

2nd INDIA - JAPAN SPACE AND GEOSPATIAL BUSINESS SUMMIT
New Delhi| June 6, 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 USD 2.79 billion) 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 & Japan

Relationship between Japan and India goes back to ancient times through exchange of culture and values and ever since both the countries have enjoyed cordial relations. However, a formal diplomatic relationship was established in the year 1952 and the same has been consistently strengthened and today both the countries have 'Special Strategic and Global Partnership Working Together for Peace and Prosperity of the Indo-Pacific Region and the World'. Driven by principles of peace, democracy, prosperity and sustainability, economic relations between them have been growing rapidly. In the recent years both the nations have stepped up their cooperation in the area of digital infrastructure, and today India considers Japan as its most trusted partner in economic and technological modernization and currently Japan is the 4th largest investor in India.

The political leaderships from both the nations have been affirmative towards synergizing India's demographic dividend and Japan's capital and technology to realize the true potential of the Japan-India economic partnership for a prosperous and progressive future. In this regard, the two countries agreed for a Bilateral Swap Arrangement of USD 75 billion, the launching of a comprehensive Japan-India Digital Partnership, and other cooperation and initiatives. The two countries, concurred to further develop Japan-India relations and work closely toward the realisation of a 'Free and Open Indo-Pacific'. It is characterised by a safe ocean connection, integration by trade and investment, and respect for sovereignty and territorial integrity as documented in international law.

India-Japan Science & Technology Cooperation

While India adapts to Japan's technology, Japan could allow India to shift towards more leaner, more globally competitive, manufacturing aided by automation, artificial intelligence (AI), and the creation of new skills sets. Not just in technological aspects, there is an increased cooperation in the field of defence as a result of greater technological integration and it has been based on the set of goals of 'co-development and co-production' in the Japan-India Vision 2025.

The Cooperation is expected to promote sectors such as 5G, Internet of Things (IoT), Artificial Intelligence (AI) and more importantly due to the security concerns raised against the adoption of 5G technology produced by China. Further, the cooperation will include the implementation of submarine optical fibre placements, smart cities, and utilisation of artificial intelligence in healthcare.

India - Japan on Space Collaborations

In addition to this, India and Japan have been making massive progress in the fields of space and geospatial infrastructure and there lies a greater opportunity to leverage on ongoing political, economic and security relationships to strengthen trade and commerce in the said fields. India has undergone path breaking policy reforms in the field of geospatial, drones, space and IT in recent years and this is an indication of strategic importance of the sector in overall development of the country. And these reforms have in built promise and commitment of the political leadership to open Indian market for commercial companies as well as facilitating international trade and commerce. Few partnership and cooperation arrangements are worth mentioning in this context:

- Indian and Japanese space agencies, Indian Space Research Organisation (ISRO) and the Japan Aerospace Exploration Agency (JAXA) have been working on earth observation, lunar cooperation and satellite navigation, and also agreed to explore opportunities for cooperation in "space situational awareness and professional exchange programme."
- Both agencies signed an Implementing Arrangement for collaborative activities on rice crop area and air quality monitoring using satellite data.
- India and Japan are already working on a joint lunar polar exploration (LUPEX) mission and the two space agencies have been working on the mission that aims to send a lander and rover to the Moon's south-pole around 2024.
- Under the umbrella of Space Policy and Law Network in Asia Pacific (SPLANAP), University of Tokyo (Japan) and National Institute of Advanced Studies (India) have taken up a joint study to research and prepare a report on space policies of the Asia Pacific region, especially Japan, India and many other space faring nations in this region. Japan and India are leading space faring countries in this region.

However, the pressing challenge is to create a policy framework on a) how to promote space utilization and industrialization and b) how to coordinate policies and goals of various stakeholders.

India's Cyber Security Pact with Japan

The Cyber Security Pact, between India and Japan, promotes "cooperation in capacity building, research and development, security and resilience in the areas of Critical Information Infrastructure, 5G, Internet of Things (IoT), Artificial Intelligence (AI) and cooperating on the telecommunications and digital infrastructure front, thus paving the way for a safer Geo -Political order. The Cyber Security Pact allowed NEC Corporation, a US\$28-billion Japanese IT communications company to invest a lot in India especially in the field of technology. The company has set up various R&D centres in Bangalore, Chennai, Noida, and others, with the

Chennai centre focusing on 5G and is already working with major telecom companies in India for its immediate rollout.

India Japan on Defence Research

In the area of defence research between India and Japan, the countries have to potential to “emerge as a key pillar of bilateral defence relations.” The relationship has reached new heights since the last decade, especially with Japan’s post-war security posture and its easing of the arms export policy. Both the countries have engaged in many agreements on sourcing the Japanese defence technology, joint development, and the production of defence equipment. India aims to modernise their defence capabilities with the help of modern Japanese technology and aims to diversify their sources of acquisition, whereas Japan aims to revive its defence industry as it comes out of its export ban and it is well within the framework of India-Japan Vision 2025. The agreement regarding the transfer of defence equipment and technology and the agreement Concerning Security Measures for the Protection of Classified Military Information was signed in December 2015, thus paving the way for more joint research, development, and production.

The efforts between Japan’s Acquisition, Technology and Logistical Agency (ATLA) and India’s Department of Defence Production (DDP) has led to the creation of the India-Japan Defence Industry Forum, which was instituted in 2017. The two agencies under ‘Cooperative Research’ unveiled their maiden projects in the area of Unmanned Ground Vehicle (UGV) and the Visual Simultaneous Localization and Mapping (SLAM) Based Global Navigation Satellite System (GNSS).

Geospatial World Chamber of Commerce (GWCC)

Geospatial World (GW) has established **Geospatial World Chamber of Commerce (GWCC)** – 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- Japan Geospatial and Space Business Summit** at Hyderabad, India with Department of Science & Technology (DST), Government of India as Co-Organiser on 15 November, 2022. 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-Japan 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.

Following the recommendations, we are organizing the **2nd India Japan Geospatial & Space Business Summit** in India on June 6, 2023 with **JETRO (Japan External Trade Organisation) as Strategic Partner** and **Geospatial World (GW) as Knowledge Partner**. The 2nd 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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Registration (By Invitation only - Online or On the Spot)

- **Inaugural Session: India Japan Space and Geospatial Business Summit**
- **Ease of Doing Business in India towards strengthening Trade and Commerce**
- **Geospatial and Space Infrastructure and Services: Business Opportunities and Bilateral Relations**
- **Technology Transfer & Joint Collaboration**
- **Space & Geospatial Market Opportunities**
- **Indo Pacific Region: Expanding Partnerships**

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