

SATELLITES TO BE BUILT & LAUNCHED BY 2025

World Market Survey

The industry's landmark analysis & forecast of satellite manufacturing & launch services worldwide

2016 Edition | A Euroconsult Research Report

This report, in its 19th edition, provides an exhaustive analysis of the worldwide satellite demand merging customers, applications & orbits.

- **Customers:** Civilian government, military government, commercial companies
- **Applications:** Fixed & mobile communications, TV & radio broadcasting, navigation, Earth observation, meteorology, data relay, science, IMINT/ELINT/SIGINT...
- **Orbits:** LEO, MEO/HEO, GEO, Deep Space

According to Euroconsult's 2016 forecast of the space market, 145 satellites with launch mass over 50kg will be launched on average each year by 2025 for government agencies and commercial organizations worldwide. When including satellites smaller than 50kg and the two mega constellations of OneWeb and SpaceX, the total for the decade would grow precipitously to 9,000 units (vs. 1,480 launched in the past ten years).

However, huge growth in satellite count does not automatically translate to a large market. As the price of the 7,550 future additional satellites is intrinsically low the very reason for their existence, their market significance is small; they should represent no more than 7% of the \$280 billion to be spent building and launching the total of 9,000 satellites.

The paradigmatic change introduced in the space industry by cubesat and constellations of small satellites has started to revolutionize satellite design, testing and production. It remains to be seen how these new satellite concepts will incentivize the demand for satellite services on Earth because of their lower cost (i.e. \$/Gbps for bandwidth and \$/km² for imagery). The theory of market elasticity which has not been proved to date in the space industry could finally be applicable to this specific sector of the economy.

The 1,450 satellites over 50kg to be launched over 2016-2025 should represent a market of \$260 billion for the world space industry to build and launch. A price decrease is visible in this core market of the space industry, driven by 11 commercial constellations using 375 small satellites to be deployed into low or medium Earth orbits for communications or observation of the Earth.

Still, over three quarters of the market remains with government satellites; the 880 satellites to be launched for civilian and military agencies in 60 countries represent a market of \$198 billion. About 85% of the government market will remain concentrated in the ten countries with an established space industry. The other 50 countries engaged in space activities will launch twice the number of satellites that they did in the past ten years. About half of these satellites will be procured from foreign manufacturers as domestic industry capabilities develop in these countries.

ABOUT SATELLITES TO BE BUILT & LAUNCHED BY 2025

ABOUT

Satellites to Be Built & Launched by 2025, World Market Survey is a required reading for anyone interested in the business generated by satellite systems and their launches. The report is fully updated, providing all the key figures and analysis needed to understand the global space market, and the future opportunities & challenges.

NEW IN THE 2016 EDITION:

- ✓ **Retrospective analysis of Euroconsult's forecast matching with satellite reality over the past 16 years**
- ✓ **Market share of the satellites of the report relative to the cubesat and mega-comsat constellations**
- ✓ **New data series in Excel files**
- ✓ **New format & layout**

KEY TRENDS, DRIVERS & FORECASTS

- Exclusive 10-year forecasts including breakdown by customer & by orbit, with number & mass of satellites to be manufactured & launched, plus market value (manufacturing & launch services)
- Review of strategic issues from both supply (industry) & demand (customers) perspectives
- Detailed demand database for commercial (order book) and government satellites (forecasts) including: application, launch date, launch mass, satellite platform, manufacturer, launch provider

WHO WILL BENEFIT FROM THIS REPORT?

- ✓ Satellite & launch vehicle integrators
- ✓ Satellite & launch vehicle parts manufacturers
- ✓ Launch & service providers
- ✓ Banks, investors & insurers
- ✓ Satellite operators
- ✓ Space & other government agencies

TRUSTED BY KEY INDUSTRY PLAYERS

Admin & Political: European Commission, EUMETSAT, IctQATAR, Industry Canada, Institut d'Estudis Espacials De Catalunya, Japanese Office of National Space Policy, Ministère de la Défense - Etat Major de l'Armée de l'Air, NCRD-Ministry of Science and Technology of Israel...

Banks: Credit Suisse, Export Development Canada, Goldman Sachs International, HSBC, Morgan Stanley...

Manufacturers: 3D Plus, Aerojet, Air Liquide, Alcantara Cyclone Space, Alliant Techsystems Inc. (ATK), Arianespace, Ascent Solar Tech, Airbus D&S, Astrotech Corporation, Atmel, Boeing Integrated Defense Systems, Carlisle Interconnect Technologies, China Aerospace Science And Technology Corp., China Great Wall Industry Corporation, Cobham Microwave, COM DEV International Ltd., Comtech EF Data, Dynetics Inc., E2V Technologies, Finmeccanica, Gilat Satellite Networks, Harris Corporation, iDirect Technologies, IHI AEROSPACE, ILS, International Rectifier, ISS Reshetnev Company, ITT Corporation, Khronichev State Research & Production Space Center, Korea Aerospace Industries, L-3 Communications, Lockheed Martin, MDA, Microsemi, Mitsubishi Electric Corporation, Mitsubishi Heavy Industries, MT Aerospace, NGC Aerospace, Northrop Grumman Aerospace Systems, OHB-System AG, Orbital Sciences Corporation, Rakon France, Raytheon, Reliance, RSC Rocket Space Corporation Energia, RUAG Schweiz AG, Russian Space Systems(Niir), Rymsa - Radiacion Y Microondas Sa, SAFT, Satrec Initiative, Sea Launch, Smiths Interconnect, SNECMA Groupe SAFRAN Moteurs, Sofradir, Space Flight Services, SpaceX, SSL, STMicroelectronics, Sumitomo Corporation of America, Surrey Satellite Technology Ltd., Tesat-Spacecom, Thales Alenia Space, TMServices, Trak Microwave Limited, Turkish Aerospace Industries, Umicore, United Technologies Corp., Yuzhnoye SDO, Zodiac Data Systems...

Space Agencies and R&D Centers: AEB, Azercosmos, Brazilian Institute of Aeronautics and Space (IAE), CSA, CAST, CNES, DLR, ESA, INPE, JAXA, KISTEP, KARI, NSO, SANSA, SNSB, Tekes Technology Development Center of Finland, UK Space Agency...

TABLE OF CONTENTS

01\ STRATEGIC ISSUES AND FORECASTS FOR THE WORLD SPACE INDUSTRY

EXECUTIVE SUMMARY

METHODOLOGY, DEFINITION & ACRONYMS

TRENDS IN SATELLITE MANUFACTURING & LAUNCH SERVICES

- Three metrics for the world space industry in the past decade
- 110 satellites launched in 2015 for a market value of \$26 billion
- Civilian government agencies continue to drive growth in satellite demand
- 54% increase in satellites launched decade-to-decade
- The big picture in the satellite market
- Mass to orbit due to increase by 33% between the two decades
- Industry revenues to grow by 14% in the decade
- Over half of the satellites into LEO; 40% of revenues in GEO
- Distribution of future space industry revenues

MARKET DRIVERS FOR FUTURE SATELLITE DEMAND

- Satellite systems upstream to provide satellite-based services downstream
- Three value chains in commercial satellite services with different maturity
- Vertical integration & horizontal concentration along the value chain
- Better CAPEX efficiency of the GEO comsat driven by new technology
- Small satellites for government missions
- Private equity funding new commercial constellations, in the U.S. first
- Technical risks also part of the economic equation of satellite investment

02\ COMPETITIVE ENVIRONMENT & PERFORMANCE OF MARKET PLAYERS

THE SPACE INDUSTRY GLOBALLY

THE SATELLITE MANUFACTURING INDUSTRY

- Consolidation & vertical integration in the supply chain
- A limited number of experienced satellite integrators
- Trends in financial performance of the satellite industry
- The GEO communication satellite (comsat) industry
- The non-GEO commercial satellite industry
- Strategic trends impacting the satellite manufacturing industry

PROFILES OF 21 COMMERCIAL SATELLITE MANUFACTURING COMPANIES

THE LAUNCH SERVICE INDUSTRY

- Structure of the space transportation industry
- The GEO launch industry
- The LEO launch industry

PROFILES OF 3 COMMERCIAL LAUNCH SERVICE PROVIDERS

03\ COMMERCIAL SATELLITE DEMAND

ASSUMPTIONS FOR COMMERCIAL SATELLITE DEMAND

DEMAND CONTEXT FOR COMMERCIAL SATELLITES

- Commercial space still means communication satellites in GEO orbit

THE COMMERCIAL MARKET BY APPLICATION

- GEO comsat for privately-owned & government companies
- GEO comsat are unique for broadcasting & broadband communications
- Two regions concentrate two-thirds of future GEO comsat demand
- Future demand for GEO comsat driven by a double trade-off
- In-orbit servicing for GEO comsat
- Satellite constellations for low latency broadband communications
- Earth observation at less than 10% of commercial space

04\ GOVERNMENT SATELLITE DEMAND

ASSUMPTIONS FOR GOVERNMENT SATELLITE DEMAND

THE GOVERNMENT SATELLITE MARKET

- Market hierarchy between customers, applications & regions
- Market dynamic by orbit
- Market dynamic by application

05\ SATELLITE BACKLOG & FORECAST

TWO DATABASES EXCLUSIVE TO EUROCONSULT

Backlog of 225 commercial satellites under construction for launch over 2016-2020 is a complement to the market forecast established by Euroconsult on the number and types of commercial satellites to be manufactured for launch by 2025.

Euroconsult's forecast of 880 government satellites to be launched over 2016-2025, including the nominative satellites (under construction as of January 2016), and those that are planned to be launched by 2025 as a follow-on to existing systems or as new systems.

For each satellite, the following information is provided :

- Name of the satellite
- Year of launch
- Name and country of the operator
- Application of the satellite
- Orbit of the satellite
- Satellite manufacturer
- Satellite bus
- Design lifetime of the satellite
- Launch mass of the satellite
- Launch service provider
- Launch vehicle



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