

Space Sustainability Rating: An Incentive-based Approach for a Sustainable Use of Outer Space

Space Sustainability Rating (SSR) is the world's first system rating with a quantifiable metric of sustainability of space missions. The Rating is managed and performed by the Space Sustainability Rating Association, a non-profit Non-Governmental Organization based in Switzerland.

Among its key objectives the Rating promotes the reduction of risks of collisions, as well as space debris mitigation. It is action-oriented, leveraging the industry's best practices, and isn't discrediting space mission operators. Instead, SSR offers actionable guidance on how to improve the sustainability performance and minimize possible negative impacts on both, the mission, and the environment. Additionally, any rating comes with a set of recommendations for the operators on how they can leverage the rating for improvement, and possible practical changes within their operations. The SSR Association is a unique organization that provides support and services to satellite operators in measuring and enhancing the sustainability of their space missions, while providing a tiered rating and incentivizing sustainable behavior in outer space.

SSR provides:

- A rating system informed by transparent, data-based assessments of the level of sustainability of space missions.
- Practical guidance on how to improve sustainability performance and practices.
- A platform for action-focused collaboration centered on the rating system to support research and leverage best practices.

The Rating doesn't create any new rules and standards for sustainable behavior in space, but rather builds on existing legally binding documents, standards, and guidelines such as the LTS Guidelines and the Space Debris Mitigation Guidelines. As such, SSR serves as a supportive mechanism for spaceflight operators and manufacturers. The tiered rating systems it employs makes it also useful for decision-makers, regulators, and investors. Points are awarded according to the positive impact on the space environment - actions that result in more sustainable impact (e.g. satellite de-orbiting, passivation, collision avoidance, explosion risk mitigation, data sharing of spaceflight related data...) receive more points. The tiers are bronze, silver, gold, and platinum. By having a tiered system, operators can publicly showcase their commitment to sustainability without the need to disclose any sensitive information.

Among the key benefits of the SSR are:

- **Enhancing Reputation and Trust:** Obtaining a rating demonstrates a commitment to responsible space practices, which enhances a company's reputation in the industry and among stakeholders. This is crucial for developing trust with customers, partners, and investors.
- **Competitive Advantage:** In a competitive marketplace, a rating can prove how a company differentiates from business competitors and can influence potential clients to choose the rated company for their satellite services or products.
- **Attracting Investors:** Responsible space practices are increasingly important to investors who want to align their investments with sustainable and ethical principles.
- **Regulatory Compliance:** As space becomes more congested, some governments may introduce regulations or incentives related to space sustainability using SSR as a measuring tool.
- **Risk Mitigation and Long-term Viability:** Space sustainability measures contribute to the long-term viability of space operations. Companies with a strong rating are better positioned to operate successfully in space over the long haul.
- **Marketing and Public Relations:** A good sustainability rating can be leveraged in marketing and Public Relations efforts, demonstrating a company's commitment to ethical and responsible practices, which can resonate positively with customers and the public.

Space Sustainability Rating (SSR)
c/o EPFL Space Center
1015 Lausanne, Switzerland

Contact Person: Ms Maruška Strah
Executive Manager
maruska.strah@ssr.space