

Satellite-Based Earth Observation Market Opportunity, Growth Drivers, Industry Trend Analysis, and Forecast 2025 - 2034

<https://marketpublishers.com/r/S6116D389598EN.html>

Date: July 2025

Pages: 170

Price: US\$ 4,850.00 (Single User License)

ID: S6116D389598EN

Abstracts

The Global Satellite-Based Earth Observation Market was valued at USD 3.7 billion in 2024 and is estimated to grow at a CAGR of 5.9% to reach USD 6.6 billion by 2034. Increasing reliance on geospatial intelligence for climate surveillance, national security, and environmental applications is driving consistent demand. Advancements in satellite miniaturization and lower deployment costs have significantly boosted the deployment of smaller satellites. These compact platforms deliver cost-effective, high-resolution data across several sectors, including agriculture, defense, and disaster response. Artificial intelligence and cloud computing play a pivotal role in transforming raw satellite imagery into actionable data, thereby enhancing decision-making for industries and governments alike. Demand is also rising due to global efforts aimed at monitoring climate patterns, optimizing urban growth, and improving resilience to natural disasters.

Enhanced accuracy, shorter data delivery cycles, and easy access to sophisticated analytics platforms continue to push the market forward, enabling near real-time insights into Earth's surface conditions. These improvements are drastically reducing the time between data collection and actionable decision-making, allowing stakeholders in sectors such as agriculture, environmental conservation, urban planning, and emergency management to respond more effectively. The integration of satellite data with AI and machine learning has further amplified the ability to detect subtle environmental changes, monitor infrastructure, assess crop health, and track deforestation or pollution with unprecedented precision.

The value-added services segment generated USD 2.4 billion in 2024. This growth is tied to the increasing requirement for customized analysis derived from satellite data. These insights support smarter planning and operations in key sectors such as

infrastructure, energy, smart cities, and agriculture. Integration of AI-powered platforms and partnerships with analytics providers allows for more specific solutions in areas like environmental tracking and city development. Simplified access to analytics through unified platforms increases adoption, especially among users seeking fast, intuitive, and reliable information delivery systems.

The low Earth orbit (LEO) segment was valued at USD 2.1 billion in 2024. The rise of small satellites and compact CubeSats contributes to this growth, as these platforms deliver high-resolution visuals and rapid revisit intervals. Frequent imaging supports applications such as land use mapping, crop health tracking, and emergency response. Collaboration between launch providers and satellite firms has improved access and reduced operational costs. These advantages have accelerated the expansion of commercial and public interest in detailed, constant Earth observation, especially across defense, sustainability, and environmental monitoring initiatives.

United States Satellite-Based Earth Observation Market generated USD 1.38 billion in 2024. This leadership stems from large-scale investment in satellite innovation and national security technologies. Companies must align their product offerings with evolving needs in disaster readiness, climate data gathering, and strategic surveillance. Emphasis on integrating AI-driven data analysis, cloud-based delivery models, and secure communications systems will further enhance the positioning of vendors seeking to remain competitive in future government contracts and commercial engagements.

Key participants in the Global Satellite-Based Earth Observation Market include Planet Labs PBC, MinoSpace, GeoOptics Inc., ICEYE Oy, Capella Space Inc., OroraTech GmbH, Airbus Defence and Space, Spire Global, Inc., ImageSat International N.V., Maxar Technologies Inc., BlackSky Technology Inc., LiveEO GmbH, L3Harris Technologies Inc., China Siwei Surveying and Mapping Technology Co., Ltd., and MDA Space Ltd. To strengthen their presence in the satellite-based Earth observation market, companies are focusing on integrating AI and machine learning algorithms for more intelligent data interpretation. Many are forming partnerships with analytics firms to co-develop customized services tailored to specific industries like defense, agriculture, and environmental monitoring. Expanding constellations of smaller satellites enables broader coverage and more frequent data collection.

Comprehensive Market Analysis and Forecast

Industry trends, key growth drivers, challenges, future opportunities, and regulatory landscape

Competitive landscape with Porter's Five Forces and PESTEL analysis

Market size, segmentation, and regional forecasts

In-depth company profiles, business strategies, financial insights, and SWOT analysis

Contents

CHAPTER 1 METHODOLOGY AND SCOPE

- 1.1 Market scope and definition
- 1.2 Research design
 - 1.2.1 Research approach
 - 1.2.2 Data collection methods
- 1.3 Data mining sources
 - 1.3.1 Global
 - 1.3.2 Regional/Country
- 1.4 Base estimates and calculations
 - 1.4.1 Base year calculation
 - 1.4.2 Key trends for market estimation
- 1.5 Primary research and validation
 - 1.5.1 Primary sources
- 1.6 Forecast model
- 1.7 Research assumptions and limitations

CHAPTER 2 EXECUTIVE SUMMARY

- 2.1 Industry 360° synopsis
- 2.2 Key market trends
 - 2.2.1 Product type trends
 - 2.2.2 Satellite orbit trends
 - 2.2.3 Technology trends
 - 2.2.4 Application trends
 - 2.2.5 End use trends
 - 2.2.6 Regional trends
- 2.3 TAM Analysis, 2025-2034 (USD Billion)
- 2.4 CXO perspectives: Strategic imperatives
 - 2.4.1 Executive decision points
 - 2.4.2 critical success factors
- 2.5 Future outlook and strategic recommendations

CHAPTER 3 INDUSTRY INSIGHTS

- 3.1 Industry ecosystem analysis
 - 3.1.1 Supplier landscape

- 3.1.2 Profit margin
- 3.1.3 Cost structure
- 3.1.4 Value addition at each stage
- 3.1.5 Factor affecting the value chain
- 3.1.6 Disruptions
- 3.2 Industry ecosystem analysis
- 3.3 Industry impact forces
 - 3.3.1 Growth drivers
 - 3.3.1.1 Increasing demand for geospatial data
 - 3.3.1.2 Climate change monitoring
 - 3.3.1.3 Government and defense applications
 - 3.3.1.4 Proliferation of cloud computing and AI analytics
 - 3.3.1.5 Advancements in satellite miniaturization
 - 3.3.2 Pitfalls and challenges
 - 3.3.2.1 High Initial Investment and Launch Costs
 - 3.3.2.2 Orbital Debris and Space Congestion
- 3.4 Growth potential analysis
- 3.5 Regulatory landscape
 - 3.5.1 North America
 - 3.5.2 Europe
 - 3.5.3 Asia Pacific
 - 3.5.4 Latin America
 - 3.5.5 Middle East & Africa
- 3.6 Porter's analysis
- 3.7 PESTEL analysis
- 3.8 Technology and Innovation landscape
 - 3.8.1 Current technological trends
 - 3.8.2 Emerging technologies
- 3.9 Emerging business models
- 3.10 Compliance requirements
- 3.11 Defense budget analysis
- 3.12 Global defense spending trends
- 3.13 Regional defense budget allocation
 - 3.13.1 North America
 - 3.13.2 Europe
 - 3.13.3 Asia Pacific
 - 3.13.4 Middle East and Africa
 - 3.13.5 Latin America
- 3.14 Key defense modernization programs

- 3.15 Budget forecast (2025–2034)
 - 3.15.1 Impact on industry growth
 - 3.15.2 Defense budgets by country
- 3.16 Supply chain resilience
- 3.17 Geopolitical analysis
- 3.18 Workforce analysis
- 3.19 Digital transformation
- 3.20 Mergers, acquisitions, and strategic partnerships landscape
- 3.21 Risk assessment and management
- 3.22 Major contract awards (2021–2024)

CHAPTER 4 COMPETITIVE LANDSCAPE, 2024

- 4.1 Introduction
- 4.2 Company market share analysis
 - 4.2.1 By region
 - 4.2.1.1 North America
 - 4.2.1.2 Europe
 - 4.2.1.3 Asia Pacific
 - 4.2.1.4 Latin America
 - 4.2.1.5 Middle East & Africa
 - 4.2.2 Market Concentration Analysis
- 4.3 Competitive benchmarking of key players
 - 4.3.1 Financial performance comparison
 - 4.3.1.1 Revenue
 - 4.3.1.2 Profit margin
 - 4.3.1.3 R&D
 - 4.3.2 Product portfolio comparison
 - 4.3.2.1 Product range breadth
 - 4.3.2.2 Technology
 - 4.3.2.3 Innovation
 - 4.3.3 Geographic presence comparison
 - 4.3.3.1 Global footprint analysis
 - 4.3.3.2 Service network coverage
 - 4.3.3.3 Market penetration by region
 - 4.3.4 Competitive positioning matrix
 - 4.3.4.1 Leaders
 - 4.3.4.2 Challengers
 - 4.3.4.3 Followers

- 4.3.4.4 Niche players
- 4.3.5 Strategic outlook matrix
- 4.4 Key developments, 2021-2024
 - 4.4.1 Mergers and acquisitions
 - 4.4.2 Partnerships and collaborations
 - 4.4.3 Technological advancements
 - 4.4.4 Expansion and investment strategies
 - 4.4.5 Sustainability initiatives
 - 4.4.6 Digital transformation initiatives
- 4.5 Emerging/ startup competitors landscape

CHAPTER 5 MARKET ESTIMATES AND FORECAST, BY PRODUCT TYPE, 2021 - 2034 (USD MILLION)

- 5.1 Key trends
- 5.2 EO Data
 - 5.2.1 Optical imaging data
 - 5.2.2 Radar imaging data
 - 5.2.3 Hyperspectral imaging data
 - 5.2.4 Thermal infrared imaging data
 - 5.2.5 Others
- 5.3 Value-added services
 - 5.3.1 Analytics & Insight Services
 - 5.3.2 Geospatial Intelligence Platforms
 - 5.3.3 Others

CHAPTER 6 MARKET ESTIMATES AND FORECAST, BY SATELLITE ORBIT, 2021 - 2034 (USD MILLION)

- 6.1 Key trends
- 6.2 Low earth orbit (LEO)
- 6.3 Medium earth orbit (MEO)
- 6.4 Geostationary orbit (GEO)

CHAPTER 7 MARKET ESTIMATES AND FORECAST, BY TECHNOLOGY, 2021 - 2034 (USD MILLION)

- 7.1 Key trends
- 7.2 Optical (electro-optical)

- 7.3 Synthetic aperture radar (SAR)
- 7.4 Hyperspectral & multispectral
- 7.5 Thermal infrared sensors
- 7.6 LiDAR systems
- 7.7 Others

CHAPTER 8 MARKET ESTIMATES AND FORECAST, BY APPLICATION, 2021 - 2034 (USD MILLION)

- 8.1 Key trends
- 8.2 Agriculture & forestry
- 8.3 Defense & intelligence
- 8.4 Environmental & climate monitoring
- 8.5 Urban & infrastructure planning
- 8.6 Energy, mining & natural resources
- 8.7 Maritime & transportation
- 8.8 Others

CHAPTER 9 MARKET ESTIMATES AND FORECAST, BY END USE, 2021 - 2034 (USD MILLION)

- 9.1 Key trends
- 9.2 Government & defense
 - 9.2.1 Military & intelligence agencies
 - 9.2.2 Civil government & public safety departments
- 9.3 Commercial
 - 9.3.1 Agribusiness & forestry companies
 - 9.3.2 Environmental service providers
 - 9.3.3 Construction & urban planning firms
 - 9.3.4 Energy & mining companies
 - 9.3.5 Maritime logistics operators
 - 9.3.6 Others
- 9.4 Research & academia
- 9.5 Others

CHAPTER 10 MARKET ESTIMATES AND FORECAST, BY REGION, 2021 - 2034 (USD MILLION)

- 10.1 Key trends

10.2 North America

10.2.1 U.S.

10.2.2 Canada

10.3 Europe

10.3.1 Germany

10.3.2 UK

10.3.3 France

10.3.4 Spain

10.3.5 Italy

10.3.6 Netherlands

10.4 Asia Pacific

10.4.1 China

10.4.2 India

10.4.3 Japan

10.4.4 Australia

10.4.5 South Korea

10.5 Latin America

10.5.1 Brazil

10.5.2 Mexico

10.5.3 Argentina

10.6 Middle East and Africa

10.6.1 Saudi Arabia

10.6.2 South Africa

10.6.3 UAE

CHAPTER 11 COMPANY PROFILES

11.1 Global Key Players

11.1.1 Maxar Technologies Inc.

11.1.2 Airbus Defence and Space

11.1.3 Planet Labs PBC

11.1.4 ImageSat International N.V.

11.1.5 Spire Global Inc

11.2 Regional Key Players

11.2.1 North America

11.2.1.1 BlackSky Technology Inc.

11.2.1.2 L3Harris Technologies Inc

11.2.1.3 MDA Space Ltd.

11.2.2 Europe

11.2.2.1 LiveEO GmbH

11.2.2.2 Satellite Vu Ltd.

11.2.2.3 ICEYE Oy

11.2.3 Asia-Pacific

11.2.3.1 SpaceWill Information Co., Ltd.

11.2.3.2 MinoSpace

11.2.3.3 XRTech Group

11.2.3.4 China Siwei Surveying and Mapping Technology Co., Ltd.

11.3 Disruptors / Niche Players

11.3.1 Capella Space Inc.

11.3.2 Pixxel Inc

11.3.3 OroraTech GmbH

11.3.4 UrtheCast Corp.

11.3.5 GeoOptics Inc.

I would like to order

Product name: Satellite-Based Earth Observation Market Opportunity, Growth Drivers, Industry Trend Analysis, and Forecast 2025 - 2034

Product link: <https://marketpublishers.com/r/S6116D389598EN.html>

Price: US\$ 4,850.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/S6116D389598EN.html>