


# India@2030

How Tech Entrepreneurship will create a  
USD 10 Trillion Economy

**TV Mohandas Pai**

@TVMohandasPai | #India2030



“ India is ready to take its place as a top  
5 economy in the world by 2030 ”

01

# India at a glance

Population	1.35 Bn	2018 (Est)
Population Growth Rate	1.3%	Census 2011
Life Expectancy: Male	67.6 yrs	2018 (Est)
Life Expectancy: Female	70.1 yrs	2018 (Est)
Literacy	79%	2018 (Est)
GDP (at current prices)	USD 2,603 Bn	2018 (Est)
Real GDP growth	6.6%	2018 (Est)
GDP (in PPP) (3rd Largest Economy)	USD 10,340 Bn	2018 (Est)
Per capita Income (nominal)	USD 1,928	2018 (Est)
Exports	USD 303 Bn	2018 (Est)
Imports	USD 460 Bn	2018 (Est)
Foreign Exchange Reserves	USD 425 Bn	Apr 2018 (Est)
Government External Borrowings	USD 96 Bn	2018 (Est)
External Debt (Govt & Non-Govt)	USD 496 Bn	Feb 2018 (Est)
Interest to Gross Revenue	24.0%	2018 (Est)
Gross Debt / GDP ratio	69.5%	2018 (Est)

# 2018 vs 1991

## Key Economic Indicators

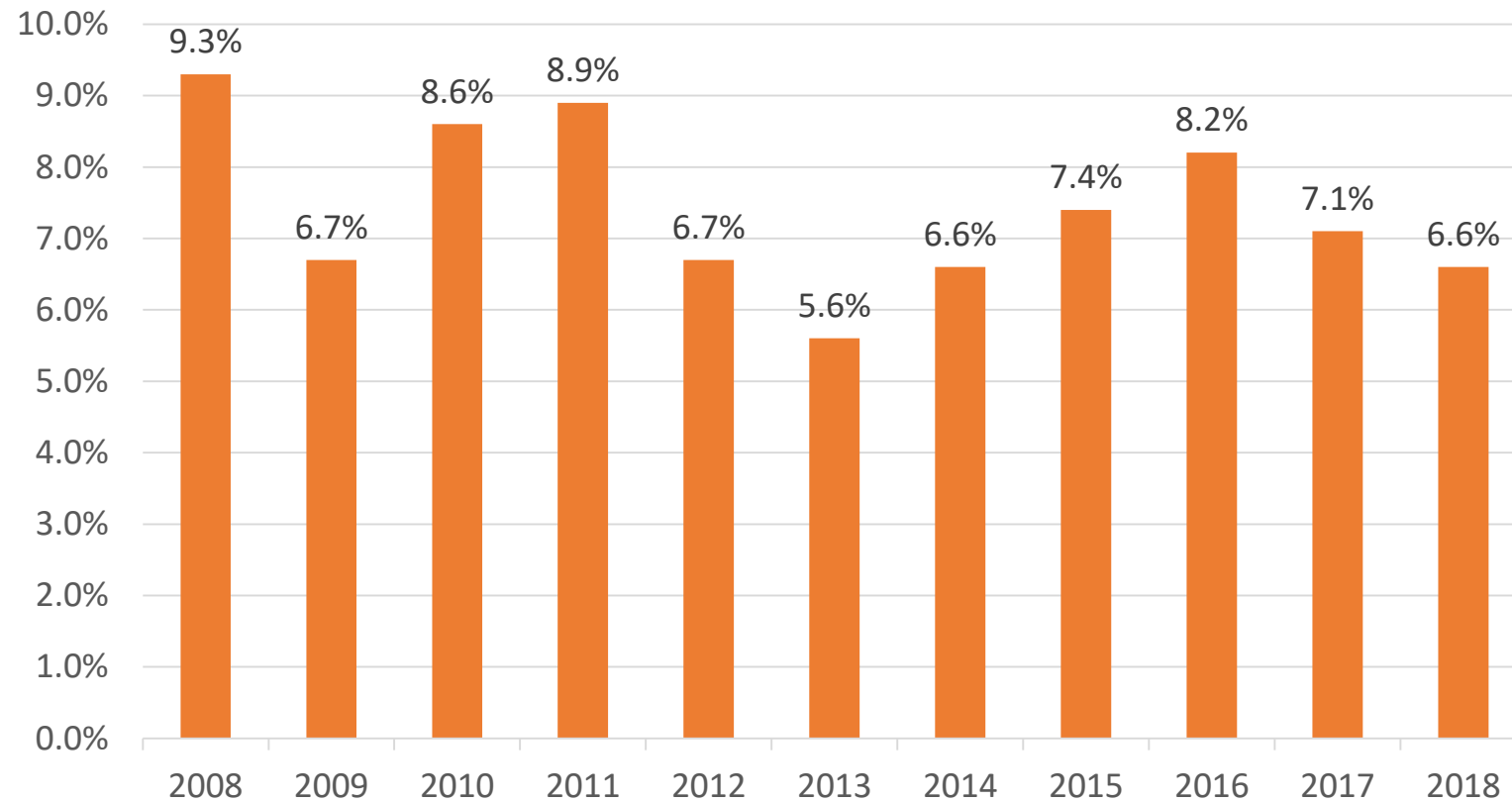
27 Years' Snapshot  
Post-Liberalization

	2018	1991	CAGR
Population (Bn)	1.35	0.89	1.6%
Life Epectancy (Years)	69	58.8	0.6%
Literacy Rate (2011 Census)	79%	52%	2.1%
GDP Growth Rate	6.6%	5.3%	
GDP (at current prices) - INR Cr	1,67,84,679	5,31,814	13.6%
GDP (at current prices) - USD Bn	2,603	275	8.7%
Per capita income (nominal) - USD	1,928	310	7.0%
Exports - USD Bn 2018	303	18	11.0%
Imports - USD Bn 2018	460	24	11.6%
Share in world trade (exports + imports)	4%	1%	
Foreign Currency Reserves - USD Bn	425	5.8	17.2%
Exchange Rate - USD	65.21	17.9	4.9%
Savings Rate	28%	22.9%	
Investment Rate	30%	22.5%	

# GDP Growth (%)

Regaining Growth Momentum

Last 10 years

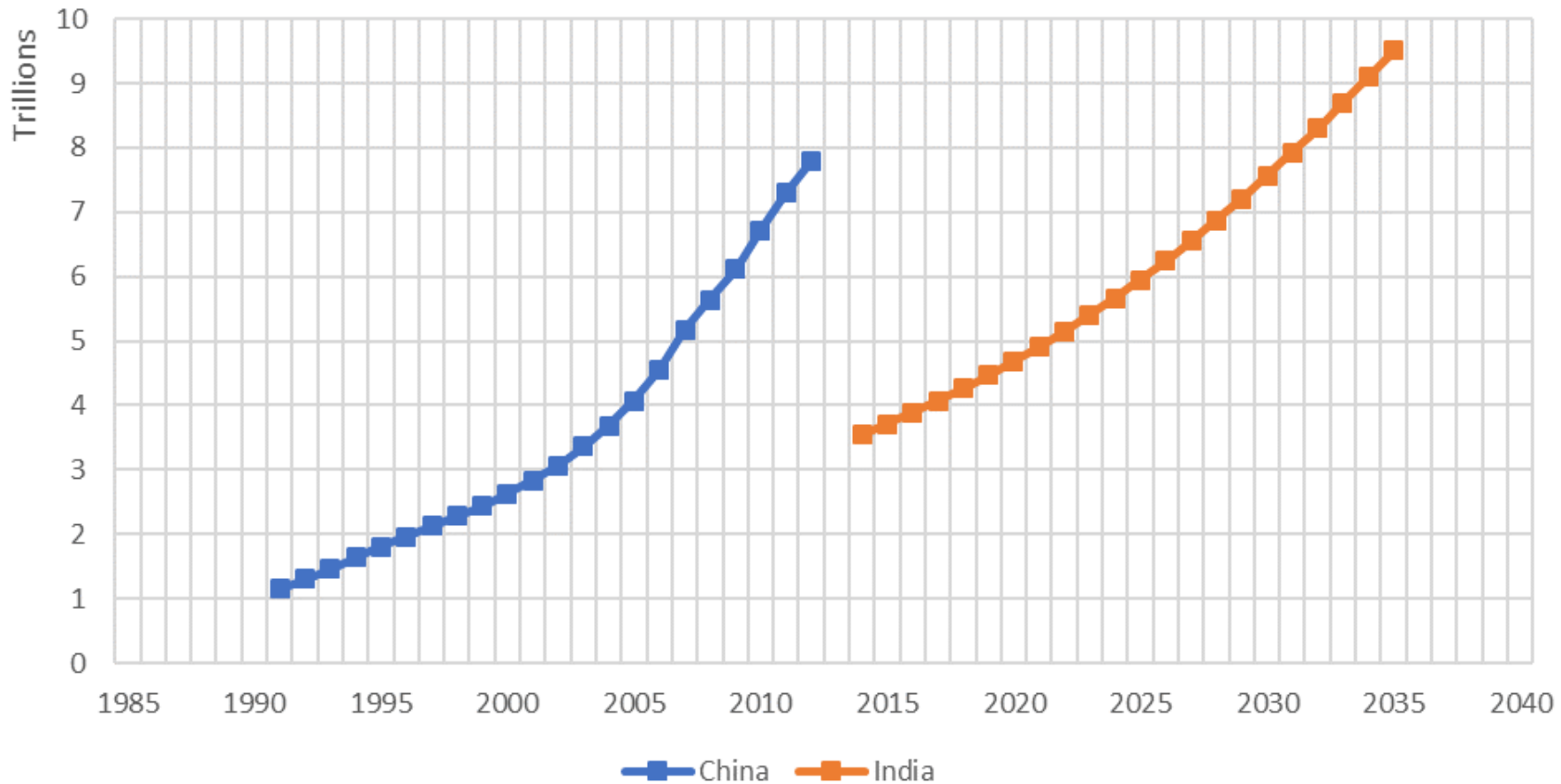


Expected GDP growth rate for 2018-19 is 7.4%



# GDP Projections

We are where China was in 2004



India needs to grow at 8.5%+ CAGR to be a USD 10 Tn economy by 2030  
China's GDP grew at an average of 9.9% p.a. from 1979 to 2011

# The world is changing

Regions	GDP 2016	GDP 2021	GDP 2031	CAGR
	USD Tn	USD Tn	USD Tn	2016-2031
US	18.6	21	26.9	2.5%
EU	17.1	18.4	21.4	1.5%
Japan	4.7	4.9	5.5	1.0%
Total OECD	40.4	44.4	53.8	1.9%
China	11.4	15.3	24.9	5.3%
India	2.3	3.5	8.6	8.5%
Others	21.2	28.4	50.8	6.0%
Total: RoW	34.9	47.2	84.3	6.0%
Total Global	75.3	91.6	138.1	4.0%

# India & China at a glance

China has grown faster

		INDIA	CHINA
Population	2018 (Est)	1.35 Bn	1.42 Bn
Population Growth Rate	Census 2011	1.3%	0.39%
Life Expectancy: Male	2018 (Est)	67.6 yrs	75 yrs
Life Expectancy: Female	2018 (Est)	70.1 yrs	78 yrs
Literacy	2018 (Est)	79%	96.4%
GDP (at current prices)	2018 (Est)	USD 2,603 Bn	USD 13,338 Bn
Real GDP growth	2018 (Est)	6.6%	6.9%
GDP (in PPP) 3rd Largest Economy	2018 (Est)	USD 10,340 Bn	USD 25,103 Bn
Per capita Income (nominal)	2018 (Est)	USD 1,928	USD 9,392
Exports	2018 (Est)	USD 303 Bn	USD 1,741 Bn
Imports	2018 (Est)	USD 460 Bn	USD 1,791 Bn
Foreign Exchange Reserves	Apr 2018 (Est)	USD 425 Bn	USD 3,143 Bn
External Debt (Govt & Non-Govt)	Feb 2018 (Est)	USD 496 Bn	USD 1,649 Bn
Gross Debt / GDP ratio	2018 (Est)	68.7%	260%



# Fiscal

Subsidy Spend finally seems to be getting under control

(INR Cr)	2014-15	2015-16	2016-17 (A)	2017-18 (RE)	2018-19 (BE)
Oil (Petroleum)	60,269	30,000	27,539	24,460	24,933
Food	1,17,671	1,39,419	1,10,172	1,40,282	1,69,323
Fertiliser	71,076	72,438	66,313	64,974	70,080
Interest	7,632	16,730	17,888	23,635	20,917
Other Subsidies	9,252	15,944	12,896	10,774	7,572
Total - Budget	2,65,900	2,74,531	2,34,808	2,64,125	2,92,825
MGNREGA	36,025	44,003	48,215	55,000	55,000
Total Actual Subsidy	3,01,925	3,18,534	2,83,023	3,19,125	3,47,825
% GDP	2.4%	2.3%	1.9%	1.9%	1.8%

With strong reforms and the use of JAM (Jan Dhan, Aadhaar, Mobile),  
subsidy leakage will be reduced

# Strong Industrial Base



	Steel Capacity in Mn tonnes	Cement Capacity in Mn tonnes	Two Wheeler Production in Mn Units	Four Wheeler Sales in Mn Units	Construction Mn Sq. ft.	IT/BPO Revenue in USD Bn	Power MW	Wireless Phone Subscribers in Mn
INDIA	125	420	23	3.8	500	175	334,400	1,160
JAPAN	105	100	-	4.8	-	400	600,000	200
USA	100	150	-	17	-	1,200	1,000,000	350

# Strong Agricultural Base

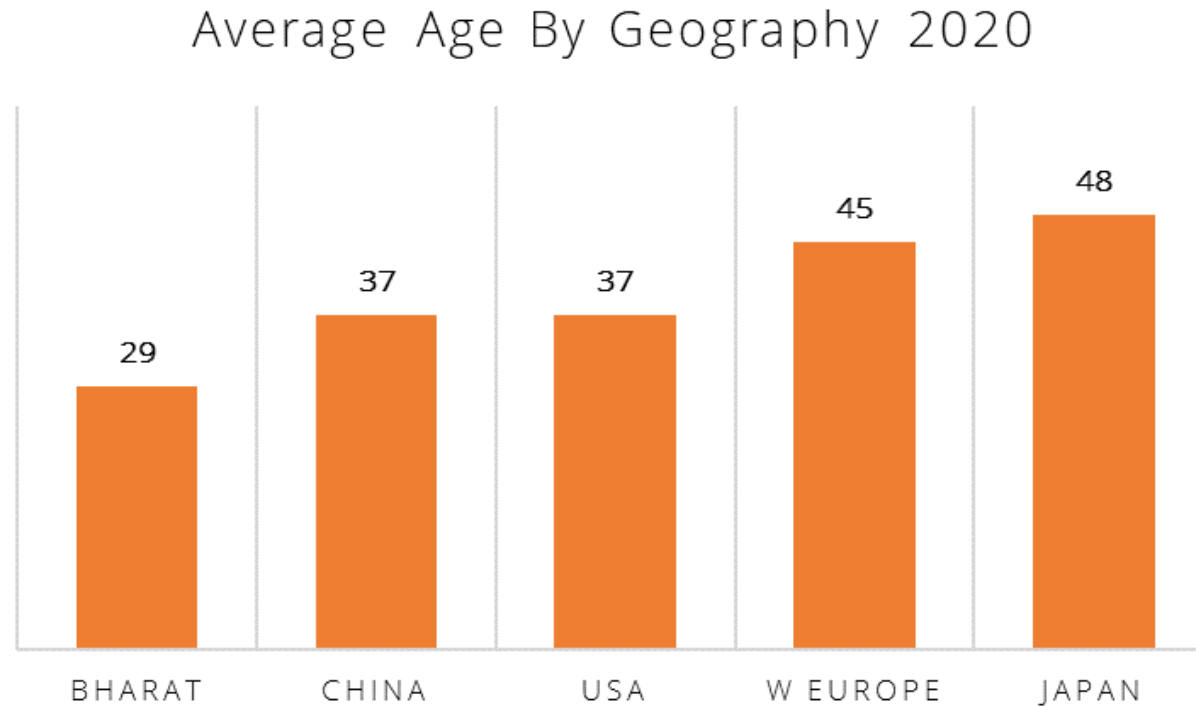


INDIA

Food Grains	Milk	Cotton	Horticulture	Sugar	Spices	Cropland	Livestock
Production (Mn tonnes)	Production (Mn tonnes)	Production (Mn bales)	Production (Mn tonnes)	Production (Mn tonnes)	Exports (in USD Bn)	(Mn hectares)	Population (Mn)
277 (Second largest in the world)	169 (Largest in the world)	37.5 (Largest in the world)	305.5 (Second largest in the world)	29.5 (Second largest in the world)	2.6 (Largest in the world)	179.8 (Largest in the world)	512 (Largest in the world)

- Major producer of agrochemicals, tea, cashew, jute, oilseeds, etc.
- Largest exporter of cereal products, cotton, bovine meat, sugar, etc.
- All 15 major climates in the world; 46 of the 60 soil types in the world
- Largest manufacturers of farm equipment
- Proximity to food importing nations
- Consumer spending to reach USD 3.6 Tn by 2020

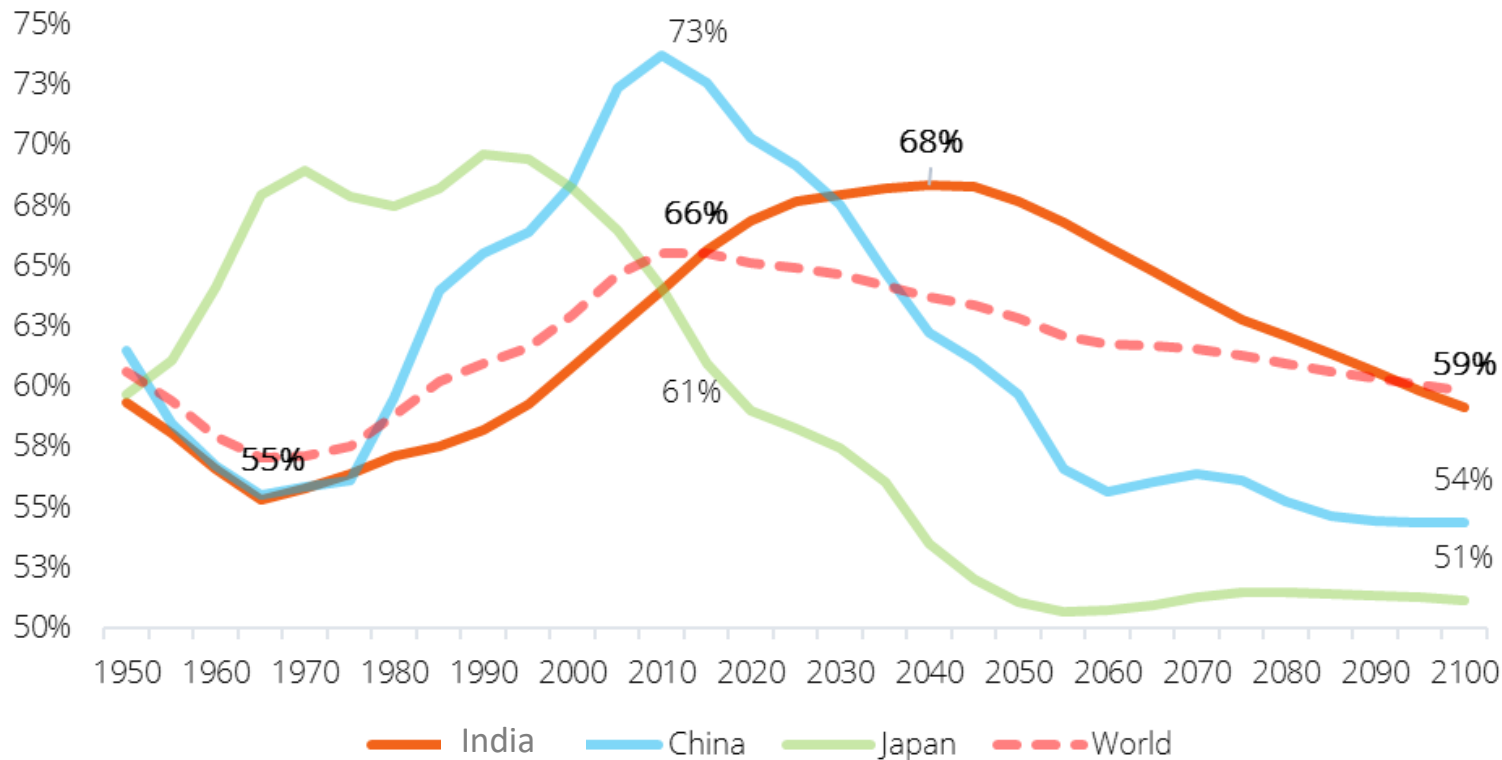
# We have a Young Population



**We are NOT an aging country!**

# We will continue to have a Young Population

% Working Population (Ages 15-64)



India's working population is expected to total two-thirds of the total population in 2025

Higher aspirations & increased demand for skilled labor leads to higher education levels

Growing middle class (~300Mn) with increasing consumption

# Higher Education Infrastructure

Growth is about people, we have increased access in Higher Education

864

Number of Universities

51,695

Number of Colleges

General Courses (Mn)		Specialised Courses (Mn)	
Arts	9.74	Engineering	4.54
Commerce	4.45	IT / CS	1.02
Science	5.56	Management	1.15
Education	1.25	Medical	1.12
Social Science	1.88	Law	0.38
		Others	4.60
Total	22.88		12.83

Total: 35.7 Mn

Gross Enrolment Ratio in Higher Education in India is 25.2%

General Courses account for 2/3rds of total enrolment

Enrolment in professional courses grew at 20% CAGR

Pvt Institutions account for 64% institutions & 60% of enrolment

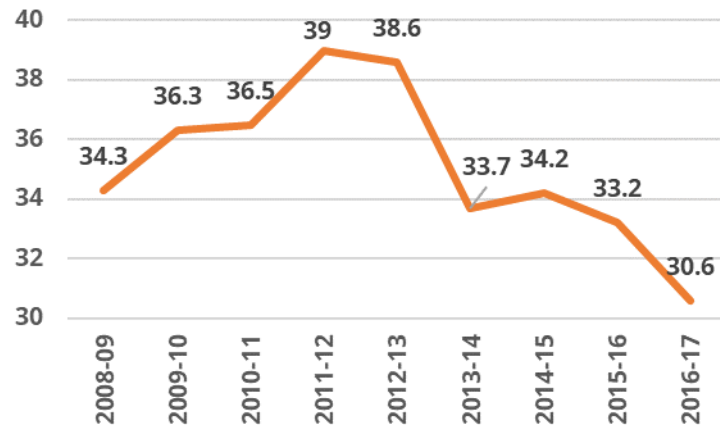
13



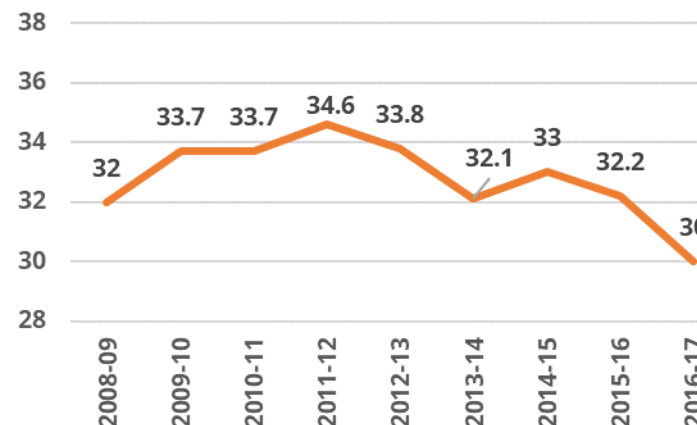
# We have adequate savings for investments and growth

India

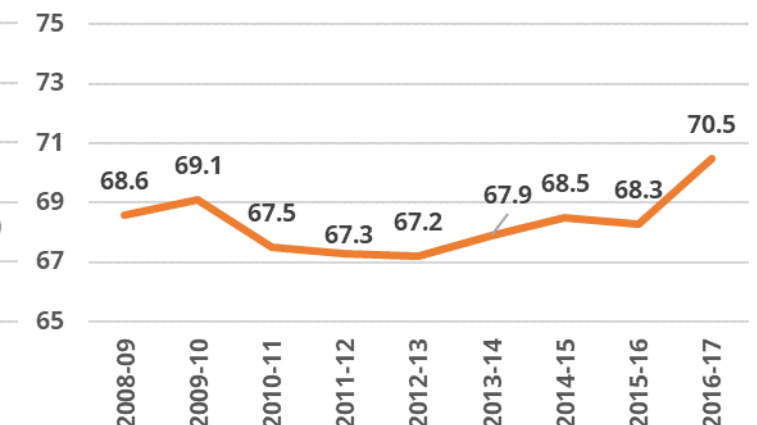
Investments as a % of GDP



Savings as a % of GDP



Consumption as a % of GDP



VS

CHINA

In addition to exports, China's GDP growth is investment-led.

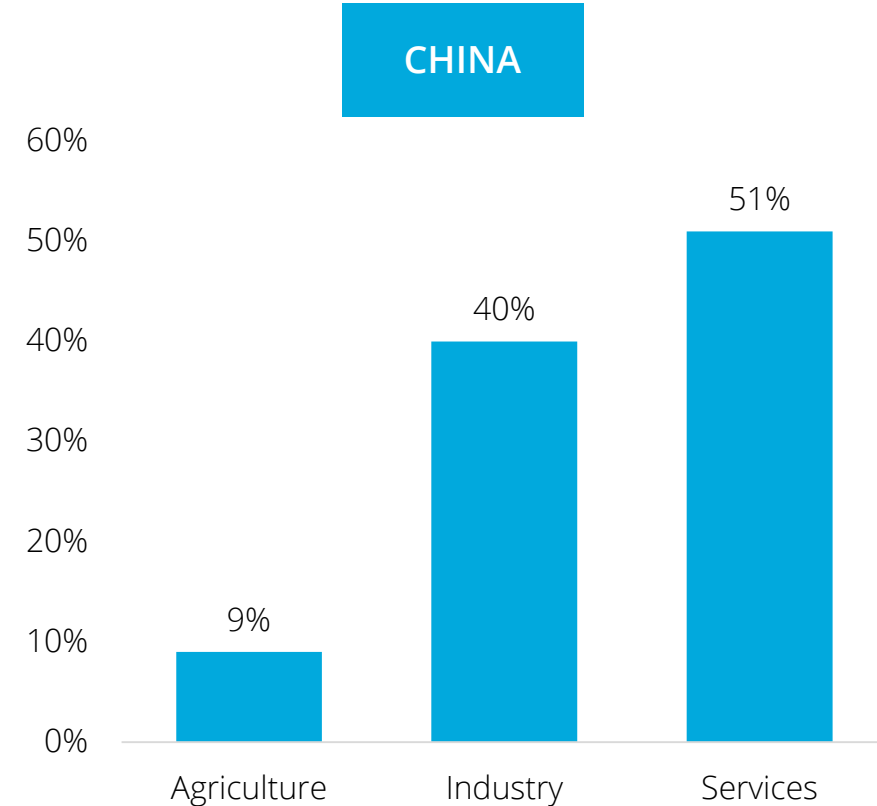
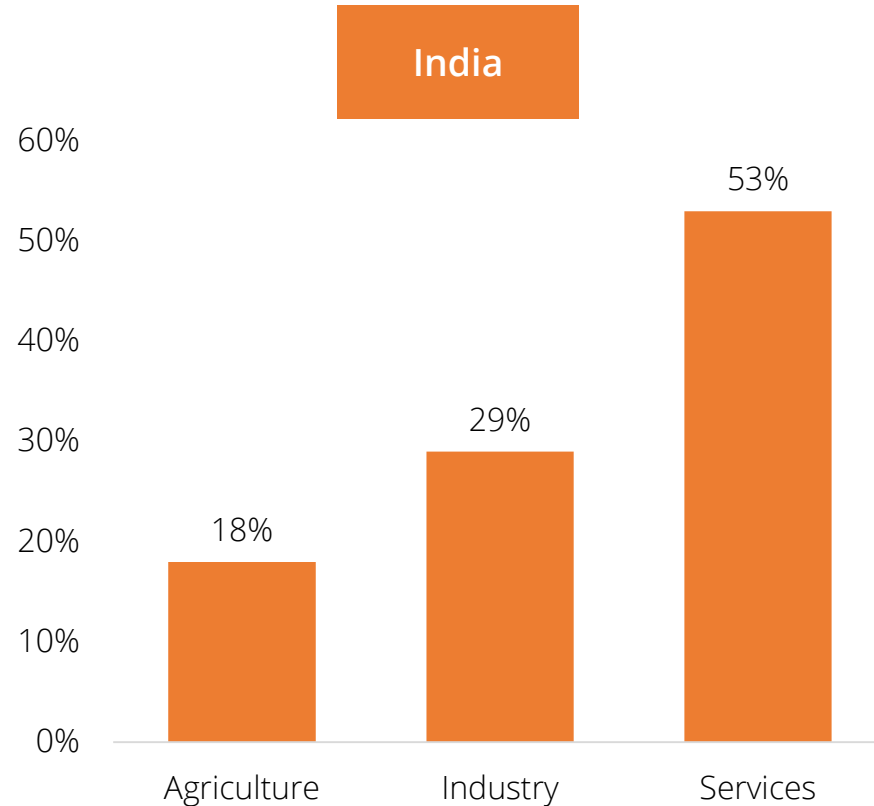
Investment as a % of GDP stands at >50% over the last few years

Consumption, on the other hand, is very low @ 48% of GDP.

This results in high savings at over 50% of GDP

# GDP by sector

We have very different patterns



Est, 2014

© TV Mohandas Pai



“ The Startup Ecosystem will help  
create a **USD 10 Trillion**  
economy in India by 2030 ”

# India Startup Ecosystem



**3<sup>rd</sup>**

largest startup  
ecosystem in the World

**270%**

growth in 6 years

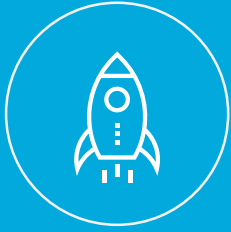
**26,000+**

startups

**USD 90Bn**

Value Created

17



Startups raised **USD 13.7Bn across 820 deals** in 2017, against USD 6.9Bn that was invested in 2016 (**2x growth**)

Source: Yourstory

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# Startups at a glance

## 82%

of startups that have raised funding in 2017 are concentrated in Bengaluru, Mumbai and Delhi-NCR

Bangalore saw **53.3%** of the total deal value in 2017



Deal Distribution  
2017

# New flywheel ramping up

IT Services



USD 175 Bn revenue



USD 115 Bn exports



4.25 Mn People Employed

1989

IT Services took off

2016

Startups take off

2025

What lies in store

Startups

2025

Projections



100,000  
Startups



Employ  
3.25 Mn



USD 500 Bn  
Market Value



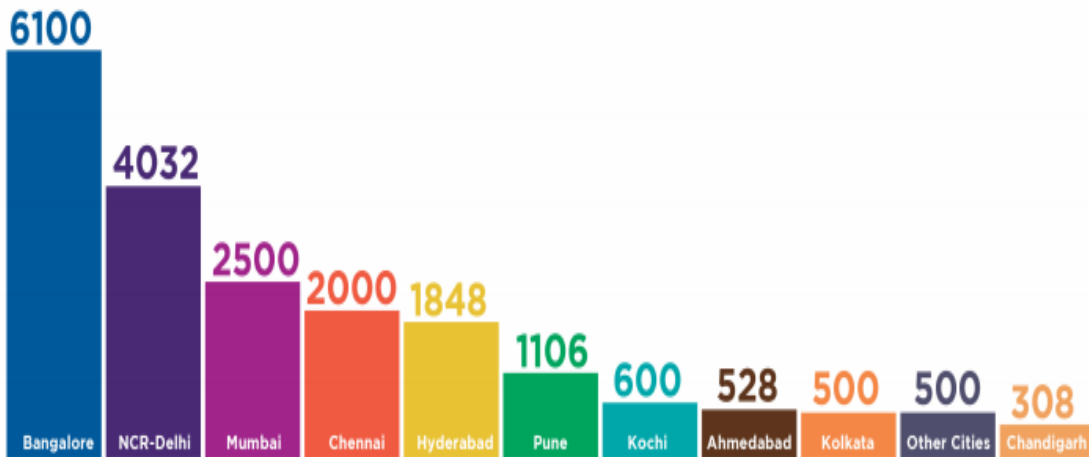
#2  
after US



30 Mn  
SMEs lifted

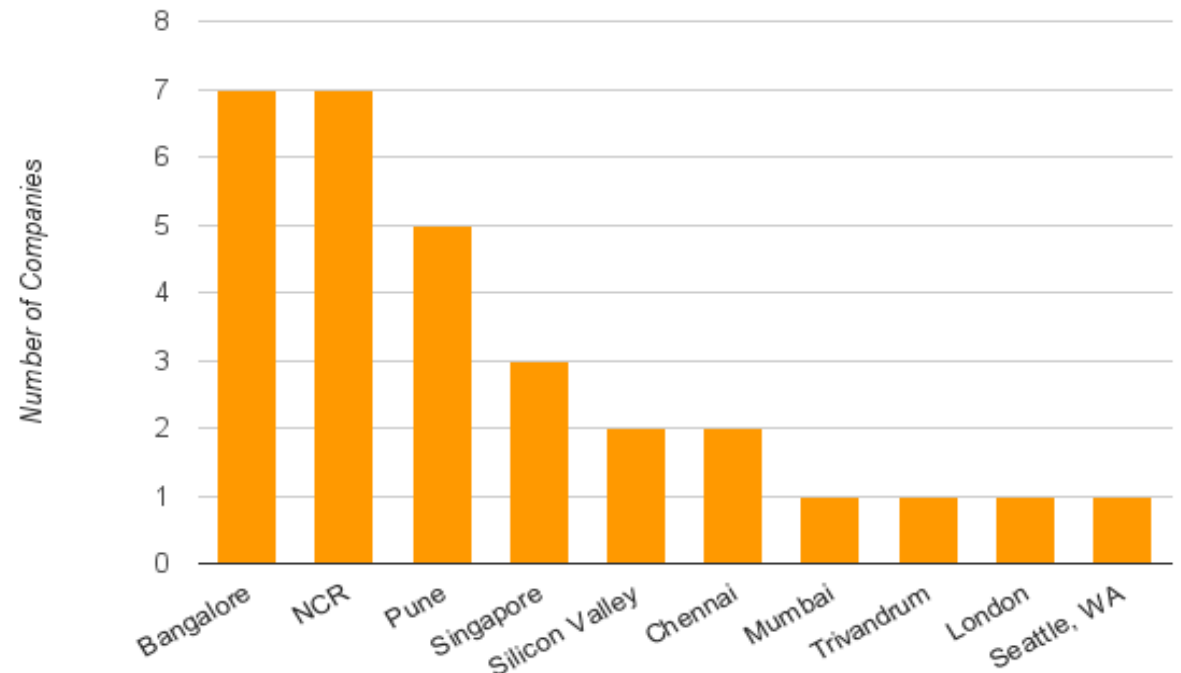


# Startup landscape by city



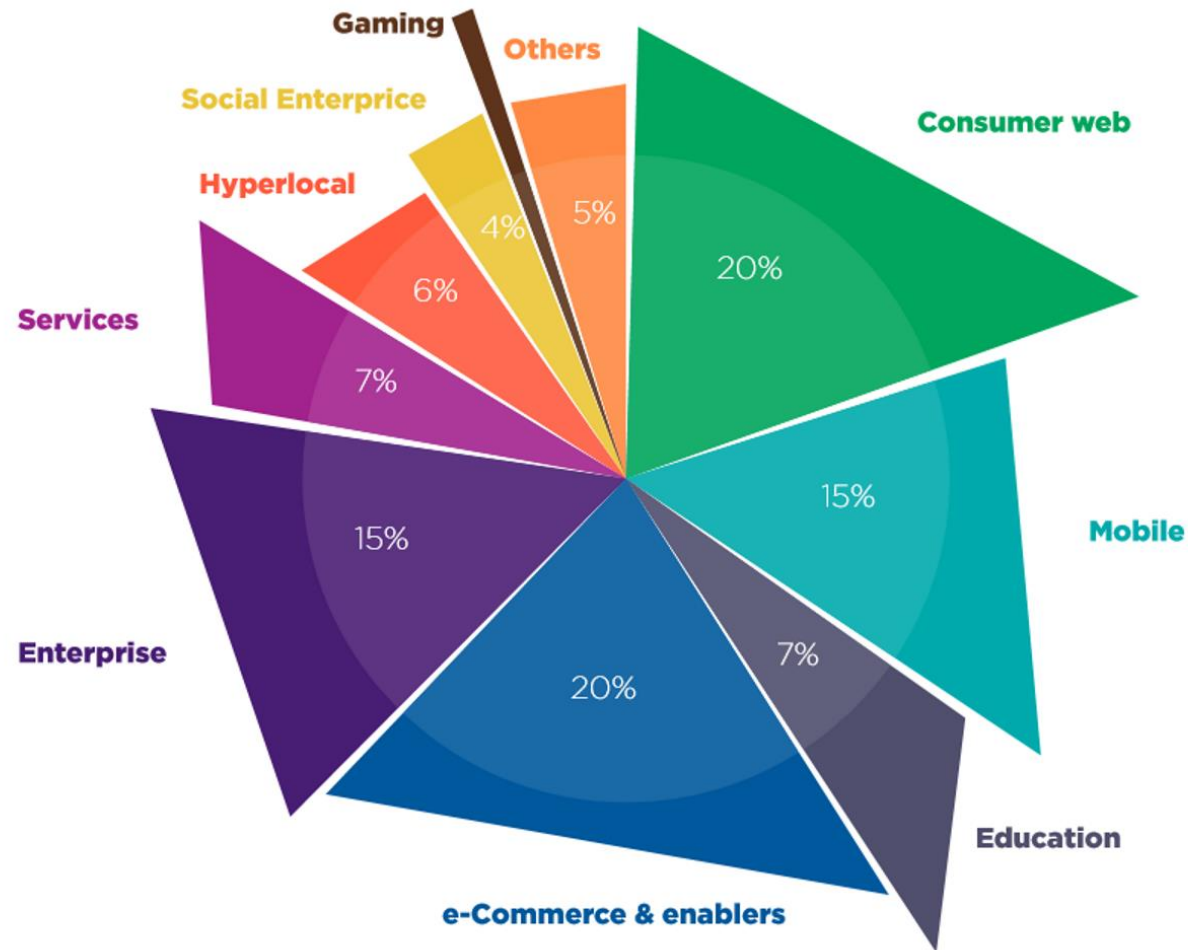
Historically concentrated in Bangalore (31.44%), Delhi (20%), Mumbai (13%) and Chennai (10%)

Headquarter Location Choice of Top 30 Companies



Bangalore strong in B2C

# Distribution of Startups by sector

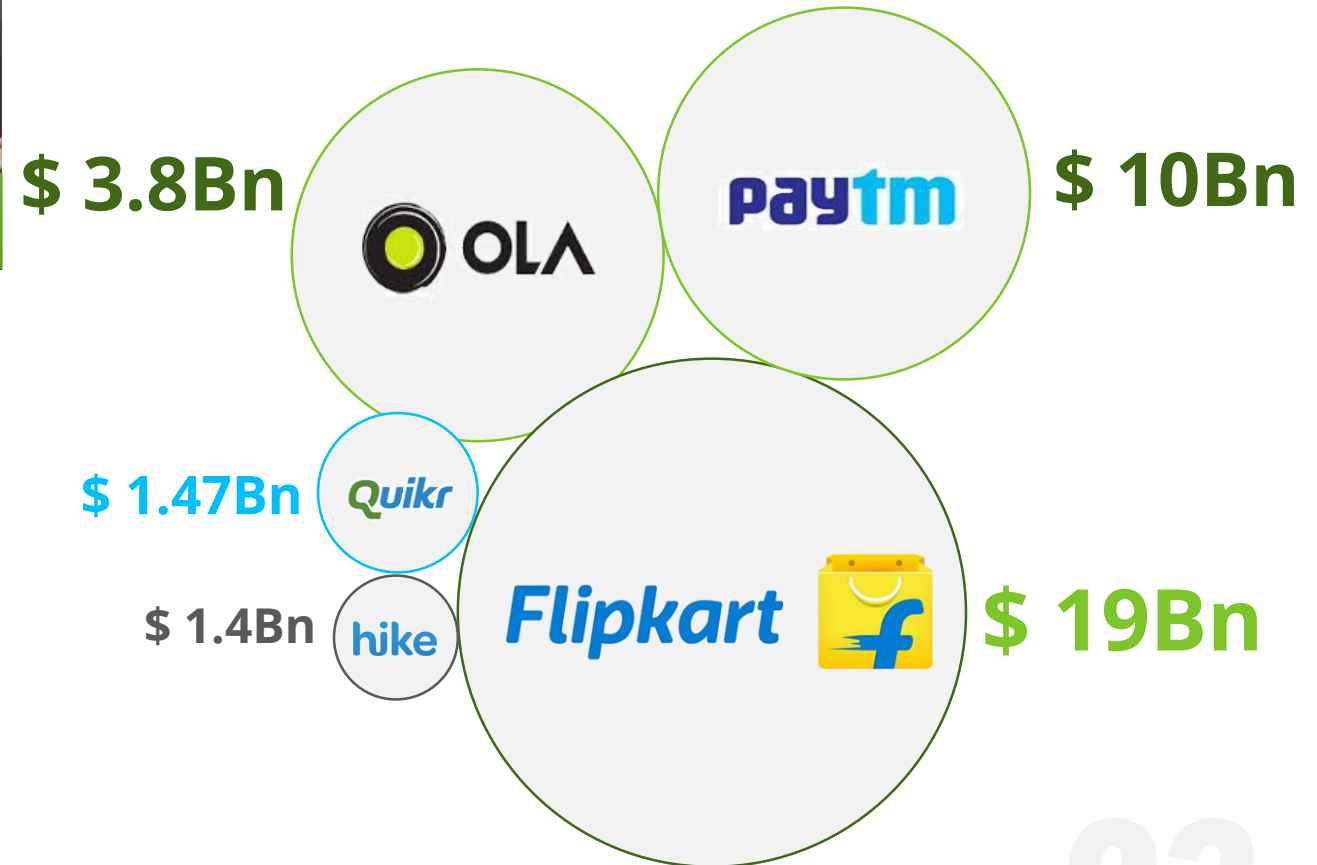


# Companies that crossed USD 1 Billion in valuation





# B2C Valuations



Source: Yourstory

© TV Mohandas Pai



# Top 30 Companies - B2B Valuations



Total Startup Valuation:  
> **USD 90 Bn (2017)**

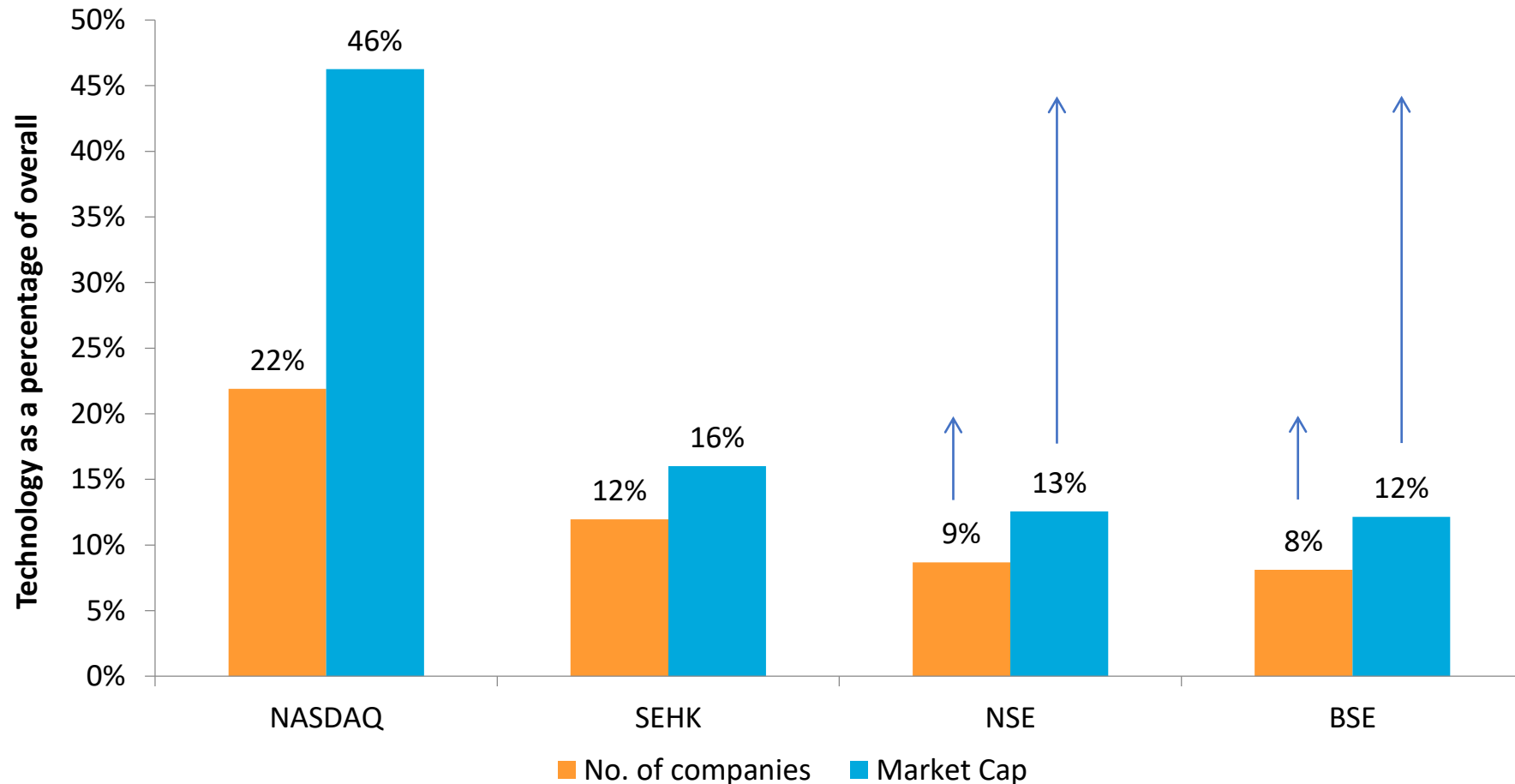
**USD 10.25 Bn**

**Growing  
rapidly!**

24

# Startup Valuations

Set to grow dramatically in coming years





A close-up, profile shot of a man with dark hair and a beard, wearing a red jacket. He is holding a smartphone up to his eye, taking a photo. The background is a blurred stone building with arched windows, suggesting a historical or cultural setting. The lighting is bright, indicating it's daytime.

**So what will the future of  
Startups look like?**

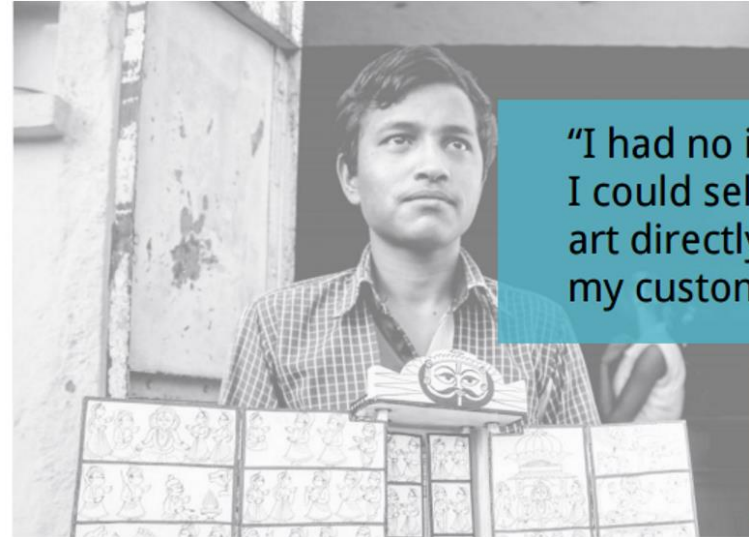
**26**



# Use of Digital Platforms



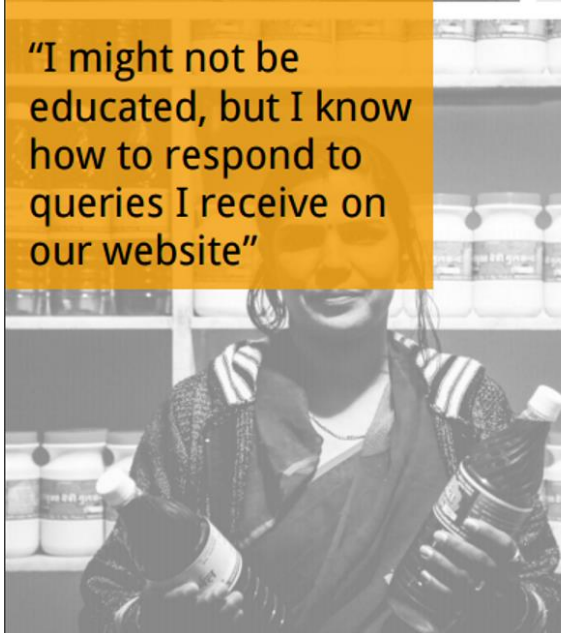
Uses Google Maps to head to a crime scene. Bought a TV on OLX.



"I had no idea I could sell my art directly to my customers"



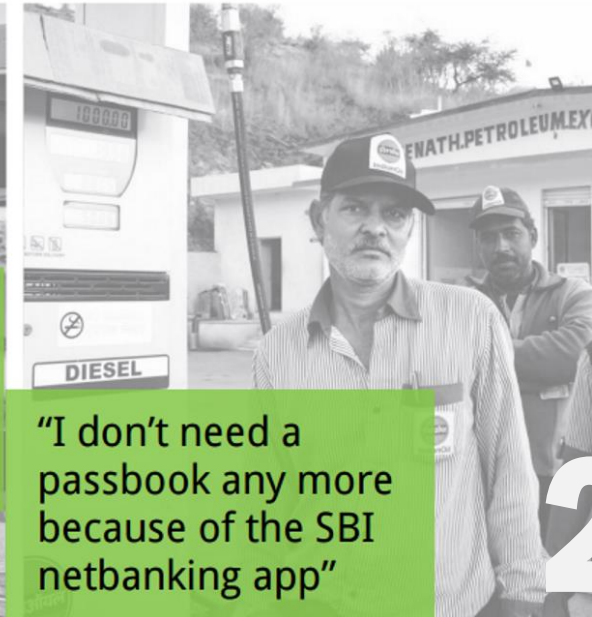
"3G nahi to hotspot sahi"



"I might not be educated, but I know how to respond to queries I receive on our website"

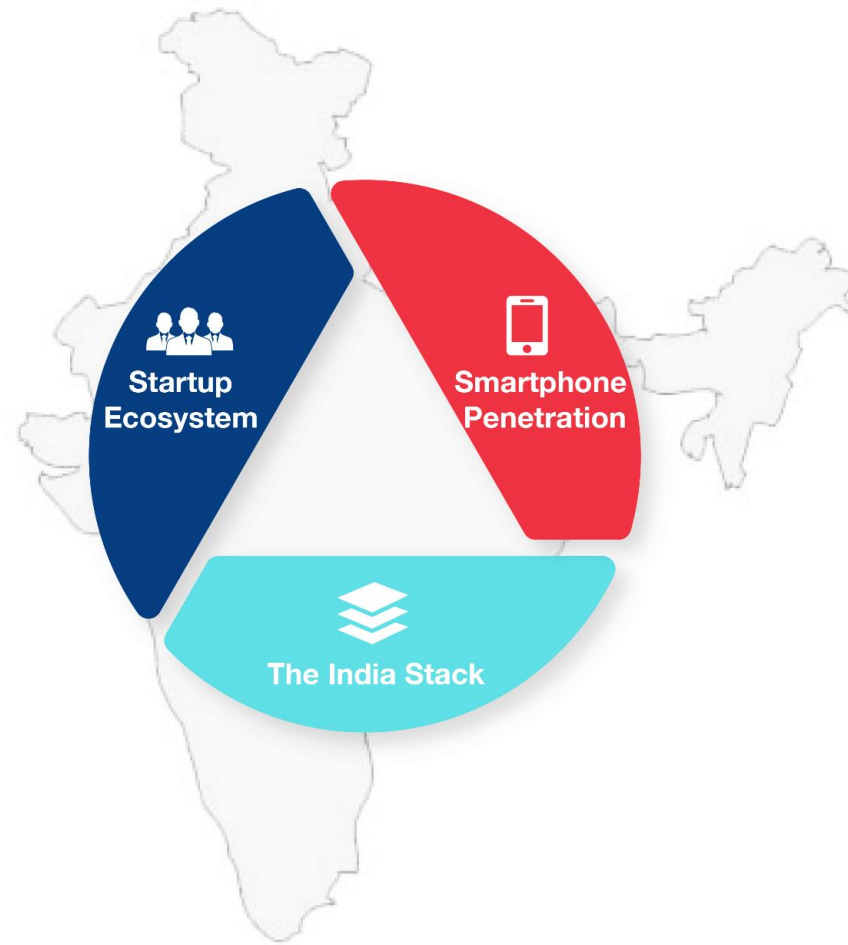


"The internet has helped us cut the middleman and changed our lives forever"



"I don't need a passbook any more because of the SBI netbanking app"

# India's Digital Push



# India Stack

COMMERCE  
(GSTn)

CREDIT  
(RBI)

INVESTMENTS  
(SEBI)

SKILLS

OTHERS



**CONSENT  
LAYER**

Provides a modern  
privacy data sharing  
framework

**Open Personal  
Data Store**



**CASHLESS  
LAYER**

Game changing  
electronic payment  
systems and transition  
to cashless economy

**IMPS, AEPS, APB,  
and UPI**



**PAPERLESS  
LAYER**

Rapidly growing base  
of paperless systems  
with billions of  
artefacts

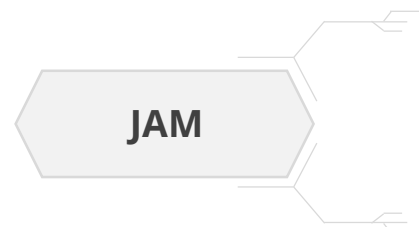
**Aadhaar e-KYC,  
E-sign, Digital Locker**



**PRESENCE-LESS  
LAYER**

Unique digital  
biometric identity  
with open access of  
nearly a Billion users

**Aadhaar  
Authentication**



Jan Dhan

+



Aadhaar

+

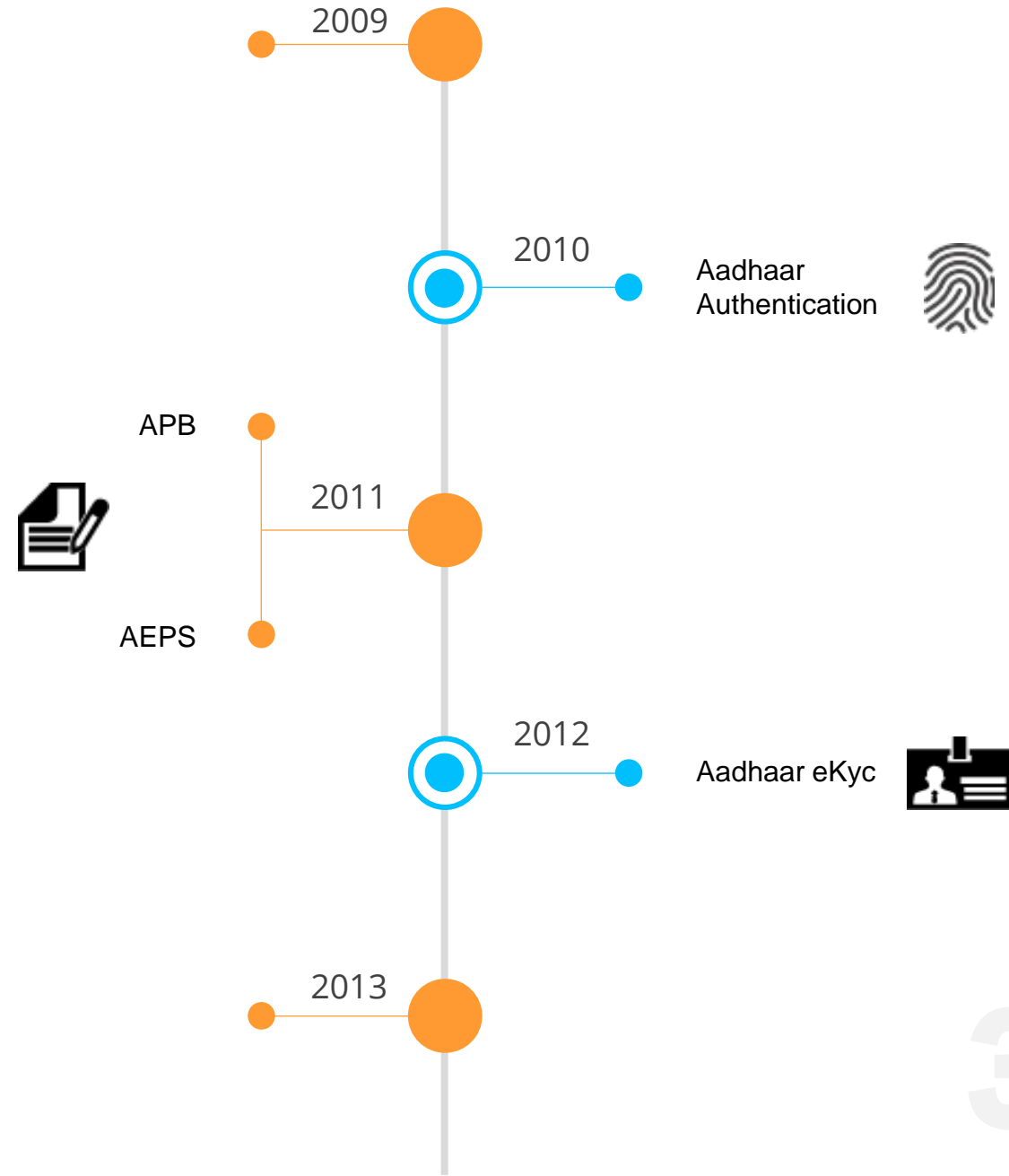


Mobile

29

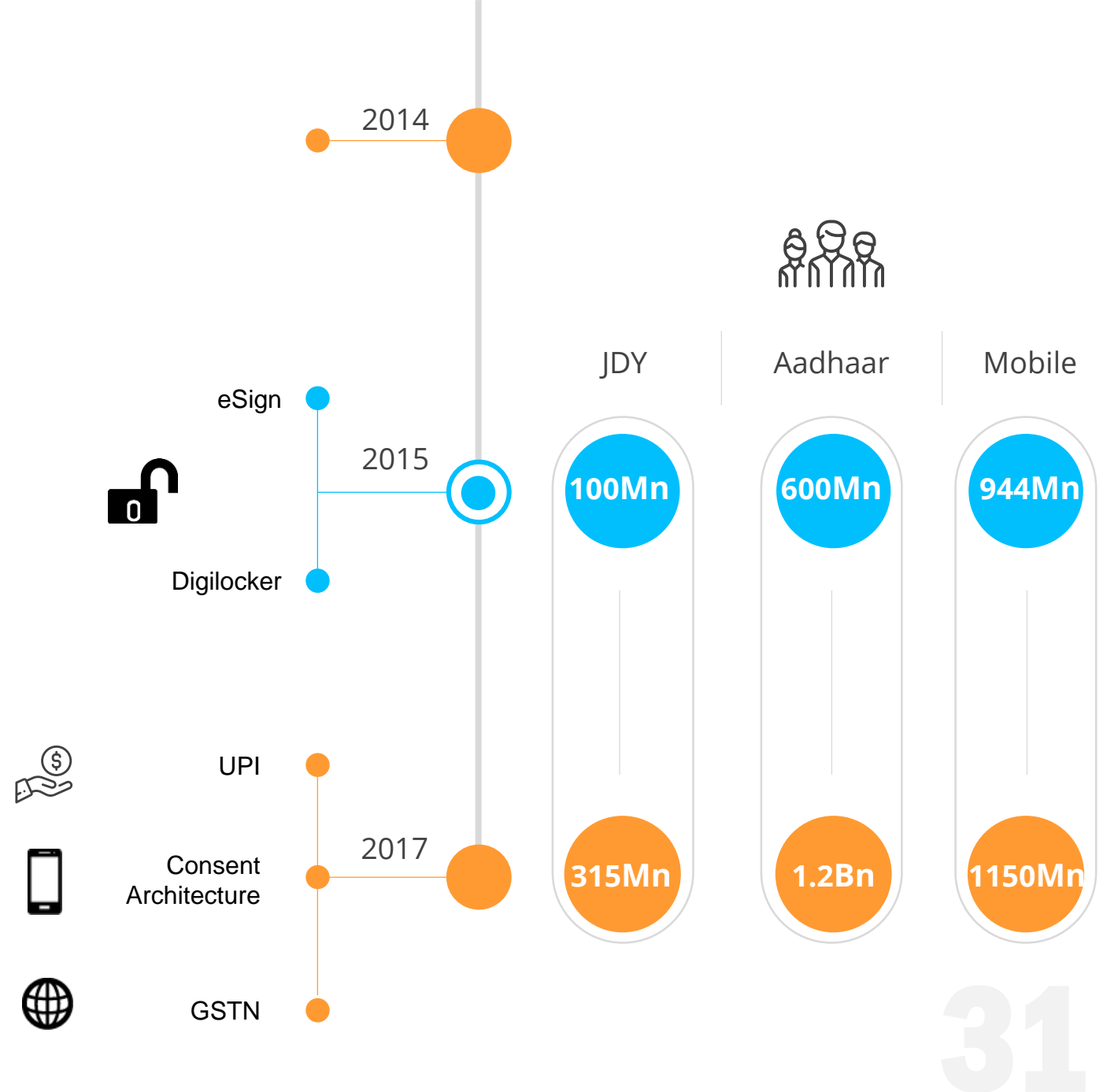
# The Evolution of the India Stack – Built on JAM

Source: Ericsson Mobility Report, PMJDY, Aadhaar Web Sites



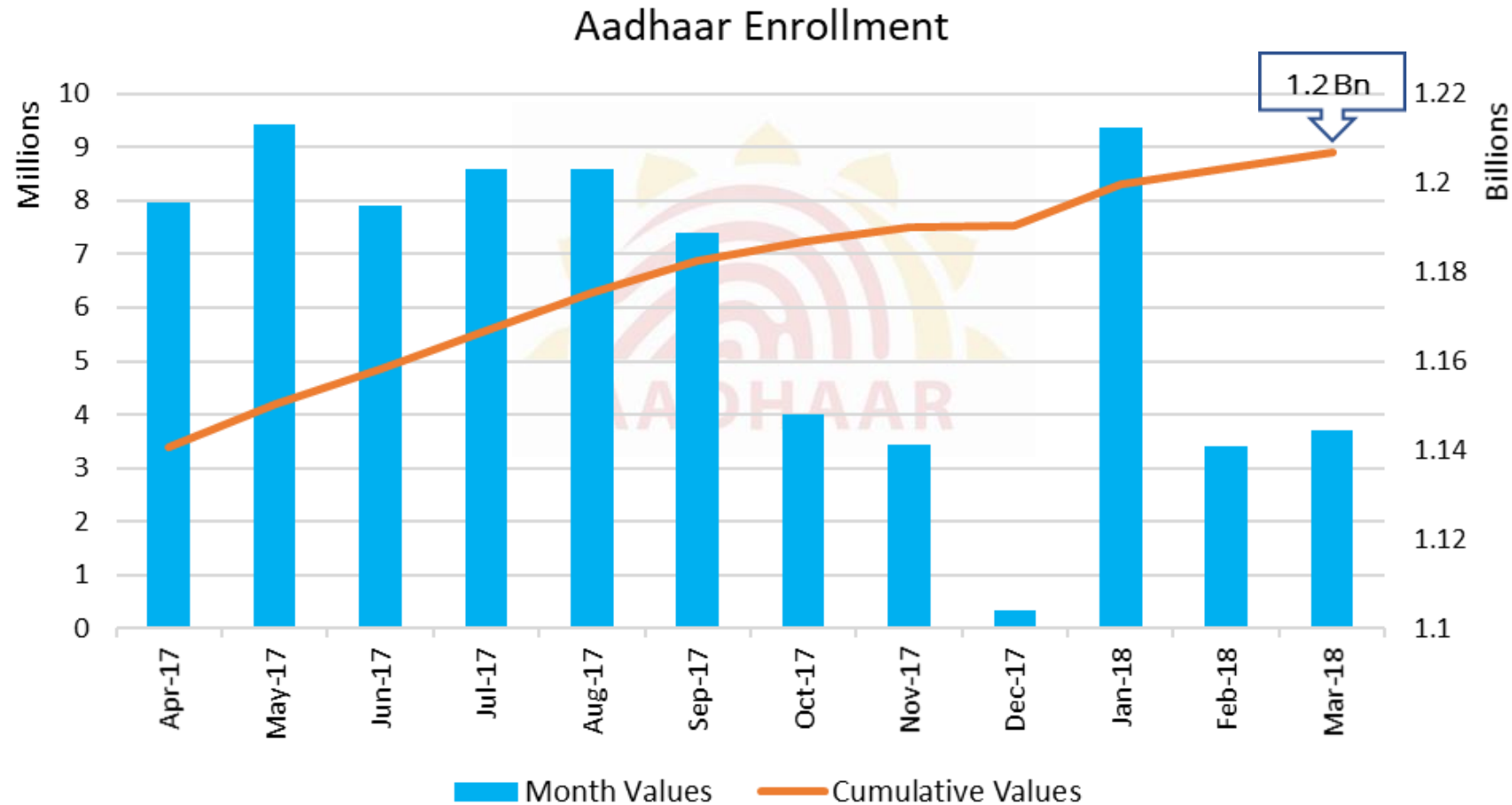
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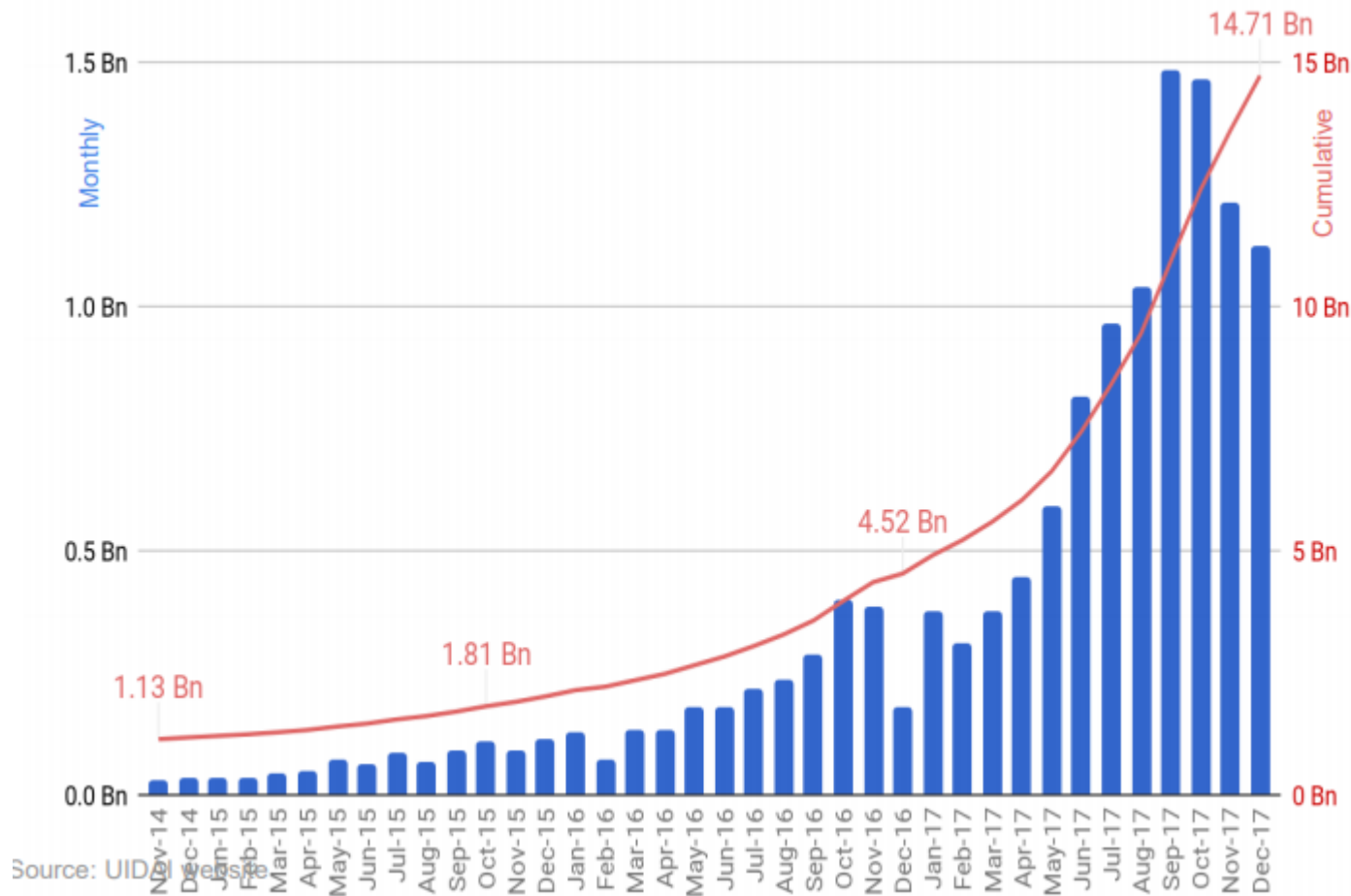


# >90% have enrolled for Aadhaar



Source: UIDAI Public Data

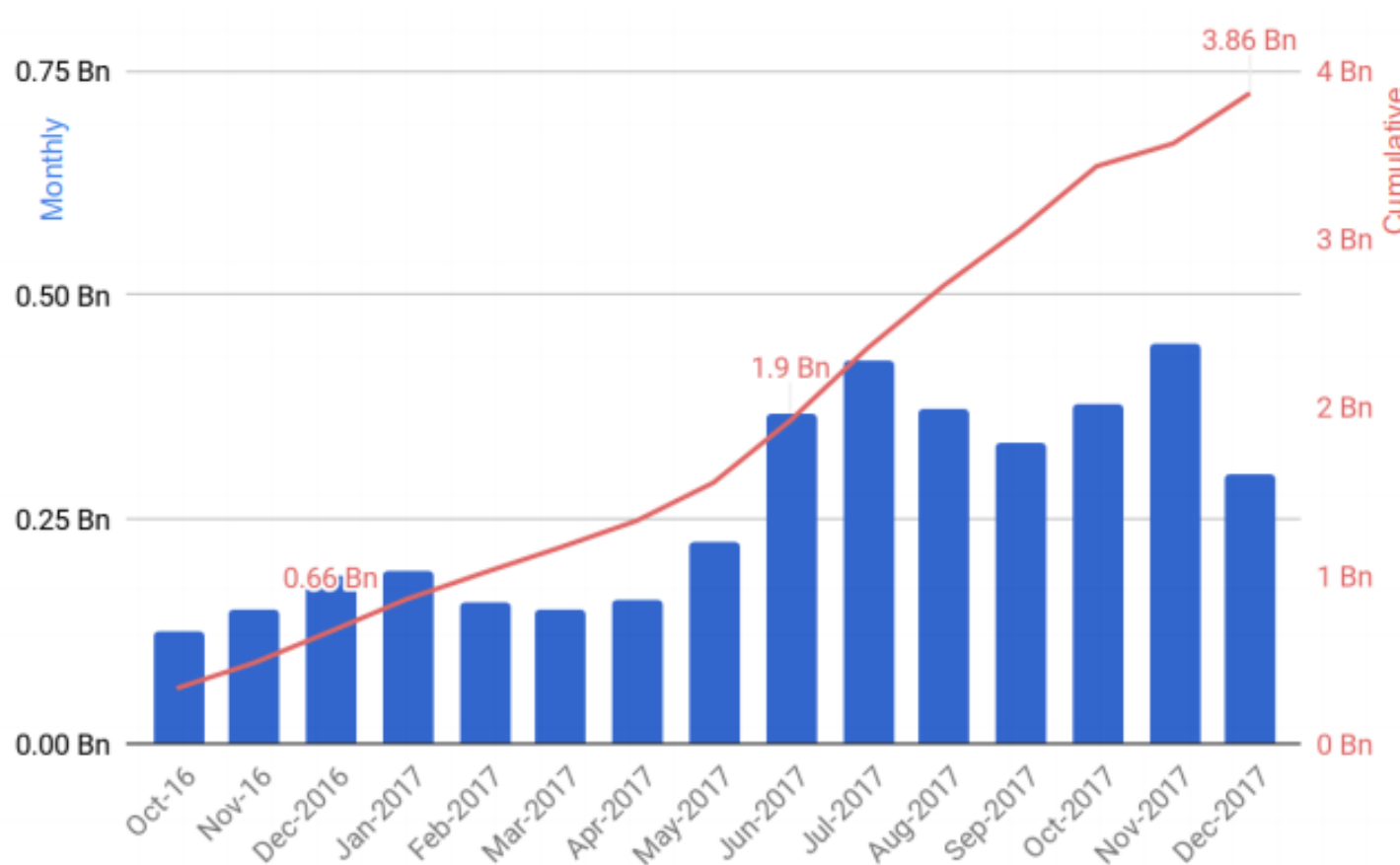
# Daily Aadhaar Authentications



There are now **5x** as many Aadhaar Authentications daily (**64 mn**) than Card Transactions at PoS (**12.7 Mn**)

More than half a billion Indians used their digital identities **15 Bn+** times

# eKYC API Calls per month



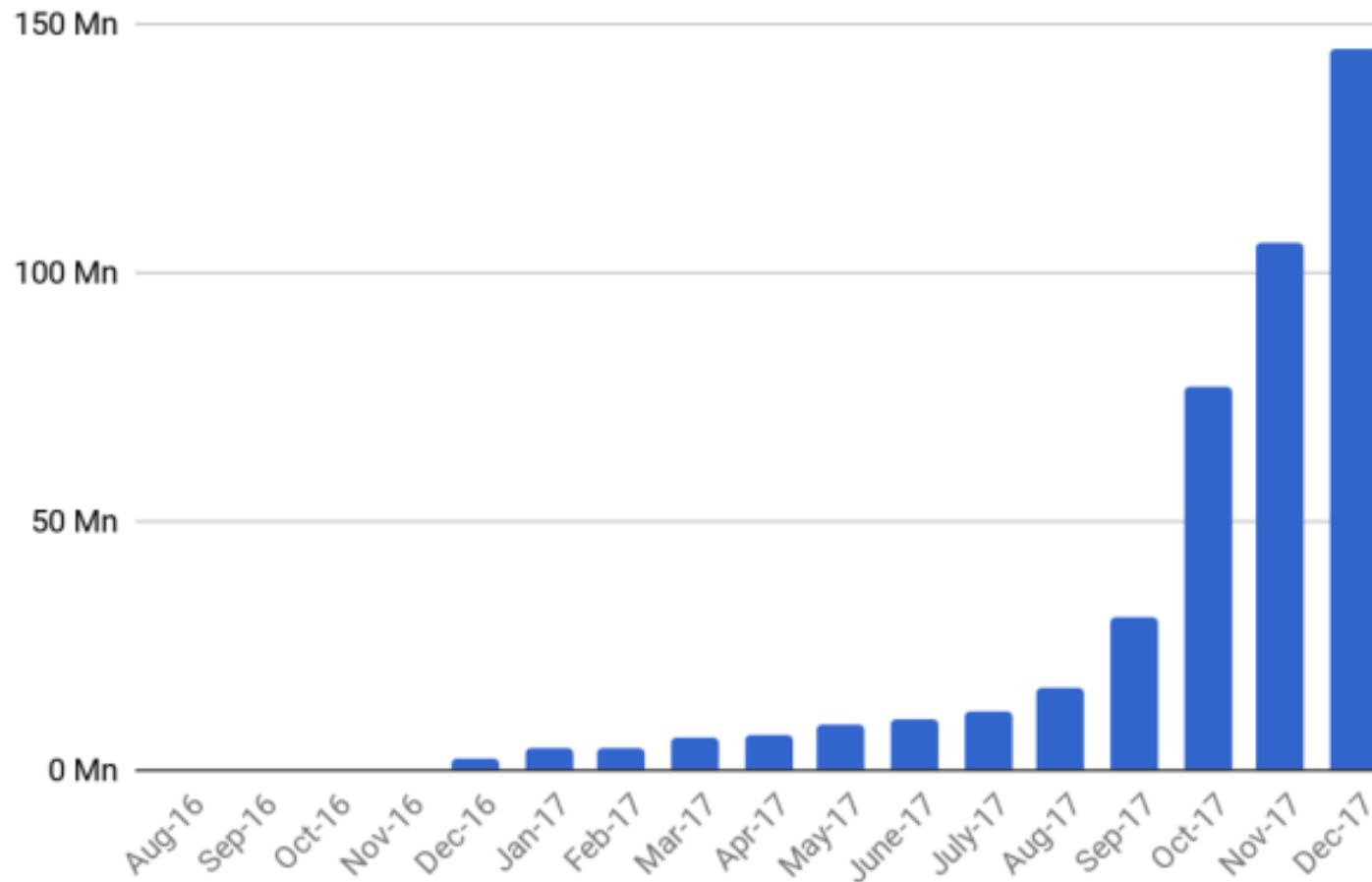
**3.9 Bn** total eKYC API calls  
(Only 0.6 Bn before Dec 2016)

**3 Bn** transactions last year  
**alone.** A third of the usage is for Telecom, others include opening financial services accounts and cleaning up Govt subsidies.

**It is not just SIMs, its millions of bank A/Cs, loans, etc.**

Source: UIDAI Public Data

# UPI is increasingly driving digital payments

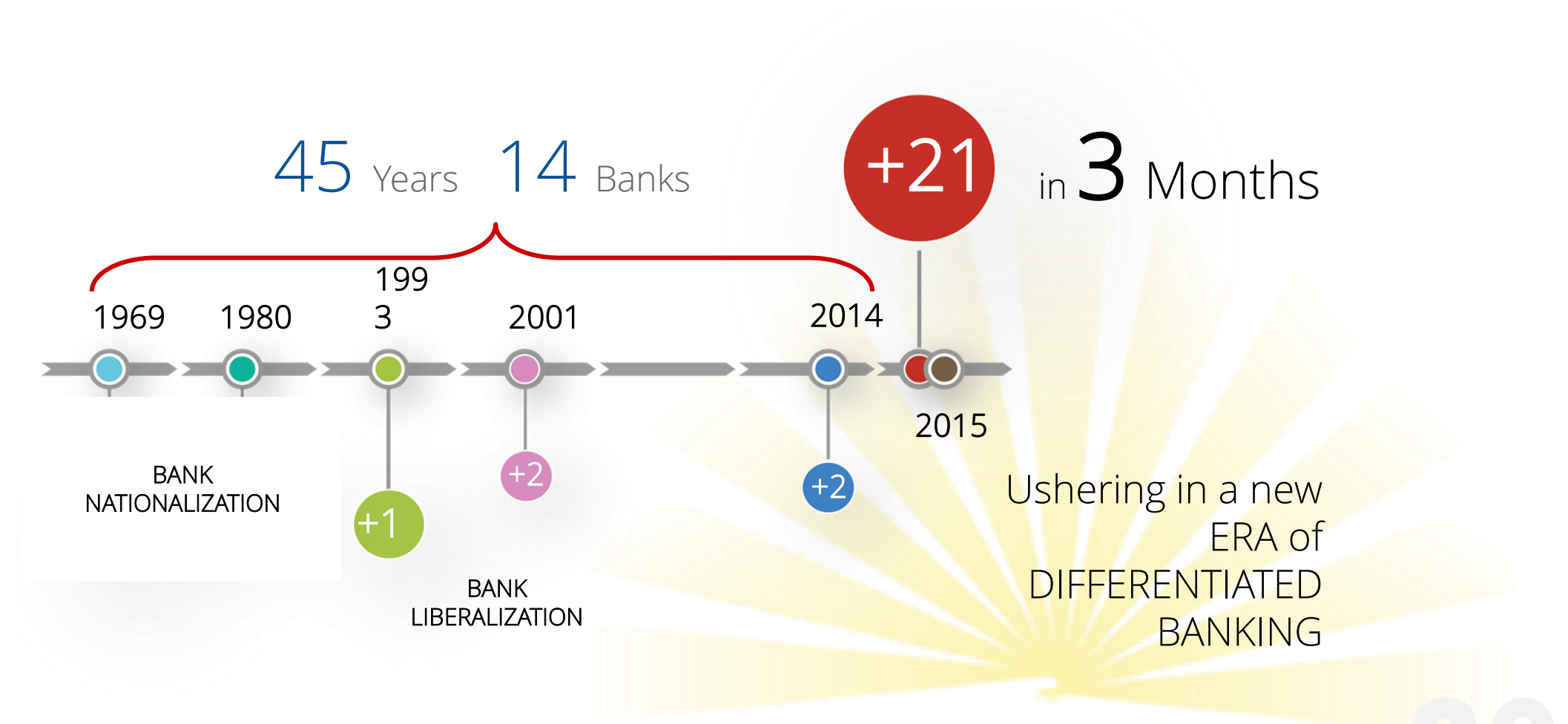


Card Transactions, after 20 years are at **300 Mn** a month

UPI is at **145 Mn** transactions a month within 15 months of launch!

# Accelerated by Regulatory Innovation

Controls eased to allow for increased access and agility



Source: News Reports

World-Class Products  
are being built  
on INDIA STACK,  
a set of **open API**  
**based PUBLIC**  
**PLATFORMS**

paytm



Smart Devices

Unified Payment

eSign

Digital Locker

Aadhaar  
Auth

Aadhaar  
eKYC

Mobile, Internet, GPS, Cloud

# Impact of the India Stack - Large Bank

## Retail Customer Onboarding - Reimagining the User journey with Aadhaar, eKYC, e-Sign and Digital Locker



Turnaround Time down from

# 6 days to 1 hour



Reduced Drop Offs



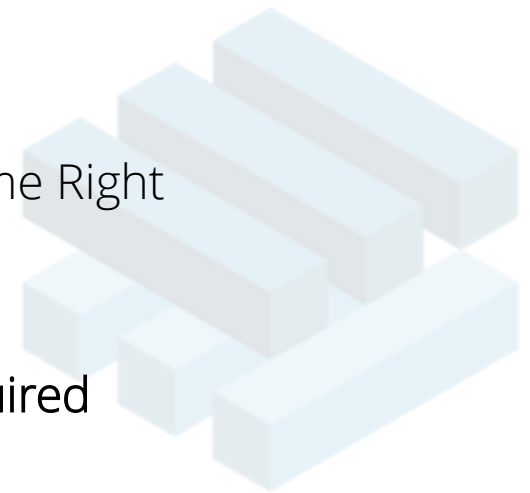
Branch Capacity  
Freed up by 10%



> 99% First Time Right



Back Office  
No longer required





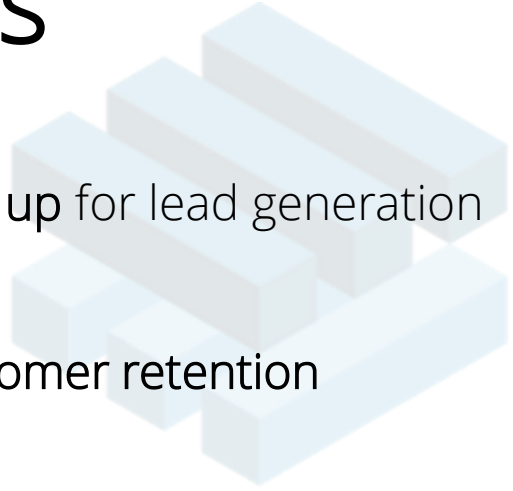




# Impact of the India Stack - Large Asset Manager

## Reimagining Channel Management - Digital Transformation with Aadhaar eKYC

 Transaction Time down from  
**4 hours to 2 mins**

-  Statement processing time  
Down from 1 hr to 1 min
  -  Reduced operational cost
  -  Capacity freed up for lead generation
  -  Improved customer retention
- 

# Impact of the India Stack – New Telecom

## Customer Onboarding - Digital Transformation with Aadhaar eKYC



Onboarding time down from

**1 day to 4 mins**



Onboarding Rate  
50M in < 2 months



Customer Experience  
“Walk Out Working”



Saved INR 15 / SIM issued

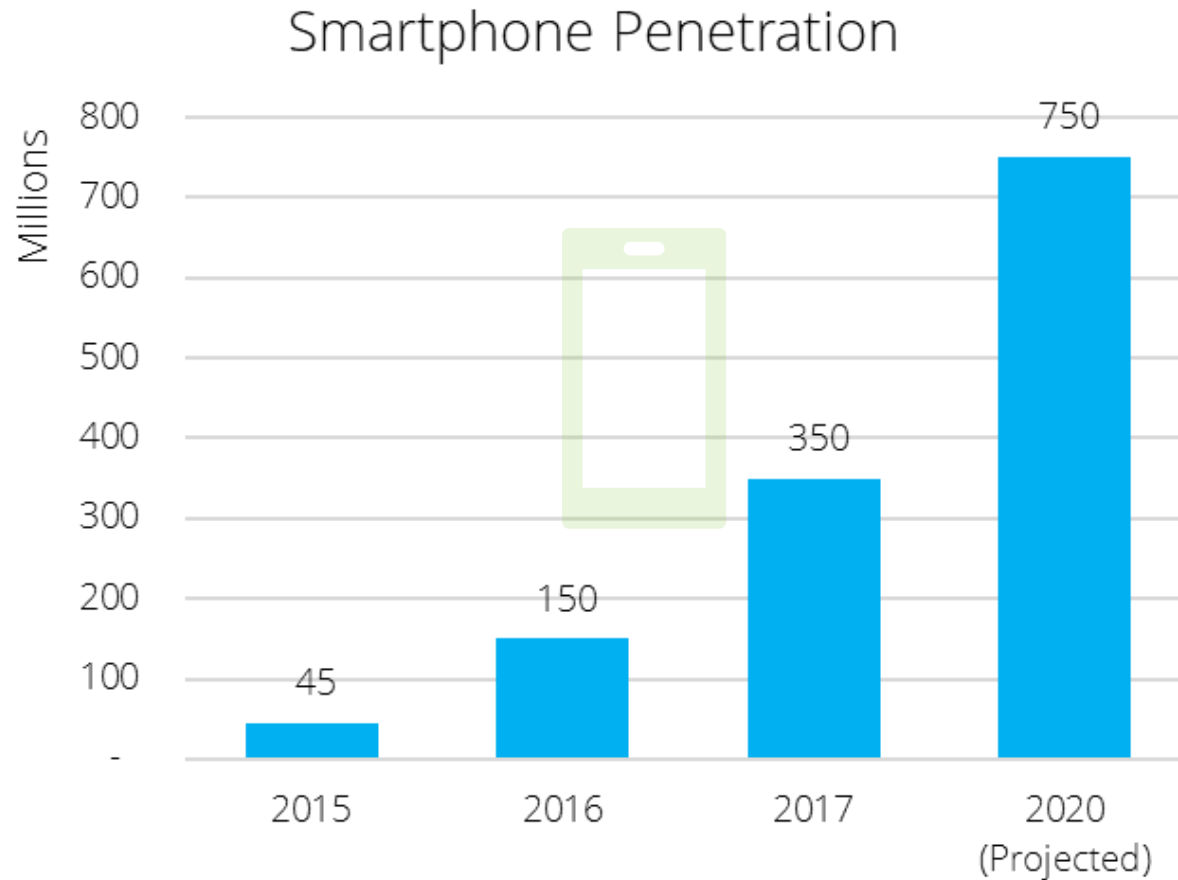


Saved 15,000 Trees



40

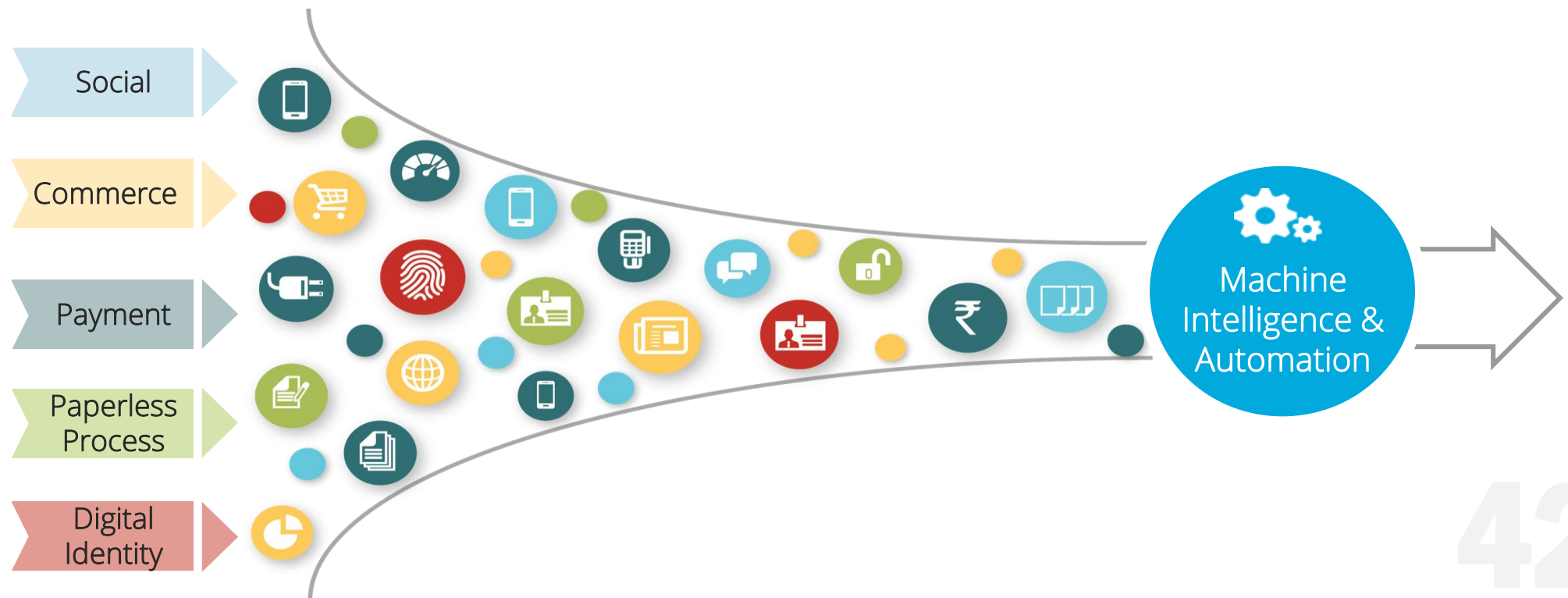
# The rise of smartphones



Current sales  
about 25Mn  
smartphones  
per quarter

# We will go from data poor to data rich nation in 5 years!

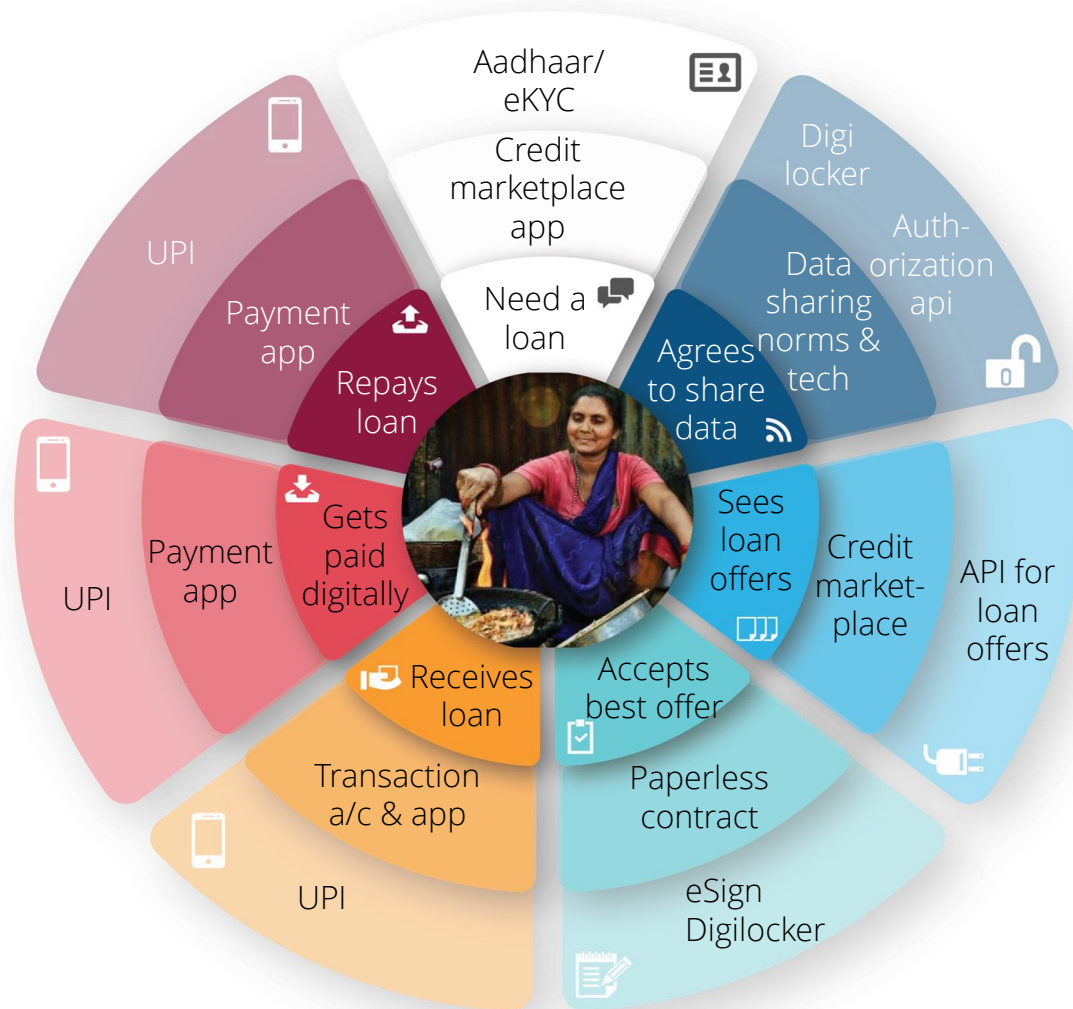
Cashless, Paperless & Presence-less  
Service Delivery





“ To Increase Market Size by  
**10x to 50x**, the Cost of Doing Business  
Must Be Brought Down! ”

# Credit without friction

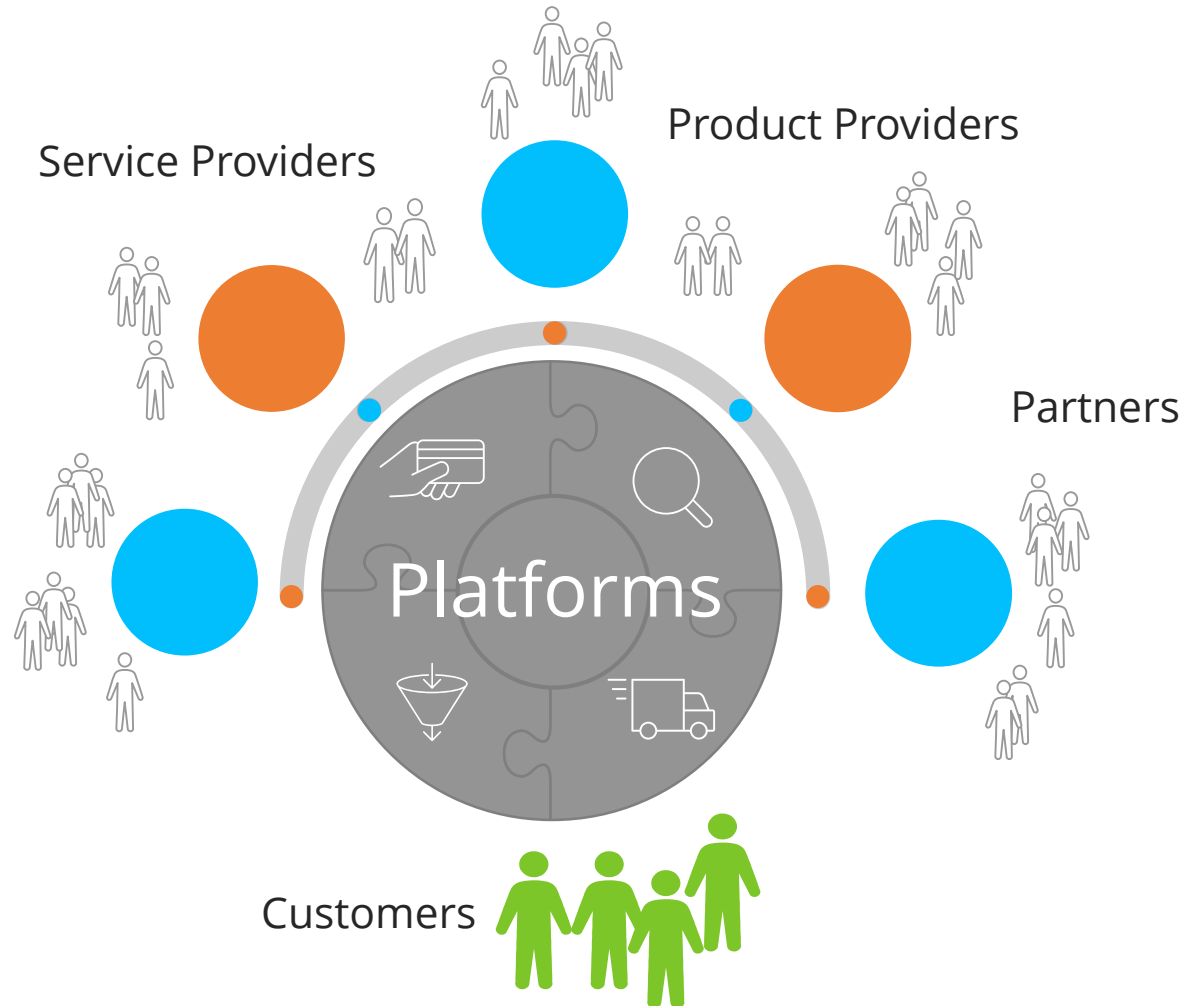


Paperless instant  
credit markets based  
on digital exhaust

Bringing millions into  
the formal economy

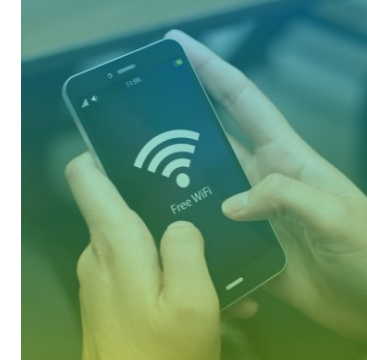


# New Age Platforms are Digitising their Ecosystems



Increase consumption of Digital Infrastructure – Payments, Logistics, etc.

Digitise the supply chain and their customers



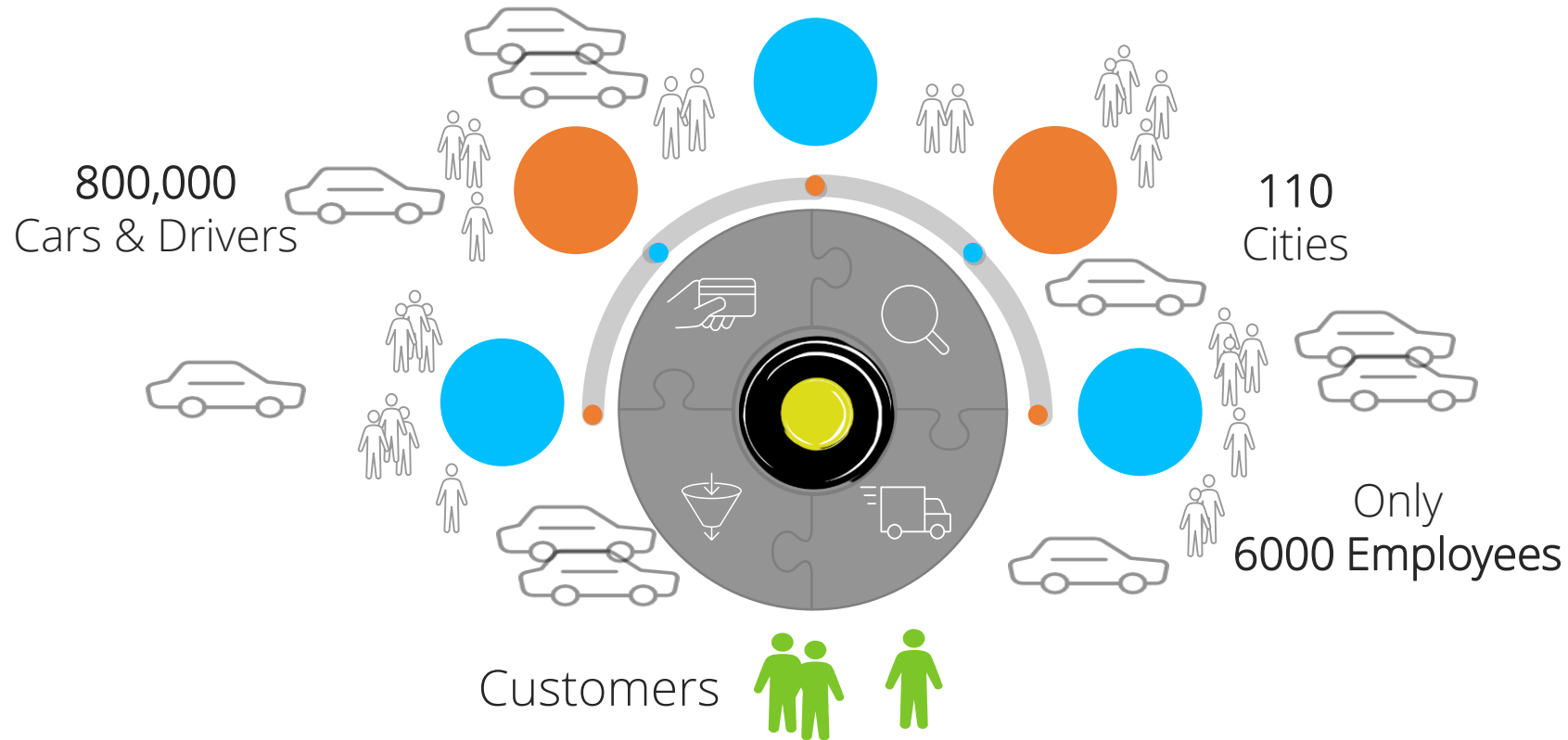
Leave digital footprints for service providers, and customers alike

The best aggregators use these digital footprints to enhance their services



$$\text{Jobs} = \text{Service Providers} \times \text{Jobs / Provider}$$

# Ola Cabs is Digitising its Ecosystem



## New Age Platforms

Create a few, high-value jobs that can be leveraged to enable service providers

## Service Providers

Large number of service providers  
Each service provider creates multiple jobs

47

# Jobs



Market  
Estimates Only

10,000 Hospitals  
200,000 Doctors,  
Labs, etc.

5,000  
Employees



1.5 Mn Cars

6,500  
Employees



Global

0.8 Mn Cars

6,000  
Employees



100,000+  
Merchants

4,500  
Employees



100,000+  
Merchants  
Logistics,  
Support

23,000  
Employees



48

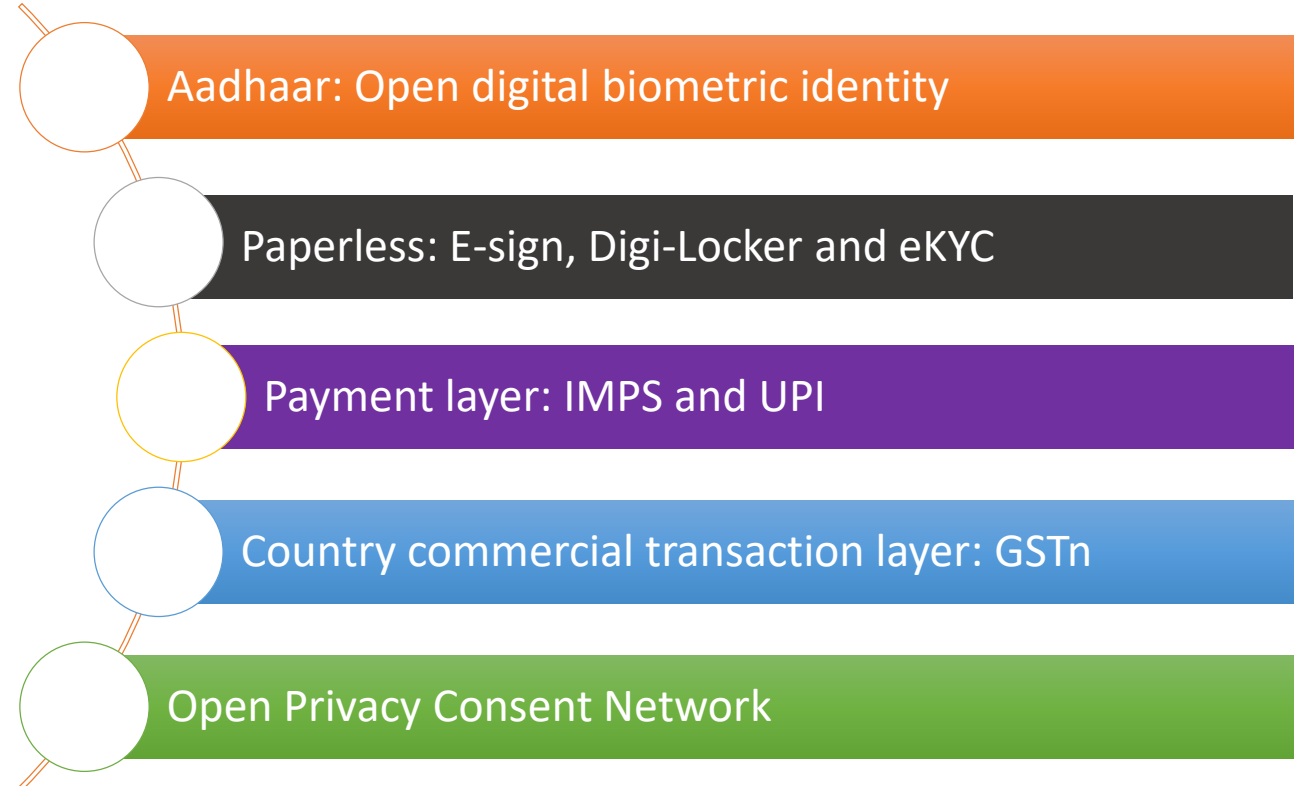
## India embracing Smartphones

- Reliance Jio announces INR 1,500 phone
- Near universal access to data over cellular

## Open API “India Stack”

- Aadhaar enrollment is 1.2 Bn – Bhamashah huge opp.
- IMPS bigger than Visa/MC
- GSTn will see 3 Bn invoices/month
- India has largest e-sign user base

# Accelerating Change



A robust  
foundation to  
enable  
innovative  
solutions to  
India's hard  
problems



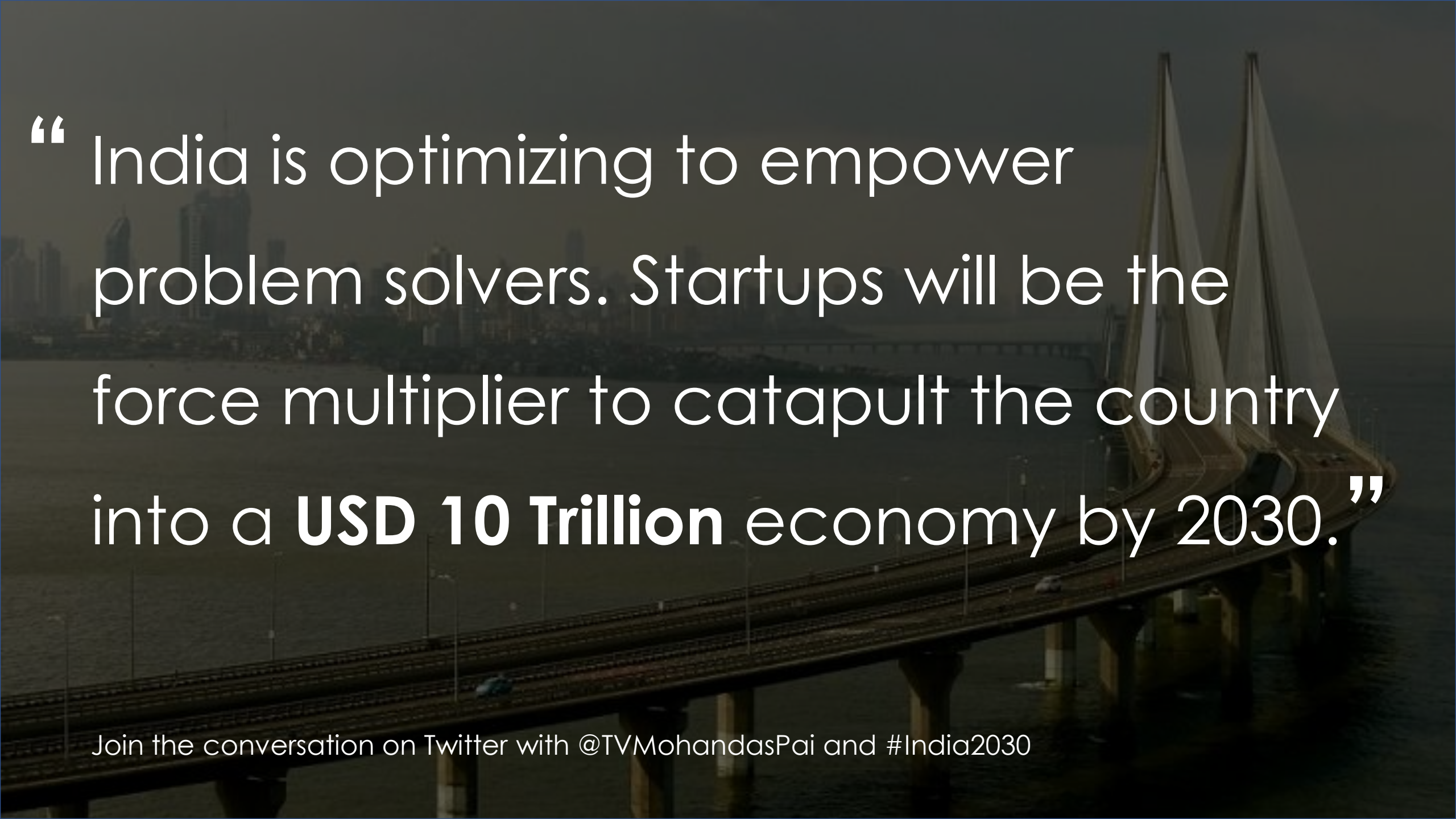
## Innovative Solutions to India's Hard Problems

- Commercially Viable
- Far reaching consumer impact
- Reinforces experimentation

## 100s of Experiments

- Low barriers to entry
- Level playing field
- Aligned to national issues
- Rapid success/failure cycle





“ India is optimizing to empower problem solvers. Startups will be the force multiplier to catapult the country into a **USD 10 Trillion** economy by 2030.”

Join the conversation on Twitter with @TVMohandasPai and #India2030