

**GE  
SMART**  
INDIA 2022



15 - 17 November 2022 | HICC Hyderabad, India

**#geospatial**bydefault

Empowering billions!

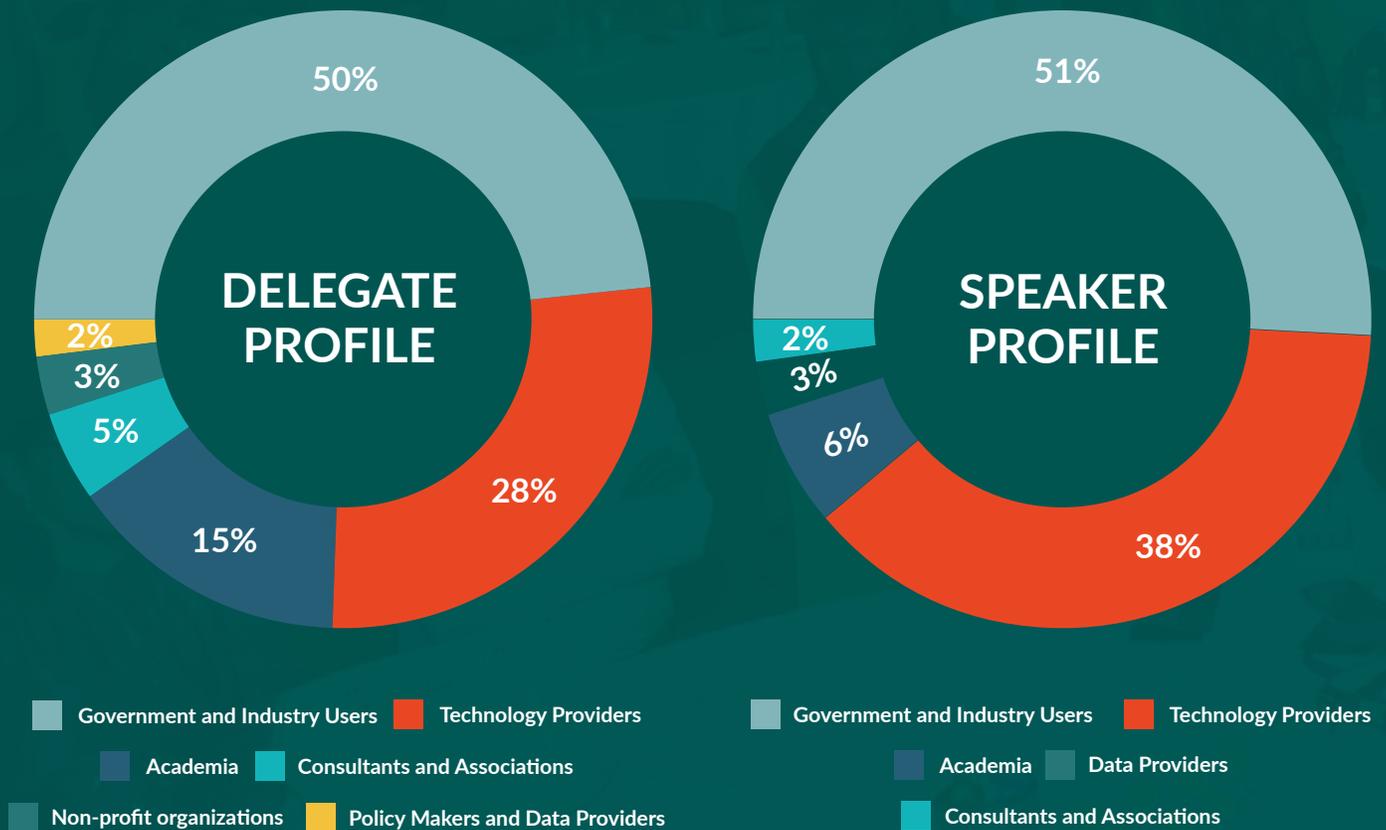


**CONFERENCE REPORT**

# GeoSmart India in Numbers



## Participation Profile



## Introduction

The 22nd edition of GeoSmart India 2022, with the theme Geospatial by Default: Empowering Billions, successfully concluded after three days of comprehensive discussions, engrossing plenaries and engaging interactions at Hyderabad International Convention Centre in Hyderabad from 15-17 November 2022. Indian Society of Remote Sensing, Indian Society of Geomatics along with Geospatial World came together to organize their annual conferences under one platform which aligned with the national vision as guided by our honourable Prime Minister about collaboration between Private and Public sector.

The conference kick-started with plenary sessions on Geospatial by default: Empowering Billions, Space Infrastructure and Geospatial Value Chain for Indian Economy, Digital Cities and Infrastructure, Geospatial for Location Analytics & Business Intelligence and Vikram Sarabhai Memorial Lecture along with GeoSmart India Excellence Awards and ISRS - ISG Awards. The conference saw the participation of 2500+ delegates from over 23 states.

The three-day conference brought together professional institutions, governments and commercial sector along with non-government organizations and academic institutions to host this conference and showcase their valuable role in national development through various national mission mode programs. Comprised of the who's who of the Indian geospatial diaspora, policymakers, influencers, technology, and solutions providers, academia, researcher, and end-user segments, the conference brought together all the stakeholders to one platform.

The conference featured a large scale exhibition, top ranked keynote speakers, major industry segments, high-level discussion programs and various social networking events. A total of 245+ speakers shared their perspective in over 50 thematic sessions. As geospatial technology today is being used in all spheres of life, this convention helped to brainstorm and further bridge the gap area in taking up the new challenges of future.

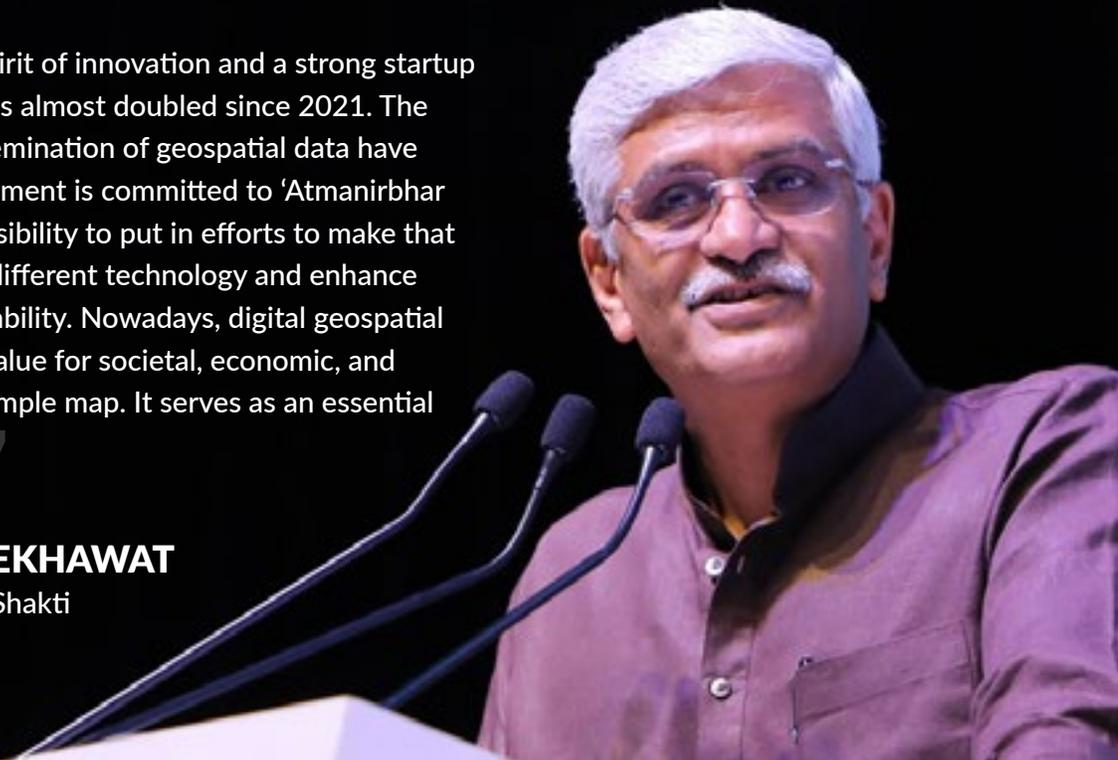
# Opening Session

India is a young nation with a spirit of innovation and a strong startup base. The number of startups has almost doubled since 2021. The collection, production, and dissemination of geospatial data have been democratized. The government is committed to 'Atmanirbhar Bharat' and now it is our responsibility to put in efforts to make that possible. We need to integrate different technology and enhance India's collective geospatial capability. Nowadays, digital geospatial information provides far more value for societal, economic, and environmental use than just a simple map. It serves as an essential national information resource.”

Chief Guest

**GAJENDRA SINGH SHEKHAWAT**

Hon'ble Union Minister of Jal Shakti



Government of India is working on a very strategic approach of building India for tomorrow. It is trying to provide an equitable and sustainable living for 20% of the world's population. This conference aligns with the national vision, as envisaged by our Prime Minister Narendra Modi, which is a collaboration between the public and private sector.”

**SANJAY KUMAR**

CEO & Founder  
Geospatial World



This is a unique event as for the first time the two professional societies have come together with a private sector entity to bring this platform for discussion and deliberation. This brings out a true spirit of liberalization of the geospatial technology - the vision of Government of India - to open the industry for wider use of the technology in various facets of life.”

**PRAKASH CHAUHAN**

President  
ISRS

“ Geomatics has always been the backbone of society. It is ubiquitous and by default in all domains. We have seen this during COVID-19, where authorities relied on Geomatics for quarantining, contact tracing, and social distancing and how identifying the exact location of sick people, tracing their movements, and isolating them minimized the need to impose mobility restrictions or business closures.”

**DR RAJ KUMAR**

President  
ISG



“ Digital technologies provide answers to some key industry challenges surrounding complexity. Survey and mapping profession is going to play a major role.”

**BORRIS SKOPLJAK**

Vice President, Surveying and Mapping Strategy & Marketing  
Trimble Inc.

“ Geospatial technology is enveloping every sphere of life and that is how it is empowering billions at the same time. There’s a need for understanding to collaborate and secure our future. Sustainability is possible, but we must change our priorities. Geospatial apps are becoming pervasive, supporting many types of workflows and management.”

Announcement of Indo ArcGIS Pro was made by him, which is being hosted on a cloud in India and to be made available in India through GeM.”

**AGENDRA KUMAR**

Managing Director  
Esri India



ISRO are working on the launch of future satellites like the OceanSat, to be launched this year. The real opening of the space sector has to happen. It cannot happen only by increasing the launch capability or building more satellites, but it will happen only when the space-based service sector is expanding. This involves the creation of user-base industries, which could innovate on the communication, remote sensing, and PNT services and merge them to produce various products and services for various sectors.”



### **DR. S. SOMNATH**

Chairman, ISRO  
(Video Message)



“India is emerging as a leader in the field of geospatial technology and its application for the service of the common man. Geospatial technologies have been very successfully used in marine and coastal applications. There are several satellites dedicated to oceanography that provide valuable information on ocean and other areas to monitor.”

### **DR. M. RAVICHANDRAN**

President  
ISG

It is the largest gathering of geospatial community comprising of industry, policy makers, innovators, scientist and technocrats. Ministry of Jal Shakti is one of the best performing ministries and has been proactively using geospatial technology in national mission of clean ganga or national hydrology project.”



### **DR. V. V. RAO**

Associate Director, National Remote Sensing Centre

## PLENARY PANEL 1

# #Geospatialbydefault: Empowering Billions

“The value of geospatial technology is increasing for people, the environment, and the economy, but is it reaching to everyone? What can be done to get the benefits of technology in the geospatial space so that it reaches to the billions?”

### KANWAR CHADHA

Founder SiRF & Executive Chairman, Akiro  
Argoid, Binatone, & Hubble



“Five megatrends shaping the future are: Sustainability; Industry 4.0 and Smart operations; Space systems; Intelligent and meta mobility, and: Digital healthcare. Across these technologies, 80% of data has a spatial extension, which aids in location-enabled offerings. We are witnessing continuous innovations in technologies such as UAVs, sensors, satellites, big data contribute.”

### KRISHNA BODANAPU

Managing Director & CEO, Cyient

“Government of Telangana is the first state in the country to set up emerging technology wing, to harness the potential of different geospatial technologies like AI, Blockchain, Cloud, drones and robotics, IoT, Big Data, space tech and additive manufacturing. We are working in 35+ projects with various partners from startups, industries, academia and foundations, which uses GIS data. Government of Telangana is working on large scale projects which may not reach billions but are reaching millions of the people of the state and empowering them.”

### L RAMADEVI

Officer on Special Duty (ITE&C) Department  
Govt of Telangana



“We can empower billions when we understand the power of standards and collective problem solving. Even with availability of data, there are four major hindrances: (Re)useable, findable, interoperable, and accessible to people. We need to lower the barriers for all to leverage spatial power, so that anyone can use the data. We need to invest more in our foundations and go back to basics, instead of just talking about data integration and data analysis.”



## NADINE ALAMEH

CEO  
Open Geospatial Consortium

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“Climate change is a reality, and we have to come to terms with the fact and then the next question arises What can be done? Once we identify the pain points, we have to use geospatial technology in terms of developing the climate resilient societies.”

## DR. PRAKASH CHAUHAN

Director  
NRSC and President - ISRS

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“Digital Twin is here to make a difference to lives of average Indians. A decade ago Genesys has launched a map platform with immersive view which in the light of current policy have been morphed into 3D digital twin. This will help the urban citizen and will benefit the users at large with multiple applications associated with it like emergency response, property tax.”



## SAJID MALIK

Chairman & Managing Director  
Genesys

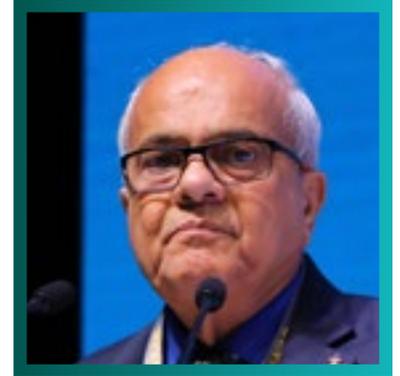
## PLENARY PANEL 2

# Space Infrastructure and Geospatial Value Chain for Indian Economy

“The demands of the stakeholders today have changed. The nature and complexity of the applications requires integration of disparate datasets coming from different sources, processing them to bring them to a common scale, common format, common calibration, and normalization. The entire process goes through the value chain to provide a solution or decision support systems.”

### DR R.R. NAVALGUND

Former V S Distinguished Professor and Former Director Space Applications Centre, ISRO



“Department of Land Resources has organized its geospatial data through unique land parcel identification number (ULPIN) which is a 14 digits – Alpha-Numeric unique ID for each land parcel based on Geo-coordinates of vertices of the parcel. This is of international standard, complies with Electronic Commerce Code Management Association (ECCMA) standard and Open Geospatial Consortium (OGC) standard”

### DR HUKUM SINGH MEENA, IAS

Additional Secretary, Department of Land Resources, Ministry of Rural Development

“There is a need to place the geospatial content into the planning process at Panchayat level. Through Gram Manchitra – A Geospatial Based Decision Support System for Panchayats, Ministry of Panchayati Raj has empowered the grassroot level stakeholder to prepare their annual plan for development and utilizing the available resources with them for implementing the plan.”

### ALOK PREM NAGAR

Joint Secretary, Ministry of Panchayati Raj



“The space data and the data generated by different sensors – optical or hyperspectral, is a layer to be fused to be merged with in-situ data. The requirement of a satellite should be market driven and user driven who is going to use the data, the frequency that they require or the spatial resolution requirement of the solution.”



### **MASSIMO CLAUDIO COMPARINI**

Deputy CEO  
Thales Alenia Space

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“Advancement in mobilizing AI and Machine Learning enrich the use of geo-spatial technologies nowadays and in future Quantum Computing i.e. will bring a big change in the speed of receiving satellite data and its processing.”

### **KANAME IKEDA**

President  
RESTEC, Japan

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“We have made a quantum jump in terms of space infrastructure which is providing different alternatives and integrated solutions to address the impending challenges for development issues and sustainability to leapfrog current stage of development.”



### **BASANTA RAJ SHRESTHA**

Director Strategic Cooperation, Directorate  
ICIMOD

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“The demand for space services is soaring worldwide and in India, with satellite data, imageries and space technology being used across most sectors. To bring in the innovation needed for developing space-based applications and services and increasing the scale, the sector has been opened up for private players.”

### **DR CVN RAO**

Deputy Director  
MRSAC, SAC

## PLENARY PANEL 3

# Digital Cities and Infrastructure

“To pull next billion people out of poverty, infrastructure equivalent to seven Europe’s need to be built. Digital Twins is used to provide thought process for the type of infra to be developed.”

### BHUPINDER SINGH

Principal  
InTwin Insights & Board Member  
Irth Solutions



“All infra is based on data, and it needs to be cost-effective. Accurate geospatial data is critical for telecom networks, for site selection and network coverage. Asset integrity is key along with digital standardization for all the use-cases. Interoperability and ensuring the quality and authenticity of data is also a key factor.”

### DR. MIKE SHORT

Chief Scientific Advisor  
UK Department of International Trade

“Digital cities and resilient infra of the future are not only a highly relevant application area of frontier technologies and their intersection, but also provides a glimpse of how highly connected, smart urban spheres will look like. Due to population explosion and trends such as migration to cities and the toll of global warming and other ecological hazards, designing resilient, digital cities is an imperative for a sustainable future.”

### KAI UMINO

President  
Topcon Positioning Asia, Member of Topcon Sokkia Positioning Japan



“Data-based actionable insights are driving everything today, from the most commonplace applications to highly specialized projects. SAR satellite can capture the ground terrain and shape of infrastructure like building. Data collection, aggregation, refining, processing, and then precise analytics serve as the bedrock of multiple sectors. Spatial data and the capability to make sense of it, is also crucial to ensuring connectivity in the city, and planning smart mobility options for curtailing emissions.”



### DR MOTOYUKI ARAI

Founder & CEO  
Synspective



“A city can only be digital or smart when we truly are able to put the assets into 3D models, able to populate it with the real status of the infrastructure that are below or above the ground and integrate it with the real time information. These 3D model integrated with the command control centre through an app can keep the city safe.”

### PRAMOD KAUSHIK

President & MD  
Hexagon



## PLENARY PANEL 4

# Geospatial for LA&BI

“For decades, location technology has been incorporated by industries from around the world. Still one of the premier offerings from the Geospatial technology gamut, location technology offers perks like no other technology. Its prominence, thus, comes as natural. The analytics and data provided by location technology merge perfectly with business intelligence.”

### DR. SHAILESH NAYAK

Director  
National Institute of Advanced Studies



“It is not only about mapping physical infrastructure but it also encompasses as a tool for the purpose of monitoring the performance of different ministries against which individual projects have been planned, mapped and are being monitored using PM Gatishakti as a tool.”

### ABHISHEK CHAUDHARY

Vice President - Corporate Affairs, HR & Company Secretary  
National Industrial Corridor Development Corporation

“Location analytics intends to improve overall performance index and lot of the contribution that government already doing by identifying and laying the infrastructure in place but I think a lot of things can also happen on the granular level, monitoring of what is actually happening.”

### PUNEET AGARWAAL

Vice President  
IoT Mobility - Reliance Jio Infocomm Ltd



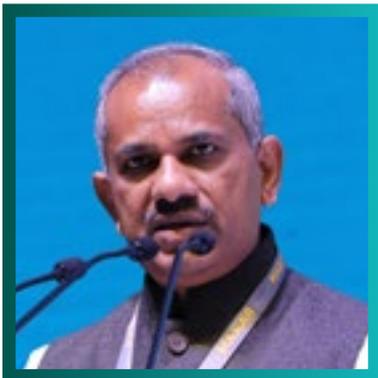
“The BE (next multiplier of economic growth) policy will significantly enhance the contribution of the BE to India’s GDP, improve lives of coastal communities, preserve our marine biodiversity and maintain the security of our marine areas and resources.”

**AZAD MISHRA**

Sr. VP  
Rural and Agri business group  
HDFC Ergo



## Vikram Sarabhai Memorial Lecture



“The BE (next multiplier of economic growth) policy will significantly enhance the contribution of the BE to India’s GDP, improve lives of coastal communities, preserve our marine biodiversity and maintain the security of our marine areas and resources.”

**DR. M. RAVICHANDRAN**

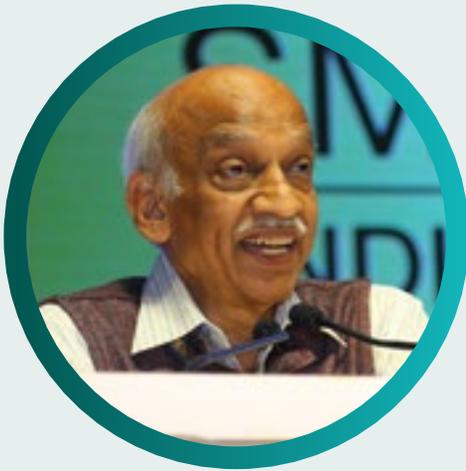
Secretary  
Ministry of Earth Sciences



## CONCLUDING PLENARY PANEL

# Space Infrastructure and Geospatial Value Chain for Indian Economy – Way Forward

The concluding plenary emphasized the role of broad stakeholder collaboration and deliberated on the way forward for the geospatial industry.



“At the outset, I should say this is a very significant event. Today the world is changing very fast, and technology is evolving so rapidly that those who don't adopt it, will be left behind. In this context, science and technology development is fostered by certain entities. If there's any country that has a value system that the world should remain sustainable, it is India. We are at the threshold of change, and each one of us, people at large, including academia and enterprises, need to participate and become actively involved. Things are going very fast, and in this era we can make a difference by going beyond science & technology and focusing on how we can live on this planet sustainably.”

Chief Guest

**A.S. KIRAN KUMAR**

Member of Space Commission and Former Chairman, ISRO

“We have a responsibility to provide an equitable and sustainable living to our people, and at the same time contribute to global development. The Indian population in terms of age is the biggest human resource in the world. In this context, space technology, be it communication, or observation, will play a crucial role. When we look at 4IR, driven by space and geospatial, it underscores the criticality of these technologies as the foundation of the next industrial age.”



**SANJAY KUMAR**

CEO & Founder  
Geospatial World

“There is a way forward now due to new geospatial guidelines, space reforms, and creating new ecosystems. We have seen the way geospatial industry has grown, and the kind of capacity it has achieved. We want to use the capability of entire geospatial community as a knowledge partner.”



## SHANTANU BHATAWDEKAR

Scientific Secretary  
ISRO



“Way forward for us is to communicate and utilize the huge capabilities, and to engage with academia for a broader collaboration. There’s a lot for us to learn from each other and be a part of globalization.”

## BRIG ALI ALSHEHHI

Director  
National Space Science & Technology Centre, UAE

“Biggest challenge that we face is reducing emission and furthering sustainability. Space plays a very crucial role in achieving the SDGs and decarbonizing the world. The all encompassing geospatial is going to play a very important role to understand our world much better in times to come.”



## PRAKASH CHAUHAN

Director  
NRSC and President, ISRS



“We need to be more interactive, and not take a siloed approach. We have to integrate all datasets so that some particular solution can be devised. From the point of view of climate change mitigation as well as disaster preparedness and management, we need all datasets.”

## RAJ KUMAR

President  
ISG

# Land & Property Management

**Theme: Emerging Technology Streamlining Good Land Governance**

Co-Organizers



Cloud Partner



## Key Takeaways

- Without land access and rights, there can be no progress in agriculture. For those who are poor and marginalised, land records are crucial. In the near future, we will finish all the land surveys, even in states with high land rights disputes.
- The usage of geospatial technology is most in the land sector. With the help of geospatial, we can advance land and property management rights, improvise the records, and come up with solutions against encroachment.
- There are lots of challenges that geospatial can help overcome. To prevent forgery and Benami property, there has been a centralised process and registry of all records. Digitalisation of land records has empowered the citizenry. We have attempted to make the portals multi-lingual so that there is ease of access at all levels of the society.
- A concerted effort by all stakeholders is required to realise the goal of sustainable development in gram panchayats as it's not a time to be a game changer but a time for aim changer.
- Svamitva scheme is envisaged to create systems that promote transparency in the implementation of the scheme, promote the adoption of record of rights for availing bank loan, develop linkages between different departments for informed decision-making related to property tax assessment and collection, accurate village level-planning, and increasing capacity at State, District and Block level for geospatial skillsets, among others.
- Proper training and capacity building is essential to ensure the benefits reaches to the last mile beneficiaries and ensuring their participation in participatory planning process. Efficient last-mile delivery of services holds the key to fast-tracking all-round development in rural areas across the country.
- Taking the digitalisation process further, all the land holdings of the country would be linked to the Aadhaar of the owners. Land-related disputes need to be resolved by strong legislation in a time-bound manner. The objective of the whole exercise is to achieve One Nation One Software for the registration of land. More than 60 per cent of the litigation in India is land related.



## Speaker Organizations

Survey of India | Representatives of Department of Survey & Settlement | Department of Panchayati Raj Department of Rural Development | Department of Land Resources | Department of IT | State Planning Department Amazon Internet Services | Esri India | Trimble Genesys | Garudalytics | Synspective | Pan India Consultants | IIC Technologies | NeoGeoInfo Technologies | PIX4D| Scanpoint |Geomatics Planet| Hexagon India

# Water Resources

Theme: “Namami Gange” to “Arth Ganga “ - Building Commonomics

Co-Organizer



Supporting Partner



Knowledge Partner



## Key Takeaways

- The PM Gatishakti National Masterplan emphasizes that all physical assets and infrastructure created by the central government, states, and governing bodies must be mapped and synchronized with existing infrastructure. GIS-based map layers are used for this, and almost all government agencies now have a unit setup in their headquarters.
- More geospatial components, such as location analytics, to complement business intelligence will only increase logistics and supply chain efficiency.
- As location technology advances and becomes a reality for industries worldwide, supply-chain and logistical issues appear more efficient.
- India lacks long-range drone testing facilities
- Organizations are dealing with an increasing number of sustainability-related demands and dangers, ranging from climate change to species extinction, diversity, equity and inclusion and responsible supply chain management.
- Satellite data is helping identify property and location intelligence, validate claims and assess impact.
- Synthetic aperture radar Images are used to detect ships automatically by combining object detection technology with machine learning techniques. For SAR image analysis, data collected from the scattering intensity of satellite radio waves is used. Data from scattering intensity and coherence estimation are used to detect and monitor ship movements.
- Geospatial technologies is used for Reducing hours and miles while improving vehicle utilization, evaluate and control transportation spend, Increase on-time performance and provide superior end user based services.



## Speaker Organizations

Trimble | ESRI | IIT-Roorkee | National Environment Engineering Research Institute | National Water Development Agency  
Foundation of Ecological Survey | Vassar Labs | Satpalda Geospatial Services | National Institute of Hydrology | Ganga Flood  
Control Commission | Bentley Systems | Nurture Farm | Suhora | Garuda UAV | Sagarmitra Abhiyan | Jal-Biradari | Art of  
Living | SKECT | Nature Environment Life Academy | World Water Council

## Key Takeaways

- The fifth industrial revolution is dawning upon the world in unforeseeable ways as we increasingly rely on Industry 4.0 technologies including Artificial Intelligence (AI), Big Data (BD), the Internet of Things (IoT), digital platforms, augmented and virtual reality, 3D printing and Metaverse.
- Urban population increases steadily globally, 30% in 1950 to 55% in 2018 and expected to be 60% by 2030 . 100 cities being selected for converting to smart cities. This is one of the largest urban renewal and retrofitting program. Citizen friendly and sustainable are the two key objectives.
- Geospatial technology connects to almost all aspects of any infrastructure development from planning to design to built to operate stage. Depending on the stage, right technology needs to be selected. Understanding all these development in a 3D environment is possible with the advanced geospatial technologies available in recent times.
- A city can only be digital when you are truly able to put the assets into actual 3D models and able to populate it with real status of infrastructure, feed it with actual information on sensors and taking an action from a command control centre. More than 70% of Our decisions are based on Geospatial Data which includes Positioning, Geometry & Boundaries, Geo- Coded Addressing and Imagery & Analytics
- City Information Modelling (CIM), also known as Civil Information Modelling takes data collected from a variety of sources and weaves it all together to create a highly interactive 3D model of large-scale urban environments.  
Everything from above ground structures to below ground infrastructure is included in the model. Though not yet as universally established as BIM, CIM is poised to revolutionize how the cities of the near future are planned, designed, and operated.
- The various challenges that Digital Transformation faces can be summed up as Lack of Technological Awareness, Unscalable and Complex IT Infrastructure, Lack of Collaboration, Financial Constraints and Data Security and Privacy.



## Speaker Organizations

NULP | NUDM | Information Kerela Mission | PWC | TCPO | Coimbatore smart city | Surat Smart city | IIT Hyderabad | ISRO | Google | ESRI India | Trimble | FARO | Maxar | Presagis | Bentley Systems | Tech Mahindra | NTPC | Satpalda | Roter GeoMeta | Infosys

# Banking, Financial Services and Insurance (BFSI)

Supporting Partners

**FIDC**  
FINANCE INDUSTRY DEVELOPMENT COUNCIL

**Theme: Location Intelligence: Empowering the Indian BFSI Industry**



## Key Takeaways

- The biggest responsibility for BFSI companies is to optimize their services and offerings to both physical touchpoints and digital touchpoints. With accurate insights from location intelligence, BFSI companies can develop highly tailored financial products that are tied to customer demographics
- Banks use geolocation technology to help customers find nearby ATM branches, branch timings, products, and services offered and book an appointment with the bank manager also Geocoding has an auto-complete feature that provides address suggestions, once the customer starts typing the form.
- Accurate geospatial information is essential for any bank looking to provide customers with enhanced services and insights into their spending and saving patterns. Geomarketing can increase 8%+ Or more in Net Promoter Score, 8%+ Or more increased time spent in-app and 3%+ Or more increase in on-premise foot traffic.
- Location intelligence can help detect fraud faster and more effectively, all while improving user experiences. Suspicious activity like large ATM withdrawals can be detected as they happen by requesting secondary confirmation via the customer's phone and ensuring their location matches that of the ATM. This helps detect fraudulent transactions before money is released. Also, distance Matrix can help recognize suspicious patterns by revealing where a series of transactions occurs in relation to one another.
- Geospatial technologies are playing a key role helping Insurance companies to address core business challenges like how to improve the claim management process, better document handling, reducing fraud incidents as well as visualizing critical data to make analytics-driven decision making. Its helping insurance firms to determine the plausible impacts of the natural calamity within a specific locality.
- Collaboration of Geo Intelligence with 5G and Blockchain will be a game-changing factor in the financial world also has a potential to lead businesses and individuals across the globe towards a better future. Blockchain empowered by 5G together could elevate digital and micropayments to a completely new level. Blockchain as a technology requires huge network capacity to function optimally. This is another reason why 5G is a boon as it is highly capable of providing the required network capacity.

## Speaker Organizations

Agriculture Insurance Company of India | Future Generali India Insurance| HSBC | HDFC Ergo | ICICI Bank IndusInd Bank| Bharat Financial Inclusion| FIDC | Bajaj Allianz General Insurance| Samunnati | Godrej Capital Muthoot Pappachan Technologies Pvt. Ltd (Muthoot Fincorp Ltd.) | Google Maps | Easy Pay | Blue Sky Analytics BSE EBIX Insurance | MUST Research | Block Stack | Skymet Weather | Precisely (Lepton Partner) | Esri India SatSure Analytics | Infosys BPM | Aitz Technologies | India Blockchain Forum | Snapper Future Tech



# Supply Chain Management

Knowledge Partners

Theme: Location Intelligence - Reimagining Supply Chain



## Key Takeaways

- The PM Gatishakti National Masterplan emphasizes that all physical assets and infrastructure created by the central government, states, and governing bodies must be mapped and synchronized with existing infrastructure. GIS-based map layers are used for this, and almost all government agencies now have a unit set up in their headquarters.
- More geospatial components, such as location analytics, to complement business intelligence will only increase logistics and supply chain efficiency.
- As location technology advances and becomes a reality for industries worldwide, supply-chain and logistical issues appear more efficient.
- Organizations are dealing with an increasing number of sustainability-related demands and dangers, ranging from climate change to species extinction, diversity, equity and inclusion and responsible supply chain management.
- Geospatial technologies is used for Reducing hours and miles while improving vehicle utilization, evaluate and control transportation spend, Increase on-time performance and provide superior end user based services.

## Speaker Organizations

Pipavav Railway Corporation Limited | Vadilal Industried Limited | Indian Railways | RSA Global  
DB Schenker | Stockarea | AMM – A Woolpert Company | UNL | Chartered Institute of Logistics and Transportation | Maxar  
Techologies | Open Geospatial Consortium | GalaxyEye Space | Black Sky Lepton Software | Genesys International | Marvel  
Geospatial Solutions | Passenger Drone Research Private Limited | Marut Drones | Indowings



# Geospatial Artha Summit 2022

Geospatial World's Geospatial Artha Summit is a one-of-its-kind geospatial conference for the business professionals of India and was organized to facilitate interactions, market engagement, and collaborations among the leaders representing the gamut of Indian geospatial and allied (technologies) industries and associated vertical industries. The thought leaders from the industry discussed about the Indian geospatial industry, market and economy, future trends and directions, industry's technology trends and innovation, business model transformation, co-innovation through partnerships and collaboration and growth of Indian geospatial industry through system integration and workflow management.

- The Geospatial Ecosystem heading to become “multi- source, multi domain, and a multi-platform” and in that world there's no such thing as one single company doing everything end to end hence partnerships & collaboration is the key to provide outcomes that the market requires.
- The creation of analytics-ready data by the industry for end-user applications boosts the effectiveness of the geospatial ecosystem. Given the government's emphasis on start-ups, there is also the possibility for many creative start-ups to develop novel ideas that will propel the expansion of the sector.
- The three main factors that will influence the Indian geospatial market and economy in the future are Reforms, Revenue, and Resources. . The industry needs Demonstration, custodianship, and education.
- India is a young nation with a spirit of innovation and a strong start-up base. The collection, production, and dissemination of geospatial data have been democratized. The government is committed to 'Atmanirbhar Bharat' and now it is the industry's responsibility to put in efforts to make that possible.
- A handful of entrepreneurs in space upstream, data and analytics, artificial intelligence and machine learning and digital twins are driving technology innovations across the geospatial industry workflows.
- In isolation or in silos, there has been an integration happening. Also, from India's perspective, we are at the cusp of a new chapter of geospatial. If we've to unpack, what does it mean, there're a lot of opportunities to come together and support the geospatial ecosystem.
- Transformation is a foot in the geospatial domain as well, with companies trying their best to exceed customer expectations, foster innovation, and build collaborative mechanisms. Precise, frequently updated data is a key requirement for an on-demand service model.



## Industry Partners



# Partnership Programs



Forest Fire Regional Consultation Workshop  
(By Forest Survey of India)



India-Japan Geospatial and  
Space Business Summit



Mentoring Panel



NGP / NSDI Meet



OGC India Forum



Roundtable Discussion Assured PNT



Surveyor Training on Understanding  
Technology Trends and Meeting User Needs



Positioning Technology for Different  
Industry Segment



India-US Geospatial and Space Business Summit



GIS Tech Talks (By Esri India)

# ISRS/ISG National Symposium and Annual Conventions

**Theme:** Geospatial Technology: Journey from Data to Intelligence

## Key Takeaways

- The effective delivery of good governance requires integration of technology for efficient and transparent functioning mechanism in governmental work. One of the key applications of geospatial technology is to aid policy makers in taking spatially enabled informed decisions. G-governance is imperative for realizing the objectives of good governance.
- Very few studies have been conducted to understand the applicability and limitations of these methods in assessment of variations of glacial components at a regional scale. One such variable component is Snow Line Altitude (SLA).
- Location based crime data of Vadodara city were analyzed using Geographical Information System. Neighborhood analysis is carried out on location-based crime data and existing police station. The outcome of the present study is vulnerability map and density map which states vulnerability of area on various scale of crimes.
- Snow accumulation is a significant factor for hydrological planning, flood prediction, traffic-ability, avalanche control, and numerical weather or climatological modeling. Current snow depth methods fall short of requirements. Snow Depth Inversion Models pertaining to coefficient of correlation of about 0.75 are obtained for glaciers and about 0.80 are obtained for lake region.
- One of the many consequences of urbanization is the expansion of cities into rural areas, which leads to the transformation of lands from natural surfaces to developed surfaces, and an increase in impervious surfaces, such as stone, concrete, asphalt, metal, and other materials with a tendency to trap heat and overheat, that release heat more quickly. The condition of urban ecosystems affects human well-being and how cities impact their surroundings. As a result, significant changes in the urban climate may occur.
- The function of the rocket guidance system is to provide the rocket stability during launch as well as maneuvers to keep it on proper track. This function is accomplished with the set of sensor data, on-board computer and the communication equipment along with a radar. As the power is limited on the rocket it requires a very low power consuming memory device and moreover compact in size. Both the requirements can be fulfilled with a memory system designed using Nanodevice such as Single-Electron-Transistor(SET) or even using the hybridized structure of SET-MOSFET(Metal-oxide-field-effect-transistor).
- Jalasamrudhi website ([www.jalasamrdhi.com](http://www.jalasamrdhi.com)) is a dedicated website of the water resource management project features all the activities undertaken under the project, viz. the preparation of water resources management plan, activities conducted in the field in a chronological order, the reports published at various stages of the project, photographs and videos of activities, maps in webGIS platform. The details of the management plan are made public so that all the stakeholders could get information of the available resources and understand the activities proposed for each resource. This could save much of the time and avoid duplication and ensure transparency and convergence.





# Awards and Recognitions

## Geospatial Artha Business Leadership Awards

Innovative Location Platform : Powering business enterprises: **Transerve**

Innovative Startups: Advancing Analytics for Impact : **Garudalytics Pvt Ltd**

Innovative Solutions : Advancing Value for Indian Economy: **Neo Geo Info Technologies Pvt Ltd.**

Innovation in Upstream: Advancing Space for All: **Skyroot Aerospace Pvt Ltd**

Innovative Marketing Campaign : Advancing business impact: **Map my India**

Industry Academia Partnership : Empowering Future Professionals : **Bentley Systems**

Best Workplace Culture: **Esri India**

Business Leadership: **Dr. P Subba Rao**

Innovative Partnerships: enhancing Consumer Experience : **Google, Genesys International, Tech Mahindra**

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## Geospatial World Leadership Awards

Lifetime Achievement Award: **Dr. Shailesh Nayak**

Leading Institution: **IIT Roorkee**

Business Leadership: **Agendra Kumar**

Leading Geospatial State: **Uttar Pradesh**

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## Geospatial World Excellence Awards

Safety and Mobility: **Nagpur Municipal Corporation**

Geospatial for Banking: **ICICI Bank**

Geospatial for Insurance: **HDFC ERGO General Insurance Company Ltd**

Geospatial for Cities: **Varanasi Smart City**

Geospatial for Logistics: **National Industrial Corridor Development Corporation**

Geospatial for Utilities: **Coimbatore Municipal Corporation**

Geospatial for Infrastructure: **Delhi Indira Gandhi International Airport**

Geospatial for Healthcare: **Medulance**

Geospatial for Agriculture: **nurture.farm**

Geospatial for e-Governance: **Panchayat and Rural Development, Government of Assam**

Geospatial for Disaster Management: **National Disaster Management Authority**

Geospatial for Land and Property: **The Directorate of Registration and Stamp Revenue, Govt. of West Bengal**

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## Special Acknowledgment Award

User Driven Collaborative Geospatial Infrastructure Network: **Survey of India**



# Release: Reports, Book and Album

## Release of Geospatial Artha Report on Geospatial Strategy for National Development



## Release of "Geology from Space"



## Release of "Abstract Volume of ISRS - ISG National Symposium and Annual Convention"



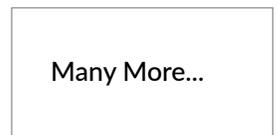
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- A. P. Space Applications Centre
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- Adani Enterprises Ltd.
- ADRIN Department of space
- AGI
- Agriculture Insurance Company of India
- Allterra
- Altz Technologies
- Amazon Web Services
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- Department of land resources
- Department of Marine Biotechnology, AMET Deemed to be University
- Department of Rural Dev & Panchayati Raj, Jammu & Kashmir
- Department of Survey & Settlement, Tamil Nadu
- Department of Town & Country Planning, Govt. of Karnataka
- Drogo Drones
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- Land Records & Settlement, Govt. of Tripura
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- Survey of India
- Tata power Delhi Distribution limited
- Thales Group
- TRAC
- Trans Global Geomatics Pvt. Ltd.
- Transerve Technologies Pvt Ltd
- Trimble Inc.
- Wipro
- World Geospatial Industry Council (WGIC)
- Xtragen Technologies
- YellowScan

And many more..

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