QUARTERLY REVIEW OF GLOBAL PRIVATE INVESTMENT

# GENERATION SPACE INDEX

## Q3 2023

GENERATION SPACE

# WELCOME

Investment into SpaceTech for Q3 continues to show signals of recovery after the decline in the second half of 2022. Deal volume remained largely in line with the previous quarter, however, total investment saw a 39% increase over the previous quarter ($1.6bn in Q3 vs $1.16 in Q2). There was a considerable shift in the distribution of investment between early stage and late- stage deals. Q3 saw 82% of investment into late-stage businesses, as opposed to Q2 with 63%. This shift was primarily spurred on by the return of large growth rounds in Axiom Space, Sierra Space and MapBox.

The return of growth rounds is significant, as large growth rounds were largely absent through the economic uncertainty of H2 22. The return of growth deals suggests renewed investor confidence in the sector.

Investment was highly concentrated in the Beyond Earth category for this quarter, largely because of the top 2 deals; Axiom and Sierra Space. Investors appear to have high conviction in the potential of the in-space economy and are funding the next generations of Space infrastructure through these businesses. Both these businesses are revenue-generating which helps offset some of the risk associated with their long-term capital needs.

M&A within SpaceTech is at all time highs. The deal volume is largely being driven by well capitalized New Space acquirers. However, as with the previous quarter, the highest profile and largest deals have been Corporate M&A and Private Equity deals. This quarter saw the announcement of BAE Systems' acquisition of Ball Aerospace, and KKR's take private offer with OHB.

Overall, the return of growth rounds, increasing M&A and PE activity signals the maturation of the NewSpace economy, as an increasingly established sector.

## Highlights

**$5.6BN**
**invested in last 12 months** ($9.2bn TTM to Q3 22)

**$1.6BN**
**invested in Q3** ($1.2bn in Q2 23)

**220**
**on Seraphim Investment Index** (199 in Q2 23)

**282**
**on Seraphim #Deals Index** (290 in Q2 23)

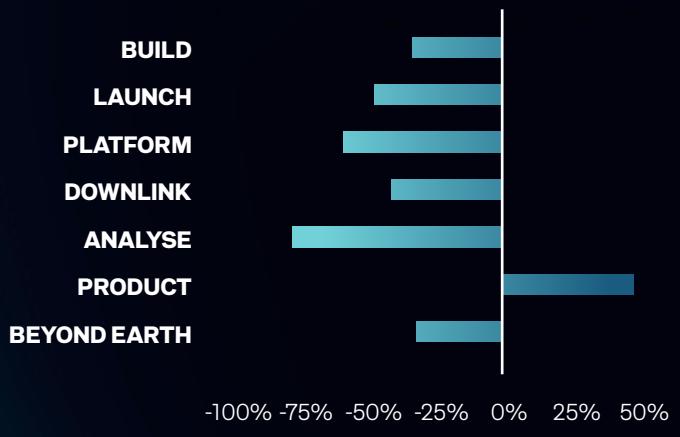
**$350M**
**biggest deal closed in Q3 – Axiom** ($200m from Astranis in Q2)

**$24M**
**average deal size in Q3** ($16m in Q2 23)

**$4.1M**
**median deal size in Q3** ($9m Q2 23)

**29**
**space-related M&A transactions in last 12 months** (20 TTM to Q3 22)

## Investment ($), TTM to Q3 22 vs. Q3 23
(% Change)




Like last quarter, TTM investment compared to the previous TTM period shows a decrease across nearly all segments of the space industry. This is due to the high levels of investment seen in H2 21 and H1 22. Product businesses stand out from this trend, in large part from funding rounds associated with Climate Tech.

# Q3 2023 DEALS ACTIVITY (# DEALS)


There were a total of 82 deals in Q3, largely in line with Q2 at 85 deals. The largest number of deals was seen in the build category, with a high proportion of early-stage deals, for businesses developing novel satellites, propulsion systems and satellite subsystems.

In terms of investment, Beyond Earth and Product were the stand-out categories, stemming from the top three deals of the quarter, Axiom, Sierra and MapBox.

For Q3, investment into Beyond Earth accounted for 43% of the quarter's total investment. This was driven by the top two deals, Axiom and Sierra. Investors are heavily backing these businesses which are building the next generation of Space Infrastructure. While these businesses are both addressing the emerging Beyond Earth category, they are both revenue generating, and as such have been able to support significant fundraises and command strong valuations ($5.3bn in the case of Sierra Space, higher than all the space de-SPACs).

In Q3, the Product category emerged as another standout sector, drawing in 25% of the total investment for the quarter. Investors have demonstrated a keen interest in CAPEX-light SaaS and software enterprises that leverage space and satellite-derived data as key input. These businesses develop products tailored to terrestrial business use cases as well as everyday consumer needs, enabling them to tap into vast terrestrial markets. This underscores the significant growth potential and revenue opportunities that are inherent within the Product category.

## Q3 2023 Top Deals

SpaceTech investment in Q3 saw a very high concentration of investment into the top 10 deals, with 79% of investment in the sector concentrated in these deals alone. This was primarily a result of large rounds into the top 3 businesses; Axiom, Sierra and Mapbox. Q3 shows that the fundraising environment for growth deals continues to improve. This represents a welcome return to growth investing and larger rounds.

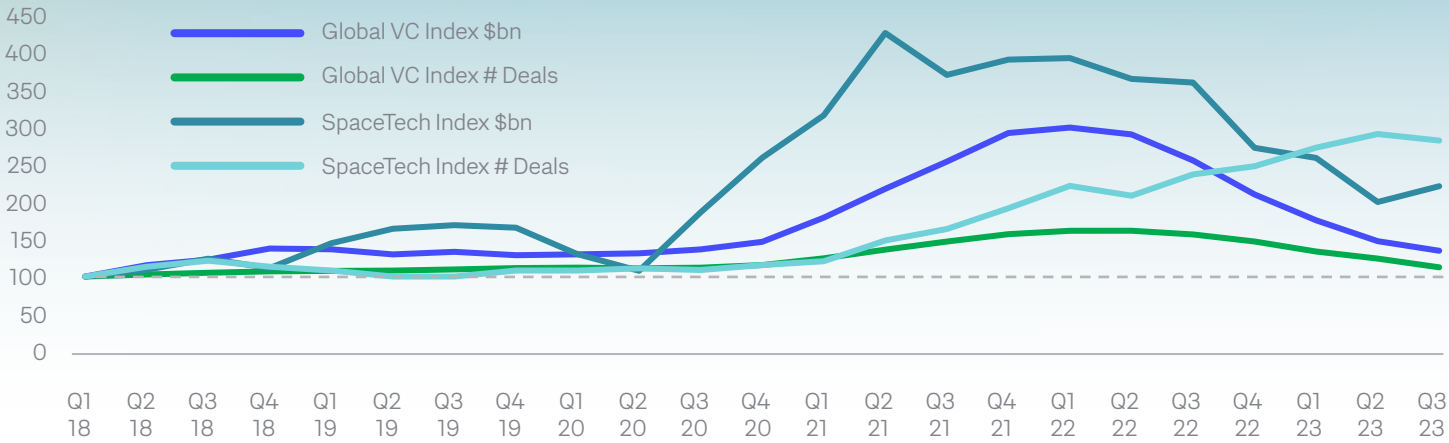
Axiom and Sierra represent businesses developing the next generation of Space infrastructure for the in-space economy. Unsurprisingly, the high CAPEX requirements to develop next generation space stations and earth return vehicles require large investment rounds. Investors are demonstrating increased confidence in this emerging segment of the new space economy, particularly considering the ISS' decommissioning towards the end of the decade.

As is typical, the majority of the quarter's largest investment rounds were for US businesses. However ,Q3 also saw large deals in China, UK, and for the first time since Q2 2017 (Leaf Space), an Italian business represented in the top 10.

| COMPANY | COUNTRY | DATA LIFECYCLE | SUB CATEGORY | STAGE | AMOUNT ($m) |
|---|---|---|---|---|---|
| **Axiom Space** | US | Beyond Earth | Space Infrastructure | Series C | $350m |
| **Sierra Space** | US | Beyond Earth | Space Infrastructure | Series B | $290m |
| **Mapbox** | US | Product | Location & Mapping | Series E | $280m |
| **ADASpace** | China | Platform | Satellites - Telecoms | Series C | $70m |
| **HawkEye 360** | US | Platform | Satellites - Earth Observation | Series D1 | $58m |
| **Open Cosmos** | UK | Build | Space Hardware | Series B | $50m |
| **Persefoni** | US | Product | Data Platforms | Series C | $50m |
| **Impulse Space** | US | Launch | Launch Services | Series A | $45m |
| **Leaf Space** | Italy | Downlink | Ground Terminals | Series B | $39m |
| **Benchmark Space Systems** | US | Build | Space Hardware | Series B | $33m |

# OVERALL INVESTMENT ACTIVITY

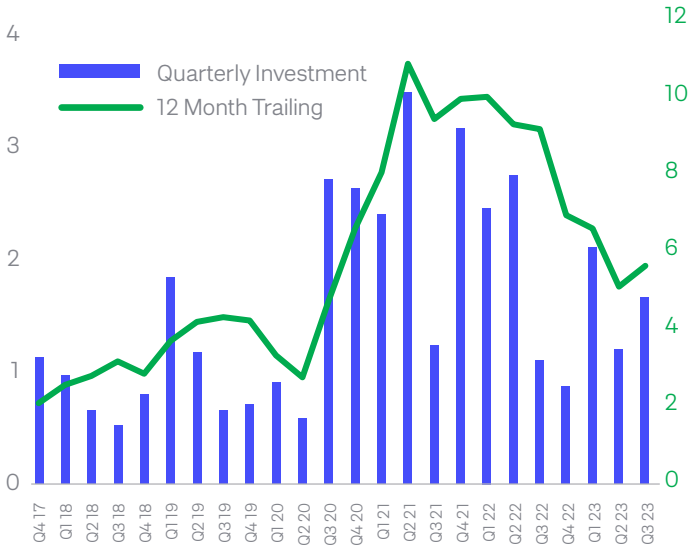
## Seraphim Trailing 12 Months Investment Activity Index (Q1 2018 = 100)




The Seraphim Space Index is a barometer of investment activity, showing the global volume and value of venture capital deals within the Space sector on a 12-month trailing basis, indexed against Q1 2018.

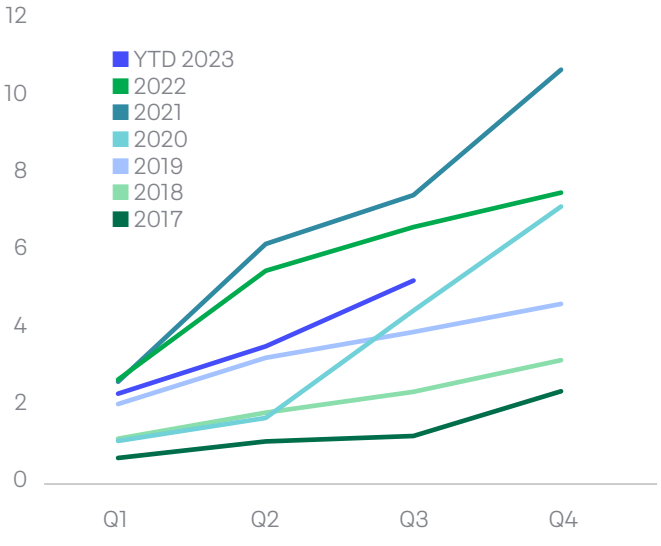
The SpaceTech investment amount index grew for the first time in almost two years while the deals index was approximately flat after five consecutive quarters of growth. Investment bouncing back was largely a result of an increase in growth-stage investment, which was up 82% from the previous quarter to $1.3bn. Meanwhile, early-stage investment decreased by a third. When compared to the broader VC sector, Pitchbook data shows that global VC investment has lagged space both in number of deals as well as investment amounts. Although SpaceTech is not seeing record-breaking investment in recent quarters, it has remained resilient versus the broader VC market.

## Seraphim Quarterly Investment Tracker ($bn Invested)




Overall investment in the SpaceTech sector appears to be bouncing back with a positive quarterly and trailing twelve months trajectory. TTM investment is up for the first time in almost two years, 10% higher than recorded in Q2. As for quarterly investment, this was up almost 40% from the previous quarter. Early signs of a recovery in investment can be seen in these trends.

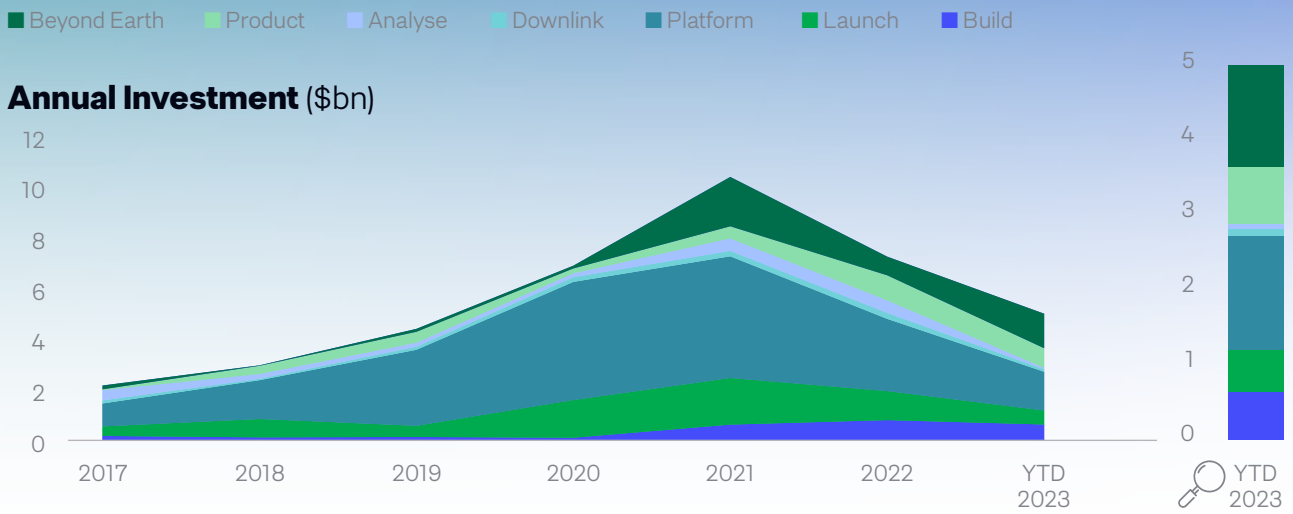
## Seraphim Annual Investment Tracker ($bn Invested)




While SpaceTech investment is lagging the highs of 2021 and 2022, the sector remains ahead of any year prior to that. It is unlikely that cumulative investment over the year will end up higher than 2020, however there has been a positive upward trajectory over the year.

# SERAPHIM DATA LIFECYLE

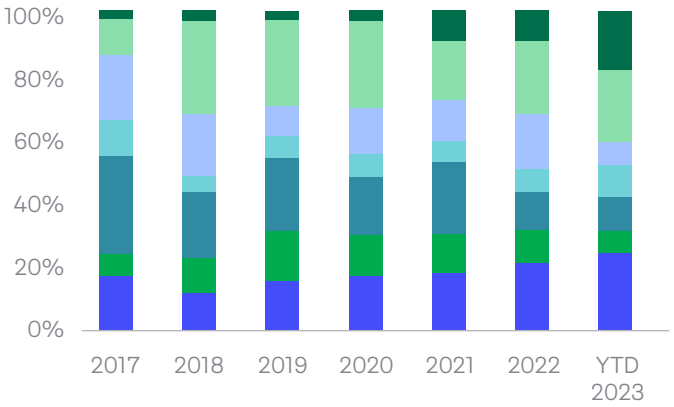





Approximately $4.8Bn has been invested into the SpaceTech industry in 2023 to date. Around 30% of this was allocated to Platform ($1.5Bn) and 27% in Beyond Earth (27%). Despite the overall decline, Beyond Earth has increased by 46% from 2022. This growth is only expected to continue over the remaining quarter of 2023. Investment into Analyse and Downlink has retracted significantly from 2022. On a quarterly basis platform is down from last quarter and Beyond Earth has almost tripled. Interestingly, TTM analysis shows platform to be leading. The category is at $1.5Bn with Beyond Earth slightly behind at $1.4Bn for the previous TTM period.

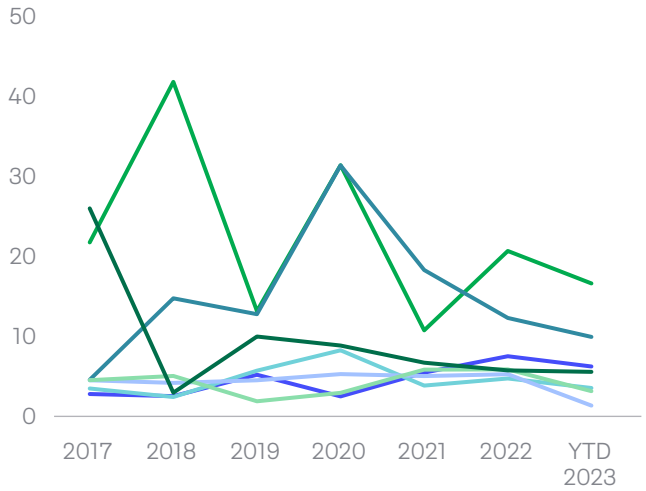
Platform largely consists of constellation companies such as Hawkeye 360 who raised $58M this quarter. platform businesses typically require large and dilutive rounds of funding, however the global political tensions such as war in Ukraine has driven the need for Earth Observation data. Product and Build are the next largest segments overall. However, in the UK, these were the two largest segments over the past 12 months. This was driven by growth stage investment in climate-related Product companies, and on the Build side through support for regional satellite manufacturing such as Open Cosmos (which also plays to the climate theme through novel Earth Observation).


## Number of Deals




Both Build and Beyond Earth are leading deal composition YTD with 52 and 46 deals respectively in 2023. The number of platform deals has dropped because most of these are later stage businesses and have the largest amount invested. Typically, a few large businesses win most funding in this category. The makeup of deals in the Space industry has remained ever changing, gradually shifting over the past 5 years. As the industry matures, startups supply a much-needed resource in product supply chains. As a result, there are more hardware and componentry business causing the Build category to continually increase over recent years. These are often capital light businesses with shorter paths to profitability. In stark contrast to Build, Beyond Earth businesses are capital intensive with longer time horizons to exit. Both categories show the Space market is an attractive target for investors on opposite ends of risk vs. reward profiles.

## Median Deal Size ($m)



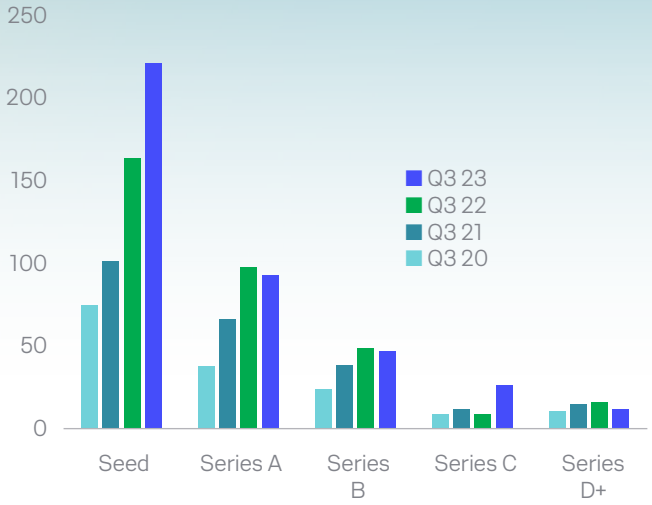

The segments with the largest median deal sizes has remained the same from 2022. As expected, Launch and Platforms show the largest median deal sizes as capital-intensive segments. Median deal size for Build has increased since 2022 and surpassed Beyond Earth. This can be attributed to the large raise by Open Cosmos $50M Series B round this quarter.

Beyond Earth median deal sizes have remained consistent. Most deals were early stage with two late-stage deals – GITAI (Japanese robotics startup) and Sierra Space (US Space transportation and infrastructure company).

# INVESTMENT STAGE

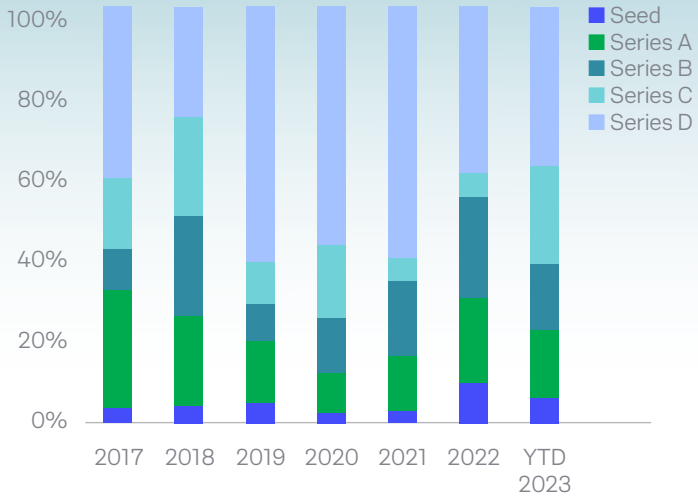
Beyond Earth | Product | Analyse | Downlink | Platform | Launch | Build

## **No. Deals TTM** (Q3 2023)




It's promising to see Seed stage funding continue to increase in 2023 despite the fundraising environment. Similarly, Series C has tripled in the TTM period. Interestingly, Series A has decreased after continual YoY growth. Series A rounds usually hold important milestones in a company's path from technical development to commercialization. The decrease is potentially an indicator of business holding off raises until markets improve. Alternatively, the slight decreases in Series A and B could be indicative of falling graduation rates in the current environment.

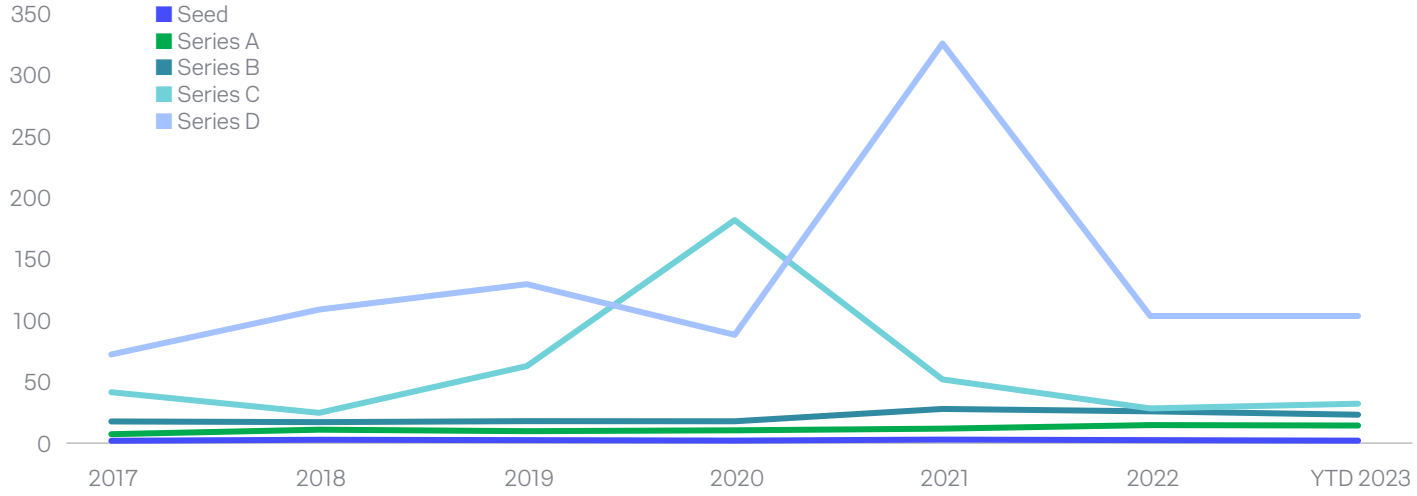
## **$ Invested By Stage** (%)




As 2023 progresses, the proportion of Series D rounds is catching up with those of 2022.

The proportion of investment into Series C has significantly increased. This is in line with the Series C deals being at TTM high from the previous figure. This quarter's large Series C rounds were driven by Axiom raising $350M in the US and ADASpace raising $70M in China. Mimicking this trend, within the UK, Series C investment was up 70% year on year for the TTM to Q3 2023.

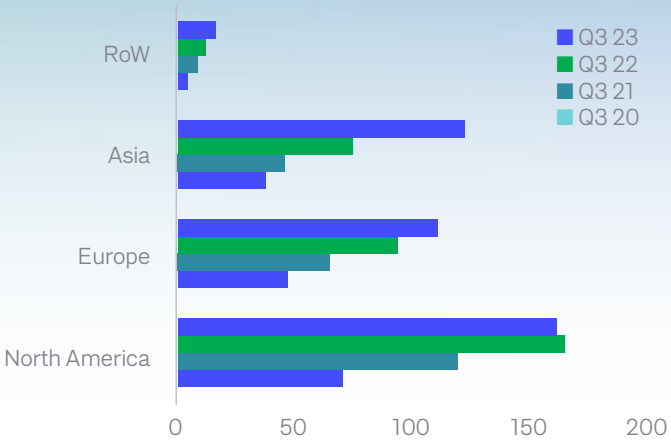
## **Median Deal Size** ($m)




Despite median deal sizes falling from highs in 2021, they are generally consistent with 2022. Seed, Series A and Series B have all seen a slight decrease YTD. Generally, 2023 is showing early-stage deal sizes to have decreased with later stage showing signs of promise.

Series C median deal sizes have seen a slight recovery and Series D is completely flat. The two largest later stage deals were Sierra Space and Mapbox. Importantly, despite the downturn there is a wealth of opportunity in both Beyond Earth and Downstream sectors.

## No. Deals Last 12 Months Investment

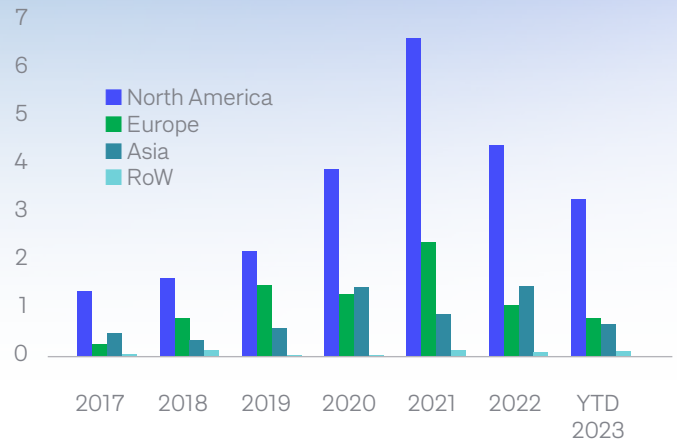



The number of deals shows a continued upward trend across most regions. Surprisingly, North American deals were almost flat compared to the previous TTM period.

While typically investment heavily favours the US, it is the only geography to experience a slight pullback in the last 12 months. This is indicative of larger but fewer deals in US, showing the promise of growth stage in US.

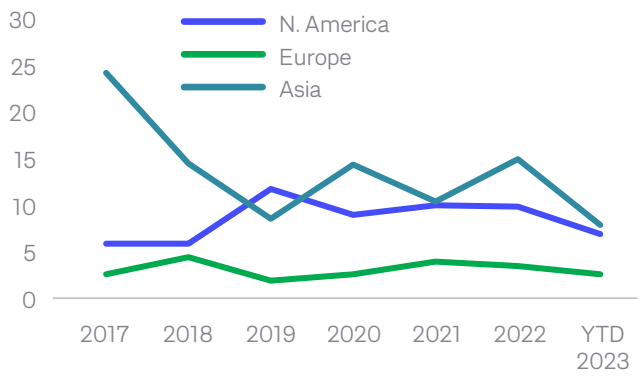
The growth in Asia has accelerated with an increase of over 60%.

## Investment By Region ($bn)




North America dominated investment despite a decreased number of deals. This is to be expected as North America remains the epicentre of NewSpace. Last quarter saw Asian investment in second place; however, Europe has surpassed them as the year progressed. Some significant European rounds were Open Cosmos, Leaf Space and Rocket Factory Augsburg raising $50M, $38M and $33M respectively. Within Europe, the UK was a relative success story, having almost doubled the total amount invested year on year to $326M in the TTM to Q3 2023. This was mostly driven by a 6x increase in Series B climate-related companies. This follows the growing relevance of ClimateTech as well as investment pledges to this sector in the UK more broadly. The quarterly trend was also positive, with UK investment up 22% in Q3 compared to Q2. In 2022 Asia raised $1.4Bn and are only at $600M invested so far, showing a lag in investment compared to last year despite a higher number of deals in TTM period.

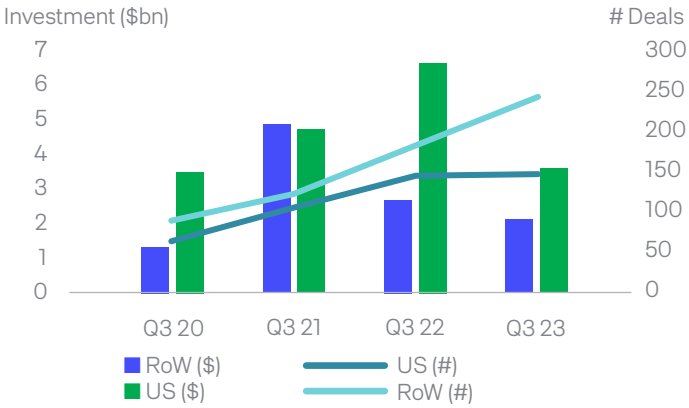
## Median Deal Size By Region ($m)




Deal sizes are generally decreasing and remain consistent with last quarter. Median deal sizes in Asia have seen a particularly large decrease. This is indicative of more Seed stage round sizes and, overall, less capital invested here. European medial deal sizes remain around 50% lower than US and Asia.

North America experienced declining median deal sizes from 2022, however overall investment remains high.

## US vs. RoW Investment Activity (LTM)

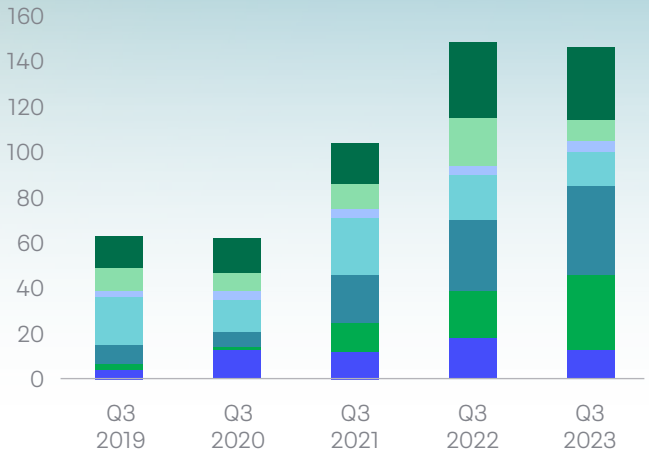



Following previous periods, the amount of capital invested in the US exceeds all other geographies combined. Despite this, US investment has almost halved in the previous TTM period. The number of deals however has remained flat in this period showing larger, but less frequent deals in the last 12 months. RoW has seen a different trend, with number of deals increasing by 38% however investment only increasing by around 30%. The US seems to be investing more into growth while RoW is focused more on early-stage rounds.

# US ACTIVITY

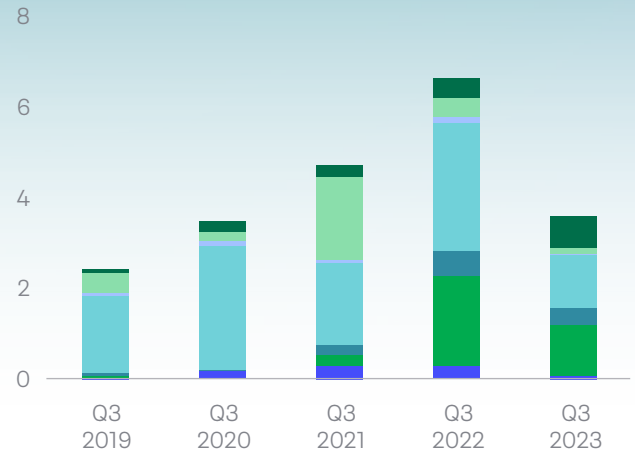
Analyse Beyond Earth Build Product Downlink Launch Product

## Number of deals, TTM



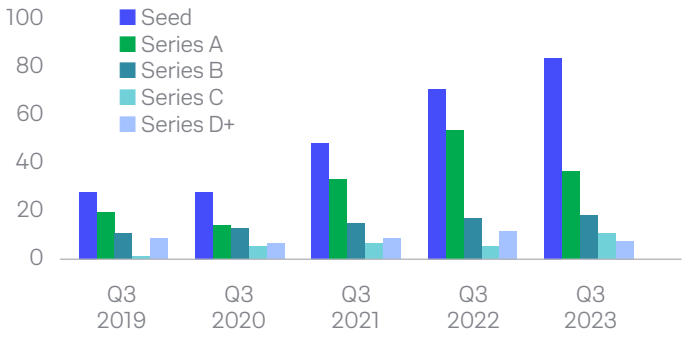

Surprisingly, the number of deals in the US was almost flat year on year, driven by a slight slowdown in deal making in 2023. While the other geographies saw growth this year, the US was an exception to the rule, experiencing a slight decrease from the prior TTM period. The Beyond Earth and Build categories have shown growth and represented the greatest number of deals in the US in the past twelve months. However, when comparing to the total amount raised, Build was a relatively small sector: indicating smaller, early-stage rounds.

## Total Amount Raised TTM ($b)



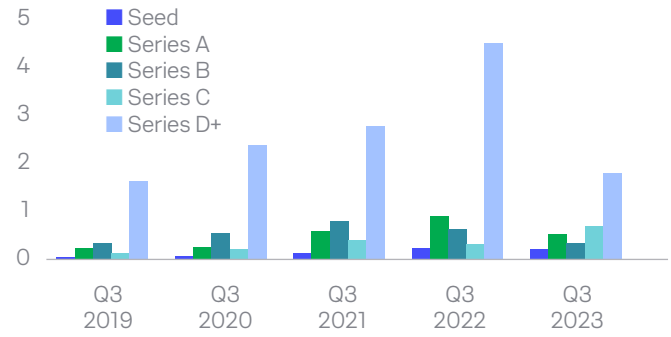

The total amount raised by US SpaceTech startups almost halved year on year, which in conjunction with only slightly lower deal numbers, indicates much smaller, early-stage rounds being raised. This is likely a consequence of founders delaying large funding rounds and aiming to minimise dilution in the meantime. Seed remains strong and continues to grow however Series C has been accelerated by large rounds such as Axiom Space $350M raise. What's interesting is that two relatively CAPEX-heavy sectors, platform and Beyond Earth, attracted most of the funding in the past year. These are very capital-intensive sectors that fundamentally need to raise larger rounds at each inflection point. In the TTM this was driven by Beyond Earth companies Axiom Space ($350M) and Sierra Space ($290m following Q4 2021's $1bn round). On the platform side, this was largely SpaceX ($750M) which we categorise as Platform due to Starlink.

## Number of deals, TTM




The number of seed deals continues to grow, now at 2.5x the level seen in 2019. Clearly, new SpaceTech businesses continue to be founded in the US and attract funding from early-stage investors. There were double the number of Series C deals compared to last year, indicating a cautious return to growth stage investing. The major rounds at C, apart from Axiom Space, were Platform business Capella Space, and Downstream Product companies Persefoni and Ceres Imaging – both playing to the climate theme which as a sector has benefitted from large investment pledges in recent years.

## Total amount raised, TTM ($b)

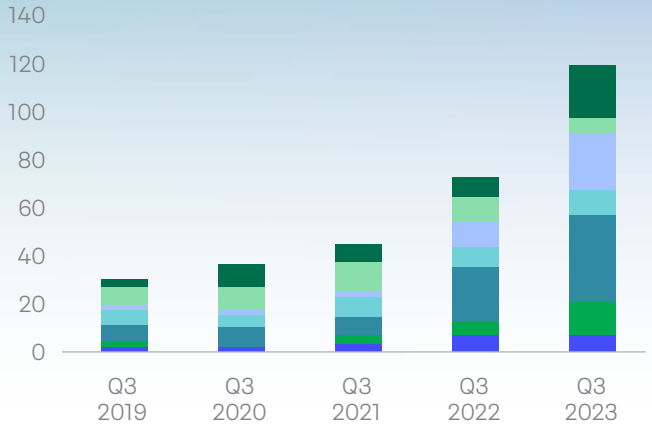



The total amount raised at all stages apart from Series C was down versus the previous period. Series C, as discussed before, has been driven by large Beyond Earth and Product rounds. While Series B companies had already seen a contraction in funding last year, Series A fundraising fell after multiple years of prior growth. This could be a combination of down rounds as well as companies delaying fundraising until market conditions improve. Despite the downturn at Series A, notable raises in the past twelve months include Constantinellis Aerospace ($79M) and Impulse Space ($45M) – both hardware-heavy upstream businesses.

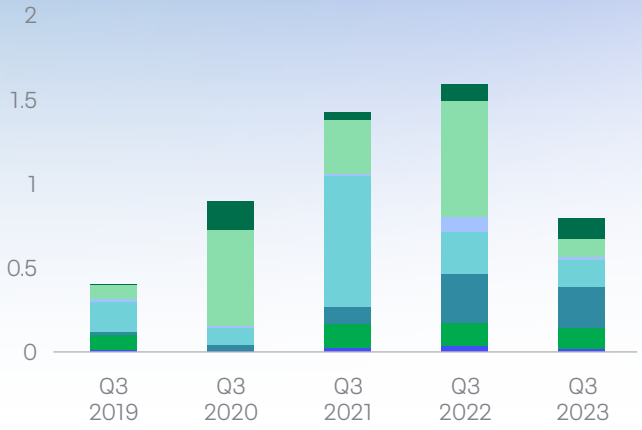
# ASIA ACTIVITY

Analyse Beyond Earth Build Product Downlink Launch Product

## Number of deals, TTM



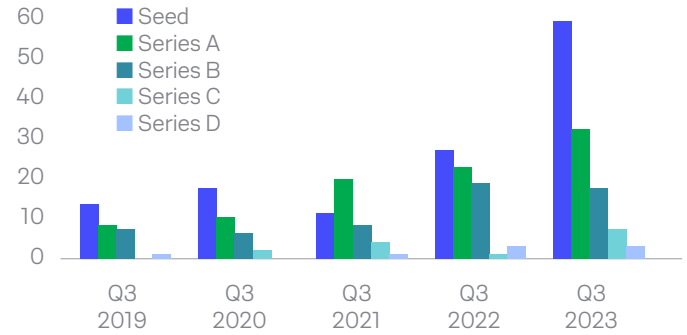

## Total Amount Raised TTM ($b)



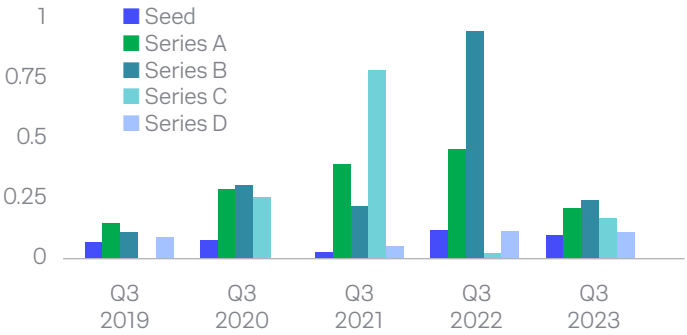

Asia deal numbers have had strong growth in the past few years, mostly driven by China but with notable investment activity seen in South Korea and Singapore as well. The Build category has seen the most investment thanks to space hardware businesses. Growth in Downlink has been driven by ground terminals and antennas, in the wake of significant activity in the satcoms market. As a relatively nascent space economy, it is unsurprising that hardware investments are leading the way in Asia, as businesses developing space hardware components can typically generate revenues earlier and hence demonstrate product-market fit to investors. As the Asian space economy matures, we would expect some of this investment to start being funneled to more downstream software companies as applications built on space data proliferate. We see early signs of this with the increased in Product investment this year.

The largest Build rounds in the twelve-month period to Q3 2023 were $59m raised by satellite development company Mino Space and $15M raised by satellite electronics company Lumir. In recent years, the launch industry has attracted a significant amount of investment. This trend not only demonstrates support for such capital-intensive initiatives, but also indicates a growing interest in alternatives to U.S. launch companies. The largest rounds in the past 12 months were Perigee Space (Korea, $31M) and Interstellar Technologies (Japan, $29M). The amount raised by Platform companies has decreased as such satellite constellations mature and have a reduced funding requirement; this investment has subsequently shifted to the Product segment which has grown year on year since 2021.

## No. Deals TTM By Stage




## Total Amount Raised TTM ($b)




The number of seed deals has doubled year on year since 2021, with new SpaceTech businesses being founded in Asia and attracting early-stage investors. Series A deal numbers have also grown, driven by Indian and Chinese componentry and hardware businesses. India has benefitted in recent years from more relaxed foreign direct investment rules (greater percentage of foreign investment allowed in defence and telecoms companies, as well as the ability to issue convertible notes to foreign investors rather than just equity). A notable exception to the preference for componentry businesses at Series A is the Beyond Earth company Space Walker, a Japanese reusable space plane, which can indicate tentative appetite for more long-term markets.

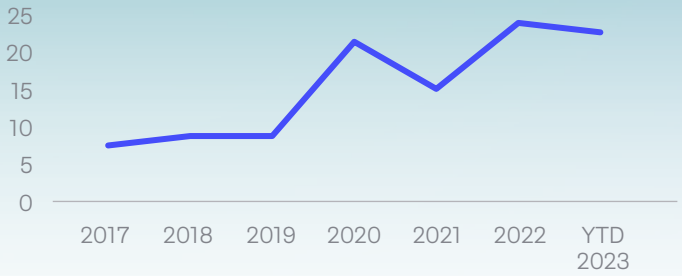
Though Series B funding was down significantly from the previous period, it was still the stage that attracted the most funding, driven mostly by Chinese hardware businesses. Series C funding grew 7x from the previous period, the largest round being Chinese AI-driven satellite constellation operator ADASpace.

Series A deals fell after 4 consecutive years of growth, as previous periods featured $100m+ funding rounds. Round sizes in general have been smaller in recent quarters as founders are looking to extend runways with minimal dilution at lower valuation until funding conditions improve.

# M&A ACTIVITY

This quarter, M&A activity in the space sector continues its momentum. While we only track "New Space" companies as part of this quantitative analysis, there have been several important M&A announcements in the space sector. These transactions can have an impact on the New Space section. For example, it is worth noting the $4.7bn acquisition of Aerojet Rocketdyne by L3Harris. This acquisition is likely to reduce competition within the rocket manufacturing segment, and thus we can expect investment in propulsion companies at the early stages to increase in response to a gap in the market, to foster innovation. It follows the FTC blocking Lockheed Martin from acquiring Aerojet two years ago, citing antitrust concerns. BAE Systems announced their plans to acquire Ball Aerospace for $5.5bn, which would propel the company deeper into the space sector; however, it is subject to regulatory approvals. Ball Aerospace has been a key competitor to New Space satellite manufacturers. Finally, PE fund KKR made a take private offer for Europe's third-largest space systems company, OHB. This take-private would allow OHB to avail of more flexible funding in the current commercial satellite market boom.

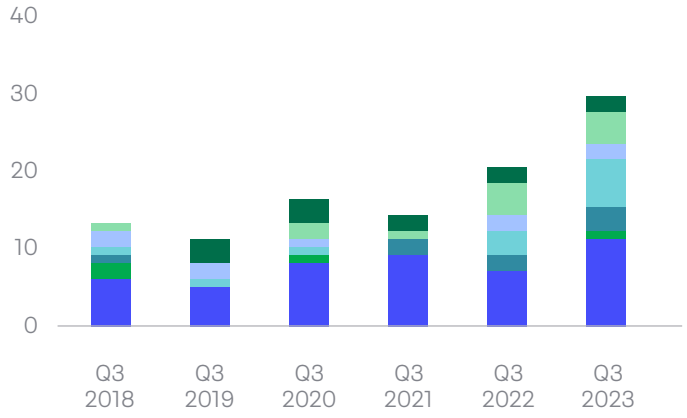
## Annual M&A deals (#)




2023 is on track to potentially be a record-breaking NewSpace M&A year, with 21 deals completed already versus 22 in 2022. Recent high-profile deals include Eutelsat's merger with OneWeb, and multiple private equity backed acquisitions of New Space companies. SpaceTech deal numbers in the twelve months to Q3 2023 were up 45% year-on-year, versus the broader market where M&A deals of venture-backed startups globally decreased by 31% compared to the previous year, according to Crunchbase.

Beyond Earth | Product | Analyse | Downlink | Platform | Launch | Build

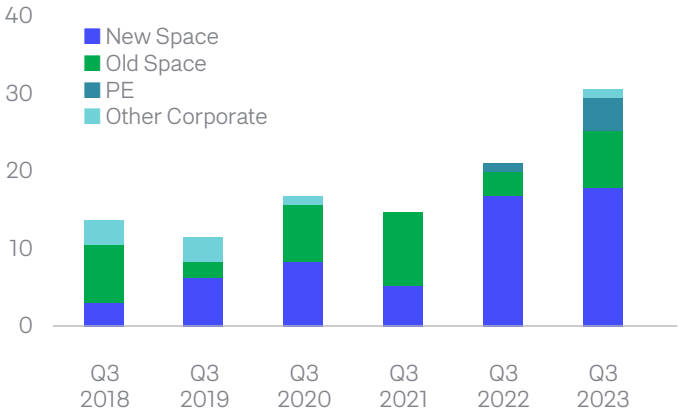
## TTM Deals by Data Lifecycle (#)




The twelve months to Q3 2023 were a record-breaking period in terms of number of deals, though the proportional split between sectors remained relatively unchanged. Build companies continue to be one of the most attractive segments for acquisition thanks to their "picks and shovels" nature. These companies can generate early revenues but perhaps finding it harder to fundraise due to lower returns expectations given their smaller target markets.

Growth in Downlink acquisitions has been driven by developments in IoT and satcoms leading to increasingly competitive antenna and ground terminal offerings in the market.

## TTM Deals by type of acquirer (#)




While "Old Space" (or Heritage Space) companies continue to acquire innovative New Space players, it's notable that in recent years, New Space companies have emerged as significant acquirers of other New Space companies. Q3 2023 saw three New Space companies acquiring others: Scout Space acquired Free Space, Sidus Space acquired Exo Space, and Planet acquired Sinergise (its second acquisition in the past year). This is an exciting trend which demonstrates the value of continuous innovation in the space industry and can be an indicator of potential exit opportunities. The growing presence of PE activity in the New Space sector further indicates the maturing of the industry. Trive Capital's acquisition of Hypergiant was driven by the potential for synergies across Trive's defence portfolio, indicating appetite for integrating New Space companies into the broader market. Finally, Eutelsat's merger with OneWeb was one of the major news stories of the quarter, creating the world's first LEO-GEO operator addressing the rapidly-growing connectivity market, and demonstrating the value that M&A in the space industry can bring.

## Announced and completed space SPAC deals

SPAC valuations remain suppressed, trading significantly below their listing prices. A lot of space SPACs have been struggling since listing as markets have become more risk-averse compared to when most listings happened in 2021. Many SPACs have also missed their revenue targets which has fuelled concerns around their paths to profitability.

Rocket Lab ended the quarter up on share price despite its recent launch failure. The stock had been doing well earlier in the quarter thanks to back-to-back successful launches and inking of new launch deals. Rocket Lab has indicated new revenue guidance based on the failed launch which could dampen market sentiment. Redwire is the only other company in the green on share price. It reported strong Q2 results in August, as well as announcing a $12.9M NASA award to build infrastructure on the Moon.

On the other hand, most of the companies have seen their share prices continue to fall. The common theme appears to be dwindling cash reserves and thus the need to raise more funding. Momentus laid off 30% of its workforce to cut costs during the quarter and in October announced a $4M registered direct offering. Astra found itself in a similar position seeking strategic investors as its cash reserves decreased.

There have been no new SPACS since January 2023 when World View was announced. World View had expected to complete by Q2 2023, but this has not happened yet. The SPAC market remains suppressed as broader market sentiment is still relatively conservative.

| COMPANY | COMPLETION | REGION | SPAC SPONSOR /EXCHANGE | DATA LIFECYCLE/ SUB CATEGORY | AMOUNT | PRO FORMA EV | SHARE PRICE PERFORMANCE 1 YEAR | SHARE PRICE PERFORMANCE 3 MONTHS | MARKET CAP 30/9/23 |
|---|---|---|---|---|---|---|---|---|---|
| **Virgin Galactic** | Oct-19 | US | $SPCE / NYSE | Beyond Earth / Space Exploration | $450m | $2300 | -56% | -56% | $661m |
| **Momentus** | Aug - 21 | US | $SRAC /Nasdaq | Launch / Space Tugs | $247m | $567m | -93% | -93% | $3m |
| **AST&Science** | Mar - 21 | US | $NPA /Nasdaq | Platform /Satcoms | $462m | $1400m | -41% | -41% | $827m |
| **Astra** | Jul - 21 | US | $HOL /Nasdaq | Launch / Rockets | $500m | $2100m | -75% | -75% | $34m |
| **Spire** | Aug - 21 | US | $NSH /NYSE | Platform / Earth Observation | $265m | $1600m | -4% | -4% | $110m |
| **BlackSky** | Sep - 21 | US | $SFTW /NYSE | Platform / Earth Observation | $283m | $1100m | -17% | -17% | $165m |
| **Rocket Lab** | Aug - 21 | US | $VACQ /Nasdaq | Launch / Rockets | $777m | $4800m | 11% | 11% | $2117m |
| **Redwire** | Sep - 21 | US | $GNPK /NYSE | Beyond Earth /Space Infrastructure | $170m | $620m | 5% | 5% | $187m |
| **ArQit** | Sep - 21 | UK | $CENH /Nasdaq | Platform /Satcoms | $115m | $1100m | -55% | -55% | $97m |
| **Planet** | Dec - 21 | US | $DMYQ /NYSE | Platform / Earth Observation | $590m | $2400m | -27% | -27% | $743m |
| **Satellogic** | Jan - 22 | S. America | $CFV /Nasdaq | Platform / Earth Observation | $262m | $780m | -47% | -47% | $105m |
| **Terran Orbital** | Mar - 22 | US | $TWNT /NYSE | Build / Satellite Manufacturers | $255m | $1600m | -49% | -49% | $168m |
| **SatixFy** | Oct - 22 | Europe | $EDNC /Nasdaq | Build / Space Hardware | $229m | $365m | -27% | -27% | $43m |
| **Intuitive Machines** | Feb - 23 | US | $IPAXU /Nasdaq | Beyond Earth /Space Exploration | $81m | $566m | -66% | -66% | $316m |
| **World View** | Q2 23 | US | $LHC /Nasdaq | Beyond Earth /Space Exploration | $121m | $350m | | | |

# ABOUT SERAPHIM

## ANGEL PLATFORM + ACCELERATOR + VC FUNDS + RESEARCH

### **Our Model:** Inception to exit support powered by smart capital

Seraphim is the world's leading specialist investor in SpaceTech.

Powered by smart capital from leading Space companies and government agencies, we have a unique model combining investment funds, accelerators, and an angel investor platform.

We use our panoptic view of the SpaceTech ecosystem to provide inception to exit support to the sector's most ambitious and fearless entrepreneurs as they aspire to harness the infinite potential of Space to help push the boundaries of what is currently possible by turning science fiction into science fact.

Seraphim Space Investment Trust Plc is listed on the London Stock Exchange (Ticker: SSIT)

### **Our focus:** Businesses collecting & communicating data from above

We are focused exclusively on the multi $trillion SpaceTech investment market.

We believe SpaceTech is at the nexus of mega-trends that will define societal change over forthcoming decades and has a unique role to play in addressing the world's most pressing problems.

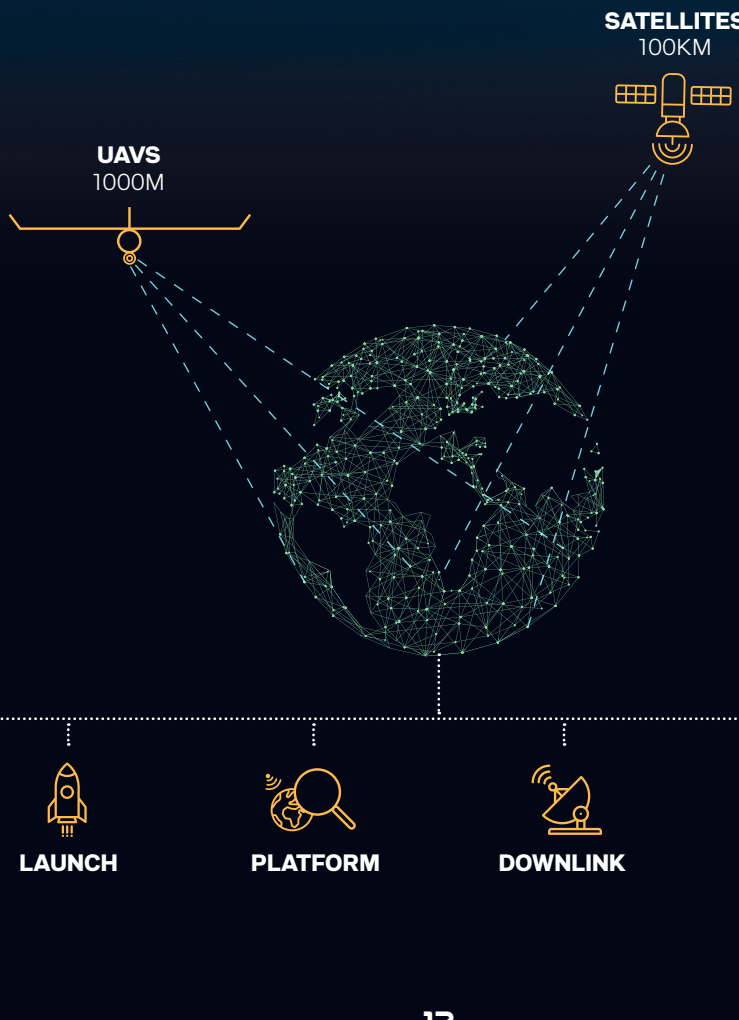
Radical advances in the Space sector mean a data and connectivity tsunami is about to transform the world as we know it, driving the next major paradigm shift in the global economy.

We invest in companies that are enabling, generating and exploiting data being collected and communicated from above.

**Mark Boggett**
CEO

**James Bruegger**
CIO

**Rob Desborough**
Accelerator & Early Stage



## Current Portfolio

We are the most prolific investor in SpaceTech globally. Across our different activities, we currently have a portfolio of more than 100 of the world's leading SpaceTech start-ups.

### Fund


### Accelerator

# METHODOLOGY / FURTHER RESEARCH

GENERATION SPACE

## Methodology & Taxonomy

We use a wide range of different data sources to compile our investment tracker. This includes proprietary, off-market information from our deal flow and network, deal databases such as Crunchbase, industry news sources such as SpaceNews and TechCrunch, and public announcements from companies themselves. We only include third party capital invested on an arm's length basis and therefore do no include personal investment that the likes of Jeff Bezos may make in their own space initiatives.

### BUILD

- Building & selling satellites, autonomous systems
- Components, sub-systems, complete systems
- Hardware (sensors), software (i.e. control system), hybrid (i.e. machine vision)

### LAUNCH

- Building & launching rockets
- Launch-related services

### PLATFORM

- Any data collection / space platform (i.e. smallsat, HAPs)
- Multi-modal: look, listen, communicate

### DOWNLINK

- Facilitate transmission of data from space / aerial platform back down to earth
- Satcoms & terrestrial comms networks
- Data storage, processing, security

### ANALYZE

- Analysis of data from space / aerial platforms
- A.I / machine learning enabled analytics

### PRODUCT

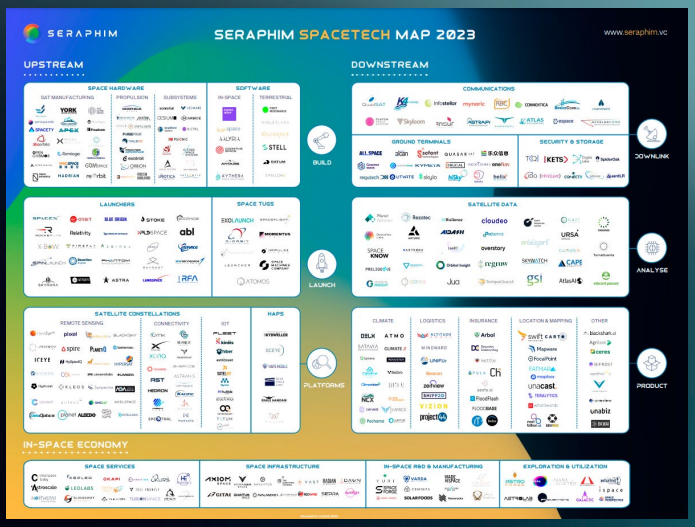
- Packaging of different data streams (space & non space)
- Tailored to specific use cases in specific verticals
- Location, monitoring, insight, mapping

### BEYOND EARTH

- In-Space infrastructure (i.e. Space stations)
- In-Space services (i.e. Satellite refuelling, servicing and repair)
- Utilising the microgravity environment for R&D and manufacturing

## Further Research

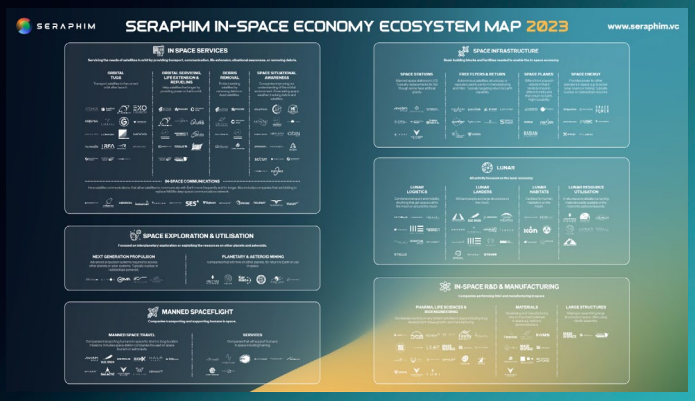
We routinely publish our own research and insights on our website with a view to helping other investors share our excitement for the multi-decade transformational potential of Spacetech. Key periodic research we publish includes our widely recognised SpaceTech Ecosystem and Smallsat Constellation market maps.




### IN-SPACE ECONOMY ECOSYSTEM MAP

**Global VC backed emerging leaders per category.**

DOWNLOAD




### IN-SPACE ECONOMY MAP

**Global VC backed companies providing services in space.**

DOWNLOAD

www.seraphim.vc/research