



Digital platforms & DPI for *Viksit Bharat*

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Viksit Bharat – India a developed nation by 2047

Core Themes



Empowered Indians



Thriving & sustainable Economy



Innovation science & technology



Good Governance & Security



India In the World

Vision

Integration of digital technology to bring government and citizens together, fostering innovations and digital excellence.

Goals

1

Integrating macroeconomic growth with microeconomic welfare initiatives.

2

Promoting digital economy, fintech, technology-driven development, energy transition & climate action.

3

Encouraging a virtuous cycle of private investment, supplemented by public capital investment.

Viksit Bharat aims for India to be a fully developed nation by 2047, marking 100 years of independence.

Viksit Bharat – India a developed nation by 2047

TARGETS

- A \$30 trillion economy with a per-capita income of \$18,000-\$20,000.
- World-class infrastructure and amenities in both rural and urban areas.
- Minimising government interference in citizens' lives while promoting the digital economy & governance.
- Developing global champions through mergers/restructuring & fostering indigenous industry & innovation.
- Attaining self-reliance in defence and space sectors and enhancing India's global role.
- Promoting green growth and climate action by expanding green energy capacity & reducing carbon emissions.
- Empowering youth with skills and education, creating more employment opportunities.
- Collaborating with international R&D organisations to establish top-tier laboratories in India.
- Positioning at least ten Indian institutions among the global top 100.

Digital India – Laying the foundation for DPI

To transform India into a digitally empowered society and knowledge economy

- Digital infrastructure as a utility to every citizen
- Governance services on demand
- Digital empowerment of citizens

1. Broadband Highways

2. Universal Access to Mobile Connectivity

3. Public Internet Access Programme

4. eGovernance – Reforming government through Technology

5. eKranti – Electronic delivery of services (NeGP 2.0)

6. Information for All

7. Electronics Manufacturing – Target NET ZERO Imports

8. IT for Jobs

9. Early Harvest Programmes

Digital Infrastructure as a utility to citizen

- High speed internet
- Unique digital identity
- Mobile phone & bank account
- Access to a Common Service Centre
- Private space on Cloud
- Secure cyber-space

Governance & services on demand

- Integrated services
- Availability of services through online & mobile platforms
- Ease of doing business
- Financial transactions electronic & cashless
- Geospatial Information Systems (GIS) as DSS

Digital empowerment of citizens

- Digital literacy
- Digital resources / services in Indian languages
- Collaborative digital platforms
- No physical submission of documents

DPI & hyper-scalers – Driving *Viksit Bharat*

- Anticipating India's growth will become a \$26 trillion economy by 2047-48, with a per capita income likely to surpass \$15,000 – A sixfold increase on a steady growth rate of approximately 6% per year.
- The rise of India's Hyperscalers (Google Cloud | AWS | MS Azure) coupled with emerging technologies like DPI can stimulate India's economic growth by fostering technological innovation, creating high-skilled jobs and improving digital infrastructure.
- India through DPI single handedly enhanced business efficiency and global competitiveness for such solutions. Such scalable digital services also empower SMEs, drive economic expansion and digital economy.
- India stands to benefit from a global talent shortfall in developed nations, particularly in fields like education and healthcare, which are increasingly shifting to digital platforms.

India's national vision 2027 plan aims to steer India clear of the middle-income trap that has ensnared several nations at similar stages of development.

Defining - Digital Public Goods

The United Nations in its “Roadmap for Digital Cooperation” (June 2022), provided with a working definition of a Digital Public Good (DPG) for general understanding.

“Digital Public Goods” can be described as any “open-source software, open data, open artificial intelligence models, open standards, and open content that adhere to privacy and other applicable international and domestic laws, standards, and best practices and principles of do no harm”.

Key Takeaways



Developed by & for community's benefit

Collaboration by public & private agencies

Made freely available for wider usage

Follow standards and best practices

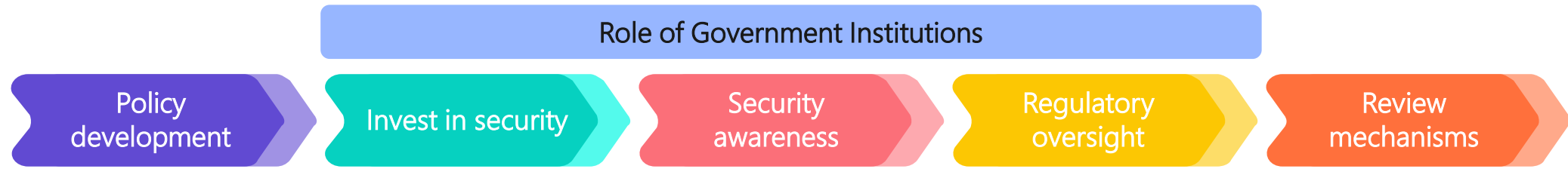
Adherence to policy and regulatory environment

Digital platforms – Strategically positioning India for Vision 2047

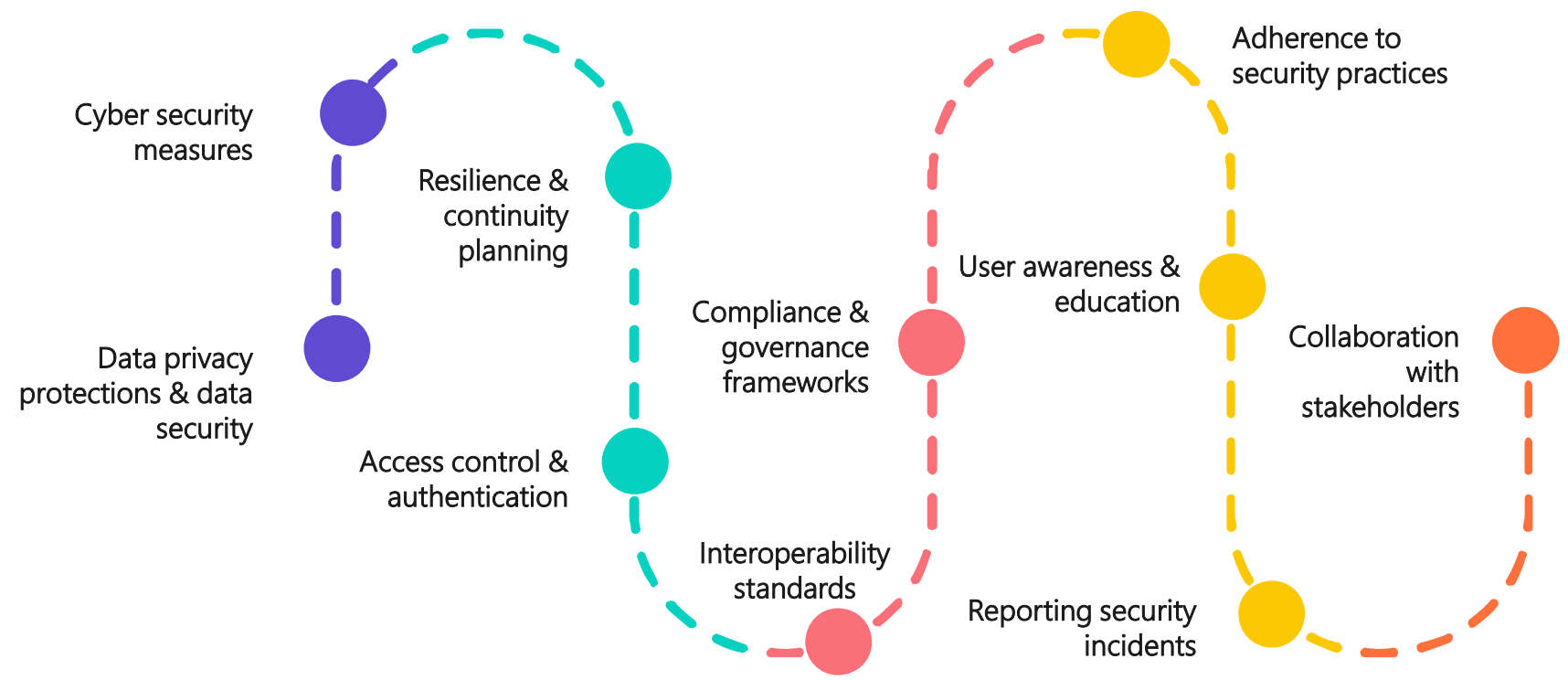
Platform category	Growth
Telecom & Internet Users	India boasts a telecom subscriber base of 1.2 billion and 837 million internet users .
Digital Economy Growth	Driven by government initiatives in digital infrastructure, India's digital economy expanded by 15.6% from 2014 to 2019 , outpacing the overall economic growth by 2.4 times .
Digital Public Infrastructure platforms & services	Successful implementation of DPI platforms like COWIN, Ayushman Bharat, DIKSHA, GSTN, GeM and UMANG, with more such as AgriTech Stack and DESH are underway.
India Stack & UPI	India Stack , recognised globally, supports high-volume, low-cost transactions with an open architecture . UPI is used by 260 million unique users, positioning India as a leader in real-time digital payments globally with over 40% market share .
Financial Platforms	Platforms like Open Credit Enablement Network (OCEN) and Open Network for Digital Commerce (ONDC) aim to enhance credit access and integrate small to medium enterprises into the digital economy.
Economic Indicators	India's debt-to-GDP ratio stands at 55% , relatively low among major global economies. The banking sector shows a significant reduction in Non-Performing Assets, reaching a seven-year low of 5% as of September 2022.
MSMEs & Financial Market	MSMEs, contributing 30% to GDP , face a credit supply shortfall estimated between \$250 billion to \$300 billion. The corporate bond market, though growing, remains modest at 16% of GDP compared to other large economies.
Opportunities in Digitization	The digitisation of the economy and enhanced data availability are improving credit assessment processes, offering substantial opportunities for the financial services sector to cater to the needs of individuals and businesses in India.

Thank you!

Essential safeguards for DPIs – Role of Government



Essential safeguards for maintaining trust on DPIs & DPGs



Source: Protean eGov. Technologies

Promoting digital public goods - The way forward



Platforms to share

PROMOTE Digital Public Goods Platforms, which share digital public goods, engage talent, and pool data sets.



Inclusion & Governance

PROMOTE robust human rights and governance frameworks and inclusion for such "goods" for larger public good



Invest & Coordinate

PROMOTE DPGs, including through greater investment, amplified efforts and strengthen coordination



Privacy & Standards

PROMOTE DPGs by adhering to privacy & other applicable laws and align to DPG standards & best practices

Support Slides

Founding principles of DPG



United Nations Secretary-General's "*High-level Panel on Digital Cooperation*" proposed five critical recommendations to achieve a safe, inclusive digital future. These became the principles on which the concept of DPGs was formalised.

Types or categories of DPG

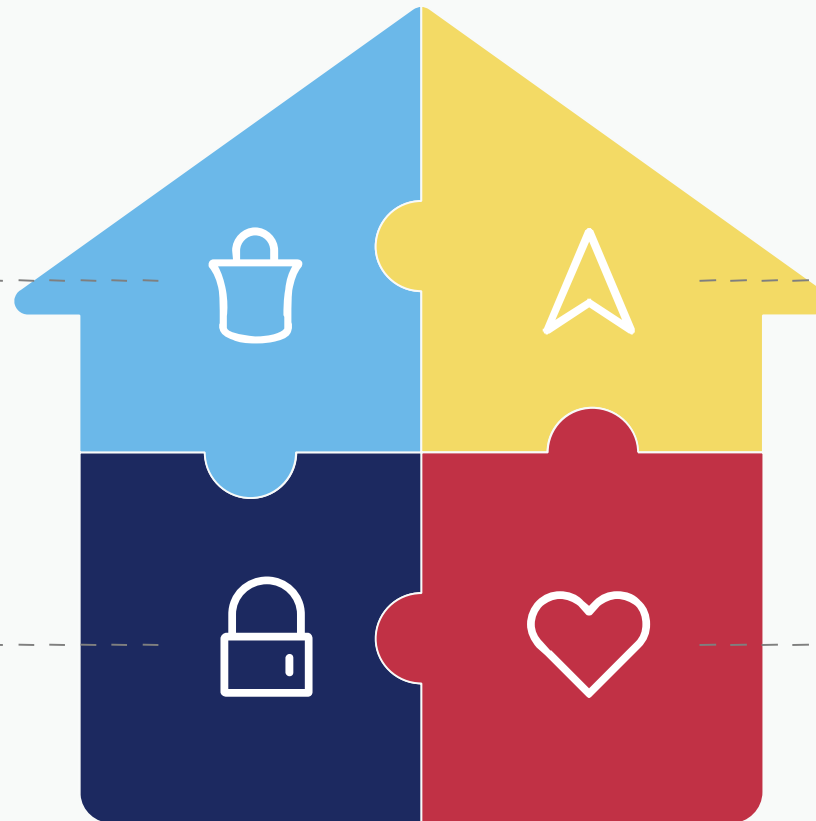
The Digital Public Goods Alliance (DPGA) initiative focusses on accelerating the attainment of the SDGs by facilitating the discovery, development, use of, and investment in DPGs. The DPGA identifies 4 categories of DPGs.

Open AI Systems

Operates on principles of collaboration sharing its research with the broader scientific community to foster collective progress in AI.

Open-Source Software

Software that is distributed with its source code, making it available for use, modification, and distribution with its original rights.



Open Data

Data that is openly accessible, exploitable, editable and shareable by anyone for any purpose. Open data is licensed under an open license.

Open Content Collections

Copyrightable content that is licensed to allow users to freely use, modify, and distribute it for any purpose, including commercially.

Characteristics of DPG

Customizable

DPGs can be used in any field like health, education Business etc. They are products that are customizable.

Non-Rivalrous

No one person/entity can stake a claim on a "DPG". DPGs are public infrastructure, and everyone can use it.

Openly Accessible

DPGs are always accessible and free. They are available whenever and wherever you want them.

Re-Programmable

DPGs are always evolving. Users keep introducing new features and enhancing them for greater efficacy.

Follow Standards

DPGs are developed using established benchmarks. They are modular and follow acceptable standards.

Localizable

DPGs are localizable to any geography or country. Local laws and regulations help in localizing the DPI.



DPGs are open to all, free to use, there are no ownership issues, they are always available and are always improving.

Examples of DPG



- Aadhaar - More than 1.38 billion Aadhar cards have already been issued by 2023.



- DBT - 315 CS Schemes and 53 Ministries. In FY 2024-25 around 201 crores transactions | worth 1.81 lakh crores | 3.48 lakh crores



- Digi Locker



- UMANG

Securing DPI & DPG

1

Insecure technology and vulnerabilities in critical systems may invite malicious cyber intrusions, leading to potential safety risks.

Vulnerable by Design

2

Preventing users from having to constantly perform monitoring, routine updates, and damage control on their systems to mitigate cyber intrusions.

Burden of security

3

Find tactics that meet the spirit of innovation to create artifacts that can potentially embody security by design philosophy.

Room for Innovation

4

Technology products are built in a way that reasonably protects against malicious cyber actors from gaining access to devices, data & infrastructure.

Secure by Design

5

Products are resilient against prevalent exploitation techniques without end-users having to take additional steps to secure them including additional costs.

Secure by Default

6

Secure information technology (IT) development practices and multiple layers of defence to prevent malicious actors from compromising systems.

Defense in-Depth

Security should not be a luxury option but should be considered a right customers receive without negotiating or paying more.

Regulatory, policy & administrative frameworks for security

Legal & regulatory framework

- Information Technology Act, 2000, IT (Amendment) Act, 2008.
- Digital Personal Data Protection Act, 2023
- The IT (Reasonable Security Practices & Procedures and Sensitive Personal Data or Information) Rules, 2011
- Companies Act, 2013
- Cyber Regulations Appellate Tribunal (CRAT)
- Securities & Exchange Board of India (SEBI)
- Insurance Regulatory and Development Authority of India (IRDAI)
- Telecom Regulatory Authority of India (TRAI) & Dept. of Telecommunications (DoT)

Policy guidelines and standards

- The National Cyber Security Policy, MeitY, 2013
- The National Information Security Policy & Guidelines, MoHA, 2015
- Guidelines for Protection of Critical Information Infrastructure, 2015
- eSAFE Cyber Security Standards
- ISO 27001: International Standard for Information Security Management System (ISMS)
- Guidelines on Information Security Practices for Government Entities (CERT-In)

Initiatives & institutions

- Computer Emergency Response Team (CERT-In)
- National Critical Information Infrastructure Protection Centre (NCIIPC)
- Indian Cybercrime Coordination Centre (I4C)
- The Cyber Swachhta Kendra
- Cyber Surakshit Bharat
- Data Security Council of India (DSCI), NASSCOM
- Institutions under MeitY
 - National eGovernance Division (NeGD)
 - National Institute for Smart Government (NISG)
 - National Informatics Centre (NIC)
 - Centre for Development & Advanced Computing (C-DAC)
 - National Institute of Electronics & Information Technology (NIELIT)