

TRANSFORMING INDIA THROUGH DIGITAL INITIATIVES

E-Governance and Digital
Transformation journey in
Government



March 2022

Contents

Foreword	03
Key takeaways	04
Executive summary	05
Transforming India: achievements at a glance	06-07
Enabling Digital infrastructure in key sectors	08-09
Transformation in Government using digital services	10-25
Urban smart infrastructure	
Startup ecosystem	
Health management & services	
Education	
Specific practitioner expertise	26

Foreword



Indian Government, in its best effort through National Infrastructure Pipeline (NIP), aims to give world-class infrastructure to its citizen and improve the quality of life. Indian Government's high-level task force under various departments and ministries constituted a participative ecosystem to undertake projects (Greenfield or Brownfield projects > US\$ 13M) under NIP to address citizen concerns due to lack of infrastructure. These initiatives are steps in the direction of public private partnership and co-working towards seamless productivity and effective models that will take India towards the ambitious goal to be a US\$ 5T economy by 2025.

Growing urbanization, working population, and service-based economy require a robust infrastructure (both physical and social) foundation. This implies the requirements on capital funds to influence, boost and amplify development efforts. India looks at being globally competitive and widening its economy and influence. It looks at frictionless scaling and becoming "Atmanirbhar" in financing these projects. India is soaring high on its Start-up ecosystem fuelling tech innovation, entrepreneurship, and opportunities for expansion, jobs, leadership.

This report is intended to highlight notable Government schemes in enabling the capital infusion by domestic and international investors, thus providing momentum in development, opportunities through public private partnership and through policy reforms enabling the ecosystem to complete projects and initiatives taken by the Government bring citizen service delivery to center stage and improve the quality of life.

We, at Praxis, look forward to continuing the discussion with ecosystems, including investors group, Government, development agencies, and multi-lateral sectors, and exchanging notes on various issues pertaining to the Government's role as an enabler. We look to share perspectives and insights on the sectors continuously.

Madhur Singhal

Managing Partner & CEO

Aryaman Tandon

Managing Partner & Co-Founder

Key takeaways



- Landscape of Government enabled services and their operating models are evolving with digital interventions like services in the front office, back office, and field services provided by local Governments and their current operating models
- Leverage digitalization throughout the entire lifecycle of urban service delivery to bring efficiency cost optimization and create livelihoods for urban youth and women in public service delivery
- Operating models where 'field services' is an essential component covering new workflow processes, technology, governance structure, mobilization of staff, and skills capacity building
- Sustainably provide municipal services, enhancing citizens' quality of life and experience of urban habitation
- India to spend US\$ 4.5T on infrastructure by 2030 to realize the vision of a US\$ 5T economy by 2025 under Greenfield and Brownfield projects, thus, creating a capital pool and employment
- Encouraging target industries and development initiatives with 2X requirements for sector investment
- Potential for startups (by 2025): 150 Unicorns, 100,000+ startups, US\$ 1T in value created
- Hospital management system enables hospitals and healthcare centers to function systematically and manage information effectively to deliver better
- Fresh lenses adopted by the leading Government education system for supporting in the accelerating digital learning and building capability framework where NIPUN will play a significant role

Executive summary

Envisioning Bharat at 75 by becoming Atmanirbhar in financing our startup ecosystem

National Infrastructure Pipeline (NIP) aims to seize key greenfield and brownfield projects for investments across all economic and social infrastructure sectors. Projects have been systematically commissioned for their strategic use cases, requirements, and merits. Projects executed are being spearheaded with the support and participation of a private ecosystem that also shares financial risk, brings onboarded experience, strengthens infrastructure quality, asset monetization, long term financing, and thus forms a backbone to create a robust ecosystem across India. A growing number of Startups (51 Unicorns with US\$ 0.98B valuations, 3rd largest in the world).

- 22 Startups raised over US\$ 100M in FY20 from VC and growth equity investors, in consumer tech majorly
- Current: 3rd Largest Startup ecosystem | 55000+ Startups | US\$ 350B of value created | 3M jobs over eight years
- Potential (by 2025): 150 Unicorns | 100,000+ Startups | US\$ 1T in value created

Schemes under NIP like Smart City Mission, AMRUT, National Solar Mission, Bharatmala, and so on act as catalysts to boost the momentum for development, create job opportunities, and promote FDIs, thus increasing vital capital and talent pool in the country.

While adopting global standards in a localized manner with strong governance models across these projects, Governments are pushing towards increasing confidence in the ease of doing business and growth prospects. Also, implementing it in the right direction is making strides amongst the global investment communities and partner nations. India's goal of a US\$ 5T economy by 2025 is certainly ambitious. Under IIG (India Investment Grid), NIP initiatives schemes put policies reforms, investment opportunities, and attractiveness of capital through public private partnership for these projects.

India is soaring as it offers Talent, Market, Capital, Ecosystem, and Open culture. India's global competitiveness is increasing, and there is a significant rise in economic influence. This can be seen through as India has the highest ever FDI inflow of US\$ 67.9B in 3 quarters FY21 and projected GDP growth of 11.5% in 2021 by IMF.

Production Linked Incentive (PLI) scheme is a push towards making India an emerging global production hub to become the top two in the world by 2030.

This report highlights achievements of India at 75 years of Independence and initiatives undertaken in the social infrastructure sector under NIP. The report further deep dives into themes and models of Digital infrastructure and how those have transformed citizen service delivery through smart governance.

Transforming India: Government schemes' achievements at glance



Overview



Digital infrastructure enabling key sectors across the country



Overview

Modes

Digital infrastructure as a utility for every citizen

Digital infrastructure creating a mass movement development across its citizen

Parameters

- Technology & innovation
- Rebuilding of strong digital infrastructure
- Employment and labor reforms
- Smart cities for urban transformation
- Education and skilling reforms
- Public health management and action
- Financial reforms
- Sustainable environment growth
- Government services delivered quickly, two-way contact between citizens and Government entities, eliminating the need for middlemen and lengthy waiting periods
- Empowering citizens by providing them improved access
- Leads to cost and time-effectiveness, security and storage of public data in the cloud transparency between the Government and an individual during a process
- Governments are held to a higher standard of accountability, enhancing Citizen-Government interaction and fostering confidence

Key sectors

Boosting key sectors



Transforming Government services for establishing digital infrastructure



Overview



Education



- Impact of various schemes (DIKSHA) and initiatives for digitizing educational services
- DIKSHA is the national platform under NIPUN Bharat Mission for school education
- Enabling coherent multi-channel, multimodal, learning scale

Health management & services



- NHA is leading the implementation for Ayushman Bharat Digital Mission (ABDM)
- 150M+ ABHA Number Created, 15K+ Health Facilities Registered
- PM-JAY is the largest health assurance scheme providing a health cover
- 173M+ Ayushman cards issued, 26M+ hospital admissions

Urban smart infrastructure



- Punjab, Odisha, and Pune municipal corporation initiatives on citizen engagement models
- SMART City Mission to target outcomes and better resource utilization, and better service delivery
- Spearheading the National Infrastructure Pipeline (NIP): Capital inflows to boost major sectors

Startup ecosystem



- Startup India initiatives supported by Government organizations
- Major sector startups funded under Funds of Funds scheme
- Software Technology Park Scheme (STPI) to boost emerging and top states with best startup initiative practices

Urban Smart Infrastructure - Urban Local Bodies (ULBs) citizen engagement model

Select case studies on citizen engagement models: Punjab, Odisha and Pune

Punjab Municipal Infrastructure Development Corporation



- Recruit and mobilize **urban poor youth and women** for providing doorstep services to citizens
- Provide training, flexible working hours, and incentives linked to the service delivery
- Operating model will be a **relationship-based model** that will allocate one person per certain number of households
- Existing experienced staff in Urban Local Bodies (ULB) departments will be re-deployed for managing high-value properties and dispute resolution
- Sharp focus on promoting digital payments through UPI and mobile wallets

Bhuvneshwar Municipal Corporation



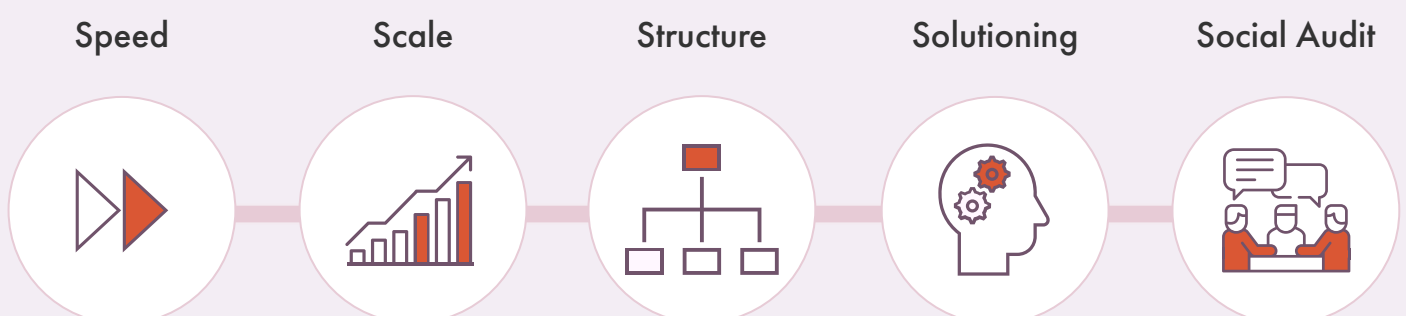
- Odisha has identified two operating models for on-ground deployment – **Unified Revenue Collections and Online Building Plan Approval System**
- Enabling a system where one collection agent is empowered to collect multiple municipal revenues such as property tax, trade license fee, etc.
 - Deepening Engagement with Women SHG Groups
 - Enhancing entrepreneurship, flexible working hours, and a competitive incentive structure
- Enabling remote scrutiny of building plans
 - Pooling in planners (engineers) in corporations & municipalities to provide remote support to the long tail of NACs
 - An opportunity for creating a gig economy model for engineering graduates



Pune Municipal Corporation

- Pune citizen engagement model used a structured 9-phase approach to maximize the involvement of citizens
- The top 6 sectors aimed were:
 - Transport and mobility
 - Sewage and water
 - Solid and waste management
 - Environment and sustainability
 - Safety and security
 - Energy
- There are more than 5 methods of citizen engagement:
 - Face-to-face
 - Going digital and online
 - Open houses and events
 - Competitions for crowdsourcing of ideas and creativity
 - Publicity and advertising
 - Transport and mobility
 - Sewage and water
 - Solid and waste management
 - Environment and sustainability
 - Safety and security
 - Energy

"5S" approach to citizen engagement



Urban Smart Infrastructure - Urban Local Bodies (ULBs) citizen engagement model

Case study: Several models of citizen engagement adopted, for example, Pune

Modes	Activities
Face-to-face	<ul style="list-style-type: none"> Door-to-door visits by PMC employees and volunteers Camps in schools, colleges, companies, and organizations Mass form distribution in societies/townships Form filling booths in Government offices across the city Paper forms and smartphones distribution in Ganesh Mandals during Ganesh Chaturthi
Going digital and online	<ul style="list-style-type: none"> Pune smart city web portal Gamification - reward system for participation through website Public computer terminals to access portal at e-seva kendras Twitter handles and Facebook page Android app for smartphones
Open houses and events	<ul style="list-style-type: none"> Essay, logo, and mascot design competition in English and Marathi newspapers Digital 'Hackathon' conducted across 60 engineering colleges 'Smart family' and 'Smart citizen' initiatives
Publicity and advertising	<ul style="list-style-type: none"> Hoardings and banners Sound bites on radio channels Interviews, panel discussions, press meets on TV and radio 'Gallery Walk' set up in the War Room to make citizens aware of the Smart City initiative

Extent of coverage of citizen engagement in different media & channels

OFFLINE MODE



Face-to-face

7.5 lakhs form distributed

1.5 lakh citizens signed up as smart volunteers



Discussion

100+ meetings with different groups from the Pune stakeholder grid



Newspaper and radio

10 leading newspapers in the city covered the campaign

40 messages broadcasted across 5 radio channels

ONLINE MODE



70K+ registrations on web portal



29K+ digital audience, 1.4K+ likes, 423 posts



11 lakhs+ impressions, reach of 6.7 lakhs through 3.5K+ tweets



6K+ responses with 1K+ downloads, 500 ideas received from citizens



21K+ views, 3K+ likes

Urban Smart Infrastructure - Urban Local Bodies (ULBs) citizen engagement model

Shared service model implementation to boost efficiency, lower operating costs, and provide a seamless experience for citizens



Challenges in ULB

- Limited awareness about urban planning
- Inadequate planning of cities & institution
- Low urbanization and recognition
- Demand-supply issues across manpower
- Inadequate & technically qualified planners
- Disconnect between urban planning & urban land records



Salience of shared services

- AI-based data platform for smart cities & compliance management
- Promoting digital payments through UPI, mobile wallets
- Unified revenue collections & online building plan approval system
- Recruit & mobilize urban youth and women
- Upskilling of women
- Deepening engagement with women SHG groups
- Resources pooled across department
- Training, flexible working hours & incentives
- Staffing in ULB departments

Examples of salience of shared services



Urban Smart Infrastructure - Smart City Mission

Smart city projects have seen significant investments in India

Based on 49 indicators, 4 pillars: quality of life, economic ability, sustainability & citizen perception

Based on 99 indicators, 5 Pillars: Service, Finance, Planning, Technology, Governance

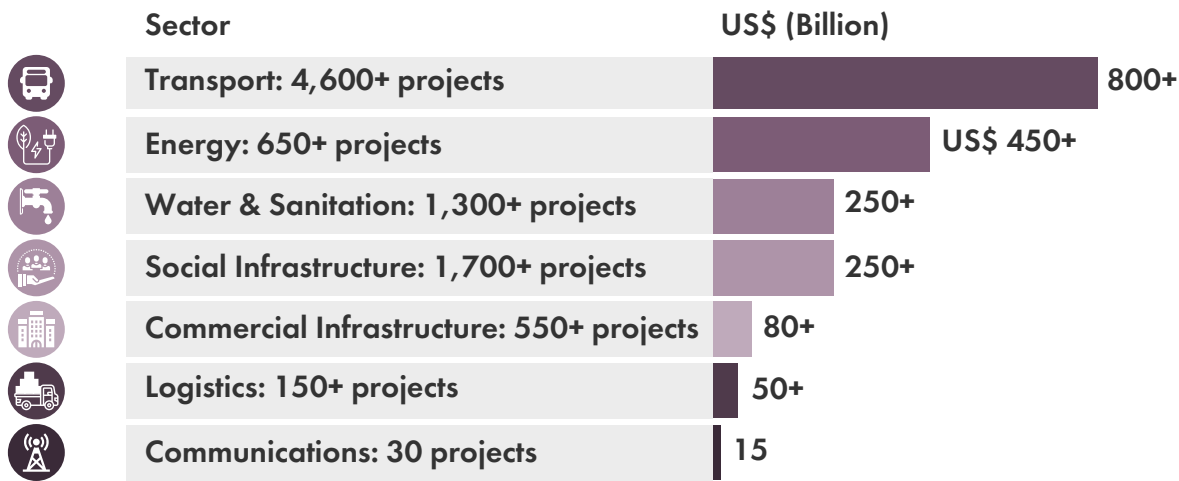
Highlights	Projects completed	Investments (INR Cr.)	Ease of living index score	Municipal performance score
Indore 24x7 automated emergency response control center, digital health clinic, digital library, global teaching hospital, smart parking management, and stormwater management	224	3,438	58.58	66.08
Bengaluru Roads, pavements, public transport, parks, streetlights, and the entire urban landscape improved	8	63	66.70	45.02
Bhopal Transport & mobility, solid waste management, widest citizen's engagement program	57	2,433	56.26	59.04
Ahmedabad PPP infrastructure in this city is excellent	52	1,852	64.87	57.60
Nagpur Applying a smart traffic management system with 5 phases	3	994	55.33	45.12
Bhubaneswar Development by, provision of housing, preserving open spaces, promoting a variety of transport public transport & last mile para-transport connectivity	16	874	59.85	43.38
Pune Invests heavily in infrastructure projects, generating economic activity and promoting a green environment	28	839	66.27	58.79
Chennai Offer advanced infrastructure, exceptional civic amenities, and its full integration with cyberspace	37	600	62.61	48.74
Coimbatore Efficient energy generation, known as Energy City of India	56	323	59.72	50.52
Rajkot Providing state of the art infrastructure, delivery of services and empowering ecosystem by enabling citizens	18	272	55.94	50.03

Very high      Very low

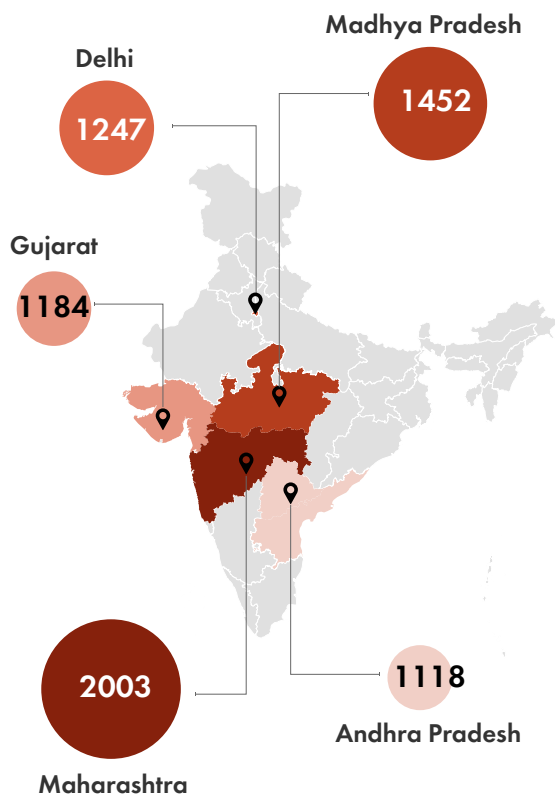
Urban Smart Infrastructure - NIP

Spearheading the National Infrastructure Pipeline: Capital inflows to boost major sectors and creating employment

National Infrastructure Pipeline opportunities in major sectors



Major opportunities in top 5 states #opportunities



National Infrastructure Pipeline aims

- Aims to capture key greenfield and brownfield projects for investments across all economic and major sectors
- Enhancing project execution of private ecosystem, financial risk-sharing, strengthen infrastructure quality, asset monetization, long term financing, robust ecosystem
- 9,161 projects, 34 sub-sectors, US\$ 1,496B costs across transport, power, and energy, water sanitation, social infrastructure, communication, commercial infrastructure
- To achieve India's goal of US\$ 5T economy by 2025

National Infrastructure Pipeline Significance

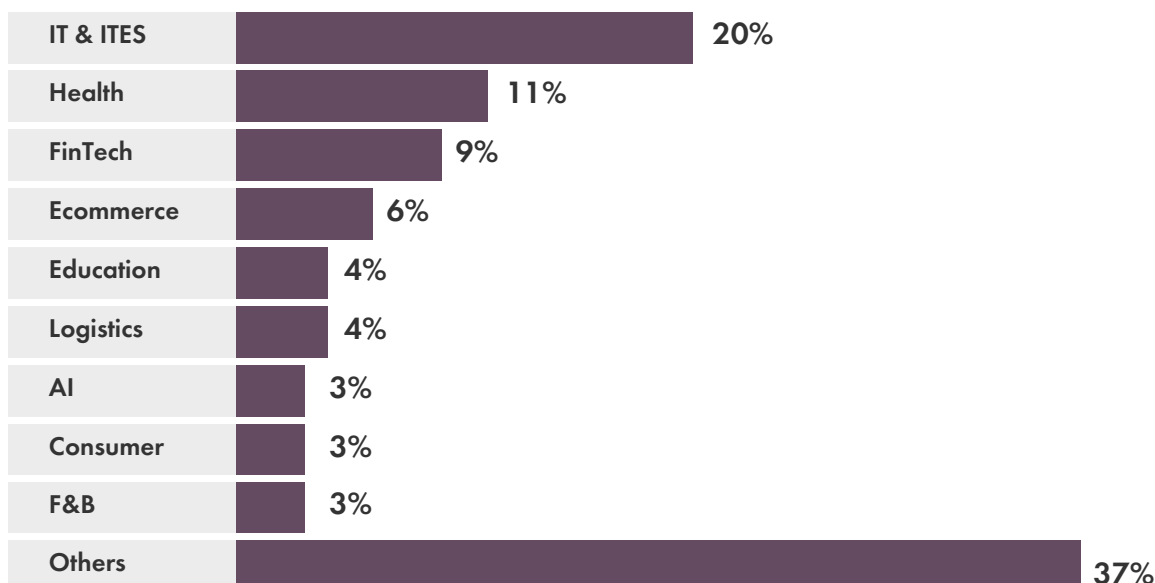
- Schemes under NIP like Smart City Mission, AMRUT, National Solar Mission, Bharatmala act as a catalyst for boosting the momentum
- Supporting the development, job opportunities, and FDI investment, thereby increasing a much-needed capital and talent pool in the country
- Growing urbanization, increasing working-age population, shift to a service-based economy, and climate change enhancement

Startup ecosystem - Startup India

Startup initiatives supported by private sector and Government organizations across India

Parameters	
About	<ul style="list-style-type: none"> Startup India program with a stated objective to build a strong ecosystem for nurturing innovation and startups in the country
Objectives	<ul style="list-style-type: none"> Simplification and handholding Funding support and incentives Industry-academia partnerships and incubation
Networks	<ul style="list-style-type: none"> 41,000+ startups recognized by DPIIT 44% of the recognized startups have at least one-woman director 59 incubators established under the Atal Innovation Mission
Investment	<ul style="list-style-type: none"> US\$ 604M of investments made in 384 startups through the Fund of Funds scheme 87% increase in IPR registrations (as self-reported by startups) over 3 years (FY17-20)

Sector wise split of startups funded under Funds of Funds scheme



Corporate accelerators or incubators	Venture capital operated accelerators or incubators	Government run programs or incubators
 Microsoft ScaleUp 	 	

Networks under Startup India	2020	v/s	2021
Incubators	663		775
Accelerators	165		167
Investors	109		118

Startup ecosystem - STPI

Emerging and top states with best startup initiative practices under Software Technology Parks of India (STPI)

Parameters	
About STPI	<ul style="list-style-type: none"> STPI is a premier S&T organization under the Ministry of Electronics and Information Technology (MeitY) engaged in promoting IT/ITES Industry, innovation, R&D, startups, product/IP creation in the field of emerging technologies
Metrics	<ul style="list-style-type: none"> STPI has 64 centers with registered units of US\$ 66.6B across country till 2021
Key services of STPI	<ul style="list-style-type: none"> Statutory Services Internet Services or Data Communications Incubation and PMC Services CRS Surveillance Data Center Information Security Audit Service (VAPT)
STPI to create opportunities	<ul style="list-style-type: none"> Achieving high levels of customer satisfaction by execution of the projects through dedicated workforce creating employment To deliver comprehensive services and a conducive environment Advancing of the technology industry and creating investment pool for the upcoming startups

Best performer

Gujarat | Andaman & Nicobar Islands

Top performer

Karnataka | Kerala

Leaders

Chandigarh | Maharashtra | Odisha | Rajasthan

Aspiring leaders

Haryana | Jharkhand | Punjab | Telangana | Uttarakhand

Emerging startup ecosystem

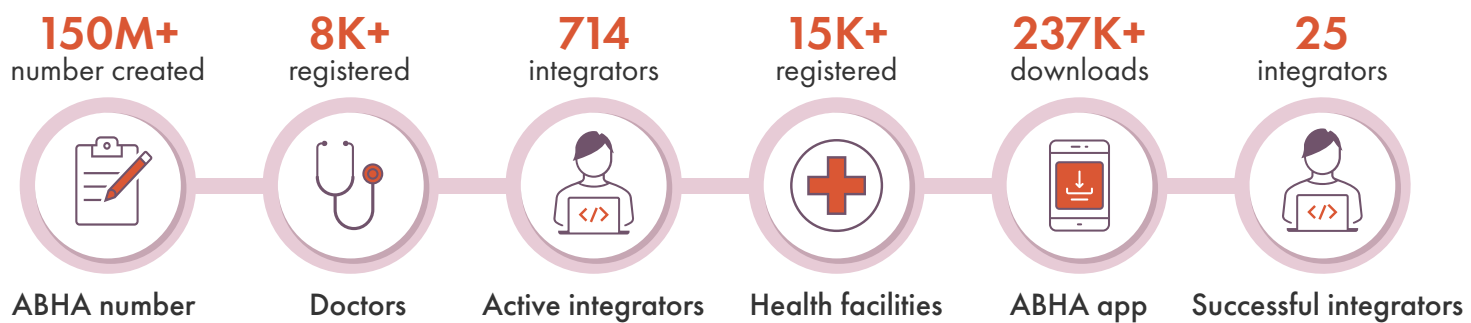
Andhra Pradesh | Assam | Sikkim | Delhi | Himachal Pradesh
Madhya Pradesh | Tamil Nadu | Uttar Pradesh

States	Top initiatives by States
Uttar Pradesh	<ul style="list-style-type: none"> State Government has collaborated with premier institutes like IIT-Kanpur, IIT-BHU, IIM Lucknow, KNIT-Sultanpur to establish incubators
Himachal Pradesh	<ul style="list-style-type: none"> Approved 7 academic institutes to setup incubators across various sectors including IT, engineering, biotechnology, agriculture
Gujarat	<ul style="list-style-type: none"> iCreate provides incubation and mentoring to slightly mature projects. Period of incubation can be up to two years, and iCreate has dedicated a budget of up to US\$ 0.33M
Andhra Pradesh	<ul style="list-style-type: none"> Government launched Sunrise Incubation Tower operating on `Bootup-Startup-Scaleup` model and lends focus on first generation technocrat entrepreneurs
Karnataka	<ul style="list-style-type: none"> GOK NASSCOM 10000 Startups Warehouse GOK Incubator For Tech Startups (Gifts) GOK-Mobile 10x Startup Hub Bangalore Bio Innovation
Goa	<ul style="list-style-type: none"> Has provisioned to provide lease rental subsidy of up to INR 20/square feet per month, to startups for a period of two years
Maharashtra	<ul style="list-style-type: none"> Highest number of startups with female director as well as the highest number of startups overall

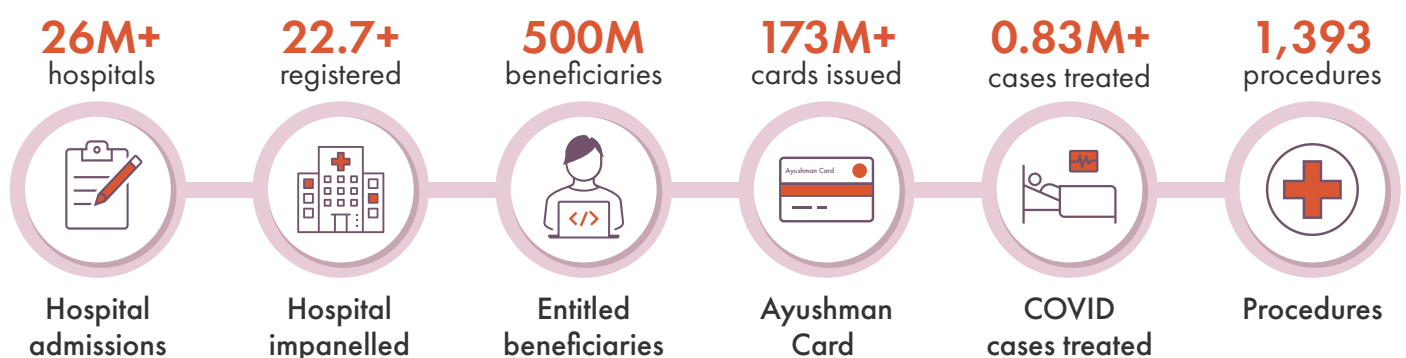
Health management & services - NHA

Government-led healthcare infrastructure under National Health Authority (NHA) and its schemes

Parameters	
About NHA	<ul style="list-style-type: none"> NHA is leading the implementation for Ayushman Bharat Digital Mission (ABDM) Coordinating with different ministries or departments of the Government of India, State Governments, and private sector or civil society organizations
Key saliences of NHA under ABDM	<ul style="list-style-type: none"> Development of models for self-financing of Ayushman Bharat Digital Mission Capacity building of various stakeholders for health informatics Recruitment of resources from the Government and private sector at competitive market rates

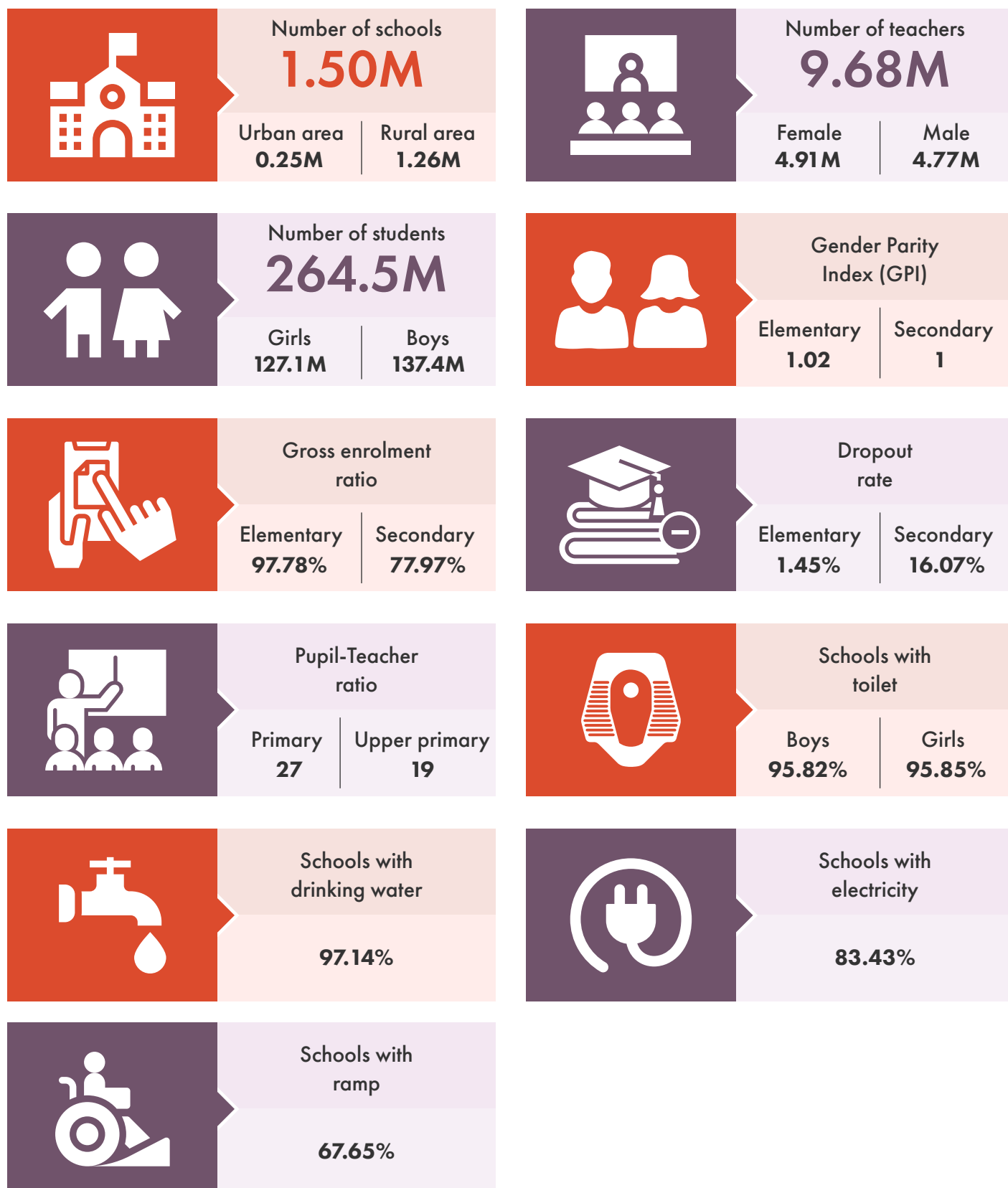


Parameters	
About PM-JAY	<ul style="list-style-type: none"> PM-JAY is the largest health assurance scheme in the world which aims at providing a health cover of INR 5 lakhs per family per year for secondary and tertiary care hospitalization to over 10.74 crores poor and vulnerable families
Key saliences of PM-JAY	<ul style="list-style-type: none"> PM-JAY provides cashless access to health care services for the beneficiary at the point of service, that is, the hospital Benefits of the scheme are portable across the country Services include approximately 1,393 procedures covering all the costs related to treatment



Education – UDISE dashboard

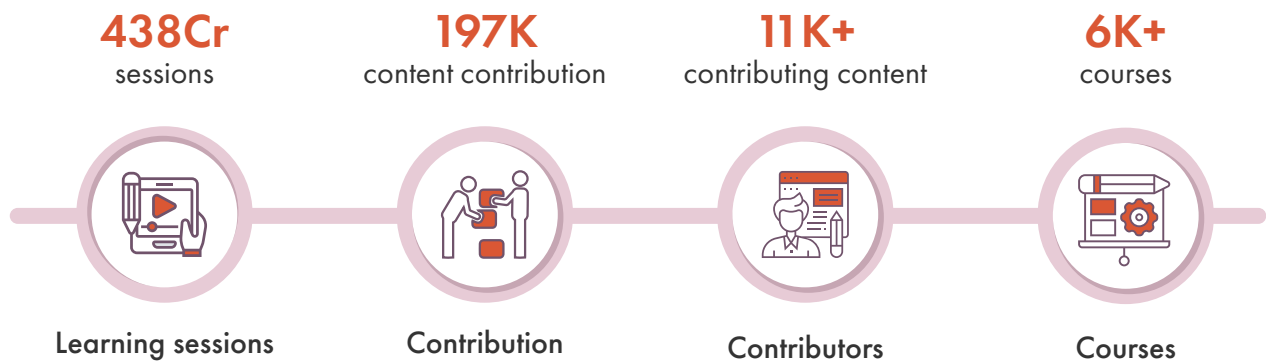
Performance dashboard: Impact of various schemes and initiatives in Education



Education - DIKSHA

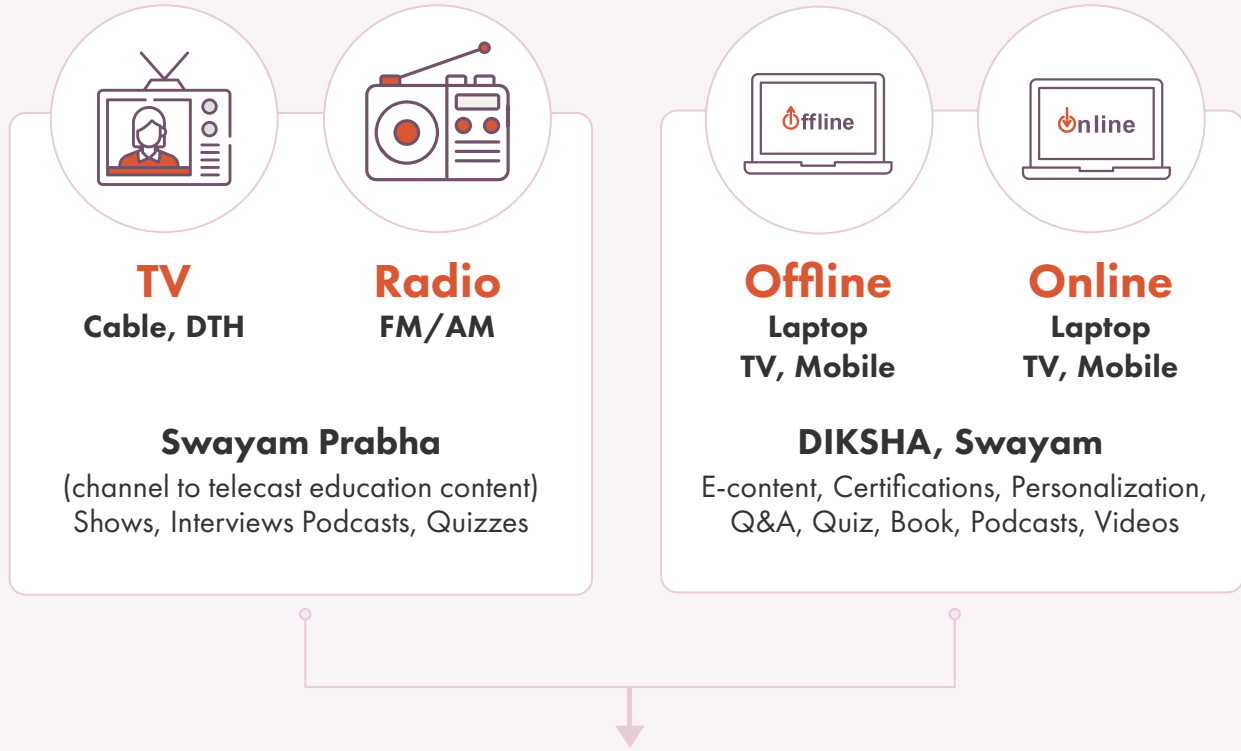
Education sector aiming one nation, one digital platform under Digital Infrastructure for School Education (DIKSHA)

DIKSHA metrics



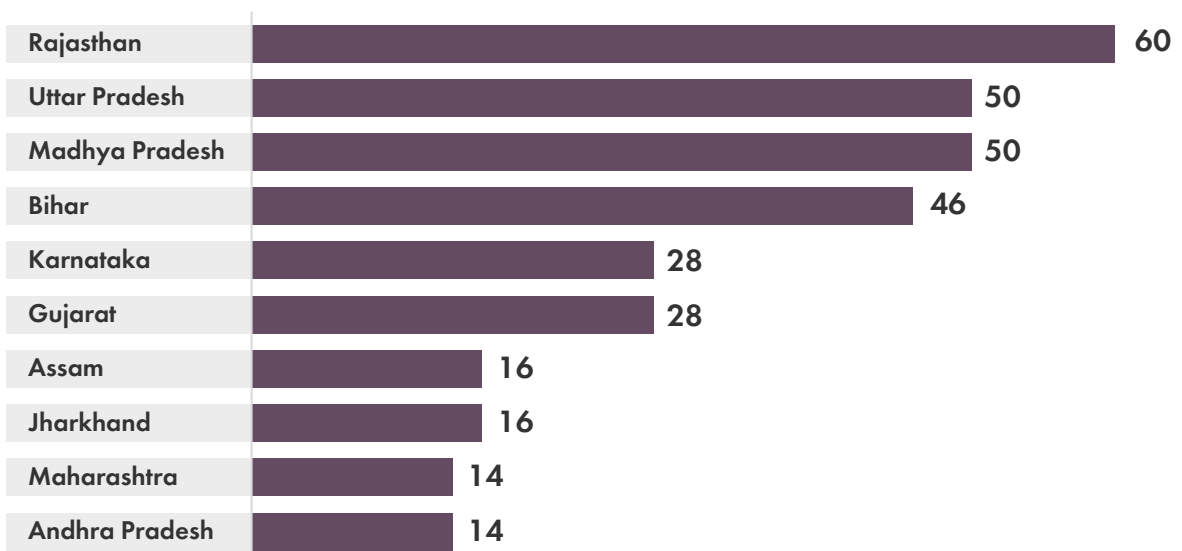
Parameters	
About	<ul style="list-style-type: none"> DIKSHA is the national platform under NIPUN Bharat mission for school education available for all states and the central Government for grades 1 to 12
Accessible	<ul style="list-style-type: none"> Accessed through a web-portal and mobile application providing e-content through several use cases and solutions such as QR coded Energized Textbooks (ETBs), courses for teachers, quizzes and others
Key saliences of DIKSHA	<ul style="list-style-type: none"> Autonomy and choice within a national framework Online-Offline and varied types of devices Diversity of content Data provides the ability to see and empower Local language content and an open licensing framework Capability building framework

Enabling coherent multi channel, multimodal, learning scale



Majority total learning sessions in top 10 states

(#sessions in M)



Specific practitioner expertise

Madhur Singhal

Managing Partner & CEO

Ecommerce and Digital consumer

Shishir Mankad

Managing Partner

Financial Services

Lokesh Bohra

Senior Vice President

Sustainability and Impact Advisory

How we help our clients

We have deep sectoral expertise and domain experience to help shape winning strategies in continuously supporting sustainability and driving impact outcomes.

Digital transformation

Enabling our partners navigate the tectonic digital transformation to deliver growth and operational efficiency

Data driven insight

Analytics-driven approach for identifying opportunities for improving efficiency and impact of the programs, Applying statistical techniques innovatively to business problems, Managing large sets of data using a variety of tools and applications

Landscape assessment

Analyzing impact by sub-segments, geography. Defining the mandate to achieve sustainable development goals, Understanding the ecosystem challenges, Sector mapping to identify key trends & key players, Benchmarking best practices on governance, schemes, monitoring mechanisms

Policy advocacy

Understanding key areas of support required from legal and policy framework

Social impact assessment

Measurement toolbox, Social return on investment, Cost-benefit analysis, ROI and efficacy maximization, Assess organizational effectiveness across strategic and operational issues

Maximizing outreach on programs

Designing and implementing processes based on the principles of design thinking to enhance customer experience

Process re-engineering

Designing processes & tools to enhance field force effectiveness, Capability improvement initiatives for field force

Connect with us

We will be happy to share perspectives

Madhur Singhal
Managing Partner & CEO
Praxis Global Alliance

Aryaman Tandon
Managing Partner & Co-Founder
Praxis Global Alliance

For media queries, please contact

Vishakha Mahajan
SVP - Corporate Communications
E: communications@praxisga.com
M: +91 989 945 5430

Diksha Bhutani
Lead - PR & Communications
E: PR@praxisga.com
M: +91 935 413 7148

www.praxisga.com



New Delhi | **Gurugram** | **Mumbai** | **Bengaluru**

Disclaimer: This material has been prepared by Praxis Global Alliance, which is the trade name of Praxian Global Private Limited ("Praxis", "we", or "our") with the intent to showcase our capability and disseminate learnings to potential partners/clients. This material can be referred to by the readers on the internet but should be referenced to Praxis Global Alliance, if reused or adapted in any form, medium and on any forum. The frameworks, approaches, tools, analysis and opinions are solely Praxis's intellectual property and are a combination of collection of best data we could find publicly, and Praxis team's own experiences and observations. Any information provided herein is only for informational purposes and you are advised to perform an independent analysis of the same before making any decision based on such information. The information does not constitute any business advice or guidance and is to be construed as a general summary based upon the publicly available information and our interpretation of the same using our resources. For this material, we may have relied upon different sources of information which may be primary sources, publicly available information and relevant information available with us.

We make no representation or warranty, express or implied, that information herein is accurate or complete, and nothing contained in here can be construed as definitive predictions or forecasts. Any use of the information provided herein by the reader shall be at the sole risk of the reader and Praxis or its business partners, affiliates, agents, officers or employees shall not be liable for any unintended or adverse effect or outcome from the use of such information by the reader.

Praxis does not have any duty to update or supplement any information in this document. Praxis shall not be responsible for any business or commercial loss sustained by any person who relies on any information provided therein.

Any and all logos of companies used in the information provided herein have been published for information purposes only and Praxis does not hold any and all liability in connection therewith.

The team at



appreciates your time and support

#BuildTogetherWinTogether



New Delhi

Unit 5, Ground Floor,
Uppal Plaza M6, District
Centre, Jasola -110 025
New Delhi, India



Gurugram

CP-003, 004,
GF Tower 4B, DLF
Corporate Park,
Gurugram -122 002
Haryana, India



Mumbai

112, First floor,
Workafella, AK Estate,
Goregaon West,
Mumbai - 400 062
Maharashtra, India



Bengaluru

2734, Fourth floor,
HSR Layout, Sector 1,
27th Main, 16th Cross,
Bengaluru - 560 102
Karnataka, India