the right outcomes, however, learning from experience the European Commission should initiate discussions ahead of the adoption of the Act, where the decision of equivalence is agreed with a third country based on negotiations and compromises.
- Stricter National Laws: Several Member States, notably France maintains space legislation that
 is more demanding than the EU baseline particularly on liability, insurance, and security. Third
 Country operators with subsidiaries in these jurisdictions may therefore face layered obligations:
 compliance with the Act alongside stricter national authorisations. Without clear alignment, this
 dual framework risks duplication, higher costs, and potential inconsistencies in assessments once
 the Act enters into force.

The case of Earth Observation and Smallsat Operators

Earth observation and smallsat operators often SMEs or start-ups face a different set of challenges. Their satellites typically have short lifecycles (3 - 5 years) and low unit costs, meaning that the expenses of Environmental Footprints Declaration (EFD) preparation and qualified technical body certification may outweigh the cost of the hardware itself. For companies with limited compliance capacity, these processes are resource-intensive and risk straining already lean operational models. Any delays in certification or authorisation are particularly damaging in this segment, where speed and service continuity is critical to real-time applications such as agriculture, disaster response, and climate monitoring. Finally, the requirement for manoeuvrability above 400 km, while well-intentioned for sustainability, may be disproportionate or technically impractical for nanosats. A more tailored approach could help align regulatory ambition with technological feasibility.

Union Space Label & Geographic Restrictions: The "Union Space Label" will certify compliance and sustainability, with applications managed by EUSPA and formally approved by the European Commission. While third-country operators are in principle eligible, the Act does not yet clarify how conformity will be assessed or how the process will be organised. If certification depends on designated notified bodies or facilities located only in certain Member States, third country operators may face additional hurdles, creating geographic and procedural barriers. Moreover, it remains uncertain whether Member State procurement authorities and contracting bodies will recognise the label equally when held by third country operators. Unless addressed, such constraints risk limiting the label's value for third-country operators, undermining its credibility as a fair market-access tool and weakening its role as a competitiveness instrument for Europe.

4. Security, Data & Technical Requirements

 Sector-Specific Cybersecurity: The Act establishes a standalone cybersecurity framework for space as a lex specialis to the NIS2 Directive. While the objective of raising resilience is valid, the regime creates significant challenges for smaller operators and third-country operators. Independent assessments are channeled through EU-designated technical bodies, meaning third country operators may need EU representation and EU-accredited testers to access authorisations, adding cost and logistical barriers. In addition, the requirement to inventory "non-Union origin" critical assets effectively cascades EU obligations into third-country supply chains. Estimates already suggest IT budgets may rise by up to 10% to meet these new duties, an impact proportionally heavier on SMEs.

- Exclusive EU Data Sharing: All space data/services offered in the EU must be URSO-registered
 and certified. Data access and integration for strategic third-country partners are limited to rare
 derogations, restricting participation in essential activities such as space traffic management
 or collision avoidance potentially jeopardising safety and cross-border resilience. In other
 words, data sharing should be collaborative, not one-directional, enabling reciprocal access and
 interoperability.
- Space Debris & Safety Mandates: The Act introduces strict requirements for debris mitigation, trackability, collision avoidance, and end-of-life disposal, which may apply not just to operators but upstream suppliers and launch brokers. This can capture Indian or third-country providers in compliance obligations even if their payloads are only transiting the EU market. Space sustainability is a shared responsibility, not a regulatory instrument. Effective STM must balance safety, commercial freedom, and equitable access. Hence, recognising equivalence of standards rather than imposing duplicative requirements would ensure safety without discouraging international collaboration or market participation. We support the goal of safe and sustainable space operations, but emphasise that STM frameworks should avoid parallel or regional systems that fragment global cooperation. The EU could operationalise equivalence through joint STM demonstration projects or reciprocal training between national technical bodies such as IN-SPACe and EUSPA, strengthening interoperability while maintaining regulatory sovereignty. A globally accepted STM regime should evolve through UN-COPUOS processes and multilateral dialogue, ensuring consistency across jurisdictions. Adoption of harmonised international STM norms based on ISO, ITU, IADC, and UN-COPUOS guidelines is must. Until equivalence determinations are made, third-country operators risk undergoing full-scale duplicate STM and CA certifications, delaying market entry.

The case of GEO Operators

For geostationary operators, the Act's requirements raise specific proportionality concerns. Environmental Footprint Declarations (EFDs) are mandated at the authorisation stage, but repeating full EFD submissions for missions with lifecycles of 15–20 years would impose disproportionate administrative and financial burdens. Given the scale and capital intensity of GEO missions, delays in authorisation or certification could jeopardise critical service continuity. Moreover, the Act obliges end-of-life disposal into graveyard orbits While technically feasible, such maneuvers add significant cost; shared or coordinated compliance mechanisms could reduce this burden without undermining sustainability goals.

5. Competitive Impact & Implementation Risks

• Compliance Costs: The Act requires environmental footprint declarations for all missions. The Commission estimates costs of €4,000 - 8,000 per product for footprint calculations and up to €100,000 per product for authorisation, while industry assessments suggest €50,000 - 200,000 per mission depending on scale. For operators managing large fleets, or for GEO missions with 15 - 20 year lifecycles versus nanosats with 3 - 5 years, these obligations risk becoming disproportionate. When added to broader lifecycle security, reporting and inspection costs, compliance could increase overall budgets by 10% or more. Large incumbents can absorb these costs over scale, but smaller firms and new entrants (both in the EU and third country operators) often cannot, making compliance a de facto barrier to market entry and innovation.

- Unpredictable Launch Service Derogations: The Act allows derogations for third country launch service providers only when no viable EU alternative exists, but the process is ad hoc and unpredictable. This uncertainty makes it difficult for third-country launch firms to plan, discourages investment in EU-linked projects, and creates asymmetry in obligations for EU versus third country operators.
- Pre-Launch Certification by Qualified Technical Bodies (QTBs):Pre-launch certification is mandatory, creating potential bottlenecks if accredited QTBs are limited in number. The proposed framework assigns QTBs the responsibility for assessing technical compliance viz., safety, debris mitigation, cybersecurity, and sustainability before authorisation. It could introduce procedural bottlenecks unless carefully managed. High demand from multiple Member States could result in certification queues and launch delays. Additionally, this would lead to duplication of efforts where third country operators may need to repeat assessments already validated under trusted jurisdictions (e.g., IN-SPACe, FCC, Ofcom) adding to the compliance cost and complexity. To mitigate these challenges, the Act should provide for mutual recognition of QTB outcomes, publish clear service-level timelines and fee transparency, and permit simplified or sample-based reviews for low-risk missions and constellations.
- Timeline Risks & Competitive Dynamics: The Act's phased implementation toward 2030 gives
 established operators (e.g., Starlink, Kuiper, Chinese constellations like Qianfan and Guowang) a
 head start in the EU market, while late entrants such as new Indian LEO providers face heavier
 compliance burdens. This risks entrenching incumbents and further marginalizing smaller players,
 reducing competition and innovation.
- Legal Basis Instability: The Act relies on Article 114 TFEU (internal market), instead of Article 189 (space policy), risking future court challenges. Litigation-driven changes could destabilize the legal foundation, risking sunk costs and complicating strategic planning for companies investing in EU compliance.

ABOUT

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SIA-India, the country's leading not-for-profit space sector association, is resolute in advancing strategic initiatives through thought leadership, strong partnerships, and global engagements. Our work spans market research, stakeholder engagement, capacity building, and knowledge exchange with government and international partners — strengthening India's role in the global space ecosystem. We are committed to policy advocacy, developing industry standards, ensuring quality, and accelerating growth by expanding market access, promoting trade, and nurturing start-ups.



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