# **Seraphim Space Investment Trust Plc**

Q1 Report – three months ended 30 September 2021

**November 2021** 

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# Digital platforms reshaping our world for the better



In the few short months since SSIT's IPO, barely a day has passed without the Space sector being front page news. The dawn of the era of Space tourism has been ushered in by two of the world's most recognisable entrepreneurs – Sir Richard Branson and Jeff Bezos – competing for the accolade of being first to reach orbit. A slew of public market listings and M&A has followed, with SpaceTech investment levels setting new records.

Perhaps most importantly, COP26 has shown both the urgency with which the world must act to combat climate change and the unique role SpaceTech can play in achieving this.

Having hit the ground running with five transactions completed during the period, we fully expect SSIT's portfolio companies to be central protagonists in the Space sector's quest to help solve some of our world's most pressing challenges.

#### Will Whitehorn

Chair

Seraphim Space Investment Trust plc



Net assets of £221m and market capitalisation of £266m

Liquid resources available of £124m (56% of NAV).

£34m in new equity raised via completion of acquisition of two assets agreed pre-IPO

5 transactions closed, with total cost of £56.7m, increasing portfolio from 15 to 17 companies

Post period, one new investment and one follow-on investment completed, deploying cash of £22.6m

References in this document to 'SSIT' or 'the Company' are to Seraphim Space Investment Trust plc and to Seraphim Space are to Seraphim Space (Manager) LLP, the Manager of SSIT.

# **Investment Objective**

The Company's objective is to generate capital growth over the long term through investment in a diversified, international portfolio of predominantly early and growth stage unquoted SpaceTech businesses with the potential to dominate globally.

"SpaceTech businesses" are businesses which rely on space-based connectivity or precision, navigation and timing signals, or whose technology or services are already addressing, originally derived from, or of potential benefit to the Space sector.

SSIT provides investors with exposure to nascent SpaceTech companies creating a new digital platform in the sky to facilitate solutions to some of the world's most pressing problems through the collection and communication of data from above.

This comprises both the SpaceTech infrastructure collecting and communicating this data – principally satellites - as well as the broader enabling technology building blocks that facilitate the exploitation of this data for terrestrial applications in areas such as climate, communications, mobility, and cyber security.





# **Investment Opportunity**

Radical advances in the Space sector mean a data and connectivity tsunami is about to transform the world as we know it. SSIT seeks to invest in the most transformative businesses with first-mover advantages from the emerging 'New Space' ecosystem that have the potential to dominate globally in areas such as climate, communications, mobility and cyber security.

Led by SpaceX, privately financed companies are advancing radical changes in the \$366 billion Space industry, creating a new data and connectivity ecosystem that is about to transform the world.

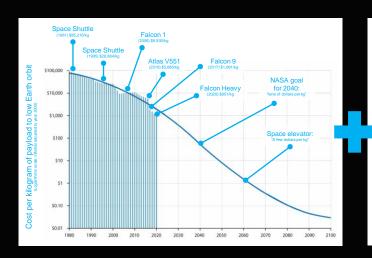
Technological advances are overturning traditional models for operating in Space, as low-cost access to Space becomes a reality with innovations such as reusable rockets and miniaturised satellites - this revolution is known as 'New Space'.

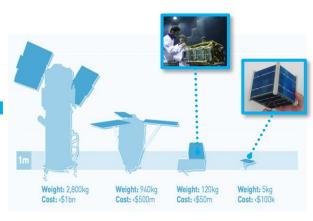
The cost of building and launching a satellite has fallen by a factor of more than 100x. Demand for Space-related technologies is about to increase dramatically in the era of driverless cars, robotics, smart cities and the internet of things.

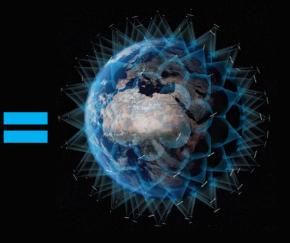
New and larger constellations of small, low cost satellites now constitute a new digital data infrastructure in the sky.

Fuelled by sensor miniaturisation, commercial-off-theshelf componentry, 3D printing, data analytics, and A.I., a new paradigm is emerging, where ubiquitous connectivity and omnipresent earth observation are creating a new source of near real time data. This digital infrastructure will deliver capabilities that will define societal change over the forthcoming decade and beyond. Space is now anticipated to have a transformative impact on many industry verticals unlocking \$trillions of value.

Recognising these seismic changes, a flourishing ecosystem of privately funded Space Tech start-ups is emerging. These companies are addressing some of the biggest challenges faced by both humanity and business.







10x - 100x cost reduction in access to Space

A new digital infrastructure in the sky



# **About Seraphim**

SSIT is managed by Seraphim Space ("Seraphim") – the world's leading SpaceTech investment group.

The Seraphim team consists of seasoned venture capitalists and some of the Space sector's most successful entrepreneurs who scaled their businesses to multi-billion dollar outcomes.

Seraphim has supported in excess of 70 SpaceTech companies across its fund management and accelerator activities and has a proven track record of delivering shareholder value.

Positioned at the heart of the SpaceTech ecosystem, Seraphim has a unique model, using information asymmetry generated from its global deal flow, partnerships with leading industry players and primary research to back the most notable emerging SpaceTech companies shaping a new economic revolution.

# Why Invest?

Space economics is undergoing a paradigm shift

10x -100x cost reduction in access to Space with lower satellite and launch costs

Targeting annualised NAV of >20% over the long term

Long-term growth in a market forecast to grow to \$trillions

Once in a generation opportunity

Benefiting from secular tailwinds and demand for Space related technologies

Seraphim is the world's #1 space tech investor

Unparalleled early access to companies that will shape a new economic revolution Environmental, social and corporate governance

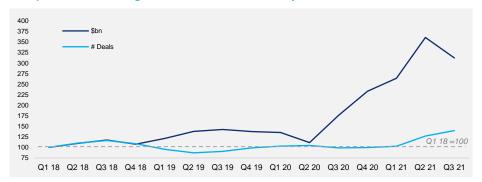
Impact is at the heart of the fund portfolio which can demonstrate strong SDG alignment

Unique and replicable playbook

Seraphim has a proven business model and an experienced team

# Market activity global private capital trends

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

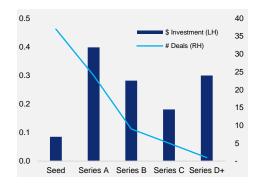


The Seraphim Space Index is a barometer of investment activity, showing the global volume and value of venture capital deals within the Space sector on a 12 month trailing basis, indexed against Q1 2018.

Q3 2021 saw a dip to the growth trajectory of the last four quarters, following an exceptional Q2 which included a record number of mega-deals.

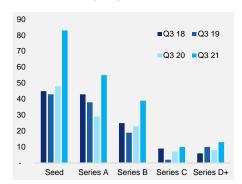
Deal volume since 2018 has remained broadly flat, albeit saw a noticeable uptick in Q2 21 continuing into Q3 with 76 deals, materially above historic quarterly averages. The growth in the deal volume looks set to continue as investor appetite for SpaceTech continues to broaden outside of North America.

#### **Deals in Q3 2021**



The total number of deals dipped in Q3 21 but still scored materially higher than all previous quarters since Q1 2018. Encouraging to see consistent amounts of investment capital flowing into each stage of the funding cycle from series A through to C.

#### No. Deals YTD (Q3 21)



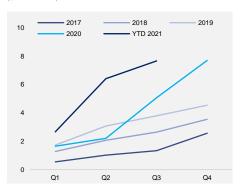
Deal volumes by stage reached new peaks in Q3 21 in all early stage rounds (seed to B Series). Volumes in the growth stage rounds are broadly consistent across the period.

#### Seraphim Quarterly Investment Tracker (\$bn Invested)



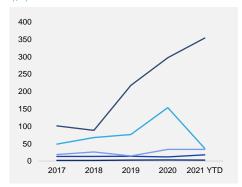
Global private investment in Q3 2021 fell short of record hights over the previous four quarter periods. Investment levels over the trailing 12 months remain over the \$10bn threshold.

#### Seraphim Annual Investment Tracker (\$bn Invested)



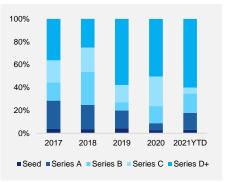
2021 is already proving to be another record year of private investment in the global space tech domain with \$7.7bn already closed in Q3 YTD vs. \$7.7bn in the whole of 2020.

#### Average Deal Size (\$m)



The impact of both SpaceX and OneWeb announcing major new fundings pushed the proportion of overall investment deployed into growth stage rounds to new highs (Series D+). The deal size in the Series C vary considerably, but other stages are remarkably consistent. B series averages have doubled over the 5 year period.

#### \$ Invested By Stage (\$bn)



The Early stage rounds (seed to B series) accounted for 40-54% in 2017-2018 falling to 24%-29% in recent years as growth investors flock to support the maturing stock of companies in the domain. YTD has seen a resurgence in early stage investing accounting for over one third of all capital invested.



# Financial highlights as at 30 September 2021



SSIT – Price and traded volume Since IPO (indices rebased to 100)

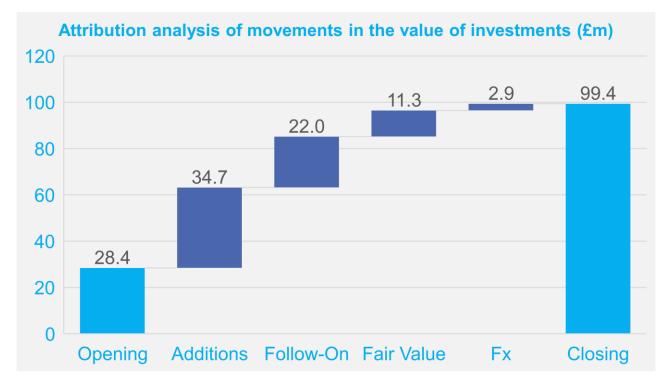


#### SSIT total return since IPO vs Indices (rebased to 100)





# Q1 attribution analysis as at 30 September 2021



At its IPO on 14<sup>th</sup> July 2021, SSIT acquired holdings in 15 businesses from Seraphim Space LP ("the LP Fund") for a total cost of £28.4m. During the period, the value of the unrealised investments increased by £71.0m, resulting in the value of the portfolio reaching £99.4m as at 30<sup>th</sup> September 2021.

Following the completion of their SPAC mergers, acquisitions of holdings in two further businesses for the LP Fund – Arqit and Spire Global - were made during the period in accordance with terms agreed at the time of the IPO. £22.0m of follow-on investment into three portfolio companies was also completed during the period.

The £11.3m increase in fair value (excluding FX movements) was due to increases in the underlying valuations of four portfolio companies, with c.75% of the increase attributable to the increase in the share prices of Arqit and Spire Global. Favourable currency movements, principally as a result of Sterling having weakened against the US Dollar added a further £2.9m to the portfolio value.

+17%
Portfolio fair value vs. cost during period

£99.4m

Fair value of portfolio as at 30 September 21

£56.7m

Aggregate cost of investments during period



# Balance sheet as at 30 September 2021

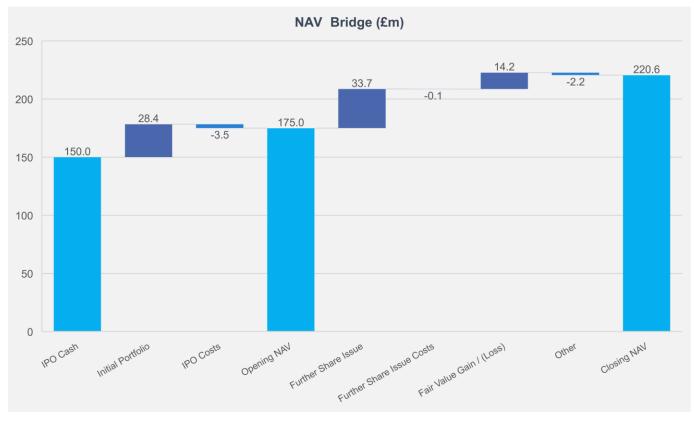
#### **Balance sheet analysis**

£46m
Increase in NAV
(26% increase)

£124m

liquid resources (56% of NAV)

£34m equity issued



In conjunction with its IPO, the Company acquired an initial portfolio of 15 investments from the LP Fund, the consideration being settled in SSIT ordinary shares. Interests in two further assets (Spire Global and Arqit Quantum) from the LP Fund were acquired in exchange for a further £33.7m share issuance and £1.0m cash.

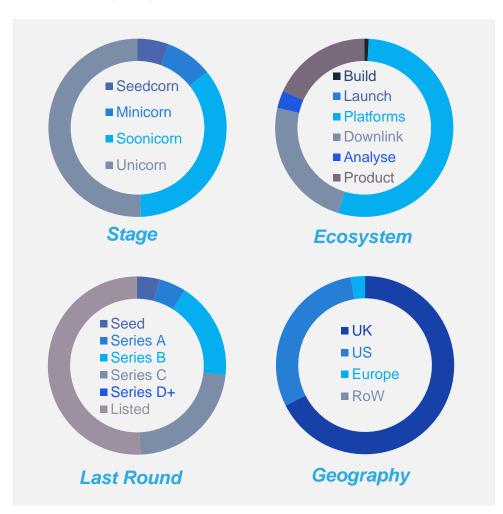
The 'Other' category in the chart above consists of management fee (£0.49m), operating expenses (£0.29m), and performance fee accrual (£1.5m), partially offset by £0.04m of interest received.

The overall change in NAV during the period was representative of NAV per share increasing from £0.98 to £1.04.



# Portfolio as at 30 September 2021

### **Summary By Value**



#### **Net Asset Value**

Company	FV £m	NAV %
ArQit	36.1	16.4%
Isotropic Systems	22.5	10.2%
LeoLabs	12.4	5.6%
Spire Global	10.3	4.7%
AST Space Mobile	3.9	1.7%
Altitude Angel	3.7	1.7%
Planetwatchers	3.2	1.4%
Xona Space Systems	2.6	1.2%
Edgybees	1.5	0.7%
QuadSAT	1.1	0.5%
Sub Total Top 10	97.3	44.1%
Other 7 Investments	2.1	0.9%
Total Investments	99.4	45.1%
Cash	123.9	56.2%
Performance Fee Provision	-1.5	-0.7%
Net Current Assets / (Liabilities)	-1.2	-0.6%
Net Asset Value	220.6	100.0%



# Q3 2021 investments

#### Investments made during the quarter

Company	Segment / Sub Sector	HQ	Туре	Cost £m
Arqit	Platforms / Satcoms	UK	Retained Asset*	27.3
Isotropic Systems	Downlink / Antennas	UK	Follow-On	18.0
Spire Global	Platforms / Earth Observation	US	Retained Asset*	7.4
LeoLabs	Product / Data Platform	US	Follow-On	2.1
Xona Space Systems	Platforms / Navigation	US	Follow-On	1.8
Total				56.7

\*At the time of the IPO, the Company agreed to acquire interests in four further businesses from the LP Fund which were involved in corporate actions and that, following completion of their SPAC transactions, SSIT completed the purchase of two of them, being Arqit and Spire Global.





# Q1 2021 investments

#### **Acquisition of Retained Assets**



Spire Global operates one of the world's largest satellite constellations, collecting radio frequency signals for weather forecasting and for tracking the global maritime and aviation fleets. Spire is listed on the NYSE (NYSE:SPIR).

Spire was one of the four retained assets SSIT entered into a binding commitment to acquire from the LP Fund pending completion of its planned SPAC-merger. Spire duly began trading on the NYSE on 17 August 2021, with SSIT subsequently completing the acquisition of the LP Fund's holding on 9 September 2021 for a total consideration of £7.4m. This transaction resulted in 7,418,890 shares in SSIT being issued to the LP Fund.



Arqit Quantum Inc is developing encryption reborn for the cloud era. It is deploying a constellation of laser communications satellites that utilise quantum technology to distribute quantum-safe, unhackable encryption keys for securing any end device. Arqit is listed on Nasdaq (Nasdaq: ARQQ).

Arqit was one of the other retained assets SSIT entered into a binding commitment to acquire from the LP Fund pending completion of its planned SPAC-merger. Arqit duly began trading on Nasdaq on 7 September 2021, with SSIT subsequently completing the acquisition of the LP Fund's holding on 21 September 2021 for a total consideration of £27.3m in the form of £1.0m cash and 26,296,402 shares in SSIT.

>>> Press release

> Press release



# Q1 2021 investments (cont.)

#### Follow-on investments







LeoLabs is providing the mapping service for Space by deploying a network of ground-based antennas capable of detecting objects as small as 2cm as far as 1,000km away. By mapping the skies in real time, LeoLabs is aiming for its cloud-based data platform to become the 'air traffic control' system for Space.

On 16<sup>th</sup> July 2021, SSIT invested \$3.1m (£2.1m) in LeoLabs through a combination of primary and secondary share subscriptions. This investment formed part of LeoLab's \$65m Series B funding round which was led by Insight Partners.

The funding will be used to grow LeoLab's network of antennas.

Xona Space Systems is aiming to provide GPS navigation for the age of autonomy by launching what is believed to be the world's first small sat GPS constellation delivering centimetre level accuracy and enhanced security.

On 18th August 2021, SSIT invested \$2.5m (£1.8m) in Xona's \$8m Series A funding round. SSIT was the lead investor in this round.

The funding will be used to grow launch Xona's first hardware into orbit.

Isotropic Systems is aiming to create a mesh network of satellite connectivity by developing an antenna capable of connecting to any satellite in any constellation in any orbit.

On 24<sup>th</sup> September 2021, SSIT invested \$25.0m (£18.0m) in Isotropic's \$37m Series B funding round. SSIT was the lead investor in this round.

The funding will be used to bring Isotropic's first product to market.

>>> Press release

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# Post period investment activity

#### Follow-on investment



Satellite Vu is aiming to become the Earth's smart energy meter by launching the first infrared imaging smallsat constellation capable of monitoring the thermal footprint of any building on Earth every few hours.

With 40% of all carbon emissions come directly / indirectly from buildings, finding a way to pinpoint the worst energy wasting buildings at global scale is a pressing issue if the world is to achieve Net Zero. SatelliteVu's high resolution, high revisit infrared satellite constellation holds the key to resolving this.

On 19 October 2021, SSIT invested £4.0m in SatelliteVu's £15m Series A funding round. SSIT was the lead investor in this round.

>>> Press release

#### New investment



HawkEye 360 Inc is the world's leading commercial provider of space-based radio frequency (RF) data and analytics. It operates its own constellation of satellites to collect, identify, process and geolocate a broad set of RF signals generated on Earth from VHF radios, radars, cell towers, satellite phones, emergency beacons and more.

Hawkeye 360's advanced analytical products help first responders save lives, law enforcement halt hidden illegal activities, and telecoms operators utilise spectrum. Its capabilities include mapping signals of interest, creating surveys of global spectrum usage, and providing deeper visibility of maritime activities.

On 5 November 2021, SSIT invested \$25.0m (£18.6m) in Hawkeye 360's \$145m Series D funding round. SSIT was the co-lead investor in this round alongside Insight Partners.

>>> Press release



# Outlook

We are encouraged by the performance of the portfolio in the short period since the Company's IPO. The SpaceTech investment market remains buoyant, with record levels of private investment and a steady stream of businesses announcing plans to list. The investment community and wider world are now increasingly recognising both the attraction of SpaceTech's long-term growth potential and the unique role it can play in helping to address some of the world's most pressing challenges. As the world's first listed SpaceTech focused fund, the Company is well positioned to capitalise on these trends and further expand its portfolio of fast growing businesses with transformative potential.

**Mark Boggett,** Chief Executive Officer Seraphim Space

"

#### **OUTLOOK**

Overall portfolio valuations were up 17% in the period to 30 September 2021. The vast majority (c.75%) of this uplift related to the increase in the share prices of two of the Company's recently listed portfolio companies – Spire Global and Arqit. As with many other companies that have recently completed SPAC-mergers to become public companies, the share prices of both companies have been somewhat volatile. Spire Global in particular has seen its share price take a heavy hit since the end of the reporting period.

Notwithstanding their potential short-term price movements, we remain firm believers in the fundamentals of each of Spire Global and Arqit which, like the rest of the portfolio, play to some of the key megatrends – such as sustainability, ubiquitous connectivity, artificial intelligence, and cybersecurity - we expect to drive the global economy over the forthcoming decade and beyond. The potential of these businesses therefore remains well aligned with the Company's objective of seeking to generate capital growth over the long term.

The overall outlook for the portfolio remains promising, as the advent of low-cost, miniaturised satellites continues to transform the Space sector. With most well capitalised, the portfolio looks well placed to continue the trend of recent positive developments.

#### **ACTIVITY LEVELS**

SSIT is focused on investing in unlisted private SpaceTech companies globally.

Current activity levels are expected to be maintained, with several further transactions in unlisted businesses well advanced, and an agreement to acquire interest in two further assets retained by the Seraphim Space LP Fund – Iceye and D-Orbit – by the end of the year.

This would put the Company on track to have substantively invested / committed the £150m of proceeds raised at IPO well within the first year of operations.

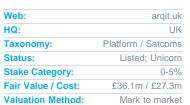
**James Bruegger**, Chief Investment Officer Seraphim Space





# **Top 10 investments**







Web:	isotropicsystems.com
HQ:	UK
Taxonomy:	Downlink / Ground
Status:	Private; Soonicorn
Stake Category:	11-15%
Fair Value / Cost:	£22.5m / £19.5m
Valuation Method:	Last Round Price



Web:	leolabs.space
HQ:	US
Taxonomy:	Product / Platform
Status:	Private; Soonicorn
Stake Category:	0-5%
Fair Value / Cost:	£12.4m/ £11.7m
Valuation Method:	Last Round Price



Neb:	spire.com
IQ:	US
Гахопоту:	Platforms / EO
Status:	Listed; Unicorn
Stake Category:	0-5%
Fair Value / Cost:	£10.3m / £7.4m
/aluation Method:	Mark to market



Web:	ast-science.com
HQ:	US
Taxonomy:	Platforms / Satcoms
Status:	Listed; Unicorn
Stake Category:	0-5%
Fair Value / Cost:	£3.9m / £4.4m
Valuation Method:	Mark to market

Arqit is developing encryption reborn for the cloud era. It is deploying a constellation of laser communications satellites that utilise quantum technology to distribute quantum-safe, unhackable encryption keys for securing any end device.

The advent within the next few years of quantum computers capable of hacking the encryption technologies that underpin the internet could render the cybersecurity behind the entire global digital economy obsolete.

Arqit is a player in the nascent field of quantum cryptography and is aiming to resolve this issue.

It is deploying a constellation of 'quantum key distribution' satellites that use lasers to transmit unhackable, quantum-safe encryption keys that rely on fundamental physics rather than mere computational difficulty for their security.

With equivalent terrestrial, fibre-based solutions incapable of operating over long distances, Seraphim believes that ArQit could become the foundation for how the internet, communications, data storage is secured.

Isotropic Systems is aiming to create a mesh network of satellite connectivity by developing an antenna capable of connecting to any satellite in any constellation in any orbit.

Thanks to the thousands of communications satellites being launched by the likes of SpaceX and OneWeb, space-based connectivity is expected to grow 20 fold over the next 5 years.

Whilst this holds the promise of eventually delivering ubiquitous connectivity across the planet, having the satellite dishes / antennas needed to actually connect to all these satellites remains a major potential bottleneck

Current terminals are expensive, bulky and lack the ability to track fast-moving satellites across the sky and are not well suited for non-stationary applications.

Isotropic is resolving these issues by developing a high bandwidth, low power flat panel antenna that can connect to any satellite.

This enables Isotropic to mesh satellites together, seamlessly linking to multiple satellite services for uninterrupted connectivity.

LeoLabs is providing the mapping service for Space by deploying a network of ground-based antennas capable of detecting objects as small as 2cm as far as 1.000km away.

Space debris represents a systemic risk to the modern world. A collision event between one satellite and either another one or with a piece of 'Space junk' could have potentially catastrophic consequences.

LeoLabs uses a network of proprietary ground-based radars to track every piece of space debris down to 2cm in size as far as 1,000km up in orbit.

By mapping the skies in real-time and monitoring 10x more objects than existing government-operated systems, LeoLabs is aiming for its cloud-based data platform to become the 'air traffic control' system for Space that rocket launchers, satellite operators, regulators and insurers will rely upon

Spire operates one of the world's largest satellite constellations, collecting radio frequency signals for weather forecasting and for tracking the global maritime and aviation fleets.

Spire is disrupting the \$14bn weather data and forecasting market. Weather variability – and our inability to accurately predict it – creates approximately \$3trn of economic loss every year. This problem is growing because of climate change-induced extreme weather events.

Spire utilises its constellation of more than 100 shoebox-size, multi-purpose satellites to collect high fidelity, real-time global weather and climate data from beneath the Earth's surface to the edge of the atmosphere.

Via its SaaS-based predictive analytics engine, Spire uses this data to create a highly accurate, proprietary global weather forecast. Spire's satellites also collect signals for tracking ships and aircraft.

AST is launching a satellite constellation that will act as 'cell towers in Space' by delivering 4G connectivity to any smartphone.

Seraphim believes that AST is transforming how the world connects. By launching a constellation of 'cell towers in Space', AST is building the world's first and only Space-based cellular broadband network that Seraphim believes will deliver high-speed internet connectivity direct to any smartphone anywhere on the planet.

Compatible with all the existing 5 billion mobile phones without requiring any modifications to the handset, AST will also provide connectivity to the 70% of the world that Seraphim believes currently has no cellular coverage.

Once deployed, its services will integrate seamlessly with mobile network operators' networks providing 'roaming' to eliminate connectivity gaps.





**Top investments** 



Web:	altitudeangel.com
HQ:	UK
Taxonomy:	Product / Platform
Status:	Private; Minicorn
Stake Category:	16-25%
Fair Value / Cost:	£3.7m / £3.7m
Valuation Method:	Last Funding Round

Altitude Angel operates a cloud-based automated air traffic control platform for drones and flying taxis. Its software powers the world's first sky corridor for drones.

The air traffic control market today relies on a small number of highly trained air traffic controllers to make our skies safe for aviation. These systems are already struggling to cope with the volumes of still largely manual drone flights occurring in and around restricted airspace.

The global air taxis and autonomous drone delivery market is forecast to reach \$2.9tm by 2040. For this to become a reality, air traffic control services will need to be automated, safely integrating both manned and unmanned aviation.

Altitude Angel has developed a market-leading drone traffic management platform to enable this future. Its platform aggregates real-time information from maps, weather, regulations, and flight tracks for manned aircraft and other drones to provide a four-dimensional real time map of the world's airspace.



Web:	plantwatchers.com
HQ:	UK
Taxonomy:	Analyse / Satellites
Status:	Private; Seedcorn
Stake Category:	25%+
Fair Value / Cost:	£3.2m / £3.0m
Valuation Method:	Last Funding Round

PlanetWatchers has developed an Al enabled analytics platform using satellite radar imagery for crop monitoring, insurance and automated insurance claims assessments.

Agriculture is a strongly regulated industry through which Western farmers are covered by insurance in case of climate related events. Thanks to insurance coverage, farmers can mitigate natural disasters consequences allowing them to make annual investment to improve their productivity.

Today, insurance claims require on-site field visit leading to compensation paid months after the damage.

In developing countries crop insurance is neither available or affordable. Farmers are more exposed to natural disasters, putting food security in jeopardy and are unable to invest to increase their productivity.

Planet watchers uses radar satellite imagery combined with advanced machine learning to support crop insurers in automatically reporting planting dates, acreage and crop classification efficiently and at scale.



Web:	xonaspace.com
HQ:	US
Taxonomy:	Platforms / Navigation
Status:	Private; Minicorn
Stake Category:	11-15%
Fair Value / Cost:	£2.6m / £2.3m
Valuation Method:	Last Funding Round

Xona Space Systems is aiming to be the world's first smallsat GPS constellation for delivering centimetre level accuracy and enhanced security

Global Navigation Satellite System (GNNS) – or GPS as it is more commonly referred to - is the invisible utility driving the world. The position, navigation and timing (PNT) capabilities it delivers powers \$trillions within the global economy.

While GPS has been an adequate solution for the world of today, legacy systems are not able to keep up with the commercial demands for accuracy, security or availability.

In particular GPS' current 5-10 metre accuracy and vulnerability to hacking / spoofing fails to meet the requirements for autonomous systems. These systems – such as autonomous cars, drones and robots - need much greater precision and security in order to operate safely.

By launching its own constellation of GPS signal boosting smallsats, Xona is aiming to deliver centimetre level precision with greatly enhanced security required by such autonomous systems



Web:	edgybees.com
HQ:	Israel
Taxonomy:	Product / EO
Status:	Private; Minicorn
Stake Category:	0-5%
Fair Value / Cost:	£1.5m / £1.4m
Valuation Method:	Last Funding Round

Edgybees has developed an A.I powered augmented reality platform using satellite data for real-time information overlays for any video stream

To make use of all the video feeds being generated from drones, operators need to first understand where / what they are looking at. Existing solutions for overlaying such geospatial information on top of video and imagery lack both the accuracy and the latency required for making real-time decisions.

Edgybees is addressing these shortcomings by developing a new capability in visual intelligence and situational awareness.

Edgybees' A.I.-powered solution utilises satellite-generated geographical positioning imagery, coupled with computer vision and machine learning algorithms, to deliver low latency, high accuracy geospatial visual overlays on real time video feeds.

Edgybees empowers defence, public safety and critical infrastructure operators to understand any operational scene instantly.



Web:	quadsat.com
HQ:	Denmark
Taxonomy:	Downlink / Antennas
Status:	Private; Seedcorn
Stake Category:	11-15%
Fair Value / Cost:	£1.1m / £1.1m
Valuation Method:	Last Funding Round

Quadsat enables the testing and calibration of satellite antennas using a mobile drone platform.

Today, there are more than 10m ground antennas around the world that are used to send and receive information from satellites.

The satellite Industry already suffers from antenna interference. With plans for over 100,000+ satellites within a decade there is no scalable way to carry out antenna testing to mitigate interference.

Currently antenna performance data comes from either dedicated test facilities - which are expensive and time consuming - or field testing which gives unreliable and inaccurate performance data.

Quadsat is a patented and world first drone-enabled mobile testing platform for antennas. Its solution harnesses edge computing, A.I., software defined radio, and the cloud.

With a \$5bn addressable market Quadsat is already working with anchor customers including 'megaconstellations', satellite operators and Space agencies, addressing one of the industry's biggest challenges.





## **Further information**

#### **Company Information**

**Board of Directors** 

Will Whitehorn (Non-executive Chair)

Sue Inglis (Non-executive Director)

<u>Christina McComb</u> (Non-executive Director)

#### Manager

Seraphim Space (Manager) LLP, 167 City Road, London, EC1V 1AW

#### Key Financials as at 30th Sept 2021

NAV per share	104p
Share price (as at 30.09.21)	125p
Share price premium/ (discount) to NAV	21%
Index	FTSE All-share

#### **Brokers**

Deutsche Bank AG, Winchester House,, 1 Great Winchester Street, London, EC2N 2DB

J.P. Morgan Securities plc, 25 Bank Street, Canary Wharf, London, E14 5JP

#### **Contact Details**

Registered Office - 5th Floor 20 Fenchurch Street, London, EC3M 3BY

Net assets	£221m
Market capitalisation	£266m
Ticker code	SSIT
Management Fees	1.25% NAV
Gearing	None

Calendar	
Half year	Mar 22
Q3 results	May 22
Full year	Aug 22
AGM	TBC



### Environmental social and governance matters – Socially responsible Investment

Seraphim is a member of the Venture Capital group at the United Nations backed Principles of Responsible Investment. The PRI is the world's leading proponent of responsible Investing <a href="https://www.unpri.org/">https://www.unpri.org/</a>

#### Website

https://:investors.seraphim.vc is constantly being updated to ensure that you can always access Seraphim Space Investment Trust Plc latest data and information on your computer or mobile device in a transparent, convenient and intuitive manner.

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