Privatising the Space Sector

What is the issue?

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- Elon Musk's "SpaceX" and its high profile projects have highlighted the increasing significance of the private players in the space sector.
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- This has also opened up debates on the possible horizons of future explorations and the need for regulatory reforms in the sector.
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What was SpaceX's latest milestone?

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- SpaceX recently launched a car into space that is headed towards the asteroid belt with a dummy strapped in the driver's seat.
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- The silliness has indeed managed to capture the imagination of the masses, which could be put to further advance research.
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- The car was launched through the reusable "Falcon Heavy" rocket (currently, the most powerful launcher) from NASA's Kennedy Space Centre.
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- As it is reusable, it has contributed significantly to bring down costs by enhancing launch capacity by 64 tonnes at the low price of merely $90 million.
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- This project is in line with current decadal trend of the increasing role of private sector in space exploration.
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How has the role of the private sector evolved over the years?

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- Private sector companies have operated in the space sector since the 1980s in most of the elite space club countries.
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- In India, despite the various strategic, security and regulatory constrains, a private ecosystem has evolved around the ISRO.
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- But there is a substantial difference between older business models and what Musk and the new-gen space entrepreneurs have been attempting lately.
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- Previously, private were merely contracting with national space agencies to build satellites and subsystems.
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- Contrarily, the current trend is developing entire vertically integrated operations without licensing or purchase agreements with national agencies.
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- This has also triggered diversity in ambitious targets, with Musk envisioning mass exploration and companies like Amazon envisioning space tourism.
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- While most of these targets are indeed overstretched in the current scenario, and involve multiple risks, the vision does indeed hold potential sway.
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What are the new potential areas?

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- Some have argued that liberalising space access to private would unleash a new leap-frog moment in technological progress like the “internet revolution”.
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- Entrepreneurial energy in the sector is already starting to combine, with even start-ups competing for privately conceived projects by larger space firms.
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- The rush to enhance internet connectivity for the masses is also a significant “demand oriented pull factor” for increased commercial interest in space.
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- This is already driving the need to commission massive constellations of small communications satellites in the “Lower Earth Orbit”.
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- Asteroid mining is also another potential area that looks promising, with scope for monetization and disrupting commodity markets.

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How has the regulatory framework shaping up?

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- There hasn’t been much progress in this domain as space activity is still governed by the 1967 Outer Space Treaty.
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- This bars state actors from militarizing or claiming celestial bodies and calls upon them to regulate all private sector activity within their borders.
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- Most countries including the US and India haven’t yet comprehensively understood the evolving trends and regulatory reforms needed in the sector.
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- But Luxembourg is already envisioning as an asteroid mining hub and has passed a law passed recently to establishing the necessary legal frameworks.
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- This might give it the first mover’s advantage and India too needs to urgently capitalise on its private sector’s potential to make significant gain.
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- **India’s Case -** India even lacks an independent body that can create a level playing field for government and private space enterprises.
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- But there are signs of progress, and a few months ago, the “Department of Space” had published a draft “Space Activities 2017 Bill” for public comments.
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- While the bill fails to take the substantially different requirements of various space-related activities on board, it is indeed a start in the right direction.
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- India has the public and private sector potential to exploit first-mover advantage—if it addresses the private sector space race with more urgency.
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Source: Live Mint

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