

# 3<sup>RD</sup> INDIA JAPAN SPACE AND GEOSPATIAL BUSINESS SUMMIT

# INDIA JAPAN

3<sup>rd</sup> December, 2024 | Hyderabad, India

Relationship between Japan and India goes back to ancient times through exchange of culture and values. 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'. 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 two countries agreed for a Bilateral Swap Arrangement of USD 75 billion, the launching of a comprehensive Japan-India Digital Partnership and concurred 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.

#### Co-Organiser

# JETRO

Japan External Trade Organization

#### Strategic Partners



Geospatial Data Promotion and Development Committee (GDPDC)

#### Knowledge Partner

# GEOSPATIAL WORLD

ADVANCING KNOWLEDGE FOR SUSTAINABILITY

#### Supporting Partner



#### Supporting Agency



#### Organised by



# PROGRAMME AGENDA

Time (Hrs)	Agenda
12:30-13:30	<b>Lunch</b>
13:30-14:00	<b>India-Japan Space and Geospatial Market: An Overview</b>
14:00-14:40	<b>Session: Collaborative Opportunities for National Mapping</b>
	<p>The session on Collaborative Opportunities for National Mapping Agencies, aims to explore multifaceted partnerships and innovations between national mapping agencies of India and Japan. This discussion will not only delve into direct governmental collaborations but also extend to engaging with private sector entities that are pivotal in advancing geospatial technologies.</p> <p><b>Key discussion points in this session will include –</b></p> <ul style="list-style-type: none"> <li>• Discuss the integration of new technologies, such as artificial intelligence, machine learning, and aerial/satellite imagery, in mapping services, and explore collaboration with the private sector to provide these services.</li> <li>• Present successful case studies of existing cross-border collaborations between different national agencies and the private sector to illustrate potential benefits and common pitfalls.</li> <li>• Identify opportunities for joint ventures that leverage the unique strengths of each organization.</li> <li>• Address the need for harmonizing geospatial information standards to ensure compatibility and interoperability.</li> <li>• Explore various funding models that can support collaborative projects, including public-private partnerships when such collaborations are explored.</li> </ul>
14:40-15:20	<b>Session: Geospatial Products and Solutions: Trade and Commerce</b>
	<p>The session on Geospatial Products and Solution promises to be a pivotal platform for discussing the collaborative potential between Indian and Japan geospatial industries offering products and solutions and working cross-border. This session aims to explore the extensive capabilities of both regions in harnessing and innovating with geospatial technologies, such as sensors and networks, satellite imagery, remote sensing, and data analytics. Focused on mutual benefits, the discussion will cover how these regions can share resources, expand market access, and jointly tackle projects in critical areas like urban development, disaster management, agriculture, and climate monitoring.</p> <p><b>Key discussion points in this session will include –</b></p> <ul style="list-style-type: none"> <li>• Recent technological advancements in both regions that could benefit collaborative efforts, such as developments in remote sensing, sensors and scanners, PNT, AI.</li> <li>• Explore how both regions can benefit from sharing geospatial data and resources</li> <li>• Discuss opportunities for companies to expand their market presence across regions, addressing both challenges and strategies for successful market entry.</li> <li>• Identify specific opportunities for joint ventures in areas like urban planning, agriculture, disaster management, and climate change monitoring.</li> <li>• Present case studies where Indian and Japanese entities working in different regions has led to successful geospatial projects, emphasizing the methodologies and outcomes of these partnerships.</li> </ul>
15:20-15:40	<b>Tea/Coffee Break</b>

15:40-16:20	<p><b>Session: Space Infrastructure and Downstream Applications</b></p>
	<p>The session on Space Infrastructure and Downstream Applications at the India-Japan Space business summit, aims to highlight synergies between India and Japan capabilities in space technology, including satellite deployment, communication systems, and the myriad of downstream applications that these technologies enable.</p> <p>This session will delve into the collaborative potential for developing robust space infrastructure and exploring innovative downstream applications. As India and Japan continue to advance their space technologies, particularly in Earth observation and PNT technology ecosystems, this platform will facilitate discussions on shared projects, technology transfer, and co-development of satellite systems, with a strong focus on enhancing the practical applications of space data in various sectors such as telecommunications, Earth observation, and navigation.</p> <p><b>Key discussion points in this session will include –</b></p> <ul style="list-style-type: none"> <li>• Explore opportunities for joint space missions, focusing on satellite development, launches, and management.</li> <li>• Discuss frameworks for technology sharing and co-development, aimed at enhancing the capabilities of both Indian and Japan space sectors.</li> <li>• Identify gaps in current infrastructure and propose collaborative projects to fill these gaps, enhancing overall capabilities.</li> <li>• Examine successful downstream applications of space technologies, such as disaster management, urban planning, and agriculture.</li> <li>• Discuss new potential applications and markets for space-based data, including climate monitoring and security.</li> <li>• Explore potential business models and commercial ventures that could be developed through Indo-Japan cooperation.</li> </ul>
16:20-17:00	<p><b>Session: BIM and Digital Twin for Infrastructure</b></p>
	<p>The session on Research, Innovation, and Workforce Development at the India-Japan Geospatial and Space Business Summit will examine how strategic partnerships between Indian and Japan academic institutions, and industry leaders can drive innovation, streamline research efforts, and cultivate a skilled workforce equipped to tackle future challenges in these sectors, particularly in the field of data science, GeoAI, and remote sensing. This session aims to bridge the gap between research, practical implementation, and workforce needs in the geospatial and space industries of both Japan and India. Participants will discuss ways to enhance cooperation in scientific research, technology development, and educational initiatives. The goal is to create a robust pipeline of talent and innovative solutions that can support the growing demands of these high-tech fields, ensuring that both regions remain at the forefront of technological advancements.</p> <p><b>Key discussion points in this session will include –</b></p> <ul style="list-style-type: none"> <li>• Explore the establishment of bilateral research agreements to foster shared projects on satellite technology, geospatial data analytics, data science, AI, and other relevant areas.</li> <li>• Highlight successful case studies of research and workforce development activities in the space and geospatial sectors, examining how these can inspire further collaborative efforts.</li> <li>• Address the skills gap in both regions by mapping out current and future industry needs.</li> <li>• Propose collaborative educational programs, such as dual degrees, professional development courses, and exchange programs, that align with the sectors' evolving demands.</li> </ul>



# 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.

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. 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.

## 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.

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.

### India Japan Science & Technology Cooperation

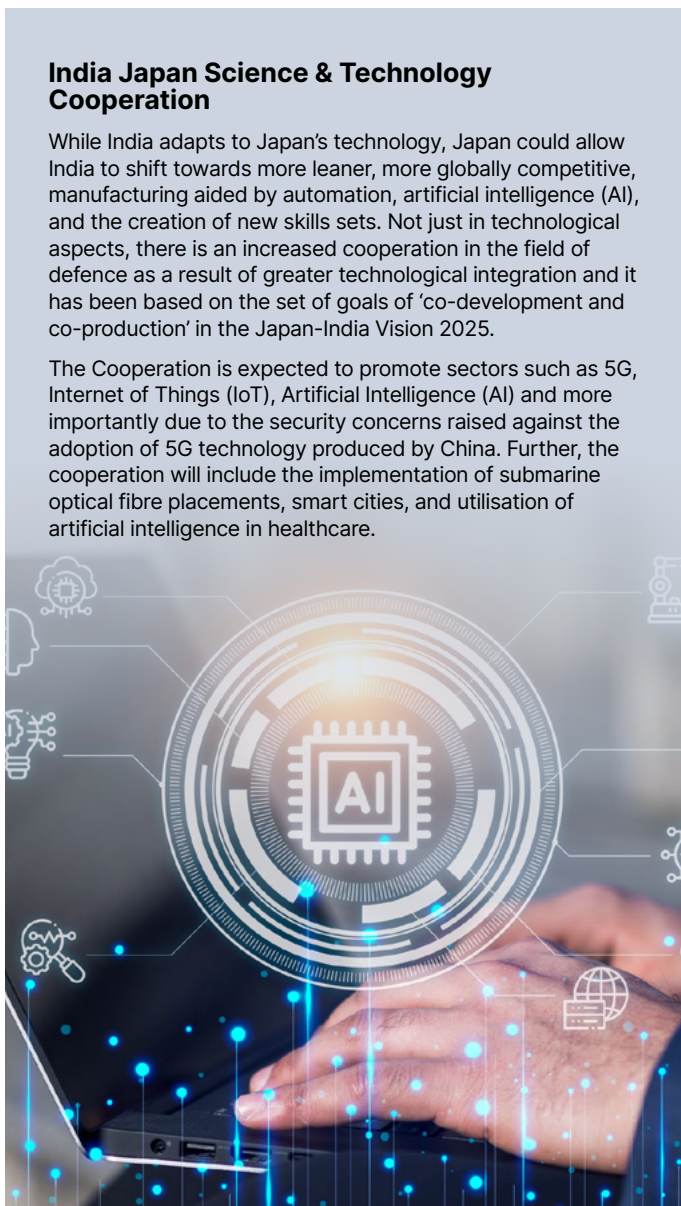
While India adapts to Japan's technology, Japan could allow India to shift towards more leaner, more globally competitive, manufacturing aided by automation, artificial intelligence (AI), and the creation of new skills sets. Not just in technological aspects, there is an increased cooperation in the 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 and Geospatial Collaborations

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.

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."



## SPEAKERS



**Sanjay Kumar**

CEO and Founder  
Geospatial World & Geospatial  
World Chamber of Commerce



**Srikant Sastri**

Chairman  
Geospatial Data Promotion &  
Development Committee (GPDPC)



**Watanabe Makoto**

First Secretary  
(Science & Technology)  
Embassy of Japan in India



**Major General Harsh  
Chhibber**

Commandant  
College of Defence Management  
Secunderabad



**Taku Hiroki**

JETRO India



**Amit Seymour**

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Chairman, IN-SPACE  
Department of Space  
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**Dr Rajeev Jyoti**

Director  
Directorate Technical  
IN-SPACE, Department of Space,  
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**Soumya Misra**

CEO  
Sisir Radar



**Yuya Nakamura**

Axelspace



**Raghu Ganesan**

Avineon India Private Limited

## Past India Japan Bilateral Business Summits

### 1<sup>ST</sup> INDIA JAPAN GEOSPATIAL & SPACE BUSINESS SUMMIT

November 16, 2022 | Hyderabad, Telangana

**Partners:**

1. Department of Science & Technology  
Government of India
2. Geospatial World

### 2<sup>ND</sup> INDIA JAPAN GEOSPATIAL & SPACE BUSINESS SUMMIT

June 6, 2023 | Hyderabad, Telangana

**Partners:**

1. JETRO (Japan External Trade Organisation)
2. Geospatial World



# RECOMMENDATIONS

- **Initiate Strategic Bilateral Dialogues:** Organise high-level discussions between Indian and Japanese industry leaders to align on geospatial and space policies, fostering cooperation and mutual understanding.
- **Enhance Private Sector Participation:** Actively involve private sector stakeholders from both countries in policy formulation to ensure comprehensive development of geospatial and space technologies.
- **Address Bureaucratic Challenges:** Streamline administrative processes to overcome bureaucratic hurdles, enabling smoother implementation of joint initiatives in space and geospatial sectors.
- **Promote Technology Collaboration:** Explore collaborative opportunities in satellite data utilisation, optical data applications, and advanced technologies for sectors like smart agriculture, leveraging each country's strengths.
- **Facilitate Trade Agreements:** Establish a conducive regulatory environment through bilateral agreements, focusing on technology transfer and collaborative research, to boost trade and investment in geospatial and space technologies.
- **Joint Research and Development:** Foster joint R&D initiatives between Indian and Japanese institutions to drive innovation in geospatial and space technologies.
- **Capacity Building:** Enhance capabilities through knowledge exchange programs, workshops, and training sessions aimed at developing skilled manpower in geospatial and space sectors.
- **Public-Private Partnerships:** Encourage public-private partnerships (PPP) for joint infrastructure projects in satellite communication and navigation systems, promoting sustainable development and economic growth.
- **Policy Harmonisation:** Work towards harmonizing regulatory frameworks and standards to facilitate interoperability and compatibility of geospatial and space technologies between India and Japan.
- **Promotion of Best Practices:** Share best practices in governance, data privacy, and security related to geospatial and space technologies through bilateral cooperation and international forums.
- **Strategic Bilateral Dialogues:** Organise high-level discussions between Indian and Japanese industry leaders to align on geospatial and space policies, fostering cooperation and mutual understanding.
- **Enhanced Private Sector Participation:** Actively involve private sector stakeholders from both countries in policy formulation to ensure comprehensive development of geospatial and space technologies.
- **Streamlined Administrative Processes:** Simplify administrative procedures to overcome bureaucratic hurdles, enabling smoother implementation of joint initiatives in space and geospatial sectors.
- **Technology Collaboration and Trade Facilitation:** Explore collaborative opportunities in satellite data utilisation and advanced technologies like smart agriculture. Establish bilateral agreements focusing on technology transfer and collaborative research to boost trade and investment in geospatial and space technologies.
- **Market Expansion and Trade Relations:** Indian companies aim to explore Japan as a market for geospatial and space technologies, moving beyond the traditional roles of user market or human resources support. Establishing strong trade relations in automation sectors, particularly under initiatives like Smart Cities, is crucial for regular city monitoring.
- **Enhanced Utilisation of Space Data:** Leveraging space data for critical applications such as monitoring vegetation changes, water resources, and urban development through advanced technologies like SAR (Synthetic Aperture Radar) combined with Optical data. Emphasis on generating analysis-ready data and exchanging AI and Deep Learning technologies for accurate implementation.
- **Capacity Building and Future Skills:** Developing a Future Skills Platform with online content and fostering Industry-Academia partnerships to prepare communities in geospatial and space sectors for future challenges. Encouraging participation from industries of all scales and startups to drive new initiatives and innovations.

These recommendations highlight the strategic areas of focus including market expansion, technology utilisation, and capacity building to strengthen bilateral cooperation between India and Japan in geospatial and space technologies.

# GEOSPATIAL WORLD CHAMBER OF COMMERCE

Geospatial World Chamber of Commerce (GWCC) is a not-for-profit global organization. Headquartered and registered in India, GWCC is promoted by 'Geospatial World' with a vision to promote trade and commerce in Geospatial and Space products, services and technologies.

## CORE PILLARS

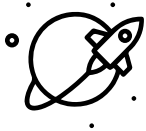
To promote trade and commerce through business dialogues with key stakeholders at bilateral and multilateral levels.

To advise and consult with Governments across the globe on trade and commerce for Geospatial and Space industries.

To develop a knowledge repository through Market Research with regards to opportunities in trade and commerce in Geospatial and Space industries.

To assist in creating an enabling environment for IPR issues for indigenous Geospatial and Space industries for trade and commerce.

## CORE OBJECTIVES



Promote, facilitate, advance, and protect interest of global geospatial and space business community



Draw plans and projects for encouraging the growth of trade and commerce worldwide



Advise Government on matters relating to commerce, trade and industry



Collect and share important information about industry, market and policies with its members



Assist Government in policy development and consultations on budgetary and procurement provisions



Bring to the notice of the Government the impact of various laws and regulations on business



Facilitate technological development through partnerships between academia, research, government and industry



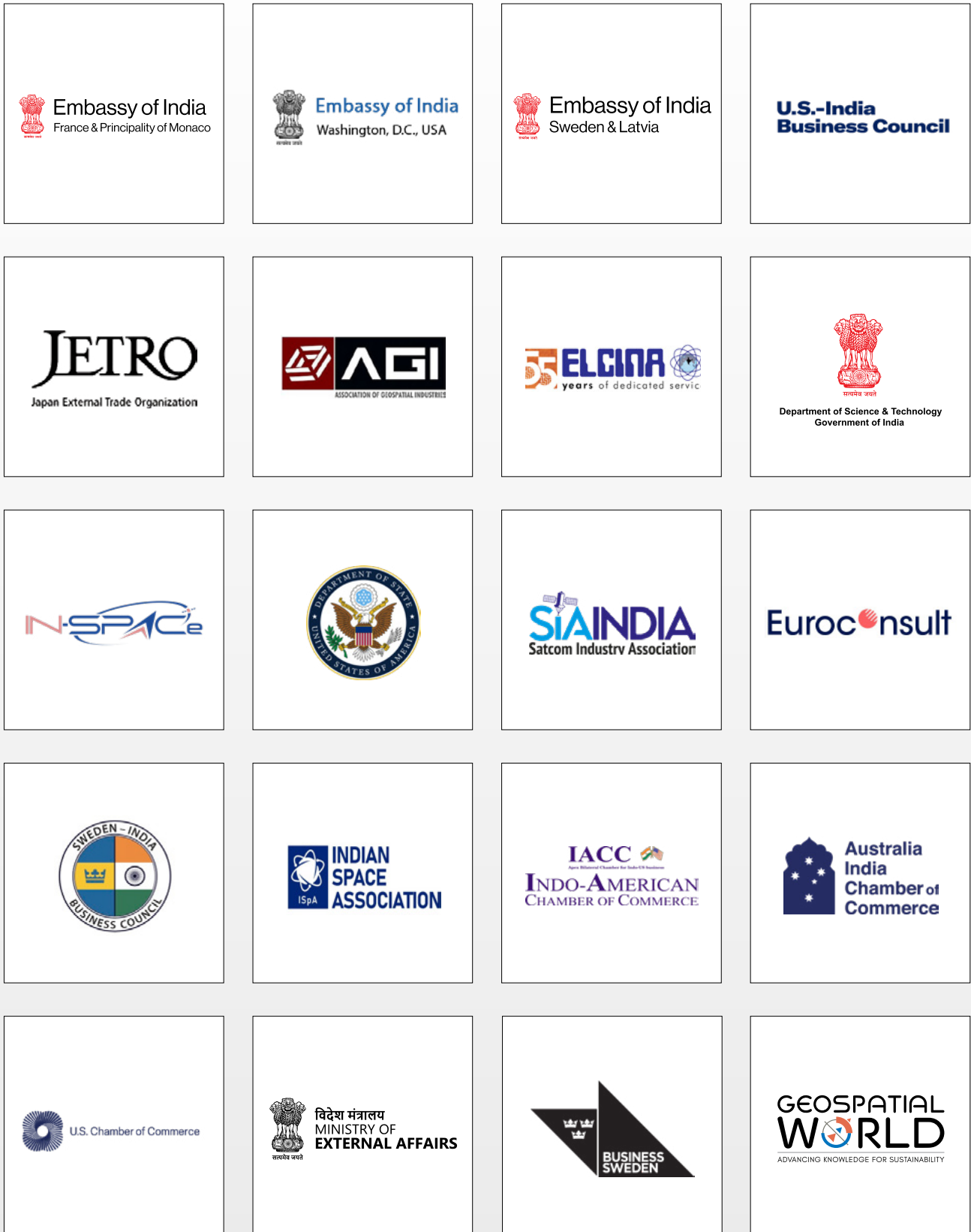
Make the members aware of latest developments in technology, marketing, financing, human resources, etc



Establish chapters in various countries and develop and explore the areas where businesses can participate and cooperate



# GWCC PROGRAMME PARTNERS



## GEOSPATIAL WORLD CHAMBER OF COMMERCE

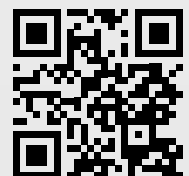
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