Space Economy – An Overview

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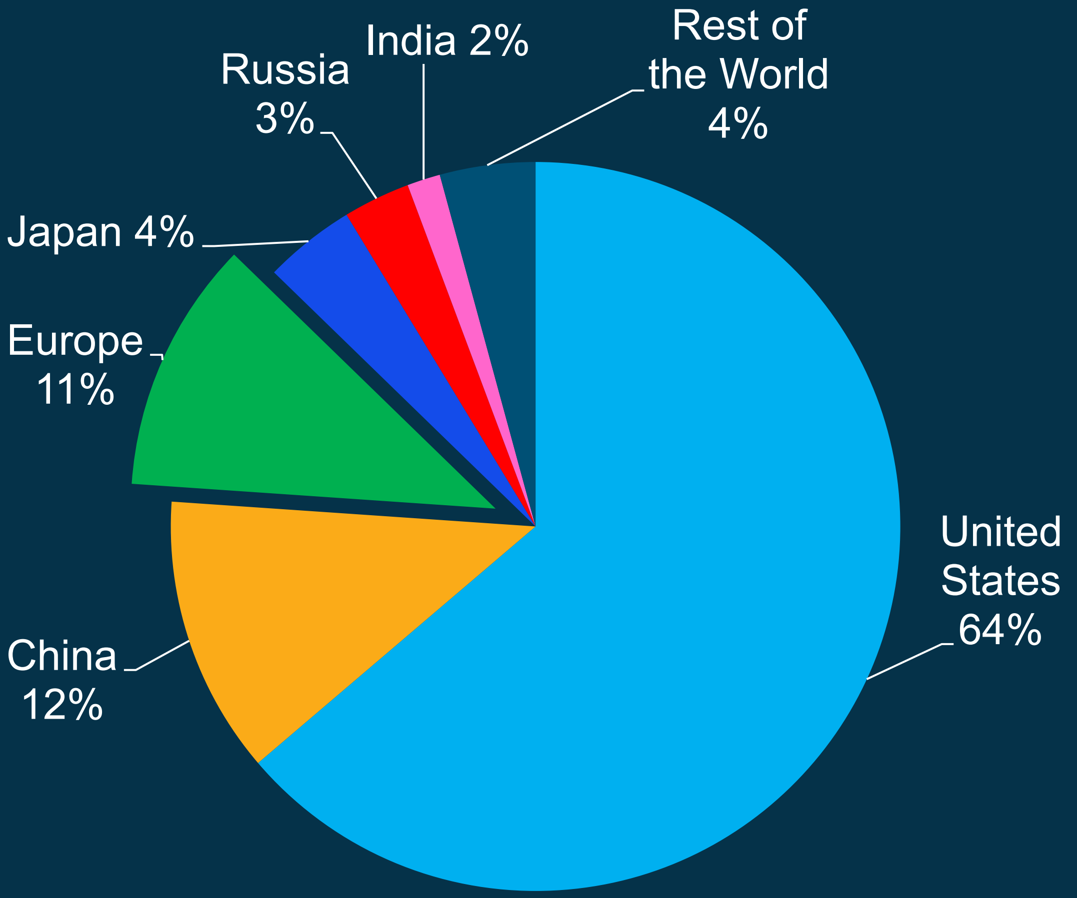
Agenda

- The Space Economy Overview
  - Public investment in space
  - Private investment in space
  - Space activity
  - Upstream overview
  - Downstream overview
- The Irish Space Economy and Ireland in ESA

Public investment in space 2023

- €106 billion (11% from 2022) of global public investment in space in 2023.
- Growth largely driven by defence space budgets, exceeding the share of civil spending for the first time.
- Continuously underestimated Chinese and Russian space budgets due to lack of publicly available data.
- €11.9 billion (1% from 2022) of European public investment in space in 2023.
- 85% of civil space budget in Europe in 2023, displaying a completely different behaviour compared with other major space players.

Public investment in space in 2023 (civil & defence)

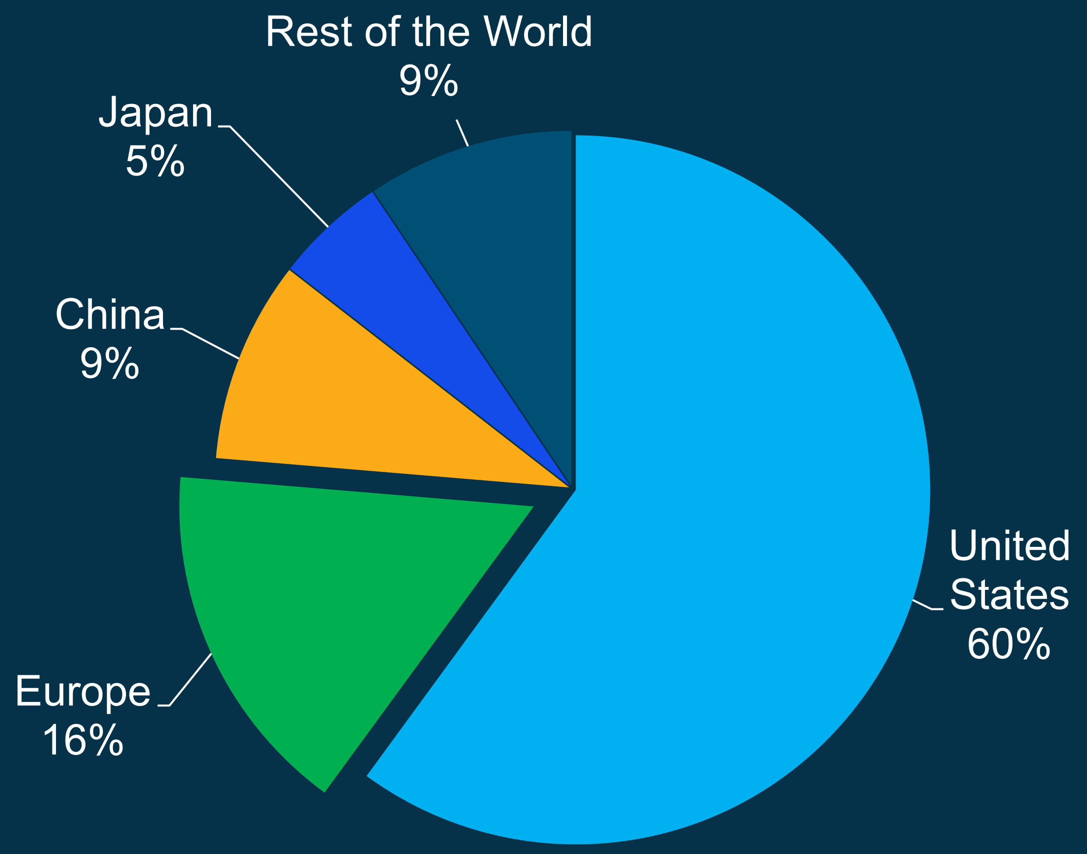


Sources: Euroconsult, Government Space Programs, 23rd Edition, December 2023; Eurospace, Facts and Figures, Press Release, 28th Edition, July 2024; European Commission

Private investment in space 2023

- €6 billion (-32% from 2022) of global private space investment in 2023, confirming decline initiated in 2021.
- US drives most of the decline but still attracts most investments (60%), followed by Europe (16%) and China (9%).
- Europe also experiencing a decrease in 2023, raising €980 million (-14% from 2022).
- Investment value raised by European private space ventures still outlines outstanding growth in the past decade (€18 million in 2014).
- Change in the investment decision, towards most promising but also most mature business opportunities.

Distribution of private space investment value in 2023

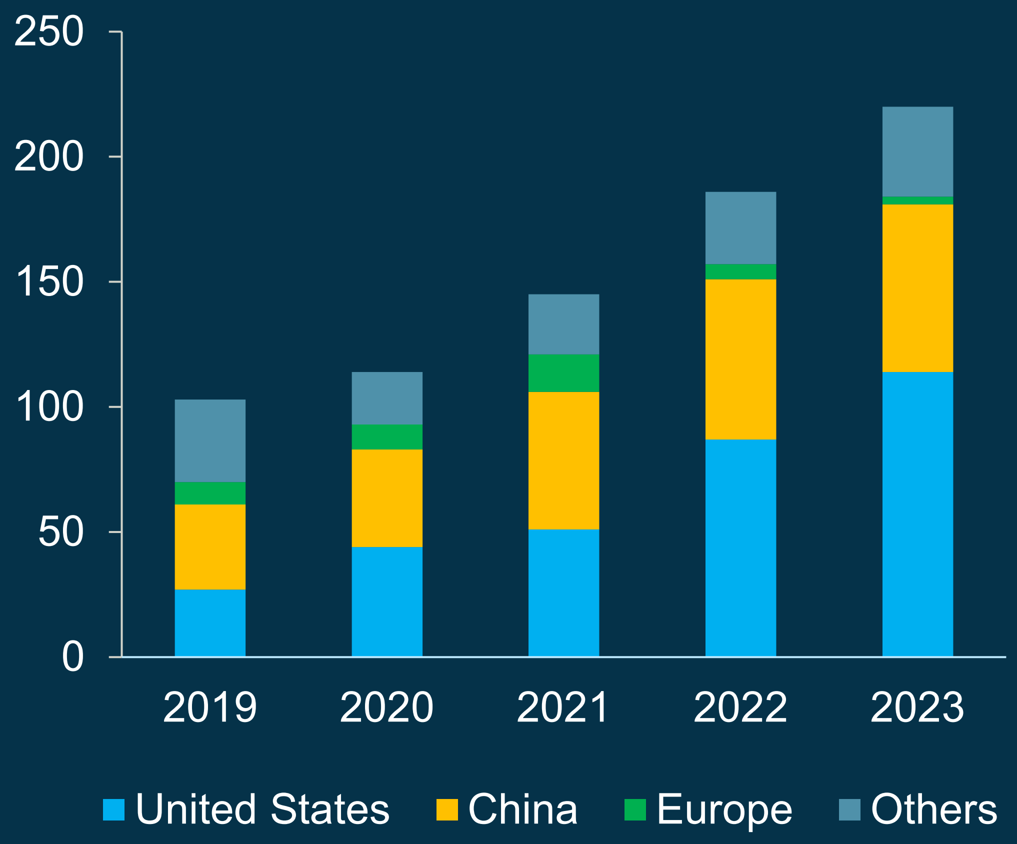


Source: ESPI, Space Venture Europe 2023, 2024

Space activity 2023

- 221 launches (18% from 2022) in 2023, marking a 3rd consecutive double-digit growth rate.
- The US account for 52% of launches (114, of which 96 by SpaceX), a growth of 31% compared to 2022. China account for 30% with 67 launches in 2023, a 5% increase from 2022.
- 2,940 satellites launched (17% from 2022) in 2023, of which 63% weighting less than 500kg compared to 95% in 2022.
- Number of satellites launched for defence customers has doubled in the past five years.
- Starlink satellites account for almost 70% of the total mass launched in 2023.

Satellite launches, by origin of Lauch Service Provider 2019-2023

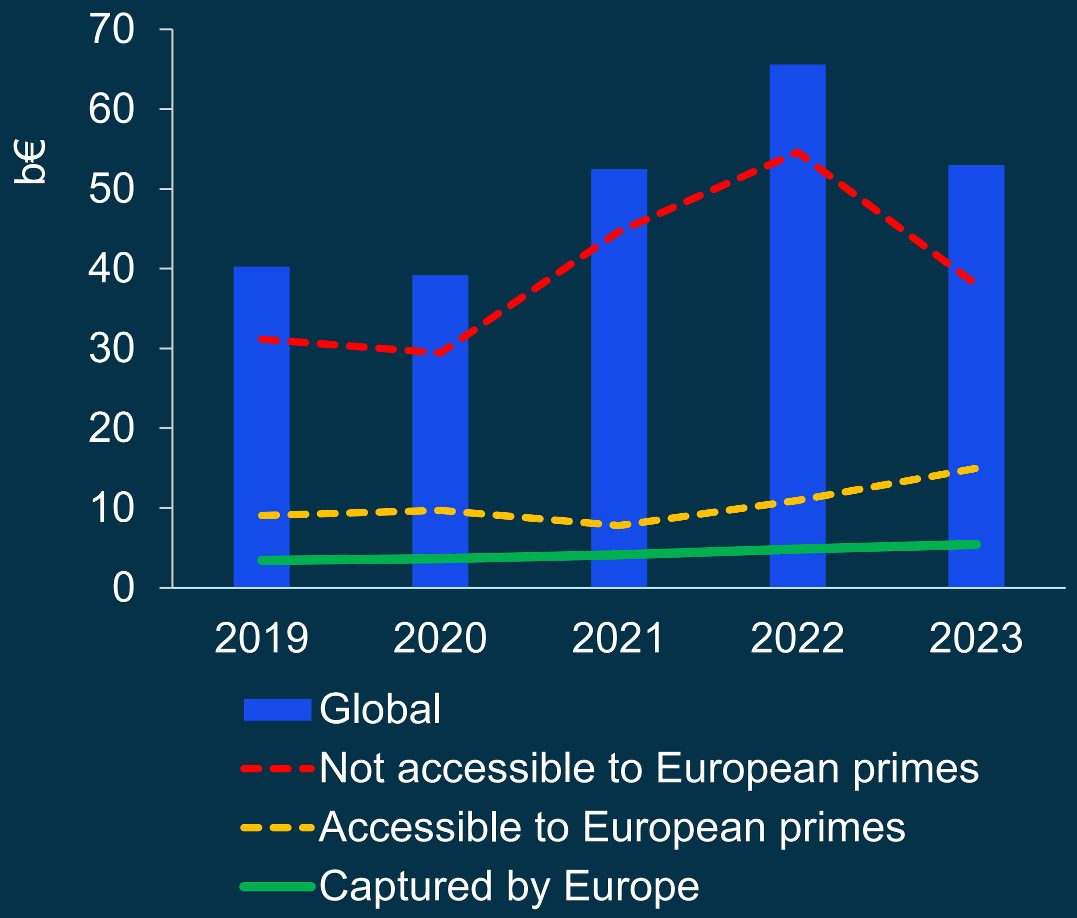


Sources: ESA/PB-STS/ROOMDOC(2024)15; Eurospace LEAT database

Upstream overview 2023

- €53 billion in 2023 (-19% from 2022) of global upstream revenues in 2023.
- Spacecraft manufacturing accounts for about 80% of the total and the launch segment 20%.
- The upstream remains a market largely driven by institutional demand, primarily from US and China.
- About two-thirds of the global launch and manufacturing market is not accessible to European primes.
- In 2023, Europe captured about 10% of the global market and 40% of its accessible market, a share which has been degrading over time.

Manufacturing and launch market value, 2019-2023

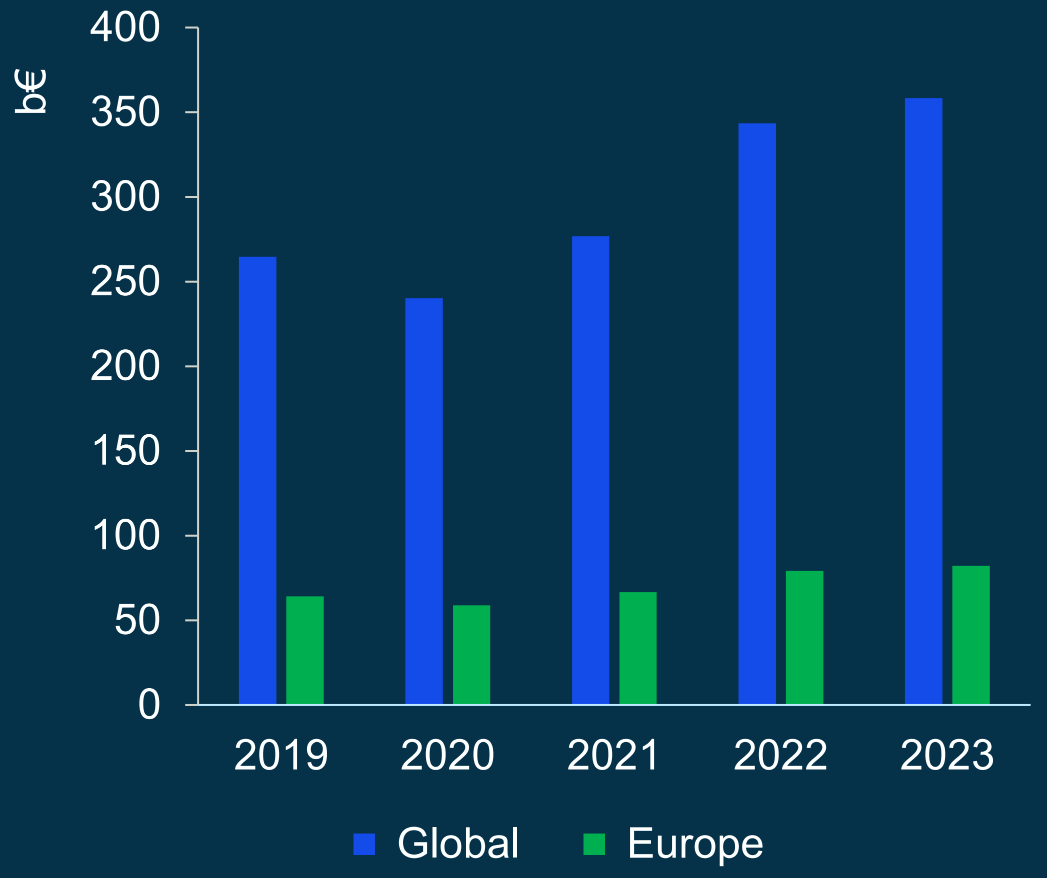


Sources: ESA/PB-STS/ROOMDOC(2024)15; Eurospace LEAT database

Downstream overview 2023

- €358 billion in 2023 (4% from 2022) of global downstream market value in 2023, >90% is commercial and therefore accessible to Europe.
- €82 billion in 2023 (4% from 2022) of European downstream market value, accounting for 23% of global downstream market value.
- >80% of the currently available market estimate for the downstream space segments is generated by businesses that use space as a key input to deliver such services.
- Scope of downstream, and particularly GNSS (that makes up 66% of total in 2023) is a topic currently subject to discussion.

Global downstream space market value 2019-2023



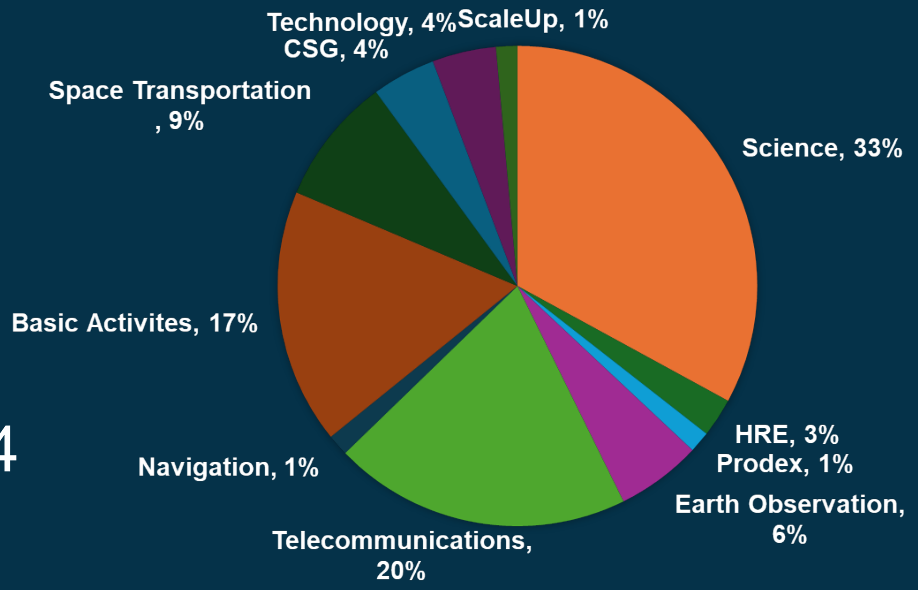
Sources:Euroconsult, Earth Observation Data & Services Market, 16th Edition, November 2023; Euroconsult, Space Economy Report, 10th Edition, January 2024; EUSPA, EO and GNSS Market Report, Issue 2, 2024

The Irish Space Economy

- €39 million of public investment in space in 2023 (81% ESA and 19% Eumetsat)
- Ireland’s budget to ESA ~4% of the overall budget
- 0.008% of GDP invested in space (0.030% ESA MS average)
- 0.034% of total public expenditures invested in space (0.066% ESA MS average)
- Irish workforce in the upstream space industry ~ 0,2% of the European workforce

Ireland in ESA

- Subscriptions at the Council at Ministerial Level in 2022 : 70 Meuros



- Geo-return of Ireland in ESA at Q2 2024: 0.94
- Distributed industrial landscape:
  - Top Irish supplier to ESA represents 18% of commitments
  - 31 companies represent 80% of the commitments to ESA
- Share of SMEs: 47% in Ireland (average 8.5% in ESA MS)

THANK YOU!

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ESA Space Economy website

space-economy.esa.int

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