Government Transformation Leveraging Technology in India

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Greetings from India
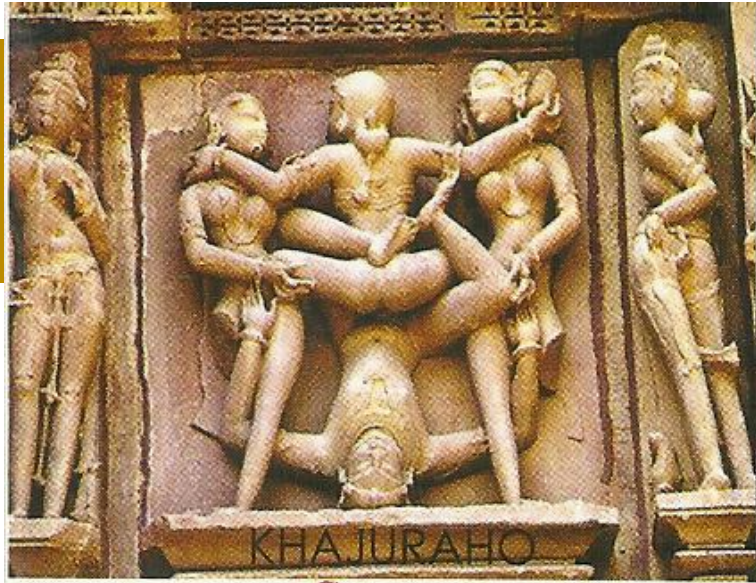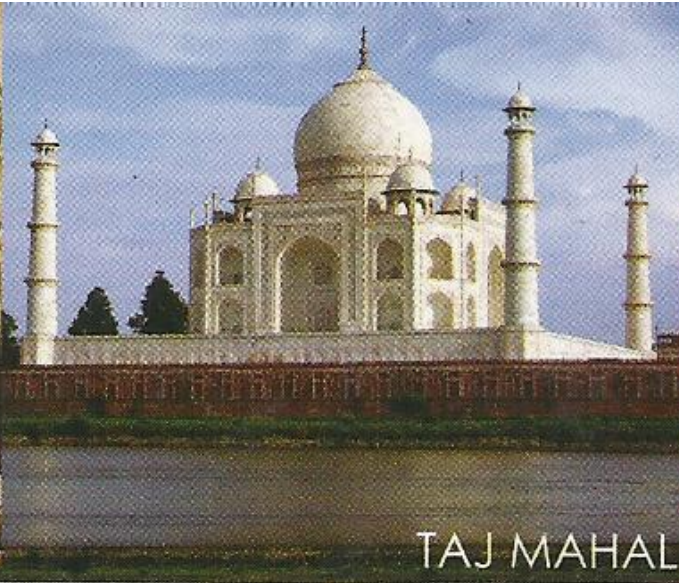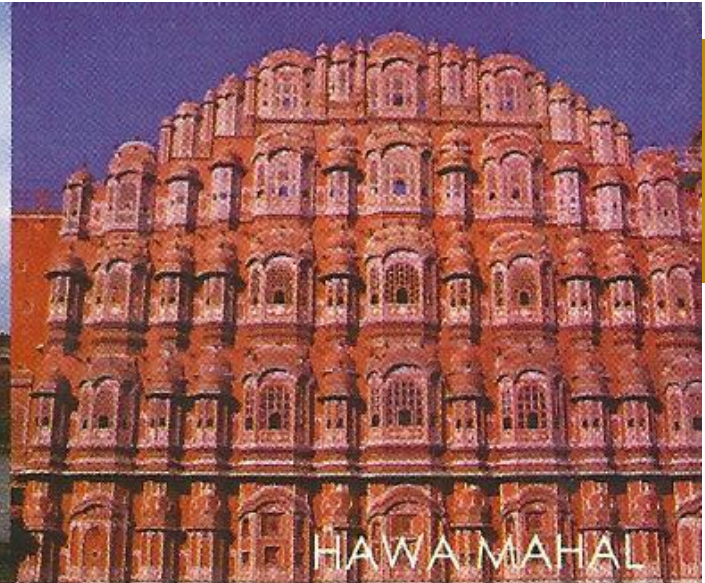
KHAJURAHO · TAJ MAHAL · HAWA MAHAL · INDIA GATE · KERALA · GATEWAY OF INDIA
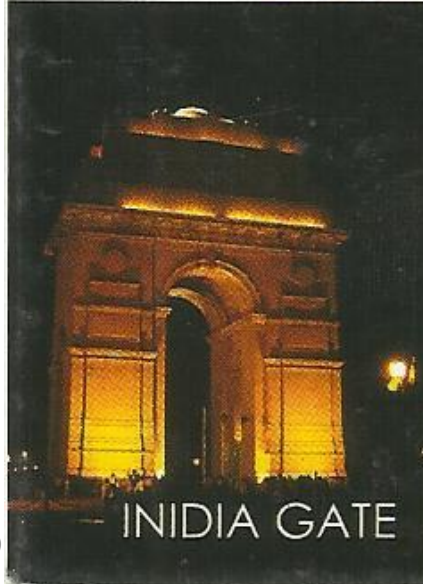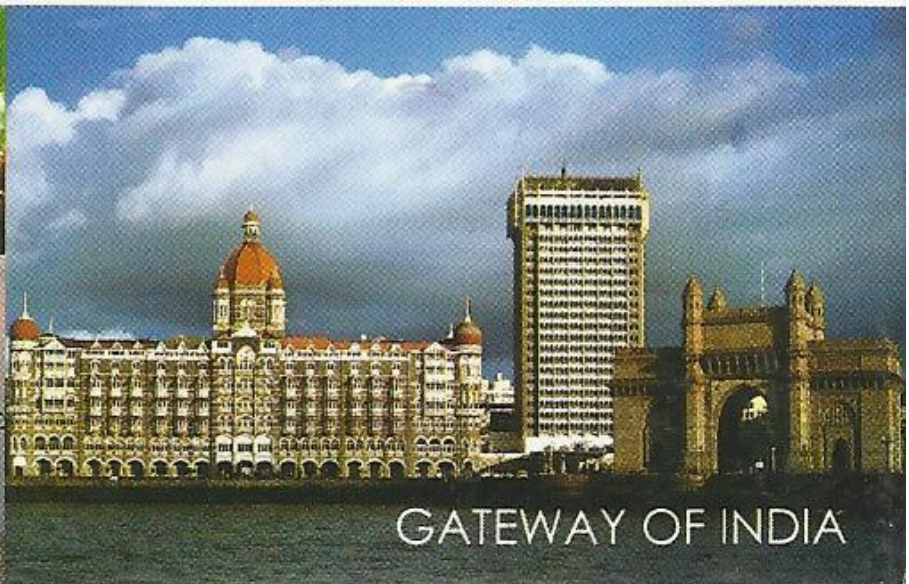
Rank 2017	Country	Rank 2018
1	US	1
2	China	2
3	Japan	3
4	Germany	4
5	France	5
6	UK	6
7	India	7
8	Brazil	8
9	Italy	9
10	Canada	10

China will **overtake US** as the world's largest economy by 2030

India will be the **world's third largest** economy by 2027

By 2032, **three of the world's top four economies** will be Asian — China, India & Japan

Source: The Centre for Economics and Business Research (Cebr)

Indian IT-BPM: On track to achieve its USD 225 billion target by 2020

	1980-1990	1990-2000	2000-2010	2010-2015
Revenue[1] (USD billion)	1	>8	~78	143
Employees[1] (million)	0.06	0.34	2.3	~3.7
No. of firms[1]	<1,000	~2,000	10,000-12,000	>16,000
GDP share[1]	~1%	1.8%	6.1%	9.3%
Exports[2] share	<5%	10.5%	26%	>45%
Global sourcing[1] share	-	-	47%	56%
Value addition	• Low-end support & development • T&M pricing	• Standardisation, productivity improvement • Non-critical functions • Project-based • Fixed cost, T&M	• End-to-end services • Non-linear growth • Strategic partnerships • Pay-as-you-use	• Bimodal IT • Digital BUs • Automation platforms • IoT, smart tech, innovation • Outcome based, risk-reward • Start-up ecosystem
	Cost arbitrage	**Collaboration**	**Value addition**	**Enabling the Smart Enterprise**

KEY HIGHLIGHTS

Indian IT-BPM industry: A vibrant landscape:

- Total revenue: **USD 143 billion** (FY2016)
- Largest private sector employer: **3.7 million**
- Of strategic importance: Share in GDP - **9.3 per cent**; share in services exports - **>45 per cent**
- Industry has transformed itself from a back-office services provider to a partner in **business transformation**

Notes: 1) Data given for FY1991, FY2000, FY2010, FY2016 2) Share in total services exports
Source: NASSCOM
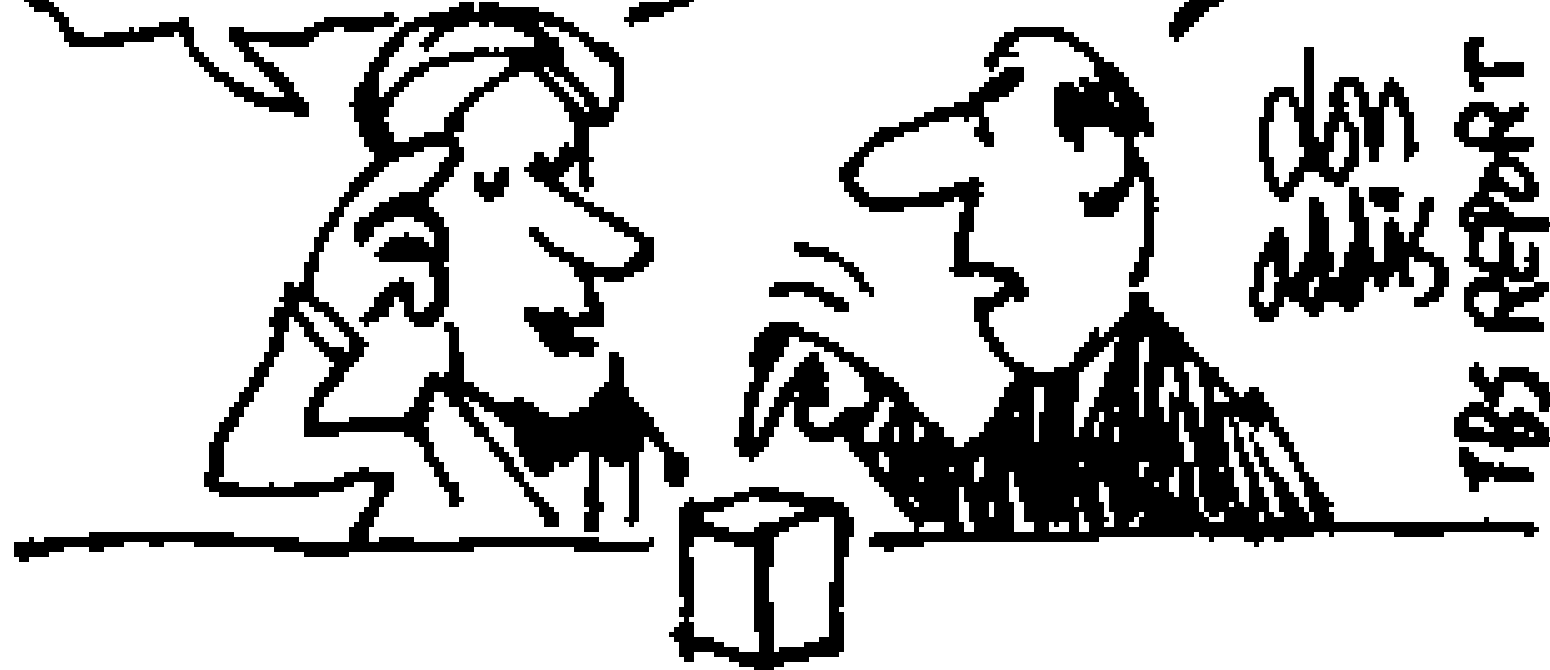
Motivation from misery

Millions of citizens waste hours

to access government information & services

that should be rightfully theirs

IT in Transforming Government!

1999
a high powered committee - 108 recommendations

2006
National Plan of E-gov

2015
Digital India

Computerization

Online services

Real Time Systems
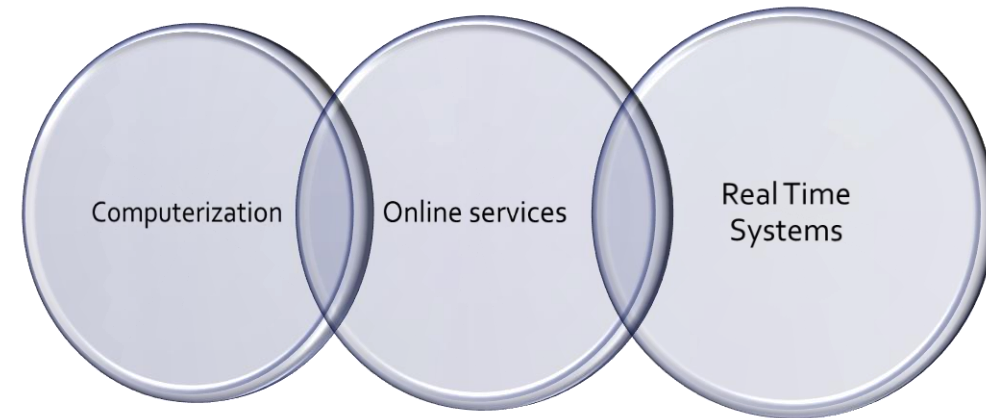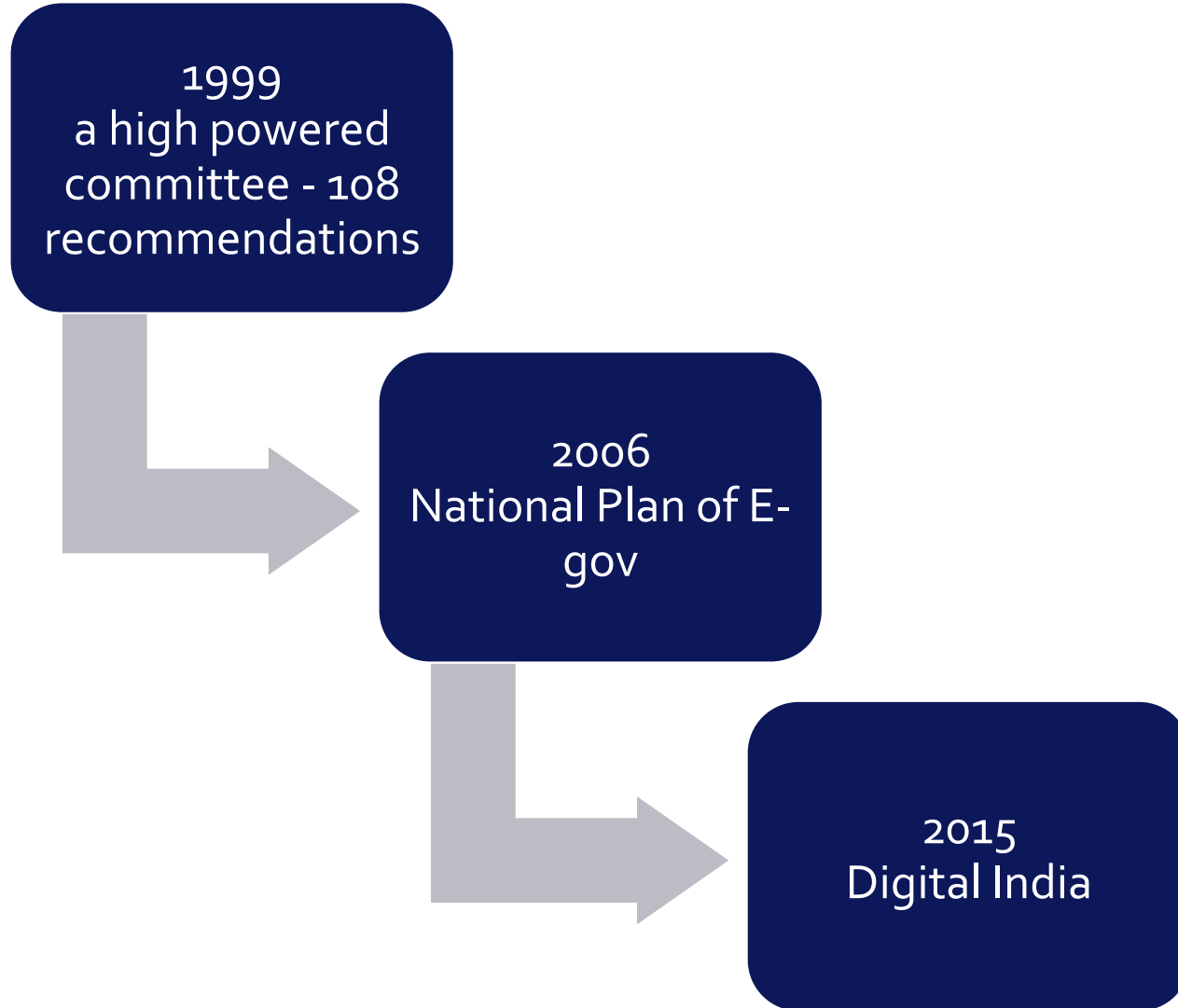
Government should be invisible

Like a software

Digital India 2015

Faceless

Paperless

Cashless

IT+IT=IT; Indian talent + Information technology = India Tomorrow

— Narendra Modi —

AZ QUOTES

Digital India: 3 Vision Areas

Digital Infrastructure as a Utility to Every Citizen	Governance & Services on Demand	Digital Empowerment of Citizens
• High speed internet • Unique digital identity • Mobile phone & bank account • Common Services Centre • Private space on Cloud	• Integrated services • Portable Citizen entitlements • Ease of doing business • Financial transactions electronic & cashless	• Digital literacy • Digital resources in Indian languages • Collaborative digital platforms

Mission Mode Projects >40

eHealth	Land Records	Income Tax	Good & Services Tax (GST)	e-Districts
Treasuries	Public Distribution System	Police (CCTNS)	e-Office	MCA21
Passport Seva	National ID	E-Court	e-procurement (GeM)	Community Services Centers (CSC)

Vision area-1 Digital Infrastructure

- ✕ High speed internet as a core utility (NoFN)
  - ✚ 1,17,033 Gram Panchayats (GPs) (of Total 2.5 lakh GPs covering 6 lakh villages) connected with Optical Fibre cable & equipments by BharatNet project
- ✕ Digital identity -unique, lifelong, online, authenticable (Adhaar)
  - ✚ More than 123 crore Aadhaar generated
  - ✚ INR 6.21 lakh crore disbursed to Direct Benefit Transfer (DBT) beneficiaries of 438 schemes
  - ✚ INR 1.1 lakh crore saved in 4 years by removing fictitious DBT claimants

- ● Shareable private space on a public cloud (DigiLocker)
  - ○ To keep digital documents & certificates e.g., License, Marksheets, Degrees etc. They are verifiable
  - ○ Over 349 crore authentic digital documents available
  - ○ Citizens able to access these documents anytime, anywhere

- ✕ JAM scheme: Jandhan a/c+Adhaar+Mobile phone
  - ✚ 31 cr Jandhan accounts opened & linked to mobile and Aadhaar, of which 25 crore operational (81%) with balance of 75,572 crore (as of Feb 2018)
- ✕ Easy access to a Common Service Centre (CSC)
  - ✚ Over 3 lakh CSCs delivering 350 Govt services e.g., Voter Id, PAN, Ticket booking, Tele Medicine, Land records, Banking, Insurance, Tele Legal Aid, Digital Literacy etc
  - ✚ Created employment opportunities for 12 lakh people including 55000 women
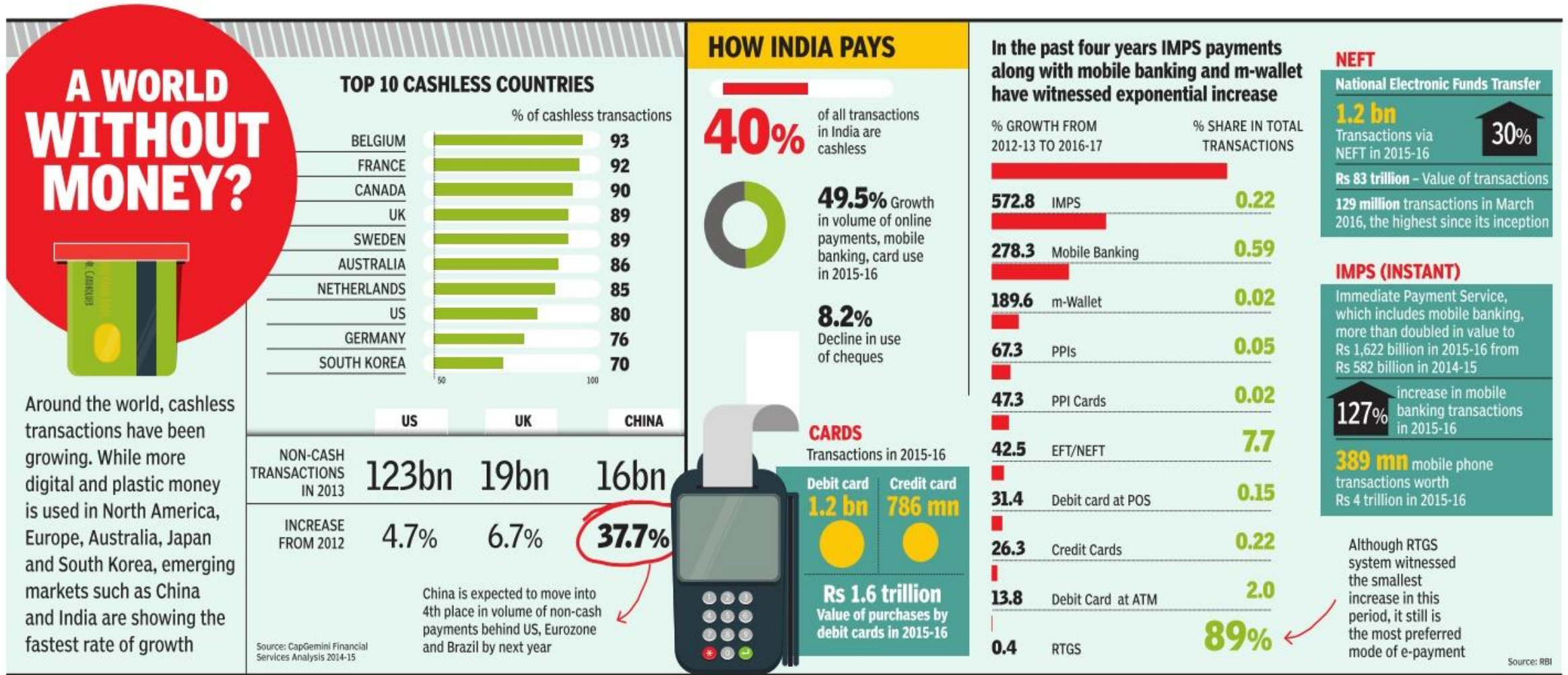
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Vision area-2 Governance On Demand

- ✕ Integrated services
  - ✚ All gov services (1200 services) via mobile app (UMANG) in 13 languages
  - ✚ Eduroam service for research & education community allowing free, seamless, secure roaming wi-fi access in 90 territories covering 70000 institutions globally including 250 Indian institutes
  - ✚ eHospital implemented across 321 hospitals to allow online access to lab reports for diagnostic tests
- ✕ Portable citizen entitlements (meghraj)
  - ✚ 960 applications running
  - ✚ One is scholarship scheme (52 schemes for 14 lakh institutes; 1.12 crore applications verified in 2017-18)

- ✕ Improving Ease of Doing Business
  - ✚ Pushing **cashless** transaction (G-G, G-B, G-C & G-E)
  - ✚ **GeM** (Government eMarketplace) has 29097 Buyer organizations, 51150 Sellers & Service Providers, and 570758 products., and the number is increasing continuously, allowing transparent, automated end-to-end registration of Buyers & Sellers, demand aggregation, e-Bidding, reverse auction, and facilitating transactions without requiring physical meeting of Buyers & Sellers
  - ✚ **eNAM** - National Agriculture Market connects 1.41 crore farmers and 1.21 lakh traders on 585 mandis across 16 States and 2 UTs
  - ✚ Immigration, Visa, Foreigners' Registration and Tracking (IVFRT) implemented in 169 Indian missions abroad benefiting Foreigners visiting India, Indian Tourism industry, Indian businesses including Medical, Transport etc
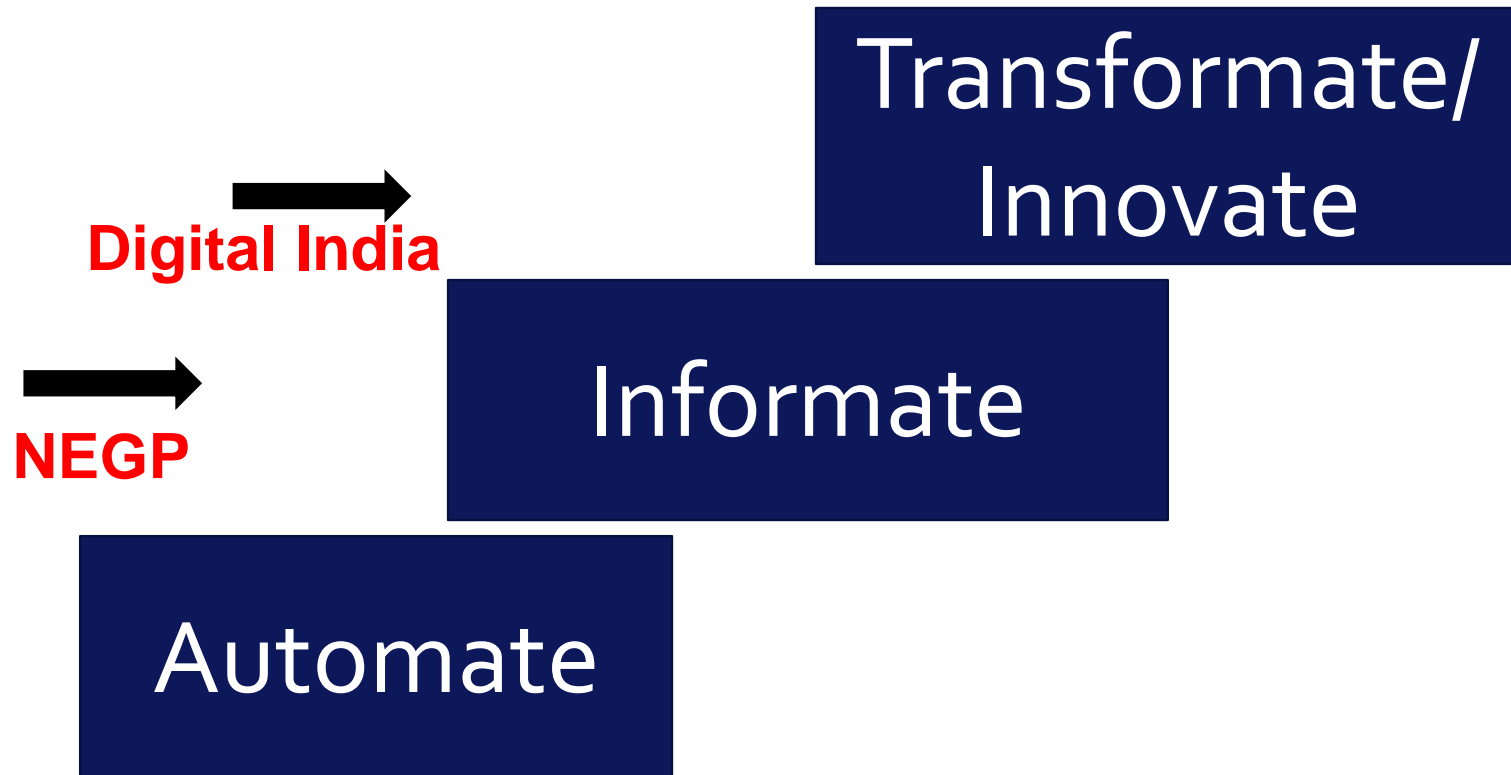 - ✚ World Bank ranking improves by (65 positions);

Vision area-3 Digital Impowerment of citizens

- ✕ Universal Digital Literacy
  - ✚ Aim is to make 1 person per household digitally literate
  - ✚ NIELIT established 843 accredited training centres for O/A/B/C level courses, and 8962 facilitation centres for conducting digital literacy programs
  - ✚ 2.02 crore adults registered (Target 6 crore)

- ✕ Digital resources / services in Indian languages eVidhan implemented for paperless Assembly allowing eVoting, eNotes, videoconferencing in all 40 legislatures - Lok Sabha, Rajya Sabha, 31 Vidhan Sabhas, 7 Vidhan Parishads

- ✕ Open Data
  - ✚ Open data platform: 265,623 resources, 4615 catalogs, 144 departments, 21.11 million views, 6.61 million downloads, 215 Chief Data Officers, 10800 APIs, 1615 visualizations
- ✕ MyGov (Collaborative digital platforms)
  - ✚ Over 76 lakh registered users on MyGov
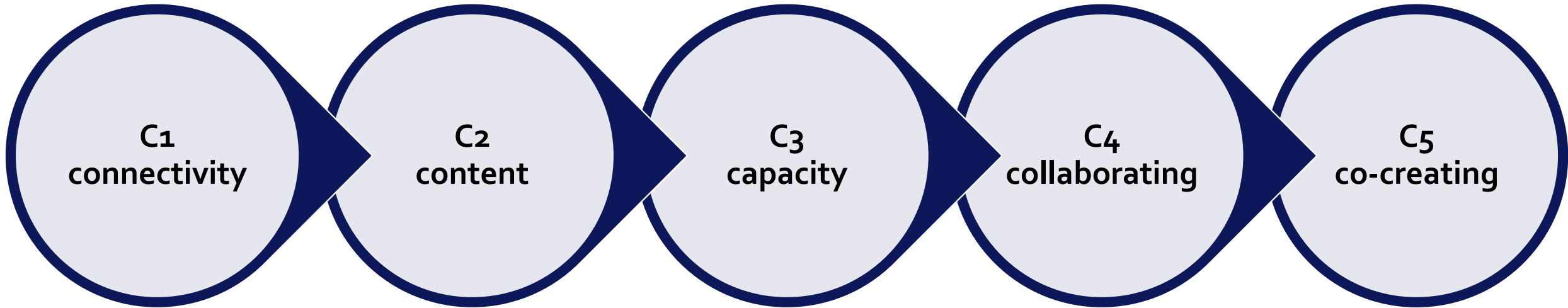 - ✚ Government departments use the MyGov platform to seek feedback from citizens on policies and initiatives

Digital India – Cashless India

A WORLD WITHOUT MONEY?

Around the world, cashless transactions have been growing. While more digital and plastic money is used in North America, Europe, Australia, Japan and South Korea, emerging markets such as China and India are showing the fastest rate of growth

TOP 10 CASHLESS COUNTRIES

% of cashless transactions

Country	%
BELGIUM	93
FRANCE	92
CANADA	90
UK	89
SWEDEN	89
AUSTRALIA	86
NETHERLANDS	85
US	80
GERMANY	76
SOUTH KOREA	70

	US	UK	CHINA
NON-CASH TRANSACTIONS IN 2013	123bn	19bn	16bn
INCREASE FROM 2012	4.7%	6.7%	37.7%

China is expected to move into 4th place in volume of non-cash payments behind US, Eurozone and Brazil by next year

Source: CapGemini Financial Services Analysis 2014-15

HOW INDIA PAYS

40% of all transactions in India are cashless

49.5% Growth in volume of online payments, mobile banking, card use in 2015-16

8.2% Decline in use of cheques

CARDS
Transactions in 2015-16

Debit card	Credit card
1.2 bn	786 mn

Rs 1.6 trillion Value of purchases by debit cards in 2015-16

In the past four years IMPS payments along with mobile banking and m-wallet have witnessed exponential increase

	% GROWTH FROM 2012-13 TO 2016-17	% SHARE IN TOTAL TRANSACTIONS
IMPS	572.8	0.22
Mobile Banking	278.3	0.59
m-Wallet	189.6	0.02
PPIs	67.3	0.05
PPI Cards	47.3	0.02
EFT/NEFT	42.5	7.7
Debit card at POS	31.4	0.15
Credit Cards	26.3	0.22
Debit Card at ATM	13.8	2.0
RTGS	0.4	89%

NEFT
National Electronic Funds Transfer

1.2 bn Transactions via NEFT in 2015-16 — **30%**

Rs 83 trillion – Value of transactions

129 million transactions in March 2016, the highest since its inception

IMPS (INSTANT)

Immediate Payment Service, which includes mobile banking, more than doubled in value to Rs 1,622 billion in 2015-16 from Rs 582 billion in 2014-15

127% increase in mobile banking transactions in 2015-16

389 mn mobile phone transactions worth Rs 4 trillion in 2015-16

Although RTGS system witnessed the smallest increase in this period, it still is the most preferred mode of e-payment

Source: RBI

Re-visit ....

Transformate/Innovate

Digital India →

Informate

NEGP →

Automate

C_1
connectivity

C_2
content

C_3
capacity

C_4
collaborating

C_5
co-creating

Citizen Engagement
- Reactive vs Proactive
- Suggestion - Grievances (protal)-crowdsourcing (mygov)-decision making

Re-visit ....

- Some approach......(vs Life event app)
- Integration among Projects (H & V)
- Costs are being revised
- Outsourcing (indiscreet!)
- BPR not mandated
- Outsourcing (Lack of ownership)

- Enterprise Architecture
- Security Provisions/audit
- Decision Support Systems
- Portal strategy
- Legal framework (E-gov Act)
- Collaborative
- Co-creating

challenge.gov (USA)

- Launched in July 2010

- crowdsourcing competitions by Federal agencies

- Invite innovative solution to tough problems

- 59 federal agencies used so far

- 300 scientific, engineering, design, multimedia, ideation, and software challenges, resulting in unprecedented PPP

DSS in government activities

- ☐ Egyptian Cabinet DSS
- ☐ Manhattan Court DSS
- ☐ Sprawl decisions in urban design
- ☐ Lake Development DSS of Philippines
- ☐ Urban Transportation DSS system
- ☐ Evacuation Modelling System in disaster management
- ☐ Environment protection DSS
- ☐ Avalanche path analysis DSS
- ☐ Agriculture management DSS
- ☐ Train Scheduling DSS

Egyptian Cabinet DSS

- Started in 1985

- To develop **a new tariff structure** to replace an inconsistent and complex structure that was thought to be impeding economic growth.

- **To support Cabinet in creating a consistent, simple tariff structure; increase revenues to the treasury; and promote economic growth without harming poor citizens.**

- Now covers Egypt's 27 provinces

- Includes different sectors and industries, legislative reform, public sector reform, financial reform, human resources development and job creation, economic reform and structural adjustment, capital goods manufacturing, commercial registration development, automation, natural resources management, building the information services industry, local development projects at the governorates level, sectors development projects at the ministerial level, civil information systems: the national ID number, technology development projects, urban planning, environmental development, and preserving the cultural heritage amongst others

  El Sherif H. and El Sawy O.A. (1988), Issue-based Decision Support Systems for Egyptian Cabinet, MIS Qtly, 12 (4).

- The DSS walked around, back and forth, from one ministry to another, making adjustments to the proposed tariffs, playing "what if" games to see the impact of tariff changes on revenue and local employment.

- After one month of intensive effort, agreement was reached on the new tariff policy. Builders of the DSS felt the system-reduced conflict by clarifying the trade-offs and potential impacts of tariff changes. While early estimates of higher tariffs claimed $250 million in increased revenues would result, the DSS predicted $25 million. By 1987, the actual increased revenue was $28 million

THANK YOU