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StartUp AND i

YOUR GUIDE TO THE STARTUP WORLD

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ORBITING ON INNOVATION

From nuclear propulsion to quantum satellites, bold engineering is pushing the edge of possibility

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StartUp India

Claiming the Cosmos

Legal Strategies for India's Space Startups

Following the historic success of Chandrayaan-3, India has transitioned from a symbol of lunar wonder to a land of massive business opportunity. As we move from exploration to extraction, the fundamental question for the industry has shifted. It is no longer just "How do we get there?" but rather "Who owns what we find?" For the modern Indian entrepreneur, navigating the vacuum of space requires more than just high-performance engines; it requires a strategic grasp of the laws that govern the stars.

By Adv. Minal Sharma

The foundation of all space activity remains the **1967 Outer Space Treaty (OST)**. Written during the Cold War, its principles still dictate the "rules of the road" for modern startups. For an entrepreneur, two articles define the limits of your business:

- **The Non-Appropriation Principle (Article II):** This article explicitly states that no nation can claim sovereignty over the Moon or any celestial body by means of use, occupation, or any other claim. For a business, this means you cannot "buy" or "title" a plot of lunar land.
- **The "Fishing" Analogy:** Legal scholars often use the "High Seas" analogy to explain how profit is possible without ownership. Much like international waters, while no one owns the ocean, a fishing vessel owns the catch it brings aboard. Similarly, while a startup cannot own a lunar crater, it can own the **extracted resources**, such as Helium-3 or water-ice. This interpretation has been codified by nations like the US and Luxembourg and is the bedrock of the commercial space industry.

The Indian Pillar: Space Policy 2023

The Indian Space Policy 2023 represents a monumental shift from a government-led "command" model to an ecosystem where the private sector is a primary engine of

growth. This policy provides the first clear "rules of engagement" by unbundling the roles of state entities.

The Institutional Architecture

To navigate the Indian sector, an entrepreneur must understand the three distinct pillars:

- **IN-SPACe (The Regulator & Facilitator):** The Indian National Space Promotion and Authorisation Centre is your "single-window" clearing agency. Every private mission, from small satellite launches to engine testing, must be authorised here. They ensure tech meets safety and debris mitigation standards while granting startups access to ISRO's launch pads and testing labs for a nominal fee.
- **NSIL (The Commercial Arm):** NewSpace India Limited acts as the commercial face. It is responsible for transferring "mature" ISRO technologies (like the SSLV rocket) to private industry and aggregating demand for satellite communication services.
- **ISRO (The Research Powerhouse):** ISRO is transitioning away from manufacturing "operational" systems to focus on high-end R&D, deep-space exploration, and human spaceflight (*Gaganyaan*). They are now mandated to share archived data and technical "know-how" with the private sector.

Rights of Non-Governmental Entities (NGEs)

The policy formally recognises private companies as NGEs, granting them the legal right to undertake end-to-end activities. This includes establishing private satellite constellations, designing launch vehicles, and operating independent mission control centres. Crucially, the policy provides a commercial loophole: it states that NGEs engaged in the recovery of celestial resources are entitled to "possess, own, transport, use, and sell" those resources.

Strategic Startup Paths & Legal Contests

The transition from exploration to extraction creates high-value "Legal Arbitrage" opportunities, operating under supportive domestic policies while global rules are still being debated.

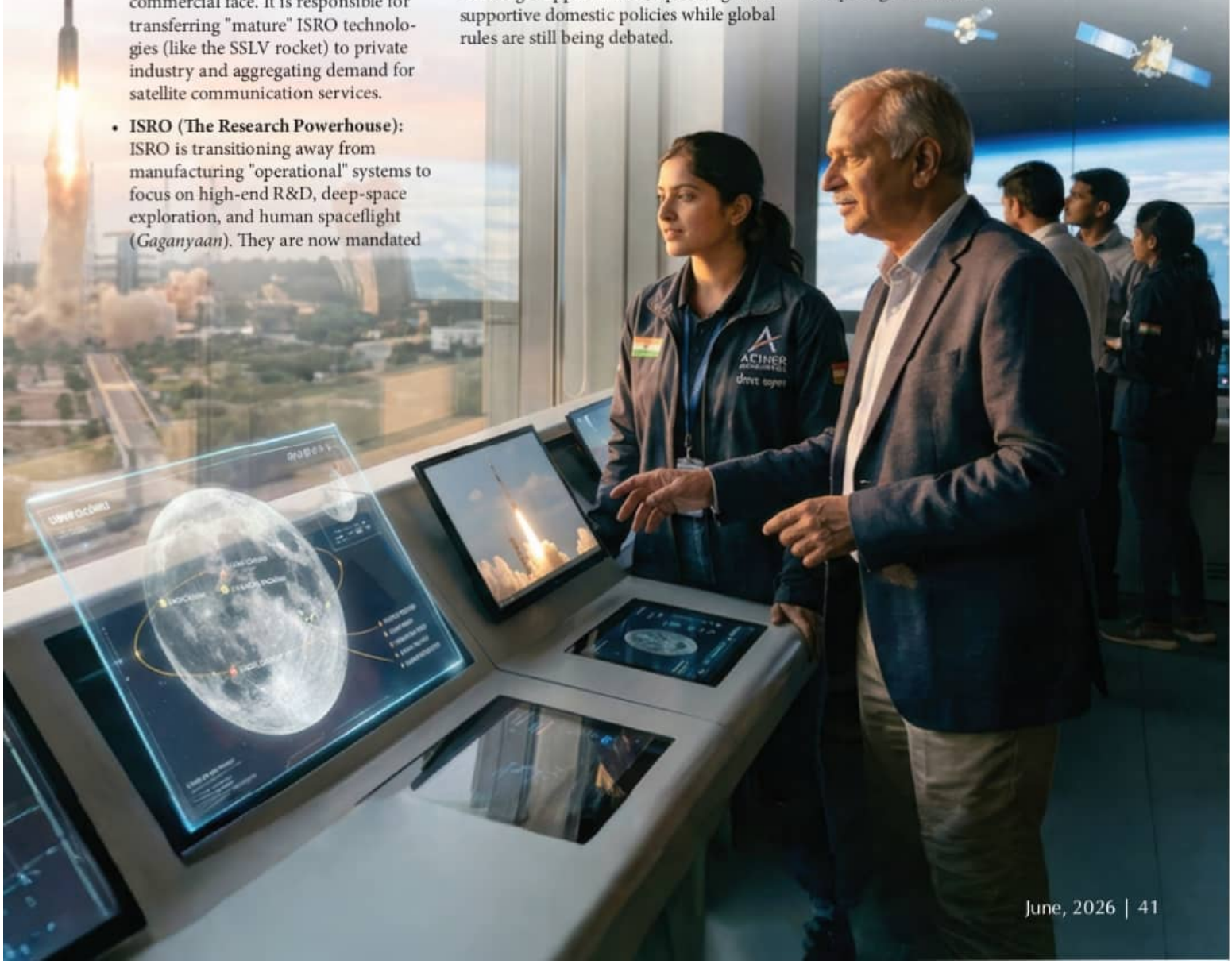
A. Lunar Resource Extraction (Water-Ice)

Water-ice is the most valuable lunar resource because it can be processed into liquid oxygen and hydrogen for rocket fuel, creating "lunar petrol pumps."

- **The Legal Contest:** Defining the transition from "common heritage of mankind" to "private property."
- **The Strategy:** Focus on In-Situ Resource Utilisation (ISRU). International law is currently more lenient toward resources consumed *in space* to support missions than it is for resources brought back to Earth for sale.

B. Extra-Terrestrial Manufacturing & Construction

Building infrastructure on the Moon using lunar soil (regolith) allows for a unique legal manoeuvre.



- **The Legal Contest (Functional Ownership):** If a startup builds a landing pad and registers it under the Registration Convention, that structure becomes a "registered space object."
- **Safety Zones:** By joining the Artemis Accords, India has embraced the concept of "Safety Zones." These protect your construction site from "harmful interference" (like dust kicked up by a nearby landing), providing de facto security for your investment without technically claiming land ownership.

C. Space Situational Awareness (SSA) & Debris Removal

With over 4,000 new objects added to orbit annually, SSA startups provide the "traffic control" necessary for safety.

- **The Legal Contest (The Ownership of Trash):** There is currently no "law of salvage" in space. You cannot legally touch or remove another country's defunct satellite without permission.
- **The Strategy:** Focus on tracking and compliance data. Help firms meet the Debris Free Space Mission (DFSM) goal set by ISRO for 2030 by providing collision-avoidance software and "graveyard" disposal plans.

The "Dual-Use" Tightrope: SCOMET Compliance

Space technology is inherently "dual-use", a high-resolution camera for crop monitoring can also be used for military surveillance.

- **SCOMET Licensing:** The export of sensitive technology is regulated under the SCOMET (Special Chemicals, Organisms, Materials, Equipment, and Technologies) list. Startups must secure mandatory authorisation from the DGFT before shipping goods or sharing blueprints with foreign partners.
- **Intangible Technology Transfer:** Compliance extends to software, algorithms, and technical training. Without a proper SCOMET licence, a startup risks suspension of export rights or severe legal penalties.

Liability, Insurance, and the "Breakage" Rule

Operating in space carries immense financial risks governed by the 1972 Liability Convention.

- **Absolute Liability:** The Government of India is "absolutely liable" for damage an Indian space object causes on Earth. If your private rover crashes into a foreign base, the Indian government is technically the party held liable.
- **Insurance Mandates:** To manage this risk, IN-SPACe requires startups to maintain robust Third-Party Liability **insurance**. While the Indian insurance market is evolving, founders often collaborate with global reinsurers to distribute these high-capital risks.

Protecting the "Mind" of the Mission: IPR in Orbit

In space, Intellectual Property (IP) is your most valuable asset.

- **Jurisdiction (Article VIII):** Generally, the law of the "Country of Registration" applies to inventions made in space. Indian startups must ensure their contracts state that IP generated on their modules is governed by the **Indian Patents Act, 1970**.
- **Strategic Incentives:** Startups with **DPIIT recognition** can avail themselves of an **80% rebate** on patent filing fees, making early-stage protection of mechanical extraction techniques and proprietary software more affordable.

The First Mover Advantage

The space legal frontier is a hybrid of ancient maritime traditions and 21st-century diplomacy. The Indian Space Policy 2023 has turned the "Final Frontier" into a viable business sector by providing the regulatory certainty required for venture investment.

The message for the Indian entrepreneur is clear: the government will handle the deep science and high-risk exploration, while the private sector is invited to build the infrastructure of the future. The resources of the solar system belong to those who have the technology to reach them and the legal foresight to protect their work. Space exploration revolutionised human lives and still continues to do so. What started as a race between countries has grown extensively in 65 years, with our vast knowledge now encompassing curious details about faraway galaxies as well as previously unknown facts about Earth. Even though the curiosity surrounding space has not changed, the manner of carrying out space activities has.

> **In the last century, the space sector was entirely government-run. However, with the growth in technical confidence and reduction in cost and liability, today more and more private players are venturing into untapped potential in the space sector. This global movement is known as the NewSpace Industry.**

In the last decade, this phenomenon has risen in the Indian market as well. Initially, the Indian space start-up atmosphere was studied. At present there are companies working in a variety of fields, such as launch vehicle development, satellite design, sustainable propulsion technology, satellite imagery, space technology education, etc. The activities of prominent companies such as Agnikul Cosmos, Pixxel, Skyroot Aerospace, and Bellatrix Aerospace were explored. Many companies are collaborating amongst themselves, with ISRO, or with foreign companies for their innovative works.

(The writer has M.Phil, LLM (Criminology & Environmental Law), LLB, M.Com, B.Com, PG Diploma in Cyber Law, IPR, and Insolvency & Bankruptcy. She is the Founder Partner of Sharma & Associates, Bombay High Court. A member at Goyenka Group Legal Aid Centre and Andheri Court. She is also an Asst. Professor at NMIMS University, Mumbai.)