



SERAPHIM  
SPACE INVESTMENT TRUST PLC



# INTERIM REPORT

FOR THE  
PERIOD ENDED  
31 DECEMBER  
**2022**



# ABOUT THE COMPANY

Seraphim Space Investment Trust PLC (the “Company” or “SSIT”) is the world’s first listed SpaceTech fund. It is an externally managed closed-ended investment company that was launched in July 2021. SSIT seeks to generate capital growth over the long term through investment in a diversified, international portfolio of predominantly early and growth stage privately financed SpaceTech businesses that have the potential to dominate globally and are category leaders with first mover advantages in areas such as global security, food security, climate change and sustainability. The Company’s shares are traded on the London Stock Exchange’s main market.

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Find us online: [investors.seraphim.vc](https://investors.seraphim.vc)

### INVESTMENT MANAGER

The Company is managed by Seraphim Space Manager LLP (the “Investment Manager” or “Seraphim Space”), the world’s leading SpaceTech investment group. The Investment Manager’s 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.

The Investment Manager has supported more than 100 SpaceTech companies across its fund management and accelerator activities since 2016 and has a proven track record of delivering value.

Positioned at the heart of the global SpaceTech ecosystem, the Investment Manager 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 industrial revolution.

The Investment Manager is a signatory to the UN Principles for Responsible Investment (“UN PRI”). Its first UN PRI report is due in 2024.

## INTERIM MANAGEMENT REPORT

# KEY HIGHLIGHTS

As at 31 December 2022

### KEY PERFORMANCE INDICATORS

For the period from 1 July 2022 to 31 December 2022

#### NAV PER SHARE MOVEMENT <sup>(1)</sup>

-7.2%

#### DISCOUNT (AS AT 31 DECEMBER 2022) <sup>(1)</sup>

-51.3%

#### FAIR VALUE VS. COST (AS AT 31 DECEMBER 2022) <sup>(1)</sup>

97.2%

#### SHARE PRICE MOVEMENT <sup>(1)</sup>

-14.7%

#### ONGOING CHARGES <sup>(1), (2)</sup>

1.88%

### FINANCIAL SUMMARY

	31 DECEMBER 2022	30 JUNE 2022	CHANGE	31 DECEMBER 2021	CHANGE
NAV	£222.0m	£239.3m	-7.2%	£250.6m	-11.4%
NAV per share <sup>1</sup>	92.74p	99.97p	-7.2%	104.67p	-11.4%
Portfolio valuation	£181.2m	£186.1m	-2.6%	£182.8m	-0.9%
Fair value vs. cost <sup>1</sup>	97.2%	104.3%		111.3%	
Market capitalisation	£108.2m	£126.9m	-14.7%	£300.2m	-64.0%
Share price <sup>1</sup>	45.2p	53.0p	-14.7%	125.4p	-64.0%
-Discount/+premium <sup>1</sup>	-51.3%	-47.0%		+19.8%	
Ongoing charges <sup>1,2</sup>	1.88%	1.72%		n/a	
Number of shares in issue	239.4m	239.4m	0.0%	239.4m	0.0%
Liquid resources	£40.9m	£57.7m		£70.0m	

Please note that the Glossary on pages 58 and 59 provides definitions for defined terms used through the report.

<sup>(1)</sup> Alternative performance measure – see Alternative Performance Measures on pages 56 and 57.

<sup>(2)</sup> For the 12-month period ended on the relevant period-end date.





# CHAIR'S STATEMENT



# CHAIR'S STATEMENT

"The war on Ukraine and the global macro environment have had a significant impact on global markets. While asset valuations have rallied in recent months, sentiment towards growth-oriented private companies remains depressed. Remote sensing and earth observation are playing an increasingly important role in addressing the global challenges of our time. The space industry has a crucial role to play, and the Company's portfolio overall is robust, having closed 11 new financings, and is now well-capitalised throughout 2023. With 18% of NAV in cash the Investment Manager continues to carefully add new companies to the portfolio."

**Will Whitehorn**

Chair

I am pleased to present the Interim Report of Seraphim Space Investment Trust PLC, covering the period from 1 July 2022 to 31 December 2022 (the "Period").

I would like to thank all shareholders for their continued support during the challenging macroeconomic climate of 2022.

## PROGRESS IN THE PERIOD

The Company invested £13.4m in four new portfolio companies (two of which were sourced through accelerator programmes managed by an affiliate of the Investment Manager) and six existing portfolio companies during the Period. Highlights include leading investment rounds in three companies and investing in category-leading companies in the UK, US, EU and Middle East.

At 31 December 2022, the Company had investments in 29 SpaceTech companies with an aggregate value of £181.2m and cash reserves of £40.9m.

The war on Ukraine and the global macro environment have had a significant impact on global markets. As a consequence, the Company has deliberately slowed its pace of deployment in order to reserve cash to follow its rights in existing portfolio companies whilst continuing to actively seek new target companies to add to the portfolio, albeit investing smaller units of investment. As outlined in the Investment Manager's Report, overall, the portfolio is well-capitalised.

## NAV

The NAV per share decreased by 7.2% over the Period, from 99.97p to 92.74p at 31 December 2022, largely driven by a reduction in the fair value of the portfolio.

Despite the challenging macroeconomic environment, the fair value of the private companies in the portfolio (which accounted for 86% by number and 94% by fair value of the portfolio) largely remained stable over the Period, with fair value reaching 114.1% vs. cost (122.2% excluding FX impact) at the Period-end. The Investment Manager's Report includes a more detailed review of the performance of portfolio companies.

Contrastingly, the listed element of the portfolio (28.5% fair value vs. cost) continued to mirror the depressed share price performance of technology and growth stocks on public markets worldwide, precipitated by rising interest rates, global energy prices, high inflation and the war on Ukraine. Three of these four portfolio companies listed as part of SPAC mergers in 2021, and their performance has suffered in line with the overall SPAC market.

There was limited impact from foreign exchange variations (+£2.3m) in the Period, with a strengthening of Sterling in the final quarter of 2022 offsetting weakness against the Dollar in the previous quarter.

## SHARE PRICE

The Company's share price fell over the Period and, at 31 December 2022, was 45.2p, a decrease of 14.7% from 53.0p at 30 June 2022.

Inevitably, the Company's share price has not been immune to the significant volatility being experienced by global stock markets in 2022 and, in particular, the heavy falls suffered by growth and technology stocks which continued to be depressed through the Period. At the Period-end, the share price was at a discount of -51.3% versus NAV per share.

## CHAIR'S STATEMENT

(continued)

Given the discrepancy of performance between NAV and share price over the Period, the Board has considered buying back shares as part of discount management. However, we continue to believe that it is in the best interests of shareholders at this time to reserve the Company's cash to support the portfolio and make selective new investments.

## EARNINGS AND DIVIDEND

The Company made a revenue loss after tax of £2.4m for the Period, equal to (0.99)p per share.

The Company is focused on achieving capital growth over the long term. Given the nature of the Company's investments, we do not anticipate recommending to pay a dividend in the foreseeable future.

## RESPONSIBLE INVESTMENT

During the Period, the Investment Manager continued to use its proprietary due diligence tool in order to assess sustainability opportunities and ESG risks associated with each potential investment. As a result of the development of this tool, the Investment Manager has been able to identify risks that have led it to turn down opportunities in the Period, as well as to identify opportunities that portfolio companies can take advantage of in order to deliver positive ESG and sustainability impact.

## BOARD

From the Annual General Meeting which took place on 13 November 2022, Angela Lane succeeded Christina McComb as Chair of the Audit Committee and Christina succeeded me as Chair of the Management Engagement Committee.

## EVENTS AFTER THE PERIOD-END

The Investment Manager is in advanced negotiations for follow-on investments in two of the top 10 portfolio companies and has signed agreements for two follow-on investments in early stage portfolio companies.

## OUTLOOK

The Russian invasion of Ukraine changed the economic imperatives of financial markets in a way that had not been seen for decades. Faced with a new set of challenges, the western economies have innovated, with the venture capital industry and, in particular, the space industry, playing a crucial part of this process,

leading the way in strengthening, developing and diversifying the capability and supply chains that the modern world depends upon.

Government revenues, in the form of contracts or grants, are a significant driver for many portfolio companies. They provide a source of stable funding, which can act as a cushion against reduced demand from the commercial sector in a challenging economic environment with elevated inflation and rising interest rates. This stability can help the industry to weather economic downturns and maintain its operations, research and development and infrastructure investments.

Remote sensing and earth observation continue to play a key role in addressing one of the greatest global challenges of our time – climate change. Satellite-based monitoring systems are providing critical data and information on weather patterns, addressing the impacts of climate-related extreme weather events, carbon emissions and other factors related to mitigating the effects of climate change. Revenue from this area is the other key driver for portfolio companies, underpinning expectations of continuing growth.

The Investment Manager is actively engaged with numerous investment prospects, carefully selecting those with a strong growth premise and offer the highest returns for shareholders. It is taking a cautious approach to the allocation of cash between supporting existing portfolio companies, making new investments, and managing the Company's working capital until the market improves and more capital can be raised.



**WILL WHITEHORN**

Chair

8 March 2023







# INVESTMENT MANAGER'S REPORT



# INVESTMENT MANAGER'S REPORT

"The global space sector remains robust, and the Company's portfolio overall is well positioned and is financially secure through 2023. The Company expects to benefit from long-term trends such as global security, food security and climate change but acknowledges that these trends may take some time to fully develop in the wider economic environment. With sizeable cash reserves and listed holdings, the Company is confident that it can both support its current investments with high growth potential and take advantage of new investment opportunities that are emerging."

**Mark Boggett**  
CEO, Seraphim Space Manager LLP

## OVERVIEW

The second half of 2022 saw a continuation from the first half of the year in terms of a reduced investment cadence. This is reflective of the strategy implemented early in 2022 to look to preserve cash reserves to primarily support the existing portfolio in recognition of the anticipated headwinds precipitated by the broader economic downturn.

Being cognisant of the uncertainty of when market conditions may allow the Company to access additional capital, much of our focus has been on trying to ensure that as many of the Company's portfolio companies are adequately capitalised in an effort to ride out current market turbulence. This has entailed both supporting their fundraising efforts whilst also, where appropriate, reducing overheads in order to extend cash runways.

These efforts have yielded positive results, with a total of 11 portfolio companies raising additional follow-on funding during the second half of 2022. In most instances, the additional capital raised is expected to be sufficient to operate the businesses into 2024.

A common feature of most of these transactions is that they have comprised bridge funding provided by existing shareholders. Such rounds are normally structured via unpriced convertible instruments that are designed to convert into equity at the next funding round. This dynamic is reflected in the wider venture capital market, with shareholders having spent much of 2022 focused on their existing investments rather than seeking new ones.

This behaviour is consistent with that witnessed by members of the Investment Manager in each successive downturn over the last 20 years. At such points in the economic cycle, the strength of the investor syndicate is critical to ensuring that businesses are able to survive any recession when many of their competitors may be likely to fall by the

wayside through an inability to access the capital they require. Historically, those companies that do manage to survive are then in a strong position to thrive when positive market conditions return.

The strength of the syndicate of other shareholders relative to the capital needs of a business is one of the key considerations we assess whenever contemplating a new investment. Evidence to date – in the form of the number of follow-on funding rounds closed – indicates that existing shareholders' support for the Company's portfolio companies remains robust. This should hopefully enable them to benefit once the current downturn starts to abate.

The outcome of all of this activity is that most portfolio companies are believed to have sufficient cash reserves to operate through at least the next 12 months, and in many instances comfortably into 2024. Within the Company's top 10 holdings, two companies, ALL.SPACE and Satellite Vu, are currently fundraising. Both companies have agreed termsheets with a syndicate of existing shareholders (including the Company) and are expected to close the investment they require over the next quarter.

Although supporting the existing portfolio has been a particular focus over the last six months, new investment activity has also remained broadly consistent, with four new investments during the period versus five during the first six months of 2022. Key themes from these new additions to the portfolio include the use of space data to drive sustainable agriculture and the emerging in-space economy.

With an active portfolio of 28 companies, we anticipate adding a handful of additional investments funded from the Company's current cash reserves. We are currently in active due diligence on four potential transactions that encompass the confluence of space data, climate change and the insurance markets alongside the internet of things and in-orbit infrastructure.

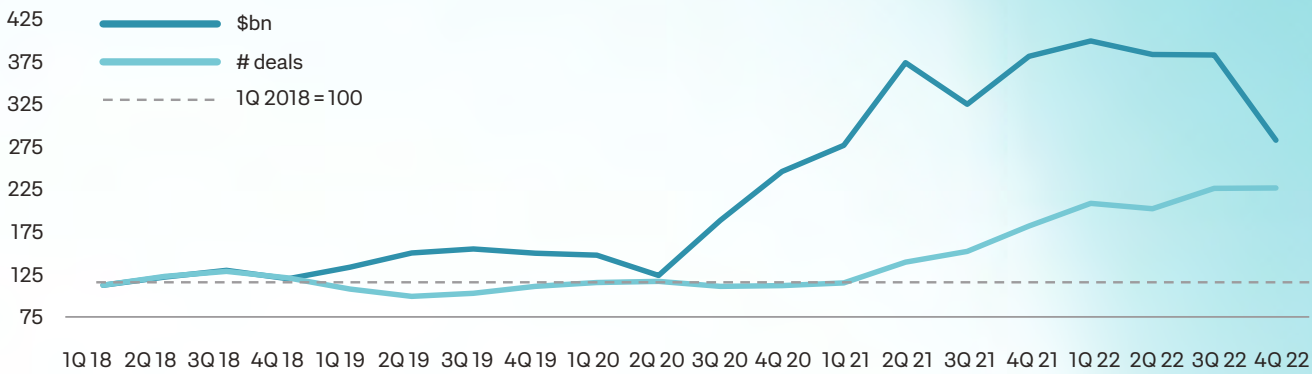
# INVESTMENT MANAGER'S REPORT

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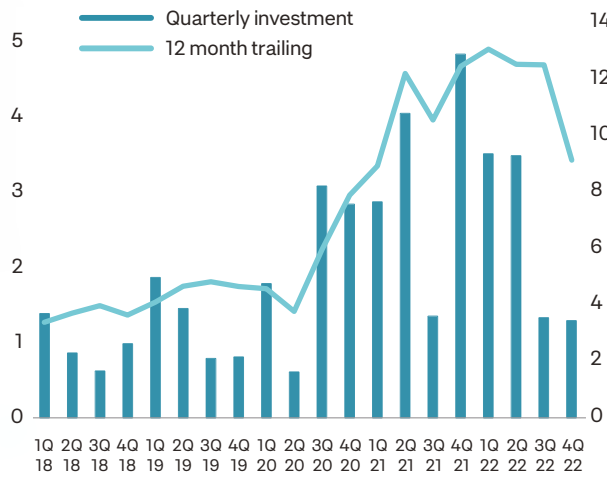
## Market commentary

Despite the macroeconomic climate, statistics indicate that 2022 was a solid year for the venture capital industry, with most indicators of market activity at or near record highs. When graded against any year other than the stratospheric 2021, industry activity was extremely strong. However, it is important to look at the quarterly trends, where activity dropped off between the first and last quarters of 2022.

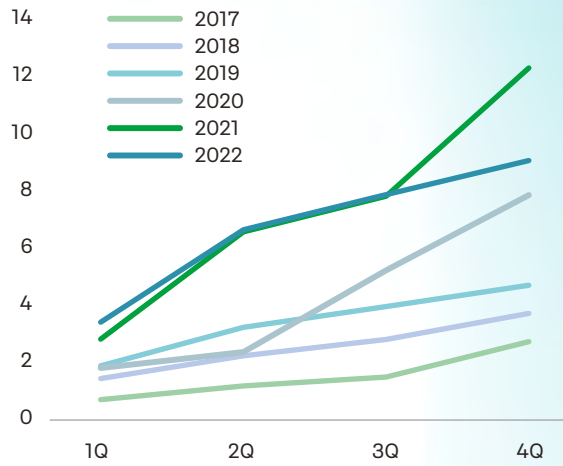
**Seraphim 12 month trailing investment activity index**  
(1Q 2018 = 100)



**Seraphim quarterly investment tracker**  
(\$bn invested)



**Seraphim annual investment tracker**  
(\$bn invested)



Source: Seraphim Space Index 4Q 2022



(continued)

Across the venture capital market, by the end of 2022 the prolonged economic downturn had more firmly materialised in the data. Pitchbook, a leading data provider for private and public markets, reported that the macroeconomic climate lowered valuations for late stage deals as investors took a more measured approach to prospective deals. The 2022 median late stage pre-money valuation fell 10.3% year-on-year.

Conversely, for earlier seed stage businesses, 2022 deal value set a new annual record that was 8.9% above the 2021 figure. Pitchbook attributes the sustained strength of deal value to the increasing robustness of the pre-seed market, expansion of seed stage investor participation and the prolonged time between startups' foundations and seed rounds giving rise to more mature startups. 2022 culminated with a median seed deal size 19.4% above the prior year's annual high, and pre-money valuations also demonstrated notable growth over the 2021 figures.

These overall venture capital market trends were largely mirrored in the space domain. Seraphim Space publishes a quarterly report illuminating the trends for global private investment in the SpaceTech domain. The Space Index for 4Q 2022, which covers the year to 31 December 2022, showed that the number of SpaceTech seed deals were up c.50% in 2022 compared to 2021, far greater than the venture capital market average according to Pitchbook, indicating strong interest from investors in funding new space companies in 2022.

SpaceTech is now truly international, with Asia and Europe starting to catch up with North America in terms of number of deals. Asia was up 80% compared to 2021 and Europe up 50%. Both saw more deals in 2022 than North America did in 2020.

At the growth stage, total investment was down 34% compared to 2021 but deal volumes were flat, suggesting companies were undertaking smaller extension rounds from existing shareholders. While the US remains the primary driver of large SpaceTech rounds, 4Q 2022 saw representation from UK, India, Australia and Germany in the top 10 countries. With total investment of \$8.9bn in 2022, overall venture and private equity investment in SpaceTech was down c.25% compared to 2021.

### Valuation policy

In respect of private company valuations, fair value is established by using recognised valuation methodologies, in accordance with the International Private Equity and Venture Capital Valuation Guidelines ("IPEV"). The Company has a valuation policy for unquoted securities to provide an objective, consistent and transparent basis for estimating their fair value in accordance with IFRS as well as IPEV. The unquoted securities valuation policy and the associated valuation procedures are subject to review on a regular basis, and updated as appropriate, in line with industry best practice.

The Investment Manager reports to the Board on a regular basis both outside of and during quarterly Board meetings, where the operating and financial performance of the portfolio together with valuations, are discussed at length. During the year, a number of the Company's investments completed funding rounds supported by new investors, which provides strong external validation of the valuation progression of these individual investments.

All valuations are considered on a quarterly basis and assessed against the price of the last funding round. However, given valuation volatility during 2022, to ensure appropriate NAV reporting, the Board initiated a process to recalibrate, across an increased number of datapoints, the material portfolio companies (i) whose last funding rounds took place more than 12 months earlier or (ii) which had experienced a significant milestone event or material under- or over-performance (each a "recalibration event") to determine whether to change the company's enterprise value. This process entails assessing the enterprise value following the most recent round against a composite of several elements: observable market data (where possible), recent relevant private investment transactions, public market valuations of comparable companies and progress made by the company since the funding round across various metrics. This exercise further strengthens the valuation process with the goal of preserving shareholder confidence in the NAV during volatile market conditions and will be conducted when a recalibration event occurs and every quarter thereafter until a new priced funding round is completed.

(continued)

An important consideration in relation to valuation is the structuring of individual investments. The Investment Manager routinely seeks to obtain downside protection measures across the private companies within the portfolio via preference shares, rather than common equity. All the top 10 private companies in the portfolio are structured via preference shares with weighted average anti-dilution protection and/or liquidation preference.

Preference shares sit above common equity in the capital structure in the event of a liquidity event, but below creditors such as banks. Preference shares offer more defensive exposure to an asset with their 'liquidation preference'. Liquidation preferences provide a prioritised return ahead of other share classes, which means value can be preserved even in scenarios where a business is sold at a far lower valuation than that used to make the investment.

Anti-dilution rights retrospectively amend the price paid or the number of shares owned where a subsequent funding round is done at a lower valuation (down round). These measures can help mitigate dilution in the event of a down round, but it rarely results in no dilution. Additional shares are often issued at par to ensure that the shareholdings of existing investors are at least partially protected of a down round. The Investment Manager typically applies weighted average dilution, which provides a proportion of adjustment and less protection, but still a better outcome than if no anti-dilution measures were applied in the event of a down round.

In summary, the key principles of how the Company determines fair value in accordance with IPEV guidelines is a focus on updating the enterprise value (either through there being a new funding round or through a valuation calibration exercise or adjustment for milestones) and then applying the implied equity value (based on adjustments for new debt, etc) to the company's capital structure (i.e. preference stack) to determine fair value. In the event of commercial (or technical) underperformance of a portfolio investment, a further provision can then also be applied, typically in increments of 25% to reduce fair value.

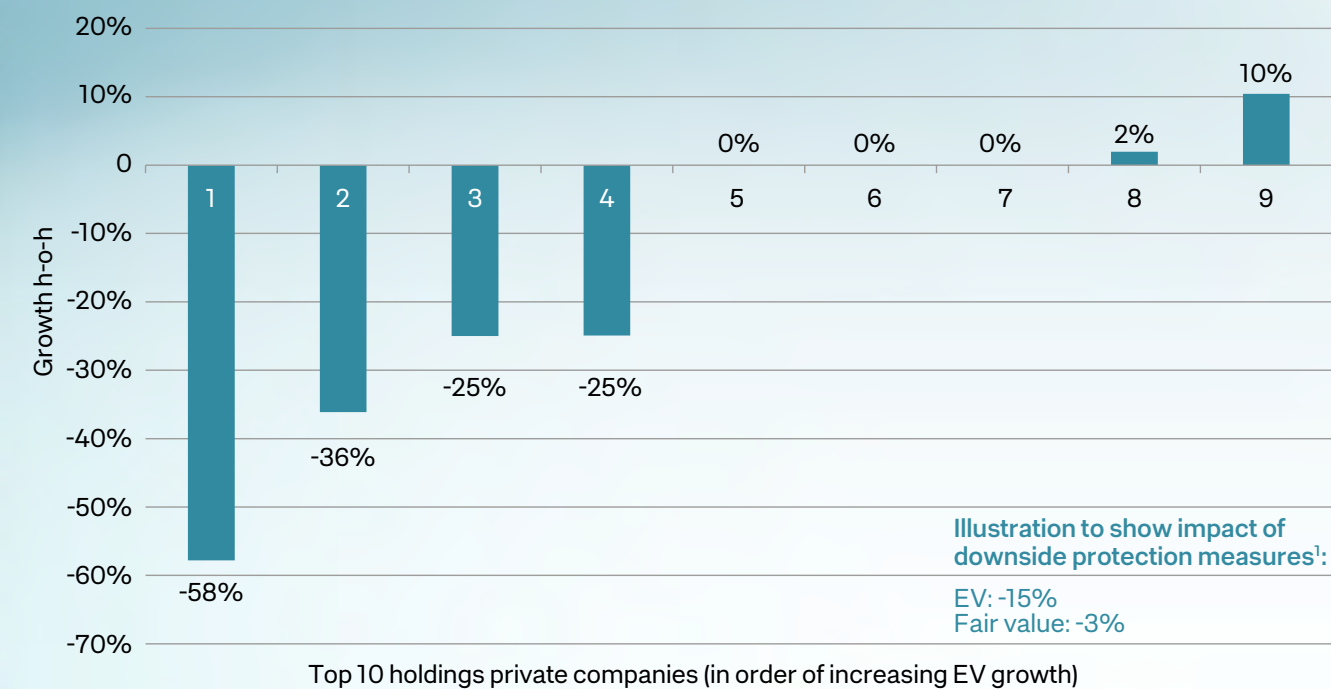
### Material holdings' enterprise value recalibrations

The enterprise values of the nine private companies within the top 10 holdings, on average, reduced by 15% over the course of the last six months (the fair value weighted average reduction was also 15%). The chart overleaf shows, on an anonymised basis, the percentage change in the enterprise value of each of these companies for the six-month period ending 31 December 2022. It can be noted that four companies have experienced an enterprise value reduction greater than 25%. However, it is worth noting that, as a result of the downside protections in place, most particularly liquidation preferences, these reductions in enterprise value do not necessarily translate directly into commensurate reductions in fair value. The corresponding reduction in the same companies' fair values was only 3% (on a fair value weighted average basis).





Top 10 holdings private companies' enterprise value (EV) change 1 July 2022 to 31 December 2022



Source: Seraphim Space analysis

Note: <sup>1</sup> Fair value weighted average change of the nine private companies in the Top 10 holdings

Top 10 holdings' fair value changes

Company	Fair value as at 30-Jun-22 £m	Additions/ (disposals) £m	Change in fair value net of additions / (disposals)			Fair value as at 31-Dec-22 £m
			Fair value £m	FX £m	Total £m	
ICEYE	43.3	-	0.0	0.2	0.2	43.4
ALL.SPACE	24.9	-	-2.7	0.1	-2.6	22.3
HawkEye 360	20.6	-	-	0.1	0.1	20.7
D-Orbit	12.7	4.4	0.6	0.5	1.0	18.1
Altitude Angel	9.0	-	0.8	-	0.8	9.9
LeoLabs	13.7	-	-4.8	0.4	-4.4	9.3
Satellite Vu	7.8	-	-	-	-	7.8
Astroscale	7.7	-	-	0.0	0.0	7.7
Arqit	14.0	-4.7	-3.2	0.5	-2.7	6.7
PlanetWatchers	8.1	2.5	-4.9	0.2	-4.7	6.0

INVESTMENT ACTIVITY

In the six months ended 31 December 2022

New investments

During the Period, a total of £4.2m was invested into two additions to the Company's main portfolio: **Taranis** and **Voyager**. In addition, there were two new investments into early stage portfolio companies for a total of £0.3m.

**Taranis** is an agriculture-focused AI company that uses earth observation data to optimise crop yields and increase global food supply. Taranis is improving agricultural efficiency by providing insights to growers on field health. Taranis uses satellite and drone imagery, in combination with its extensive library of crop health indicators, for early detection of disease or nutrient deficiencies. These accurate and local assessments improve crop yields by better tailoring the use of fertilisers and pesticides. In August 2022, the Company completed a \$2.5m (£2.1m) investment into Taranis' Series B investment round. Taranis received investment from numerous top Israeli venture and growth investors. With this round, Taranis will build out their US sales capability, and gain early traction with its new carbon monitoring product.

**Voyager** is a next generation 'Space Prime' (prime contractor contracted by government agencies for space projects) that is developing Starlab, a next generation free flying space station. Starlab will provide the facilities to host public and private astronauts, as well as forming the critical infrastructure required to

support research, development and manufacturing in space. The Company completed a \$2.5m (£2.1m) investment into Voyager's Series B investment round in July 2022. Voyager intends to use the funds raised to continue to finance the development of Starlab and expand its capabilities through strategic M&A.

Follow-on investments

£9.0m of additional funding was invested into six companies during the Period (three in the main portfolio totalling £7.1m and three into early stage companies totalling £1.9m). This deployment was consistent with the strategy articulated at the time of the Company's IPO of seeking to increase the level of support for those portfolio companies which we have the greatest conviction in.

In August 2022, the Company completed a \$3m (£2.5m) follow-on investment into **PlanetWatchers**, acting as co-lead alongside Creative Ventures as part of Planet Watchers' Series A investment round. With this round, PlanetWatchers is looking to invest in automation and fuel its commercial growth through expanded sales efforts.

In December 2022, the Company invested a further €5m (£4.4m) alongside other shareholders into **D-Orbit** to help consolidate its position as the market leader within the in-space transportation market.





## PORTFOLIO PERFORMANCE

In the six months ended 31 December 2022

### Private portfolio

The private portfolio, which comprises the main part of the Company's investments representing 94% of fair value and 77% of NAV, performed well, with its fair value closing the Period at 114% vs. cost (122% excluding FX losses). We believe that the issues impacting the listed portfolio largely reflect the performance of the broader SPAC market which is not directly correlated with the private holdings in the portfolio. These businesses continue to deliver solid revenue and bookings growth driven by solid fundamentals in their core focus areas (especially global security and climate/sustainability), and the impact of the war on Ukraine.

Excluding the impact of FX losses, during the Period, two of the main portfolio companies, **PlanetWatchers** (fair value vs. cost: 108%) and **LeoLabs** (fair value vs. cost: 80%), saw decreases in their fair values as a result of recent valuation recalibration exercises. Separately, the EV of **ALL.SPACE** (fair value vs. cost: 115%) was recalibrated based on a funding round that is currently in process.

### Listed portfolio

Rotation away from risk assets influenced the entirety of the market in 2022. However, the most drastic declines over the past 12 months have come from the newly public companies which listed via SPAC transactions. This group is characterised by high growth rates with low profitability, and traded down over each quarter of the year. On average, all SPACs were down by 30% over the Period. Share price reductions of three of the listed portfolio companies (**Arqit**, **Spire Global** and **AST SpaceMobile**) led to an aggregate fair value decrease of 44.8% over the Period. In aggregate, the listed portfolio represented just 5% of NAV and 6% of portfolio fair value at the end of the Period (fair value vs. cost: 29%).

The **Arqit** (NASDAQ: ARQQ; fair value vs cost: 29%) share price was highly volatile during the Period. During a rally in November 2022, we took the opportunity to sell down some of the holding at an average price of \$8.48 per share in order to provide some additional liquidity to support private portfolio companies. Arqit reported full year results, including news that it has circumvented the need for satellite infrastructure within its tech stack. It reported \$20m of revenue and other operating income and announced three key commercial partnerships: AWS has integrated Arqit into its S3 Cloud, Dell has

integrated Arqit into its product list and Fortinet has integrated Arqit into its firewalls. The world needs to upgrade encryption quickly and these hyperscale vendors are expected to help Arqit access the global market. Arqit also disclosed that the US Securities and Exchange Commission (SEC) is undertaking an investigation into its SPAC merger in 2021.

**Spire Global** (NYSE: SPIR; fair value vs. cost: 19%) has in recent quarters delivered consistently strong results, with recurring revenue as at 30 September 2022 of \$98.1m, with record revenues in 3Q 2022 representing a year-on-year increase of 114%. Spire Global has a broad customer base which it serves with data and analytical products drawn from its giant satellite constellation of over 100 smallsats, which collect advanced weather data and track maritime and aviation traffic flows. It also now offers space-as-a-service solutions hosting payloads and launching and operating satellites on behalf of third parties. With c.\$60m of cash and access to a \$120m credit facility, the business has indicated that it is now funded through to cash flow breakeven, which it expects to achieve within the next 24 months.

**AST SpaceMobile** (NASDAQ: ASTS; fair value vs. cost: 40%) launched BlueWalker 3, its long-awaited and second operational test satellite. In November 2022, AST SpaceMobile subsequently marked a critical milestone in the company's development of a global network to provide 5G broadband service across the world, with confirmation that it had successfully deployed BlueWalker 3's 693 square foot antenna, the largest array ever deployed in low earth orbit (LEO). The company is aiming to create a worldwide service consisting of a constellation of 168 satellites, achieving global coverage once 110 are in orbit. The company also closed an oversubscribed fundraising round of \$75m as it plans to deploy its operational BlueBird satellites late next year.

On 18 November 2022, **Nightingale** listed on the Australian Stock Exchange raising AUD5m (ASX: NGL; fair value vs. cost: n/m). The Company had previously fully provided against this portfolio company which had been acquired for zero consideration from Seraphim Space LP as part of the Initial Portfolio. Nightingale offers an autonomous perimeter security service designed to enhance physical security at large, sensitive facilities, including critical infrastructure such as ports and nuclear power facilities through to Fortune 500 companies.

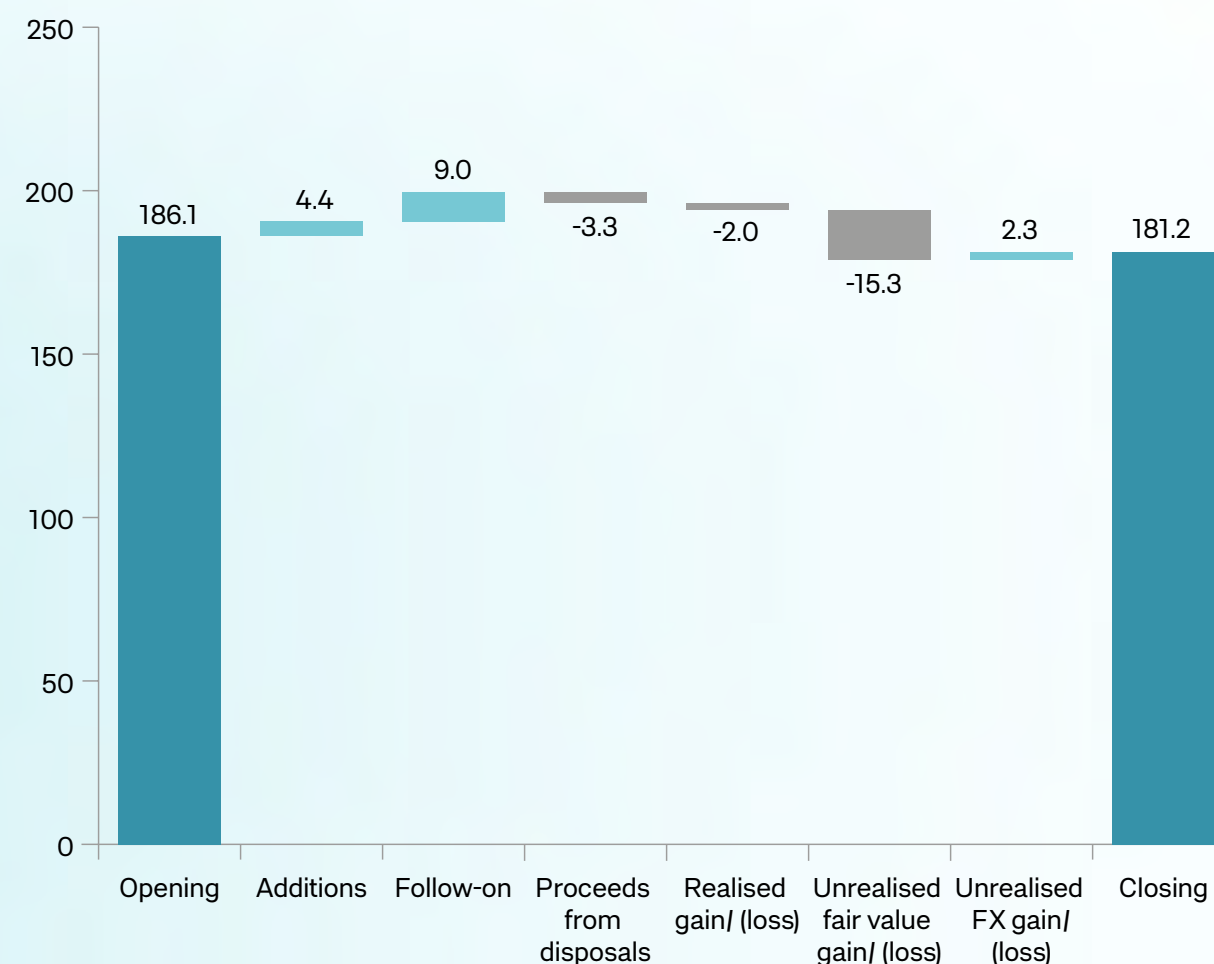
## PERFORMANCE OF THE COMPANY

In the six months ended 31 December 2022

### Portfolio attribution

- £4.4m in new investments and £9.0m of follow-ons in the Period.
- £3.3m in proceeds from disposals in the Period.
- £2.0m realised loss from the partial sale of Arqit and the exit of one of the early stage portfolio companies.
- Reduction in unrealised fair value of £15.3m during the Period, partially offset by a £2.3m unrealised FX gain.
- £181.2m fair value of portfolio at end of Period.
- 3% decrease in closing portfolio fair value vs. cost, including FX movements.

### Attribution analysis of movements in the fair value of investments (£m)

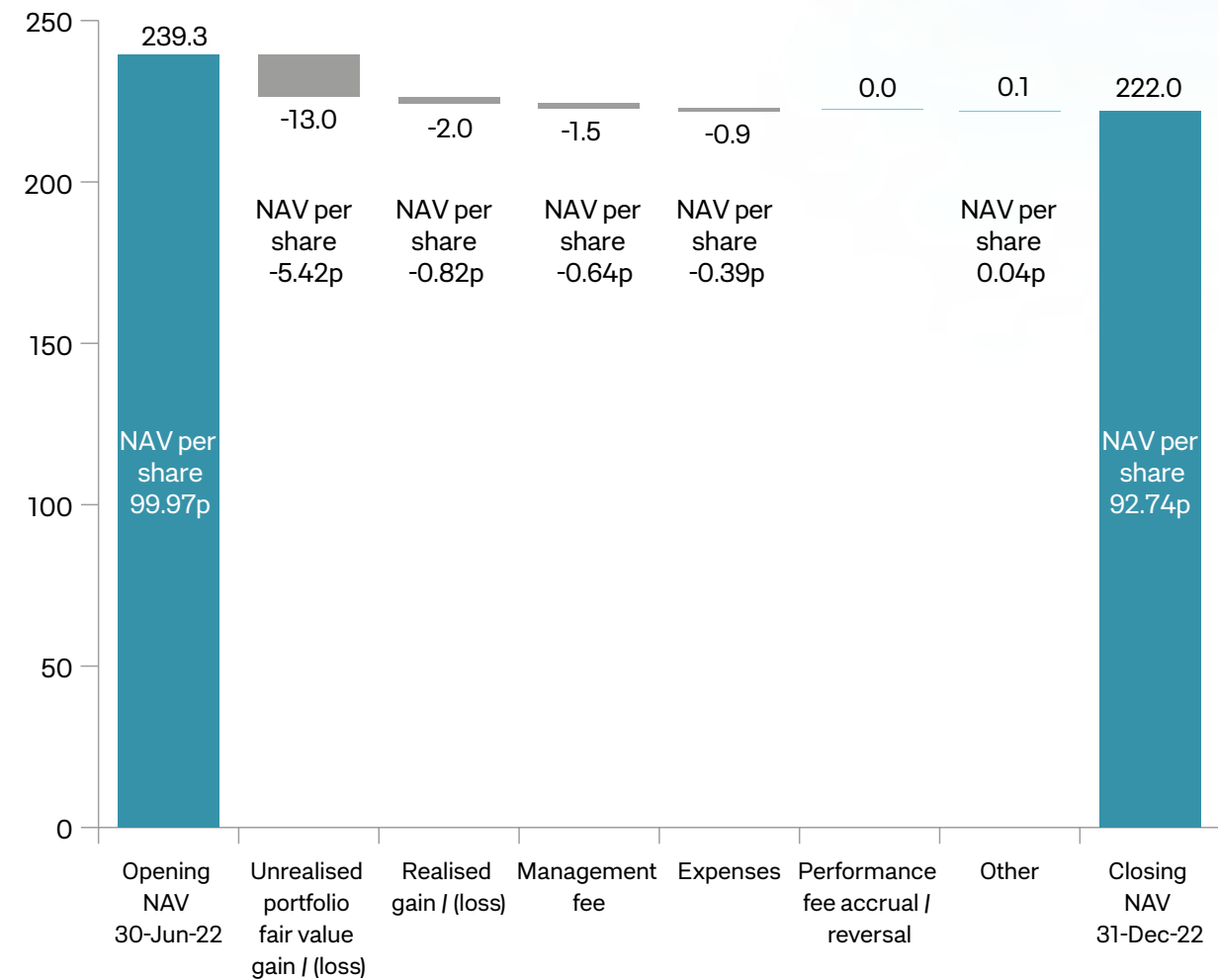




NAV

- £17.3m decrease in NAV (7.2% decrease) over the Period to £222.0m (30 June 2022: £239.3m).
- £40.9m liquid resources (18.4% of NAV) at 31 December 2022 (30 June 2022: £57.7m).

NAV bridge (£m)



NAV decreased from £239.3m to £222.0m during the Period. This decrease of £17.3m was primarily a result of a portfolio fair value decrease (including FX movements). Please see pages 18 and 50 for details of the fair value movement over the period, where both private and listed companies in aggregate have shown a decrease in fair value (excluding gains from FX), partially offset by a small gain from FX over the Period.

The other movements in the chart above consists of a realised loss in the Period (£2.0m) from the sale of some of the Arqit holding and one of the early stage companies, management fees (£1.5m) and operating expenses (£0.9m), partially offset by interest (£0.1m) received.

The NAV per share decreased from 99.97p to 92.74p over the Period.

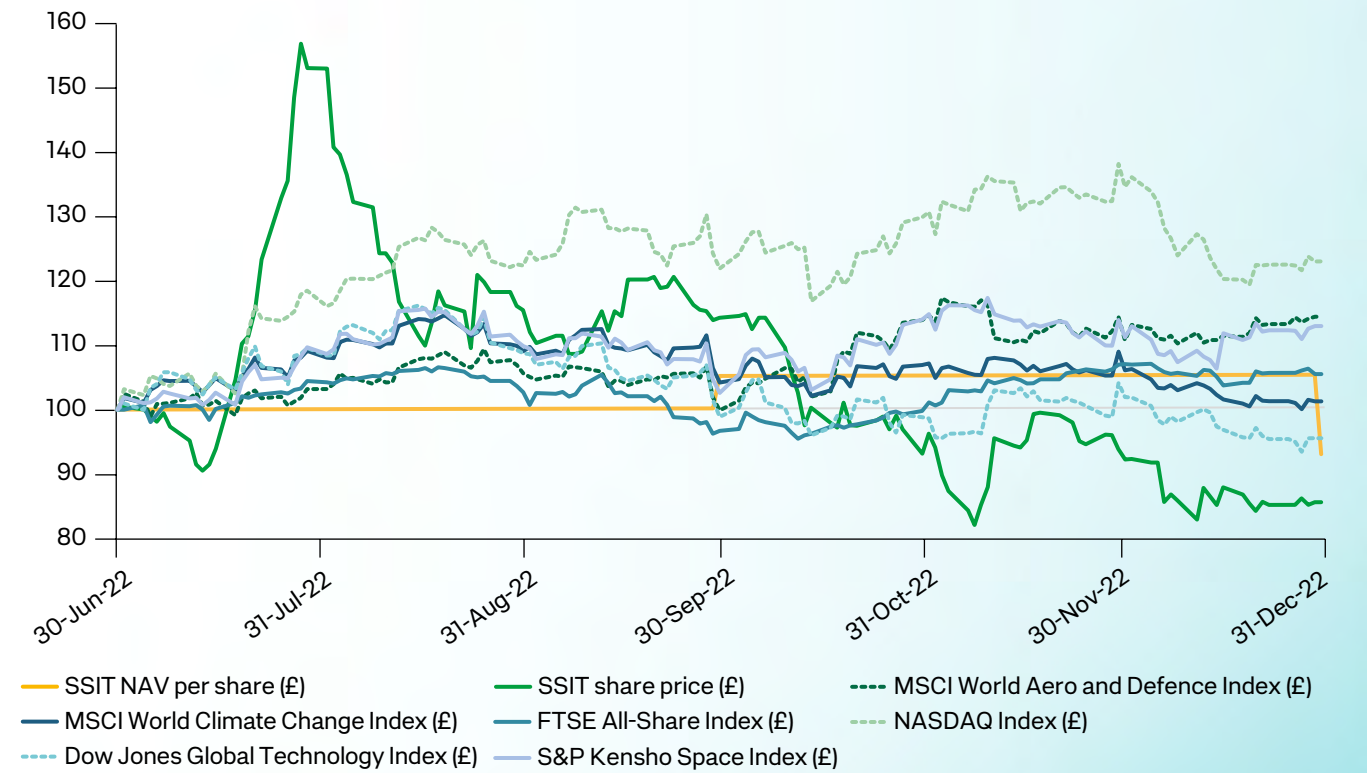
The Company is targeting an annualised total return on the Company's portfolio of at least 20% over the long term. The Company has no formal benchmark index but has tracked its NAV per share and share price movements against the following indices for reference.

- MSCI World Aero and Defence Index (£) – a significant proportion of portfolio companies' revenues are derived from the broader aerospace and defence industry and/or companies have governments as significant customers.

- MSCI World Climate Change Index (£) – a significant proportion of portfolio companies' revenues are derived from climate change products and services.
- FTSE All-Share Index (£) – the Company is listed on the London Stock Exchange.
- NASDAQ Index (£) – the Company invests in SpaceTech, a subset of the broader technology market, and two of its listed holdings are listed on NASDAQ.
- Dow Jones Global Technology Index (£) – the Company invests globally in SpaceTech, a subset of the broader technology market.
- S&P Kensho Space Index (£) – the Company invests globally in SpaceTech, a subset of the broader space sector.

As explained in the Share Price section on pages 4 and 5, the Company's share price has been significantly more volatile than its NAV per share. The share price has been impacted by general market volatility, particularly that experienced by technology and growth stocks, while the NAV per share has remained more resilient, in line with performance of the underlying private portfolio companies which continue to develop their products and services.

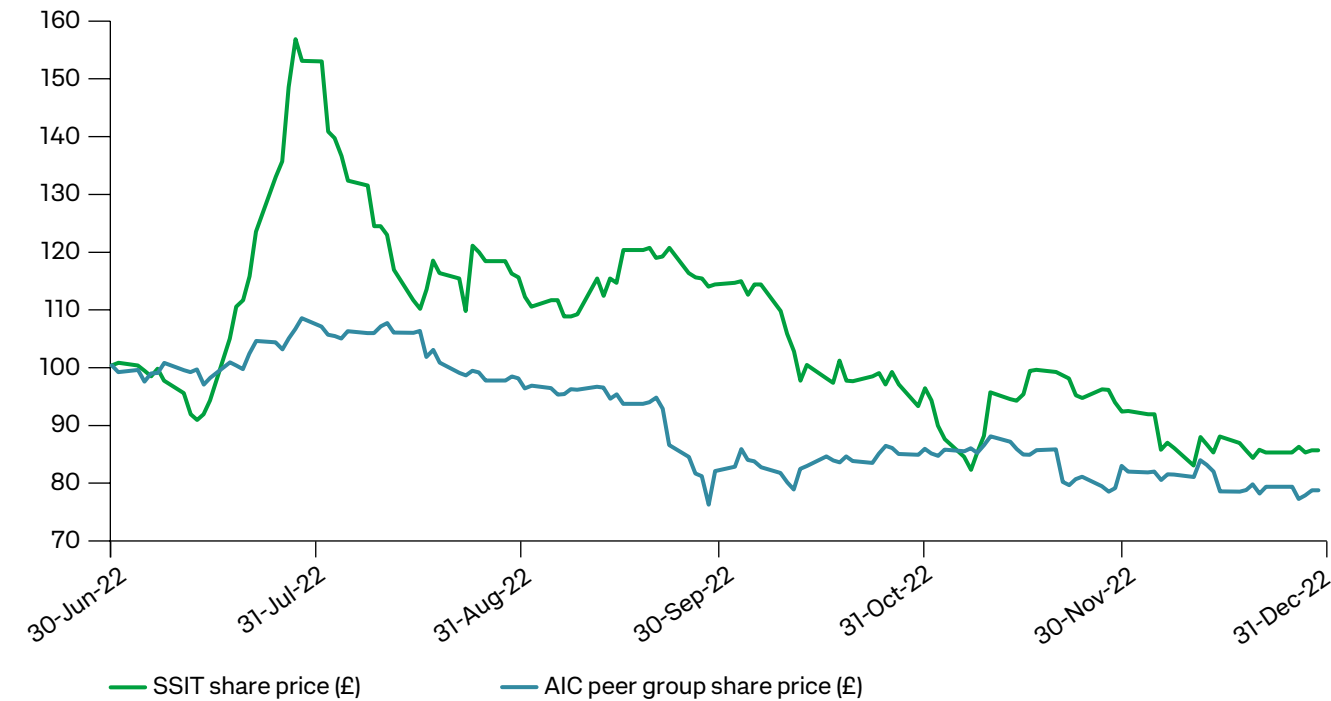
SSIT NAV per share and share price vs. various indices (£, total return rebased to 100)



Source: Datastream; Morningstar; Bloomberg



SSIT share price vs. AIC peer group<sup>(1)</sup> (£, total return rebased to 100)



Source: Datastream; Morningstar; Bloomberg  
<sup>(1)</sup> AIC peer group is average of AIC Growth Capital peer group

QUARTERLY VALUATION CHANGES  
In the three months ended 31 December 2022

During the quarter ended 31 December 2022, the fair value (adjusted for acquisitions and disposals over the period) fell by £25.7m, reducing fair value to 97% vs. cost.

FX contributed £11.5m of the fair value decline in the quarter. In addition, the principal detractors in the private portfolio were LeoLabs (-£4.8m excluding FX) and PlanetWatchers (-£2.8m excluding FX), both of which witnessed reductions in fair value as a result of recent valuation recalibration exercises, and D-Orbit (-£2.9m excluding FX) due to comparable multiple reductions. Reductions in the listed portfolio, Arqit (-£1.7m excluding FX) and AST SpaceMobile (-£1.1m excluding FX), reflected decreases in these companies' share prices over the period.

POST PERIOD DEVELOPMENTS

While there have not been any investments completed after the end of the Period, the Investment Manager is in advanced negotiations for follow-ons in two of

the top 10 portfolio companies (both with agreed term sheets in hand). In addition, it continues to assess new transactions.

On 17 February 2023, Arqit announced that it had entered into a definitive agreement to sell 10m shares at \$2 per share together with warrants for up to 7.5m shares with an offering price of \$2 per share which will be exercisable for five years following issuance. Arqit intends to use the proceeds from this offering to enhance its international customer service capabilities in support of the growth of its recently announced channel partnerships and for general corporate purposes. Its share price fell over 40% on the day, closing at \$1.47. Keeping exchange rates constant at the Period-end rate, this share price implies a £4.0m reduction in the fair value of Arqit as of 31 December 2022. Positively, as a consequence of the placing, Arqit is now capitalised for 12+ months.

On 27 February 2023, Astroscale announced that it had successfully raised \$76m in its Series G funding round from new investors, Mitsubishi Electric Corporation, Yusaku Maezawa, Mitsubishi UFJ Bank, Mitsubishi Corporation, Development Bank of Japan and FEL Corporation. Astroscale intends to use the

proceeds from this round for further development of its technologies and general growth purposes. Keeping exchange rates constant at the Period-end rate, the price of this round implies a £2.6m increase in the fair value of Astroscale as of 31 December 2022.

Finally, to provide investors with further insight, in January 2023 we commenced a monthly newsletter with portfolio news flow and global space sector research and trend coverage.

OUTLOOK

Investing in early and growth stage companies requires a long-term approach and the Company is well positioned to ride out current macroeconomic turbulence and deliver a strong return to investors over the long term.

With most of the portfolio performing robustly and capitalised through 2023, we believe the portfolio is well positioned to benefit from the secular trends relating to global security, food security, climate change and sustainability as and when the wider economic environment improves.

We are cognisant of the difficulties posed by the current economic downturn, particularly in the context of fast-growing technology companies maintaining access to funding in order to continue to innovate. Therefore, we have focussed on helping our portfolio companies

navigate these issues and are pleased to report that, despite the macro environment, 11 of our investments raised money in the period under review. This pays testament to the quality of the portfolio and we will continue to support them in this capacity going forward.

Having operated as investors through three previous downturns over the last 20 years, members of the Investment Manager have first-hand experience of helping to guide companies through challenging funding environments. It is during such periods that success is often forged.

Given the Company still has sizeable cash reserves and listed holdings, we believe it is well positioned to support both the high potential current portfolio companies and to capitalise on the continued strength of new investment opportunities.

MARK BOGGETT  
CEO

SERAPHIM SPACE MANAGER LLP  
Investment Manager

8 March 2023





KEY THEME: IN-SPACE ECONOMY

To date, the vast majority of commercial space activity has been in the service of terrestrial needs. Communications satellites have been providing broadcasting and connectivity, while earth observation spacecraft have been providing geospatial intelligence, as well as weather and climate data.

However, along with the significantly reducing cost of space access, we are seeing the emergence of **an entirely new economy developing in space**. This economy is serving an increasingly large contingent of companies who, themselves, are operating in space. Companies are utilising the unique environment of space and the resources available, as well as unlocking limitless expansion into the universe.

We are on the edge of the next industrial revolution, where large earthbound industries will increasingly move into orbit. This presents significant opportunities for investment across various segments as outlined below:

In-space services:

In recent years, there has been a proliferation in the number of satellites and man-made objects orbiting the earth. This has led to an urgent need to maintain a safe and more functional orbital environment for all users.

To achieve this, a range of different satellite services have been developed. Satellite last mile delivery services are already in widespread use, and more novel capabilities are soon to reach commercial service. The near future holds wide scale satellite refuelling, servicing, repair and end-of-life removal. Given satellites today are disposed of at the end of their life, it is easy to imagine the cost efficiencies possible when satellites can be upgraded, refuelled and have parts recycled in space.

All of these above technologies will be essential to safeguard the orbital environment and enable safe, effective, cost-efficient access to space and to ensure that the benefits of space are sustainably enjoyed by all.

Space infrastructure:

Space infrastructure companies provide the fundamental building blocks, necessary real estate and resources to host future industries in space.

New space stations and microgravity manufacturing return capsules will provide the capacity to ramp up R&D and ultimately provide full scale manufacturing facilities in space. Space stations will also act as hubs for other infrastructure, like datacentres and edge processing for satellite communications and earth observation data in space. Furthermore, they will also host the increasingly large number of people who will be expected to travel, work and live in space.

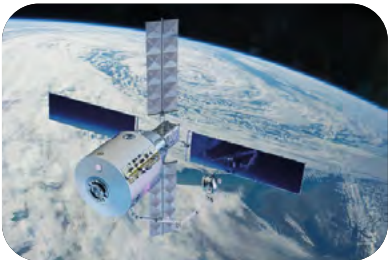
Lunar:

While development of the lunar economy is still in its early stages, both government and commercial activity is well underway. 2022 saw the first Artemis mission and the launch of the first commercial lunar lander from VC-funded startup, Ispace (expected to land on the moon in April 2023). There are two further lunar lander startups set to land on the surface of the moon this year - Astrobotic and Intuitive Machines.

The moon is an attractive destination given it is an ideal refuelling stop in the quest to expand humanity further into the solar system.

The rich lunar regolith contains metals, Lunar Ice and rare isotopes like Helium-3, which is considered a potential fuel for future fusion reactors. Ultimately, utilisation of the moon's surface could improve life on earth, support life on the moon and help expand humanity into deep space.

To support the commercialisation of the lunar environment, a layer of services (similar to those existing in LEO) will also be required, such as Cis-Lunar situation awareness, lunar communications relay networks, transportation vehicles and lunar energy systems. We believe that the nearest term area of opportunity is investing in the infrastructure layer that will support the development of the lunar economy.



IN-SPACE ECONOMY  
STARTUPS TRACKED  
BY SERAPHIM SPACE

>250

IN-SPACE FINANCING  
ROUNDS (#) 2022  
GROWTH Y-O-Y

50%

IN-SPACE FINANCING  
ROUNDS (#) 2022

36

Manned spaceflight:

Manned spaceflight has been ongoing since the Apollo era and has, until recently, only been within the reach of governments servicing dedicated missions.

In recent years, commercial space tourism has been validated as a real and existing market. There are multiple longstanding and progressed startups like SpaceX, Virgin Galactic and Blue Origin actively servicing this segment. Given the expansion of use cases for space, we foresee long-term growth in the number of people travelling to space. For tourists, this may be for travel and a once-in-a-lifetime experience. For governments, this will be to conduct experiments, for space exploration and to establish national presence in space. For corporates, this will be to setup and operate R&D and manufacturing facilities and service other commercial needs.



In-space R&D and manufacturing:

R&D and manufacturing in space has the capability to transform well established terrestrial industries like pharma and telecoms. It is impossible to truly replicate the unique microgravity environment on earth. Gravity-induced physical phenomenon like sedimentation, convection and buoyancy are eliminated, causing materials and organisms to act in unique ways.

The applications in pharma are broad, from near-term drug discovery, vaccine and antibody research to long-term pioneering technologies like 3D bioprinting and stem cell biology.

Space could also be transformative for improving the efficiency of high-power terrestrial telecoms systems. Semiconductors and optical crystals produced in space have far fewer defects. When used in high-power 5G and telecoms infrastructure, this result is significantly lower losses. The use of space-manufactured hardware could ultimately lead to significant energy savings.



Space exploration and utilisation:

Other planets and asteroids potentially have large quantities of precious metals, which could be leveraged for use in space to build next generation deep space infrastructure or for economic gain on earth.

While this is the most nascent segment of the in-space economy, it also presents significant potential upside. For example, Psyche 16, a metal-rich asteroid with a diameter of 140 miles, is estimated by NASA to have as much as \$10 quintillion worth of iron.

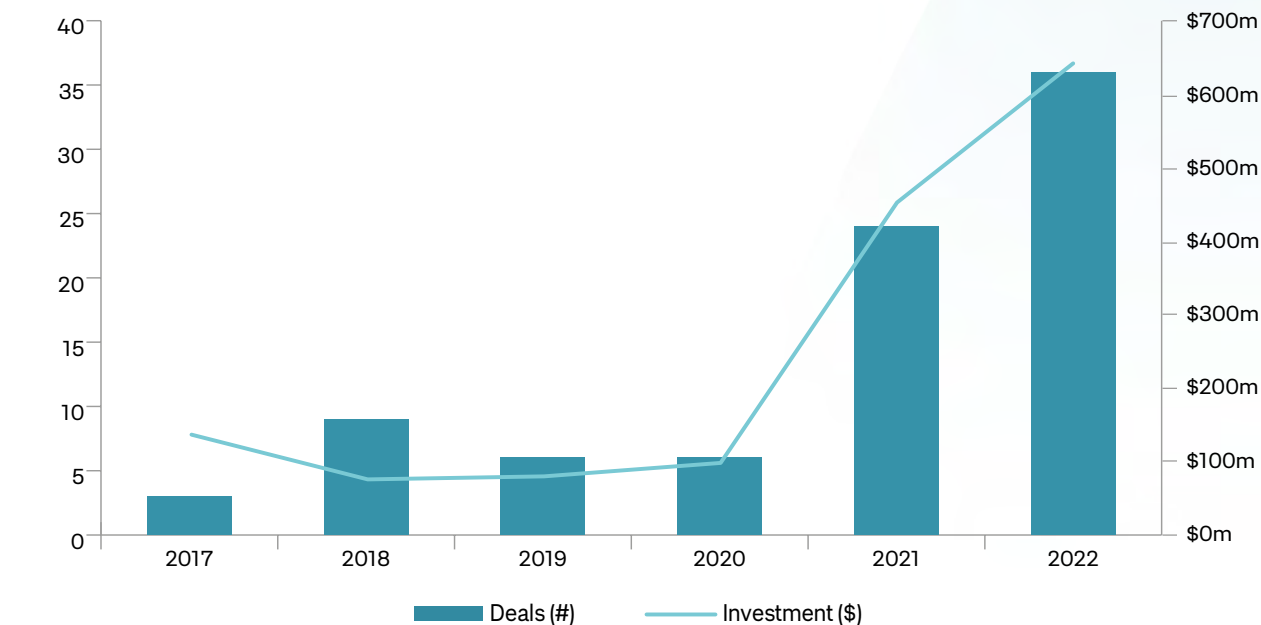
There are currently a few startups pursuing the goal of mining planets and asteroids. Plans are already in motion to launch test payloads to space, validating the refining technology that will ultimately be used for mining in space.





KEY THEME: IN-SPACE ECONOMY (CONTINUED)

In-space economy deals and investment



Source: Seraphim Space Index 4Q 2022, excluding Sierra Space outlier \$1.4Bn Series A





The Investment Manager recently mapped out its view of the in-space economy. In all of the segments described on pages 20 and 21, there are currently well-financed startups at different stages, with strong and dedicated teams rising to the challenge. Along with the proliferation in startups, we identified that there are also many established space players like SpaceX and Boeing operating in multiple categories. This is a sign that they recognise the limitless scale of this opportunity.

Investors and startups alike have woken up to this immense opportunity, reflected in the growing level of investment and number of funding rounds for companies operating in the in-space economy. 2022 reached all time high levels of investment, outperforming 2021 by 42% in terms of investment and 50% in terms of number of deals. Interest and investment are expected to increase in the coming years.

We believe the **nearest term opportunity for the in-space economy is in the companies providing the fundamental infrastructure that enables future exploration and utilisation of space.** Space situational awareness, orbital transfer vehicles, in-space communications systems and space stations appear to be some of the early maturing markets.

We are excited about the in-space economy because it is a blue ocean **opportunity of potentially unlimited scale.** While the high barriers to entry present a meaningful challenge to startups, successful companies will have strong technological moats and fewer competitors. We are fortunate to be in the ideal position to invest right at the start of this multi-decade opportunity.

Early players in these markets include the following portfolio companies:

	Providing life extension services to valuable geostationary satellites. Ultimately reducing the cadence at which expensive satellites need to be replaced, thus reducing resulting space debris.		Launching, operating and providing space stations to specialist users. Unlocking the potential of LEO for tourism, government activity, payload hosting, R&D and manufacturing.
	Providing a last mile delivery service for small satellites and hosted payloads. Allowing users to benefit from the lower cost of launch associated with large rockets combined with the tailored orbits of a dedicated mission.		Tracking orbital debris and providing valuable actionable intelligence to satellite operators. This is becoming increasingly critical for safe operation in LEO as the orbital environment becomes increasingly utilised.

MARKET OPPORTUNITY: INSURTECH

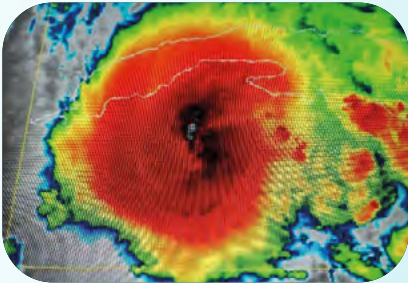
As **extreme climate events become more frequent and more severe**, insurance providers are finding it difficult to stay on top of the **progressively volatile risk**. Natural disasters, such as wildfires and floods, are perhaps the most common example of climate risk as they cause some of the biggest damages to individuals and businesses. According to insurance broker Aon, global economic losses from natural disasters driven by climate change was \$313bn in 2022. Less than half of this was insured.



Insurance providers are finding it **increasingly difficult to predict and constrain losses from events**, and thus price policies profitably. In addition, insurance policyholders are dealing with **long delays in loss adjustment** and can be waiting months or years before they receive compensation. This is especially debilitating in cases of damage to residential homes, for example in the wake of severe flooding.





Space-based earth observation and remote sensing data can **improve modelling and prediction of risks**, for example by using thermal data to identify wildfire-prone areas or by using terrain measurements to map the likely extent of flooding.

Furthermore, satellite imagery can help speed up the loss adjustment process by providing **real time data to track the extent of damage** after an event, whether in a city or on a farm. The perspective from satellites orbiting high above the earth means that this data can be accessed for a large area without needing to manually survey damage. This can address further climate-related risks such as low crop yields in agriculture.



It is clear that **novel datasets and the unique vantage point of satellites in space** can solve some difficult challenges faced in the insurance industry. Weather and climate **variables can be observed over a much greater area, much more cheaply and in an easily refreshable manner.** We would thus expect the crossover between SpaceTech and InsurTech to become even more prominent in the future.

Portfolio companies addressing these themes:

	partners with Ororatech to track wildfires and uses its satellites to track weather patterns.
	uses hyperspectral imagery to track climate risks.
	uses synthetic aperture radar (SAR) imagery to provide accurate data on flooding damage at any location on earth.
	tracks crop damage and other farming variables from major weather events using SAR imagery.





# PORTFOLIO



# PORTFOLIO

At 31 December 2022

## PORTFOLIO SNAPSHOT

FAIR VALUE

181.2M<sup>GBP</sup>

PRIVATE PORTFOLIO  
FAIR VALUE VS. COST

114.1%

AVERAGE PORTFOLIO COMPANY  
REVENUE GROWTH<sup>(1)</sup>

56.0%

TOP 10 INVESTMENTS AS  
% OF FAIR VALUE

83.8%

LISTED PORTFOLIO  
FAIR VALUE VS. COST

28.5%

MONEY RAISED BY  
PORTFOLIO COMPANIES<sup>(2)</sup>

>130M<sup>USD</sup>

<sup>(1)</sup> Fair value weighted average (as defined in the Glossary on page 58) half-on-half growth for the 6 months ended 31 December 2022 of all nine of the private companies in the top 10 holdings, representing 80% of fair value (65% of NAV) as at 31 December 2022.  
<sup>(2)</sup> Between 1 July 2022 and 31 December 2022. Source: portfolio company data.

# PORTFOLIO

(continued)

Company	Sub-sector	HQ	31 December 2022		% of NAV	30 June 2022
			Cost <sup>(1)</sup> £m	Fair value <sup>(1)</sup> £m		Fair value £m
ICEYE	Earth Observation	Europe	39.6	43.4	19.6%	43.3
ALL.SPACE	Ground Terminals	UK	19.5	22.3	10.1%	24.9
HawkEye 360	Earth Observation	US	18.6	20.7	9.3%	20.6
D-Orbit	In-orbit Services	Europe	11.7	18.1	8.2%	12.7
Altitude Angel	Data Platforms	UK	3.7	9.9	4.4%	9.0
LeoLabs	Data Platforms	US	11.7	9.3	4.2%	13.7
Satellite Vu	Earth Observation	UK	4.6	7.8	3.5%	7.8
Astroscale	In-orbit Services	RoW	9.4	7.7	3.5%	7.7
Arqit	Satcoms	UK	22.6	6.7	3.0%	14.0
PlanetWatchers	Data Analytics	UK	5.6	6.0	2.7%	8.1
Top 10 investments			147.0	151.9	68.4%	161.8
Other non early stage investments			32.5	21.5	9.7%	18.7
Early stage investments			7.0	7.8	3.5%	5.6
Total investments			186.5	181.2	81.6%	186.1
Net current assets				40.8	18.4%	53.2
Total assets				222.0	100.0%	239.3

<sup>(1)</sup> Includes new and follow-on investments and disposals, where relevant, made since 30 June 2022 of £8.1m in aggregate.





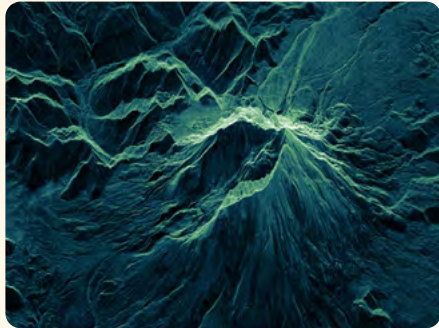
PORTFOLIO

(continued)

PORTFOLIO HIGHLIGHTS

"The Period has seen considerable activity across the portfolio, with several companies hitting significant milestones, which bodes well for future value creation. We have seen meaningful new contract wins, new investment rounds, large corporate partnerships materialising and several world firsts. These achievements support our view that climate change, sustainability and global security are the key macro factors driving momentum in the portfolio."

**James Bruegger**  
CIO, Seraphim Space Manager LLP



- **ICEYE** signs a contract with the Serhiy Prytula Charity Foundation to provide the government of Ukraine with ICEYE's SAR imaging capabilities (August 2022)
- Will provide the government full capabilities of one of ICEYE's in-orbit satellites
- Significant step in responding to its urgent request for critical earth observation data
- Has the potential to greatly benefit the Ukrainian nation



- **Voyager** signs a partnership with Airbus Defence and Space to develop and operate Starlab, a free-flying space station to serve NASA and a global customer base of space agencies (January 2023)
- Starlab is planned to launch in 2028 to ensure a continued human presence in low earth orbit (LEO)
- Working with Airbus, Voyager will expand Starlab's ecosystem to serve the European Space Agency (ESA)
- The first step towards fielding the next generation of space stations to serve international astronauts

PORTFOLIO

(continued)



- BT Group signs a commercial partnership and £5m investment into **Altitude Angel** (January 2023)
- The two businesses will support the development of the UK's drone superhighway, set to be the largest and longest network of its kind in the world
- Makes automated commercial drone operations at scale in the UK a day-to-day reality, revolutionising business operations in countless industries



- AWS (Amazon Web Services) has the largest market share of cloud-computing services on terra firma
- AWS envisions that by reapplying some of its cloud-computing applications, including AI, to edge-computing processors in space, it can liberate satellites, spacecraft and space stations from bandwidth limitations and latency problems that come with radioing data back to earth
- In November 2022, the company processed images of earth using machine learning software programs running on a computer hosted within **D-Orbit's** ION Satellite Carrier in LEO
- The project was used to automatically identify objects such as clouds and wildfire smoke, as well as buildings and ships from space



- AWS announces integration of **Arqit's** QuantumCloud™ encryption technology (December 2022)
- Offers a significant opportunity for mass market availability of the Arqit technology and enables AWS customers to potentially realise quantum safety on the leading secure cloud platform
- One of several partnerships Arqit announced with global technology providers providing hyperscale computing solutions, including Dell and Fortinet



- In a world first, **Xona Space Systems** launched the first privately owned, non-government, GPS navigation satellite system in space
- Xona Space Systems' constellation will provide CM-level navigation supporting an autonomous future

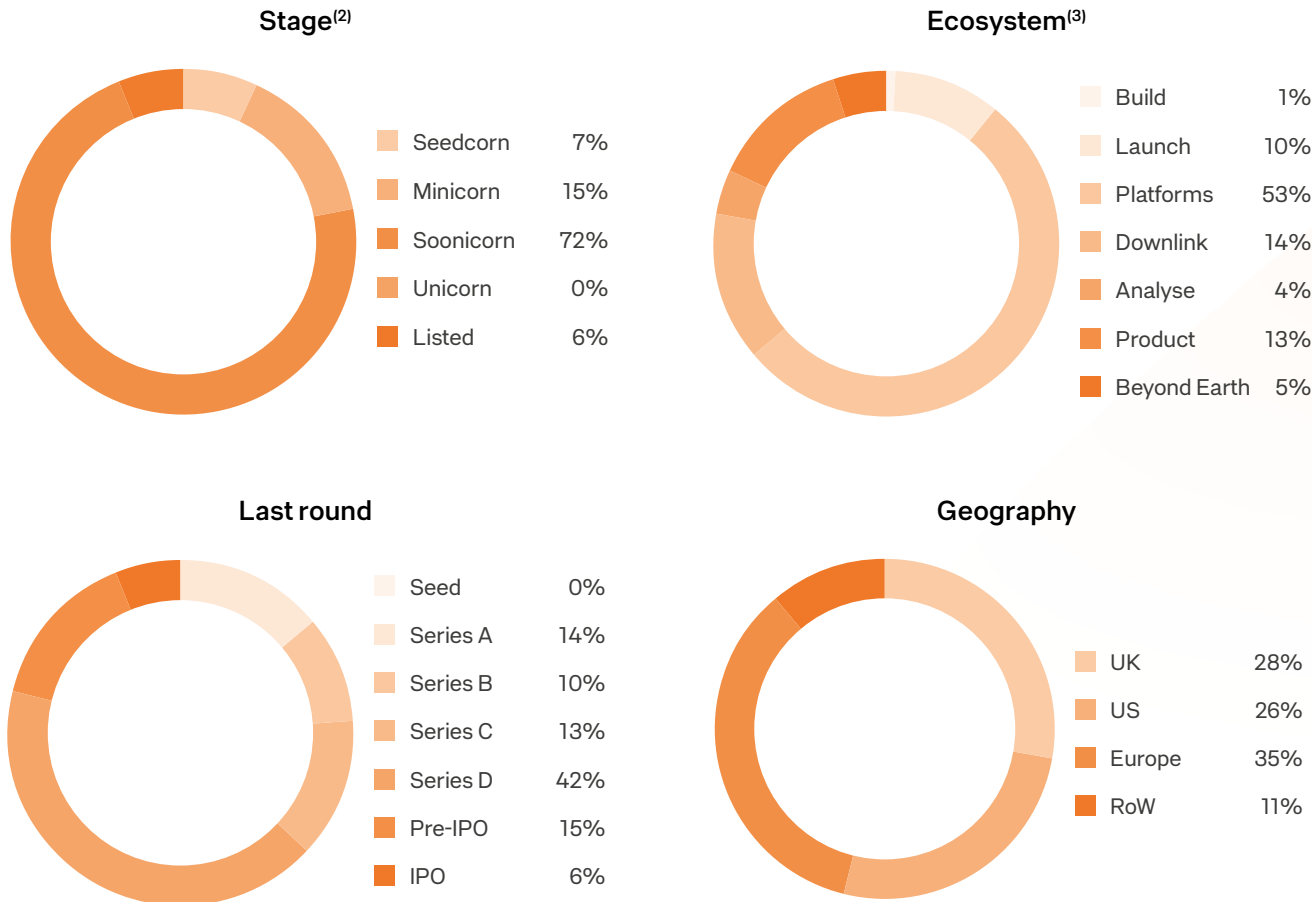


PORTFOLIO

(continued)

PORTFOLIO BREAKDOWN (BY FAIR VALUE)<sup>(1)</sup>

At 31 December 2022



<sup>(1)</sup> Seraphim Space's taxonomy to describe the SpaceTech sector.

<sup>(2)</sup> **Unicorns** – those companies valued at in excess of \$1bn.

**Soonicorns** – those companies with the potential to be valued at in excess of \$1bn within the next 1-2 years.

**Minicorns** – those companies with the potential to be valued at in excess of \$1bn within the next 3-4 years.

**Seedcorns** – those companies less mature than Minicorns.

<sup>(3)</sup> **Build** – satellite construction/manufacturing/components.

**Launch** – rockets.

**Platforms** – constellations of satellites in space.

**Downlink** – data from space to earth in a cyber secure manner.

**Analyse** – AI applied to large datasets from space.

**Product** – space datasets fused with terrestrial data targeted at a vertical such as construction, agriculture, oil and gas.

**Beyond earth** – activity in space.

PORTFOLIO

(continued)

TOP 10 INVESTMENTS



Global change detection every hour

**Web:** iceye.com

**HQ:** Finland

**Taxonomy:** Platform / Earth Observation

**Status:** Private / Soonicorn

**Stake category:** 6-10%

**Fair value vs. cost:** 110%

**Valuation method:** Calibrated price of recent investment

ICEYE operates the world's first and largest constellation of miniaturised satellites that use radar to image the earth both during the day and night, even through cloud. ICEYE's radar technology has the ability to monitor change in near real-time.

**Total estimated long-term addressable market:**  
\$10bn+

**Key sectors addressed:**  
Insurance, defence, climate

Recent key developments:

- Announced partnership with BAE Systems' new multi-sensor constellation.
- Signed contract to provide Ukraine government with persistent capability.
- Delivered flood insights from recent hurricanes to US Federal Emergency Management Agency.
- Announced integration of ICEYE SAR imagery with ESRI, world's no.1 geospatial analytics platform.
- Signed multi-year framework contract with European Maritime Safety Agency to use ICEYE data.
- Announced partnership with insurtech provider Betterview to incorporate ICEYE data into their platform

Principal UN SDG alignment:



One antenna to connect to any satellite

**Web:** all.space

**HQ:** UK

**Taxonomy:** Downlink / Ground Terminals

**Status:** Private / Soonicorn

**Stake category:** 11-15%

**Fair value vs. cost:** 115%

**Valuation method:** Calibrated price of recent investment

ALL.SPACE 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.

**Total estimated long-term addressable market:**  
\$10bn+

**Key sectors addressed:**  
Communications, defence, transport

Recent key developments:

- Partnered with SES to complete milestone trials to unlock next-generation connectivity for US Army and NATO.
- Completed trials with Telesat demonstrating multi-orbit connectivity.
- Joined UK government and European Space Agency consortium led by CGI to develop hybrid satellite communications for trains.
- Announced partnerships on its new antenna with ST Engineering iDirect and Teledyne.
- Completed rebrand to ALL.SPACE.

Principal UN SDG alignment:







Mapping the world's RF signals

**Web:** he360.com

**HQ:** US

**Taxonomy:** Platform / Earth Observation

**Status:** Private / Soonicorn

**Stake category:** 0-5%

**Fair value vs. cost:** 111%

**Valuation method:** Calibrated price of recent investment

HawkEye 360 operates the world's largest satellite constellation collecting radio frequency signals to identify and geolocate previously invisible activities.

**Total estimated long-term addressable market:** \$10bn+

**Key sectors addressed:** Maritime, defence

Recent key developments:

- 5 clusters operating at a high level of performance and stability.
- Important progress on Unique Signal Recognition with prototype in testing and verification.
- Used Ukraine MoD \$2.7m Pacman award to continue EUCOM Ukraine RFGeo GPS Interference subscription from November to January.
- Awarded \$388k contract with Sierra Nevada to explore Russian military activity.
- Developed new solutions and IQ tools for UAE government.

Principal UN SDG alignment:



In orbit last mile delivery

**Web:** dorbit.space

**HQ:** Italy

**Taxonomy:** Launch / In-orbit Services

**Status:** Private / Soonicorn

**Stake category:** 6-10%

**Fair value vs. cost:** 155%

**Valuation method:** Milestones, market comparables

D-Orbit is the market leader in the space logistics and orbital transportation services industry. It currently operates the world's only in-space last mile delivery service.

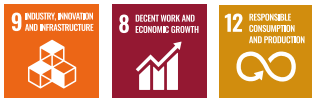
**Total estimated long-term addressable market:** \$1-5bn

**Key sectors addressed:** Space, logistics, datacentres

Recent key developments:

- Successfully demonstrated in-orbit cloud computing and storage with AWS in high profile mission.
- Successfully launched its seventh, eighth and ninth ION missions, including first ION mid inclination launch.
- In negotiations for \$30m contract with Italian government to develop and manufacture satellites.
- Featured in Sifted as one of Europe's leading SpaceTech companies.

Principal UN SDG alignment:



The operating system for the skies

**Web:** altitudeangel.com

**HQ:** UK

**Taxonomy:** Product / Data Platforms

**Status:** Private / Minicorn

**Stake category:** 16-25%

**Fair value vs. cost:** 266%

**Valuation method:** Milestones, market comparables

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.

**Total estimated long-term addressable market:** \$10bn

**Key sectors addressed:** Logistics, aviation

Recent key developments:

- 256km Drone Super Highway announcement made in UK (significant media interest); £4.4m grant funding awarded to deploy this super highway.
- Arrow corridor proposed for Netherlands with testing of 30km in Jan 2023.
- Saab announced installing 4 systems in airports in Sweden.
- \$5m raised from BT via convertible loan note which gives cash runway through 2023.
- Planning a Series B funding round later this year with BT as new strategic investor.

Principal UN SDG alignment:



Mapping the skies

**Web:** leolabs.space

**HQ:** US

**Taxonomy:** Product / Data Platforms

**Status:** Private / Soonicorn

**Stake category:** 0-5%

**Fair value vs. cost:** 80%

**Valuation method:** Partial write down to price of recent investment

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.

**Total estimated long-term addressable market:** \$1-5bn

**Key sectors addressed:** Space, insurance, defence

Recent key developments:

- Built and began operation of two additional space radars in the Azores and West Australia, with another site under construction, to significantly improve its coverage.
- Awarded a contract with the Japanese MoD to provide space situational awareness.
- Won a sole source contract with the US DoC, validating that Leolabs is the only real viable alternative data source to the US Space Surveillance Network.
- Continued success in growing commercial/ recurring revenue base including several large satellite constellations.

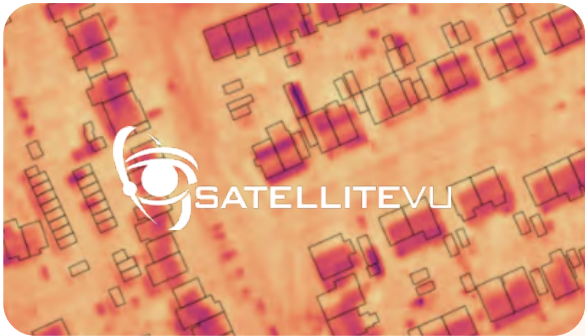
Principal UN SDG alignment:





PORTFOLIO

(continued)



The world’s thermometer

**Web:** satellitevu.com  
**HQ:** UK  
**Taxonomy:** Platform / Earth Observation  
**Status:** Private / Minicorn  
**Stake category:** 16-25%  
**Fair value vs. cost:** 168%  
**Valuation method:** Calibrated price of recent investment

Satellite Vu is aiming to monitor the temperature of any building on the planet in near real time to determine valuable insights into economic activity, energy efficiency and carbon footprint.

**Total estimated long-term addressable market:**  
\$1-5bn

**Key sectors addressed:**  
Energy, property

- Recent key developments:**
- Partnered with Landmark to provide climate change data to UK property sector.
  - Selected SpaceX to launch first two satellites in 2023.
  - Appointed new Chief Commercial Officer and Chief Financial Officer.
  - Closed £81m in pre-launch imaging capacity purchase options.
  - Announced partnership with Viasat for rapid image downlinking.

Principal UN SDG alignment:



Servicing the in-space economy

**Web:** astroscale.com  
**HQ:** Japan  
**Taxonomy:** Beyond Earth / In-orbit Services  
**Status:** Private / Soonicorn  
**Stake category:** 0-5%  
**Fair value vs. cost:** 82%  
**Valuation method:** Partial write down to price of recent investment

Astroscale is a global leader of space sustainability solutions. It is currently developing a set of capabilities around satellite monitoring, refuelling, upgrading, repairing and disposal to enable a vibrant in-orbit economy.

**Total estimated long-term addressable market:**  
\$1-5bn

**Key sectors addressed:**  
Space, defence

- Recent key developments:**
- Ron Lopez, President and Managing Director of Astroscale US, selected to join National Space Council Users' Advisory Group, providing advice to US Vice President Kamala Harris.
  - Started concept co-creation activities for a satellite refueling service, with the Japan Aerospace Exploration Agency under its Space Innovation through Partnership and Co-creation (J-SPARC).
  - New President and MD In Japan, Eddie Kato, has more than 35 years of experience in the space industry, including at Thales Alenia Space across multiple geographies.
  - Astroscale UK awarded the Sustainability in Space award at the European Space Forum in Brussels, recognising the company's pivotal role in the industry.

Principal UN SDG alignment:



PORTFOLIO

(continued)



Encryption reborn for the cloud era

**Web:** arqit.uk  
**HQ:** UK  
**Taxonomy:** Platforms / Satcoms  
**Status:** Public / Listed  
**Stake category:** 0-5%  
**Fair value vs. cost:** 29%  
**Valuation method:** Available market price

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.

**Total estimated long-term addressable market:**  
\$50bn+

**Key sectors addressed:**  
Cybersecurity, communications, defence

- Recent key developments:**
- Partnered with AUCloud to develop Australia's first Sovereign Quantum-Safe Encryption Service and with Nine23 to provide secure cloud services for UK government.
  - Announced QuantumCloud™ powered by AWS.
  - Signed contract with Traxpay to deliver more efficient and secure trade finance.
  - Partnered with Dell Technologies to bring quantum safe solutions to its customers.
  - Joined Fortinet Fabric-Ready Partner Program, completing integration to enable quantum safe encryption.
  - Pivot to using terrestrial networks.
  - SEC is undertaking an investigation into Arqit's SPAC merger.

Principal UN SDG alignment:



Insuring the uninsurable

**Web:** plantwatchers.com  
**HQ:** UK  
**Taxonomy:** Analyse / Data Analytics  
**Status:** Private / Seedcorn  
**Stake category:** 25-49%  
**Fair value vs. cost:** 108%  
**Valuation method:** Partial write down to price of recent investment

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

**Total estimated long-term addressable market:**  
\$5-10bn

**Key sectors addressed:**  
Agriculture, insurance, climate

- Recent key developments:**
- Won Global Ag (part of Axa Insurance Group) as a new customer in the US.
  - Successfully worked with ProAg (part of Tokio Marine Group), Hudson (part of Fairfax Financial Group), Rain & Hail (part of Chubb Insurance Group) and RCIS (part of Zurich Insurance Group) over the course of 2022.

Principal UN SDG alignment:





# CORPORATE GOVERNANCE



# CORPORATE GOVERNANCE

## PRINCIPAL AND EMERGING RISKS AND UNCERTAINTIES

The Directors have a process for identifying, evaluating and managing the principal and emerging risks faced by the Company. This process was in operation during the Period and continues in place up to the date of this report.

The principal risks facing the Company are investment return risk, discount risk, portfolio company performance risk, public company share price volatility risk, macroeconomic risk, valuation risk, realisation risk, foreign exchange risk, liquidity risk, key person risk and ESG risk. An explanation of these risks, their potential impact and how they are managed is set out on pages 69 to 72 of the Company's Annual Report for the period ended 30 June 2022, which is available on the Company's website (<https://investors.seraphim.vc/>).

During the period, the Board has continued to review the Company's principal risks and uncertainties and considers that they have not changed materially since 15 October 2022, the date of the Company's 2022 Annual Report, and are not expected to change materially for the remainder of the Company's financial year.

## CORPORATE GOVERNANCE

(continued)

## DIRECTORS' RESPONSIBILITIES STATEMENT

We confirm to the best of our knowledge that:

- the condensed set of financial statements has been prepared in accordance with IAS 34 *Interim Financial Reporting*;
- the Interim Management Report includes a fair review of the information required by Disclosure Guidance and Transparency Rule 4.2.7R (being an indication of important events that have occurred during the Period, their impact on the condensed set of Financial Statements and a description of the principal risks and uncertainties for the remaining six months of the financial year); and
- the Interim Report includes a fair review of the information required by Disclosure Guidance and Transparency Rule 4.2.8R (being any related party transactions that have taken place in the Period and that have materially affected the financial position or performance of the Company during the Period and any changes in the related party transactions described in the last Annual Report that could have a material effect on the financial position or performance of the Company in the Period).

This responsibility statement was approved by the Board on 8 March 2023.

On behalf of the Board



**WILL WHITEHORN**

Chair

8 March 2023





# FINANCIAL STATEMENTS



# CONDENSED STATEMENT OF COMPREHENSIVE INCOME

For the 6 months ended 31 December 2022

Note	For the period ended 31 December 2022			For the period ended 31 December 2021		
	Revenue £'000	Capital £'000	Total £'000	Revenue £'000	Capital £'000	Total £'000
<b>Investment (loss)/gain</b>						
Net unrealised (loss)/gain on investments held at fair value through profit or loss	8	-	(12,967)	(12,967)	-	18,559
Net realised losses	8	-	(1,960)	(1,960)	-	-
		-	(14,927)	(14,927)	-	18,559
<b>Expenses</b>						
Management fee	4	(1,543)	-	(1,543)	(1,194)	-
Performance fee	4	-	-	-	(2,004)	(2,004)
Other operating expenses	5	(931)	-	(931)	(624)	-
<b>Total expenses</b>		(2,474)	-	(2,474)	(1,818)	(2,004)
<b>Operating (loss)/profit for the period</b>		(2,474)	(14,927)	(17,401)	(1,818)	16,555
<b>Finance income</b>						
Interest income		93	-	93	74	-
<b>Total finance income</b>		93	-	93	74	-
<b>(Loss)/profit for the period before tax</b>		(2,381)	(14,927)	(17,308)	(1,744)	16,555
Tax	6	-	-	-	-	-
<b>(Loss)/profit for the period after tax</b>		(2,381)	(14,927)	(17,308)	(1,744)	16,555
<b>(Loss)/profit and total comprehensive income for the period attributable to:</b>						
Equity holders of the Company		(2,381)	(14,927)	(17,308)	(1,744)	(16,555)
<b>Earnings per share</b>						
Basic and diluted (losses)/earnings per share (pence)	7	(0.99)	(6.24)	(7.23)	(0.87)	8.25

All Revenue and Capital items in the above statement derive from continuing operations. No operations were acquired or discontinued in the period.

The Total column of this statement is the profit and loss account of the Company, and the Revenue and Capital columns represent supplementary information prepared under guidance issued by the Association of Investment Companies.

The accompanying notes on pages 46 to 53 form an integral part of these financial statements.

# CONDENSED STATEMENT OF FINANCIAL POSITION

As at 31 December 2022

Note	31 December 2022 £'000	30 June 2022 £'000
<b>Non-current assets</b>		
Investments at fair value through profit or loss	8	181,210
	<b>181,210</b>	<b>186,083</b>
<b>Current assets</b>		
Trade and other receivables	9	90
Cash and cash equivalents		40,945
	<b>41,035</b>	<b>57,771</b>
<b>Current liabilities</b>		
Trade and other payables	10	(237)
	<b>(237)</b>	<b>(4,538)</b>
<b>Net current assets</b>	<b>40,798</b>	<b>53,233</b>
<b>Net assets</b>	<b>222,008</b>	<b>239,316</b>
<b>Equity</b>		
Share capital	11	2,394
Share premium	11	60,377
Other reserves	11	173,176
Retained (losses)/earnings		(13,939)
<b>Total shareholders' funds</b>	<b>222,008</b>	<b>239,316</b>
Number of shares in issue at period-end	<b>239,384,928</b>	<b>239,384,928</b>
<b>Net assets per share (pence)</b>	<b>92.74</b>	<b>99.97</b>

The financial statements on pages 42 to 45 were approved and authorised for issue by the Board of Directors on 8 March 2023 and signed on its behalf by:



**WILL WHITEHORN**  
Chair



**SUE INGLIS**  
Director

The accompanying notes on pages 46 to 53 form an integral part of these financial statements.



# CONDENSED STATEMENT OF CHANGES IN EQUITY

For the 6 months ended 31 December 2022

	Share capital £'000	Share premium £'000	Other reserves £'000	Retained (losses)/ earnings £'000	Total £'000
Opening net assets attributable to shareholders	2,394	60,377	173,176	3,369	239,316
Total comprehensive expense for the period	-	-	-	(17,308)	(17,308)
<b>Total shareholders' funds at 31 December 2022</b>	<b>2,394</b>	<b>60,377</b>	<b>173,176</b>	<b>(13,939)</b>	<b>222,008</b>

For the period ended 31 December 2021

Note	Share capital £'000	Share premium £'000	Other reserves £'000	Retained earnings £'000	Total £'000
Opening net assets attributable to shareholders	-	-	-	-	-
Issue of share capital	11	2,444	236,991	-	239,435
Redemption of redeemable preference shares	11	(50)	-	-	(50)
Share issue costs	11	-	(3,632)	-	(3,632)
Cancellation of share premium	11	-	(173,176)	173,176	-
Total comprehensive income for the period	-	-	-	14,811	14,811
<b>Total shareholders' funds at 31 December 2021</b>	<b>2,394</b>	<b>60,183</b>	<b>173,176</b>	<b>14,811</b>	<b>250,564</b>

The accompanying notes on pages 46 to 53 form an integral part of these financial statements.

# CONDENSED STATEMENT OF CASH FLOWS

For the 6 months ended 31 December 2022

	For the period ended 31 December 2022 £'000	For the period ended 31 December 2021 £'000
<b>Cash flows from operating activities</b>		
(Loss)/profit for the period before tax	(17,308)	14,811
Adjustments for:		
Purchase of investments	(17,623)	(74,852)
Disposal of investments	3,341	-
Unrealised movement in fair value of investments	12,967	(18,559)
Realised loss on disposal of investments	1,960	-
Movement in payables	(73)	260
Movement in provisions	-	2,004
Movement in receivables	31	(124)
<b>Net cash used in operating activities</b>	<b>(16,705)</b>	<b>(76,460)</b>
<b>Cash flows from financing activities</b>		
Proceeds of share capital issuance	-	147,639
Payment of issue costs	-	(1,195)
<b>Net cash generated from financing activities</b>	<b>-</b>	<b>146,444</b>
Net movement in cash and cash equivalents during the period	<b>(16,705)</b>	<b>69,984</b>
Cash and cash equivalents at the beginning of the period	57,650	-
<b>Cash and cash equivalents at the end of the period</b>	<b>40,945</b>	<b>69,984</b>

The accompanying notes on pages 46 to 53 form an integral part of these financial statements.



# NOTES TO THE FINANCIAL STATEMENTS

For the 6 months ended 31 December 2022

## 1. GENERAL INFORMATION

The Company is an externally managed closed-ended investment company, incorporated in England and Wales on 14 May 2021 with registered number 13395698. The Company's ordinary shares were admitted to trading on the London Stock Exchange's main market on 14 July 2021.

## 2. SIGNIFICANT ACCOUNTING POLICIES

### Basis of preparation

The condensed financial statements have been prepared in accordance with UK-adopted IAS 34 *Interim Financial Reporting*. Where presentational guidance set out in the AIC SORP, is consistent with the requirements of UK-adopted IAS, the Directors have sought to prepare the condensed financial statements on a basis compliant with the recommendations of the AIC SORP. In particular, supplementary information which analyses the Statement of Comprehensive Income between items of a revenue and capital nature has been presented alongside the total Statement of Comprehensive Income. The determination of whether an item should be recognised as revenue or capital is carried out in accordance with the principles and recommendations set out in the AIC SORP. The Directors have chosen to apply the non-allocation approach, so all indirect costs are charged to the Revenue column of the Statement of Comprehensive Income.

The same accounting policies, presentation and methods of computation are followed in these condensed financial statements as were applied in the preparation of the Company's annual financial statements for the period ended 30 June 2022. These accounting policies are expected to be applied in the Company's financial statements for the year ended 30 June 2023.

The annual financial statements were prepared on the historic cost basis, as modified for the measurement of certain financial instruments held at fair value through profit or loss and in accordance with UK-adopted International Accounting Standards and those parts of the Companies Act 2006 applicable to companies under International Financial Reporting Standards.

These condensed financial statements do not constitute statutory accounts as defined in section 434 of the Companies act and do not include all information and disclosures required in an Annual Report. They should be read in conjunction with the Company's Annual Report for the period ended 30 June 2022.

The Company was formed on 14 May 2021, so comparative information in the financial statements covers the period from 14 May 2021 to 31 December 2021, but during that period the meaningful activities of the Company took place from the Company's listing on the London Stock Exchange on 14 July 2021 to 31 December 2021.

In these financial statements values are rounded to the nearest thousand (£'000).

## NOTES TO THE FINANCIAL STATEMENTS

(continued)

## 2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Going concern

The Company's cash balance at 31 December 2022 was £40.9m, which was sufficient to cover its liabilities of £0.2m at that date and any foreseeable expenses for a period of at least 12 months from the date of approval of these financial statements, including in severe but plausible downside scenarios.

The Company's cash balance is comprised of cash held on deposit with substantial global financial institutions with strong credit ratings and the risk of default by the counterparties is considered extremely low. The major cash outflows of the Company are expected to be for the acquisition of new investments, which are discretionary. The Company is closed-ended and there is no requirement for the Company to buy back or redeem shares.

The war in Ukraine has, and is expected to continue for some time to have, substantial additional impacts on the global economy, in particular in respect of heightened inflation rates. Heightened inflation rates and interest rates have caused a weak macroeconomic environment which has impacted global markets.

The Board has inquired, and it is satisfied, that the Company's service providers have robust processes in place in order to continue to provide the required level of services to the Company, and to maintain compliance with laws and regulations, in the face of the challenges arising as a result of the weak macroeconomic environment. There have been no operational difficulties encountered or disruption in service to date. Foreign currency movements have also been significant in recent months, particularly strengthening of Sterling against the US Dollar, following Sterling weakness in the previous period. Given the ongoing nature of the war in Ukraine, it is currently not possible to determine the potential scale and scope of the ultimate effects on the global economy, capital markets and the Company's operations and investments. As the situation continues to evolve, this will remain a risk to the Company. In the meantime, the Directors and Investment Manager are actively monitoring the situation. In addition, they have considered the following specific key potential impacts:

- increased volatility in the fair value of investments;
- uncertainty regarding the ability to raise additional capital and support the existing portfolio; and
- disruptions to business activities of the underlying investments.

In considering these key potential impacts, the Directors and Investment Manager have assessed them with reference to the Company's risk framework and mitigation measures in place.

Based on the assessment outlined above, including the various risk mitigation measures in place, the Directors do not consider that the effects of the war in Ukraine, Sterling volatility or the impact of a weak global macroeconomic environment have created a material uncertainty over the assessment of the Company as a going concern.

On the basis of this review, and after making due enquiries, the Directors have a reasonable expectation that the Company has adequate resources to continue in operational existence for at least 12 months from the date of approval of these financial statements. Accordingly, they continue to adopt the going concern basis in preparing the financial statements.



## NOTES TO THE FINANCIAL STATEMENTS

(continued)

## 2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

## Segmental reporting

The chief operating decision-maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the Board of Directors as a whole. The key measure of performance used by the Board to assess the Company's performance and to allocate resources is the Company's NAV, as calculated under UK-adopted International Accounting Standards, and therefore no reconciliation is required between the measure of profit or loss used by the Board and that contained in the Annual Report.

For management purposes, the Company is organised into one main operating segment, which invests predominantly in early and growth stage privately financed SpaceTech businesses globally.

All of the Company's current bank interest income is derived from within the UK.

The Company's non-current assets are located in the US, the UK, the EU, Israel and Japan. Due to the Company's nature, it has no customers.

## 3. SIGNIFICANT ACCOUNTING JUDGEMENTS, ESTIMATES AND ASSUMPTIONS

The preparation of the financial statements requires the application of estimates which may affect the results reported in the financial statements. Estimates, by their nature, are based on judgement and available information.

Further details of these judgements, estimates and assumptions made by the Directors are given in the annual financial statements for the period ended 30 June 2022.

## 4. MANAGEMENT AND PERFORMANCE FEES

## Management fee

Under the Investment Management Agreement, the Investment Manager is entitled to a management fee of 1.25% per annum of NAV up to £300m and 1.00% per annum of NAV above £300m, payable quarterly in advance.

Management fees incurred in the Period were £1.54m (2021: £1.19m), of which £NIL was payable to the Investment Manager as at 31 December 2022.

## Performance fee

Under the Investment Management Agreement, the Investment Manager is also entitled to a performance fee of 15% over an 8% hurdle with full catch-up, calculated on NAV annually. The performance fee is only payable where the adjusted NAV at the end of a performance period exceeds the higher of the performance hurdle and a high water mark. The accrued performance fee will only be paid to the extent that the aggregate of the net realised profits on unlisted investments, net unrealised gains on listed investments and income received from investments during the relevant performance period is greater than the performance fee payable and, to the extent that such aggregate is less than the performance fee payable, an amount equal to the difference shall be carried forward and included in the performance fee payable as at the end of the next performance period. Subject to the Takeover Code, the Investment Manager is required to reinvest 15% of any performance fee paid in shares of the Company. Full details of the performance fee are set out in the Company's IPO prospectus, which is available on the Company's website (<https://investors.seraphim.vc/>).

No performance fee was accrued for or paid to the Investment Manager for the Period.

## NOTES TO THE FINANCIAL STATEMENTS

(continued)

## 5. OPERATING EXPENSES

	Period ended 31 December 2022 £'000	Period ended 31 December 2021 £'000
Legal & professional fees	258	68
Directors' fees	115	76
Administration & depository fees	111	87
Irrecoverable VAT	66	-
Audit of statutory financial statements	33	35
Insurance expense	12	139
Other operating expenses	336	219
<b>Total operating expenses</b>	<b>931</b>	<b>624</b>

## 6. TAX

As an investment trust, the Company is exempt from UK corporation tax on capital gains arising on the disposal of shares. Capital profits from creditor loan relationships and derivative contracts are exempt from UK tax where the profits are accounted for through the Capital column of the Statement of Comprehensive Income, in accordance with the AIC SORP.

Therefore, no tax liability has been recognised in the financial statements.

	Revenue £'000	Capital £'000	Total £'000
UK corporation tax charge on profits for the period at 19%	-	-	-

	Revenue £'000	Capital £'000	Total £'000
Return on ordinary activities before tax	(2,381)	(14,927)	(17,308)
Tax at UK corporation tax rate of 19%	(452)	(2,836)	(3,288)
Effects of:			
Non-taxable (losses)/gains on investments	-	2,836	2,836
Disallowable Expenses	3	-	3
Excess management expenses not utilised in the period	449	-	449
<b>Total tax charge</b>	<b>-</b>	<b>-</b>	<b>-</b>

As at 31 December 2022 the Company has not recognised a deferred tax asset of £1,610,660 arising as a result of having unutilised management expenses carried forward at the period end of £6,442,642, based on the long term prospective corporation tax rate of 25%. The March 2021 Budget announced an increase to the main rate of corporation tax to 25% from 1st April 2023. This increase in the standard rate of corporation tax was substantively enacted on 24th May 2021. These expenses will only be utilised if the tax treatment if the Company's income and chargeable gains changes or if the Company's investment profile changes.

Deferred tax is not provided on capital gains and losses arising on the revaluation of disposal investments because the Company meets (and intends to continue to meet for the foreseeable future) the conditions for approval as an Investment Trust company.



## NOTES TO THE FINANCIAL STATEMENTS

(continued)

## 7. EARNINGS PER SHARE

	Period ended 31 December 2022			Period ended 31 December 2021		
	Revenue	Capital	Total	Revenue	Capital	Total
(Loss)/profit attributable to equity – £'000	(2,381)	(14,927)	(17,308)	(1,744)	16,555	14,811
Weighted average number of ordinary shares in issue		239,384,928			200,761,533	
Basic and diluted earnings per share in the period (pence)	(0.99)	(6.24)	(7.23)	(0.87)	8.25	7.38

## 8. INVESTMENTS HELD AT FAIR VALUE THROUGH PROFIT OR LOSS

	Level 1 £'000	Level 3 £'000	31 December 2022 £'000
Opening balance	18,609	167,474	186,083
Investment additions	–	13,395	13,395
Investment disposals	(3,341)	–	(3,341)
Loss on disposals	(1,358)	(602)	(1,960)
Change in fair value	(3,367)	(9,600)	(12,967)
	10,543	170,667	181,210

	Level 1 £'000	Level 3 £'000	30 June 2022 £'000
Opening balance			
Investment additions	2,478	86,565	89,043
Investment additions – shares issued (note 11)	39,189	50,196	89,385
Change in fair value	(23,058)	30,713	7,655
Closing balance	18,609	167,474	186,083

## Fair value measurements

The Company measures fair value using the following fair value hierarchy that prioritises the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy under IFRS 13 are as follows:

- Level 1: Quoted price (unadjusted) in an active market for an identical instrument.
- Level 2: Valuation techniques based on observable inputs, either directly (i.e. as prices) or indirectly (i.e. derived from prices). This category includes instruments valued using quoted prices in active markets for similar instruments, quoted prices for identical or similar instruments in markets that are considered less than active, or other valuation techniques for which all significant inputs are directly or indirectly observable from market data.
- Level 3: Valuation techniques using significant unobservable inputs. This category includes all instruments for which the valuation technique includes inputs that are not based on observable data and the unobservable inputs have a significant effect on the instrument's valuation. This category includes instruments that are valued based on quoted prices for similar instruments for which significant unobservable adjustments or assumptions are required to reflect differences between the instruments.

## NOTES TO THE FINANCIAL STATEMENTS

(continued)

## 8. INVESTMENTS HELD AT FAIR VALUE THROUGH PROFIT OR LOSS (CONTINUED)

## Fair value measurements (continued)

The level in the fair value hierarchy within which the fair value measurement is categorised in its entirety is determined on the basis of the lowest level input that is significant to the fair value measurement. For this purpose, the significance of an input is assessed against the fair value measurement in its entirety. If a fair value measurement uses observable inputs that require significant adjustment based on unobservable inputs, that measurement is a Level 3 measurement. Assessing the significance of a particular input to the fair value measurement in its entirety requires judgement, considering factors specific to the asset or liability.

The determination of what constitutes 'observable' requires significant judgement by the Company. The Company considers observable data to be market data that is readily available, regularly distributed or updated, reliable and verifiable, not proprietary and provided by independent sources that are actively involved in the relevant market.

The objective of the valuation techniques used is to arrive at a fair value measurement that reflects the price that would be received if an asset was sold or a liability transferred in an orderly transaction between market participants at the measurement date.

The following table analyses, within the fair value hierarchy, the Company's investments measured at fair value at 31 December 2022

	Level 1 £'000	Level 2 £'000	Level 3 £'000	Total £'000
Listed investments	10,543	–	–	10,543
Unlisted investments	–	–	170,667	170,667
	10,543	–	170,667	181,210

The Level 1 investments were valued by reference to the closing bid prices of each portfolio company on the reporting date.

Due to their nature, the unlisted investments are always expected to be classified as Level 3 as these are not traded and their fair values will contain unobservable inputs.

During the period ended 31 December 2022 Nightingale Intelligent Systems transferred to Level 1.



NOTES TO THE FINANCIAL STATEMENTS

(continued)

8. INVESTMENTS HELD AT FAIR VALUE THROUGH PROFIT OR LOSS (CONTINUED)

Significant unobservable inputs for Level 3 valuations

The fair value of unlisted securities is established with reference to the International Private Equity and Venture Capital Association Valuation Guidelines and the Company may base valuations on the calibrated price of recent investment in the portfolio companies, comparable milestones or multiples of earnings or revenues where applicable. An assessment will be made at each measurement date as to the most appropriate valuation methodology.

The valuation methodologies applied involve subjectivity in their significant unobservable inputs and the table below outlines these inputs. Note 13 below illustrates the sensitivity that flexing these inputs has on fair value ("FV").

Valuation methodology	Fair value (£m)	Unobservable input
<b>Level 1</b>		
Available market price	10.5	n/a
<b>Level 3</b>		
Calibrated price of recent investment (<3 months)	0.0	Transaction price
Calibrated price of recent investment (3-6 months)	6.2	Transaction price
Calibrated price of recent investment (>6 months)	61.5	Transaction price
Calibrated price of recent investment (>12 months)	27.9	Transaction price
Calibrated price of future investment	22.3	Transaction price
Partial write down to price of recent investment	24.8	Write down percentage
Discount to price of recent investment (post Period)	0.0	Uncertainty discount
Milestone multiples	28.0	Weightings and discount to comparables
<b>Total</b>	<b>181.2</b>	

Details of significant holdings as required by Schedule 4 of The Large and Medium-sized Companies and Groups (Accounts and Reports) Regulation 2008 are set out below.

Name	Country of incorporation	Class of share held	% of nominal value	Capital & reserves (£)	Profit/(loss) (£)	Year-end of data	Notes
Bamboo Systems Group Limited	UK	A Preference	47%	(1,355,598)	Not publicly available	31-Dec-20	In administration as of 21-Nov-21
PlantWatchers (UK) Limited	UK	Series Seed 2 Preference	78%	6,082,609	Not publicly available	31-Dec-21	
		Pre-Series A Preference	29%				
		Series A Preference	43%				

9. TRADE AND OTHER RECEIVABLES

	31 December 2022 £'000	30 June 2022 £'000
Other debtors	38	-
Prepayments	37	80
VAT receivable	15	41
	<b>90</b>	<b>121</b>

NOTES TO THE FINANCIAL STATEMENTS

(continued)

10. TRADE AND OTHER PAYABLES

	31 December 2022 £'000	30 June 2022 £'000
Accruals	186	228
Trade creditors	51	82
Amounts payable for investments	-	4,228
	<b>237</b>	<b>4,538</b>

11. SHARE CAPITAL

Date	Issued and fully paid	Number of shares issued	Share capital £'000	Share premium £'000	Other reserves £'000	Total £'000
1 July 2022		239,384,928	2,394	60,377	173,176	235,947
31 December 2022		239,384,928	2,394	60,377	173,176	235,947

12. NET ASSET VALUE PER SHARE

	31 December 2022	30 June 2022
Net assets £'000 (per Statement of Financial Position)	£222.0m	£239.3m
Number of ordinary shares issued	239,384,928	239,384,928
Net asset value per share (pence)	92.74	99.97

13. RELATED PARTY AND INVESTMENT MANAGER TRANSACTIONS

Directors

As at 31 December 2022, the Company had four non-executive Directors. Directors' fees for the period ended 31 December 2022 amounted to £100k, of which £NIL was outstanding at the period-end.

Investment Manager

Seraphim Space Manager LLP has been appointed as the Company's exclusive Investment Manager and AIFM and is responsible for the day-to-day operation and management of the Company's investment portfolio, subject at all times to the overall supervision of the Board. The Investment Manager is considered to be a related party in accordance with the Financial Conduct Authority's Listing Rules.

For the provision of services under the Investment Management Agreement, the Investment Manager earns a management fee and performance fee, as disclosed in note 4.

14. ULTIMATE CONTROLLING PARTY

In the opinion of the Board, on the basis of the shareholdings disclosed to it, the Company has no ultimate controlling party.

15. SUBSEQUENT EVENTS

Please refer to pages 18 and 19 for details of subsequent events in the normal course of business. There are no other significant subsequent events





FURTHER  
INFORMATION



# ALTERNATIVE PERFORMANCE MEASURES

We assess the Company's performance using a variety of measures, some of which are not specifically defined under UK-adopted International Accounting Standards and are therefore termed 'APMs'. Our APMs, which are shown below, are reconciled, where appropriate, to the financial statements through the narrative below. The Board believes that each of the APMs, which are typically used within the listed investment company sector, provide additional useful information to shareholders to help assess the Company's performance.

## Share price movement

Share price movement in the period, expressed as a percentage.

### 31 December 2022 vs. 30 June 2022

Share price on 30 June 2022	a	53.0p
Share price on 31 December 2022	b	45.2p
<b>Movement</b>	(b-a)/a	<b>-14.7%</b>

### 31 December 2022 vs. 31 December 2021

Share price on 31 December 2021	a	125.4p
Share price on 31 December 2022	b	45.2p
<b>Movement</b>	(b-a)/a	<b>-64.0%</b>

## NAV per share movement

Net asset value per share movement in period, expressed as a percentage.

### 31 December 2022 vs. 30 June 2022

NAV per share on 30 June 2022 (note 12 to the financial statements)	a	99.97p
NAV per share on 31 December 2022 (note 12 to the financial statements)	b	92.74p
<b>Movement</b>	(b-a)/a	<b>-7.2%</b>

### 31 December 2022 vs. 31 December 2021

NAV per share on 31 December 2021	a	104.67p
NAV per share on 31 December 2022	b	92.74p
<b>Movement</b>	(b-a)/a	<b>-11.4%</b>

## -Discount/+premium

The amount by which the market price per share of a listed investment company is either lower (discount) or higher (premium) than the NAV per share, expressed as a percentage of the NAV per share.

		31 December 2022	30 June 2022	31 December 2021
NAV per share (note 12 to the financial statements)	a	92.7p	100.0p	104.7p
Share price	b	45.2p	53.0p	125.4p
<b>Discount/+premium</b>	(b-a)/a	<b>-51.3%</b>	<b>-47.0%</b>	<b>+19.8%</b>

## ALTERNATIVE PERFORMANCE MEASURES

(continued)

## Ongoing charges

Operating costs incurred in the 12-month period ended on the date indicated, charged to Revenue or Capital in the Statement of Comprehensive Income, calculated as a percentage of the average published net assets in respect of the period. Operating costs exclude, for this purpose, any performance fee, the costs of acquiring and disposing of investments, any finance costs, taxation and any costs not expected to recur in the foreseeable future. The calculation is performed in accordance with the guidelines issued by the AIC.

		31 December 2022 £'000	30 June 2022 £'000
Investment management fee (note 4 to the financial statements)		3,093	2,744
Other operating expenses (note 5 to the financial statements)		1,933	1,626
Less non-recurring operating expenses		(501)	(251)
Ongoing charges	a	4,525	4,119
Average quarterly NAV	b	240,314	240,014
<b>Ongoing charges ratio</b>	a/b	<b>1.88%</b>	<b>1.72%</b>

The ongoing charges calculated above may differ from the ongoing costs provided in the Company's Key Information Document ('KID'), which are calculated in line with the Packaged Retail and Insurance-based Investment Products Regulation. The ongoing costs in the KID include investment transaction costs.

## Portfolio fair value vs. cost

The amount by which the fair value of the assets in the portfolio at the end of the period has changed in relation to the aggregate cost of the assets (adjusted for any disposals), expressed as a percentage of the aggregate cost.

		31 December 2022	30 June 2022	31 December 2021
Portfolio fair value (note 8 to the financial statements)	a	181.2	186.1	182.8
Aggregate cost of the assets (adjusted for any disposals)	b	186.5	178.4	164.2
<b>Portfolio fair value vs. cost</b>	a/b	<b>97.2%</b>	<b>104.3%</b>	<b>111.3%</b>



# GLOSSARY

**AI:** artificial intelligence.

**AIC:** The Association of Investment Companies, the trade body for listed closed-ended investment companies.

**AIC SORP:** The Statement of Recommended Practice for the Financial Statements of Investment Trust Companies and Venture Capital Trusts, issued by the AIC as amended from time to time.

**AWS:** Amazon Web Services.

**Board:** the Board of Directors of the Company.

**Bookings:** contracted future revenues.

**Company** or **SSIT:** Seraphim Space Investment Trust PLC.

**Directors:** the Directors of the Company.

**Discount:** the share price of a listed investment company is rarely the same as its NAV. When the share price is lower than the NAV per share it is said to be trading at a discount. The discount is the difference between the share price and the NAV, expressed as a percentage of the NAV.

**ESG:** environmental, social and governance.

**EV:** enterprise value.

**Fair value weighted average:** average rates for multiple portfolio companies, weighted by each portfolio companies' relative fair value.

**FX:** foreign exchange.

**GPS:** global positioning system.

**IAS:** International Accounting Standard.

**IFRS:** the International Financial Reporting Standards, being the principles-based accounting standards, interpretations and the framework by that name issued by the International Accounting Standards Board, to the extent they have been adopted by the UK.

**Initial Portfolio:** the portfolio of investments acquired from the LP Fund by the Company on completion of its IPO, details of which are set out in the IPO prospectus, which is available on the Company's website (<https://investors.seraphim.vc/>).

**Investment Management Agreement:** the Investment Management Agreement entered into between the Investment Manager and the Company.

**Investment Manager** or **Seraphim Space:** Seraphim Space Manager LLP.

**IPEV:** the International Private Equity and Venture Capital Association

**IPO:** initial public offering, being an offering by a company of its share capital to the public with a view to seeking an admission of its shares to a recognised stock exchange.

**LEO:** low earth orbit being an orbit that is relatively close to the earth's surface, extending from 160km to 2,000km above earth.

**London Stock Exchange:** London Stock Exchange PLC.

**LP Fund:** Seraphim Space LP.

**NASDAQ:** National Association of Securities Dealers Automated Quotations.

**NAV** or **net asset value:** the value of the assets of the Company less its liabilities as calculated in accordance with its accounting policies (or, in the context of an ordinary share, the NAV of the Company divided by the number of ordinary shares in issue).

**New Space:** the emerging commercial space industry.

**Period:** the period from 1 July 2022 to 31 December 2022.

**Premium:** The share price of a listed investment company is rarely the same as its NAV. A premium occurs when the share price of a listed investment company is higher than the NAV. The premium is the difference between the share price and the NAV, expressed as a percentage of the NAV.

**RF:** radio frequency; the use of electromagnetic radiation for transferring information between two circuits that have no direct electrical connection.

**SAR:** synthetic aperture radar

## GLOSSARY

(continued)

**Smallsat:** small spacecraft with a mass less than 180kg and about the size of a large kitchen fridge.

**SPAC:** special purpose acquisition company.

**SpaceTech:** in the context of a business, an organisation which relies on space-based connectivity and/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.

**Total return:** The total return on an investment comprises both changes in the NAV per share or share price and dividends paid to shareholders and is calculated on the basis that all historic dividends have been reinvested in the NAV or shares on the date the dividend is paid.

**UN SDGs:** The 17 United Nations Sustainable Development Goals, which are an urgent call for action by all countries – developed and developing – in a global partnership. They recognise that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality and spur economic growth, all while tackling climate change and working to preserve our oceans and forests.



# CORPORATE INFORMATION

## Registered Office

5th Floor  
20 Fenchurch Street  
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EC3M 3BY

## Board of Directors

Will Whitehorn (Chair)  
Sue Inglis (Senior Independent Director)  
Christina McComb  
Angela Lane

## Investment Manager

Seraphim Space Manager LLP  
2nd Floor  
One Fleet Place  
London  
EC4M 7WS

## Administrator and Company Secretary

Ocorian Administration (UK) Limited  
5th Floor  
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London  
EC3M 3BY

## Corporate Brokers

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1 Great Winchester Street  
London  
EC2N 2DB

J.P. Morgan Securities PLC  
25 Bank Street  
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London  
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## Legal Adviser

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EC2M 7SH

## Depository

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## Independent Auditor

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## Custodian

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## Identifiers

**Website:** <https://investors.seraphim.vc/>  
**ISIN:** GB00BKPG0138  
**Ticker:** SSIT  
**SEDO:** BKPG013  
**GIIN:** GXNBCF.99999.SL.826

**Registered Company Number:** 13395698



