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Uttar Pradesh Information Technology & Data Center

## UP – State with Robust and Resilient Economy

The economic momentum of UP is well-poised to continue on a higher trajectory

\$301 Bn<sup>1</sup> ~5% 56% **Economy size in 2022-23 Share in Exports Demographic Dividend** ~8% of India's GDP; 3rd 5<sup>th</sup> largest exporter Working population largest economy (18-60 years) Wholesome Infrastructure 2<sup>nd</sup> largest network of roads ( > 400,000 kms) Largest railway network ( > 16,000 kms) Highest number of international airports (4 Operational @ Lucknow, Varanasi, Kushinagar, Ayodhya and 1 Under Construction @ Noida) 1st to have multi modal waterways terminal on river ganga (5 freight villages planned) Eastern **Dedicated Freight Corridor** (~57%) & Western Dedicated Freight Corridor (~10%)

#### **Large Consumer Base**

~17% of India's population

#### ~3.8x

#### **Increase in Capital Outlay**

FY18 to FY23

#### **Key Enablers**

- 1st Rank: Good Governance Index 2021
- 2<sup>nd</sup> Rank: Export Preparedness Index\* 2021
- **Achiever State**: Doing Business ranking across Indian states
- Achiever State: Logistics ranking across Indian states 2023

#### **Investor Facilitation Systems**

- Nivesh Sarathi: Dedicated onestop portal managing each stage of investor lifecycle (from intent to investment grounding)
- **Nivesh Mitra**: Single window investor facilitation to provide NOCs/Clearances/Licenses
- Online Incentive Management System (OIMS): For processing, sanctioning and disbursement of incentives,

Source: UP DES, World Bank, IBEF; GSDP in current prices 2011-12 series, DGCIS

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<sup>240</sup> Mn

<sup>&</sup>lt;sup>1</sup>Exchange rate assumed as \$1 = ₹75

<sup>\*</sup>Among landlocked states

## Information Technology

Uttar Pradesh is committed to achieve 10x growth in IT/ITeS sector—focus on growing niche areas like AI, Machine Learning, Robotics, Gaming, etc.

#### **Sector Overview**







10+ Centers of Excellence (planned/existing) in the field of AI, Drones and MedTech, etc.



USD 765 Mn+
Investments under
prior IT policy

#### **Advantage UP**

- World class educational institutions (2 IITs, 1 NIT, 1 IIIT and 1 IIM)
- **Industry relevant skilling** initiatives with 267 training partners
- Abundance of skilled labour at 10-20% lower cost
- Office space at **15-30% lower rental rates** than other IT hubs
- Recognized as a 'leader' in start-up space- 10000+ registered
- Planned creation of 16 IT Parks and 4 IT Cities
- India's largest international airport under-construction in Jewar
- **650 MW of Data Center capacity** through 6 hyperscalers parks of more than 50 MW and 1 DC Unit

#### **Key Investment Opportunities**

- Infrastructure development of IT Cities / IT Parks / IT-BPM units
- Setting up of Technology Business Incubators
- Enhancement of security network
- Focus on e-Governance E-health, e-education & e-ticketing
- Setting up of Center of Excellence (COE's) for emerging technologies
- Setting up of Information Technology Investment Regions (ITIRs)
- Setting up of standalone/in-house R&D centers and Design centers

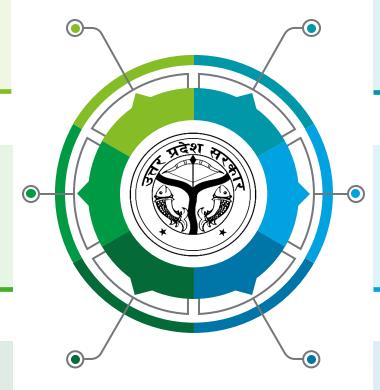
## Information Technology

Uttar Pradesh is implementing several key interventions to promote and enhance IT Sector in the state

**Uttar Pradesh IT Policy:** "UP IT Policy" launched for providing incentives to IT companies, promoting skill development, encouraging innovation and research in the IT sector.

IT Parks and Technology Hubs: Establishment of IT parks and technology hubs like the Lucknow IT City, Greater Noida IT Park to provide state-of-the-art facilities and connectivity for IT companies.

**Digital Skill Development:** The state has initiated programs to provide training in emerging technologies, coding, digital literacy, and entrepreneurship aiming to enhance employability and to bridge the skill gap in the IT industry.



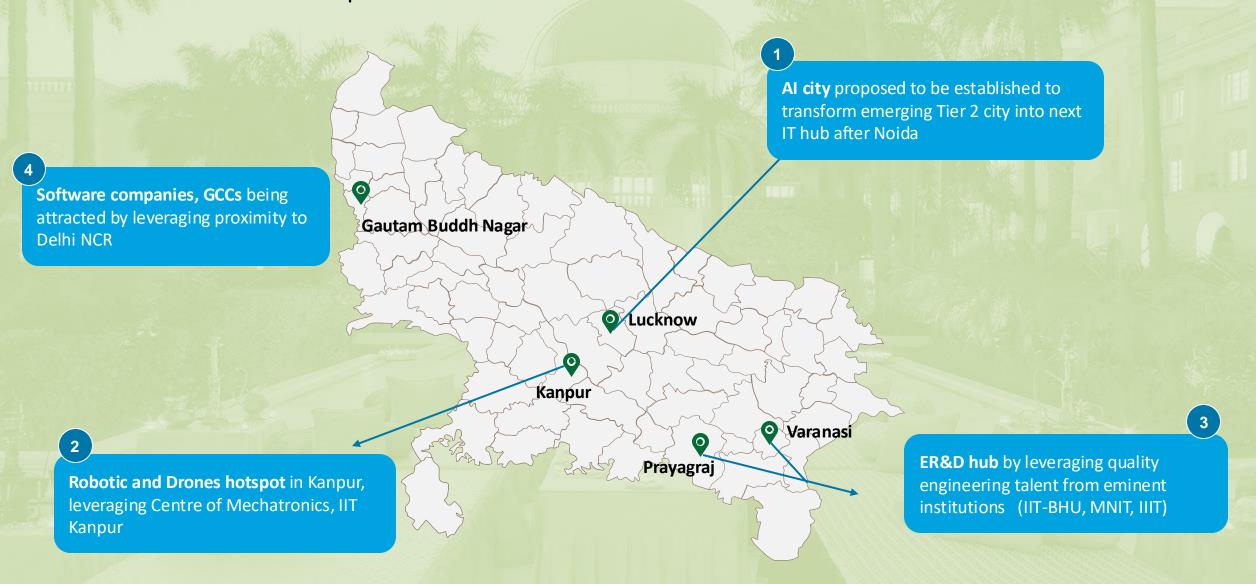
#### **E-Governance and Digital Services**:

Implementation of various e-governance initiatives including the development of online portals and mobile applications such as e-procurement, online land records, e-ticketing, and digital payment systems.

**Digital Connectivity:** Collaboration with telecom operators like BharatNet to enhance network coverage and infrastructure to improve digital connectivity across the state.

**Promotion of Emerging Technologies**: Organizing of conferences, workshops, and training programs on emerging technologies such as AI, blockchain, IoT, and cybersecurity to create awareness and build expertise.

Uttar Pradesh has been proactively encouraging private participation in the growth of IT and ITeS sector to boost economic development



## Potential for fast-track growth of IT/ITeS infrastructure in the State

The IT/ITeS sector in Uttar Pradesh is thriving and witnessing significant growth

#### **Current Scenario**

- Booming IT/ITeS sector with a 22% annual growth in STPI exports to ~Rs. 31,300 crores
- 5 operational STPI Parks in Noida, Meerut, Lucknow, Kanpur, Prayagraj
- 2<sup>nd</sup> highest startup registrations in India in 2022
- 4<sup>th</sup> highest number of NIRF ranked engineering colleges in the country, producing high quality IT Talent
- Established E-SETU centers in 13 districts of the state for providing technical training and skill development in rural areas

#### **Future Development Plans**

- Gautam Buddha Nagar is on its way to become a global emerging technology and data centre hub. The well-established IT ecosystem comprising large companies, existing centers of excellence is being leveraged to further grow the IT/ITeS sector in Uttar Pradesh. The high-quality talent pool and lower rentals are strong value propositions for large IT/ITeS investors.
- \*Lucknow is being developed as an AI City to promote the city as a new age technology hub and the next IT hub of UP after Noida. The proposed state capital region will lead to mobility of skilled workforce and the presence of eminent technology institutions that will provide quality talent which is imperative for the AI ecosystem.
- \*Kanpur will become a Drones and Robotics hotspot leveraging the Centre for Mechatronics in IIT-Kanpur. A state-of-the-art drone and robotics park shall be built to provide value add services to companies which will include shared research labs and requisite infrastructure.
- Prayagraj and Varanasi are to be developed as an ER&D hubs. The lower rental rates
  will result in cost advantage to potential investors and the proposed creation of
  advanced infrastructure will create a cluster effect which will drive collaboration among
  the ER&D units in these cities.
- Upcoming STPI parks in Agra, Bareilly, Gorakhpur & Varanasi.

Source: Indian Tourism Statistics 2022, Ministry of Tourism

<sup>\*</sup>Lucknow & Kanpur identified as Emerging Technology Hubs of India as per Deloitte-NASSCOM Report on Tier 2-Tier 3 cities, 2023

## Support from Government: Key Policy Objectives

Uttar Pradesh IT Policy 2022



Promote human development and infrastructure of IT Cities, Parks, BPM units



Develop and promote attractive business ecosystem in the State



Nourish entrepreneurship and innovation by providing impetus to Startups, Incubators, Centers of Excellence



Digital empowerment creation of citizen centric services, whereby welfare is generated across all sections of the society

#### **Policy Highlights**



Interest Subsidy @7% p.a. up to a maximum of INR 1 Cr p.a.



Stamp Duty @100% exemption of stamp duty



Land Subsidy @25% reimbursement on the cost of land up to a maximum of INR 50 Cr.



Operating Subsidy @ 10% up to INR 20 Cr. p.a. (excluding salaries)



Grant on EPF @ 100% reimbursement of EPF up to a maximum of INR 1 Cr. p.a. for women/SC/ST/Transgender/Divyangjan employees

#### **Special Incentives**

· Reimbursement on certifications upto INR 25 Lakh

- INR 20,000 per employee (UP Domicile) in units located in UP. Not applicable for Gautam Buddh Nagar & Ghaziabad units
- Patent filing cost: 100% reimbursement upto INR 5Lakh & INR 10Lakh for domestic & international patent
- 10% capital subsidy up to a maximum of INR 50 Cr.
- Work from Home: EPF reimbursement and other employment linked benefits
- 100% reimbursement of EPF for expansion case up to INR 1 Cr.

Source: Uttar Pradesh IT policy 2022



FDI, Fortune Global 500 & Fortune India 500 Companies Investment Promotion Policy, 2023

#### **Eligibility Criteria:**

- ✓ Projects with Foreign Direct Investment (FDI) Capital Investment of above ₹100 crores.
- ✓ Projects with Capital Investment of more than ₹100 crores by companies included in the list of Fortune Global-500 and Fortune India-500, subject to Negative list.

## UP FDI and Fortune 500 Policy 2023 – Fiscal Incentives

### **Major benefits**

#### **Capital subsidy**

- 25% of \*ECI (excluding land cost) in Gautam Buddha Nagar and Ghaziabad regions
- 30% of ECI (excluding land cost) in Paschimanchal and Madhyanchal regions
- 35% of ECI (excluding land cost) in Bundelkhand and Purvanchal regions

Capital Subsidy will be provided in 7 equal annual instalments with annual capping of INR 100 crores

#### SGST reimbursement/ refund

- Option A Net SGST reimbursement on sales:
  - 100% of net SGST paid for 10 years
  - Annual capping: Upto 10% of ECI, Overall capping: Upto 100% of ECI (excluding land cost and capital subsidy)
- Option B Input SGST refund on capital goods: 100% SGST refund in 5 annual instalment (Applicable only in case of inverted duty structure)

Note: Option to choose any one out of A and B is available

#### Land subsidy

- Upto 75% in Paschimanchal and Madhyanchal region
- Upto 80% in Bundelkhand and Purvanchal region

#### Other fiscal benefits

- Stamp Duty & Registration Fees: From 50% to 100% exemption/ reimbursement
- **Electricity Duty**: 100% exemption from for 5 years
- Skill development subsidy: Upto INR 5,000 p.m. per person for 5 years (max. 500 persons)

- Green Industry Incentives: 50% capital subsidy on the cost of **Effluent Treatment Plant capped** at INR 2.5 crores
- Industrial Housing Incentives: Reimbursement upto 10% of the cost of development of workers' housing or dormitory for 7 years overall capped at INR 10 crores
- R&D incentives: Reimbursement upto 25% of the cost of standalone R&D centre capped at INR 10 crores (with minimum capital investment of INR 20 crores)
- Centers of Excellence (CoE): Grant upto 50% of the project cost capped at INR 10 crores per project Note: Option to choose any one out of above is available
- Logistics Subsidy: Reimbursement upto 50% of the transportation cost on import capped at INR 2 crores per unit (in case of shifting of existing plant from international or domestic locations to UP)
- Patent cost: Reimbursement upto 75% of the cost capped at INR 10 lakh (for domestic) and INR 20 lakh (for international)

## **Key Investment Opportunities**

<b>Artificial Intelligence (AI) City Deve</b>	lopment				
About the Project	The Department of IT and Electronics has earmarked a prime land to develop an AI City in Lucknow. The AI city w comprise leading AI companies, startups, AI focused Centre of Excellence and incubator. To support such an ecosystem, Data Centres may also be established.				
Location	Near the Airport				
Connectivity	Connected to 4 countries and all major Indian cities by air				
	<ul> <li>Excellent road network comprising 5 National Highways that connect to Delhi, Varanasi, Kanpur, Gorakhpur, Jhansi</li> </ul>				
Transaction structure	Public-Private Partnership				
Value proposition for the Investor	State-of-the-Art AI focused City, fostering an AI centric ecosystem				
	As per the India Skill Survey, Lucknow is one of the top cities for available computer talent				
	Lower office rentals enhances attractiveness to IT and ITeS units				
	<ul> <li>Attractive policy incentives for IT parks, IT and ITeS companies setting up their operations in Uttar Pradesh, CoEs, R&amp;D Centres</li> </ul>				

## Transforming Lucknow into an Al City



#### Vision

 Government of Uttar Pradesh seeks to develop a state-of-the-art Al City in Lucknow, with participation from diverse and relevant stakeholders



#### Pillars of AI Ecosystem

- A comprehensive strategy will be adopted to support technology startups, establish deep-tech divisions of large technology companies and promote industry-academia partnerships
- PE, VC investors will play a pivotal role in driving these initiatives forward
- Collaborate with a world-class developer to develop the AI City

#### Governance

- A 'Board of Directors' to drive the vision of the AI City
- Representation from prominent industry and academia



#### Startup Ecosystem

- Incubators and accelerators to support AI startups
- Create opportunities by digitalising public services

#### **Leading Tech Companies**

- Targeted outreach to anchor investors
- Offer high-end tech. services from Lucknow

#### **Private Investments**

- Compute infrastructure investments (which include GPUs, Hyperscalers and Data Platforms)
- Engage PE/VC investors to set up an AI fund to boost AI projects
- · Provide market access,
- scaling up guidance

#### **Academia**

- Collaborate with prominent institutions to formulate AI courses
- Focus on upskilling existing talent with AI skills
- Establish dedicated AI/ML R&D labs with eminent institutions
- Set up **COEs** in emerging technologies

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## **Key Investment Opportunities**

IT Parks						
About the Project	An IT Park is constructed with minimum floor area of approximately 15,000 square meters. It may or may not include public utility offices/ facilities in the said premises. The area allotted for IT activities should be 75% of the allocable area.					
	An IT Park contains most of the technological infrastructure similar to an IT city like optic fiber connectivity, Broad band connectivity, Wi-Fi access, Video conferencing facilities etc. IT Park is a subset of an IT City with entire area dedicated majorly on I activities.					
Location	Across the state- Agra, Bareilly, Gorakhpur & Varanasi, etc.					
Centres of Excellenc	e (CoEs)					
About the Project	Centres of Excellence are being developed across the state in emerging technologies. The state currently has three CoEs located Lucknow (Medtech), Noida (AI) and Kanpur (Drones). The IT and ITeS Policy, 2022 aims to further establish three CoEs in collaboration with reputed academic institutions and/or industry associations/industry or any other Govt./ Private entity.					
Location	Across the state					
Value Proposition	<ul> <li>Regulatory focus to develop CoEs for emerging technologies along with attractive policy incentives: Upto 50% of the to project cost (subject to a maximum of Rs.10 crores) will be borne by the Government of UP</li> </ul>					
	• 5 operational STPI Parks in Noida, Meerut, Lucknow, Kanpur, Prayagraj; 4 more upcoming STPIs					
	UP had the 2 <sup>nd</sup> highest startup registrations in India in 2022					
	Intent to develop CoEs in emerging technologies by collaboration of academia and leading tech players					
	• UP has the 4th highest number of NIRF ranked engineering colleges in the country, which could be leveraged for collaboratio					

## Engineering Research & Development Hubs



Prayagraj and Varanasi are planned to be developed as Engineering Research & Development (ER&D) hubs.

The lower rental rates will result in cost advantage to potential investors and the proposed creation of ER&D Parks will create a cluster effect which will develop an ER&D ecosystem in these cities

# **ER&D Market Overview**



- India's share in global ER&D outsourcing market is >30% and with consistent double-digit growth, is **expected to reach 50%** within a decade
- 900+ ER&D GCCs in India with Tier 2 and Tier 3 cities also gaining traction
- Software, Healthcare & Automotive sectors account for ~50% of global ER&D spend

**Key Trends:** 



Larger and longer strategic ER&D Deals



Evolving digital engineering use cases across verticals



Migration of engineering activities to cloud

#### Key Highlights of Prayagraj and Varanasi



Three engineering colleges in NIRF Top 100 rankings



Successful STPI Park in Prayagraj, Upcoming STPI Park in Varanasi



650+ DPIIT Startups (~6% of state's startups)



Presence of tech incubators (3 in Varanasi, 1 in Prayagraj)



Excellent intercity road connectivity Domestic, international airport



MOU between I-DAPT HUB F, IIT (BHU), Varanasi for joint R&D in cybersecurity

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### Drone and Robotics Hub of India



Kanpur, formerly known as the 'Manchester of India', has been identified as an emerging technology hub by NASSCOM. Located in Central Uttar Pradesh, it is envisioned to become a **Drones and Robotics hotspot** leveraging the Centre for Mechatronics in IIT-Kanpur



Drone CoE at IIT-K (Unique 1 km runway, flight testing lab, wind tunnel facility)



Defence Hub on UPDIC\* (Home to HAL, Small Arms Factory, Field Gun Factory and Parachute factory)



Leading drone players-EndureAir, Lohia Aerospace (Hotspot for military, agridrones, etc.)



**~200 Tech startups**(4 incubators
supporting 34 startups)



#1 in North India under Data Maturity Assessment Framework (Kanpur Smart City)

Infrastructure		Talent	<b>(3)</b>	Social Amenities	
Real estate availability, affordability	High (Operational STPI, Technopark)	# of colleges	300+ (IIT Kanpur, Kanpur Inst. of Technology)	Eminent schools	DPS St. Mary's
Internet Connectivity	Wide Coverage, High Speed (~2x of speed in Ahmedabad, Jaipur, Indore)	# of annual graduates	~50,000 (20% STEM)	Reputed hospitals	Apollo IHOSPITALS
Intra-city connectivity	High (Metro, Upcoming Ring Road)	# of employees in tech cos.	~7,000	4 & 5 star hotels	LANDMARK ROYAL ORCHID
				Malls	Z SQUARE One of India's largest
Inter-city connectivity	High (Direct flights - Mumbai, Delhi, Bangalore; Golden Quadrilateral Highway)	Availability of gig workers	High (~13% growth in hiring in 2022)	International cricket stadium, Amusement Park	Elucworld Parks

Source: Deloitte-NASSCOM report titled 'Emerging technology hubs of India' \*UPDIC- Uttar Pradesh Defence Industrial Corridor

## Think GCC, Think UP



Noida has been the go-to market for tech investors



"Lucknow, Kanpur are **Emerging Tier II Tech Hubs "** 



**70+** GCCs. **Delivery Centres in UP** 



4<sup>th</sup> highest NIRF (Top 100) **Engineering Colleges** 



**9** STPI parks across Tier I, II Cities



**IITs** highest for any state



~30-40% lesser rentals than Bengaluru, Gurgaon



**Jewar** India's largest airport in Noida

#### **Existing GCCs in UP**











MetLife













**ALTOS** 













'Uttar Pradesh has vast untapped potential. It has an investment friendly government that is keen on improving ease of doing business and infrastructure in the state."

> -Mr. Kumar Mangalam Birla, Chairman, Aditya Birla Group

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