

PROGRESSIVE POLICY INSTITUTE'S FILING WITH THE EUROPEAN COMMISSION REGARDING THE EU SPACE ACT

The Progressive Policy Institute (PPI) is pleased to provide comments to the European Commission (EC) on the EU Space Act initiative. PPI is a catalyst for policy innovation and political reform headquartered in Washington, D.C., with offices in the United Kingdom, the European Union, and Ukraine. PPI's mission is to generate radically pragmatic ideas for governing. PPI advocates for economic policies that are pro-worker, pro-business, pro-free trade, and pro-innovation.

EXECUTIVE SUMMARY

The United States (U.S.) and Europe have a long history of cooperation in space dating back to the very first international satellite, Ariel-1, launched in 1962 as a collaboration between the U.S. and the United Kingdom (U.K.).¹ The Cold War drove international cooperation in the space domain among like-minded nations for both economic and national security purposes. Pooling academic and industrial strengths allowed U.S. and European nations to advance their capabilities faster.² That continues today with the European Union and the U.S. partnering on pioneering missions from the James Webb Space Telescope to the European Space Agency (ESA) astronaut who flew on the Axiom-3 mission. Beyond these named missions, the space supply chains — and therefore industries — of the U.S. and EU are highly linked.³ Suffice to say, in a world growing more dangerous, the U.S. and EU must advance their cooperation in space to continue advancing economically and from a national security perspective. An eye towards robust collaboration with the U.S. likely sounds quite naive today, given the brash isolationist tendencies of President Donald Trump and his administration, but, by 2030 — the implementation date of the EU Space Act — the U.S. will likely be under different leadership that is more attentive to the importance of the U.S.-EU relationship.

Accordingly, any regulatory regime implemented, regardless of which side of the Atlantic, should continue to allow for international collaboration as well as the growth of the U.S. and EU member nations' space economies. A strong European space sector benefits the entire Western alliance, and PPI endorses the EC's intent to make it more

¹ https://airandspace.si.edu/collection-objects/ariel-1-satellite/nasm_A19751410000

² <https://nap.nationalacademies.org/read/5981/chapter/4#15>

³ <https://ecseco.org/wp-content/uploads/2024/09/ECSECO-WHITE-PAPER-Exports-An-Imperative-for-the-European-Space-Industry.pdf> (p 5)

globally competitive. As the EU looks at updating — and, to a degree, harmonizing — the space regulatory regime for its member nations, it should prioritize encouraging continued innovation, fair rules for international players, and upholding Western values. There will always be tension between these three priorities, but finding the right balance is vital.

Unfortunately, the EU Space Act does not strike that balance. For starters, the legislation would bog industry down with a laundry list of new regulatory requirements that will increase the cost of manufacturing a satellite by 3-10% with additional cost increases likely imposed by new compliance requirements and a set licensing fee that ranges from the hundreds of thousands to millions of dollars on top of those percentage-based increases. These price increases are not minimal and will not make the European space sector more competitive or innovative. Beyond the impact on the European market, the initiative imposes its long list of requirements on any company doing business in the EU, some of which are not yet feasible, and which, in total, amount to a non-tariff barrier. While the initiative provides the option to accept other nations' regulatory regimes as equivalent to its requirements, saving companies in some nations from regulatory double jeopardy, it is unclear whether that option will be exercised. Given the clear, disproportionate targeting of U.S. companies and stated goal of reducing foreign dependencies within the European space sector, it seems unlikely that the U.S. will receive an equivalency determination.

The EC should take a holistic look at what is absolutely necessary for this regulatory regime and dramatically simplify the proposal or, better yet, heed Finland and Sweden's call to skip binding mandates and focus on support and incentive measures. Otherwise, the European Union's space industry is doomed to be uncompetitive globally and will put a drag on America's industry as well — just as China is aggressively pursuing leadership in space for economic and national security reasons.⁴

STREAMLINING IS POSITIVE, BUT EU RULES MAKE IT DIFFICULT

To date, Europe's space market has been highly fragmented with differentiated regulatory regimes and government purchasing actors that limit the continent's ability to compete on a global scale.⁵ EC officials have noted that any company seeking to operate in multiple EU countries must navigate conflicting legal systems, which hinders cross-border activity and places Europe at a disadvantage in comparison to more

⁴ <https://news.asu.edu/b/20250929-chinas-rapid-ascent-space-puts-us-leadership-risk-new-report-warns>

⁵ <https://www.stepto.com/en/news-publications/stepwise-risk-outlook/europes-space-race-push-for-autonomy-to-bring-new-costs-and-divisions.html>

harmonized and bigger global markets like the U.S. and China.⁶ This is well documented and has been most recently raised by Mario Draghi in his report on the future of European competitiveness.⁷

As the global space economy shifts and democratizes, the EU has substantial strengths it can draw on, particularly in the satellite market. The EU exports full systems as well as subsystems and components, which has resulted in a positive trade balance for space. However, this is slipping away.⁸ The Arianespace rocket family presents an anecdotal example. It was once the market leader serving over half of all global demand for launch.⁹ Last year, it served less than one percent of the global market and has not been the global leader in launch since 2017.¹⁰

However, the Arianespace case also teaches another lesson: It never would have become the global leader in rocket launch if a cohort of European nations had not collaborated in a bid to be competitive with the U.S.¹¹ The intent of the EU Space Act — to streamline and promote commerce between member nations' market access — is surely right in principle.

However, under the EU's governing treaty, member states are each responsible for their own national space laws, meaning they will be responsible for implementing the initiative and have the ability to add their own requirements.¹² Differentiation in national regimes would inhibit the coordination between companies in EU nations this initiative seeks to promote, drawing into question the utility of pursuing this initiative. There are also questions about whether the initiative violates the principle of proportionality.¹³ This author will leave legal questions to the competent authorities, but these questions must be settled if the initiative is to realize its promise with regard to harmonization.

⁶ <https://euperspectives.eu/2025/06/first-ever-eu-space-law/>

⁷ https://commission.europa.eu/topics/eu-competitiveness/draghi-report_en#paragraph_47059

⁸ https://commission.europa.eu/document/download/ec1409c1-d4b4-4882-8bdd-3519f86bbb92_en?filename=The%20future%20of%20European%20competitiveness_%20In-depth%20analysis%20and%20recommendations_0.pdf

⁹ <https://www.csis.org/analysis/what-can-we-learn-ariane-future-space-partnerships#:~:text=The%20Ariane%20project%20sought%20to,global%20market%20for%20commercial%20launches.>

¹⁰ <https://aviationweek.com/shownews/paris-air-show/europe-facing-its-lowest-launch-rate-40-years>

¹¹ https://www.esa.int/About_Us/50_years_of_ESA/The_origins_of_Ariane

¹² <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:12012E/TXT:en:PDF>

¹³ https://natlawreview.com/article/eu-space-act-une-revolution#google_vignette

HEAVY-HANDED REGULATIONS HURT INNOVATION AND COMPETITIVENESS

Trimming the initiative's long laundry list of proposed regulations is essential. If implemented as drafted, the EU Space Act will slow the EU space economy by raising barriers to entry for new innovative companies, discouraging modifications to spacecraft designs, and limiting innovation through overly prescriptive regulatory requirements.¹⁴ While the initiative is well-intentioned, like pebbles in a stream, too many requirements will dam the flow of innovation.

The EU Space Act has provisions regulating operators' environmental impact throughout the supply chain, orbital debris plan, maneuverability, cybersecurity practices, design features like docking plates for in-space services, light and radio pollution mitigation efforts, and more. Many of the technical standards companies will need to comport with are vague or unspecified at this time, which introduces uncertainty about what exactly is expected from companies. Where the regulation is clear, the requirements are prescriptive, which reduces innovation in a nascent industry that has not yet landed on standard designs or processes. This regulatory construct in particular rewards smaller companies with consistent products rather than encouraging growth and innovation. Regulations are not inherently bad as they set a level playing field and are implemented to serve the public good, but overregulation, as is envisioned in this initiative, is problematic.

In terms of dollars and cents, the EC itself estimated that indirect cost increases as a result of this initiative would be 3% to 10% in satellite manufacturing, with additional cost increases related to compliance and launch fees. The European Space Policy Institute estimates launch costs could be increased by 20%.¹⁵ There isn't an estimate provided for the impact of compliance costs, though presumably those increased costs will not be insubstantial. This means companies building and launching a satellite will see cost increases above to 23-30%. Competing globally with that kind of handicap would be incredibly challenging.

SOME PROVISIONS AREN'T YET FEASIBLE

Putting aside concerns about the level of regulation, some of the regulations proposed in the initiative are not yet feasible. Examples include the provisions related to light and noise pollution and the space-specific environmental impact.

¹⁴ <https://marketinstitute.org/index.php/2025/08/20/the-eus-space-act-could-slow-the-worlds-space-advances/>

¹⁵ <https://www.espi.or.at/briefs/bold-words-blurred-lines-a-reflective-look-at-the-eu-space-act/>

Satellite operators are working with the astronomy community on light pollution mitigation to reduce interference in ground-based astronomy to the extent feasible. While there is more work to be done, there have been strong steps forward in reducing the brightness of satellite constellations that operators have voluntarily implemented.¹⁶ These efforts should be encouraged. Unfortunately, the EU Space Act instead prescriptively requires a specific brightness threshold that a given satellite cannot breach throughout its lifetime. This threshold — visual magnitude 7 — is incredibly hard, if not impossible, to achieve with current technology throughout the entirety of the mission. Even systems that comport with this threshold during normal operations frequently cannot comply during specific mission phases.¹⁷ Achieving this visual magnitude 7 goal is aspirational — it is a worthy goal, but setting it in stone as a requirement for market access is unwise.

The requirement for a whole-of-mission environmental footprint calculation is similarly unattainable. It requires operators to map out their environmental impact on the ground and in space. Mapping a company and supplier's environmental footprint on the ground is expensive and time-intensive, but achievable. However, in space, there is not yet a way to measure environmental impact as scientists have not quantified the environmental impact of any space activities.¹⁸ There are initial indications that activities like satellites burning up upon reentering the atmosphere and launch and reentry rocket emissions have a negative impact on the environment, but nobody has determined the specific effects of these activities using current satellite and rocket designs. The limited existing modeling on this subject largely assumes the continued use of outdated technologies. It's unclear how the EU expects operators to calculate this information when there is not sufficient evidence to calculate the impacts from. The EC notes that they will provide implementation guidance on this item, but it is challenging to see how this requirement could be implemented given the lack of evidence at hand.

EU SPACE ACT IS A NON-TARIFF BARRIER

Zooming out to look at the global impact of the EU Space Act, the initiative, as drafted, is poised to be a non-tariff barrier to commerce. Non-tariff barriers are often aimed at protecting and growing a domestic industry, but can limit long-term growth of targeted sectors by limiting access to global supply chains and reducing competitiveness

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https://www.unoosa.org/res/oosadoc/data/documents/2025/aac_105c_12025crp/aac_105c_12025crp_22rev_3_0_html/AC105_C1_2025_CRP22Rev03E.pdf

¹⁷ <https://spacenews.com/satellite-constellations-fall-short-of-meeting-brightness-goals/>

¹⁸ <https://csps.aerospace.org/papers/implications-growing-spaceflight-industry-climate-change>

globally, resulting in fewer exports.¹⁹ European companies like Hispasat have raised this concern just as American companies have.²⁰ There are a host of provisions that make it more challenging for foreign companies to operate in the EU than domestic companies, including regulations targeting “giga-constellations” (which are not envisioned to be operated by EU companies), requiring foreign companies to have an EU representative based in a member state, allowing for the EU to inspect facilities in other nations, and the overall regulatory burden required to gain market access addressed above.

The EU Space Act has differing levels of regulations on satellite operators depending on the size of their constellation, with the largest constellations facing the most regulations. Ostensibly, the intention is to ensure regulatory requirements are adapted to company size and maturity as the EU seeks to take action to address orbital debris.²¹ However, no European companies are planning to deploy giga-constellations — only American and Chinese companies have such plans at this time. This category appears almost entirely directed at protecting and promoting the EU market, which is focused on smaller constellations. Targeting larger constellations doesn’t make sense as they typically deploy advanced technology to ensure maneuverability and sustainable access to the orbit(s) they operate in. Large constellations have a strong economic incentive to maintain operations in their orbit. There is merit in allowing companies or research institutions to innovate when they are only operating a single satellite or a handful of satellites, but beyond that, there is no reason to regulate differently based on constellation size.

The requirement for foreign companies to have an EU representative based in a member state and the requirement for EU officials to be able to inspect overseas facilities similarly seek to make it challenging for foreign actors to serve the EU market. Companies comply with legal requirements across the world today and do not require on-site legal representatives to “guarantee an effective cooperation with the competent authorities.”²² It is not clear why this is necessary, as it appears to serve only to increase compliance costs for non-EU companies. Outside of costs, the requirement for EU officials to inspect third-country facilities will create challenges for companies in nations with strong export control regimes like the U.S. Given the dual-use nature of many space technologies, access to facilities by foreign government officials is typically

¹⁹ <https://blogs.iadb.org/ideas-matter/en/the-hidden-costs-of-non-tariff-barriers/#:~:text=Although%20non%2Dtariff%20barriers%20can, costs%2C%20and%20reducing%20over all%20competitiveness>.

²⁰ <https://forum-europe.com/news/2025/all-eyes-on-the-eu-space-act-at-the-european-space-forum-2025>

²¹ https://ec.europa.eu/commission/presscorner/detail/en/ip_25_1583

²² https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13971-EU-Space-Act-new-rules-for-safe-resilient-and-sustainable-space-activities_en

limited by the laws of the third country. This puts companies seeking EU market access in a tough place where EU laws and their countries' laws are in conflict. To be fair, the proposal notes that "access should be based on the agreement of the third country entity and the relevant third country authority," but it is challenging to see how this requirement could be implemented.

Beyond these clear non-tariff barrier provisions that appear explicitly targeted at non-EU companies, the extensive regulatory burden outlined in the proposal overall acts as a non-tariff barrier itself, given the magnitude of regulatory compliance costs companies would incur. Third-country companies may choose to avoid serving the EU market in light of the substantial expense of market access. This makes the entire Western world worse off, as international trade and collaboration make us all stronger.

RECOMMENDED PATH FORWARD

While the EU Space Act was drafted with positive intentions, there are a number of clear issues that must be addressed before it is finalized. At the very least, PPI recommends dramatically simplifying the Act by removing a healthy portion of the envisioned regulatory requirements, including the provisions that serve as non-tariff barriers and those that are not yet feasible.

However, it would be wiser to grant the request of Finland and Sweden, who called for supporting and incentive measures rather than binding directives, if the true goal is to make the EU space sector more globally competitive.²³ It is not clear that the EC will be able to achieve sufficient streamlining of space regulations across states to make the effort of implementing a binding EU Space Act worthwhile given the limited authorities provided in the EU governing treaty.

Maintaining the competitiveness of the European space sector is even more important in light of the national security challenges the continent faces in the space domain. While national security space is theoretically exempted from this regulatory regime, it's challenging to see how that exemption will work in practice, given the dual-use nature of many space products. The EU should take actions to support innovation, global competitiveness, and international collaboration through free trade rather than burdening its industry with heavy-handed regulations that will yield ambiguous, if any, benefits.

²³ <https://spacefinland.fi/documents/60305973/100665366/FI-SE%20non-paper%20on%20EU%20Space%20Act%20March%202025.pdf/7c4016cb-5c2d-8f8f-ed65-1c7f265a149d/FI-SE%20non-paper%20on%20EU%20Space%20Act%20March%202025.pdf?t=1742821271087>