



ESPI – Space Ventures Europe 2018

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Mission Statement

“The European Space Policy Institute provides decision-makers with an informed view on mid- to long-term issues relevant to Europe’s space activities. In this context, ESPI acts as an independent platform for developing positions and strategies.”

The main goals underpinning ESPI's activities are:

- Promoting European space policy on a global level;
- Identifying areas for further European space policy development;
- Facilitating European space policy research, academic interaction and the definition of long-term European orientations in the space field;
- Establishing a European and international cross-disciplinary network of researchers and experts in all sectors dealing with space activities;
- Serving as a leading source of information for scholars, scientists, professionals and students who wish to meaningfully contribute to the development of European space policy;
- Facilitating the exchange of information and opinions between those interested in space policy research;
- Supporting the training of young graduates interested in the development of space policy in Europe.



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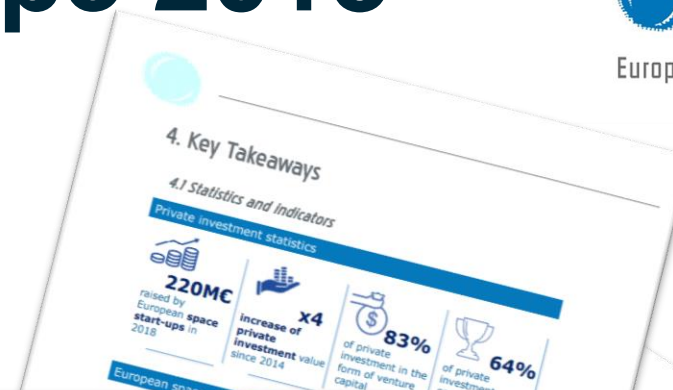
ESPI objective

- Address issues of Space Economy and Business with European perspective according to ESPI ambitions to prepare in-house data for decision-makers

STUDY OBJECTIVE

Space venture 2018 provides insights on private investments in Europe along two core parts:

- **Assess the situation of private investments targeting European space start-ups**, on the basis of available public data on deals and operations an internal database has been built and is continuously improved and enhanced;
- **Provide an overview of the European entrepreneurial ecosystem**, on the basis of a survey distributed to space start-ups across Europe some key indicators has been designed. ESPI plans to issue the Survey once per year.

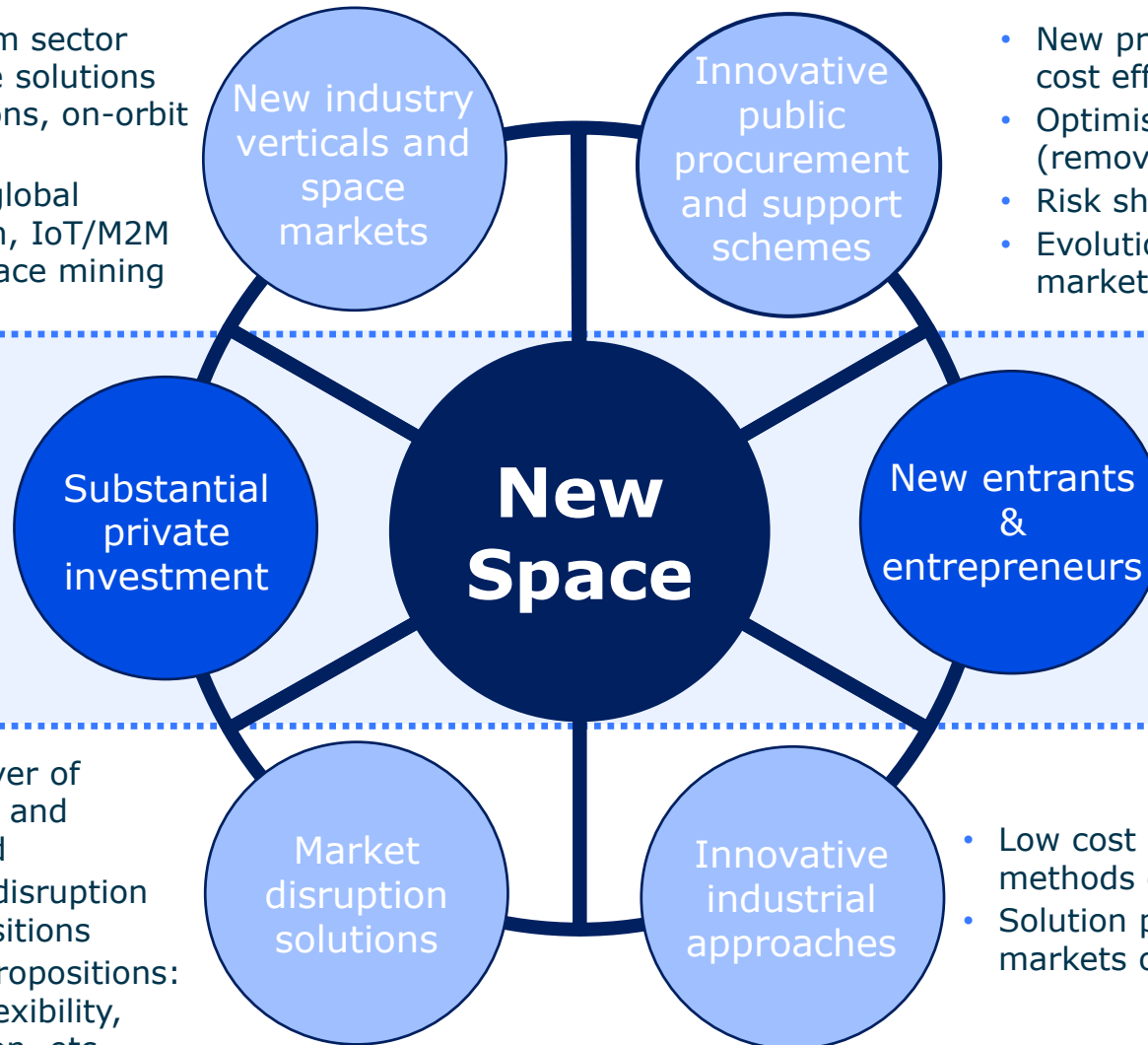


- New verticals in the upstream sector structured around innovative solutions (cubesats, mega-constellations, on-orbit servicing...)
- New downstream markets: global connectivity, geo-information, IoT/M2M networks, space tourism, space mining

- Considerable growth of private investment since 2000*
- Private investment around \$1.7 billion per year (2012-2017)*

*Bryce, Start-up Space 2018

- Technology not the main driver of innovation: product, process and business innovation favoured
- Business strategy based on disruption with aggressive value propositions
- Common features of value propositions: integration/customization, flexibility, availability, decomplexification, etc.



- New procurement schemes seeking cost effectiveness
- Optimisation of industrial organization (removing prescriptive constraints)
- Risk sharing with private sector
- Evolution of industrial policy towards market creation

- Entry or emergence of new companies challenging the traditional approach with alternative models
- Entrepreneurs and new business ventures
- Non-space companies entering the sector

- Low cost development and production methods of space systems
- Solution presented to disrupt existing markets or address new mass markets

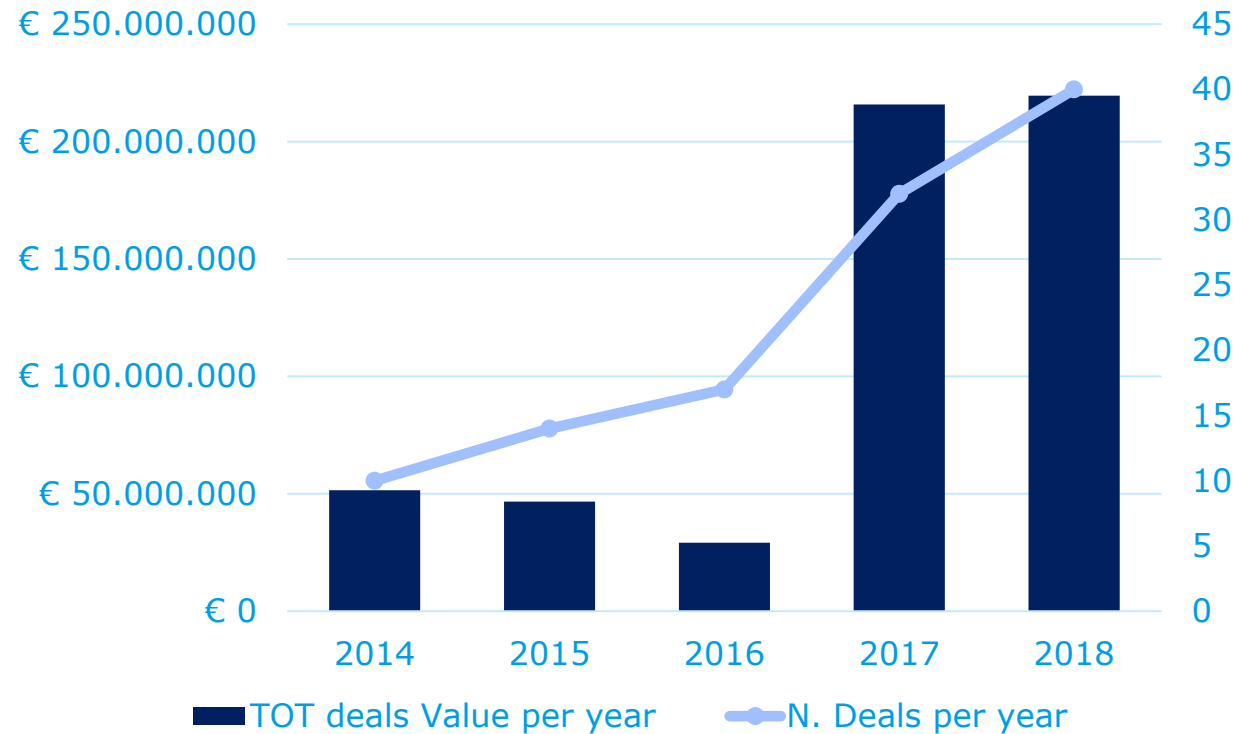


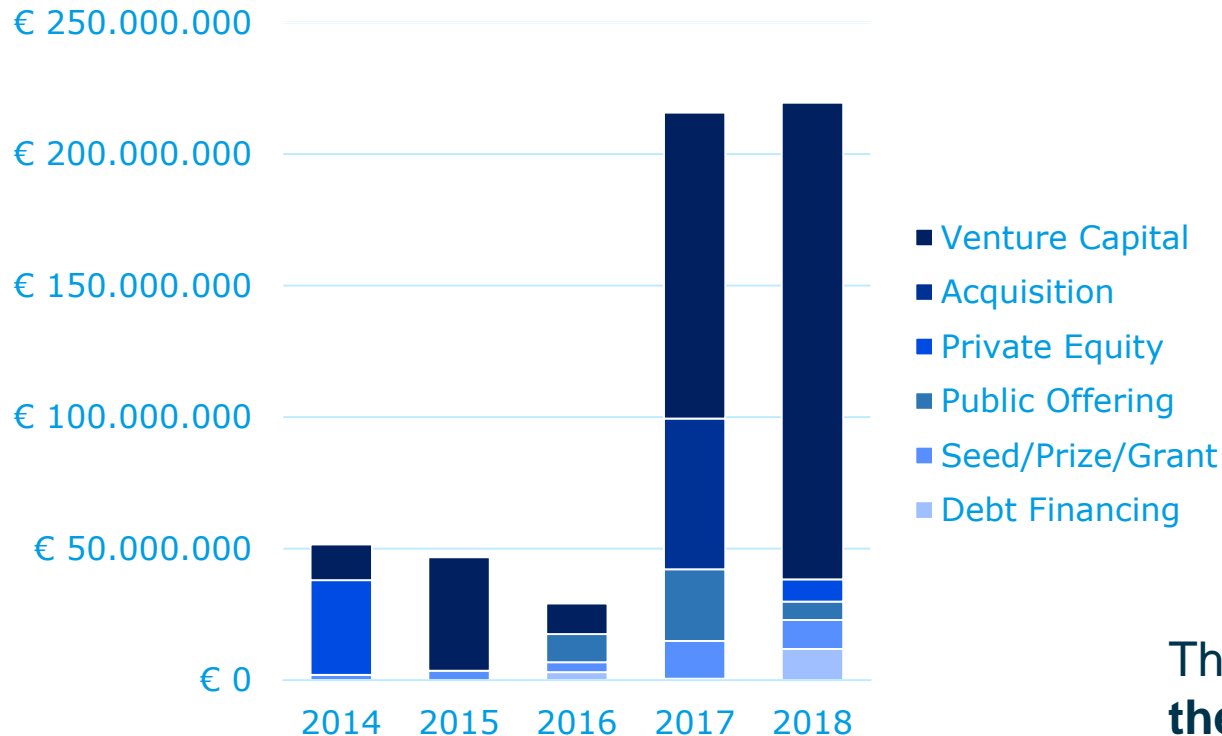
General overview:

- **113** private investment **deals**
- Total amount of **€562.7 million**

2018 Insights:

- New record high with +25% of recorded deals
- + 2% of total deals value, reaching €220 M





Overview 2014-2018

- **Venture capital** is the main form of private funding for start-ups
- Total number **VC deals: 48**
- Total amount invested over the period **€365.8 million**
- VC represented the **65% of the total** amount of private investments

This trend was confirmed in 2018 marking a **+56% in the total VC** invested compared to previous years

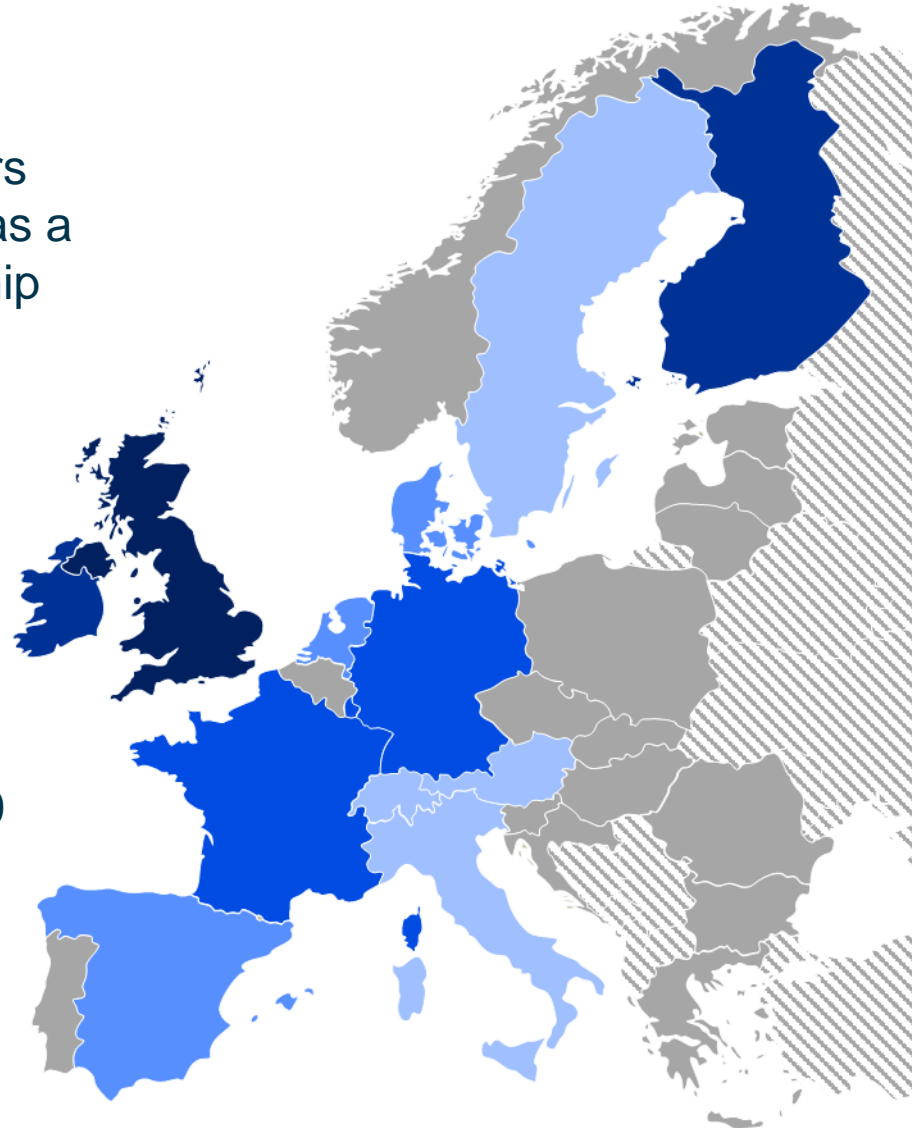




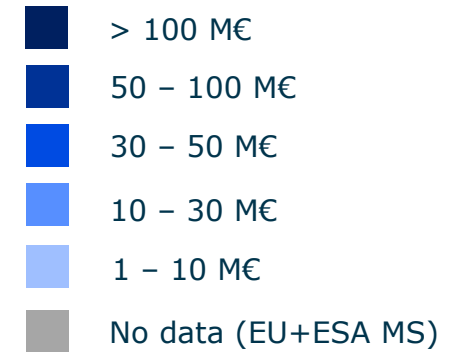
With both a strong start-ups and investors base, the **United Kingdom**, stands out as a clear leader of the space entrepreneurship trend in Europe.

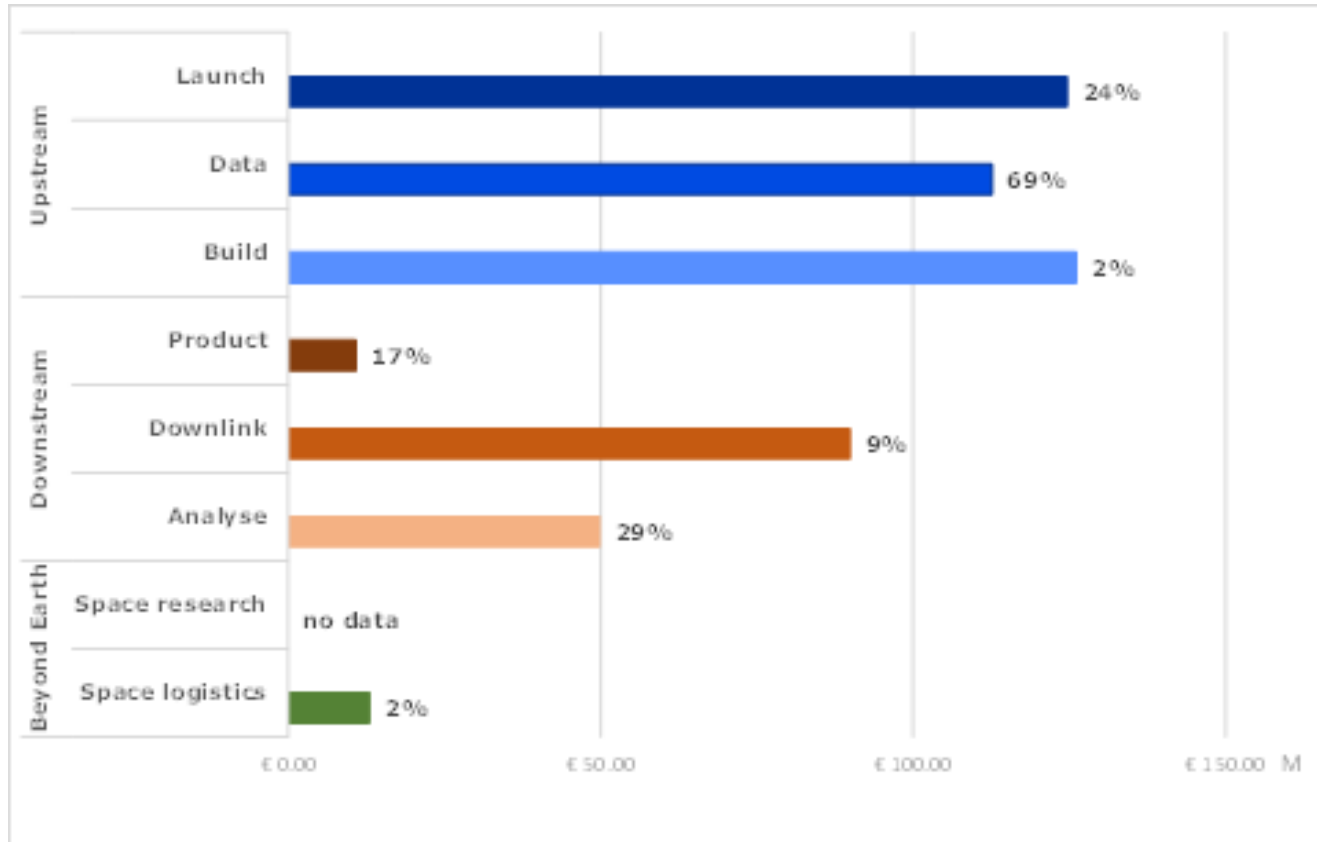
Overview 2014-2018

- Total of 50 deals
- Total amount of private investment recorded accounts for more than €340 million



Total deals value



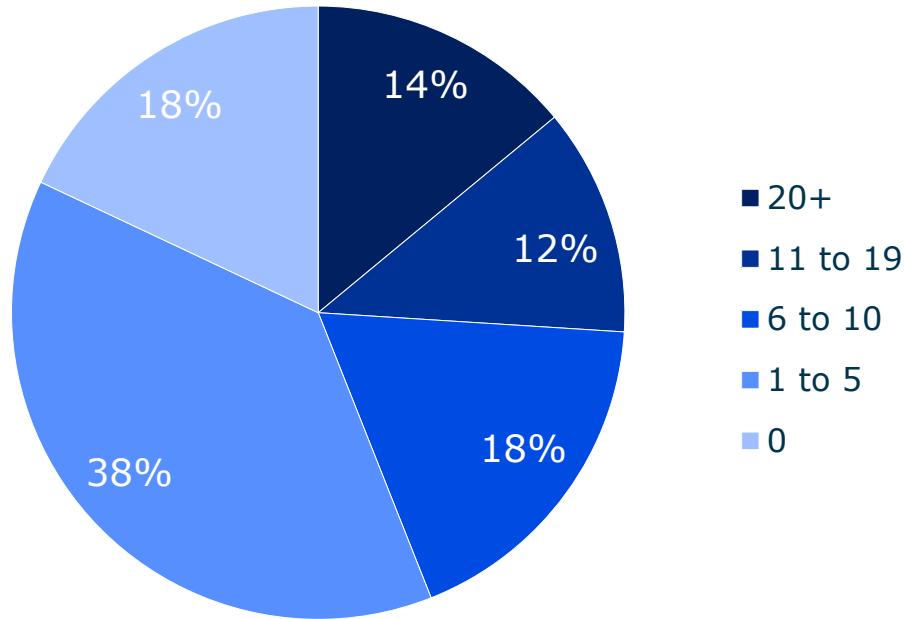


Investments across the space value chain:

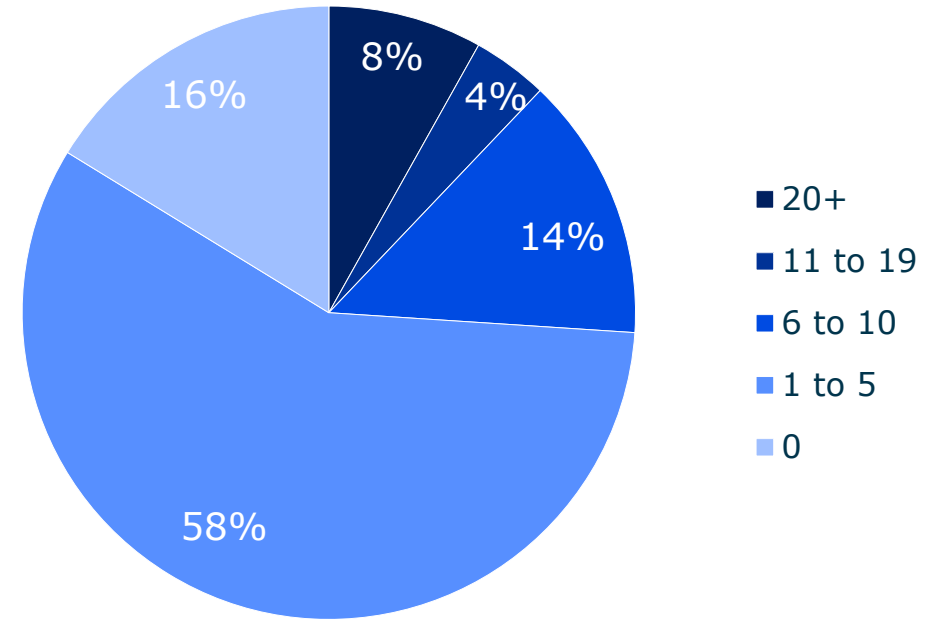
- Investments in the **upstream segment** are **more than twice greater** than in the downstream
- The emergence of **vertically integrated business models** investments in the upstream ultimately affect the downstream as well
- The **space sector benefits** greatly from **investments in other sectors**
- The growing **cross-fertilization** between space and terrestrial technologies is poised to become increasingly blurred



Workforce



Recruitment plans

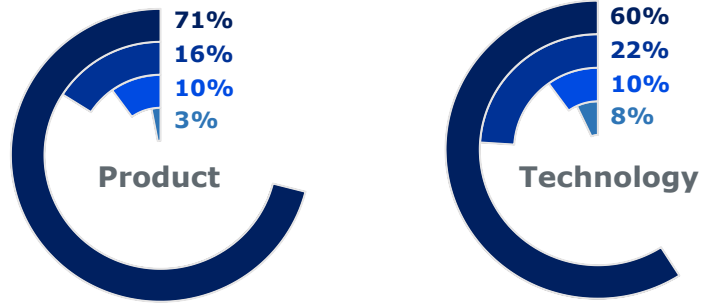


The average European space start-up is a **young SME** led by **2 to 3 founders** and **employing 9 people**.

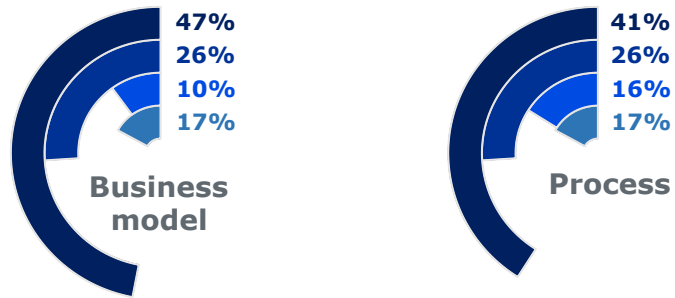
A vast majority of these start-ups (**84%**) **plan to recruit at least one additional employee** within the next 12 months



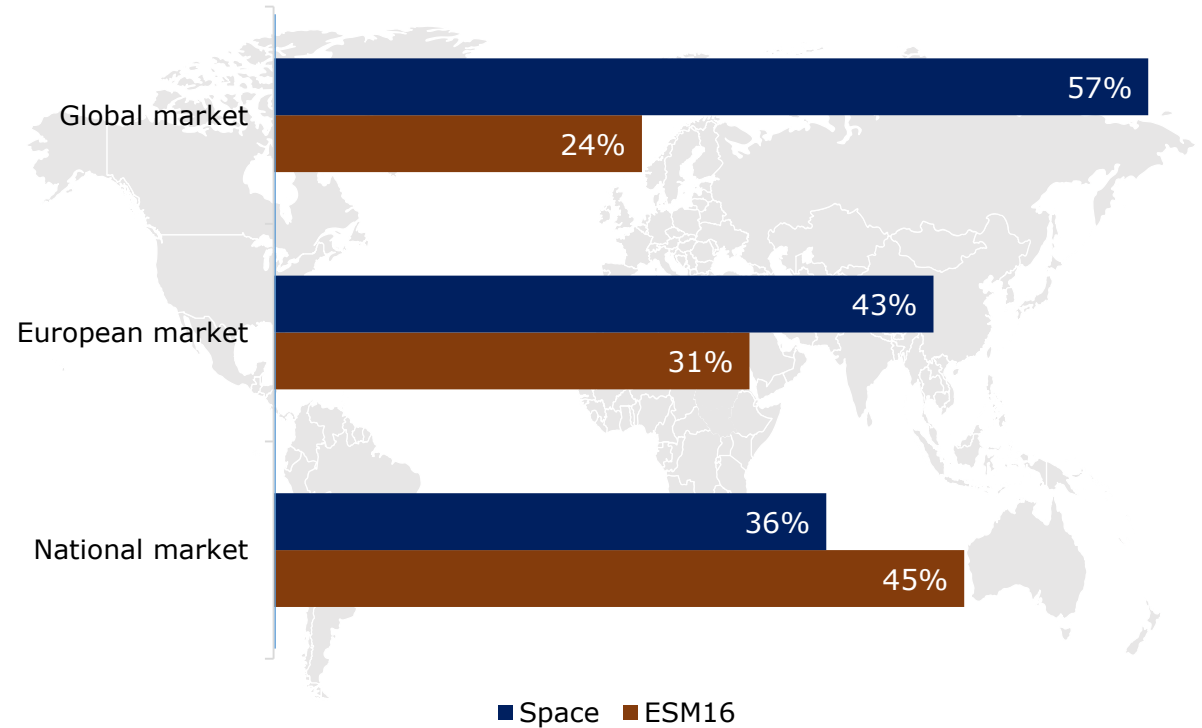
European space start-ups are largely innovation-driven



Innovation



■ Global innovation ■ European innovation ■ National innovation ■ No innovation



A vast majority of start-ups (**63%**) also seek to address global markets with their product and only 8% confine it to their domestic market.





Speed of innovation in the market

Space start-ups 8% 24% 32%

All start-ups 14% 19% 33%

Threat of substitute products

Space start-ups 12% 18% 30%

All start-ups 5% 17% 22%

Bargaining power of customers

Space start-ups 14% 39% 53%

All start-ups 8% 19% 27%

Bargaining power of suppliers

Space start-ups 4% 29% 33%

All start-ups 5% 11% 16%

Threat of new market entrants

Space start-ups 10% 29% 39%

All start-ups 8% 20% 28%

Intensity of competition in the market

Space start-ups 8% 35% 43%

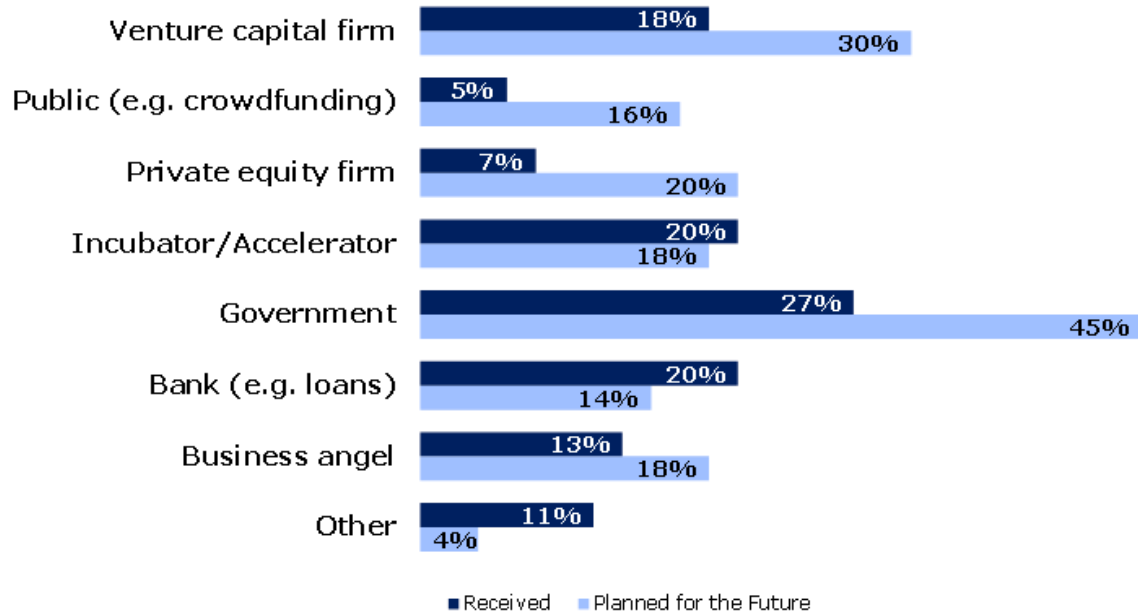
All start-ups 12% 22% 34%

Market dynamics:

- rather **positive and optimistic evaluation of their business situation**, with 83% declaring a satisfactory or good state of affairs and 73% foreseeing an even better scenario in the future.
- space start-ups' consider the **space sector rich in opportunities** both for innovation (52%) and commercialisation (60%), however they look **less confident than other companies** who considers their market richer in opportunities

Space start-ups perceive their business environment as rather hostile:

- Difficulties with the demand side: reluctance to change, a market that is not yet mature, a concentrated demand;
- intense competition (43%),
- a strong bargaining power of suppliers (33%)
- potential entry of new entrants (39%) or substitute products (30%) on the market.

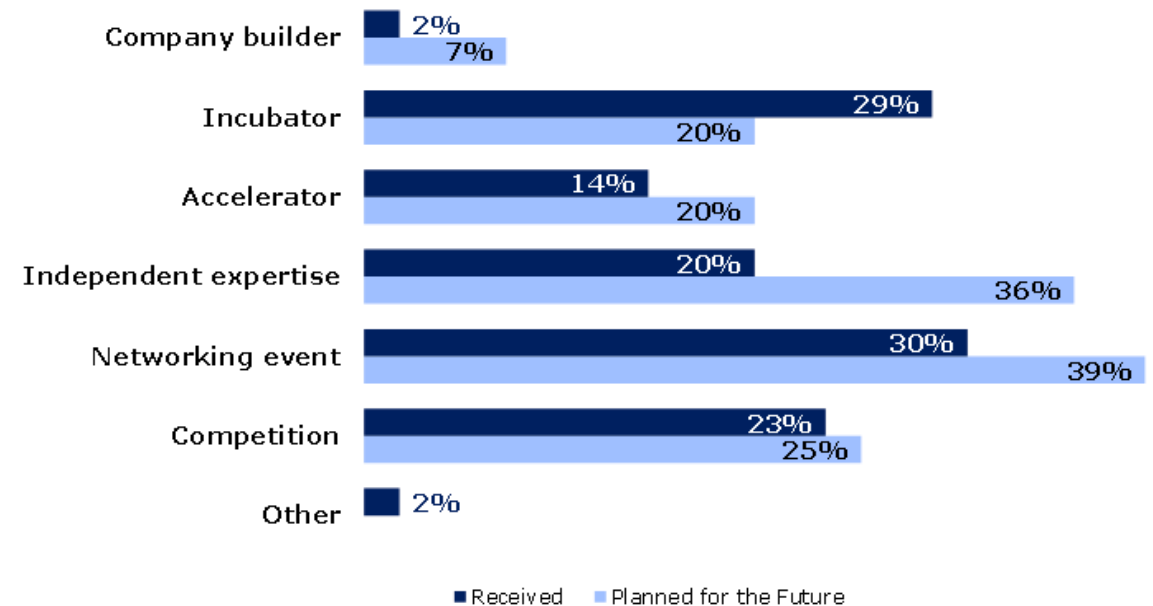


Financial support:

- 60% of start-ups have already benefited from at least one type of financial support
- Venture capital firms, business angels and private equity firms (73% of the total private investments), are underrepresented

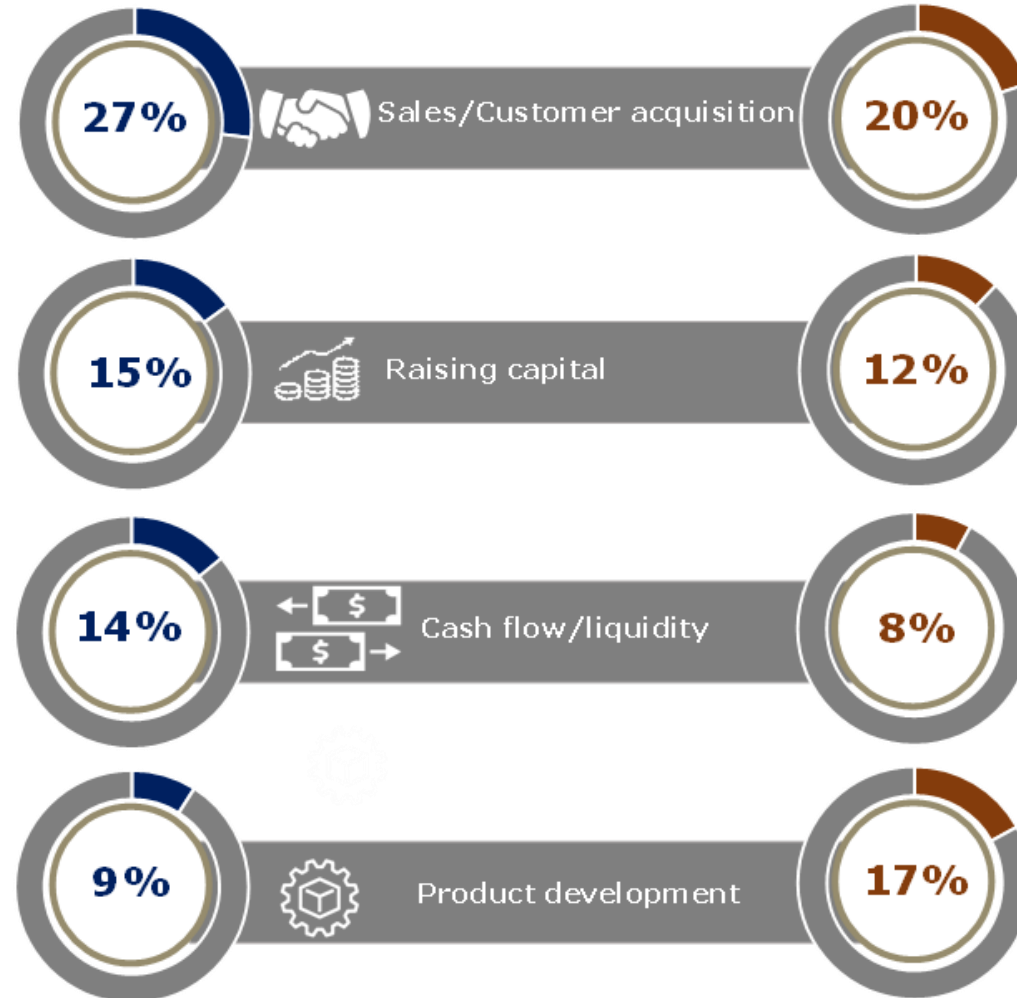
Non-financial support:

only 60% of start-ups looking for non-financial support networking events (30%), incubators (29%) and competitions (23%).



**Space start-ups
ESPI survey**

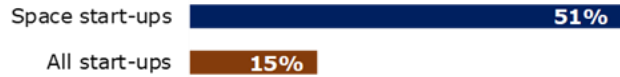
**All start-ups
(ESM16)**



Improved exchange between politics, startups, and the established economy



Raising the cultural acceptance for entrepreneurship



Establishing entrepreneurship education



Better support to founders (e.g. local support and advice structures)



Support for venture capital



Better understanding of the special needs of startups



Support with raising capital



Tax reduction/relief



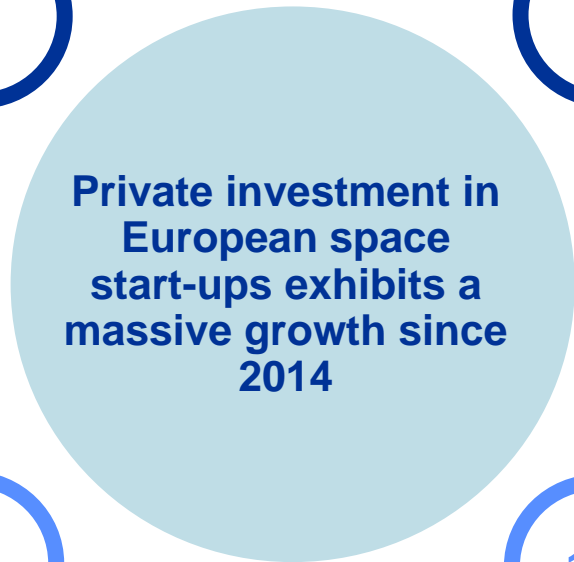
Reduction of regulatory and administrative burden



Space start-ups desire a much more **entrepreneurship-friendly environment** which would feature:

- **Improved exchanges** between politics, start-ups and established companies;
- Better **cultural acceptance** for entrepreneurship and understanding of the need of start-ups.

Key findings



1 Investment value is mostly concentrated in a few large transactions

2 Space entrepreneurship dynamism is wide spread across Europe with a few top countries

3 Limited correlation between national public space budgets and the intensity of domestic entrepreneurship

4 Investment in the space sector is fuelled by synergies with other sectors

5 European space start-up generates an annual revenue of €500,000

6 Space start-ups are radically more innovation- and global-oriented than other European start-ups

7 The space sector offers a fertile ground for entrepreneurship

8 Compared to other sectors, space start-ups perceive their business environment as rather hostile but are more confident in their growth perspectives

9 Space start-ups expect financial and non-financial support, in particular from public sources

10 Space start-ups highly value networking and mentoring

11 For space start-ups gaining customers and securing sales is a greater challenge than raising capital

12 Space start-ups have higher expectations from politics than other startups



Thank you for your attention!

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