

**Date of Meeting:** February 21, 2023

**# 91**

**BOARD OF SUPERVISORS  
BUSINESS MEETING  
ACTION ITEM**

**SUBJECT:** **FINANCE/GOVERNMENT OPERATIONS AND  
ECONOMIC DEVELOPMENT REPORT: New Sister  
Cities Approval**

**2011 ELECTION DISTRICT(S):** Countywide

**2022 ELECTION DISTRICT(S):** Countywide

**CRITICAL ACTION DATE:** At the pleasure of the Board

**STAFF CONTACT(S):** Buddy Rizer, Economic Development

**PURPOSE:** To provide the recommendations to the Board of Supervisors (Board) on approving three new Sister Cities in Greater Noida, India, Canelones, Uruguay, and Tema, Ghana, and to authorize the Chair of the Board of Supervisors to sign agreements with officials from each of the new locations.

**RECOMMENDATION(S):**

**Finance/Government Operations and Economic Development Committee (FGOEDC):** At the FGOEDC meeting on February 14, 2023, the FGOEDC recommended (5-0) that the Board approve three new Sister Cities in Greater Noida, India, Canelones, Uruguay, and Tema, Ghana, and to authorize the Chair of the Board of Supervisors to sign agreements with officials from each of the new locations.

**Staff:** Staff concurs with the FGOEDC recommendations.

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**BACKGROUND:** A sister city relationship is an agreement between two geographically and politically distinct localities to promote cultural and commercial ties<sup>1</sup>. The modern concept of sister cities had its roots in the Second World War when the idea emerged to establish solidarity between cities in allied countries that went through similar devastating events.

The sister cities program in Loudoun County has a rich history of strengthening cultural ties and promoting business development. Loudoun has, or has had established partnerships with

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<sup>1</sup> <https://sistercities.org/>

the following locations:

1. Holmes County, Mississippi
2. Karsiyaka Municipality, Izmir Province, Turkey<sup>2</sup>
3. Main-Taunus-Kreis, Germany
4. Goyang City, South Korea
5. Gangneung City, South Korea
6. New Taipei, Taiwan
7. Shunyi District, China<sup>3</sup>

Over the past couple of years, DED staff has proactively maintained and evolved relationships with the County's existing sister cities through virtual meetings, phone calls, and email messages due to the impact of COVID-19. In April 2022, Chair Randall and county staff were able to travel to Holmes County, Mississippi, to present a fire engine to the community.

In 2018, DED conducted research to determine the possibility of increasing its international efforts in India and the potential for developing a Sister County/City relationship there. The research looked at major cities and their surrounding areas that would be closely aligned with DED's targeted industry clusters and have similar attributes to align the partnership with the County's economic development strategies. After this research, the area of Greater Noida, India was identified and communication with officials there began in Spring of 2019. The onset of COVID-19 and changes to local officials there delayed the process to finalize an agreement, but the agreement is now ready to move forward.

Given the length of time it took to establish the new partnership in India, DED also began researching other potential new sister cities. Over the past year DED began researching potential sister cities in South America and Africa. After conducting research on which countries and cities could create strong sister city relationships, staff scheduled several virtual and in-person meetings with officials of prospective cities to develop its recommendations.

To narrow the search, staff reviewed relevant data including information on foreign direct investment, gross domestic product per capita basis, and human development index scores. As the narrowing process advanced, research was conducted on economic, social, and cultural trends in Canelones, Uruguay, and Tema, Ghana. Additional information on Greater Noida is provided as Attachment 1 and research specific to Canelones and Tema is provided as Attachment 2 in addition to a summary of each location provided herein.

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<sup>2</sup> Inactive

<sup>3</sup> Agreement ended on July 6, 2021

Greater Noida, India

Greater Noida is part of the Indian National Capital Region located in the state of Uttar Pradesh. It has largely developed in the past two decades as a planned city that is 19 miles south-east of the Indian capital city of New Delhi and is administered by Greater Noida Industrial Development Authority (GNIDA). The population is estimated to be 139,000<sup>4</sup> in 2023, within a land area of approximately 147 square miles.

Greater Noida is a fast-growing suburban area with a new metro rail line connecting it to the Delhi Metro Rail regional system that opened in 2019. Several major transportation projects in addition to the Noida Metro line are also underway to better link existing and future businesses to the New Delhi region. The area is favorable to data centers, ICT, and manufacturing businesses including available water, fiber, and power infrastructure and Greater Noida has attracted \$2.7 billion worth of data center investments as of December 2022<sup>5</sup>. According to the Greater Noida Industrial Development Authority, major employers include Samsung, LG, Haier, Havells, Tata, IBM, Accenture, New Holland, Yamaha, Honda, and Denso.

Canelones, Uruguay

Canelones is the capital of Uruguay's Canelones Department<sup>6</sup>, which had a population of 520,187 at the time of Uruguay's most recent census and is the second-most populous Department after the national capital of Montevideo, to which it is adjacent. According to the International Trade Association (ITA), Information and Communication Technology (ICT) is a top opportunity sector in the region. The focus on technology growth is an economic characteristic in common with Loudoun County. ICT firms in Canelones are interested in opening offices in the U.S. and make up the most significant portion of participants in the U.S. Department of Commerce's Select USA foreign direct investment program.

Canelones has a burgeoning tech sector, especially given the relatively small size of the city and region. The region is home to budding data center and subsea cable opportunities. Google built its first Latin American data center in Santiago, Chile, in 2015, then purchased land in Canelones in 2021 to develop its second Latin American data center. Google and ANTEL, Uruguay's state-owned telecommunications company, completed the Tannat subsea cable in 2018, connecting Uruguay to Brazil, Argentina, and the U.S. via Florida<sup>7</sup>. The region may offer mutual benefits from joining as a Sister City with Loudoun County, given the importance of data centers and fiber connectivity to their local economies.

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<sup>4</sup> Population of Greater Noida in 2023: <https://www.census2011.co.in/census/city/109-greater-noida.html>

<sup>5</sup> Greater Noida brimming with investment opportunities for Real Estate investors and buyers: <https://timesofindia.indiatimes.com/blogs/voices/greater-noida-brimming-with-investment-opportunities-for-real-estate-investors-and-buyers/>

<sup>6</sup> Uruguayan departments are similar to states in the U.S., although their land areas are more comparable to counties.

<sup>7</sup> Submarine Telecoms Forum: <https://subtelforum.com/google-buys-land-in-uruguay-for-a-second-latam-dc/>

Uruguay is notable for having one of the largest middle classes per capita and one of Latin America's most equally distributed income structures. Additionally, the country is recognized as an important center of the South American economy, housing the trade bloc headquarters for both [Mercosur](#) (Southern Common Market) and [LAIA/ALADI](#) (Latin American Integration Association). Other leading subsectors of Uruguay's economy include health information technology and medical technology.

#### Tema, Ghana

Located within the Greater Accra Region, Tema is Ghana's largest seaport city and is the nation's leading industrial hub. According to the ITA, Ghana's economy is heavily comprised of agriculture, mining, and oil and gas production; however, the nation's digital, financial services, education, and franchising sectors are proliferating<sup>8</sup>.

[The Western Corridor Fibre Optic](#) line is currently being constructed near Tema, part of a significant effort to connect all of Ghana via a fiber line loop. Thanks to the Ghanaian government's investment in digital infrastructure projects, Tema will soon be home to a new data center. Additionally, Africa ICT Right (AIR), an ICT-focused Non-Governmental Organization (NGO), recently opened an ICT lab called Alex More's Future Classroom in Tema for students, professionals, and entrepreneurs. The lab will offer workshops, programs, and access to equipment in subjects such as robotics, projectors, 3D printing, software, and other tech equipment.<sup>9</sup>

Tema Port handles approximately eighty percent of Ghana's import and export cargo. It is a central trading point for cacao, the nation's chief export. The port completed a \$1 billion expansion and improvement in 2020, helping it to become the largest port by capacity in West and Central Africa. Tema is also home to a Free Zone Enclave hosting over 50 companies and covering 1,200 acres. Significant employers in Tema include Volta Aluminum (VALCO), Tema Oil Refinery (TOR), Nestle Ghana Ltd, Sentuo Steel, and Tema Shipyard. Nestle Ghana completed an \$18 million expansion of its Tema Infant Cereals Plant in June 2022, making the factory a significant hub for infant cereal production in Central and West Africa.<sup>10</sup>

**ISSUES:** There are no issues associated with this Action Item.

**FISCAL IMPACT:** While Greater Noida has agreed to a virtual signing process, in order to finalize the other two new agreements, department funds will be used to cover increased international travel costs. Should members of the Board of Supervisors travel with staff for either partnership, a request will be made to the Economic Development Authority (EDA) for funds from its dedicated Transit Occupancy Tax (TOT) funds to cover Board travel expenses.

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<sup>8</sup> International Trade Administration – Ghana: <https://www.trade.gov/ghana>

<sup>9</sup> <https://www.ghanaweb.com/vip/ibrahimmustapha/Africa-ICT-Right-s-New-ICT-lab-in-Tema-to-boost-digital-skills-and-innovation-in-Africa-35945>

<sup>10</sup> [Nestle Ghana Unveils GHS 175.4 million Infant Cereals Plant in Tema](#)

**ALTERNATIVES:**

1. The Board may approve all three Sister Cities partnerships.
2. The Board may approve any combination of the three Sister Cities partnerships.
3. The Board may not approve any of the agreements and direct staff how to proceed. A delay in approving the partnerships or authorizing the signing of the agreements will delay planned international travel and may ultimately end the discussions with the partner localities.

**DRAFT MOTIONS:**

1. I move the recommendation of the Finance/Government Operations and Economic Development Committee that the Board of Supervisors approve the creation of three new Sister Cities partnerships in Greater Noida, India, Canelones, Uruguay, and Tema, Ghana.

I further move the recommendation of the Finance/Government Operations and Economic Development Committee that the Board grant the Chair of the Board of Supervisors authorization to sign agreements with the approved Sister City locations.

OR

2. I move an alternate motion.

**ATTACHMENT(S):**

1. Greater Noida Information
2. Research on Canelones, Uruguay and Tema, Ghana

# Greater Noida

*-Planned with an Obsession-*



Greater Noida Industrial Development Authority  
Plot No-1, Knowledge Park IV, Greater Noida

# Uttar Pradesh 2<sup>nd</sup> in Easy of Doing Business Ranking

*Jumps 10 spots this year to finish second*



In a huge boost for the Uttar Pradesh Government's efforts to develop an investor friendly environment in the state, **Uttar Pradesh ranked second in the Easy of Doing Business National Ranking**

**THE ECONOMIC TIMES**

Date: 6<sup>th</sup> September 2020



“UP is committed to the call of Prime Minister Narendra Modi for **AatmaNirbhar Bharat** and making all efforts in this regard. UP achieving the second rank in the EoDB rankings is a proof of that,”  
**UP Chief Minister Yogi Adityanath**

## Uttar Pradesh made the big jump to number 2 in EoDB rankings

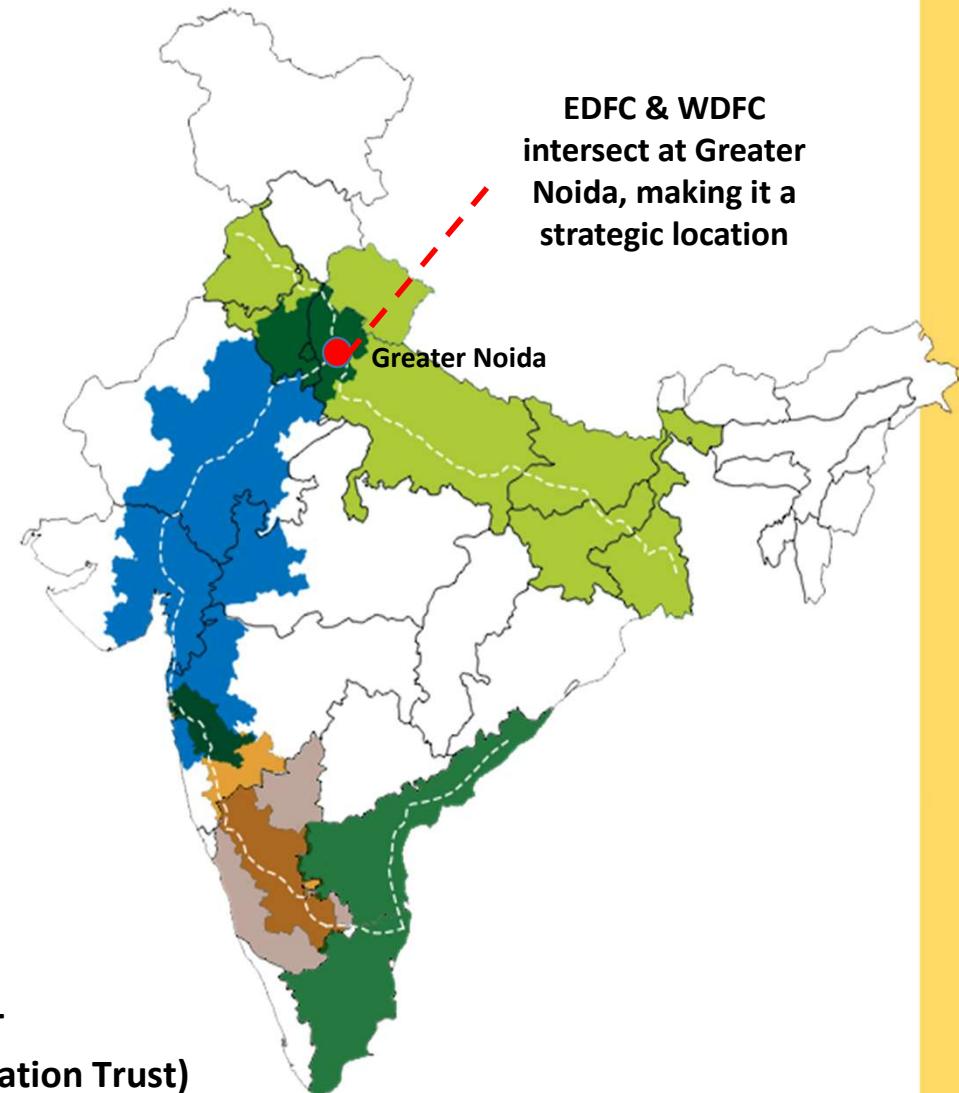
New Delhi: Uttar Pradesh has made a big jump to the second position in the State Business Reform Action Plan (BRAP) 2019 – Ease of Doing Business Ranking (EoDB), up from the 12<sup>th</sup> position that the state achieved in the BRAP 2017-18. UP has left behind several leading states like Maharashtra, Gujarat, Telangana and Rajasthan in the process, the state government has said.

UP said the achievement had come as UP implemented 186 out of the 187 reforms suggested by the DPIIT and said its ‘Nivesh Mitra’ single window portal has been one of the main catalysts in taking this drastic jump as 94 per cent of the nearly 2.3 lakh No Objection Certificate (NOC) applications received in the last two years had been disposed of. “UP has already started to rank its 75 districts in ‘District wise ease of doing business’ ranking started from May 2020. As a leader, UP has already started implementing state BRAP 20-21 reforms in which state has already implemented 170 reforms out of the 301 suggested reforms,” the state government said in an official statement.

# Strategically located *at the intersection of DMIC & AKIC*

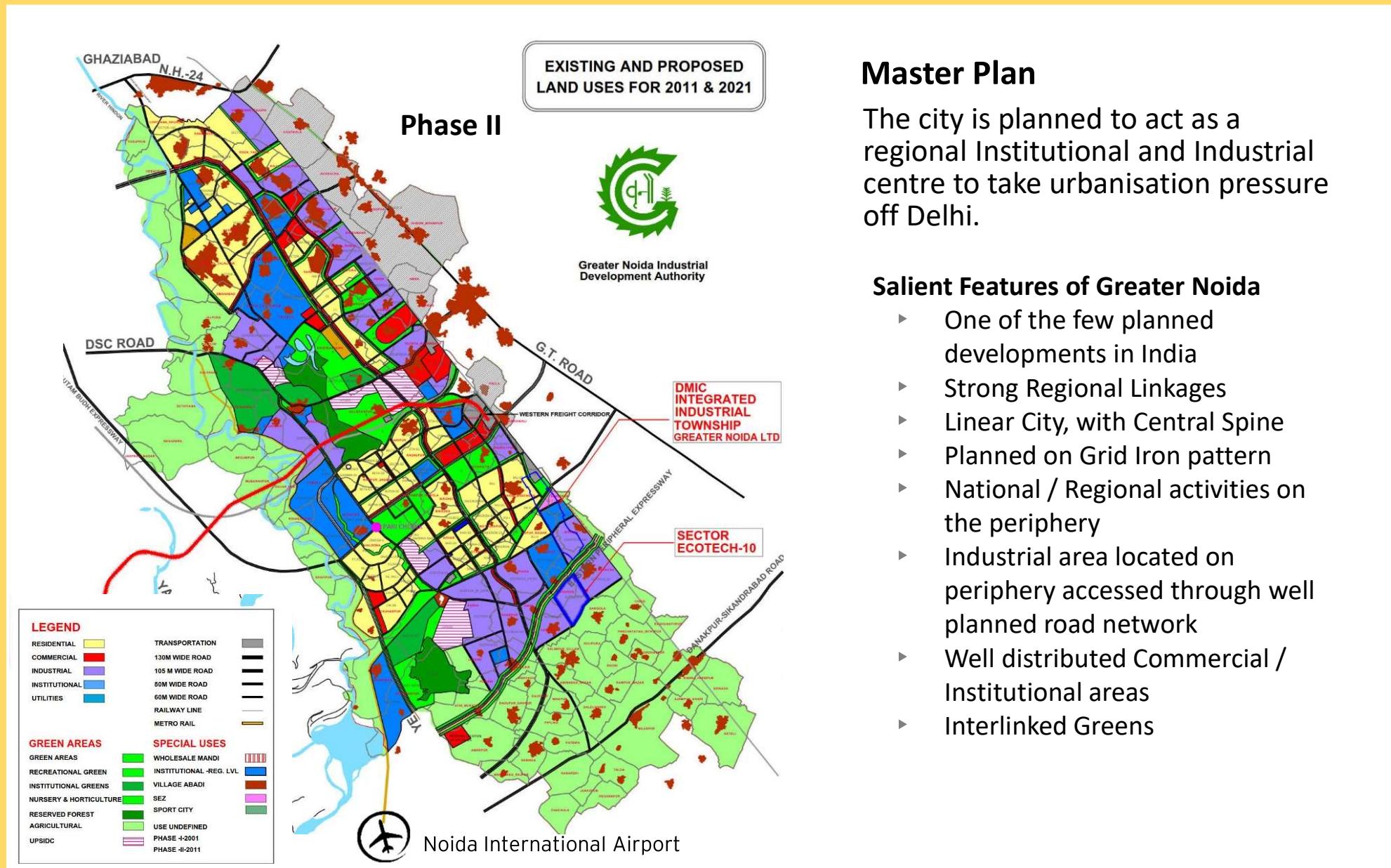


- Delhi Mumbai Industrial Corridor (DMIC)
- Amritsar Kolkata Industrial Corridor (AKIC)
- Bangalore Mumbai Economic Corridor (BMEC)
- Chennai Bangalore Industrial Corridor (CBIC)
- East Coast Economic Corridor (ECEC) with Chennai Vizag Industrial Corridor (CVIC) in Phase -1



National Industrial Corridors are being developed by NICDIT  
(National Industrial Corridor Development and Implementation Trust)

# Comprehensive Vision for the future



## Master Plan

The city is planned to act as a regional Institutional and Industrial centre to take urbanisation pressure off Delhi.

### Salient Features of Greater Noida

- One of the few planned developments in India
- Strong Regional Linkages
- Linear City, with Central Spine
- Planned on Grid Iron pattern
- National / Regional activities on the periphery
- Industrial area located on periphery accessed through well planned road network
- Well distributed Commercial / Institutional areas
- Interlinked Greens

# Centrally Located *within the region*



## Greater Noida Region

### Road connectivity

Existing key roadways (NH)

Noida - Greater Noida Expressway

Yamuna Expressway

Eastern Peripheral Expressway

### Rail connectivity

Eastern DFC (Link)

Western DFC

Passenger Railway Line

### Air connectivity

IGI Airport, New Delhi

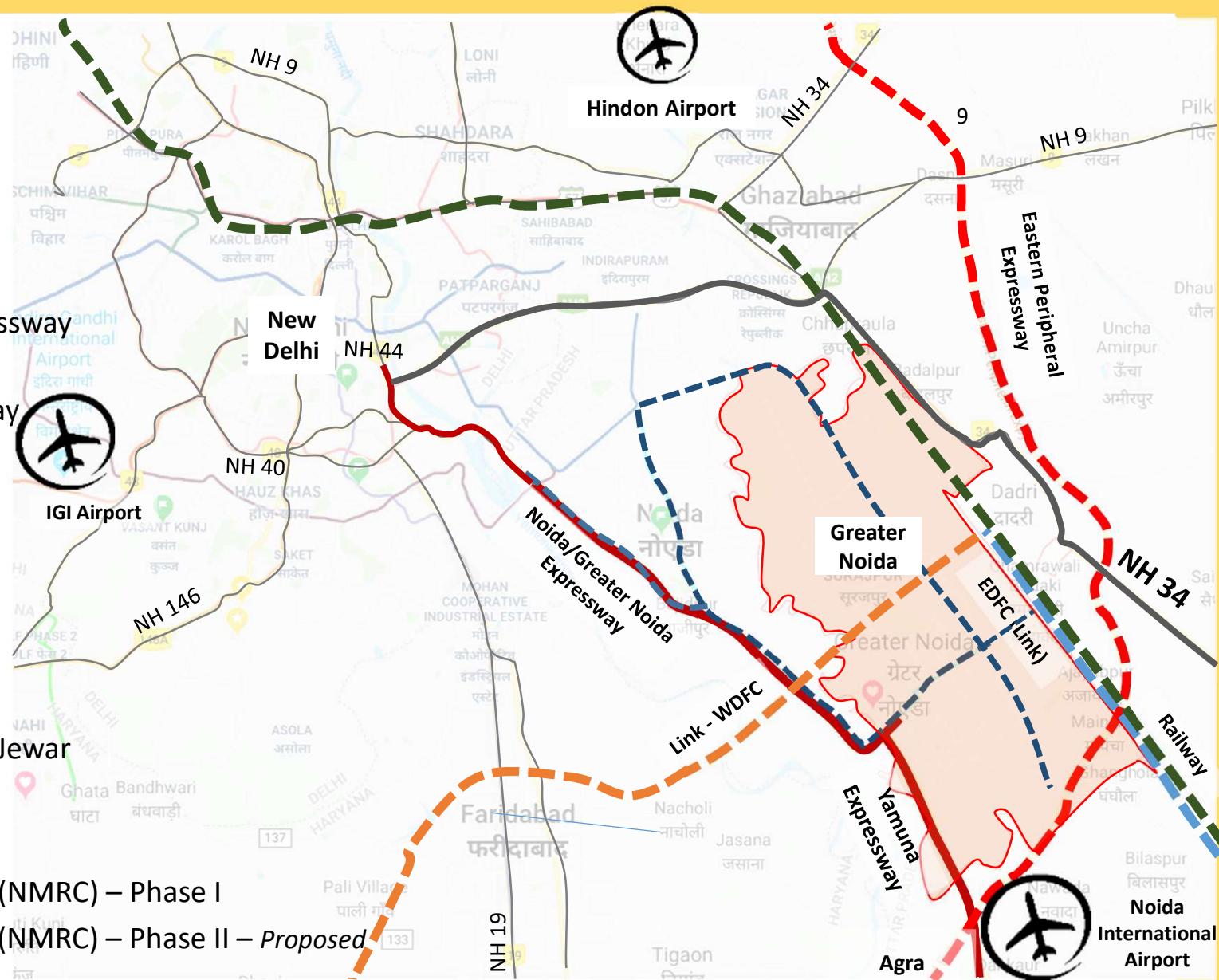
Noida International Airport, Jewar

Hindon Airport, Ghaziabad

### Metro connectivity

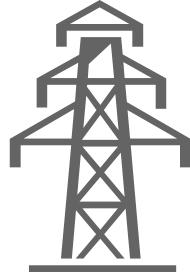
Noida-Greater Noida Metro (NMRC) – Phase I

Noida-Greater Noida Metro (NMRC) – Phase II – *Proposed*



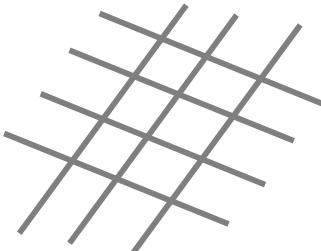
# State of Art Infrastructure Facilities

*Are the city's trademark*



## Continuous 24x7 Power Supply

- ▶ Power supply through Noida Power Company, Limited (NPCL), which is controlled by GNIDA (JV Partner)
- ▶ Promoting alternative sources for energy



## Gridiron Road Network

- ▶ 25 km long, 130 m ROW road acts as the city's backbone, connecting the northern end to the southern end
- ▶ All city roads are planning following hierarchy - sector roads have ROW of 60-105 m



## Abundant water supply

- ▶ Proposed Ganga Water Supply Scheme to be operational by end of 2020
- ▶ Current supply at 225 litres per capita daily (LPCD), higher than average city supply in India

# Early Bird Projects under DMIC Corridor (at Greater Noida)



## 1. Integrated Industrial Township (IIT), Greater Noida

~ 302.63 Hectares area

## 2. Multi Modal Logistic Hub (MMLH), Dadri

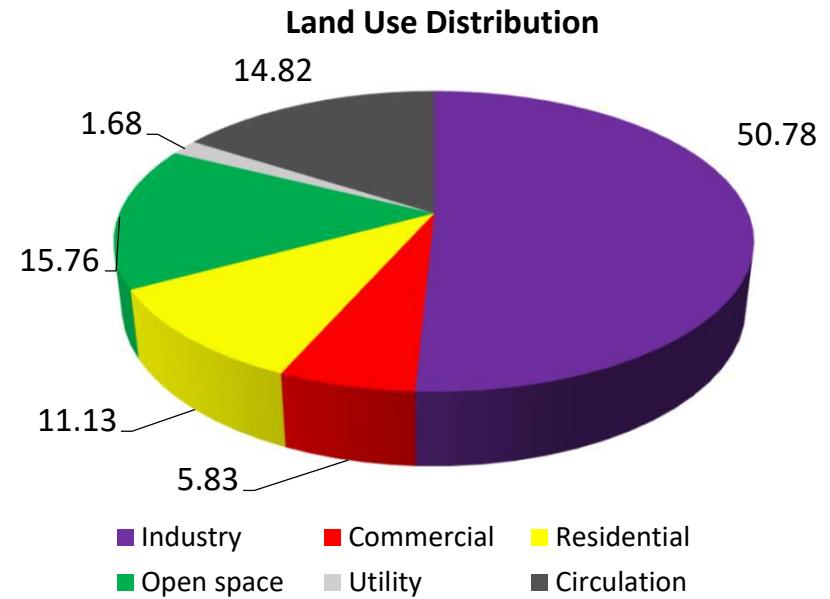
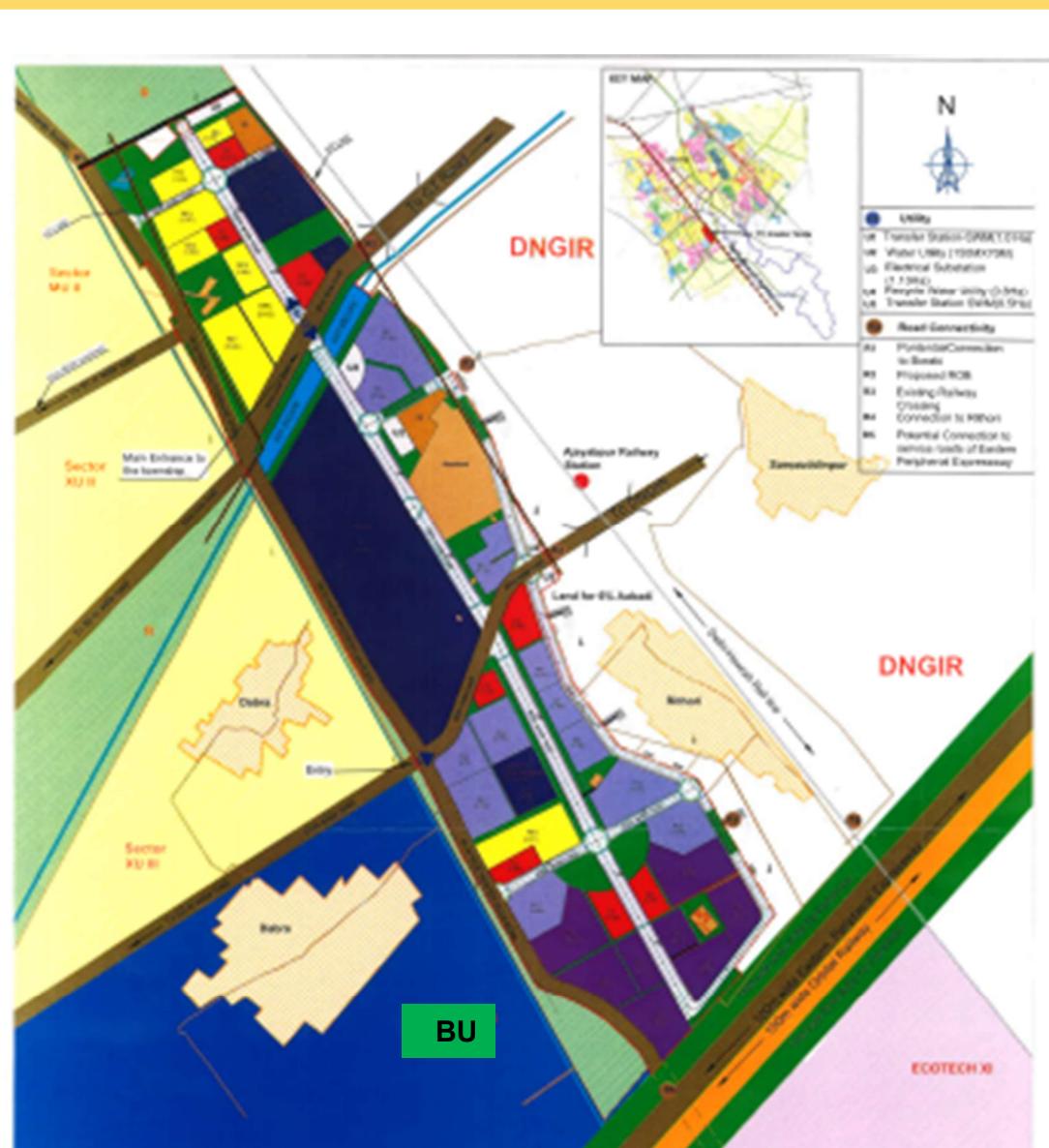
310 Ha of Freight Village (FV) near the conflux of EDFC and WDFC

## 3. Multi Modal Transportation Hub (MMTH), Boraki

135.7 Ha of MMTH near Boraki railway station

# DMIC Integrated Industrial Township

**Greater Noida Limited (DMIC - IITGNL)**



**Total Area: 302.63 Ha. (747.5 Acre)**



# DMIC Integrated Industrial Township

*Greater Noida Limited (DMIC - IITGNL)*



Truly exemplifying the idea of smart city, IITGN will incorporate all the attributes of a smart city where technology will rule the roost and will build a commercial ecosystem.



## Smart Governance



Supervisory  
Control and Data  
Acquisition  
(SCADA)



ICT Command  
and Control  
Centre



Wi-Fi at all  
Public Places



24 x 7  
Surveillance



E-Governance

# DMIC Integrated Industrial Township

*Greater Noida Limited (DMIC - IITGNL)*



## Ease of Doing Business



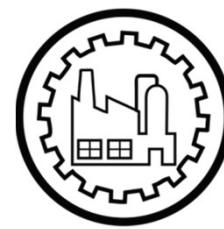
Single Window System



Two-way interaction System for Entrepreneurs and varied Govt. Departments



e-Land Management System for online application and land allotment



Online application for approval and clearances of all compliances for setting up the industry



Time bound decision on approval and clearances

# DMIC Integrated Industrial Township

*Greater Noida Limited (DMIC - IITGNL)*



*Greater Noida Industrial Development Authority (Plot No-1, Knowledge Park IV, Greater Noida)*

# DMIC Integrated Industrial Township

*Greater Noida Limited (DMIC - IITGNL)*



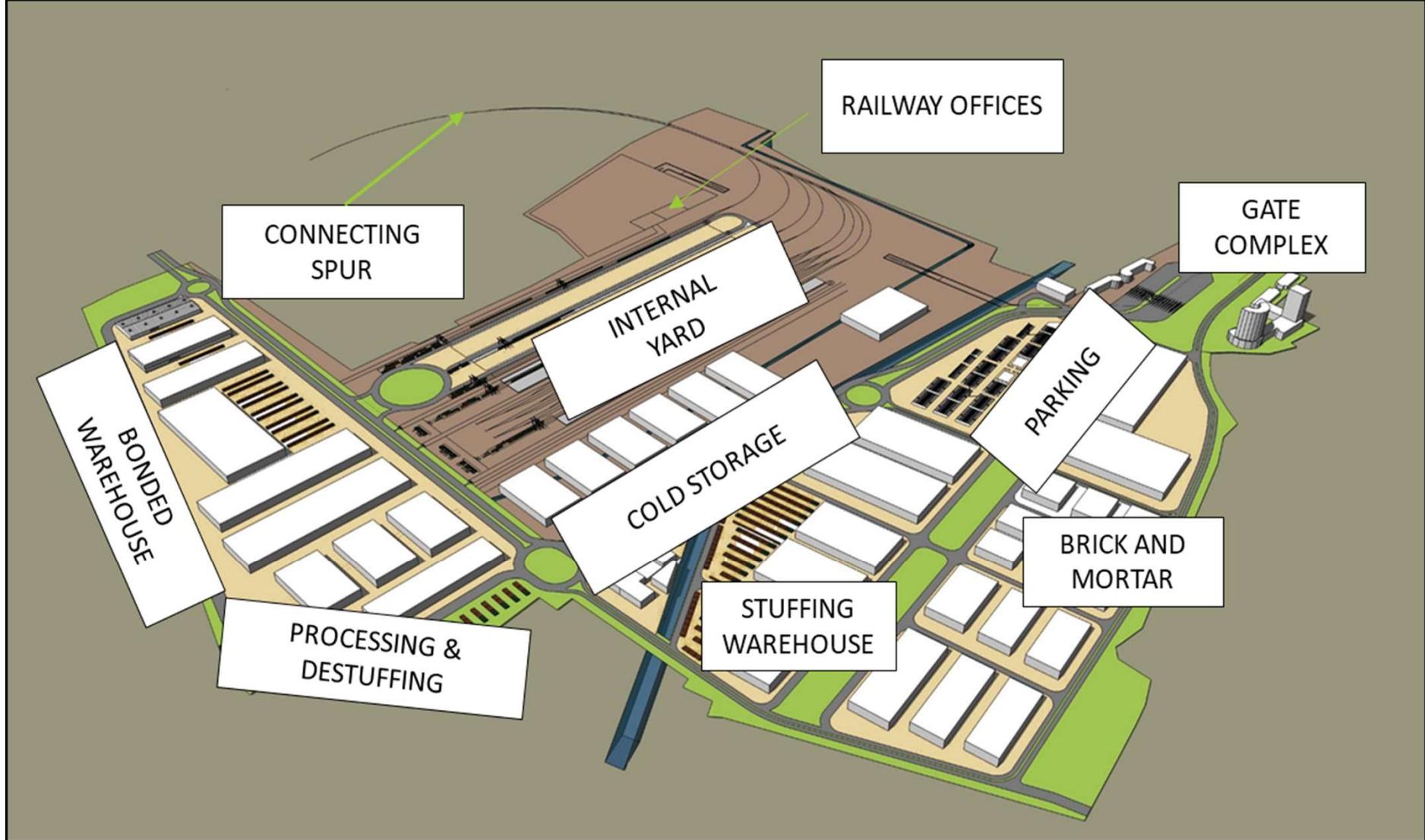
**World Class Infrastructure**



*Greater Noida Industrial Development Authority (Plot No-1, Knowledge Park IV, Greater Noida)*

# Multi Modal Logistic Hub (MMLH), Dadri

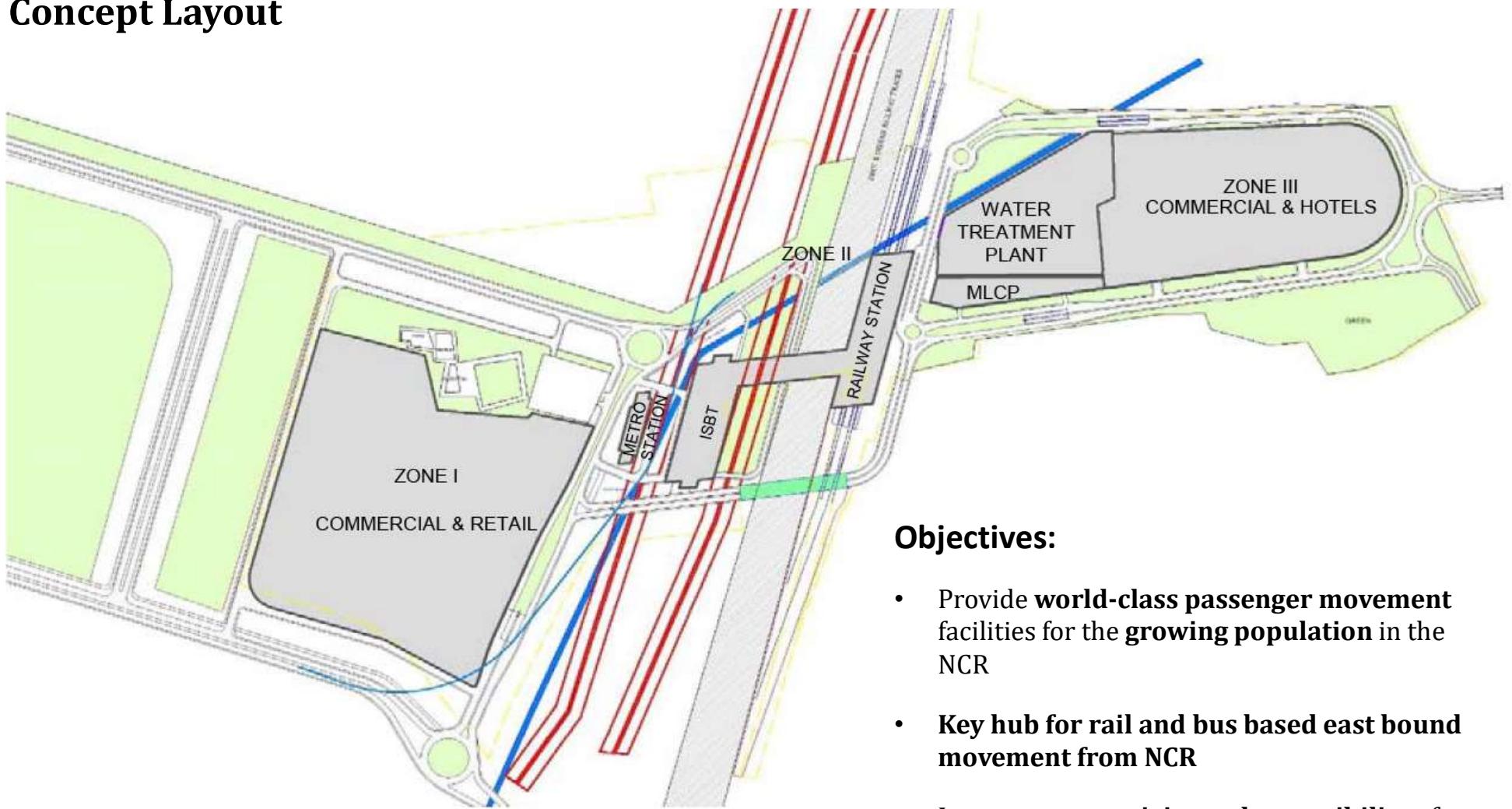
## *Freight Village*



# Multi Modal Transportation Hub (MMTH), Dadri



## Concept Layout



### Objectives:

- Provide **world-class passenger movement** facilities for the **growing population** in the NCR
- Key hub for rail and bus based east bound movement from NCR
- Improve **connectivity and accessibility** of the region and act as a **catalyst for fueling growth**

# Industrial Development *in Greater Noida*



**2600+**

Number of Units  
Allotted



**3200+ acre**

Total Area of Land  
Allotted



**₹ 47,311.84 Cr.**

Total Industrial  
Investment



**50+**

Number of Units  
Available for  
Allotment



**250+ acre**

Total Area of Land  
Available for  
Allotment



**1540**

Number of  
Currently  
Functional Units



**160,000** (Approx.)

Total  
Employment

# Existing Major Clusters *in the Region*



## Mobiles

OPPO

vivo

SAMSUNG

Karbonn™

LAVA

## White Goods

LG

Haier

HAVELLS

SAMSUNG

## Information Technology (IT)

WIPRO  
Applying Thought

ST  
life.augmented

HCL IBM

TATA  
CONSULTANCY  
SERVICES

>  
Accenture

## Automotive & Heavy Equipment

NEW HOLLAND

YAMAHA  
Rides Your Heart

HONDA  
The Power of Dreams

DENSO  
Crafting the Core

VECTRA

(Helicopter MRO)

***Emerging Hub for Data Centres***



### ( YOTTA DATA CENTRE )

*INR 6,000 Cr Investment*

*20 Acre Land Area*

*6 DC Buildings*

*240 MW Power*



### ( NTT )

*INR 1,000 Cr Investment*

*6 Acre Land Area*

*(In Artha SEZ, Greater Noida)*

*70 MW Power*



***Many more in pipeline .....***

# Greater Noida – Hub for Mobile & Electronics Manufacturing



## OPPO, Greater Noida (Investment: INR 2,000 Cr)



**Area: 110 Acre**  
**7 Crore Mobiles Per Year**  
**Employment: 15,000**

## Holitech (Investment: INR 1,700 Cr)



**TFT Screens**  
**Camera Module**  
**Finger Print Sensor**  
**Area: 12 Acre**  
**+1.2 Crore Units per month**  
**Employment: 6,500**

## VIVO, Greater Noida (Investment: INR 1,000 Cr)



**Area: 28.5 Acre**  
**4.2 crore Mobiles Per Year**  
**Employment: 9,000**

# Greater Noida – Hub for White Goods Manufacturing



**LG, Greater Noida (Investment: INR 1,500 Cr)**



**Area: 50 Acre**  
**Capacity: 1.5 Crore units per year**  
**Employment: 10,000**



**F&D (Investment: INR 235 Cr)**



**Area: 9.78 Acre**  
**Employment: 2,000**

**Chenfeng Tech Pvt. Ltd. (Investment: INR 206 Cr)**



**Area: 15.80 Acre**  
**Employment: 1,100**

**Haier (Investment: INR 3,000 Cr)**



**Area: 122 Acre**  
**Employment: 3,950**

## Greater Noida – Other Key Industries



### Priya Gold, Greater Noida (Investment: INR 150 Cr)



**Area: 15 Acre**  
**Capacity: 600 MT/Day**  
**Employment: 1,629**



### Honda Power (Investment: INR 275 Cr)



**Area: 25 Acre**  
**Capacity: 30,000 Units**

### New Holland (Investment: INR 350 Cr)



**Area: 60 Acre**  
**Employment: 4,500**



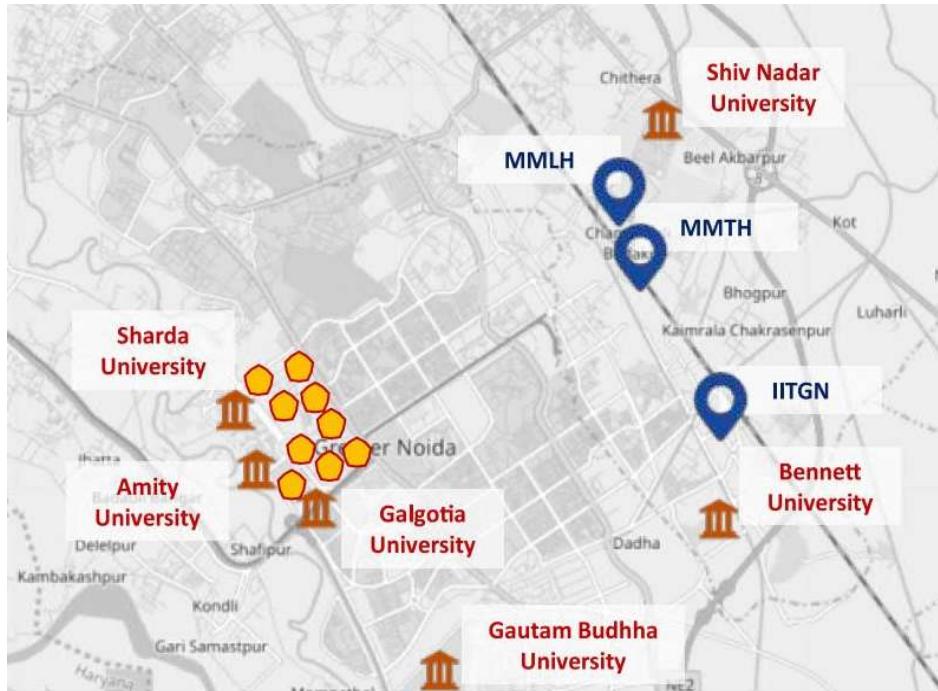
### Vectra (Investment: INR 100 Cr)



**Area: 37 Acre**



# Greater Noida – Knowledge Hub for the Region



Greater Noida City is quickly becoming a major technical educational hub for National Capital Region



SHIV NADAR UNIVERSITY



AMITY UNIVERSITY



# Greater Noida – Hub for Contemporary Modern Living



Industrial Belts in Greater Noida Industrial Development Authority are strategically placed near all the amenities and facilities which provides support to modern day businesses.



# Greater Noida – Hub for Lush Greens



**Surajpur Bird Sanctuary (Area: 700 Acres)**



**Glimpses from Greater Noida**



# Greater Noida – Hub for World-Class Infrastructure



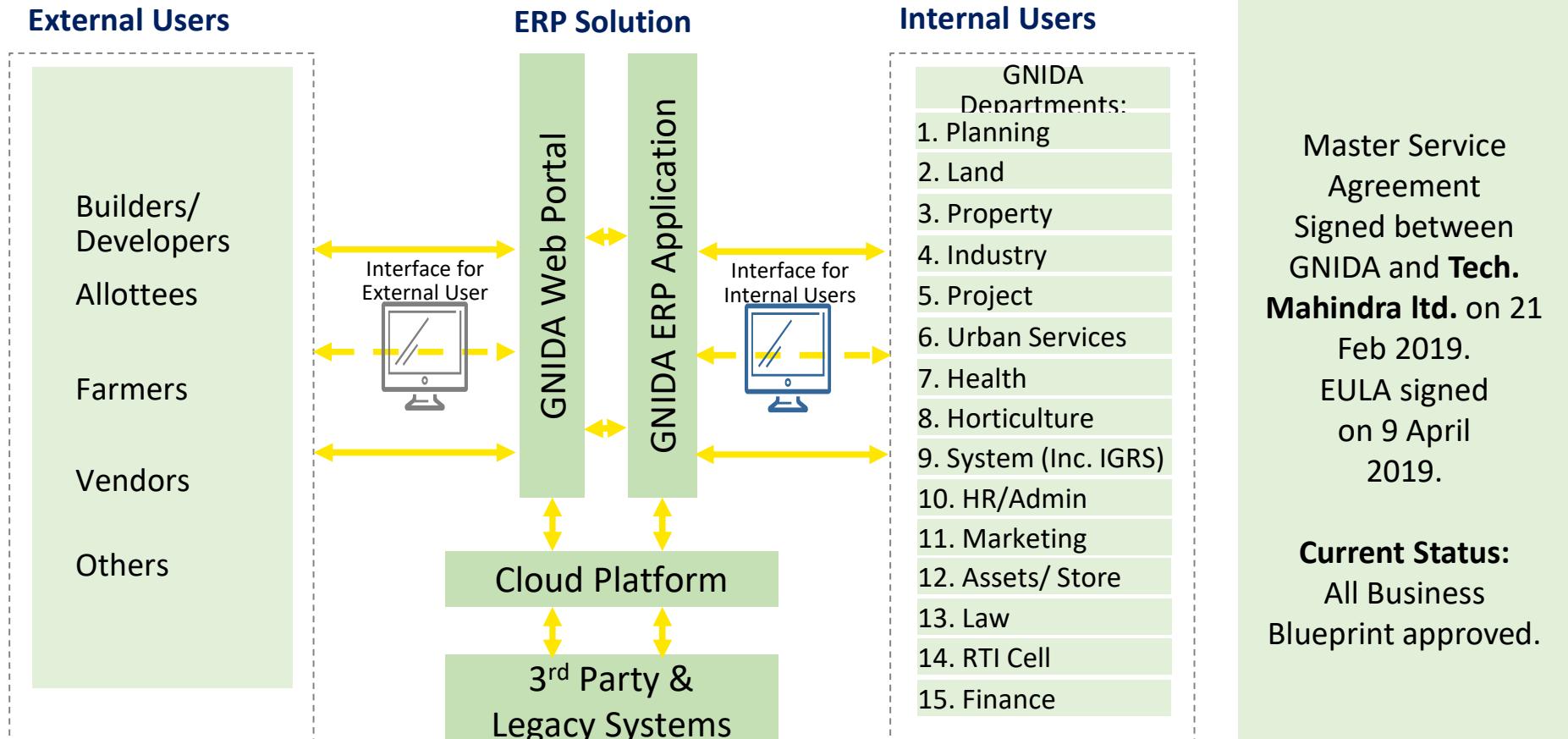
Greater Noida Industrial Development Authority (Plot No-1, Knowledge Park IV, Greater Noida)

# Key Initiatives

by Greater Noida Industrial Development Authority



## Enterprise Resource Planning (ERP)



# Key Initiatives

## by Greater Noida Industrial Development Authority



### On-line Building Plan Approval System



Greater Noida Industrial Development Authority

\* GREATER NOIDA CITY - PLANNED WITH AN OBSESSION \*

Total plans  
processes  
till date: **3400+**



Planned with an obsession.

#### INTRODUCTION:

Greater Noida Industrial Development Authority is located within the National Capital Region of India's capital - New Delhi and is adjacent to Noida, one of the largest industrial townships in Asia. Greater Noida is shaping up as India's smartest city, the National Capital Region's most modern urban development centre and its fastest-developing center of attraction. It has emerged as a modern model of far-sighted town planning. Greater Noida city is located at the intersection of the Western and Eastern Dedicated Freight Corridors and is also the gateway to the Delhi-Mumbai Industrial Corridor (DMIC).

"Smart DCR" is a new revolutionary tool to help speed up the process of building plan compliance check in accordance with building bye-laws of respective councils. Its high speed and accuracy is a boon to all stakeholders. Within minutes it is capable of analyzing the building plans and generates a set of Reports, which are comprehensive and easily understandable to all stakeholders.

PLEASE LOGIN

User ID:

Password:

I'm not a robot

reCAPTCHA  
Privacy - Terms

**Login**

**Forgot Password**

# Key Initiatives

## by Greater Noida Industrial Development Authority



### Nivesh Mitra Integration

Single Window System of Govt. of Uttar Pradesh

100%  
Integration with  
Nivesh Mitra Portal  
since 2018



CURRENT STATISTICS

LAST UPDATED ON: 01/16/2020

**LIVE Statistics [Total]**

Reg. Enterprises :	79565
Proposed Employment :	629372.72 Lacs
Request Submitted :	104110
Approvals (NOC/Cert. etc.):	78835

VISION OF NIVESH MITRA

Welcome to the "NIVESH MITRA", a dedicated Single Window System of Govt. of Uttar Pradesh.

To collaborate in the holistic development of industry friendly environment through progressive regulatory processes, efficient system and effective measurable timelines

The main objective of the system is to enable 'ease of doing business in Uttar Pradesh' through facilitating the entrepreneurs with the electronic based transparent system for online submission and tracking of applications including online fee payment.

[MORE](#)

### Services provided by GNIDA:

1. Building Plan Approval
2. Land Allotment System
3. Land Mutation
4. Issue of Activated Certificate (Functional Certification)
5. Sanction of Surrender Certificate
6. Land Mortgage Certificate (Normal)
7. Land Mortgage Certificate (Collateral)
8. Issue of No Dues Certificate
9. Map Surrender Certificate
10. Drinking Water/Sewage Connection

# Enabling Policy environment

## Industrial Investment & Employment Promotion Policy 2017



*Incentives linked to employment generation & regional distribution*

*Structural reforms for ease of doing business & industrial security*

*Infrastructure support - parks, open access power, green measures*

*Institutional strengthening - SIPB, Single Window Department, Make in UP*

*Attractive fiscal incentives - attracting investments & ushering competitiveness*

*Participative, forward looking, adapting - aiming to usher policy consistency*

**Sustainable, inclusive & balanced economic growth in UP**



Promotion to private Industrial Parks



Stamp Duty Reimbursement



Interest Subsidies



State Goods & Services Tax Reimbursement



Incentives for entrepreneurs from marginalized sections



Employment Generation Incentives



Customized incentives for Mega Projects

# Key Initiatives

## by Greater Noida Industrial Development Authority



MEETINGS

EXECUTIVE

GRANT

FINANCIALS

STAKEHOLDER

SERVICE PROVIDERS

© 2020 Greater Noida Industrial Development Authority

Developed & Hosted By National Informatics Center (NIC)

**One Map  
GIS Portal**

**Link :**

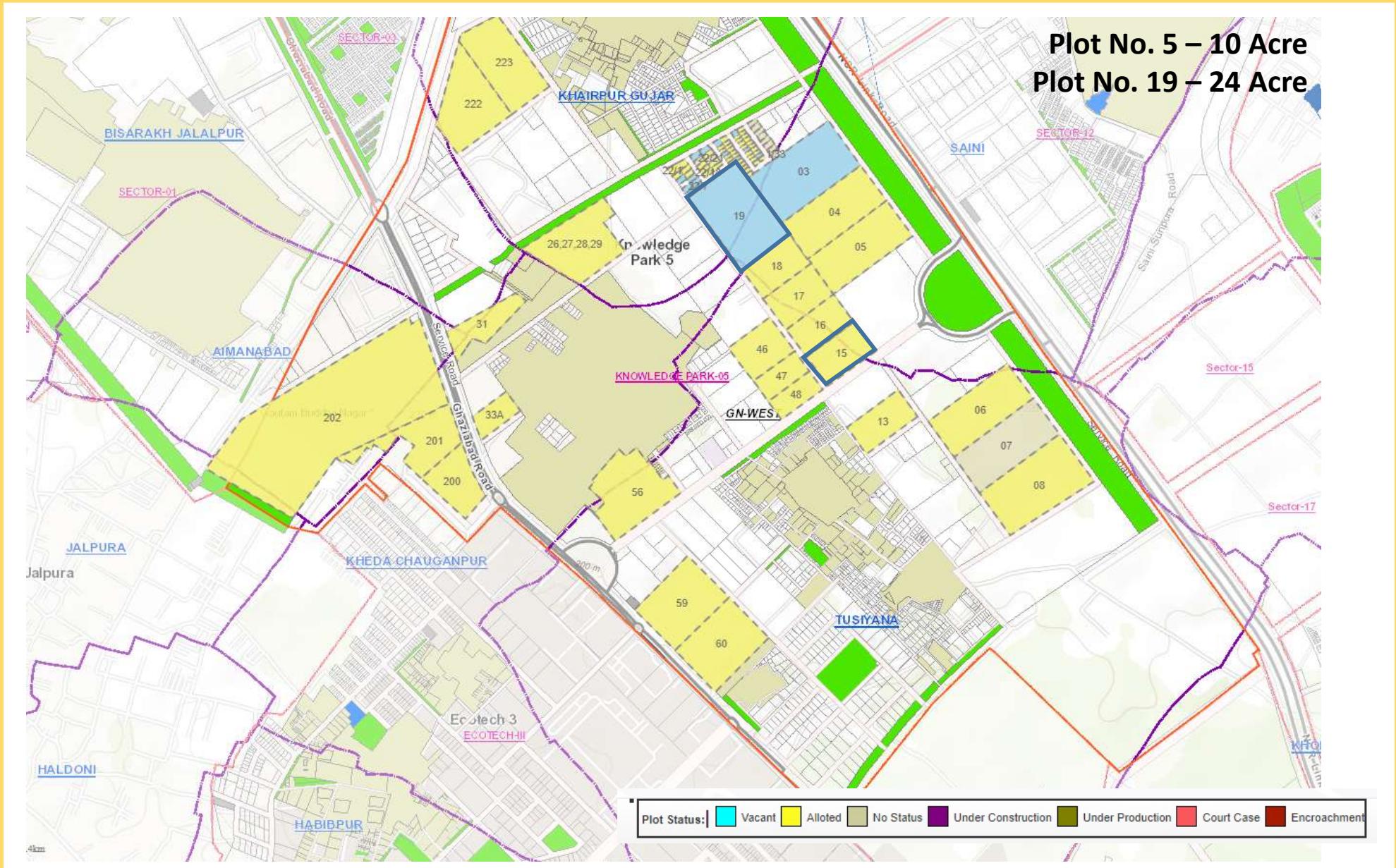
[https://umd.nic.in/  
gnida/Map.aspx](https://umd.nic.in/gnida/Map.aspx)

Greater Noida Industrial Development Authority (Plot No-1, Knowledge Park IV, Greater Noida)

# IT Land Bank

## *Sector Knowledge Park V*

Option – 1



# Contact Details



**Mr. Narendra Bhooshan (IAS)**  
**Chief Executive Officer &**  
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Email: [ceo@gnida.in](mailto:ceo@gnida.in)  
[Nbhooshan@gnida.in](mailto:Nbhooshan@gnida.in)





## Research on Canelones, Uruguay, and Tema, Ghana

### Overview

This report provides critical information and analysis for identifying communities in South America and Africa that best match Loudoun County's economic and cultural factors. A Sister City agreement can benefit Loudoun County through opportunities for business recruitment that support the County's strategic goals for economic diversification.

The analysis begins with economic development and foreign investment metrics, including data about foreign direct investment (FDI), GDP per capita, and human development index<sup>1</sup> (HDI) scores. Further research was conducted on Uruguay and Ghana's economic, social, and cultural trends.

### South America – Canelones, Uruguay

Canelones is the capital of Uruguay's Canelones Department, with a population of 520,187 during Uruguay's most recent census. It is the second-most populous Department after the national capital of Montevideo, to which it is adjacent. Uruguayan departments are like states in the U.S., although their land areas are more comparable to counties. According to the International Trade Association (ITA), Information & Communications Technology (ICT) is a top opportunity sector in the region. Their focus on technology growth is an economic characteristic held in common with Loudoun County.

ICT firms in Canelones are interested in opening offices in the U.S. They make up the most significant portion of participants in the U.S. Department of Commerce's SelectUSA foreign direct investment program. The Uruguayan government is focused on cybersecurity as an area of growth. The ITA cites several areas of opportunity for U.S. cybersecurity companies looking to provide training and software solutions, especially in ethical hacking and other preventive measures, advisory services, monitoring, management, and incident response<sup>1</sup>.

Canelones has a burgeoning tech sector, especially given the relatively small size of the city and region. The region is home to the budding data center and subsea cable opportunities. Google built its first Latin American data center in Santiago, Chile, in 2015, then purchased land in Canelones in

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<sup>1</sup> A widely recognized composite index of life expectancy, education, and per capita income used to measure human development.

2021 to develop its second Latin American data center. Google and ANTEL, Uruguay's state-owned telecommunications company, completed the Tannat subsea cable in 2018, connecting Uruguay to Brazil, Argentina, and the U.S. via Florida. The region may offer mutual benefits from connecting as joining with Loudoun County, given the importance of data centers and fiber connectivity to their local economies.

Uruguay is notable for having one of the largest middle classes per capita and one of Latin America's most equally distributed income structures. Additionally, the country is recognized as an essential center of the South American economy, housing the trade bloc headquarters for both Mercosur (Southern Common Market) and LAIA / ALADI (Latin American Integration Association). Uruguay is also considered a global leader in inclusiveness, especially for LGBTQ rights. Other leading subsectors of Uruguay's economy include health IT and medical technology error.

#### FDI Out of South America by Project Numbers 2020

Source: fDi Markets

Country	Projects	Population (millions)	Per capita
Uruguay	15	3.45	4.35
Chile	77	18.73	4.11
Colombia	96	49.66	1.93
Peru	35	18.73	1.87
Argentina	58	44.36	1.31
Brazil	215	209.47	1.03

#### GDP Per Capita

Rank	Country/Territory	GDP (PPP) per capita (Int\$)
1	Chile	25,978
2	Uruguay	23,274
3	Argentina	20,537
4	Brazil	16,154
5	Suriname	15,105
6	Colombia	14,943
7	Peru	14,224
8	Paraguay	13,395
9	Ecuador	11,718
10	Guyana	8,519
11	Bolivia	7,477

#### Human Development Index

Rank	Country	Human Development Index (HDI)
1	Chile	0.851
2	Argentina	0.845
3	Uruguay	0.817
4	Peru	0.777
5	Colombia	0.767
6	Brazil	0.765
7	Ecuador	0.759
8	Paraguay	0.728
9	Bolivia	0.718
10	Venezuela	0.711

### Global Peace Index (South America)

Rank w/in South America	Country	Score in 2021
1	Uruguay	1.817
2	Chile	1.831
3	Argentina	1.945
4	Paraguay	1.997
5	Peru	2.034
6	Ecuador	2.044
7	Guyana	2.114
8	Bolivia	2.14
9	Brazil	2.43
10	Colombia	2.694
11	Venezuela	2.934

### Africa – Tema, Ghana

Located within the Greater Accra Region, Tema is Ghana's largest seaport city and is the nation's leading industrial hub.<sup>vi</sup> According to the ITA, Ghana's economy is heavily comprised of agriculture, mining, and oil and gas production; however, the nation's digital, financial services, education, and franchising sectors are proliferating.<sup>vii</sup>

The Western Corridor Fibre Optic line is currently being constructed near Tema, part of a significant effort to connect all of Ghana via a fiber line loop.<sup>viii</sup> Thanks to the Ghanaian government's investment in digital infrastructure projects, Tema will soon be home to a new data center. Additionally, Africa ICT Right (AIR), an ICT-focused NGO, recently opened an ICT lab called Alex

More's Future Classroom in Tema for students, professionals, and entrepreneurs. The lab will offer workshops, programs, and access to equipment in subjects such as robotics, projectors, 3D printing, software, and other tech equipment. ix

Tema Port handles approximately eighty percent of Ghana's import and export cargo. Tema is a central trading point for cacao, the nation's chief export. The port completed a US \$1 billion expansion and improvement in 2020, helping it to become the largest port by capacity in West and Central Africa. x Tema is also home to a Free Zone Enclave hosting over 50 companies and covering 1,200 acres. xi Significant employers in Tema include Volta Aluminum (VALCO), Tema Oil Refinery (TOR), Nestle Ghana Ltd, Sentuo Steel, and Tema Shipyard. Nestle Ghana completed a US \$18 million expansion of its Tema Infant Cereals Plant in June 2022, making the factory a significant hub for infant cereal production in Central and West Africa. xii

Ghana stands out as one of the most peaceful nations in Africa. According to the 2022 Global Peace Index, Ghana is the second most peaceful nation on the continent and 40th in the world with a score of 1.759 (a lower score indicates a more peaceful country). The United States was ranked 129th by this index, scoring 2.44. xiii

#### **FDI Out of Middle East and Africa by Project Numbers 2020**

**Source: fDi Markets**

Country	Projects
UAE	148
Israel	120
Saudi Arabia	42
South Africa	40
Mauritius	21
Egypt	20
Bahrain	14
Nigeria	13
Tunisia	8
Cote d Ivoire	7
Other	58

### GDP Per Capita (Abbreviated List Showing Highest-Ranked Countries)

Rank	Country	GDP per capita (2020 US\$)
1	Seychelles	25,768
2	Mauritius	20,531
3	Botswana	15,459
4	Gabon	15,106
5	South Africa	13,361
6	Egypt	12,607
7	Algeria	11,324
8	Libya	10,846
9	Tunisia	10,823
10	Eswatini	8,866
11	Morocco	7,370
12	Angola	6,445
13	Djibouti	5,782
14	Ghana	5,744
15	Ivory Coast	5,466
16	Mauritania	5,390
17	Namibia	5,186
18	Nigeria	5,186
19	Kenya	4,578

### Human Development Index

Rank	Country	Human Development Index (HDI) in 2022
1	Mauritius	0.804
2	Seychelles	0.796
3	Algeria	0.748
4	Tunisia	0.74
5	Botswana	0.735
6	Libya	0.724
7	South Africa	0.709
8	Egypt	0.707
9	Gabon	0.703
10	Morocco	0.686
11	Cape Verde	0.665
12	Namibia	0.646
13	São Tomé and Príncipe	0.625
14	Eswatini	0.611
15	Ghana	0.611
16	Kenya	0.601

17	Equatorial Guinea	0.592
18	Zambia	0.584
19	Angola	0.581
20	Republic of the Congo	0.574
21	Zimbabwe	0.571
22	Cameroon	0.563
23	Comoros	0.554
24	Mauritania	0.546
25	Benin	0.545
26	Uganda	0.544
27	Rwanda	0.543
28	Lesotho	0.539
29	Ivory Coast	0.538
30	Tanzania	0.529
31	Madagascar	0.528
32	Nigeria	0.527
33	Djibouti	0.524
34	Togo	0.515
35	Senegal	0.512
36	Sudan	0.51
37	The Gambia	0.496
38	Ethiopia	0.485
39	Malawi	0.483
40	Liberia	0.48
41	Guinea-Bissau	0.48
42	Democratic Republic of the Congo	0.48
43	Guinea	0.477
44	Eritrea	0.459
45	Mozambique	0.456
46	Sierra Leone	0.452
47	Burkina Faso	0.452
48	Mali	0.434
49	Burundi	0.433
50	South Sudan	0.433
51	Chad	0.398
52	Central African Republic	0.397
53	Niger	0.394

## Global Peace Index (Sub-Saharan Africa, top 10)<sup>xiv</sup>

Rank w/in Africa	Country	Score in 2022
1	Mauritius	1.57
2	Ghana	1.759
3	The Gambia	1.792
4	Botswana	1.801
5	Sierra Leone	1.803
6	Zambia	1.841
7	Equatorial Guinea	1.863
8	Malawi	1.895
9	Namibia	1.908
10	Senegal	1.916

i International Trade Administration – Uruguay: <https://www.trade.gov/country-commercial-guides/uruguay-market-overview>

ii Submarine Telecoms Forum: <https://subtelforum.com/google-buys-land-in-uruguay-for-a-second-latam-dc/>

iii Mercosur: <https://www.mercosur.int/en/>

iv LAIA / ALADI: <https://www.aladi.org/sitioaladi/>

v Uruguay LGBTQ rights: [https://www.huffpost.com/entry/gay-guide-to-montevideo-uruguay\\_b\\_5848a515e4b05d636ae936e2](https://www.huffpost.com/entry/gay-guide-to-montevideo-uruguay_b_5848a515e4b05d636ae936e2)

vi History of Tema: <https://www.temametro.org/about-the-tema-city>

vii International Trade Administration – Ghana: <https://www.trade.gov/ghana>

viii Bawumia Cuts Sod For \$42m Fibre Optic Project: <https://dailyguidenetwork.com/bawumia-cuts-sod-for-42m-fibre-optic-project/>

ix Africa ICT Right's New ICT lab in Tema to boost digital skills and innovation in Africa: <https://www.ghanaweb.com/vip/ibrahimmustapha/AFrica-ICT-Right-s-New-ICT-lab-in-Tema-to-boost-digital-skills-and-innovation-in-Africa-35945>

x Ghana's Tema Port ranked the largest port in West, Central Africa: <https://africa.businessinsider.com/local/markets/ghanas-tema-port-ranked-the-largest-port-in-west-central-africa/7tyyten>

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xi Workers at Tema Free Zones enclave lament over siting of tollbooth:

<https://citineWSroom.com/2021/07/workers-at-tema-free-zones-enclave-lament-over-siting-of-tollbooth/>

xii Nestle Ghana Unveils GHS 175.4 million Infant Cereals Plant in Tema: <https://www.nestle-cwa.com/en/media/news/nestl%C3%A9-ghana-unveils-ghs-1754-million-infant-cereals-plant-tema>

xiii 2022 Global Peace Index: <https://www.visionofhumanity.org/maps/#/>