

3rd INDIA - USA SPACE AND GEOSPATIAL BUSINESS SUMMIT

New Delhi | June 7, 2023

Concept Note

Background

The Indian geospatial industry is gradually undergoing a transition from data to knowledge, and from being a service driven to a solutions driven industry. Owing to the recent significant policy reforms announced by the Government of India, Geospatial industry can be regarded as the foundation of digital infrastructure in India and is at the helm of becoming one of the most potential industries to provide the nation with enormous socio-economic advantages.

Opportunities in Geospatial and Space

The Geospatial industry is emerging as the next 'Big Opportunity' worldwide, both as an 'advancing market in itself' as well as 'augmenting business processes' of mainstream IT, Engineering and Autonomous industries. 'Data Insight' is today the driving wheel of the knowledge economy, penetrating and integrating across workflows and processes of every industry. Data serves as 'oil' to the knowledge economy resulting in economic business models, greater efficiency, productivity, transparency and compliance. Therefore, geospatial industry would continue to provide accurate and rich foundation to data infrastructure and increasingly add the 3rd dimension to 'everything we do' leading to 'geospatial by default' embedded in digital twin and metaverse impacting how humans interact with the digital and physical world in near-real-time.

Increasing number of countries in the Asia Pacific region feel a compelling need for new thinking for space strategy and space activity is one of the major drivers of security systems. Many are also aspiring to acquire indigenous capabilities for space activities. Moreover, increasing private/commercial activities are seen in this region resulting in the growth of competitive market for technology, applications and services. Many have been actively using space systems like communication and remote sensing satellites to meet various social needs, disaster monitoring, natural resources management, tele-education, tele-medicine, national communication, navigation services, etc.

It is, indeed, an exciting time as India is witnessing a coordinated and holistic approach towards opening up much needed geospatial and space industry for commercial companies while continuing its commitment to nurture and handhold commercial companies to play meaningful role in national development.

Indian Geospatial Industry Outlook (source: *Geospatial Artha* 2022):

- India's domestic geospatial market is estimated to grow at a significantly high CAGR, i.e., approximately 13.5 percent between 2021 and 2025. The market is forecasted to rise from INR 13.90 thousand crores (approximately 1.68 billion USD) in 2021 to INR 23.09 thousand crores (approximately 2.79 billion USD) in 2025

- India's GNSS and Positioning to hold approximately 59 percent market share in 2022, followed by GIS and Spatial Analytics market with approximately 23 percent of the total market share
- GIS and Spatial Analytics and Earth Observation (Satellites/Drones) to drive the Indian Geospatial Market between 2022 and 2025
- The geospatial market of India in 2022, and 2025 is dominated by Defense and Intelligence, Urban Development, and Utilities sector. Together in 2022, these sectors accounted for 38.91 percent, up from 37.98 percent in 2021 – with each sector accounting for 14.35 percent, 13.29 percent, and 11.27 percent, respectively

Geospatial Industry and World Economy

Global Geospatial Market size is estimated to be US\$ 452 billion in 2022 and it is forecasted to grow at 14.61% CAGR to be US\$ 681 billion by 2025. Thereafter it is expected to grow at much faster rate of 16.1% CAGR post 2025, taking it to US\$ 1.44 trillion by 2030. The current growth rate is driven by technology innovation, integration of workflows, and augmentation of spatial analytics in business processes.

As geospatial industry is maturing and mainstreaming, associated trade and commerce is gaining momentum too, duly augmented by public policy reforms towards commercialization and industrialization of geospatial technology and infrastructure globally. There have been several policy initiatives towards opening up of data and facilitation of private sector engagement through incubation programs. This has played a key role in scalability of applications and maturing of user adoption levels. However, growing demand of geospatial services and harnessing huge business potential would require greater partnerships with commercial enterprises, and therefore it is imperative for progressive stakeholders to play a proactive role in developing 'geospatial infrastructure' and creating a conducive and enabling business environment, and promoting trade and commerce in global market.

Cooperation between India and USA

Historically, India and the United States have had a long-standing commitment to qualitatively transform their strategic business partnership, particularly by investments and commitments, in technology knowledge sharing. The India–United States (US) partnership—pivotal in maintaining international security and order—could yet be the defining one for this century. The US is India's most comprehensive strategic partner, and cooperation between the two extends across multiple areas such as trade, defence, multilateralism, intelligence, cyberspace, civil nuclear energy, education, and healthcare. As the two nations venture into a new decade, they must articulate a new agenda for cooperation in the Indo-Pacific region which they are both committed to keeping "free and open". The sectors that will be key to shaping the arc of a strong Indo-US relationship in the years ahead are the emerging technologies; national security and defence cooperation; counterterrorism; and trade.

India - USA Space Technology Cooperation

Much of the robust partnership between India and the United States in the geospatial sector is exemplified by the initial scientific exchanges and joint projects in the field of space technology. Today, this cooperation has extended significantly with the ongoing earth observation mission – the NASA-ISRO Synthetic Aperture Radar (NISAR) project, which aims to gain a better understanding of three Earth Science domains– changing ecosystems, deformation of Earth's crusts, and cryosphere sciences. Under this project, in true spirit of collaboration and

cooperation, NASA is providing the mission's L-band synthetic aperture radar, a high-rate communication subsystem for science data, GPS receivers, a solid state recorder, and payload data subsystem, while ISRO is providing the spacecraft bus, the S-band radar, the launch vehicle, and associated launch services. The mission is set for launch in late 2022 or early 2023 from ISRO's Sriharikota spaceport in Andhra Pradesh in southern India on India's Geosynchronous Satellite Launch Vehicle (GSLV-II).

Furthermore, in 2015 India launched an American satellite from its trusted launch vehicle – the Polar Satellite Launch Vehicle (PSLV). Since then, U.S.-India space cooperation has intensified at a brisk pace, particularly involving the American private sector, which has found India's space launch services attractive and economical. Companies such as Google, Raytheon, Spire Global, Planet, etc., have actively launched their satellites through India's PSLV. By 2021, India's PSLV had approximately launched 243 satellites of U.S. space companies.

Both the countries have also developed a deep relationship in weather systems and applications using earth observation data. They are also cooperating in the area of Satellite Navigation (SatNav) wherein the United States Congress has initiated the idea of designating the Indian Regional Navigation Satellite System (IRNSS)-operational name NavIC- as an allied system with underlying objective of developing a multi-national SatNav system. In addition, America's private sector companies, such as Qualcomm Technologies have concluded agreement with ISRO to support NavIC's geolocation capabilities in its chipset platforms for better mobile services and to further develop ISRO's capacities. These space collaborations and India's liberalized Space FDI policy will encourage business and enable U.S. space companies to expand and invest in India with an intent to ensure a sustained engagement.

Defense/ Geospatial Intelligence Cooperation

Both the Indian and the U.S. governments have worked towards enhancing bilateral cooperation in high-technology trade through their Defense arms. In 2020, the Defense Minister of India and the Secretary of Defense of the United States finally signed the Basic Exchange and Cooperation Agreement (BECA) for geospatial cooperation during the U.S.-India 2+2 Ministerial Dialogue held in New Delhi, India to discuss the bilateral defense issues. The BECA agreement, the third of three basic agreements after Logistics Exchange Memorandum of Agreement (LEMOA) in 2016 and Communications Compatibility and Security Agreement (COMCASA) in 2018, is aimed at enabling interoperability of forces and exchange of sensitive and classified information. While the other two agreements are non-geospatial in nature, the BECA Agreement defines geospatial-intelligence information (GEOINT). It comprises geodetic, geomagnetic, topographic, hydrographic, cartographical, bathymetric, and similar essential information data packets. The items include maps; nautical and aeronautical charts; geospatial information and data like geodetic, geophysical, geomagnetic, and gravity data.

Cooperation in Commercial Geospatial Trade and Commerce

India exports more than USD 80 billion in IT and IT-enabled services globally, and imports approximately USD 50 billion in the same from all over the world. The United States, the biggest market for Indian IT and IT enabled services exports and imports, accounts for 60-75% of the exports and imports globally. This is the case for geospatial trade and commerce as well.

United States continues to be the largest trading partner of India. Of the total USD 1.45 billion geospatial technology and geospatial-enabled services exports by India globally – the United States accounted for 83.34% of the exports in 2021 – i.e., USD 1.21 billion in geospatial solutions and services exports. Similarly, out of the total USD 0.37 billion India imported in geospatial

technology and geospatial enabled services, imports from the United States alone were worth approximately USD 0.33 billion. Thus, from a geospatial stand point – the trade and commerce between the two countries continues to be strong and much opportunity lies for both India and the United States against the backdrop of strategic policy engagement, and bilateral agreements.

Geospatial World Chamber of Commerce (GWCC)

Geospatial World (GW) has established Geospatial World Chamber of Commerce – a non-profit body, headquartered in India, to promote trade and commerce globally, and with special attention to facilitating growth of trade and commerce of Indian geospatial industry with primary partner countries of India in the context of evolving geo-political world order.

As a first step, we did organize the **1st India-US Geospatial and Space Business Summit** in partnership with Indian Embassy and Department of State, US in Monterey, California on 2nd June, 2022. Please find enclosed herewith a report of 1st India-US Geospatial Business Summit held in Monterey and also a White Paper that was adopted during the meeting. Recommendations and Conclusions did emphasise on continued engagement and encourage cooperation in the field of technology transfer, manufacturing, and joint ventures in the field. Additionally, strategic recommendation was made to expand India-US business relations to Indo-Pacific region especially leveraging geospatial and space capabilities of the two countries to support developing countries and common partners in Indo-Pacific region.

The **2nd India USA Geospatial & Space Business Summit** was organized at Hyderabad, India with Department of Science & Technology (DST), Government of India as Co-Organiser on November 2022. The Bilateral Business summit was also supported by Indo America Chamber of Commerce (IACC).

Following the recommendations, we are organizing the **3rd India USA Geospatial & Space Business Summit** in India on June 7, 2023 in partnership with **IN-SPACE as Co-organiser** and **Geospatial World (GW) as Knowledge Partner**. The 3rd edition would also provide greater opportunities for strengthening institutional and business relationship between the two countries. This is an opportune time for the industry to join hands with the Government stakeholders towards realising the National Geospatial Policy milestones. We would appreciate your kind consideration and strategic view to the above proposal and look forward to making a meaningful engagement towards strengthening the bilateral relation between the two countries.

Who will attend?

Industry Leaders | Government Functionaries | Thought Leaders | Business Users |
Implementing Agencies

Highlights of the Programme

- Dialogue forums consisting of participation from Government, Industry and Civil Society leaders
- High Level Networking Reception

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