



SIF Vision 2026

Vision Statement

The Space Infrastructure Foundation (SIF) is committed to building the standards foundation that makes a spacefaring civilization possible.

We lead by convening — bringing together governments, industry, and international partners to advance the open, voluntary consensus standards that enable a free and sustainable space economy. We act with urgency, because the window to build this foundation is open now. And we act with purpose, because without it, humanity's future in space is fragmented, inequitable, and ultimately diminished.

Our destination is Spacefaring Nations — a world in which humanity explores, inhabits, and develops space freely, safely, and sustainably. Standards are how we get there.

Supporting Document: The SIF Vision in Full

1. Why This Vision, Why Now

Space is no longer the exclusive domain of a handful of nations and government agencies. Today, dozens of countries and hundreds of private organizations are designing, launching, and operating in space. This expansion is accelerating.

This growth is an opportunity. But it is also a challenge. As the number of actors multiplies, the risk of fragmentation grows — competing systems that cannot interoperate, proprietary frameworks that exclude emerging space nations, regulatory gaps that threaten safety and sustainability. A crowded space without shared standards is not a thriving space economy. It is a tragedy of the commons.

The decisions made in the next decade will shape the space environment for the rest of this century. Standards developed now — while the industry is still forming — will become the foundation on which everything else is built. Standards not developed now may never be developed, as competing interests harden and consensus becomes impossible.

This is the window SIF is working within. It will not stay open forever.

2. The Destination: Spacefaring Nations

SIF's long-horizon vision is **Spacefaring Nations** — a world, by the end of this century, in which humanity operates freely and sustainably in space. In this future:

- Multiple nations and private actors explore, inhabit, and economically develop space
- Space operations are safe, interoperable, and governed by shared principles
- The benefits of space are broadly accessible, not concentrated in the hands of a few
- Earth and space-based communities are connected by a functioning, open space economy

This is not a utopian abstraction. It is an achievable destination — if the foundational work is done deliberately, collaboratively, and soon.

3. The Mechanism: Open Voluntary Consensus Standards

Standards are the invisible infrastructure of every functioning complex system. The global air traffic system. The internet. International maritime shipping. None of these work because a single actor imposed a solution. They work because independent actors, across nations and organizations, agreed on shared frameworks that made interoperability possible.

The space economy requires the same foundation.

SIF advances **open, voluntary consensus standards** — working within the established hierarchy of standards development organizations (SDOs) that spans professional societies, national standards bodies, and international standards organizations. This system is complex and multilayered, and navigating it effectively requires deep familiarity with how standards are developed, recognized, and adopted at each level.

SIF brings that familiarity. We understand the relationships between organizations at every level of the hierarchy, where authority resides, and how to work constructively within the system to move standards forward. Rather than creating a parallel standards infrastructure, SIF works where standards are already being made — contributing technical expertise, connecting the right participants, and ensuring that critical gaps in the space standards landscape are being addressed by the right organizations.

This approach reflects a core conviction: the goal is not to build SIF's portfolio. The goal is to build the foundation for a spacefaring civilization. SIF pursues that goal wherever the work is happening.

4. SIF's Role: Leading by Convening

SIF does not develop standards alone. No single organization can — nor should. The strength of voluntary consensus standards lies precisely in the breadth of the community that shapes them.

SIF's unique role is to **lead by convening** — identifying where standards are needed, bringing the right organizations and experts to the table, participating directly in standards work within SDOs,

and coordinating across the international and domestic bodies whose recognition gives standards their reach and authority.

This means active partnership with:

- **International standards bodies** — ensuring SIF-developed standards achieve global recognition and adoption
- **Domestic US standards organizations** — anchoring SIF's work in the US regulatory and procurement landscape
- **Government agencies and policymakers** — connecting standards development to the policy frameworks that shape the space environment
- **UN COPUOS and international governance bodies** — aligning standards with the principles of international space law and cooperation
- **Industry organizations** — ensuring standards reflect operational reality and are implementable by the organizations that need them

SIF does not duplicate the work of these organizations. It coordinates, accelerates, and fills the gaps they cannot fill alone.

A particular focus of SIF's convening role — and one of the most persistent challenges in standards development since SIF's founding in 2004 — is ensuring that the right expertise is present in the room. Voluntary consensus standards are only as good as the subject matter experts (SMEs) who shape them. Yet the space industry's most qualified technical experts are also its busiest people, pulled between mission-critical work and the slower, less visible work of standards development.

SIF actively works to lower the barriers to SME participation — identifying the right experts, making the case for their organizations to support their involvement, and designing participation processes that respect the value of their time. Getting the right people to the table is not a logistical detail. It is the foundation of standards quality, and it is central to SIF's mission.

5. International Cooperation and Inclusivity

A spacefaring civilization is, by definition, a shared human achievement. SIF's vision explicitly encompasses all nations — not only the established space powers, but the emerging space nations whose participation is essential to a truly global space economy.

Open standards are an instrument of inclusion. When the frameworks governing space activity are open and accessible, any nation with the will and capability to participate in the space economy can do so. When they are proprietary or exclusionary, the space economy replicates and amplifies existing inequalities.

SIF is committed to standards development processes that are internationally representative, transparent, and accessible — because the foundation we are building is for all of humanity.

6. The Roadmap

SIF works from a reverse-engineered roadmap — beginning with the destination and working backward to identify what must be in place, and when, to make that destination achievable.

2100 — Spacefaring Nations Humanity operates freely and sustainably in space. A functioning space economy serves both Earth-based and space-based communities. Multiple nations participate as full partners.

2050 — A Free Space Economy Essential standards infrastructure, policy, and regulatory frameworks are in place. Space operations are routine and interoperable. International standards govern the full lifecycle of space activity.

2035 — Standards Infrastructure Complete A comprehensive suite of open, voluntary consensus standards is developed, internationally recognized, and broadly adopted across the industry.

2025–2030 — Building the Foundation *We are here.* Technical and management standards are being developed across key domains. International coordination is active. The building blocks of the 2035 infrastructure are being laid now.

This roadmap is a living document. SIF tracks and reports progress against it — because accountability to the vision is as important as the vision itself.

7. The Cost of Inaction

Standards development is quiet work. It does not make headlines. The consequences of failing to do it, however, are significant and lasting.

Without common standards for space operations, the space economy fragments into incompatible ecosystems. International missions require years of custom interface negotiation. Emerging space nations face barriers too high to overcome. Safety and sustainability risks compound as the orbital environment becomes more congested and contested.

The window to build open, interoperable standards — before the industry scales beyond the point where consensus is achievable — is open now. Every year of delay narrows it.

SIF exists to ensure that window is used well.

8. An Invitation

Building the foundation for a spacefaring civilization is not a task for one organization. It requires governments, industry, standards bodies, and international partners working in concert — each contributing what only they can contribute.

SIF invites organizations that share this vision to join us. As members. As working group participants. As partners in the coordinating work that no single actor can do alone.

The building blocks are being laid. The roadmap is clear. The destination is worth reaching.

Join us.

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