IN AN UNCERTAIN ENVIRONMENT,
SMALL SATS ARE THE FUTURE

Cis-Lunar Small Satellites
Expeditions to the Moon and Beyond will eventually become commonplace and set the stage for the exploration of areas well beyond Earth and its neighbors.

On-orbit servicing Small Satellites
The nascent technology of on-orbit refueling is displayed by the satellite below with the refueling apparatus. Though still an infant technology, in-orbit refueling and other on-orbit services may be as common as air refueling tankers are today (an innovation that was brand new a century ago).

Support Small Satellites
These satellites help process and relay data across a wide variety of platforms at various layers. As the technology continues to advance and ensure connectivity and the flow of data around and above the world, support satellites and on-orbit servicing will be a critical piece of that infrastructure.

Mining Small Satellites
The mining of nearby bodies in our solar system is another nascent technology that could be a massive industry in the future as humans make inroads deeper into the solar system. Even though it wasn’t a mining expedition, OSIRIS-REX demonstrated the art of the possible with the seizure of regolith from asteroid Bennu in the asteroid belt, and it provides an example of what can be achieved with additional innovation.

Small Satellites
Small satellites are rapidly proliferating at various orbits (especially the Low Earth orbit layer). There is constant innovation to develop meshed networks and communication capabilities between the satellites, as displayed by the dashed lines. As these capabilities are refined, on-board processing & faster data relays are being developed to move more information as fast as possible.

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