

# Digital governance

## Ideas and lessons from India

April, 2020





## **About MicroSave Consulting**

MicroSave Consulting (MSC) is a boutique consulting firm that has, for 20 years, pushed the world towards meaningful financial, social, and economic inclusion. We are a globally trusted, yet locally based organization that offers high-quality, practical market-led solutions to accelerate financial, economic, and social inclusion in the digital age.

With about 190 staff of different nationalities and varied expertise, MSC is proud to be working in over 50 developing countries. We have offices in Bangladesh, India, Indonesia, Kenya, Philippines, Senegal, Singapore, Vietnam, Uganda, and the United Kingdom.

We work with participants in financial, economic, and social ecosystems to achieve sustainable performance improvements and unlock enduring value. Our clients include governments, donors, private sector corporations, and local businesses. We can help you seize the digital opportunity, address the mass market, and future-proof your operations.



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# 1. Objectives of the module



## 01



What digital governance is

## 02



Global initiatives in digital governance

## 03



India's progress in digital governance

## 04



The basic idea behind India's digital governance plan

## 05



Key pillars of India's digital governance plan

## 06



Factors that led to the successful implementation of India's digital governance plan

## 07



Examples of applications of digital governance

## 08



Future plans with respect to digital governance

## 2. Overview of digital governance



### What is digital governance?



“Digital governance or e-Governance can be defined as the use of information and communication technology by the government to provide the quality information and services to citizens, businesses, voluntary organizations, and other government agencies in an efficient, cost-effective, and convenient manner and to bring transparency, accountability in government functioning to strengthen democracy.”



“e-government is defined as utilizing the Internet and the world-wide-web for delivering government information and services to citizens.”

- Digital governance is more than streamlining processes and improving services. It is about transforming governments and renovating the way in which citizens participate in democracy.
- There are no rigid models for digital governance. Developing countries are experimenting on their own to find an approach that will work for them and will best serve their needs.



Digital governance includes services and processes in any interaction between:

- Government-to-government (G2G),
- Government-to-person (G2P),
- Government-to-business (G2B)

Source: [E-Government and E-Governance: Definitions/Domain Framework and Status around the World, Computer Society of India, 2007](#)

G2G include intra-governmental transfers from one government agency to another for budgetary purposes.

G2P is associated with social benefits, government employee salaries, pensions, and tax refunds, among others.

G2B include payments related to the procurement of goods and services, tax refunds, and disbursement of loans, etc

## The main objectives of digital governance are:



Increase efficiency



Enhance transparency



Lower cost to the government

## Implementing digital governance has several advantages that make the administration and the government inclusive, efficient, and accountable

### Advantages and impact of digital governance



- **Improved identification and authentication of citizens' identity.** Accurate targeting through proper identification for social protection schemes reduces leakages and therefore lowers cost to the government and increases take up, which in turn ensures inclusivity.



- **More robust data and opportunities for better analysis.** This will lead to efficient implementation of current policies as gaps in the processes can be identified. Information will also highlight the efficacy of policies and programs to help form or amend policies for the future.



- **Better tracking of the entire service or government workflow.** This will make governments and individual departments more accountable since digital information is made available, increasing visibility for all stakeholders.

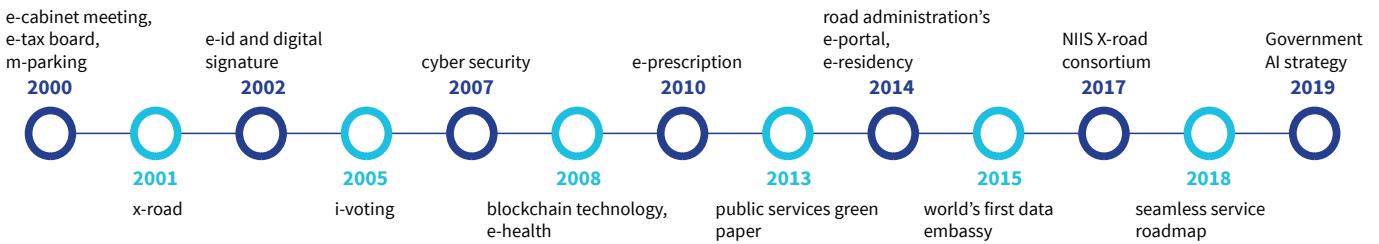
Source: [Fiscal Monitor – Capitalising on Good Times; International Monetary Fund; 2018](#)

[E-Governance and Digital India – Empowering Indian Citizens Through Technology; Deloitte; 2015](#)

## Estonia is at the forefront of digital governance reforms

### Estonia’s digital society

A number of e-solutions led to Estonia becoming one of the world’s most developed digital societies.



### Estonia’s e-government infrastructure rests on two main pillars

#### Digital state

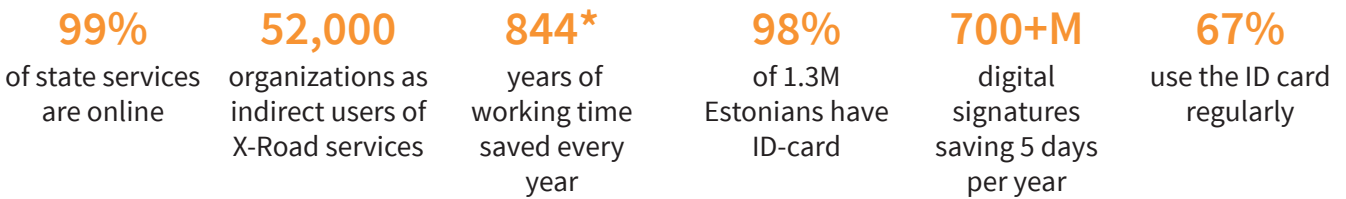


The data infrastructure [X-Road](#) provides interoperability for different organizations and information systems.

#### Digital citizen



State-issued compulsory national ID for every Estonian. Functionally, it provides digital access to all e-services.



A strategic direction by the government, the success of Estonia’s digital transformation is due to three key factors.

#### Contextual factors

- Advanced talent in R&D in Information and Communication Technologies (ICT)
- Geographical proximity to Scandinavia, the fastest growing telecommunications sector
- Low and concentrated population, reducing infrastructure costs and ensuring quick political support

#### Governance principles

- Information architecture and departmental ICT strategies were decentralized.
- ICT investment decisions, formulation of crucial design principles was done at the center.
- A deliberate focus on public-private networks.

#### Design principles

- Priority to build systems from scratch rather than buying from ICT vendors
- Focus is on the secure interoperability of data systems rather than unified databases

Source: [e-Estonia Website](#) | [Website/Dashboard](#) accessed on 22/04/20  
[Estonia's digital transformation: Mission mystique and the hiding hand](#); UCL Institute for Innovation and Public Purpose; 2018



## Of all transactions with the government in Estonia, 99% are digital, including G2P interactions

The process to receive Estonia's social insurances has been made seamless for its citizens through the digital infrastructure that has been developed over the years.

### Pension

The payment is organized by the [Estonian Social Insurance Board](#).

Filing for pensions

- At the customer service of the Social Insurance Board
- By email (digitally signed)
- By regular mail

Documents required:

Personal identification document (e-Estonia ID)

### Medical insurance

The payment is organized by the [Estonian Health Insurance Fund](#).

- The insured person does not need to take the Health Insurance Fund card to attend a doctor's clinic in Estonia. An identification document with photo (e-Estonia ID) is sufficient.
- In 2010 the [digital prescription](#) (e-prescribing) was launched in Estonia. Just 15 months after the launch, 84% of prescriptions are being issued digitally. More than 95% of pharmacies are ready to process e-prescriptions.

## Globally, there are several examples of effective digital governance



### South Africa

- [The South African Revenue Service](#) (SARS) implemented various initiatives to improve compliance risk management during 2001–06. Since 2006, SARS automated administrative processes to include [electronic tax submissions](#), declarations, and payments. The impact of these initiatives has been [improved revenue growth, improved service levels, and reduced costs](#).
- In 2012, the South African government, through the [South African Social Security Agency](#) (SASSA) began to provide social assistance in the form of monthly payments to around 16.9 million beneficiaries. These beneficiaries include qualifying children, pensioners, war veterans, and people with disabilities. The previous system of giving cash was [cumbersome and expensive](#). It is now an electronic, biometric payment system.



### Kenya

- The [Kenya Revenue Authority](#) capitalized on the digital payments revolution and financial inclusion brought by [M-Pesa](#). It developed an [iTax service](#) as well as a mobile phone application that facilitates tax payment and taxpayers' access to tax information ([the M-Service platform](#)). Authorities claim that since face-to-face interaction between taxpayers and officials has reduced, there is [less opportunity for bribery and fraud](#).
- [The Cash for Assets](#) (CFA) program in Kenya, a conditional cash transfer scheme jointly run by the World Food Program (WFP) and the Kenyan government adopted a "[test-learn-iterate](#)" philosophy. One such change was developing a custom in-house MIS for CFA to manage, clean, and maintain the digital database.

Source: [Ministry of Social Affairs, Estonia](#) (Accessed on 2/24/19)

### 3. The journey of digital governance in India



Several forces played an important role in the transformation of the digital governance landscape in India over the years

#### Financial Inclusion



Access to banks and banking services were improved through [Pradhan Mantri Jan Dhan Yojana](#) accounts.

#### Identity



- Foundational ID, *Aadhaar*, for all residents of India
- Biometric details collected, and identity numbers issued

Digital governance

#### Information and Communication Technologies (ICT)



Major systematic changes in the ICT infrastructure over several years ensuring last-mile connectivity across the country

#### Telecom



Development of the industry catalyzed by the growth in mobile users in India

## The ICT infrastructure built over the past few decades formed the base for the “JAM trinity” to accelerate digital governance in India

J



### Pradhan Mantri Jan Dhan Yojana (PMJDY)

As of March, 2018, the government’s financial inclusion mission to increase access to bank accounts has covered [80%](#) of the Indian population. This has ensured that most beneficiaries of government services have a working bank account.

A



### Aadhaar

Following a nationwide rollout in 2011, the Aadhaar program has registered nearly [1.25 billion](#), as on April 2020 individuals on its biometric database. It achieved almost universal coverage in just over five years. This is a saturation level of [90.2%](#) of the Indian population as of January, 2019.

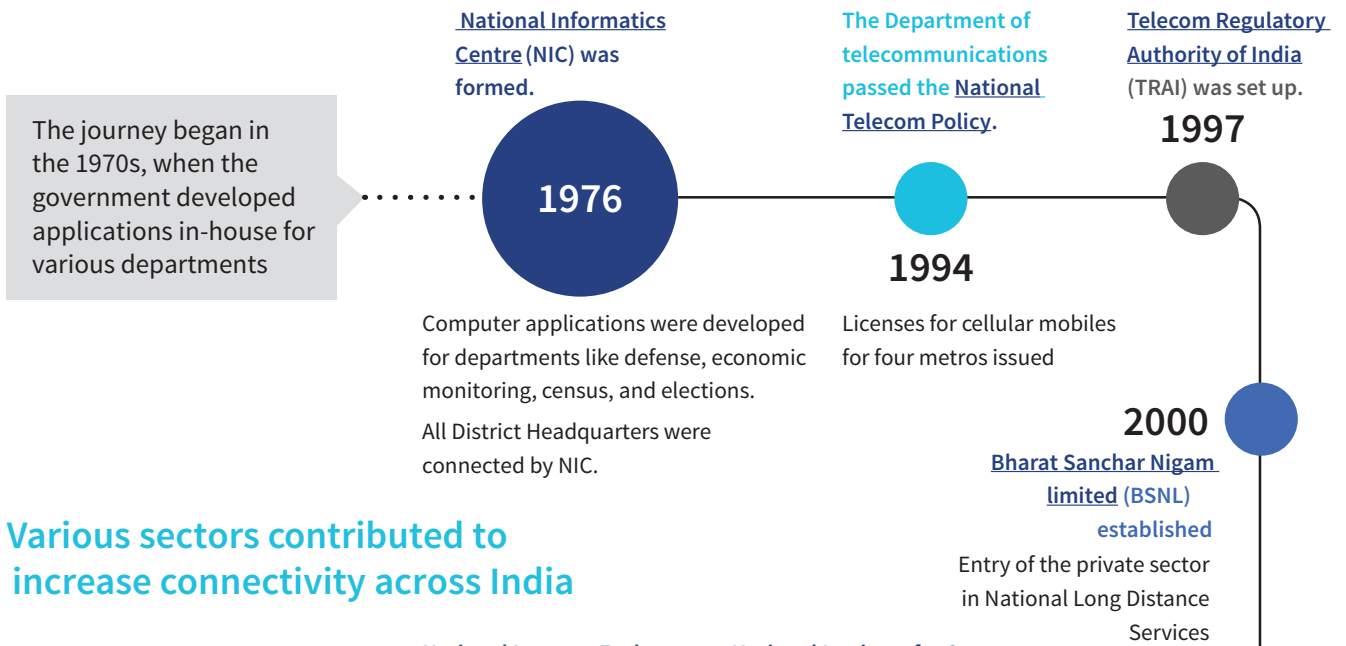
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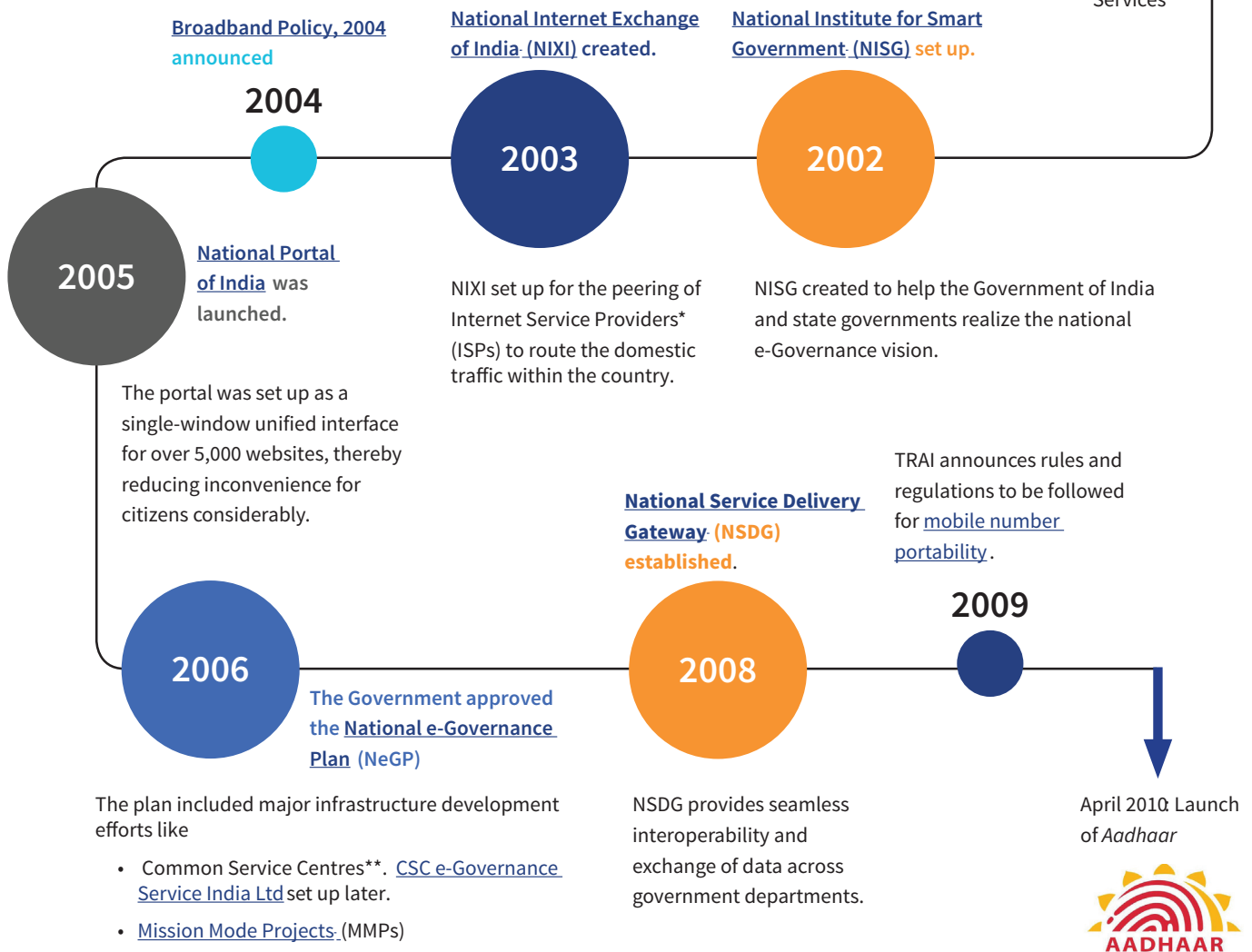
### Mobile connectivity

As of August 2018, [64%](#) of adults in India own a phone, and [24%](#) of adults own a smartphone.

## Major developments in the ICT and telecom sectors in India formed the enabling environment for digital governance

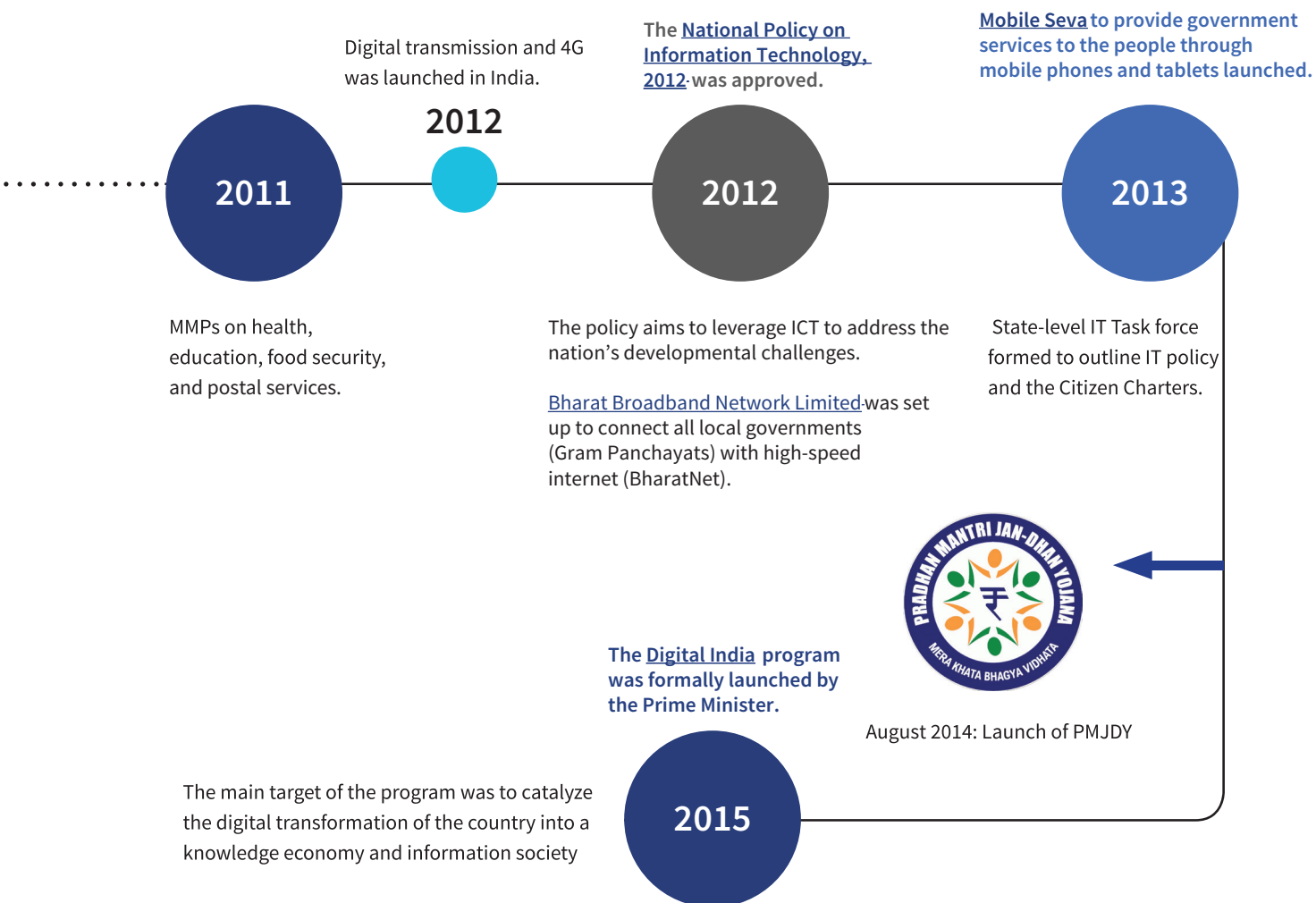


## Various sectors contributed to increase connectivity across India



\*Internet service providers: An Internet service provider (ISP) is an organization that provides services that help users to access, use, or participate in the Internet.  
\*\*Common Service Centre (CSC) is a strategic cornerstone to manage e-governance programs around agriculture services

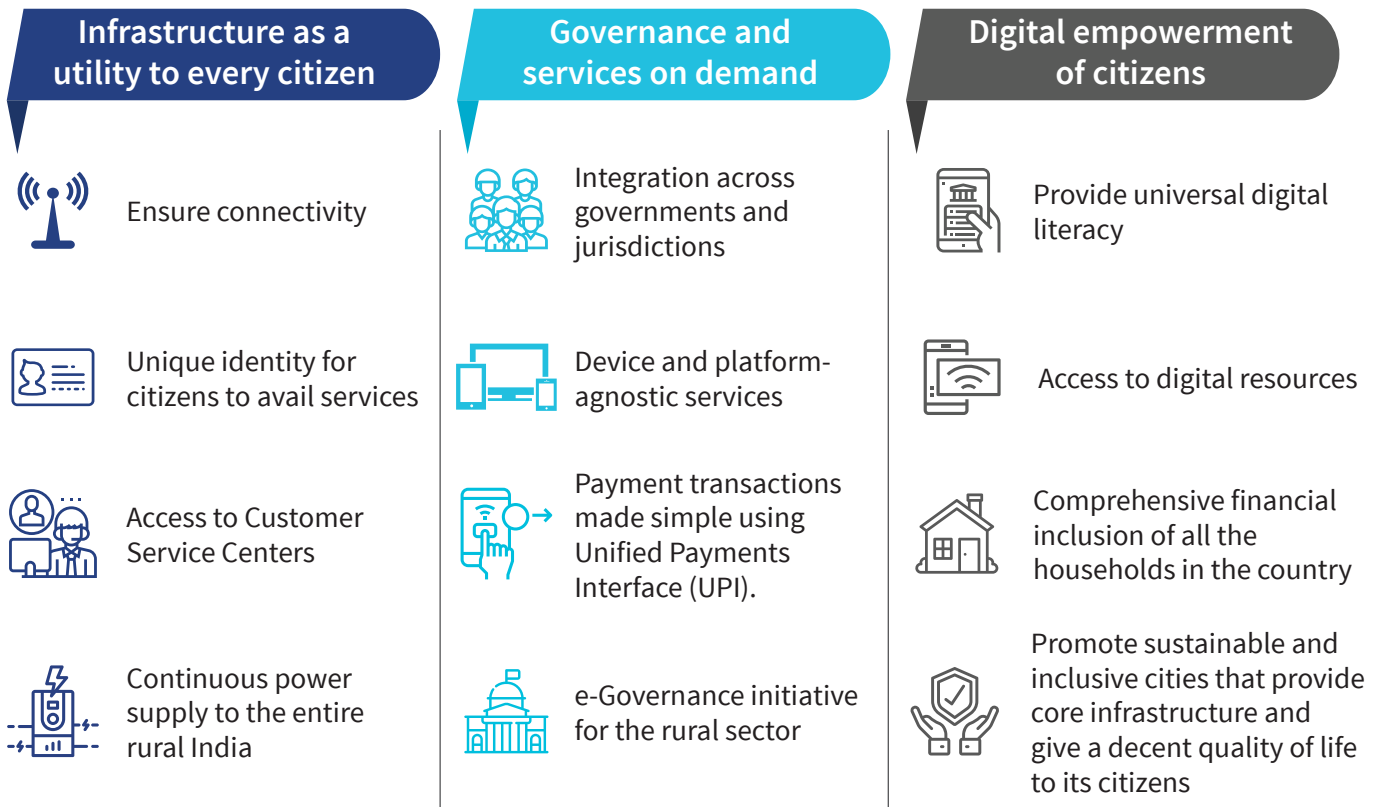
## Further, this led to innovations in G2P interactions.



## 4. Digital initiatives in India



Multiple digital initiatives form a push by the government to transform India into a digitally empowered society that focuses on three areas



These initiatives have been packaged under the “[Digital India](#)” program, promoted by the [Ministry of Electronics & Information Technology](#).

[Digital India initiative, accessed on April 2020](#)

## The National e-Governance Plan (NeGP) of India is a major part of India's digital initiatives

Features of the major initiatives within the NeGP that contribute to the overall vision:

### Infrastructure as a utility to every citizen

#### CSC 2.0

- Establishment of a self-sustaining network of 250,000 CSCs at the level of the village or Gram Panchayat (GP)
- Localized help desk support and standardization of services

#### BharatNet

- [Bharat Broadband Network](#) (BBNL) established to provide broadband connectivity to the 250,000 villages and GPs across India.
- As of 22<sup>nd</sup> January 2020, [125,886](#) GPs are service-ready.

### Governance and services on demand

#### E-District

- Enhances the efficiencies of the departments at the district\* level, where most G2P interactions take place
- Provides centralized software applications for a range of citizen services and training for staff

#### UMAAG app

- Mobile application to avail government services (central, state, and local)
- Integrated with customer-centric services like *Aadhaar* and *DigiLocker*<sup>40</sup>
- A dedicated customer support system

### Digital empowerment of the citizen

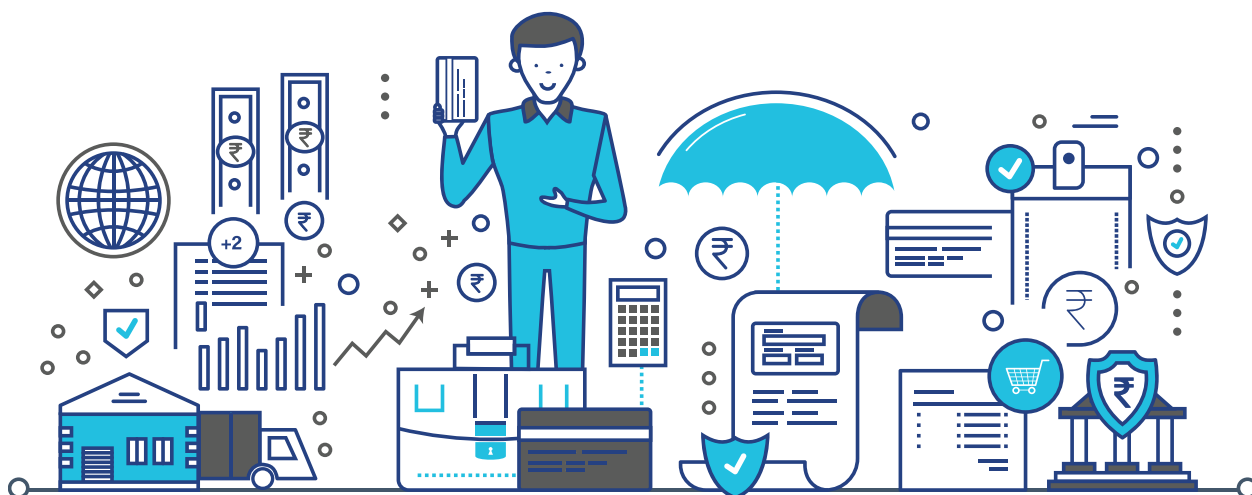
#### MyGov

Portal to share thoughts and views on

- [Public discussions](#) with the Prime Minister
- Issues of national interest
- A place to participate in polls, creative projects, and publish blogs

#### Skill India

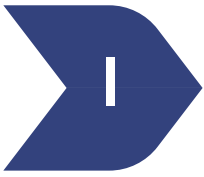
- Under the [Pradhan Mantri Kaushal Vikas Yojana](#) (PMKVY)—the National Skill Development Mission—[3.3 million](#) candidates have been trained and 2.7 million of them certified for jobs across various sectors as of April 2020.



Source: [Digital India Website](#)

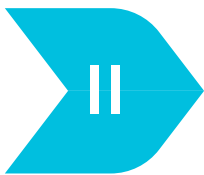
\*District: type of administrative division that is managed by local governments

## The National e-Governance Plan is implemented through a three-tier system



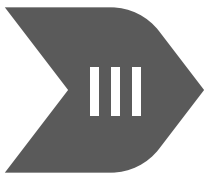
### Common Service Centres: Front-end delivery points

- Offer web-enabled e-Governance services in rural areas, including application forms, certificates, and utility payments, such as electricity, telephone, and water bills
- As on April 2020, [361,000](#) CSCs are functional in India, including CSCs in GPs
- [52](#) central government services, state-specific services, as well as banking transactions are available.



### Government infrastructure layer

- Different interconnected networks form this layer:
  - [State Wide Area Networks](#)
  - [State Data Centres](#)
  - [National Service Delivery Gateway](#) along with [State Service Delivery Gateway](#)



### Mission mode projects

- [31](#) Mission mode projects for center (11), state (13) and integrated (7)
- MMPs are individual projects within the National e-Governance Plan (NeGP) that focus on one aspect of digital governance in India
- The main aim of MMPs is to transform high priority citizen services from their current manual delivery to e-delivery





## The National e-Governance Division (NeGD) manages the NeGP program

The key activities of [NeGD](#) as the program manager are as follows:



A dedicated team is also involved in e-Governance Research & Development. They proactively conduct research about e-Governance models and develop appropriate solutions useable in India, study e-Governance initiatives from across the country and the world, and compile best practices in the sphere of e-Governance.



## 5. Success factors and challenges



Several factors have contributed to the success of digital governance initiatives in India

01

### Recognized reduction of costs and time

- Time is saved through digitizing and straight-through processes, which do not require physical presence for many services
- Citizens, therefore, incur a marginal cost of transactions due to reduced cost on transportation and switch to digital modes

02

### Development of key pillars

- Digital ID, financial inclusion, and mobile coverage and infrastructure at the state and district level were all developed in parallel and led to the successful implementation of digital governance initiatives.

03

### Ease of doing business through interoperable platforms

- The conscious effort of the government to use multiple platforms ensures all citizens get access to their most preferred mode of interaction

04

### Public-private partnerships

- Partnering with entities and incentivizing them achieved
  - a wider distribution network that created more convenience for customers
  - ensured lower expenditure for the government



### Skill development

- Focus on skill development to ensure that citizens not only adopt new technologies but also contribute to building the ecosystem

### National vision, decentralized ownership

- A centralized plan with implementation done at a decentralized level
- Individual projects are owned and spearheaded by various concerned line ministries and departments

## The steady increase in digital transactions suggest that people will adopt technology when it is made available

There are a total of 3,836 integrated e-Services that the Government of India offers.

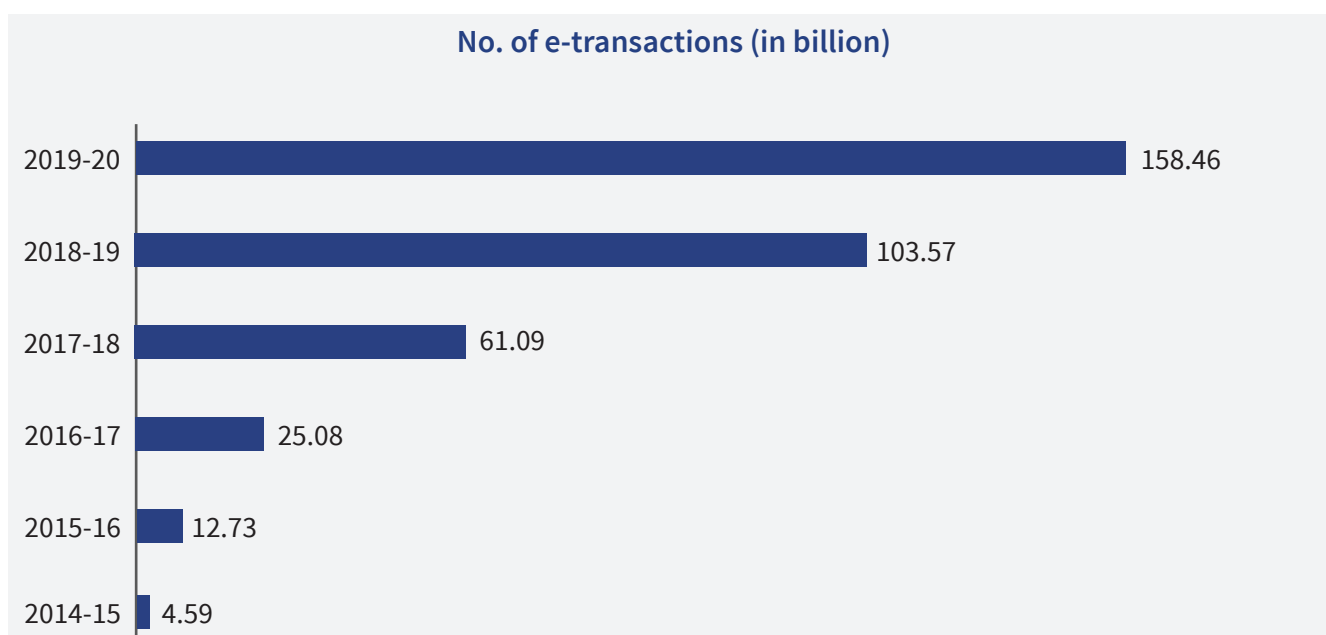
#### Top 5 standard services as on April, 2020

- Utility services and bill payment
- Rural Development
- Transport
- Public distribution system
- State specific services

#### Top 5 central MMPs as on April, 2020

- e-Courts
- Agriculture
- Land Records
- Public distribution system
- Treasuries

Number of e-Transactions in India across various e-services offered by the government



A majority of e-transactions, however, are concentrated in states with higher literacy rates, such as [Andhra Pradesh, Gujarat, Telangana, Uttar Pradesh, and Kerala.](#)

The Government of India claims to have saved [USD 20.2 billion \(INR 1417 billion\)](#) as on March 2019 since the implementation of [Direct Benefit Transfer schemes.](#)

[Ministry of Electronics & Information Technology Dashboard](#) (assessed on April 2020)

## While digital governance offers multiple potential benefits, it can also create challenges that need to be addressed

Challenges	Measures to mitigate
<p>Privacy and cybersecurity risks—as vulnerable digital systems could disrupt government functions and jeopardize citizens’ information.</p>	<ul style="list-style-type: none"> <li>Regulatory and policy interventions and an implementing body to ensure security</li> <li>In India, a committee headed by retired Justice B.N. Srikrishna delivered a <a href="#">report and a draft bill</a> for data protection amid the <a href="#">Aadhaar privacy concerns</a></li> <li><a href="#">The General Data Protection Regulation</a> is designed to harmonize data privacy laws across Europe</li> </ul>
<p>Digital exclusion*—in 2017 only <a href="#">50%</a> of the world population were internet users, which leaves a large portion of the citizens without access to the services.</p>	<ul style="list-style-type: none"> <li>Public investment in areas such as infrastructure and digital literacy. The World Economic Forums’ <a href="#">Internet for All</a> highlights business models that can be used to accelerate internet access and adoption.</li> <li>Strategies like leveraging <a href="#">agent networks</a> have shown success in emerging economies.</li> </ul>
<p>The availability of skilled manpower for the development and effective adoption of new technologies—around 93% of the labor force in India are unskilled.</p>	<ul style="list-style-type: none"> <li>Creating a system to train and promote the early adoption of technology.</li> <li>In early 2000s Estonia, <a href="#">Look@World foundation</a>, a public private partnership supported by telecom and banking players, raised digital awareness and popularized the use of the internet and ICT in education, science, and culture. Adults and children were <a href="#">taught computer programming</a>.</li> </ul>
<p>The willingness of citizens to adapt to newer systems and practices</p>	<ul style="list-style-type: none"> <li>More education and literacy about the benefits of a digital system through programs like <a href="#">Pradhan Mantri Gramin Digital Saksharta Abhiyan</a>.</li> <li>Private players like Google are bridging the online gender gap in India with programs like <a href="#">Internet Saathi</a>, providing both education and access to the internet for rural women. The success of the program has even resulted in digital based economic opportunities.</li> </ul>

Source: [Fiscal Monitor – Capitalising on Good Times; International Monetary Fund; 2018](#)  
[E-Governance and Digital India – Empowering Indian Citizens Through Technology; Deloitte; 2015](#)  
 \*Digital Exclusion is the lack of access to, and use of, ICT resources.

## 6. Examples of digital governance in different Indian states



**Bhamashah has been accelerating digital governance across Rajasthan and beneficiaries have positive perceptions of service delivery**



Bhamashah is the first household-level identity system in India.

### Features of Bhamashah

- Started in 2014, the program seeks to create a digital platform for delivery of public services for all residents of the state who receive benefits financed by the state government.
- The Bhamashah family identification number has been made mandatory for beneficiaries to avail their entitlements from over 150 schemes
- A centralized data warehouse called the Bhamashah Resident Data Hub (BRDH) maintains the family-level information, determines eligibility for public benefits, and keeps a digital record of delivery of entitlements

**1.6mn**

Households are enrolled

**527 mn**

Transactions routed through Bhamashah

A recent report\* published by MSC and CDG on the household perception of e-Governance in the state yielded the following observations:

### Objectives

### Impact or outcome\*

Financial inclusion

64% of households have conducted at least one financial transaction since the launch of the scheme

Gender empowerment

In 66% of the households, the designated female head of the household (mukhiya) got her first bank account through the scheme

Effective delivery of government services

More than 60% of respondents felt that the new technology-enabled delivery system was better

Source: [Bhamashah Yogana website](#); Accessed 12/17/18

\*Digital Governance in Developing Countries: Beneficiary Experience and Perceptions of System Reform in Rajasthan, India; Center for Global Development; 2018

## A proactive local government has made Andhra Pradesh an innovation hub for digital governance reforms with the launch of e-Pragati

e-Pragati is a new paradigm in governance based on a whole-of-government\* framework, transcending departmental boundaries. The main details of e-Pragati are:

<p>The Government of Andhra Pradesh (GoAP) identified</p> <ul style="list-style-type: none"> <li>• 33 departments,</li> <li>• 315 agencies and</li> <li>• around 745 services.</li> </ul> <p style="background-color: #00a0e3; color: white; padding: 5px;">These services have been grouped into 72 projects (45 greenfield and 27 brownfield)</p>	<p>At the heart of e-Pragati lies the e-Pragati Core Platform, which provides:</p> <ul style="list-style-type: none"> <li>• program level services,</li> <li>• citizen related services delivered by each department,</li> <li>• services internal to the department</li> <li>• application program interface for applications external to the platform.</li> </ul>
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As the largest e-Governance program approved by any state, the total outlay for the implementation of e-Pragati is USD 341 Million (INR 23.98 billion), out of which Government capex would be USD 217 Million (INR 15.28 billion).

### The e-Pragati platform offers several advantages to the citizens and departments of the Government of Andhra Pradesh

- 01

**Citizen-centric** service delivery with a citizen-life-cycle approach that transcends governmental services through **interoperability, service discovery, and innovation**
- 02

Accessibility through a **uniform user interface, consolidated services** from different departments, and **multiple access channels**
- 03

Progress towards eliminating physical touch-points in G2P services through **simplification, standardization, and automation of services**
- 04

The e-Pragati Core Platform is the technological foundation for the digital transformation of G2P, G2B, G2G services. It enables departments or organizations to **streamline operations, deliver consistent service, and modernize operations without interruption.**
- 05

The e-Pragati Core Platform enables line departments of GoAP to deploy highly automated applications that can meet **evolving policy needs and real-time governance requirements.**
- 06

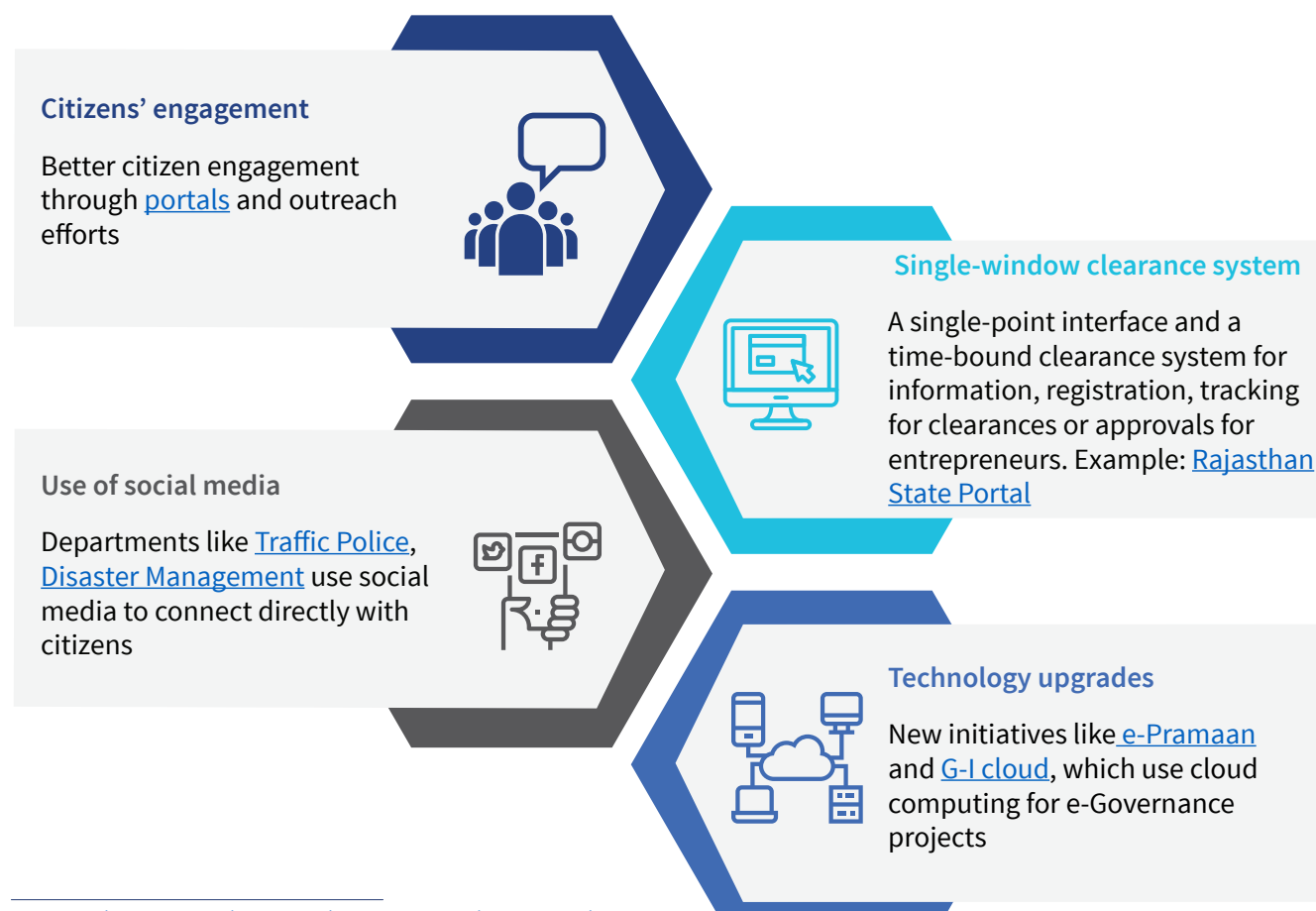
Development of common applications that are agnostic of departments and relate to horizontal functions of the GoAP, like **performance management, productivity tools, workflow management, and core data management**

\*Whole-of-government: Joint activities performed by diverse Ministries accessed in April 2019, Public Administrations and Public Agencies in order to provide a common solution  
 Source: [e-pragati Website, Andhra Pradesh](#) accessed in April 2019  
 1 USD = INR 70

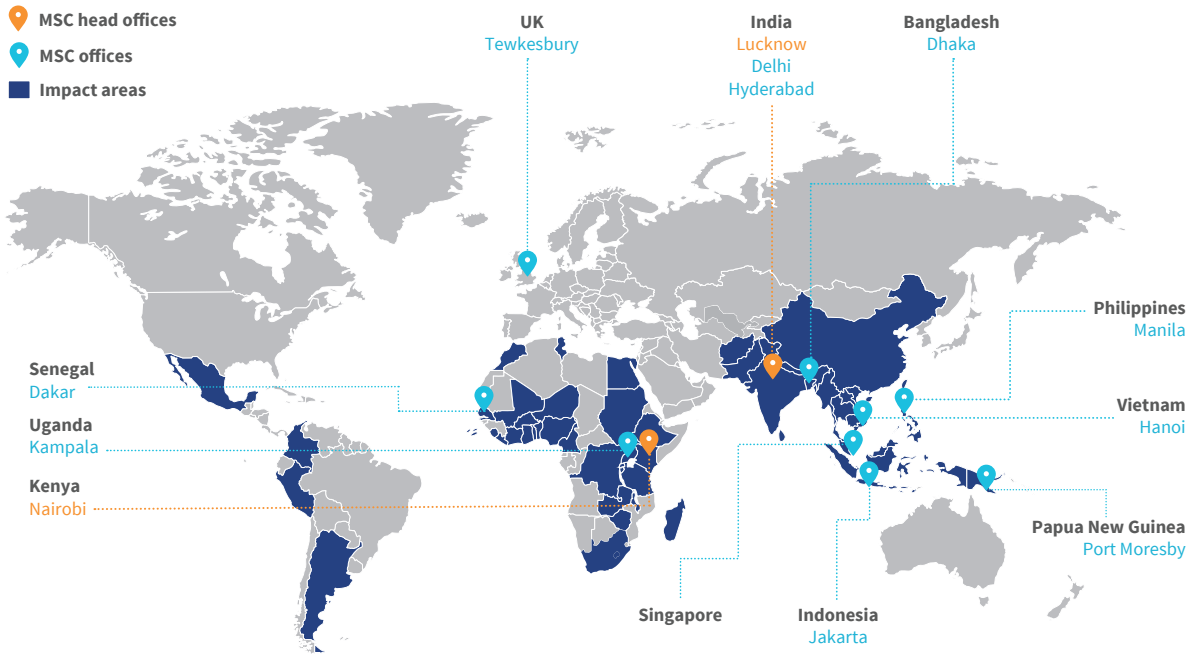
## 7. The road ahead and future plans



The road ahead shows governments using different channels, technology, and more inclusive systems to operate



Source: [Fiscal Monitor – Capitalising on Good Times](#); International Monetary Fund; 2018.



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