

## Inspiration4: A New Era of Space Tourism

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From the onset, space-based capabilities were mainly associated with military usage. However, with the passage of time, the rapid increase in the dividends offered by space and related technologies have broadened its scope. Consequently, the civilian applications of space have now overshadowed military applications. From education, communication, agriculture, to sustainable development, civilian uses of space are impacting every facet of human activities.

The tremendous increase in civilian space applications and the associated benefits have led to greater financial investments by the public and private sector. The introduction of private space companies such as SpaceX, Blue Origin, Space Adventures and Boeing in the last two decades have also contributed to the rise in civilian/commercial space activities and services which is evident from investment of [USD 446](#) billion in 2020. According to a report by Morgan Stanley, the space economy will rise to approximately USD [1 trillion](#) by 2040.

Last year, NASA collaborated with SpaceX to send two astronauts to the International Space Station (ISS) and resumed space flights from US after a break of [nine years](#). Similarly, SpaceX is also investing substantially in space tourism which is an extremely exciting area. Their recent venture *Inspiration4*, launched from the Kennedy Space Center in Florida, marks a new era in the realm of space tourism.

The mission comprised four individuals who travelled to space this September on board the SpaceX Crew Dragon. According to Space X, the mission went as high as [575 km](#) above earth which is higher than the position of the ISS and farthest a human has ever travelled in space following the Apollo Moon Program in 1972. The mission remained in space for three days and returned back to Earth on [18 September](#). With a speed of 17,000 mph, the mission circled the Earth approximately every 90 minutes.

The main control over the spacecraft was exercised by the SpaceX team on Earth. Prior to the launch, the crew was given extensive training of approximately six months for the duration of their stay in space. *Inspiration4* was unique in the sense that it was the first time a manned mission was sent to space without any professional astronaut onboard.

Although the cost of the initiative has not been made public, reports suggest that the seats for all the onboard members have cost [USD 200m](#). The initiative was sponsored entirely by Jared

Isaacman, a billionaire American businessman. For this remarkable adventure, he chose three other individuals to travel with him.

Although *Inspiration4* is the first 'all-civilian mission', it is not the first space flight this year. Earlier in the summer, two billionaire businessmen also took flights to space. These flights were short and they were accompanied by professional astronauts. Richard Branson, the owner of space company [Virgin Galactic](#), took a space flight along with some of his employees in July this year. This was shortly followed by the space flight of Blue Origin owner, [Jeff Bezos](#) who took along three other passengers as well.

Several other space flights are already scheduled. There will be two other private space tours in the later part of the year. Roscosmos will arrange a [space flight of two](#) in October. Russian movie director Klim Shipenko will be going to space, along with a Russian actress, to shoot their upcoming film 'The Challenge.' Space Adventures will be organizing a trip for Japanese billionaire Yusaku Maezawa who will [dock](#) with the ISS around the New Year. He will be taking along a film producer to document his experience. Maezawa has also planned another awe-inspiring initiative named [Dear Moon](#) which will comprise of a lunar trip on the SpaceX starship around 2023.

Axiom Space, which is a Houston-based company, is also expected to start off with private space missions around 2023. Dubbed *Axiom Mission 1 (AX-1)*, the mission will comprise four individuals who will travel to space for approximately a week. Three other flight missions have also been planned by Axiom in collaboration with SpaceX. Hollywood actor [Tom Cruise](#) is also expected to shoot some parts of his film in space in collaboration with SpaceX, the details of which have not been revealed yet.

The idea of individuals travelling to space is materializing at an unexpectedly swift pace. *Inspiration4* is a great success for SpaceX and has marked a new chapter in space tourism. Benji Reed, SpaceX's Senior Director for Human Spaceflight programs, in a recent interview stated that a number of potential customers have reached out to them and they are already considering having [six flights next year](#). Hence, space tourism is on an upward trajectory and it is likely that space flights will be more frequent in the future.

However, despite this rapid advancement, high cost remains a major obstacle as space tourism is an expensive enterprise. It is quite evident that for the time being, it will be limited to billionaires who can pay the exorbitant amounts of money to avail this service. However, considering the pace of various private companies, space travel can become slightly more economical at some point.

The proliferation of private companies venturing into space was also inevitable. *Inspiration4* successfully proved the safety standards of SpaceX and demonstrated unseen possibilities. The outcomes will make it less risky for more people to invest in space companies and meet similar standards.

This initiative also highlights the expanding roles of private space companies. They can now directly provide space flight services to individuals for recreational purposes – an idea that seemed far-fetched a few years back. It is likely that private space companies will have an upper hand in space activities rather than governments.

Space has vast opportunities to offer. Besides military usage, corresponding increase in civilian and commercial activities is anticipated. Interplanetary visits, outer space settlements and lunar colonies will become a reality. These developments serve as a reminder for countries who lag in space capabilities that the world is making breakthrough achievements at an astronomical pace. Hence, there is a dire need to pay enough attention to this all-important sector.

Pakistan, which has been lagging behind in this exciting realm, despite an early start, needs to invest seriously in its space sector. It needs to develop a concerted and holistic approach which not only focuses on encouraging/incentivizing the private sector, but also building up a strong knowledge base from the school till university level to reap the maximum benefits from this important domain.

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