Pre-Launch
Geospatial World Forum
India Europe Space & Geospatial Business Summit
Visit of SIBC and Business Sweden Delegation

Geospatial World Chamber of Commerce
Sweden India Business Council

Stockholm
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Remarks
Ambassador Tanmaya Lal

Mr. Sanjay Kumar,

Mr. Robin Sukhia,

Friends,

A warm welcome to all of you.

In case some of you are wondering how this pre-launch event for **Geospatial World Forum** is being hosted at the Embassy of India, it just shows how far we have come in recent years in terms of how the **new Space economy is transforming our lives and economies** and how important are **public-private partnerships** and **international collaboration** to take this forward.

Dramatic Space exploration accomplishments continue to capture imagination.

From India's recent Moon landing by **Chandrayaan-3** Mission; deployment of a space-based Solar observatory **Aditya**; and award of Astronaut Wings to Indian Air Force pilots training to fly on India's first Human Space Mission **Gaganyaan**.

To upgradation of Sweden's **Esrange** spaceport in Kiruna, and the recent space flight of Swedish astronaut **Marcus Wandt**.

The first landing recently of a private company spacecraft **Odysseus** on moon for which **AAC Clyde Space** headquartered in Uppsala supplied equipment has been another milestone.

Recently at the **Space Tech seminar** organised by the Business Stockholm Region, I learnt a lot about the ongoing and future trends in this sector from **ReOrbit** and **AAC Clyde Space**.

Space Tech already permeates our daily lives. These technologies have created an increasingly interconnected world. They will continue to transform the world we live in.

Space exploration is fuelling the Fourth Industrial Revolution characterized by fusion of technologies.

Today **Boundaries** between what were traditionally considered space and non-space activities are increasingly **blurring**.

The Geospatial domain deploys space tech to provide solutions on earth.

Space-to-Earth uses of various technologies are multiplying and the **global economy** will witness a boom riding upon space tech and geospatial applications.

Technological disruptions, policy reforms and private enterprise are transforming these domains.

Launch costs are falling rapidly with use of new materials and processes. We are moving towards reusable rockets. Much more **frequent** and **affordable** launches **on demand** are now possible.

Satellites are becoming much smaller, much smarter, cheaper and upgradable. Again, increasing affordability and redundancy. They are also being deployed in large constellations for specific uses, including for more extensive coverage.

From an estimated active 5,500 satellites currently in orbit, the number is projected to grow to 20,000 within this decade, especially in the Low Earth Orbit.

This sharp trend reflects the **explosion of data** being collected, **intelligent insights** uncovered and **expansion of uses** of such data.

Affordable access to high quality imagery, Big Data analytics and **insights provided by AI and ML** increasingly offer **innovative solutions and services** across sectors.

I need not describe to this audience, the applications of geospatial technologies across sectors in much detail.

These range from **Earth observation** for **weather** prediction & **climate** monitoring; **resources** observation in Agriculture, Fisheries, Forestry, Water management, mining, natural disasters etc.; **Communication** services including for banking & finance transactions; **Positioning, Navigation & Timing** services; Logistics and many others.

This lowering of costs and technological innovation is leading to a **proliferation of nations and private companies & investors** from across the world now becoming active in Space Tech.

Space-to-Earth technologies are now translating into **Big Business**.

By their very nature they require **transboundary** collaboration.

India's space economy aims to reach 10% of the global share by 2030.

India's geospatial market potential is expected to grow to USD 20 billion by 2025.

India provides **scale** and huge opportunities of **Technology co-development** and **innovation**.

Space race in India is now hotting up even further as space, geospatial and drone sectors have been liberalised.

The **first privately built rocket in India** was successfully launched in 2022.

36 satellites of OneWeb company were successfully deployed in a single ISRO/NSIL launch from India last year.

Around 400 industry partners are already involved in India's space programme.

The number of **space startups** has grown to around **200**.

An **Indian Space Association** has been established as an industry body to act as a bridge between the private space industry and the government.

An **Indian National Space Promotion and Authorisation Centre** (IN-SPACe) acts as a single-window, independent, nodal agency to enable and facilitate the participation of private players in space sector.

Government has constituted a **Geospatial Data Promotion and Development Committee** that will also facilitate international collaboration.

Ten days back, Government of India amended its **FDI policy in space sector** to liberalise this sector for foreign participation further.

Today Indian spacetech companies are engaged in entire spectrum of spacetech from **integrated solutions** offering

launch services, satellites & earth stations

to launch pads & mission control centres;

advanced **propulsion** systems for rockets & satellites;

space-to-ground high speed **laser communication** links;

space debris detectors; debris collision avoidance systems;

satellite life enhancing and **deorbiting** services;

optical payloads; space-qualified **solar arrays**;

all-weather high-res sensors **imaging** through **small satellite constellation**;

robotics & intelligent electronics;

geospatial data intelligence for environmental indicators;

AI-based decision intelligence for agriculture, infrastructure to BFSI (banking, financial services, insurance).

Two weeks ago, **Swedish Space Corporation** and the Indian Space startup **Dhruva** Space announced their cooperation in Satellite Ground Station Network domain.

Three weeks ago, Swedish **Foreign Minister** Tobias Billström was at ISRO headquarters in Bengaluru discussing space cooperation with ISRO Chairman Mr. Somnath.

As space & geospatial technologies continue to **increasingly influence every sector** of economy offering new innovative solutions, **opportunities of collaboration** also expand.

The first ever **India Sweden Space & Geospatial Business Conclave** held three months ago, where this Embassy worked closely with SIBC and Geospatial World Chamber of Commerce, has been a good catalyst.

There is clearly a lot to explore in terms of **complementarities** in these fields between our businesses.

It is good to know that SIBC, Business Sweden and Geospatial World Chamber of Commerce are now planning the **visit of a Swedish business delegation** on space and geospatial domains to India in **June**.

Space Tech is also one of the areas covered under the **India Nordic Baltic Business Conclaves** held recently.

India and Europe are natural partners.

An **India-EU Trade and Technology Council**, launched last year is making progress. Two Ministerial meetings have already been held. This covers several areas including Digital technologies, AI, semiconductors and advanced computing.

The TTC is a testament to India and EU treating each other as **Trusted Technology** partners in these difficult times.

India and US also have launched an **Initiative on Critical and Emerging technologies**. The initiative includes space and defence technologies.

This again reflects India and the US considering each other as Trusted Technology partners.

Last week India and the four countries of **EFTA** bloc signed a Trade & Economic Partnership Agreement in Delhi.

An **India-EU FTA** is being negotiated.

It is in this context, that the **India Europe Space & Geospatial Business Summit** planned for 13 May in Rotterdam will be of special interest.

Whether we speak of **Innovation**, or **Talent** or **Market** Opportunities or **Trusted Technology** collaborations, **India and Sweden and wider Europe** are natural partners in the fast-expanding domain of SpaceTech and Geospatial applications.

I thank Sweden India Business Council and the Geospatial World Chamber of Commerce for facilitating such partnerships.

Thank You.