



# “NEW SPACE”: PRIVATE CAPITALS AND PUBLIC SUPPORT ENABLING GROWTH OF A WIDER ARRAY OF “SPACE PLAYERS”

## SPACE ECONOMY PANEL

Prepared for:

*United Nations/United Arab Emirates High Level Forum*

*“Space as a driver for socio-economic sustainable development”*

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LEO | COR | ADVIS  
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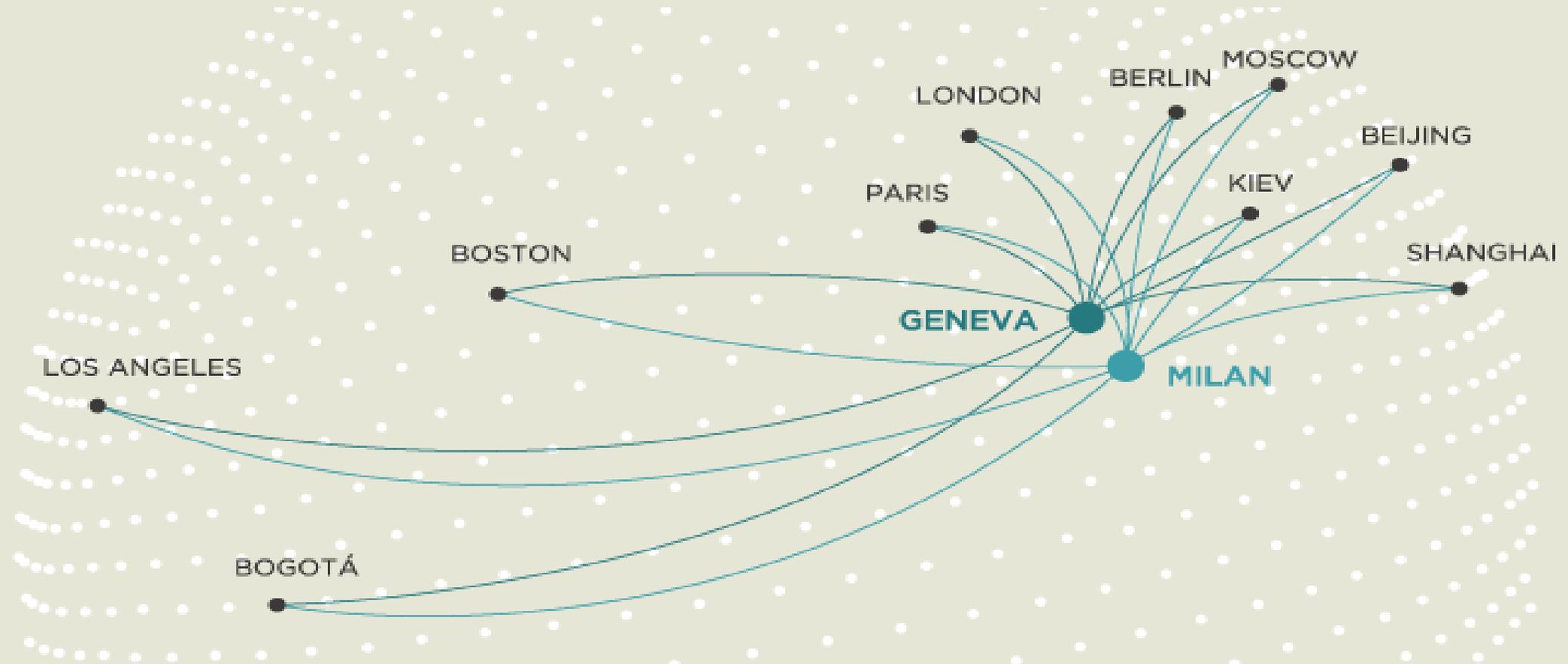
# AGENDA

## LCA IN BRIEF

PRIVATE AND PUBLIC COOPERATION TO ENABLE «NEW SPACE» ECONOMY

## LCA IN BRIEF

Leoni Corporate Advisors (LCA) is an global strategic advisory company with a consolidated footprint, specialized by region, industry and topic.

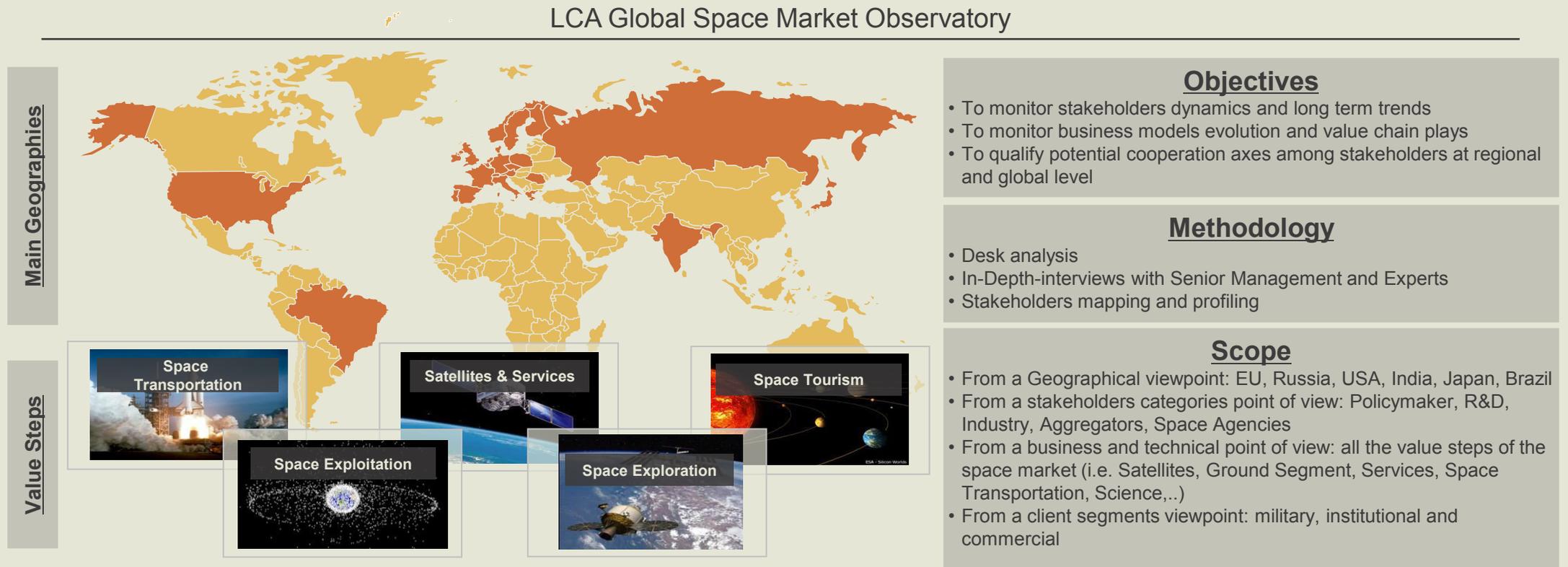


▷ LCA has more than 15 years of experience and a successful track record in the Aerospace, Defense & Transportation also thanks to the business partnership with Bryce Tech (formerly The Tauri Group)

# LCA COMMITMENT TO STRATEGIC INSIGHTS: GLOBAL SPACE MARKET OBSERVATORY

LCA has more than 15 years of experience in the Aerospace & Defense industry, working on strategic issues of leading players worldwide

Considering the fast market evolution, LCA runs a Global Space Market Observatory gather valuable strategic insight and always be up to date with the current trends and dynamics of the market from a worldwide prospective, with a specific focus on 3 main regions: USA, Europe and Russia



# LCA COMMITMENT TO CORPORATE CITIZENSHIP: FOSTERING RESEARCH AND INNOVATION

At LCA we believe that corporate citizenship is an integral part of everyday business

- We are committed to creating value through responsible business practices, and promoting conscientious citizenship aimed at improving social and environmental sustainability
- LCA prouds itself of being a good corporate citizen, and fostering science and innovation lays within its foundations. LCA sponsors and runs scientific research initiatives, as the 2015 Round Table with the Graduate Institute of Geneva

## GIG/LCA Round Table on Space Debris



*“Corporate Citizenship is not separate from our business strategy: it is a key component of the company DNA”*

# AGENDA

LCA IN BRIEF

**PRIVATE AND PUBLIC COOPERATION TO ENABLE «NEW SPACE» ECONOMY**

## KEY TOPICS

- From Old Space to New Space
- Newcomers populating the New Space Value Chain
- New markets opening in the New Space Economy
- The redesigned role of Nations in Space

# NEW SPACE REPRESENTS A DEVELOPMENT OPPORTUNITY FOR SPACE AGENCIES AND GOVERNMENTS AS WELL AS NEW BUSINESS OPPORTUNITIES FOR PRIVATE COMPANIES

## Old Space

## New Space

Mainly **institutional players** and missions

**Private newcomers** entering the Space arena and developing downstream commercial applications (EO, SATCOM, ...)

Industry based on **public budget**

**Consistent private investments** and **public-private partnerships (PPP, ...)**, with sizeable socio-economic externalities

Direct investment of **Few Space Faring countries**

**Newcomers entering the Space Industry**, leveraging on private ventures and commercial applications

**Heavily funded projects** with longer development and focus on technology

**Accelerated Time to Market** with focus on economic sustainability

## Countries with Space Programs, 2005-2025

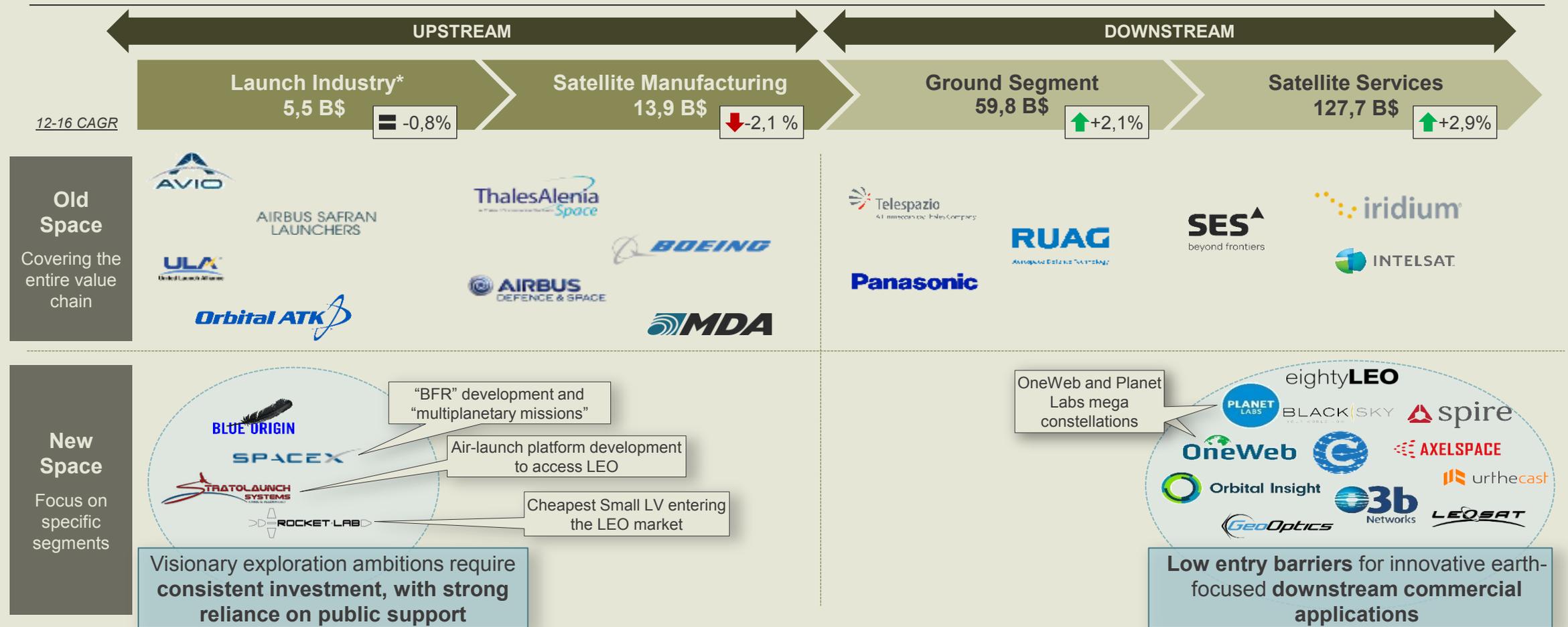


## Private Investments in Space Ventures\*, 2006-2016 (B\$)

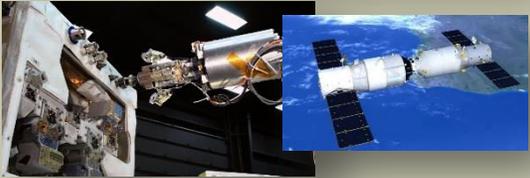


# NEW SPACE PLAYERS ARE POPULATING THE INDUSTRY WITH VISIONARY EXPLORATION AMBITIONS AND INNOVATIVE EARTH-FOCUSED DOWNSTREAM COMMERCIAL VENTURES

## Global Space Value Chain

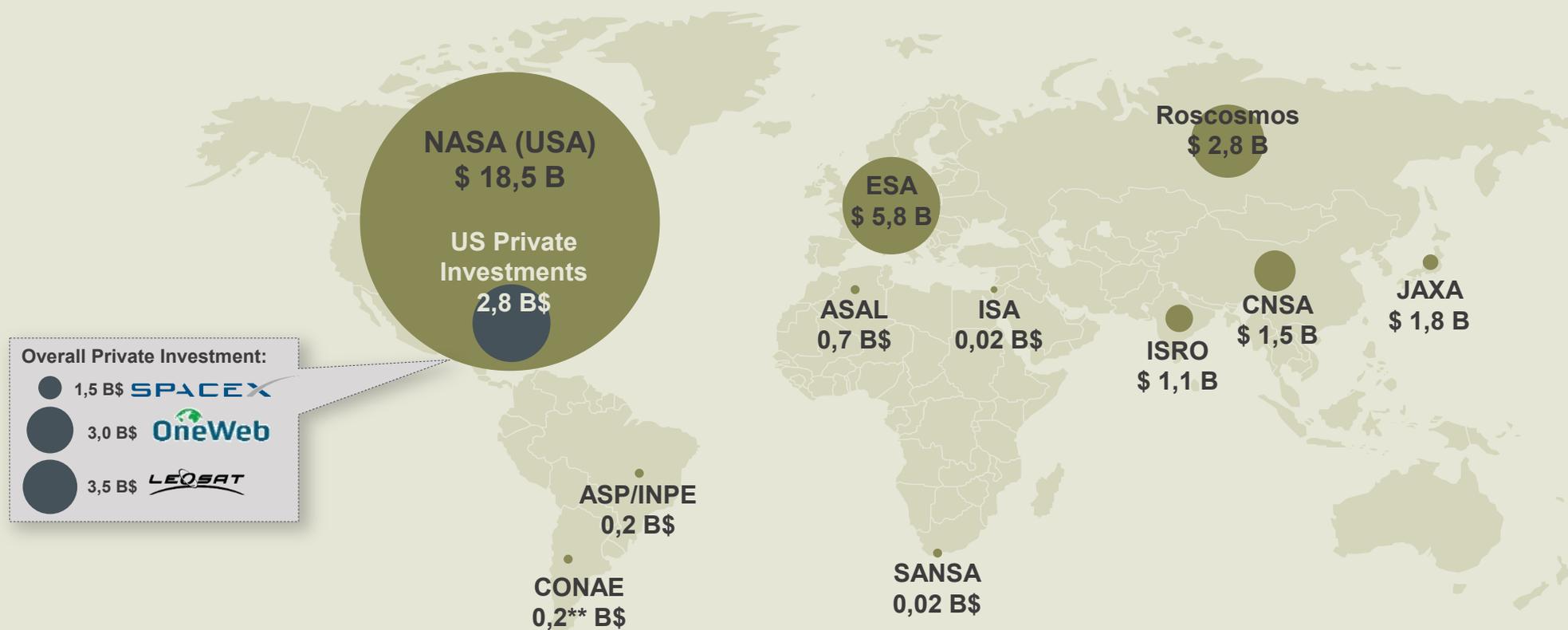


# PRIVATE PLAYERS ARE DEVELOPING OF A WIDE RANGE OF COMMERCIAL APPLICATIONS OPENING AN UNTAPPED SERVICE MARKET THUS REDUCING SPACE UTILIZATION COSTS

	Services	Activities	Projected revenues	Private Players*
ESTABLISHED	COMMERCIAL TELCO	<ul style="list-style-type: none"> <li>Worldwide broadband coverage</li> </ul> 	<p>15 B\$</p> <p>2020</p>	
	COMMERCIAL EO	<ul style="list-style-type: none"> <li>Crop fields management</li> <li>Weather forecasts</li> <li>Big Data for Advanced Analytics</li> </ul> 	<p>5 B\$</p> <p>2026</p>	
EMERGING	IN-ORBIT SERVICES	<ul style="list-style-type: none"> <li>In-orbit Refuelling</li> <li>In-orbit Servicing</li> <li>In-orbit Repair</li> </ul> 	<p>80 B\$</p> <p>2022</p>	
	SPACE MINING	<ul style="list-style-type: none"> <li>Asteroid and Lunar Mining</li> <li>Space-based Energy Generation</li> </ul> 	<p>3.000 B\$</p> <p>2050</p>	

# A NEW EMERGING ECOSYSTEM, WITH EVER-MORE NATIONS FOCUSING ON SPACE, AND INFLUX OF PRIVATE CAPITAL DRIVING INNOVATION AND SHAPING PUBLIC-PRIVATE RELATIONSHIPS

Space Budget by Country vs Private Investments in 2016 , B\$



## SUMMING UP

- **New Space is characterized by private investments**, spurring technological **improvement on established applications** (e.g. reusable vehicles, satellite mega-constellations, etc.), but also **emerging applications** (e.g. In-Orbit Services, etc.)
- **Private investments act as “market makers”**, opening the Space Economy to new players and creating new market layers, **generating socio-economic benefits for countries** and communities involved
- **Private players are not able to generate long term sustainable development for Space Economy without institutional support**, which maintain a crucial role in defining space programs’ goals and in merging institutional initiatives with private endeavors

### Private and public cooperation to enable «new space» economy

Co-existence of Direct investment and Commercial acquisition of services

Government as enable, facilitator and final customer of new space players

Selective investment approach focusing on specific applications / activities

Focus on applications delivering economic and social benefits to society

## SOME KEY CHALLENGES REMAIN UNRESOLVED AND WILL NEED TO BE ADDRESSED IN ORDER TO FULLY EXPLOIT THE POTENTIAL OF NEW SPACE ECONOMY

- Are current financing and investment models – such as PPPs or State Stimuli (tax reliefs, regulatory effort, etc.) – enough to support the full exploitation of the New Space trend?
- Are current Space Governance models adequate to support the development of the New Space Economy and its full potential exploitation?
- How to guarantee fair redistribution of socio-economic externalities generated by the New Space Economy at global level?
- How to ensure effective knowledge transfer between old and new space players?

**Leoni Corporate Advisors (LCA) is currently developing a global panel with industry leaders** assessing the major emerging trends in the space industry, focusing specifically on Private Public Cooperation Models

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