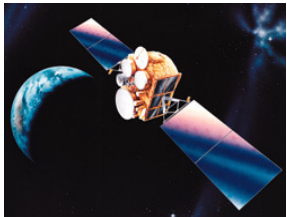
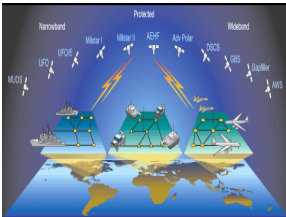


Current Trends

- The satellite manufacturing industry is experiencing a steady growth in the coming decade, although a fallout from the extended and slow economic recovery will see the number of satellites in the near future drop significantly (almost 10 percent).
- The regional satellite demand is influenced by a complex set of parameters. For example, in a country like Japan where advanced terrestrial networks provide majority of communication needs, the commercial markets for communication are not very lucrative.
- However, applications such as earth observation are key to sustaining the need for information for disaster management, meteorology, oceanography and even reconnaissance.
- Low-cost production capabilities of countries such as India and China challenge the future satellite manufacturing market share of developed countries, however, the lack of proven space heritage means that it will only be in the long-term that this seriously threatens the established participants.
- Public Private Partnerships will benefit the space industry with innovative and cost efficient activities, which will provide a continuing momentum for new space missions.

Future Trends

- By 2013 the industry will bounce back, and is forecasted to close the decade with approximately 10-15 percent more satellites launched (927) in comparison to the last decade.
- Communications accounts for almost 44 percent of the total satellites launched in the forecast period (2009-2018), closely followed by Earth Observation and Reconnaissance at about 40 percent, and the remaining made of Navigation and research and development (16 percent).
- In wake of the Copenhagen Summit and the growing environmental resources concerns, the role of Earth Observation satellites is increasingly viewed as critical in mapping and controlling the changing dynamics.
- Government (Civil and Military) projects will continue to drive demand (68 percent), however commercial satellites is forecasted to increase its share by about 5 percent .
- In the forecast period, orbit optimisation is driving the satellites (especially the communication satellites) towards heavier and more efficient platforms. However, fleet rationalisation may lead to a significant increase in medium sized satellites.



Satellite Manufacturing (World) Market

Characteristics	Measurement	Trend
Market Age	50+ years	Ongoing
Market Potential (2009 – 2018)	\$90-100 Billion	Growing
Price Sensitivity	LOW – MEDIUM	MEDIUM
Average Product Development Time	20-30 months	Decreasing
Degree of Technical Change	MEDIUM – HIGH	Stable
Competition	MEDIUM	Stable/Increasing

Source: Frost & Sullivan

End-User Assessment

Reliability and Delivery of the satellite system (Prime / Subsystem) are the most important factors considered in selecting a satellite manufacturer / supplier.

Despite the evident challenges of the regulations such as ITAR the company location is not a very decisive factor.

However, the sustained quality of service through the development cycle (and after where required) is also considered as critical to the decision making process.

The current economic challenges, and the long development cycles for most satellites means that end-users (satellite owners) are cautious of choosing a company that has proven technical and financial record.

Industry Challenges

Strong competition potential from alternative solutions such as UAVs

Current economic downturn will have short-term impact on the growth of new products and services.

There is a lack of available financing / funding for new or replacement programs

The uneven concentration of bandwidth across regions is challenging the satellite service market with aspects of pricing and supply.

- Space must be defended, or to start with, not declared as 'theatre of action', there is an imperative need for regulations and policies preventing nations from arming space.



Companies Profiled

Source: Frost & Sullivan

This research service considers the space market across five main regions which are, Americas; Europe; Asia-Pacific; Commonwealth of Independent States (CIS); and Middle East and Africa (MEA)

Europe: The European Space Agency drives the space industry in Europe. This is a unique partnership of member nations contributing to development of common space programmes, mainly for civil use. EADS Astrium and Thales Alenia Space compete in the top six club of satellite manufacturers. The collaborative structure of the Europe Space industry brings to it a diverse portfolio of manufacturing and technical capabilities, making it a leader in innovation and technology for the next generation space systems.

SATELLITE MANUFACTURING CAPABILITY- EXPERT GROWING :
REGION SCORE - 34

Americas: This region consists of North Americas and Latin America. USA leads the Space industry and continues to be the largest stakeholder. Canada has good ties with both the USA and Europe, and plays a small but significant role in the global space programs. In Latin America, the need for managing vast resources has led to countries deploying satellite based services. Brazil, Venezuela, Argentina are forging partnerships with space fairing regions both in Europe and Asia to re-evolve its space program.

NORTH AMERICA: SATELLITE MANUFACTURING CAPABILITY- EXPERT MATURE : REGION SCORE- 34.5

LATIN AMERICA : SATELLITE MANUFACTURING CAPABILITY- UNDERDEVELOPED – EVOLVING :
REGION SCORE- 13

Commonwealth of Independent States (CIS): This region consists of the countries belonging to former Soviet Union. Russia, after a brief slow down due to lack of funds, is re-emerging as a space leader. The ex-soviet countries like Kazakhstan and Ukraine, although have heritage in space infrastructure, have not really enhanced their capabilities at a internationally competitive level. However, close cooperation with the established space fairing regions such as Europe are opening new opportunities for these nations, and the collaborating organisations

SATELLITE MANUFACTURING CAPABILITY- EXPERT EVOLVING :
REGION SCORE – 27.5

Middle East and Africa (MEA): There is no major space fairing nation (other than Israel) within this region, although the geographic spread and the lack of advanced terrestrial networks is a prime opportunity for Space enabled services. China has forged strategic partnerships within the African belt, providing turnkey solutions for space enabled applications. In Africa, South Africa is exploring partnerships and opportunities for entering the Space market. Israel works closely with the Indian Space Research Organisation, leveraging its instrumentation expertise to India.

SATELLITE MANUFACTURING CAPABILITY- DEVELOPING - EVOLVING : REGION SCORE – 18

Asia – Pacific: This region consists of the emerging space powers of China, India and Japan. This region benefits from vast technically qualified and skilled resources, and a large internal market demand. China and India are evolving as a lucrative alternate for space access, due to their cost advantages. Japan works closely with the USA and Europe, deploying its technical expertise. Australia, South Korea, Vietnam, Indonesia partner with established global space participants to create a national space program.

SATELLITE MANUFACTURING CAPABILITY- DEVELOPING GROWING :
REGION SCORE - 23