FACTS & FIGURES

Bridging the Financing Gap in the European Space Sector

Alternative funding pathways in tightening markets

ESPI European Space Policy Institute

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1 In Numbers: The Current and Future State of Investment in the European Space Sector

The European space industry stands at a crossroads shaped by evolving economic and financial landscapes. Over the last two decades, the industry has witnessed a shift from traditional government-heavy investments to a more dynamic ecosystem increasingly complemented by private equity, venture capital, and diverse financial instruments.

These changes, influenced by global macroeconomic conditions and policy shifts, have not only redefined investment strategies but also posed new challenges and opportunities for space ventures. **From the impact of monetary policies on high-risk investments to the roles played by space agencies and other public institutions in fostering innovation, this report offers a comprehensive overview of the financial underpinnings that drive the development of the European space sector**. In this report, ESPI delves into the intricacies of investment trends, funding mechanisms, and offers strategic recommendations informed by the current and future state of financing in the sector. The report examines alternate financial mechanisms and vehicles, beyond venture capital and established public programmes, laying out a roadmap of strategic recommendations to navigate the complexities of this evolving sector. This **Facts & Figures document** offers an overview of key figures used to inform ESPI's Research and Recommendations.

As the space industry continues its transformation, understanding and adapting to financial and capital market dynamics is paramount for sustaining growth, innovation, and competitiveness in the sector.

Economic Backdrop

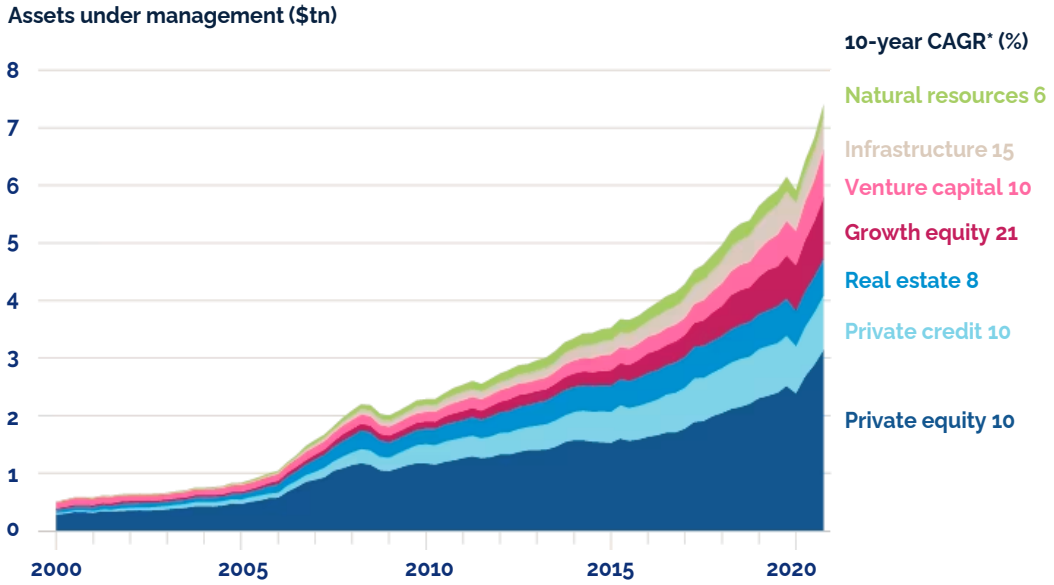

Figure 1: Growing power of private capital (Credit; Financial Times).

The space industry's investment landscape over the past two decades has been significantly influenced by global macroeconomic, geopolitical, and financial transformations. Key developments include the emergence of high-risk investment classes like private equity and venture capital, driven by low interest rates, the pursuit of yield, and innovation.

During the 2010's, low returns on traditional fixed-income investments such as bonds, due to low interest rates and quantitative easing, prompted investors to seek higher returns in

alternative, non-traditional investments. The capital flight to higher-risk industries had positive consequences, evident in a technological and innovation post-crisis boom. Sectors like information technology, biotech, renewable energy, and the space industry thrived as low interest rates facilitated accessible funding.

From 2009 onwards, the U.S. space sector witnessed the rise of private space companies like SpaceX, Blue Origin, and Virgin Galactic, backed by substantial venture capital and family office investments. This era transformed the space industry from a government-dominated to a more dynamic, sector, attracting ever-increasing private market allocations.[1] **In Europe, a similar, albeit less prominent trend has emerged with some delay. Private and quasi-private capital enabled the emergence of nascent champions in the satellite manufacturing and services sectors, notably also in countries outside the established industry epicentres**, for example, ICEYE (Finland), NanoAvionics (Lithuania), and EnduroSat (Bulgaria). In the launch and space transportation segment, the activity of companies with private backing remains in established environments (Germany, France, Spain).

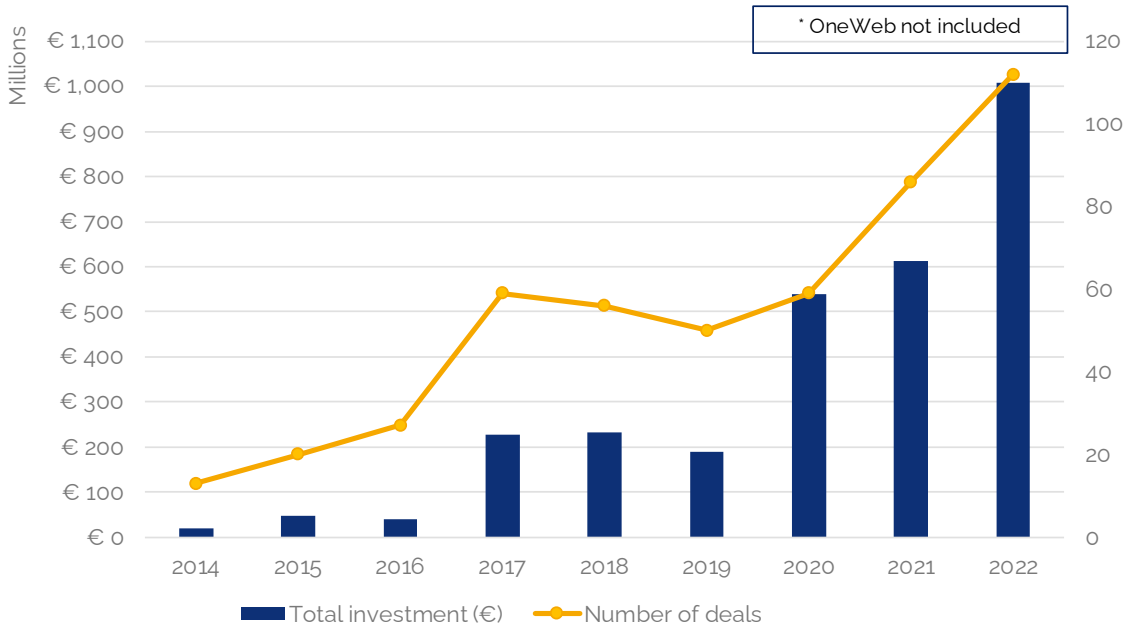

Figure 2: Investment value and number of deals in Europe since 2014 (Credit: ESPI)

However, **come 2022, the macroeconomic and geopolitical environment has changed**, ending the era of low interest rates. The ECB has drastically increased the central borrowing rate from an initial 0.5% in July 22' to a current high of 4.5% in February 2024. Rising interest rates are prompting a shift to safer financial instruments, with venture capital and private equity sectors experiencing capital outflows and a more cautious investment approach. This has led to market corrections for space companies born in the NewSpace era. Factors such as economic fallout, geopolitical tensions, and high inflation have led to difficulties in fundraising and exits, making access to equity finance more challenging for companies in the space industry as **more than 50% of VCs surveyed by the EIF have a negative outlook on raising over the next 12 months**.

[1] The authors note that most of global expenditure in space still relies on public budgets – yet the growing role of private investment is a defining feature of this era.

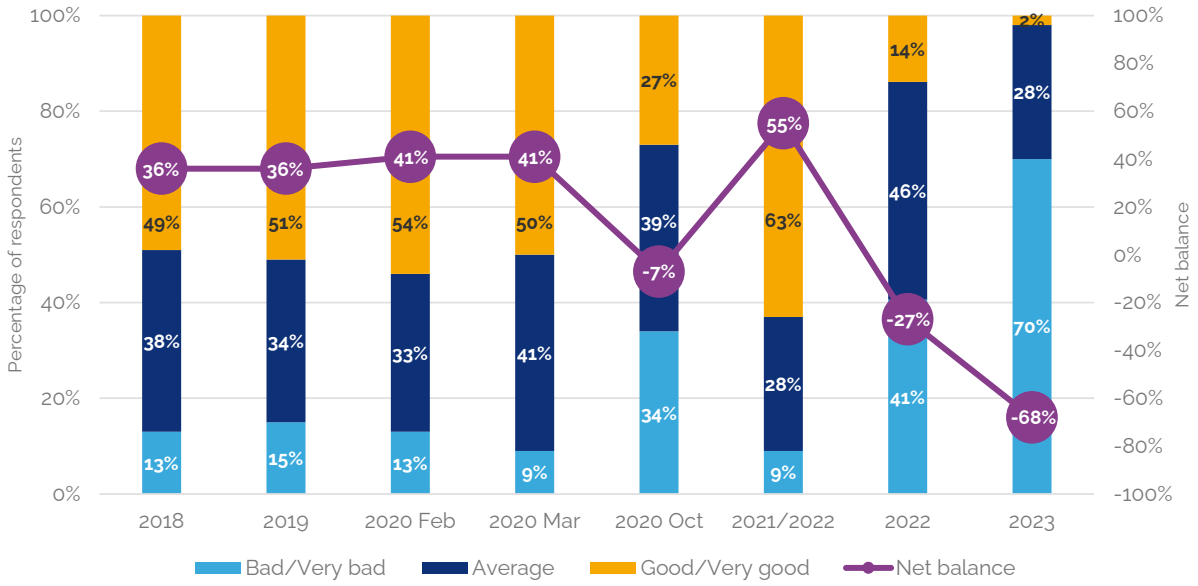

Figure 3: VCs perception of their current fundraising environment (Credit: EIB, ESPI)

1.1 Trends in Private Capital Investment

Since 2019, European space startups have been raising more capital than the previous year, with 2022 being an exceptionally strong year where **companies raised a record of over EUR 1B, up 69% compared to 2021**. Nevertheless, it seems that in 2023 the trend will not be repeated. Up until Q3 of the 2023 the European NewSpace sector already raised approximately EUR 645M. Even though it surpasses the levels of 2019 (EUR 154M), 2020 (EUR 328M), and 2021 (EUR 431M), it was not able to raise as much as in the previous year (EUR 750M), representing a decrease of around 15%.

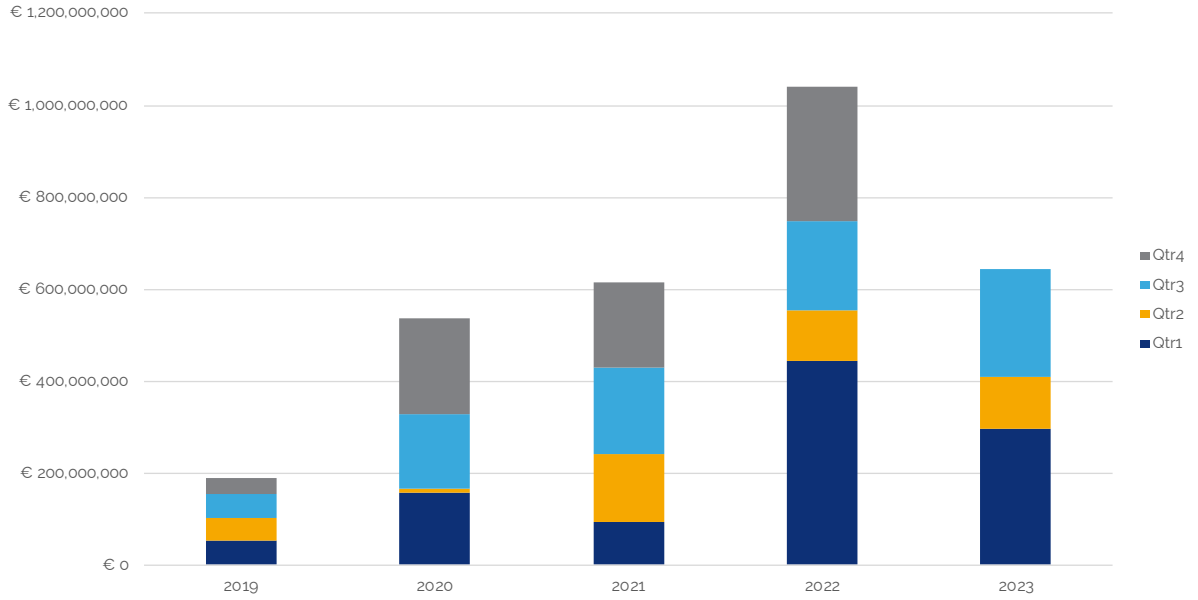

Figure 4: Investment value in the European Space Sector since 2019

When comparing investment between Q1-Q3 of 2022 and 2023, VC saw a similar a decrease of approximately 18%. At the same time, mainly since 2022, **debt financing has taken a secondary but significant role in supplementing the financing needs** of European space companies.

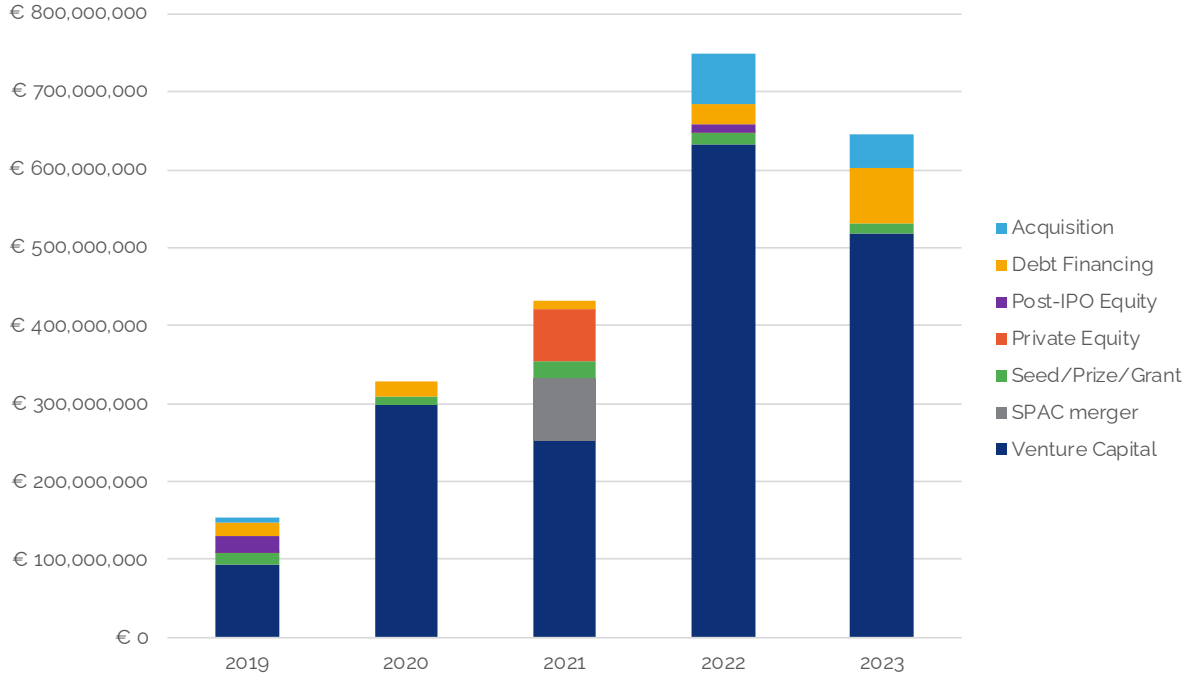

Figure 5: Investment value by deal category between Q1 and Q3 of each year between 2019-2023

Albeit a sizeable decrease, one could dismiss this as a product of comparison with an exceptionally strong previous year, particularly Q1. However, when putting this trend into the larger perspective of the financial markets, it **opens the possibility of hinting at the beginning of a capital winter for the European NewSpace sector**, in line with trends on the wider technology and VC landscape.[2] Indeed, preliminary data from 2023 (including Q4), points to a slowdown in investment in line with Q1-Q3 data, and a **substantial decrease in activity (deal count), which appears to return to pre-2021 numbers.**

[2] European Investment Fund, "EIF VC Survey 2023", 2023, European Investment Fund (Link); Atomico, Orrick, "State of European Tech Report 2023", 2023, State of European Tech (Link)

1.1.1 Lead investors

Since 2019, approximately 234 different lead investors led 347 deals in the European NewSpace sector, driving a total volume above EUR 3B in investments. **Most of the investment volume was led by the private sector**, representing 67,3%, while public sector led 16,8%, mixed lead investors led 7%. The share of investment volume with an undisclosed lead investor was 8.9%. **A majority of investments (78%) were led by European investors** and 13% by non-European. USA-based lead investors account for 10.4% of the investment volume, thus dominating the origin of lead non-European investors.

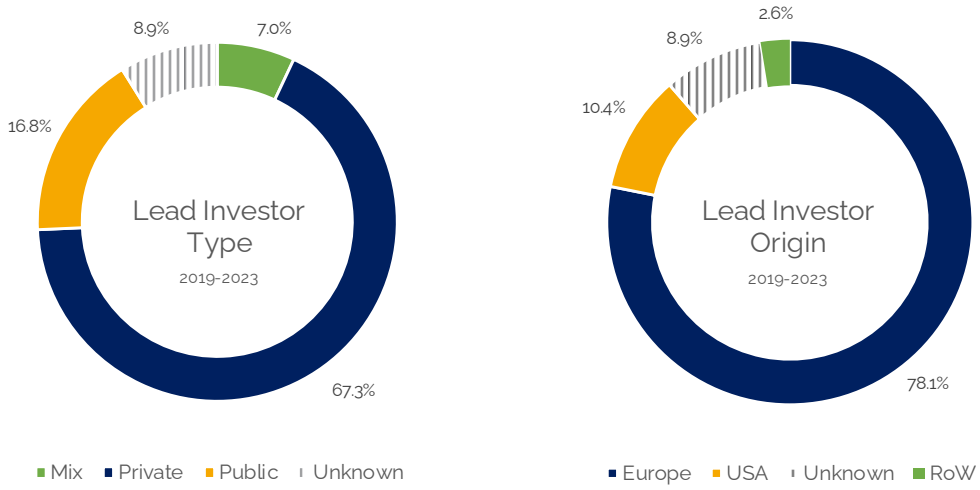

Figure 6: Lead investor type and lead investor origin in Europe between 2019-Q3 2023

The share of investments led by foreign entities, in particular from the U.S., has risen over the years. Whereas in 2019 investment led by American investors amounted to EUR 19M, in 2022 it reached EUR 165M. **Despite the near nine-fold increase, the aforementioned macroeconomic conditions are also affecting foreign investment.**

Accordingly, in Q3 2023, this figure is sitting at approximately EUR 42M, well below the levels present in Q3 2022, which had already reached approximately EUR 158M.

1.1.2 Volume leaders & investment spread

Of the 234 different lead investors, only 15 are responsible for leading almost half (47%) of the capital volume raised by the European new space sector. Seraphim Capital and HV Capital were the lead investors that brought the largest amount of capital into the sector, each representing 7.1% of the total (each approximately EUR 212M).

Among the public sector lead investors, it was BPI France that oversaw 4.1% of the deal values into the space sector, the largest of its category.

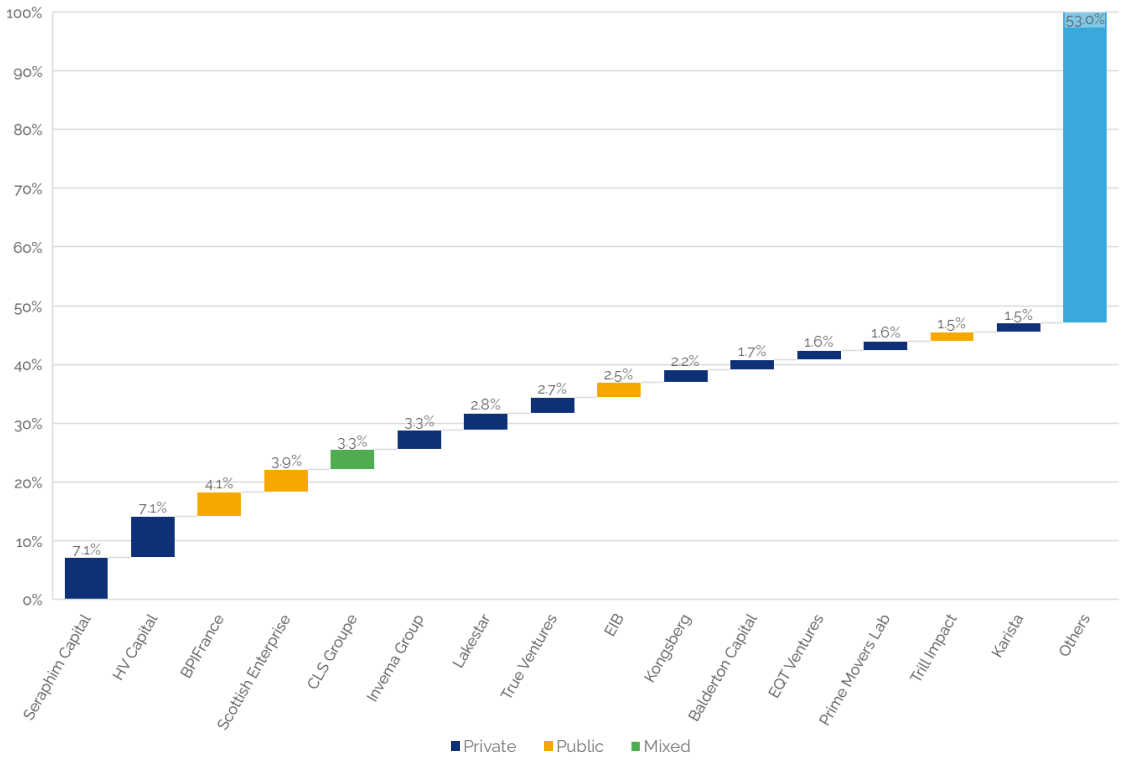

Figure 7: Top 15 lead investors 2019-Q3 2023

By filtering the data to only include investors that led investments in more than one deal and in more than one company we reveal **36 lead investors distributing value across the European NewSpace sector. These have led approximately EUR 1.2B, or almost 40% of the total raised since 2019.**

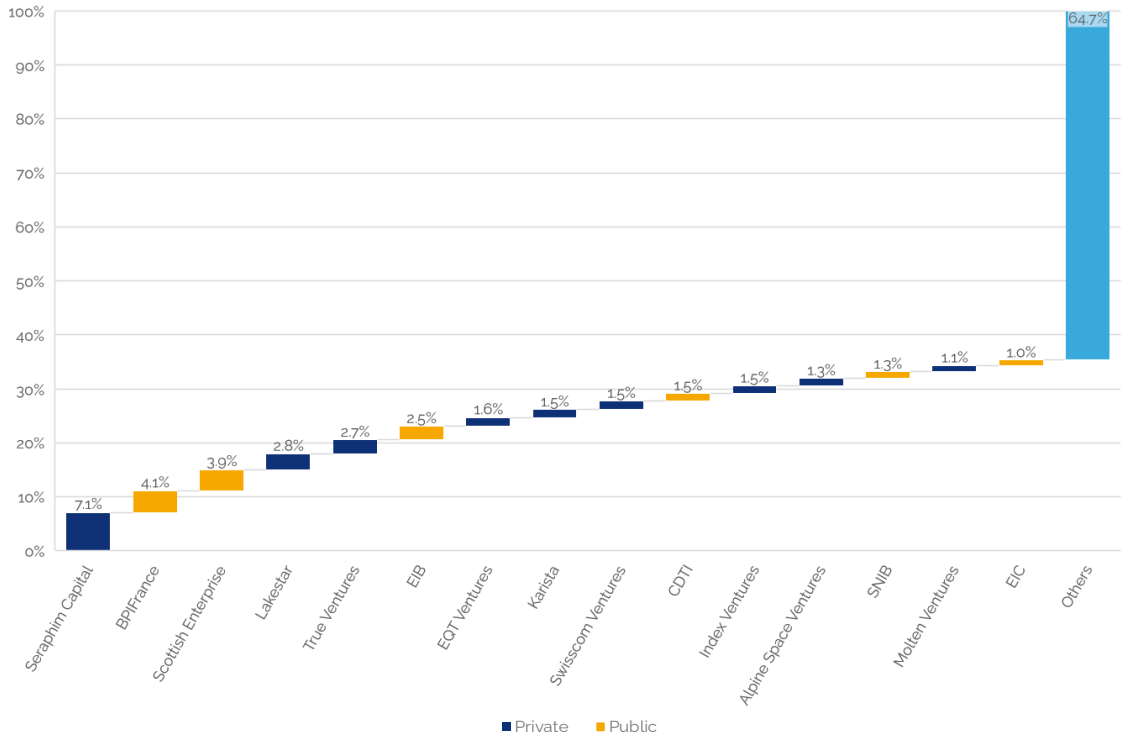

Figure 8: Top 15 lead investors adjusted 2019-Q3 2023

1.1.3 Investor types per funding round

VC firms are the main investor category with more than 50% of funding in rounds from Pre-Seed to Series D. Notably, in Pre-Seed there is an important share of around 7% led by Angel investors. Between Series A and B, the share of VC led investment drops to 70% and 53%, respectively, to then regain its dominance leading 85% of the investment in Series C and being the only type of lead investor in tracked Series D.

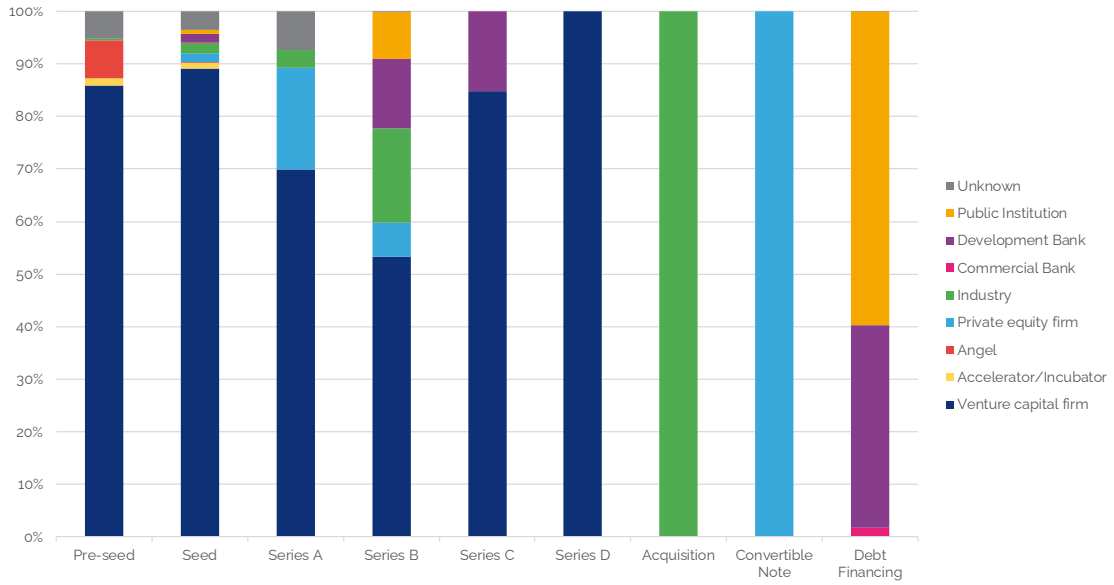

Figure 9: Category of lead investor by round of funding between 2019-Q3 2023

Public institutions led an impressive 60% of the debt financing into the space sector, followed by development banks (48%) and commercial banks (2%). Public institutions also played a smaller but significant role in Series B rounds, leading 9% of the investment. Besides their important role in debt financing, development banks activity is concentrated in Series B investment rounds, with a share of 13%, as well as a similar share of 15% in Series C rounds.

Despite this, **the data shows venture capital firms are deeply ingrained in the European NewSpace sector, contributing to an overwhelming majority of the funding. The macroeconomic conditions the sector faces, and the data collected by ESPI, indicate that the European space sector should start seeking new sources of capital and financing to obtain stability via diversification**.

1.1.4 Analysis: Startup graduation rates

'Graduation rates' refer to the progression rates of European space startups from one funding round to the next, specifically from Seed to Series A, Series A to Series B, and Series B to Series C. The data highlights a notable trend: **despite an increase in funding into the European space sector after 2019, the graduation rates have decreased from the median deal time of 18 months.**

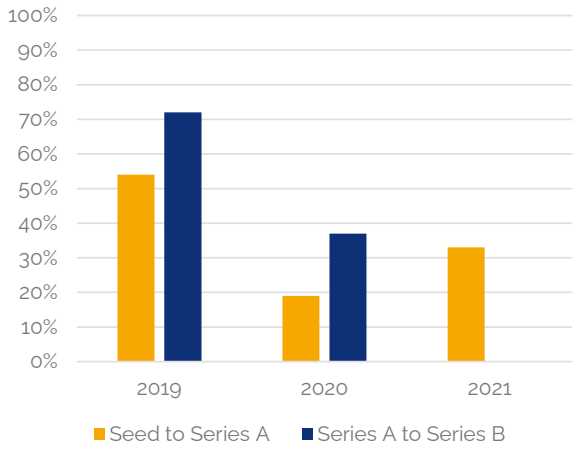

Figure 10: Graduation rates.

In 2019, 54% of the companies that raised a Seed round managed to proceed to raise a Series A round by 2021. However, by 2021, only 33% of these companies had managed to do so within the median timeframe. Approximately 70% of the companies that raised a Series A in 2019 managed to move on to a Series B, but by 2020, only about 40% had managed to do so.

1.1.5 Towards a venture capital funding gap?

We provide an analysis of the European NewSpace sector funding environment, testing a global slowdown in VC investments. We present two scenarios based on capital needs and historical funding data from 2019 to 2022.

Funding Gap	Seed	Series A	Series B
Scenario A	EUR 74M	EUR 90M	EUR 102M
Scenario B	EUR 55M	EUR 67M	EUR 77M

Table 1:Funding gap analysis

Scenario A is pessimistic, forecasting an 80% decrease in VC funding, leading to a total early-stage fundraising gap of EUR 266M, broken down as EUR 74M for Seed stage, EUR 90M for Series A, and EUR 102M for Series B by H2 2024. This scenario reflects a return to 2019 funding levels due to changing macroeconomic conditions and a departure from the high investment activity seen in 2021-2022.

Scenario B, less severe, anticipates a 60% reduction in VC funding, aligning with current trends indicating a downturn in broader private markets. This scenario estimates a total funding gap of approximately EUR 200M, with Seed stages facing a EUR 55M shortfall, Series A EUR 67M, and Series B EUR 77M.

These funding gaps pose questions on which potential sources can bridge these shortfalls, highlighting the role of both public and private actors.

2 ESPI Survey on Investor Concerns

The **ESPI survey**, which gathered insights from 42 respondents, sheds light on the investment dynamics in the European space sector and lays out key areas actors in the European space sector may tackle to attract alternative investors. The respondents primarily consisted of "VC+" actors[3], along with alternative capital providers[4], providing a comprehensive perspective on the sector's financial landscape.

Key findings of the ESPI 2023 Survey on Alternative Finance Mechanisms:

- **Investment Potential of Alternative Finance**: A significant share of respondents in the alternative finance category had not previously invested in the space sector, pointing to the untapped potential.
- **Investment Focus**: VC+ investors were predominantly engaged in early-stage investments, highlighting their dominant role in Seed, Series A, and Series B funding rounds. In contrast, alternative investors demonstrated a focus on strategic and practical elements of investments.
- **Information Sources and ESG Criteria**: VC+ investors primarily relied on word of mouth and inbound pitches for information. Notably, there was a marked difference in the emphasis on ESG criteria between investor types, with alternative investors placing much greater importance on these factors compared to the VC+ category.
- **Regulatory Landscape**: There was a notable difference in the understanding of U.S. and European regulatory landscapes between VC+ and alternative investors. VC+ investors felt they had a stronger grasp of these regulations.
- **Investment Concerns**: Both investor types shared concerns regarding liquidity, market size, and regulatory issues, but VC+ investors also emphasized follow-up funding as a key concern.

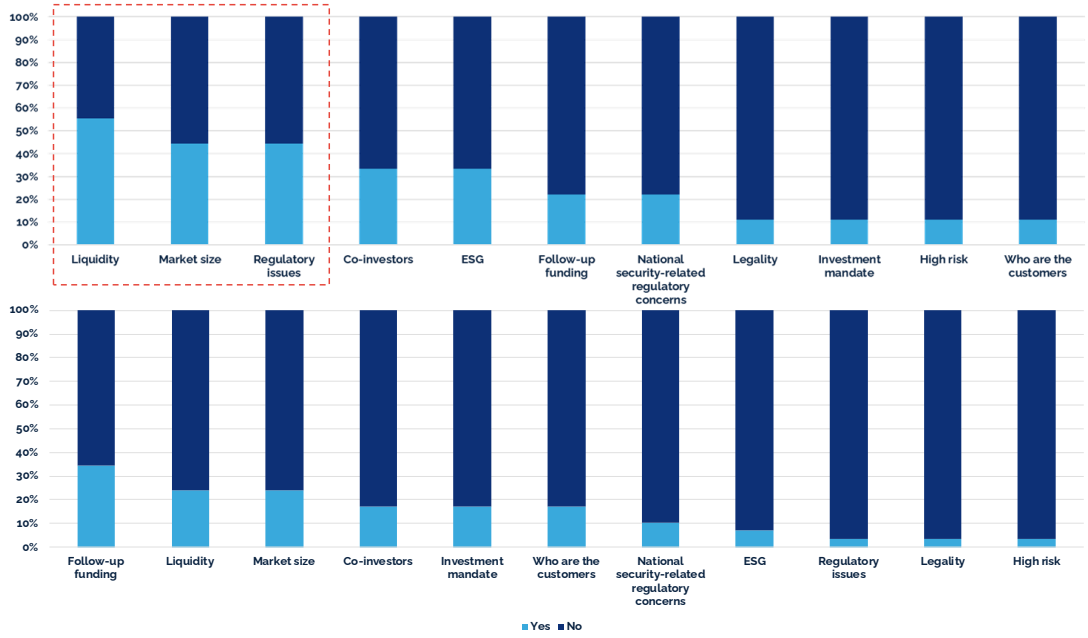

Figure 11: Concerns raised by investors in the alternative (above) and VC+ categories.

[3] VC+ includes angel investors, founders, and venture capital respondents to the ESPI investor survey.
[4] Alternative finance category includes a range of actors including banks, corporate VCs, family offices, funds, and other private equity investors.

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