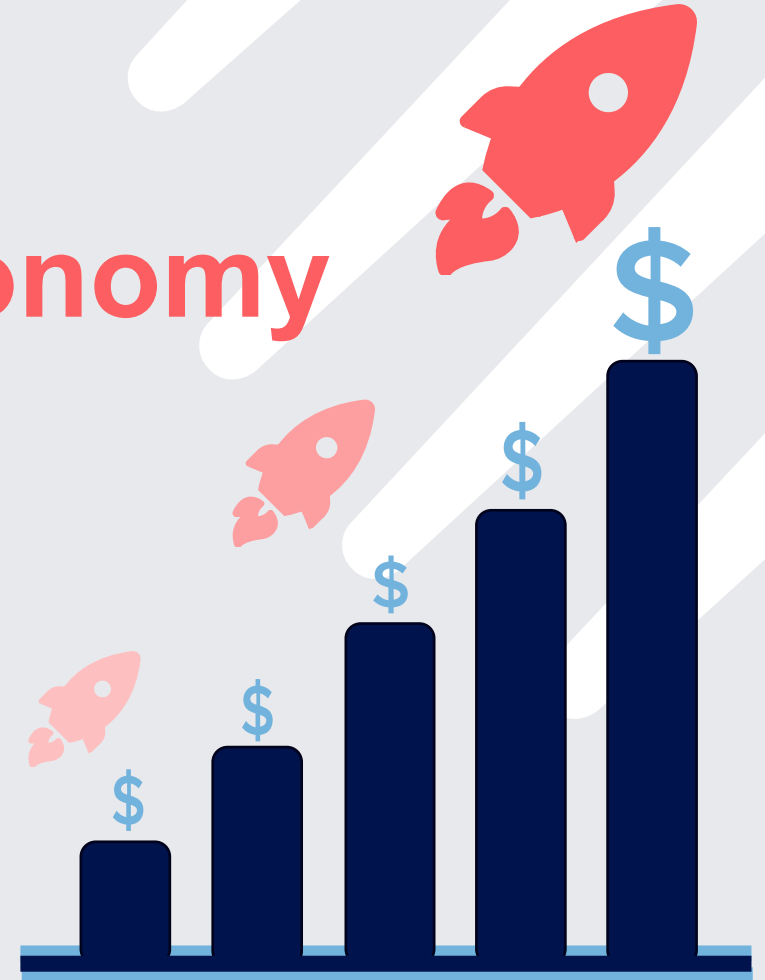


## Supersizing the Space Economy

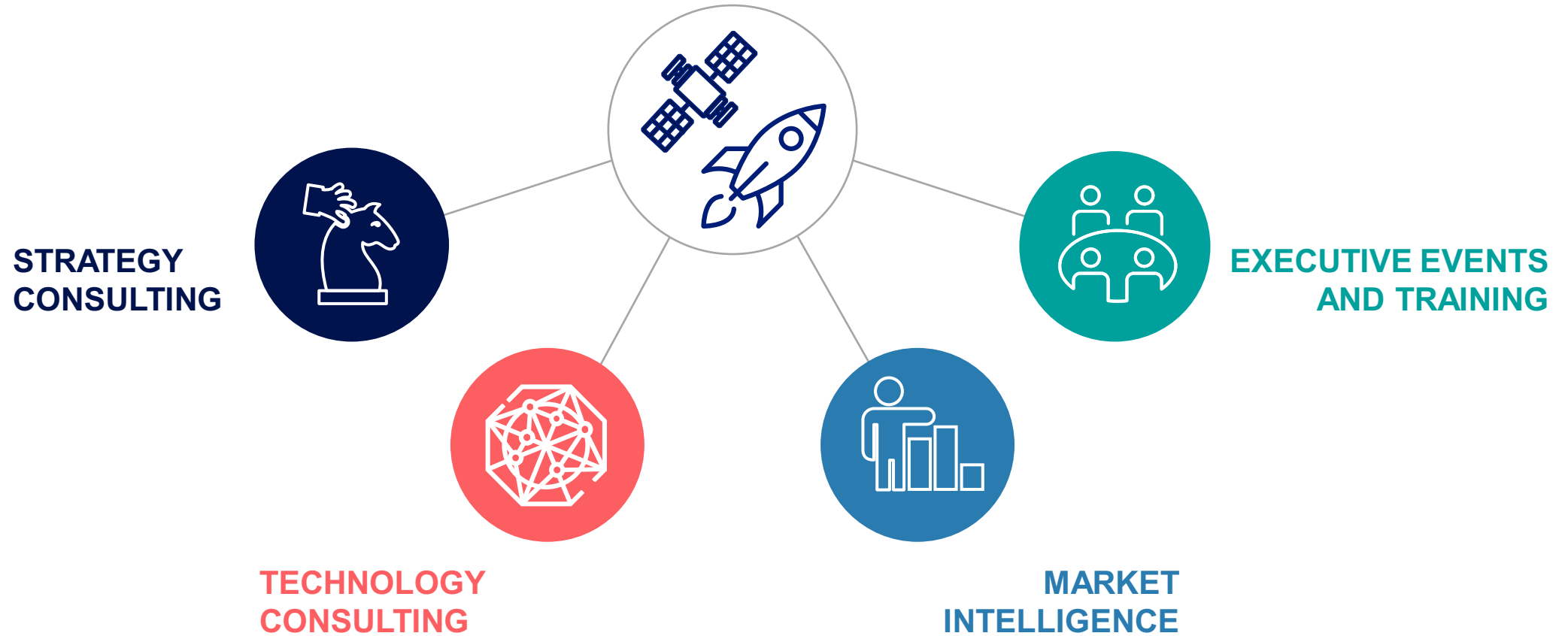


Nathan de Ruiter  
Managing Director



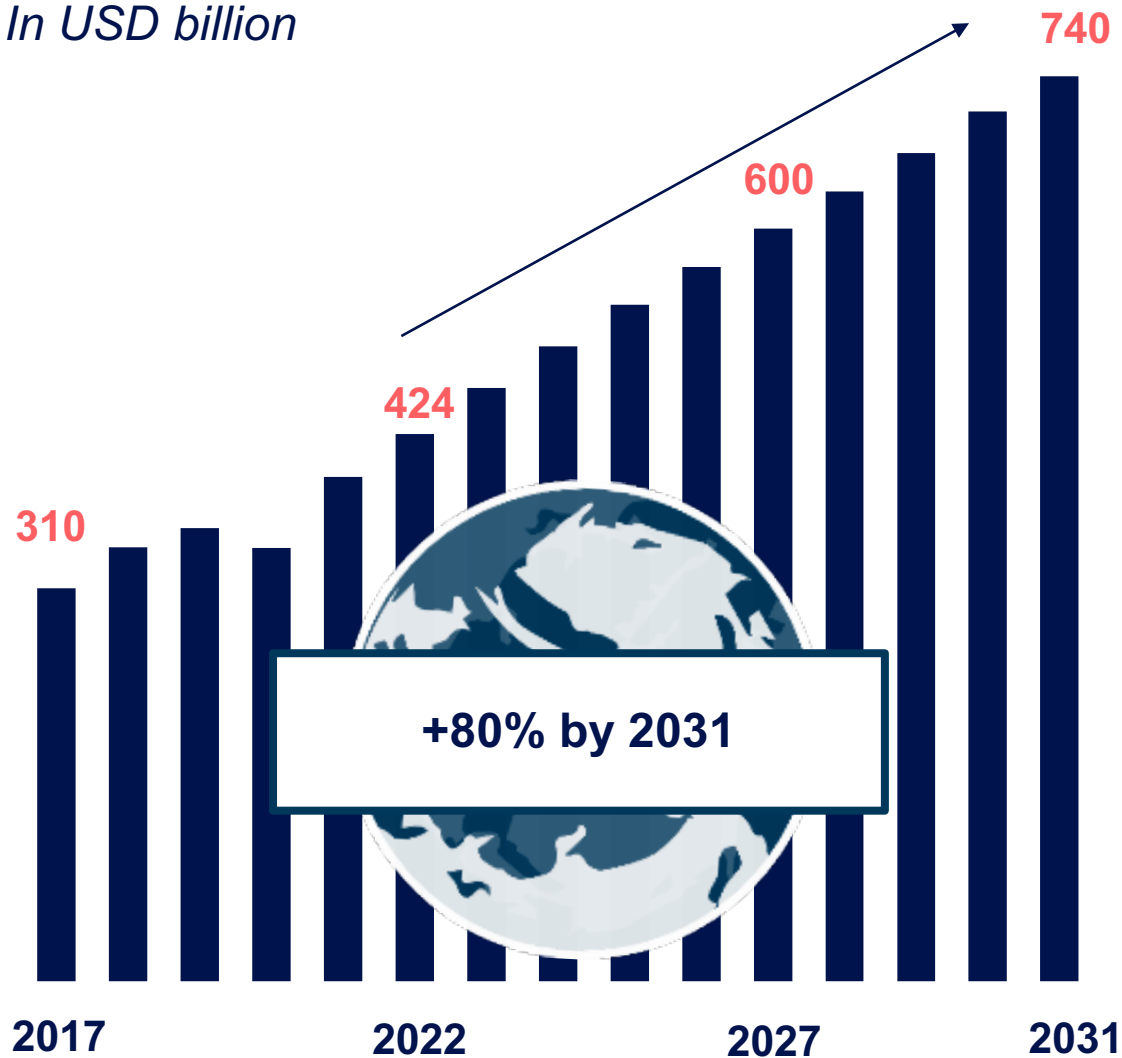
# Who we are

Euroconsult is the **leading global consulting group** specializing in the **space sector** and **satellite enabled verticals**.





## Value of the global space economy (2017-2031)

In USD billion



## A 424B\$ global space economy

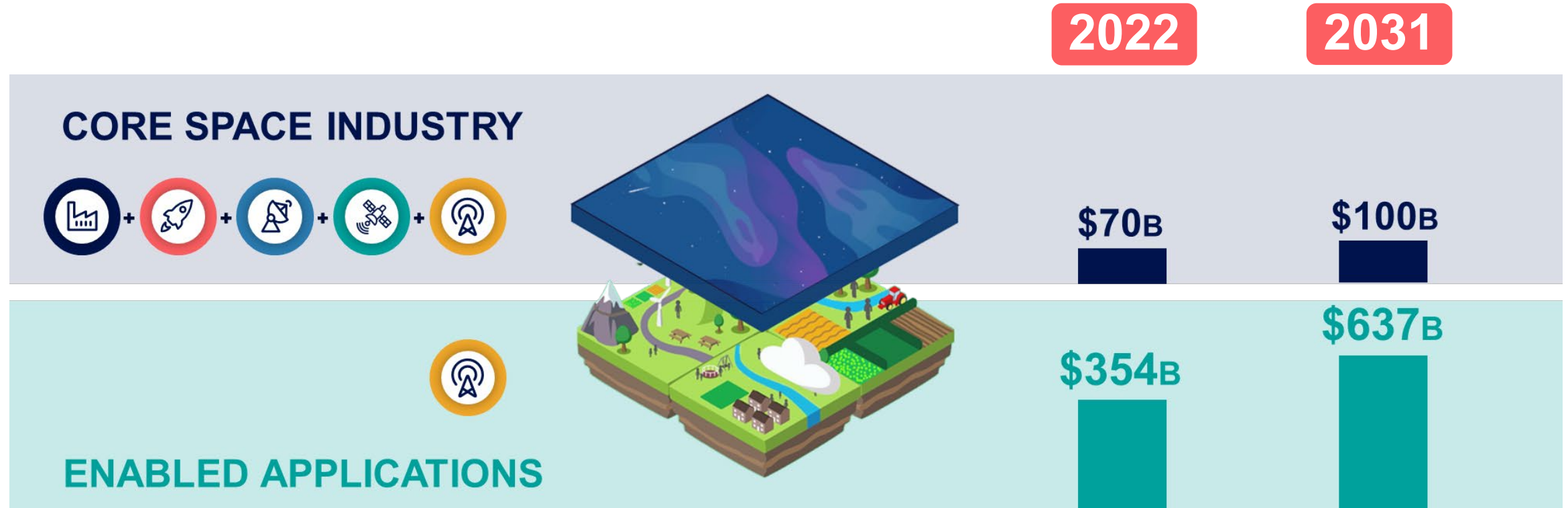
The global space economy is experiencing **strong market dynamics** pushed by:

-  New supply and demand **drivers**
-  Disruptive **innovations**
-  Transforming **business models**

Source: Euroconsult, Space Economy Report, 8th edition

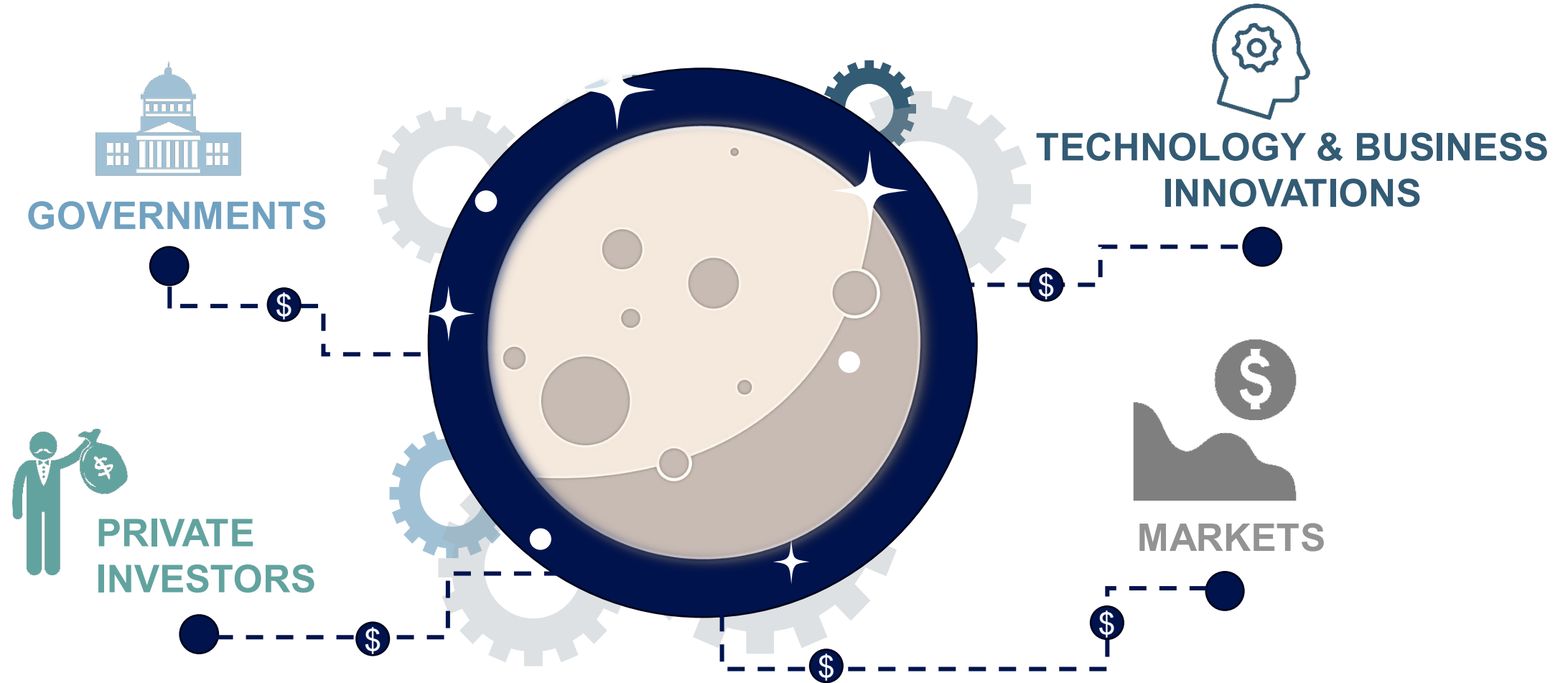
# Supersize me? What is the real size of the core space industry

A 100B\$ sector, not a trillion!



Source: Euroconsult, Space Economy Report, 9th edition

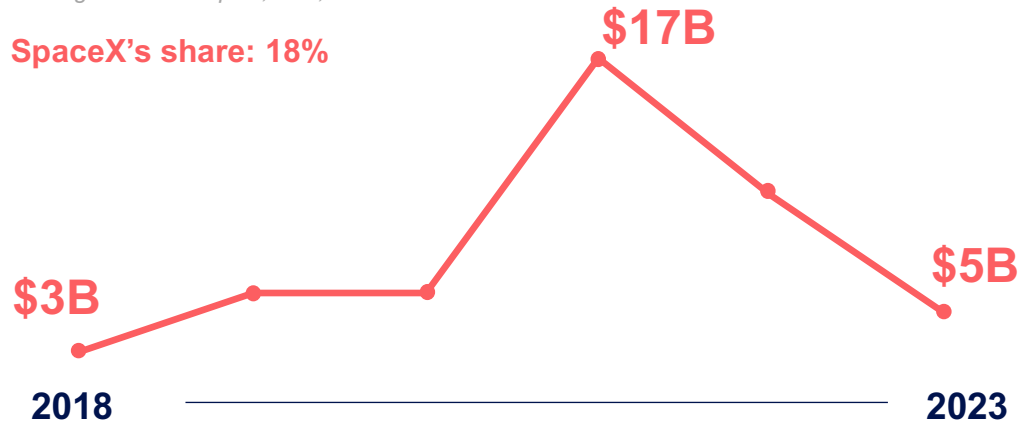
# 4 Drivers Fueling the Space Economy



# Private investment trends

## FUNDS RAISED BY SPACE COMPANIES

Through venture capital, IPO, SPAC



### Attractivity of the space industry for investors

+450 space companies raised \$36.7B over the last 5y

### Investment slowdown in 2022

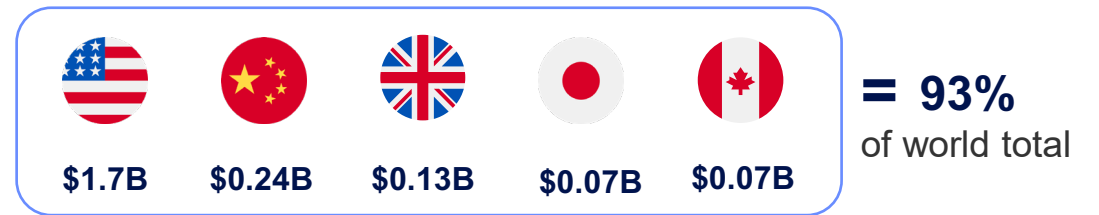
Average value of investments fell to \$31M (\$65M in 2021)

### SPAC activity dried up in 2022

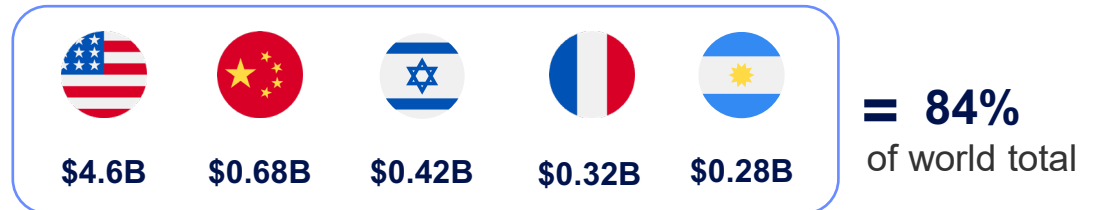
Only two deals closing and two cancellations (12 in 2021)

## TOP 5 COUNTRIES BY PRIVATE INVESTMENT\*

### 2018

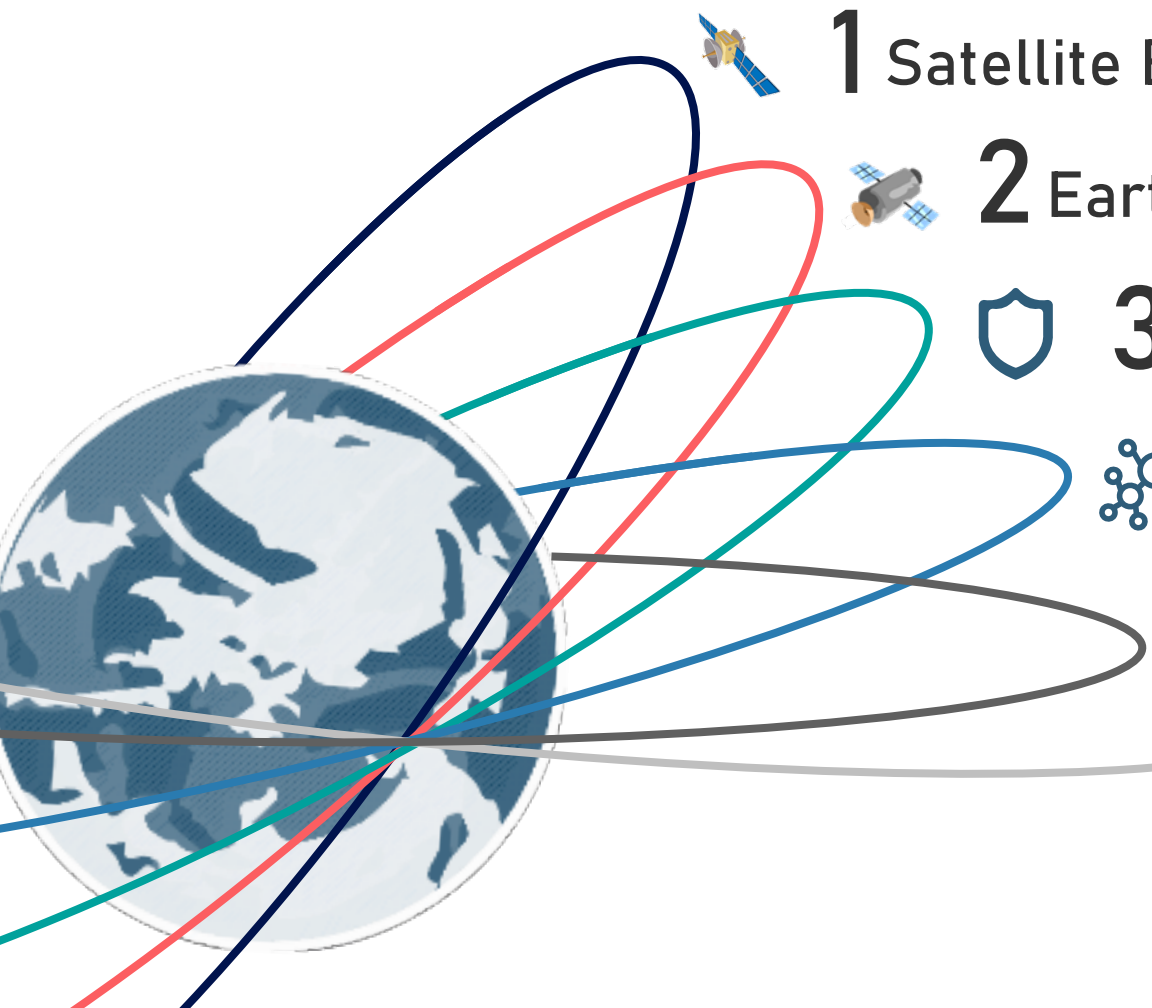









### 2022



\*Excluding debt, government grants, and personal investment in Blue Origin from Jeff Bezos

# The Super 7 Opportunities in Space

- 
-  **1** Satellite Broadband
  -  **2** Earth Observation
  -  **3** Defense & Security
  -  **4** Satellite IoT / Direct to cell
  -  **5** Launch / Access to Space
  -  **6** Space Sustainability
  -  **7** Space Exploration

# #1: Satellite Broadband Connectivity

“Connecting the unconnected” is the largest market opportunity for satellite services

**15%** VSAT penetration

## Mobile Broadband

~750k vessels and planes  
beyond the reach of  
terrestrial networks



Maritime



Aero



Milsatcom

**12%** VSAT penetration

## Fixed Broadband

Up to **600M**  
Unconnected population  
globally



Residential



Wi-Fi  
Hotspots



Cellular  
Backhaul



Untapped market  
opportunity

Source: Euroconsult, Satellite Connectivity and Video Market, 29<sup>th</sup> edition

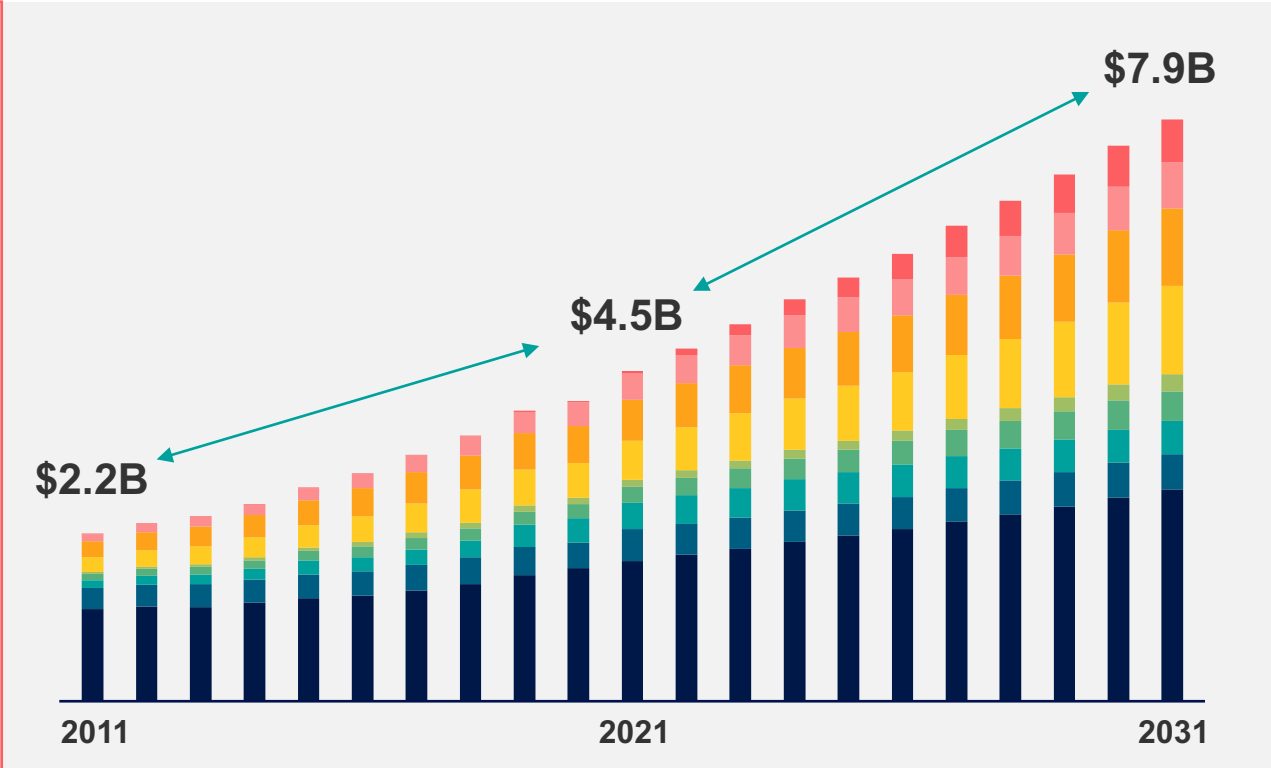


# #2: Earth Observation

New constellations providing diversified sensors & resolutions impact data price points & new capabilities to build data products & analytics

**Key growth factors**

- New satellite supply and constant monitoring
- Cloud-based services: Change detection at scale
- Premium products based on highest resolutions or from complex processing (3D)
- Civil government, security and defense



**DISRUPTIVE**

- Finance
- LBS

**TAKE UP**

- Natural Resources
- Infrastructure

**WARMING UP**

- Maritime
- Disaster Mngt
- Environment
- Energy

**LEGACY**

- Defense

Source: Euroconsult, Earth Observation Data & Services Market 15<sup>th</sup> edition

# #3: Defense & Security

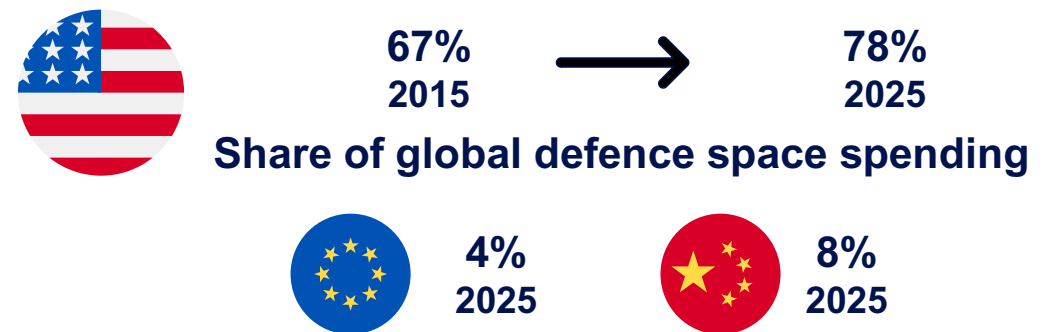
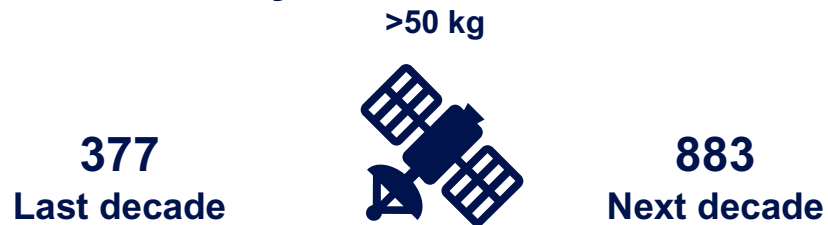


2015-25 growth of defence space spending

## Countries investing in military space capabilities



## Military satellites launched



# #4: Satellite IoT / Direct to cell phone

The global Satellite handheld and IOT market is undergoing a major transition

**\$13.5B**  
Total revenue  
2022-2030



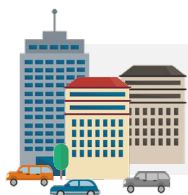
iPhone to use emergency SOS via **satellite**



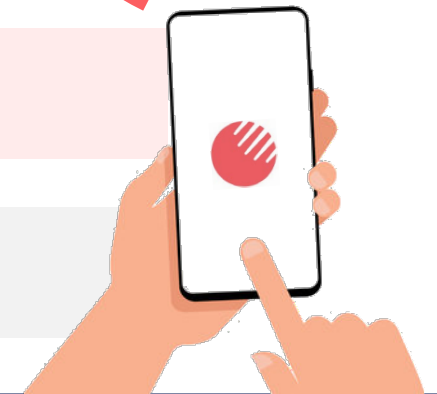
Key technology for cockpit connectivity for commercial airlines



Growing digitization increasing demand for **M2M/IoT applications.**



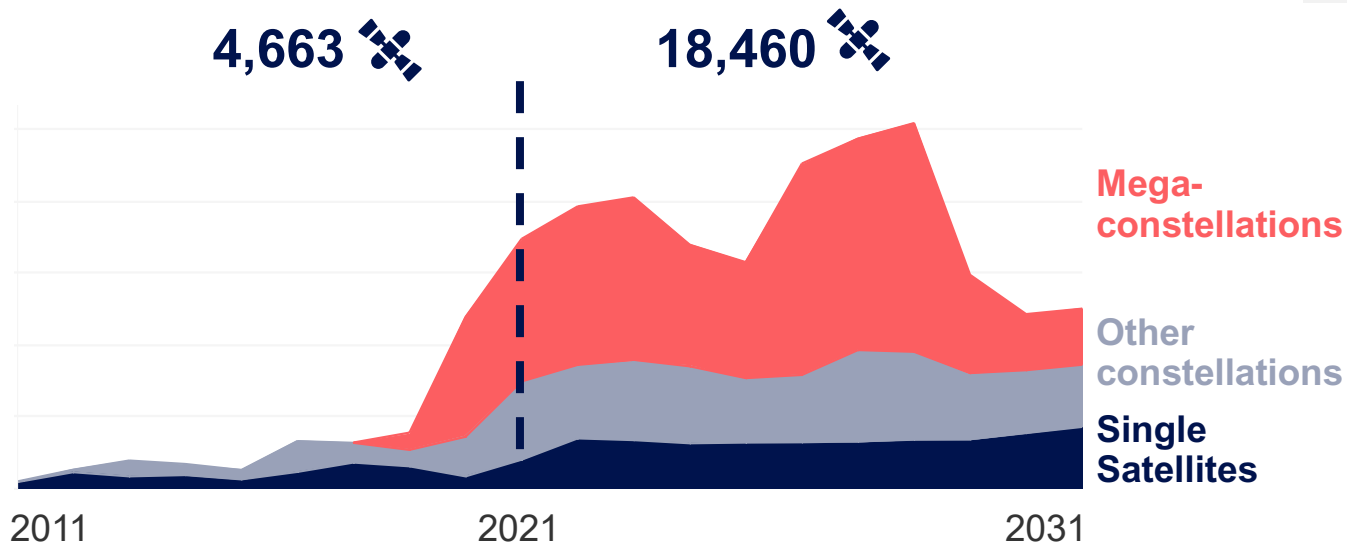
Potential for new applications such as **Direct-to-Cell phone** and **connected car**



Source: Euroconsult, Prospects for L-Band, IoT & M2M Markets, 7<sup>th</sup> edition

# #5 Launch / access to space

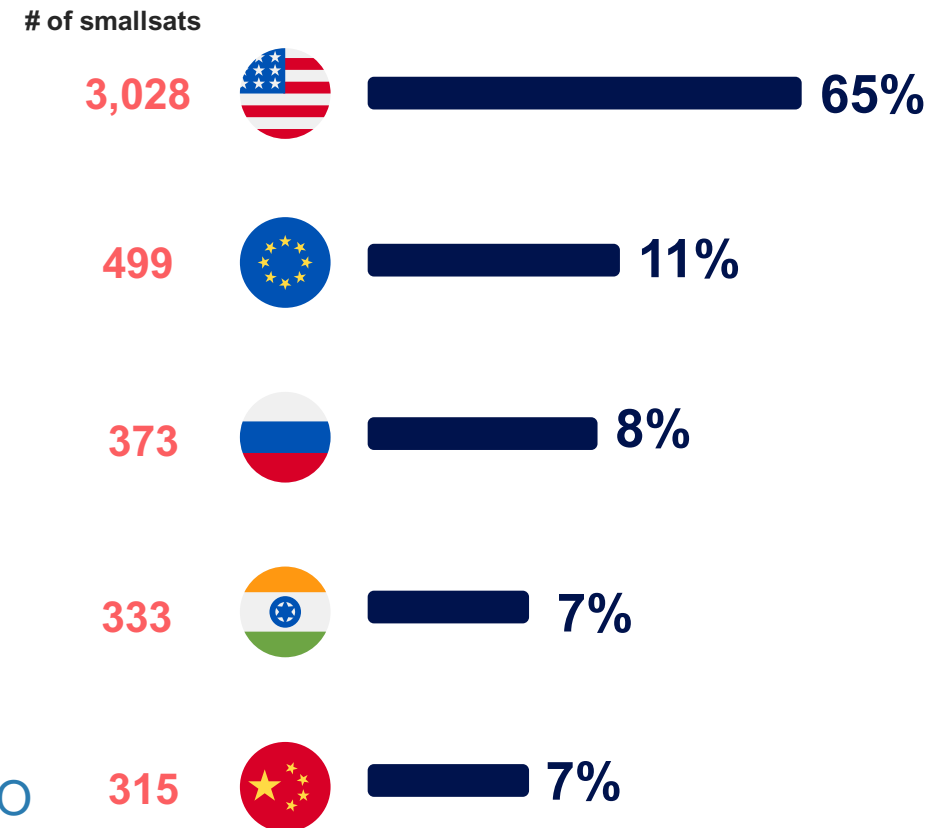
Euroconsult's smallsat launch forecast



**18.5k smallsats** to be launched 2022-2031



## TOP 5 COUNTRIES FOR LAUNCH SERVICE PROVIDERS\*



\*2012-2021

# #6 Space Sustainability

## Space & Ground for Space



Space Situational Awareness



Life Extension Services

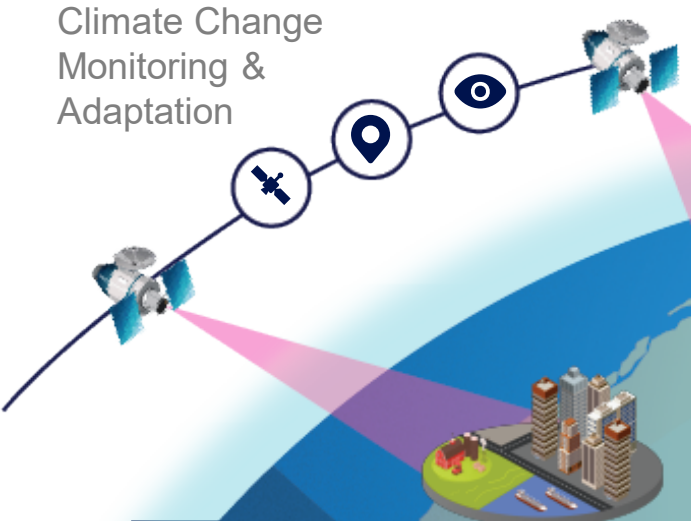


Active Debris Removal



## Space for Earth

Climate Change Monitoring & Adaptation



## Sustainable Space & Satellite Value Chain

Greener Production & Launch



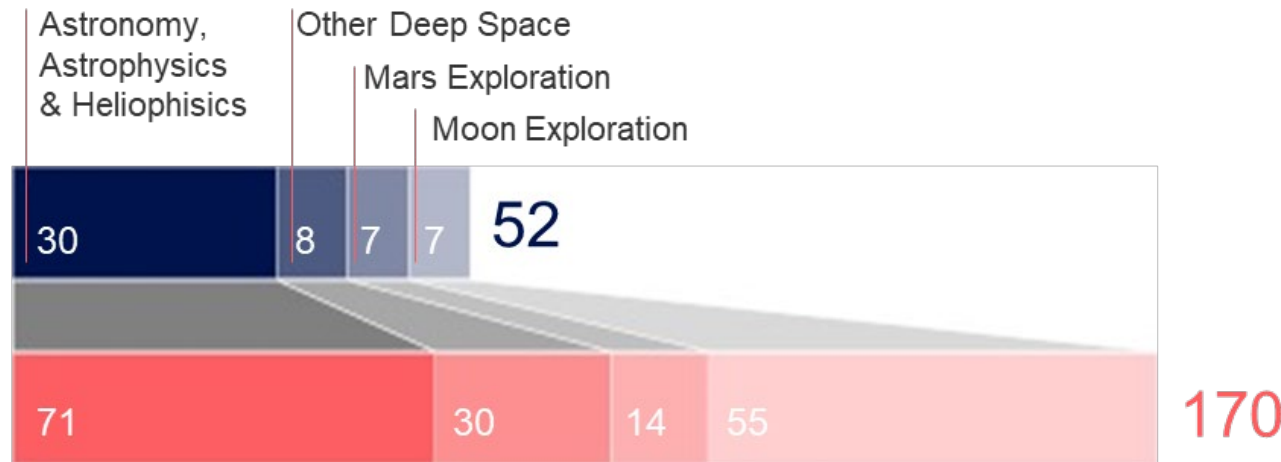
Source: Euroconsult, Space Logistics Markets, 2nd edition

# #7: Space Exploration

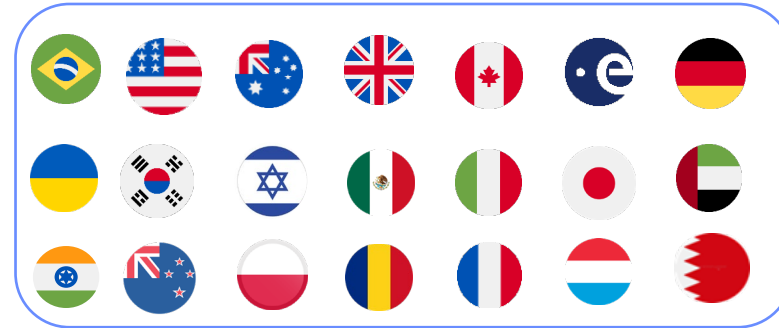
An increasing number of government space exploration missions to be expected

\*Missions >50kg

■ 2012-2021 ■ 2022-2031



## Artemis Accords Signatories



Government funding to reach nearly \$31B by 2031 (+22%)

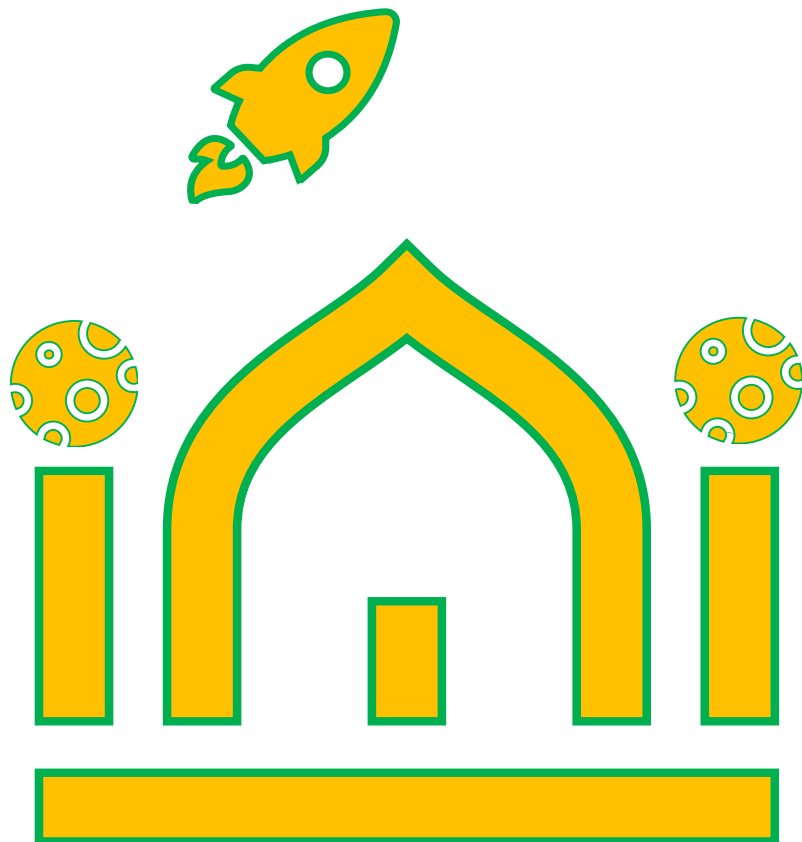


Moon exploration is anticipated to experience the highest sustained growth of all space exploration applications for the next decade (10.1% 10Y CAGR)



New contractual models between governments and the private sector will shape future exploration activities

# Supersizing the Indian Space Economy



**Upstream investments are required to enable the downstream value creation**



**India is an important target market to unlock the Super Seven Opportunities**



**India's advanced space capabilities have attracted international partners**



**The flourishing Indian private sector and the emergence of new space start-ups are poised to capitalize on international market opportunities**

# Euroconsult Group

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# Thank you

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