

# MARKET RESEARCH REPORT

Space: Where the Next  
\$1.2 Trillion Will Be Built

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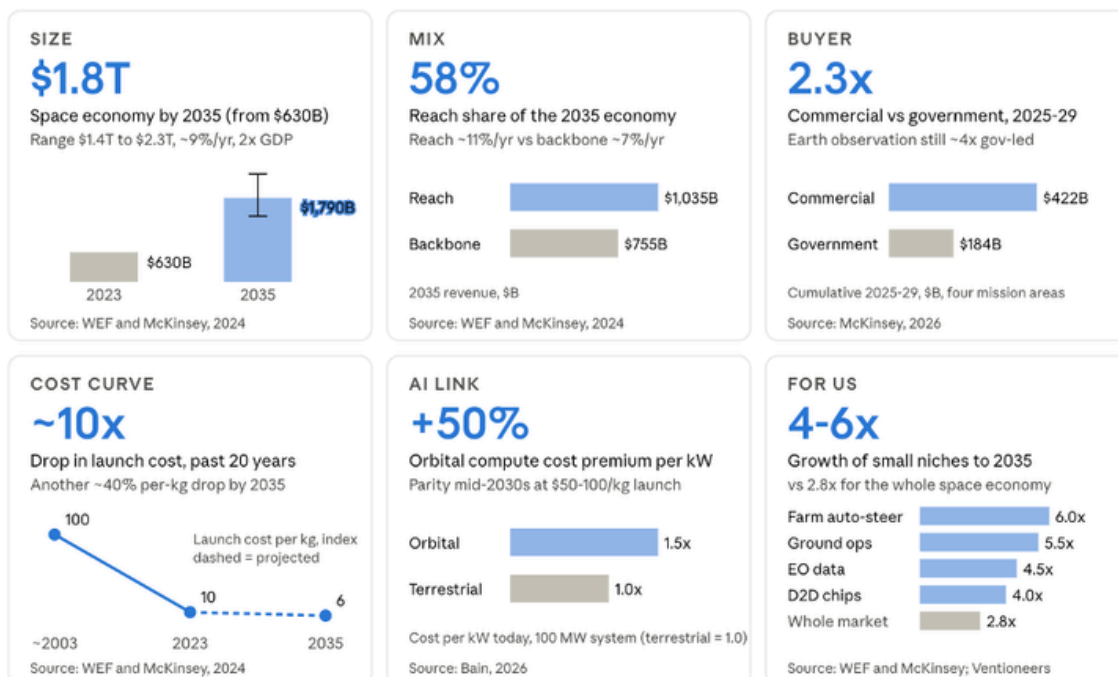
## EXECUTIVE SUMMARY

The global space economy is entering a structural transition. For decades, activity was concentrated around launch services, satellite manufacturing, communications infrastructure and government funded missions. These markets remain important, but the next phase of growth is likely to be defined by a much broader set of companies using space based capabilities to transform industries on Earth.

The World Economic Forum (WEF), working with McKinsey, estimates that the global space economy could grow from approximately \$630 billion in 2023 to \$1.8 trillion by 2035. This implies an additional ~\$1.2 trillion of annual economic activity by 2035.

### Space is becoming a \$1.8 trillion infrastructure layer

The executive summary at a glance: six numbers that frame the opportunity



Sources: World Economic Forum and McKinsey (April 2024); McKinsey (April 2026); Bain and Company (July and September 2026); Ventioneers analysis

Our view: space belongs in a deep tech portfolio as a targeted theme, weighted to orbital compute, space data software, and dual use defense rather than capital heavy launch and constellation bets.

- **Size:** \$630B (2023) to \$1.8T (2035), ~9% a year, about twice global GDP growth. Range \$1.4T–\$2.3T depending on access costs and terrestrial competition (WEF/McKinsey).
- **Mix:** "Reach" revenue that space enables in other industries grows ~11% a year to \$1.0T, overtaking the ~\$755B backbone. Five industries drive over 60% of the increase.
- **Buyer:** Commercial spend is expected to exceed government by two to one or more in communications, launch and navigation over 2025–2029. Earth observation remains government-led, about 4x commercial (McKinsey, 2026).
- **Cost curve:** Launch costs are down ~10x over 20 years, with a further ~40% per-kilogram drop expected to 2035. Cheaper access is what turns new uses, like orbital compute, from science projects into businesses.
- **AI link:** AI infrastructure is power bound: hyperscaler capex could reach \$780B in 2026 (Bain). Orbital data centers cost ~50% more per kW today but could reach parity in the mid 2030s if launch falls to \$50–100/kg.
- **For us:** The best risk adjusted entry points are software and data layers with compounding moats, and hardware niches small enough to be early but growing 4–6x by 2035.

## MARKET SIZING

The base case grows the space economy 2.8x to \$1.79T by 2035, with reach applications growing 3.5x and the backbone 2.3x. Figures are the WEF/McKinsey bottom up estimates, in constant 2023 USD.

| Component                                           | 2023 (\$B) | 2035 (\$B) | Multiple | Implied CAGR |
|-----------------------------------------------------|------------|------------|----------|--------------|
| <b>Total Space Economy</b>                          | 630        | 1,790      | 2.8x     | 9.10%        |
| Backbone, commercial: services & end-user equipment | 183        | 356        | 1.9x     | 5.70%        |
| Backbone, commercial: infrastructure & support      | 22         | 79         | 3.6x     | 11.20%       |
| Backbone, state: civil                              | 59         | 140        | 2.4x     | 7.50%        |
| Backbone, state: defense                            | 66         | 180        | 2.7x     | 8.70%        |
| Reach: enabled by PNT, comms & EO                   | 265        | 942        | 3.6x     | 11.10%       |
| Reach: enabled by defense use                       | 28         | 71         | 2.5x     | 8.10%        |
| Reach: enabled by infrastructure & civil            | 7          | 22         | 3.1x     | 10.00%       |

Source: WEF & McKinsey, 2024

## DEMAND SHIFT: THE COMMERCIAL BUYER ARRIVES

Governments were the anchor buyers for much of the space industry's history. Commercial demand is now expected to lead across several key mission areas. Over 2025 - 2029, McKinsey forecasts \$422B of commercial demand against \$184B from governments (about 2.3x) across four mission areas: communications, launch, PNT, and Earth observation, about 2.3x. That is the single biggest change in space's investability.

| Mission Area                        | Government (\$B) | Commercial (\$B) | Who Leads?       |
|-------------------------------------|------------------|------------------|------------------|
| Communications                      | 35               | 258              | Commercial, 7.4x |
| Launch                              | 44               | 85               | Commercial, 1.9x |
| Positioning,<br>Navigation & Timing | 20               | 59               | Commercial, 3.0x |
| Earth Observation                   | 85               | 20               | Government, 4.3x |

*Source: McKinsey, New space, new rules: Commercial space markets are taking off (April 2026). Cumulative 2025-2029; forecast as of Aug 25, 2025; government includes US and international.*

**What drives each market?** Communications growth comes from enterprise, maritime and direct to device customers wanting coverage and resilience. Commercial launch revenue is expected to reach \$32B by 2035. In navigation, receivers more than double to \$95B and software nearly quadruples to \$25B. Earth observation buyers want resolution, real time analytics and fusion for insurance, trading and energy.

**State money still anchors the backbone:** Government remains ~\$320B of the 2035 total. About 75% of the increase in state spend is national security, ~20% civil science and disaster response, and ~5% new space nations: agencies grew from 40 in 2000 to over 75. Commercial customers can support recurring products and broader customer bases, while government programs can validate technology and provide meaningful anchor contracts. The strongest businesses may combine both. Government can be a valuable first customer in Earth observation, sensing and space domain awareness; dependence on a single contract, however, can leave a startup vulnerable to procurement delays or program changes.

## THE COST CURVE

Falling cost of access is the engine under every forecast here: launch is ~10x cheaper than 20 years ago. The WEF expects another approximately 40% reduction in cost per kilogram by 2035 as reusable super heavy vehicles develop. Deloitte's cited analysis suggests nanosatellites can reach low Earth orbit for less than \$100,000, though actual costs vary by payload, orbit and mission.

| Metric                                  | Value                                                              | Source |
|-----------------------------------------|--------------------------------------------------------------------|--------|
| Launch cost decline, last 20 years      | ~10x                                                               | WEF    |
| Satellites launched per year, 2019–2023 | >50% annual growth                                                 | WEF    |
| Launch cost per kg, 2023 → 2035         | –40%, as reusable super-heavy vehicles take ~70% of launch revenue | WEF    |

| Metric                         | Value                                                                      | Source   |
|--------------------------------|----------------------------------------------------------------------------|----------|
| Annual launches                | ~210 a year 2023–2030,<br>~160 a year 2031–2035<br>(fewer, larger rockets) | WEF      |
| Nanosatellite (1–10 kg) to LEO | under \$100,000                                                            | Deloitte |
| Active satellites              | ~7,000 end-2022 (+44% in one year); LEO could exceed 40,000 by 2030        | Deloitte |
| Satcom data price, 2023 → 2035 | –10%, while demand rises 60%                                               | WEF      |
| Earth observation resolution   | 15 cm, with falling cost per pixel                                         | WEF      |
| Falcon 9 cost per kg today     | ~\$600                                                                     | Bain     |

**Why it matters for venture.** Cheaper launch costs commoditize the launch layer itself while expanding everything above it. Commercial satellite revenue only triples, to \$12B by 2035, because unit prices fall even as volume soars. The margin may migrate toward payloads, ground systems, data processing and downstream companies that use the output. Deloitte frames the same shift as launch moving to an "as-a-service" model, the way cloud democratized IT. The key test is whether a company becomes stronger as launch costs fall, or whether falling costs erode its only advantage.

## AI X SPACE: ORBITAL COMPUTE

The most important new link between space and our core AI infrastructure thesis is compute in orbit. Bain's 2026 analysis describes a demand environment in which hyperscaler capital expenditure could approach \$780 billion in 2026, while power availability, grid interconnection and permitting increasingly constrain data center expansion.

Bain estimates that a 100 MW orbital data center costs roughly 50% more per kilowatt than a terrestrial equivalent today, with launch the major cost driver. At roughly \$600/kg on Falcon 9, launch alone can exceed the cost of the compute hardware. The analysis suggests that launch costs of about \$50–100/kg could bring selected orbital compute economics toward parity in the mid 2030s.

| Factor                             | Today                                                                                | What changes the answer                                                            |
|------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| All in cost vs terrestrial, 100 MW | ~50% more per kW                                                                     | Launch and satellite infrastructure costs fall; mid-2030s parity possible          |
| Launch cost                        | ~\$600/kg on Falcon 9, more than the compute hardware itself                         | \$50 - 100/kg needed; launch cost per unit of compute could fall up to 80% by 2035 |
| Launch cadence                     | 1 GW needs ~1,000 Falcon 9 launches a year                                           | Starship-class payloads of 150–200 t vs ~23 t                                      |
| Operating cost                     | Lower: continuous solar, radiative cooling                                           | Widens if terrestrial operators must self-generate power                           |
| Engineering                        | Radiators, solar arrays and batteries add mass; racks need to weigh ~half of today's | Lighter, more power-dense hardware                                                 |
| Workload fit                       | Inference, not training                                                              | Intersatellite links too slow for tightly coupled training                         |

*Source: Bain & Company, Orbital Data Centers: Beyond the Grid (July 2026). Demand figures above: Bain Technology Report 2026 (September 2026).*

**Signals already in market.** Starcloud, one of our portfolio companies, demonstrated in orbit compute in 2025, and SpaceX filed with the FCC for an "orbital data center system" in January 2026, per Bain. Early demonstrations are encouraging, but commercial scale still depends on the launch cost and cadence milestones described above.

**Our read.** Orbital compute is, in effect, an option on falling launch costs. As launch gets cheaper, access to orbit itself stops being a differentiator. The companies most likely to create durable value are those that also control something scarce: spectrum rights, a thermal or power density advantage, sovereign and defense customers, or proximity to data that is already in orbit. Those advantages compound as launch costs fall. Businesses whose only edge is getting hardware to orbit first are likely to see that edge erode.

## HERE, NEAR, THERE: WHEN EACH FRONTIER BECOMES INVESTABLE

Deloitte's xTech Futures: SpaceTech frames opportunity by distance from Earth. Applied to a ten year fund life, the framework helps separate markets with plausible near term revenue from longer dated optionality.

| Frontier               | What Deloitte includes                                               | Evidence of a market                                                         | Ventioneers fit (our view)                                                                           |
|------------------------|----------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| <b>Here</b> (on Earth) | Novel launch vehicles, spaceports, ground terminals, data processing | 28+ active spaceports worldwide; launch moving to as-a-service and rideshare | Selective: ground software and data processing yes; launch vehicles and spaceports too capital-heavy |

| Frontier                   | What Deloitte includes                                                                                                              | Evidence of a market                                                                                                                                                    | Ventioneers fit (our view)                                                                 |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| <b>Near</b> (Earth orbits) | Satcom, satnav, EO and remote sensing; commercial stations; in-orbit servicing, assembly and manufacturing; debris removal; tourism | LEO could exceed 40,000 satellites by 2030; GNSS market \$220B (2021) toward \$547B (2031); EO \$3B → \$8B (2030) → \$25B (2040); NASA \$545M+ into commercial stations | <b>Core.</b> Highest density of revenue ready, software leveraged companies                |
| <b>There</b> (deep space)  | Lunar return, resource extraction, Mars, human health in space                                                                      | Artemis contracts, lunar regolith sample awards, Chang'e 5 helium-3 samples                                                                                             | Watch only. Revenue still depends on state programs; asteroid mining unproven commercially |

*Source: Deloitte, xTech Futures: SpaceTech (2023), including the market figures it cites. "Ventioneers fit" is our assessment.*

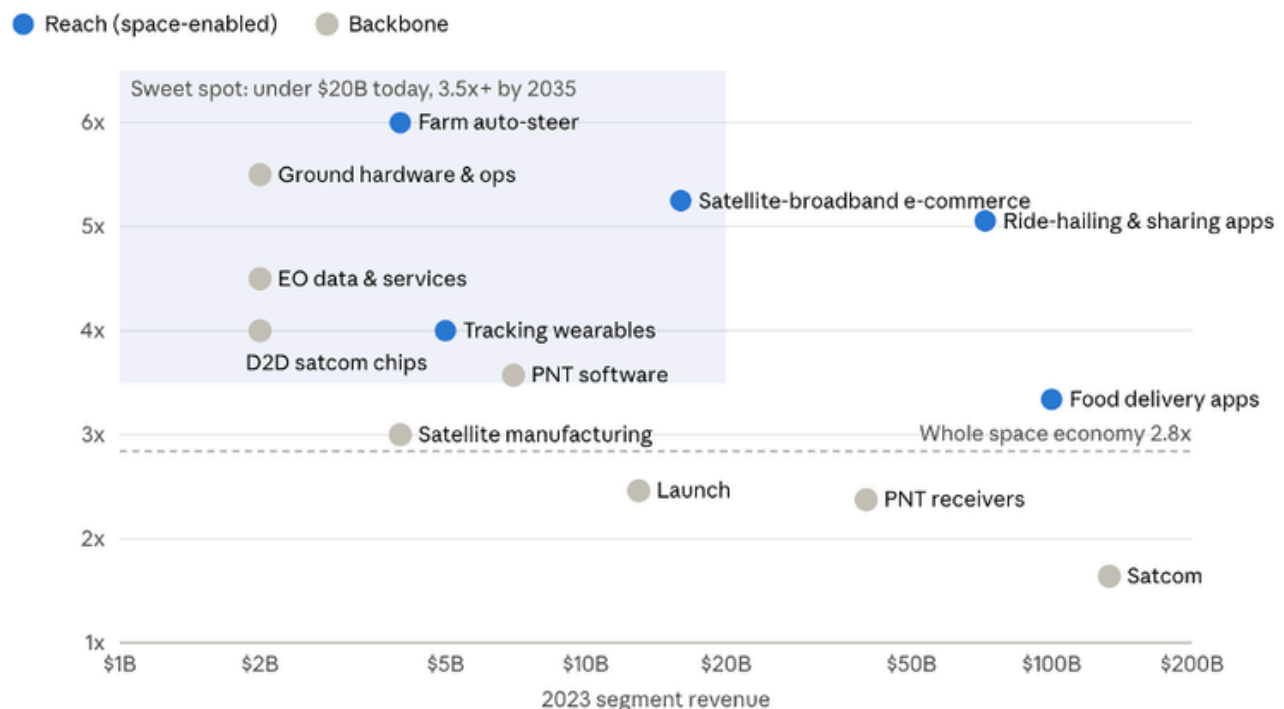
Two Deloitte points worth keeping. First, more than \$250B of private capital has gone into space over the past decade, so the sector is no longer capital starved; selection matters more than access. Second, Deloitte expects the biggest opportunities to sit at the intersections of space with biotech, robotics and energy.

## OPPORTUNITY MAP

The best early stage hunting ground is the top left: segments under \$20B today that grow 3.5x or more by 2035. These are big enough to matter and early enough that no incumbent owns them.

### The venture sweet spot: small segments growing 3.5x or more

Segment size in 2023 (\$B, log scale) vs revenue multiple to 2035. 7 of 13 segments sit in the sweet spot



Source: World Economic Forum and McKinsey (April 2024), Figures 12, 15, 20; multiples and sweet-spot zone by Ventioneers

Three patterns stand out. Ground operations, EO data and D2D chips are tiny today but grow 4 - 5.5x, and all three are software heavy or IP heavy. Reach apps such as ride hailing and food delivery grow fast but are owned by non-space platforms, so they are context, not targets. The largest pools, satcom, PNT receivers and launch, grow slower than the market and favor incumbents with scale.

## RISKS & SIGNPOSTS

The main risk is not that the space economy fails to grow, but that value flows to a few vertically integrated giants and to non-space incumbents, leaving little for venture backed middle layers.

| Risk                             | What could happen                                                                                   | Signpost to watch                                                                                  |
|----------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Vertical integration             | One launch plus constellation player captures connectivity, launch and now compute                  | Pricing of third party payload and rideshare; how open the orbital compute ecosystem stays         |
| Terrestrial substitution         | Better ground networks and antennas cut demand for satcom and navigation (the WEF downside, \$1.4T) | Fibre and 5G build out in rural markets; D2D adoption, which WEF expects to plateau at ~300M users |
| Launch cadence slips             | Super heavy reuse takes longer; orbital compute stays uneconomic                                    | Starship reuse rates, cost per kg, annual launch count                                             |
| Orbital congestion               | Debris and collisions raise insurance and operating costs                                           | Conjunction alerts, debris removal mandates, insurance premiums                                    |
| Security and geopolitics         | ASAT tests, jamming and cyber attacks on satellites and ground stations                             | Defense budgets for space domain awareness; satellite cyber requirements                           |
| Valuation and exit               | Post-SPAC hangover lingers; few liquid exits outside the largest names                              | Secondary pricing, M&A by primes and telecoms, IPO window for space names                          |
| Revenue dependence on government | Programs re-scoped or delayed                                                                       | Share of revenue from commercial buyers in each deal                                               |

## SOURCES

- [Space: The \\$1.8 Trillion Opportunity for Global Economic Growth](#), World Economic Forum with McKinsey, April 2024 (market sizing, segments, scenarios, launch and data-price figures)
- [Space: The \\$1.8 trillion opportunity for global economic growth](#), McKinsey, April 2024
- [New space, new rules: Commercial space markets are taking off](#), McKinsey, April 13, 2026 (commercial vs government 2025–2029)
- [McKinsey and the space sector](#), McKinsey (context only; no figures used)
- [xTech Futures: SpaceTech](#), Deloitte, 2023, and its [overview page](#) (Here/Near/There framework, satellite counts, GNSS and EO markets)
- [New Innovation Is Required to Fund AI's \\$6 Trillion Buildout](#), Bain Technology Report 2026, September 29, 2026. The [report PDF](#) blocks automated access, so figures are from Bain's web version of the chapter.
- [Orbital Data Centers: Beyond the Grid](#), Bain, July 17, 2026 (orbital compute economics)

## ABOUT VENTIONEERS

Ventioneers Capital is an early to growth stage venture firm founded in 2023 by operators with decades of experience in energy, scaling from 0 to 1, industrial technology and technical due diligence. We back bold founders from Seed and beyond (with select pre-seed exposure), writing checks of \$100k to \$1M, and we look for companies with a defensible moat and a credible path to \$1B+.

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