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# Geospatial Data & Map Guidelines , Policies & Interventions



## DST Guidelines

- Issued by Department of Science & Technology in February 2021
- Guidelines for acquiring and producing Geospatial Data and Geospatial Data Services including Maps

## National Geospatial Policy

- Issued by DST in 2021 to devise a comprehensive policy framework for the “advancement of geospatial technology..
- Citizen-centric policy that liberalizes the geospatial sector and democratizes the datasets generated by various agencies.
- Aims to develop the Geospatial Infrastructures and also seeks to strengthen the national and sub-national arrangements for generation and management of geospatial information.

## DGCA Drone Rules

- Issued by Directorate General of Civil Aviation in August July 2021.
- Guidelines contains Rules for Registration , Compliance , Flying Operations, Remote pilot licensing & Training , Safety guidelines for unmanned aircraft system

# DST Guidelines



- ✓ Utilization of Locally available and locally relevant Maps.
- ✓ Freely available Geospatial data of restricted zone and rendering of policies/guidelines used to regulate such information.
- ✓ Free processing of acquired Geospatial Data, build applications and develop solutions.
- ✓ Constitution of Geospatial Data Promotion and Development Committee to promote activities related to collection, generation, preparation, storage, publication, updating and/or digitization of Geospatial Data.

## Guidelines for acquiring and disseminating geo-spatial data

Geospatial data is critical to the success of modern industry offering location-based services such as eCommerce, delivery and logistics and urban transport



The guidelines will make data generated by various agencies including maps for the country accessible

These will absolve requirement for prior approval, security clearance, license or any other restrictions on the collection, generation, preparation, dissemination, storage, publication, updating and/or digitization of geospatial data except in specific cases



The mapping industry will be liberalised & existing datasets democratised, a crucial requirement for achieving India's policy aim of Atmanirbhar Bharat & the vision for a 5 trillion-dollar economy

# DST Guidelines



Liberalised guidelines for  
geospatial data usage to  
empower ease of living  
quality life



- ✓ No restriction on export of Maps/Geospatial Data
- ✓ Accessibility of produced Geospatial for scientific, economic and developmental purposes.
- ✓ Measures to simplify procedures, revise/abolish various forms/licenses and use modern techniques such as cloud, open APIs and others to make its data accessible online in a useful format by SOI or other Govt Agencies.
- ✓ Using Administrative boundaries Maps & Sol published maps as standard.
- ✓ All citizens, companies, and organizations including Government agencies, producing Geospatial Data and information shall be encouraged to collaborate in mutually beneficial manner and work towards open-linked Geospatial Data.

# National Geospatial Policy



- ✓ Intends to promote the use/reuse of geospatial data/products/solutions/services by providing open data/services/solutions at national and sub-national levels.
- ✓ The Policy seeks to create, nurture and develop a geospatial ecosystem that would enable and encourage
  - Spatial thinking
  - Add to geospatial knowledge
  - Strengthen geospatial infrastructure,
  - Augment capacity building and promote effective use of Geospatial Data, Products, Services and Solutions (GDPSS) and boost geospatial entrepreneurship.
- ✓ Geospatial Sector in the country has tremendous potential in creating employment. The contribution of geospatial sector to the Indian economy as per industry estimates is around INR 20,000 crore including INR 7000 crore in terms of export of geospatial services. India is the second most preferred market for the global geospatial industry. India employs about 250,000 geospatial professionals, which includes about 50,000 professionals associated with government agencies.

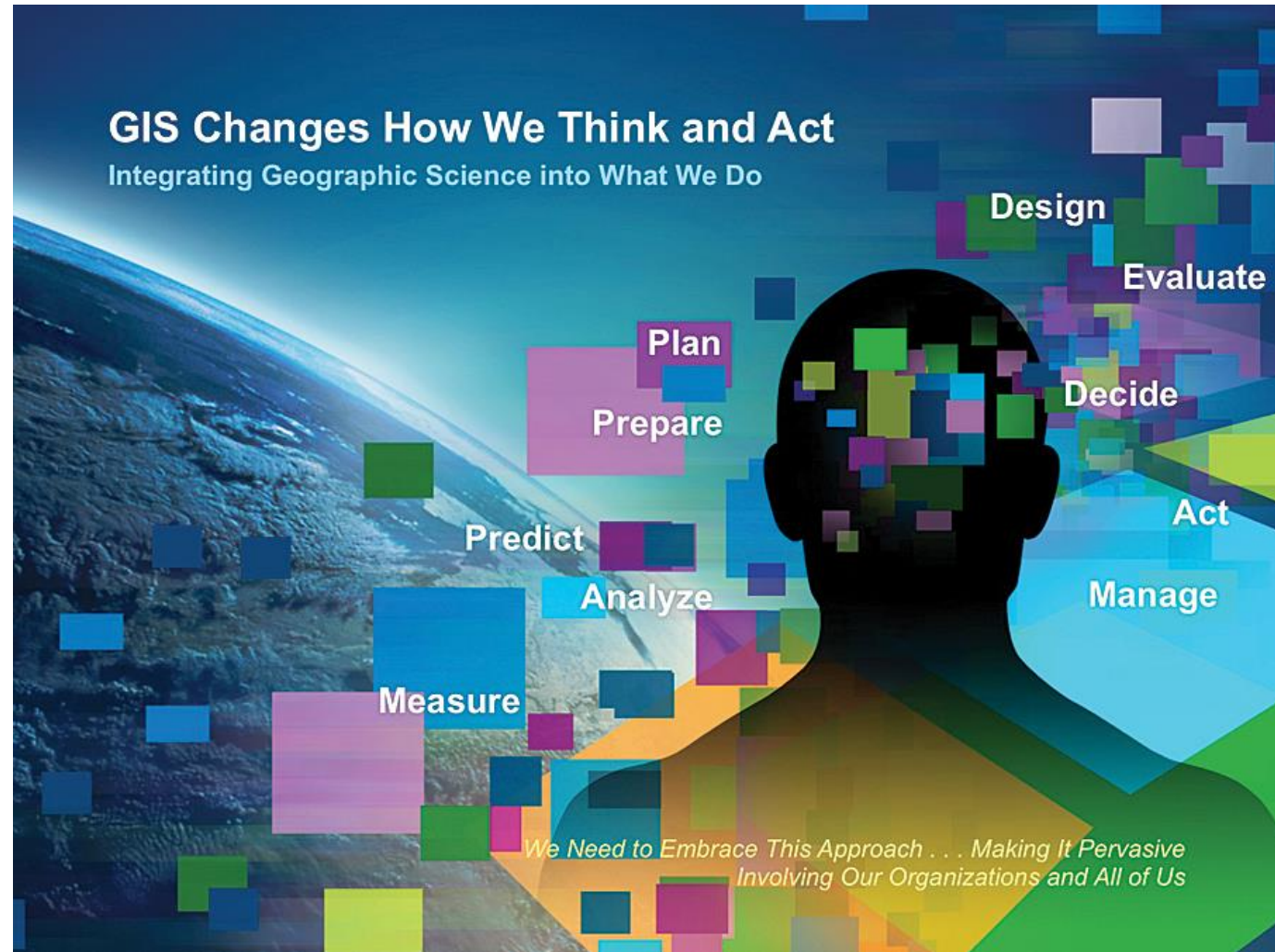
# National Geospatial Policy



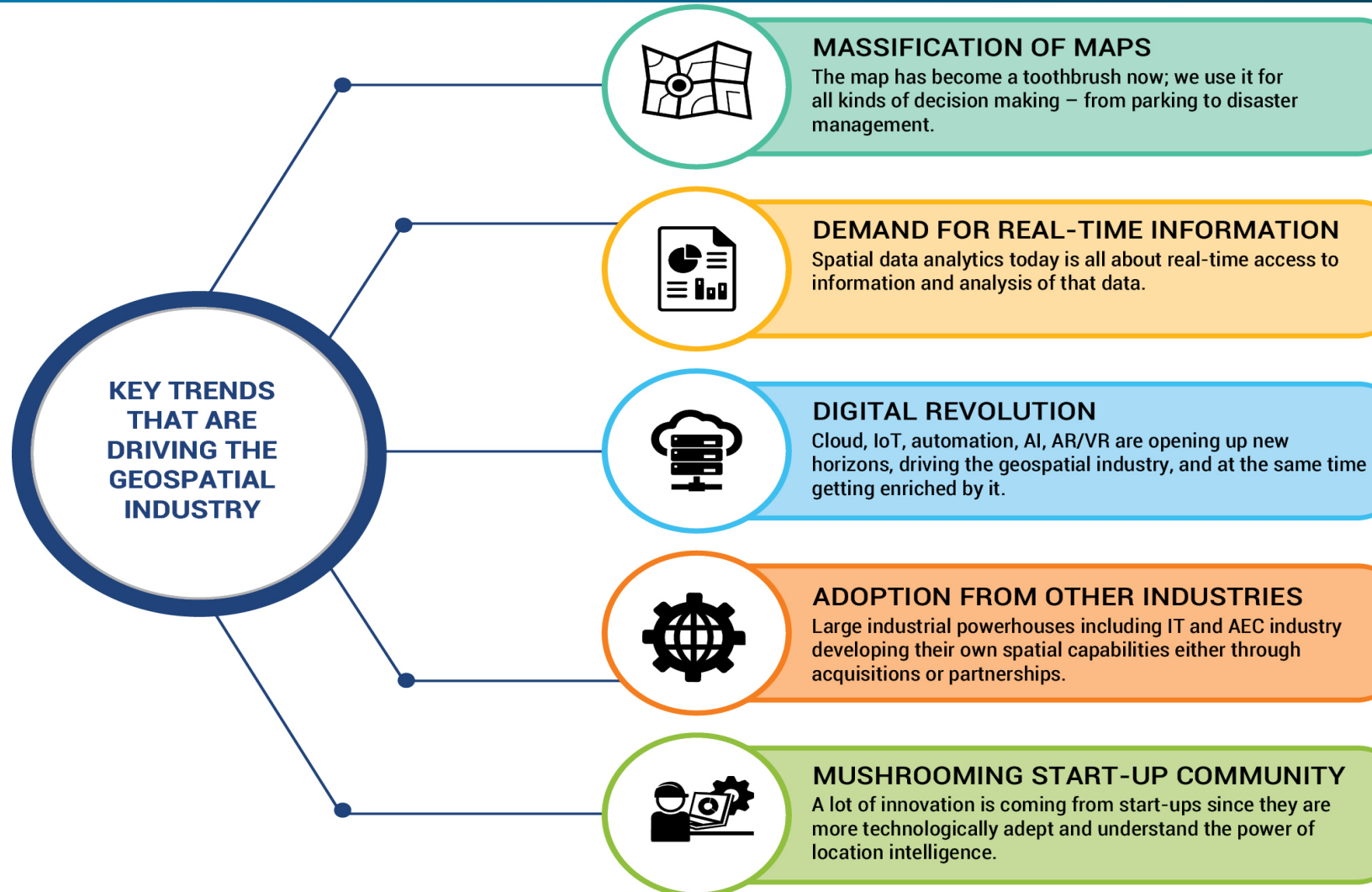
- ✓ Vision and Goals
- ✓ Strategy and Approach
- ✓ Institutional Framework
- ✓ Geospatial Knowledge Infrastructure (GKI)
- ✓ Geospatial Education and Skill Development

## Geospatial Business

- Use of Geospatial Data, Products, Services and Solutions
- Geospatial Enterprise
- Geospatial Data Promotion and Development Committee (GDPDC)



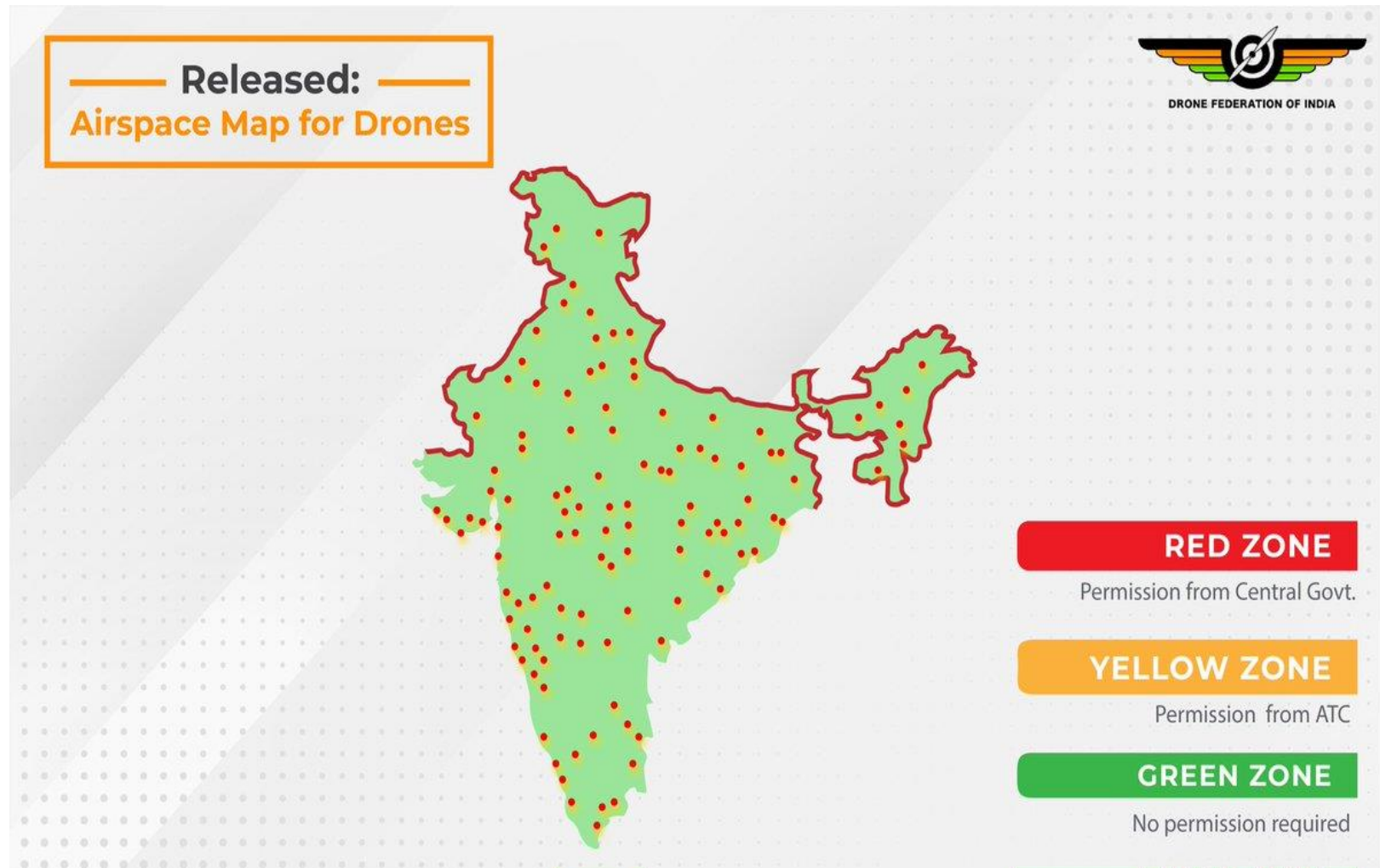
# Geospatial Industry Trends



# DGCA Drone Airspace Map



**Airspace map** – The Central Government (DGCA) has a digital sky platform, having an airspace map for drone operations segregating the entire airspace of India into red zone, yellow zone and green zone, with a horizontal resolution equal or finer than 10 meters.





# Liberalization in Drone Operations



With liberalization & amendment of rules , No prior permission shall be required for operating an unmanned aircraft system in a green zone.

Before commencing drone flying operations in green zone , a remote pilot shall mandatorily verify the digital sky platform for any notification or restriction applicable to unmanned aircraft system operations in the intended area of operation.

**Interactive maps.** – The airspace map for unmanned aircraft system operations shall be so designed as to be programmatically accessible through a machine-readable Application Programming Interface and interactive in serving unmanned aircraft system pilots to plot their proposed flight plan and easily identify the zone within which it falls.

- ✓ Liberalization in Drone Licensing & Training



# Liberalizing Geospatial Policies- Industry Interventions



- Impact of Geospatial Policies relaxation on Industry
- Improvement in Drone ecosystem
- Boom in Geospatial Data & Maps Generation
- Technology Intervention
- More Industry Participation
- Influence on Private Sector Ecosystem
- Employment Opportunity & Manpower Boosting
- Upscaling Indian geospatial economy

# Technology Intervention: Continuously Operating Reference Stations (CORS)

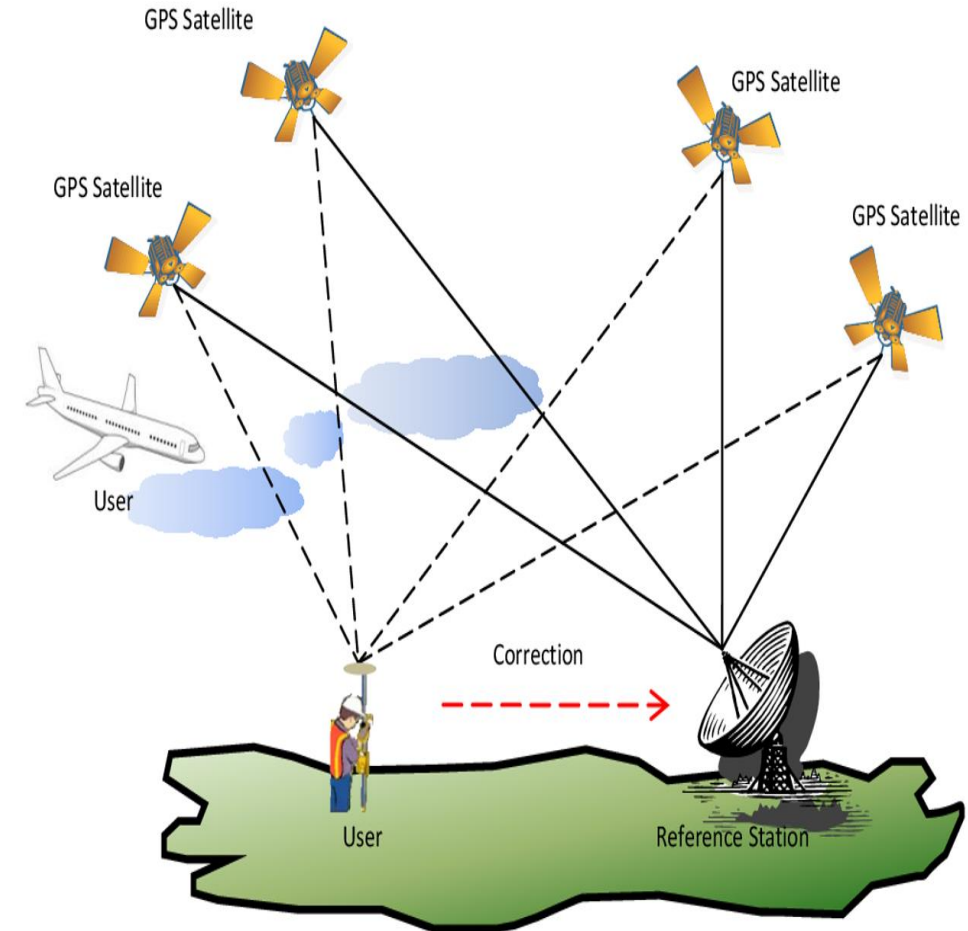


## • Technology

- Continuously Operating Reference Stations is a network of reference stations that provide a virtual base station that allows access long-range high-accuracy Network RTK corrections.

## • Benefits

- Supports in establishing Ground Control Points.
- Accurate Geo-referencing, ground truthing and demarcation of lands.
- Can be used any State agency /Department viz Revenue Department, Gram Panchayat (GP), Public Works Department, Rural Development Department etc.



# Utilization of Geospatial Data & Maps



- ❖ Under Svamitva Scheme , Survey of India (Sol) is creating high accuracy geospatial data leveraging CORS & high-level Drone technology.
- ❖ With liberalization to share Geospatial data relaxation in drone flying for green zones, more open geospatial data can be generated in quick time using drone technology with extensive coverage.
- ❖ The Svamitva Geospatial data or Svamitva Maps can be made freely available to other government entities, State governments manually or digitally through API's.
- ❖ Svamitva Maps can be used in other Govt Schemes, GIS projects to curtail time & cost.
- ❖ This would help them to maximize the use of available geospatial data & develop solutions in solving state level issues to various sectors.





# Questions

