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# YOJANA MAGAZINE ANALYSIS (October 2023) (Part 2/3)

# **TOPICS TO BE COVERED**

**PART 2/3** 

- SPACE INFRASTRUCTURE
- UNITY MALLS

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TRADITION

- 19/1A Shakti Nagar, Nagiya Park Near Delhi University, New Delhi - 110007 (India)

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# **SPACE INFRASTRUCTURE**

Indian space activities began in 1962 with the establishment of the Indian National

Committee for Space Research (INCOSPAR).

In 1969, the Indian Space Research Organisation (ISRO) was formed, superseding

INCOSPAR.

Subsequently, in **1972**, the **Department of Space (DoS)** was created to oversee the development and application of space technology to meet various national needs.

#### INDIAN SPACE RESEARCH ORGANISATION

Headquarters: Bengaluru

#### RADITION

ISRO's primary objective is the development and application of space technology to meet

various national needs. ISRO has established several space systems for communication,

television broadcasting, meteorological services, resource monitoring, and more.

**PSLV, GSLV & SSLV** are three trusted launch vehicles developed by ISRO.

#### VIKRAM SARABHAI SPACE CENTER

Location: Thiruvananthapuram

Responsible for the design and development of launch vehicle technology.

#### ADDRESS:





### **U R Rao Satellite Centre (URSC)**

Location: Bengaluru

VAJIRAO & REDDY INSTITUTE India's Top Potential Training Institute for IAS

Involved in the design, development, and realisation of communication, navigation, remote

sensing, and scientific satellite missions.

The ISRO Satellite Integration and Test Establishment is equipped for assembling and testing spacecraft for flight worthiness.

### Satish Dhawan Space Centre (SDSC) – SHAR

Location: Andhra Pradesh

Provides launch base infrastructure for Indian space programs.

### Liquid Propulsion System Centre (LPSC)

Locations: Campus-1: LPSC, Valiyamala, Thiruvananthapuram, and Campus-2 LPSC

Bengaluru

#### ADDRESS:







Engaged in the design, development, and realisation of high-performance advanced propulsion systems for launch vehicles and spacecraft.

# **Space Application Centre (SAC):**

#### Location: Ahmedabad

Focuses on the development of space-borne and airborne instruments and payloads for national development. It designs and develops optical and microwave sensors for satellites, signal and image processing software, and GIS software for Earth observation programs.

### Human Space Flight Centre (HSFC)

Location: Bengaluru

Established in 2019, it coordinates all developments related to human spaceflight programs.

## National Remote Sensing Centre (NRSC)

#### Location: Hyderabad

It has a mandate for the establishment of ground stations for receiving satellite data, generation of data products, dissemination to the users, development of techniques for remote sensing applications including disaster management support, geospatial services for good governance and capacity building.

#### ADDRESS:





# **ISRO Propulsion Complex**

#### Location: Mahendragiri

Responsible for the assembly, integration, and testing of liquid propulsion systems for launch

vehicles. It provides a platform for simulation trials for interplanetary missions.

### ISRO Telemetry Tracking and Command Network (ISTRAC)

#### Location: Bengaluru

Provides telemetry tracking and command and mission control services to major launch vehicles, interplanetary spacecraft missions of ISRO and the ground segment of the NaVIC

satellite system.

## **Master Control Facility (NCF)**

#### Location: Hassan, Karnataka and Bhopal

Responsible for On-Orbit Operations (OOP) and Launch and Early Orbit Phase (LEOP)

operations of geostationary/geosynchronous and IRNSS class spacecraft of ISRO. It monitors

and controls all the geostationary satellites of ISRO.

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# **ISRO Inertial Systems Unit (IISU)**

Location: Thiruvananthapuram

Engaged in the design and development of inertial systems for launch vehicles and satellites.

### Laboratory for Electro-Optics Systems (LEOS)

#### Location: Bengaluru

Involved in the design, development, and production of altitude sensors, high-resolution image optics, and special-purpose science instruments.

## Indian Institute of Remote Sensing (IIRS)

#### Location: Dehradun

Focuses on building capacity in remote sensing and geoinformatics through education and

training programs at the postgraduate level.

### **Development and Educational Communication Unit (DEUC)**

#### Location: Ahmedabad

Implementation of satellite communication-based societal applications in the country. It works

with user agencies and facilitates the spread of space applications to reach the unreached.

#### ADDRESS:





# Physical Research Laboratory (PRL)

#### Location: Ahmedabad

A premier research institute engaged in basic research in the areas of Astronomy and

Astrophysics, Solar Physics, Planetary Science, and Exploration.

PRL has an infrared observatory at Mt. Abu, a solar observatory in Udaipur and a planetary

exploration (PLANEX) prog at Ahmedabad.

#### National Atmospheric Research Laboratory (NARL)

Location: Gandaki, Tirupati

Engaged in atmospheric and space science with the vision of developing the capability to predict the behaviour of Earth's atmosphere.

### North Eastern Space Application Centre (NE-SAC)

#### Location: Shillong, Meghalaya

An autonomous organisation under the Department of Science, with the aim of supporting the

development process in the North Eastern region through advanced space technology.

### Indian Institute of Space Science and Technology (IIST)

First established in Thiruvananthapuram in 2007.

#### ADDRESS:







Offers high-quality education in space science and technology to meet the demands of the

Indian Space Program.

# **Antrix Corporation Limited (ACL)**

#### Corporate Office: Bengaluru

Engaged in providing space sector products and services to customers globally.

#### New Space India Limited (NSIL)

#### Headquarters: Bengaluru

A wholly-owned government of India undertaking to provide space-related products and services from the Indian Space Program to global customers and promote the growth of the Indian space sector.

Indian National Space Promotion and Authorisation Centre (IN-SPACe)

#### Headquarters: Ahmedabad

An autonomous agency under the Department of Space (DoS), responsible for promoting, enabling, authorising, and supervising various space activities of non-governmental entities,

including the building of launch vehicles and satellites and providing space-based services.

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# **UNITY MALLS**

- Unity Mall, an initiative of the Government of India, is poised to play a pivotal role in fostering economic development, providing recreational spaces, enhancing tourism, and celebrating the rich cultural heritage of India.
- It will serve as a comprehensive marketplace within the states for the promotion and sale of One District One Products, GI Products, Handicraft Products, and other local items.
- Unity Malls **will be established in each state**, preferably in the respective state capital or any other location chosen by the state.
- The purpose of Unity Mall is to foster national unity and make progress in the Make in India and Atma Nirbhar Bharat initiatives by offering local artisans opportunities to sell their products, create employment opportunities, facilitate skill development, and contribute to overall economic growth.
- · Each Unity Mall will have one shop allocated for each state to showcase their GI-

tagged products and One District One Product offerings.

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# **FINANCIALS INVOLVED**

• Unity Malls are funded under the scheme for special assistance to states for

#### capital expenditure.

- The scheme aims to stimulate capital expenditure and harness the significant multiplier effect of such expenditure to foster higher economic growth.
- Under the scheme, States are given interest-free loans for 50 years, which do not count towards the annual borrowing limit of the state.
- Rs 5,000 crore under the scheme has been earmarked for the construction of Unity Malls.
- The state government needs to provide land for free and also allocate additional

funds for the project.

### **FEATURES**

**Standardised design:** To ensure uniformity, all Unity Malls across India are required to adhere to a standardised design prescribed by the Department for Promotion of Industry and Internal Trade Multilingual languages and logos of One District One Product and Make in India must be integrated into the mall design. Proposed Unity Malls.

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Layout and commercial spaces: Each Unity Mall should incorporate a minimum of 36 commercial spaces with uniform floor space and common rent allocated to each state and Union Territories.

Amenities: Each Unity Mall should include a state-of-the-art food court, parking facilities, and spaces for recreational and cultural activities. Additionally, the mall should offer technology-driven experiences such as virtual reality, augmented reality digital displays, and interactive kiosks.

**Public-Private Partnership:** The operations and maintenance of Unity Mall will be structured under a public-private partnership. The ownership of the mall remains with the state government while operational and maintenance responsibility will be entrusted to a private party.



## CHHATTISGARH

### MADHYA PRADESH

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