


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

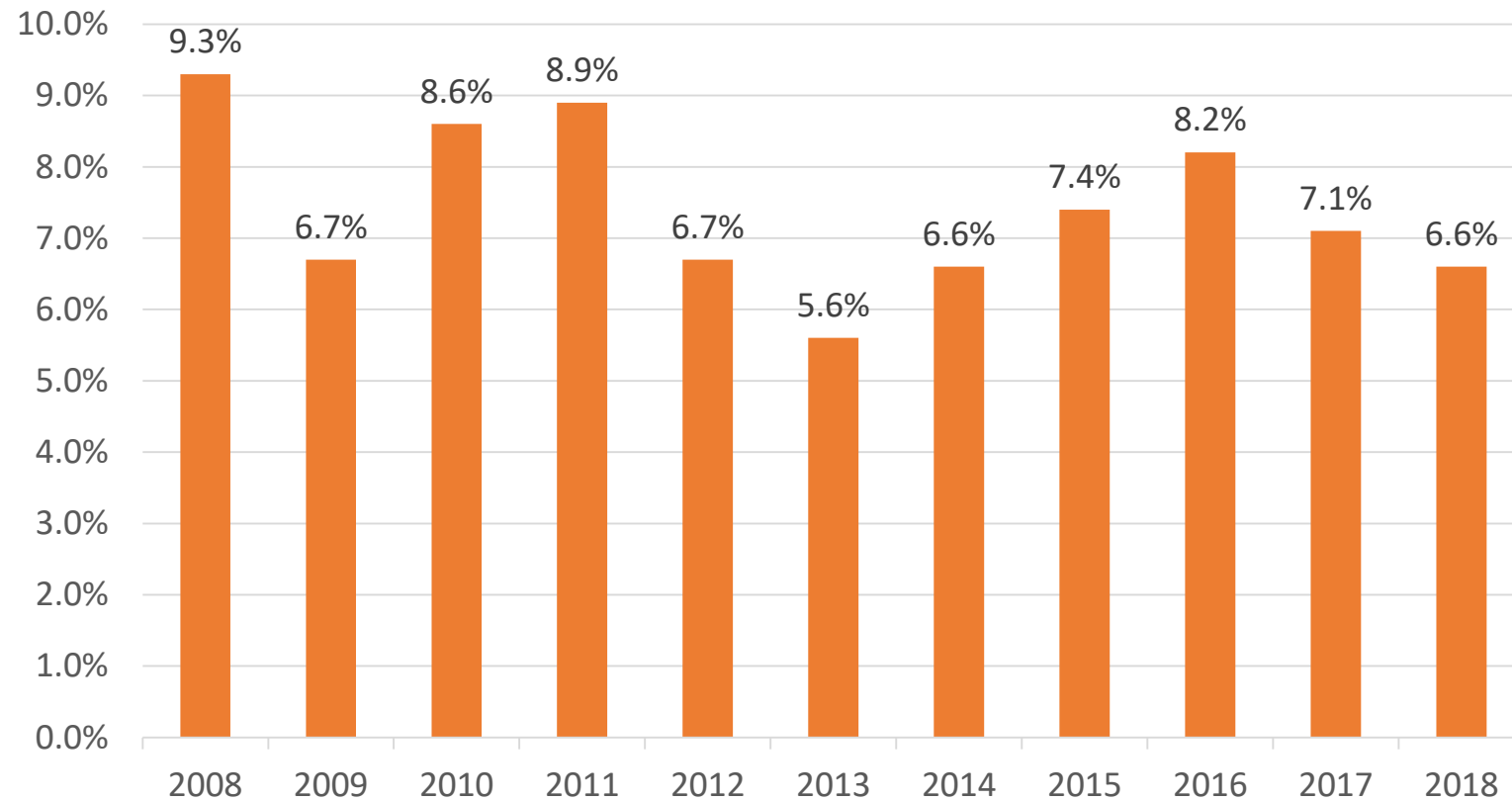
27 Years' Snapshot
Post-Liberalization

	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

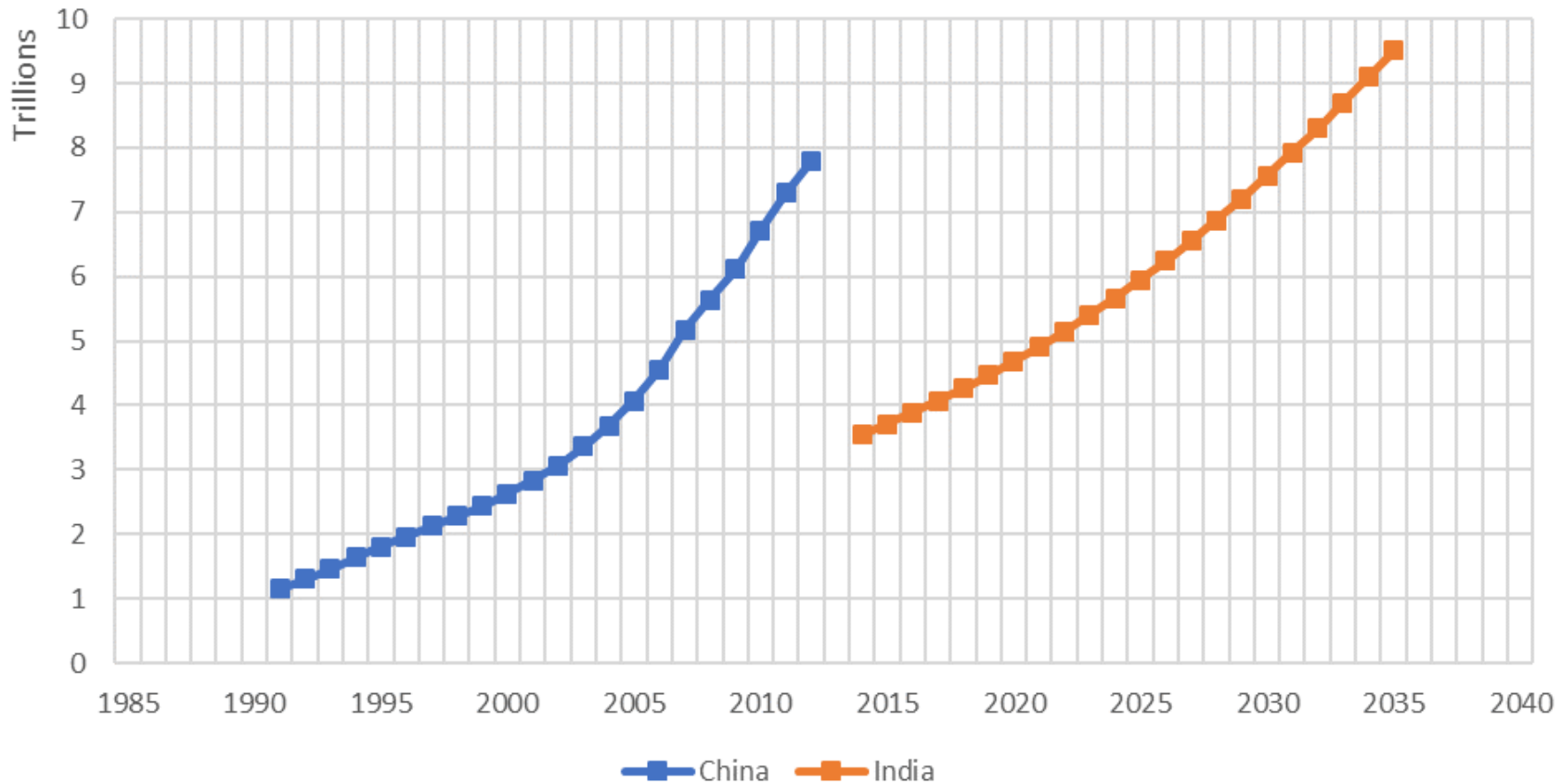
Last 10 years



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

		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%

07

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



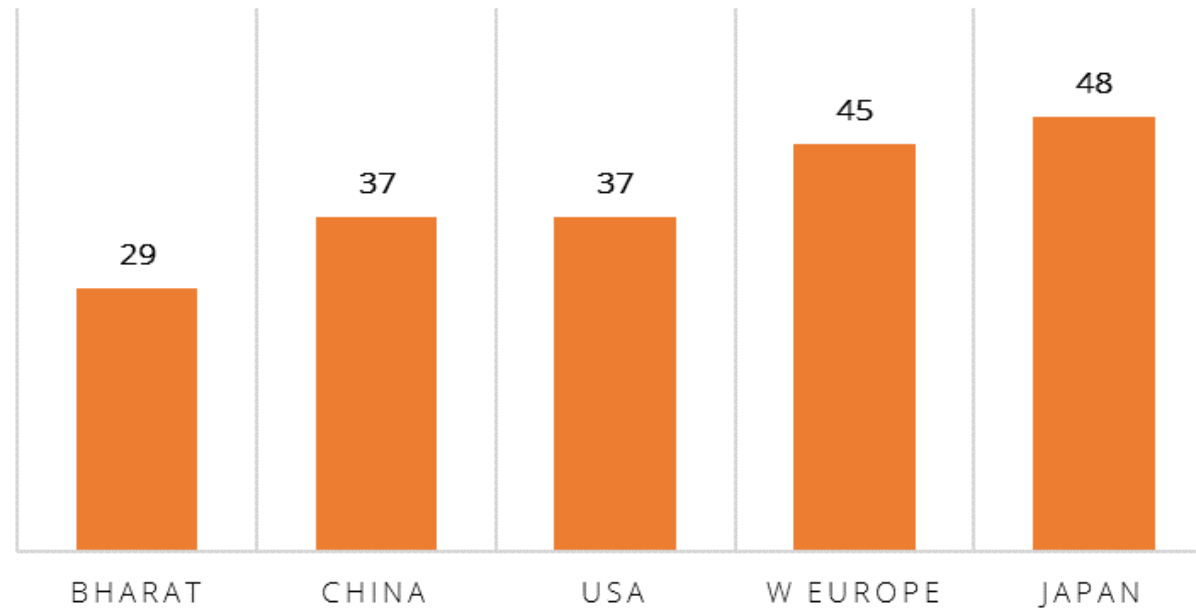
INDIA

	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)
INDIA	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

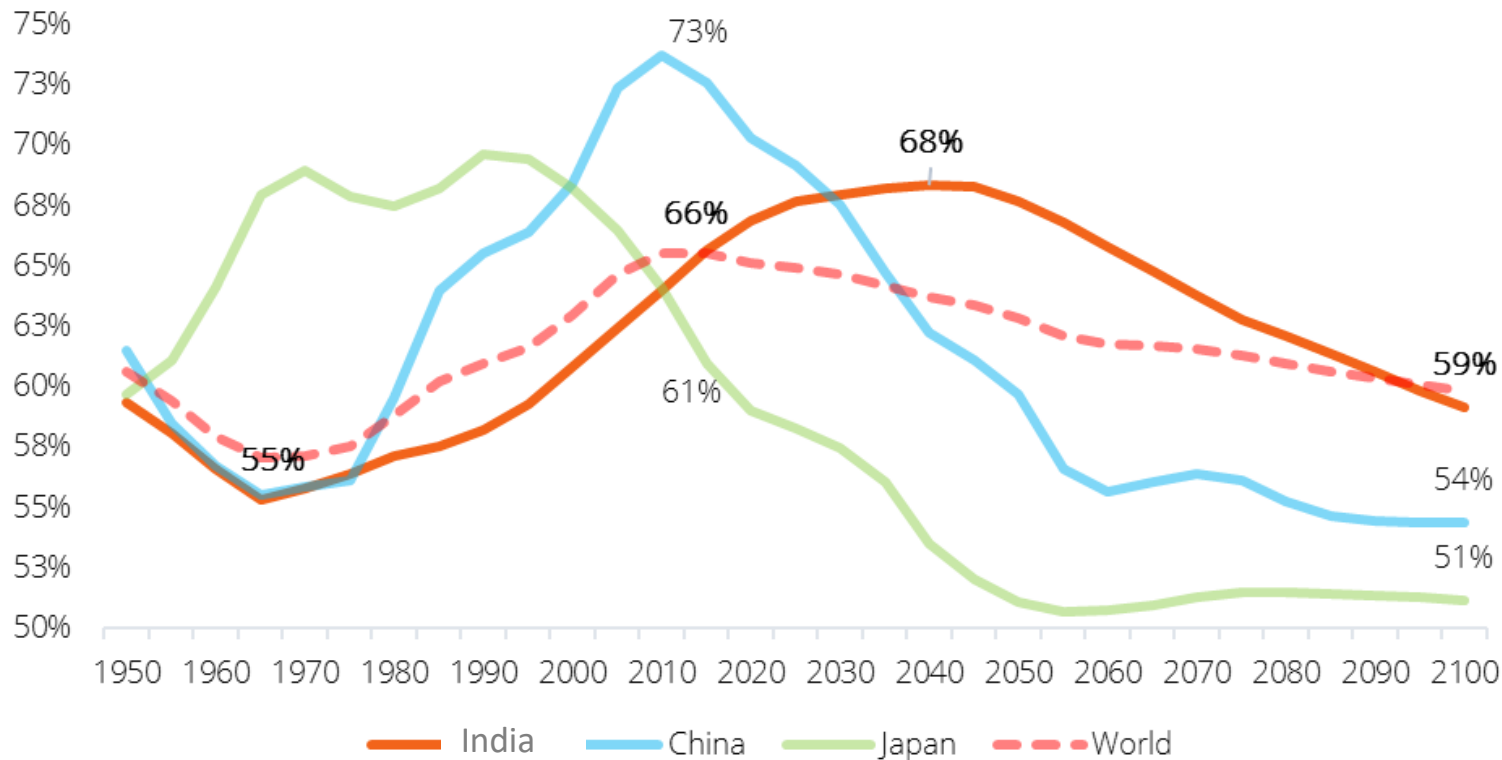
Average Age By Geography 2020



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

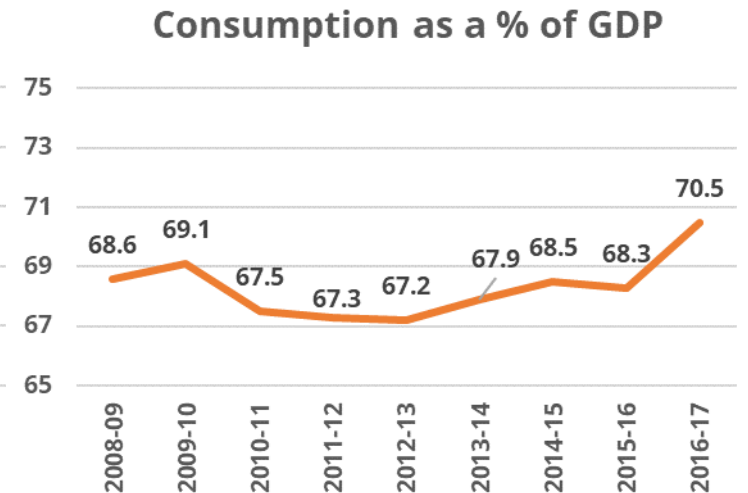
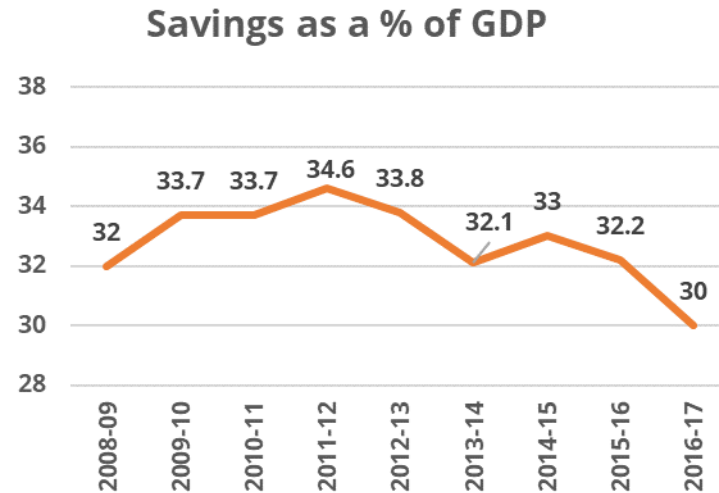
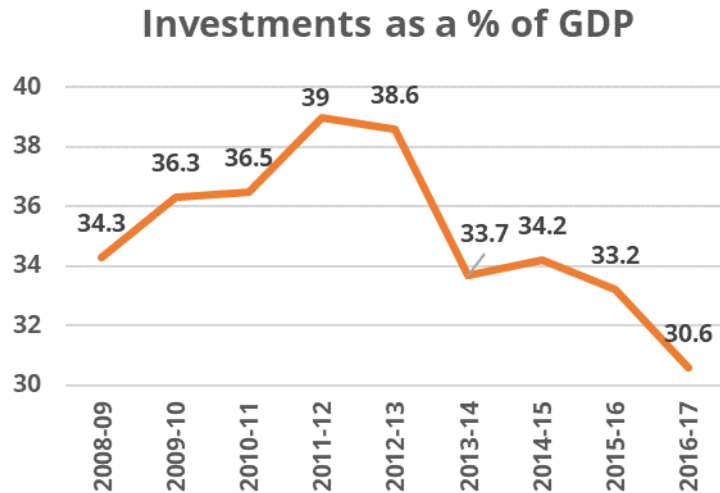
Enrolment in professional courses grew at 20% CAGR

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

13

We have adequate savings for investments and growth

India



VS

CHINA

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

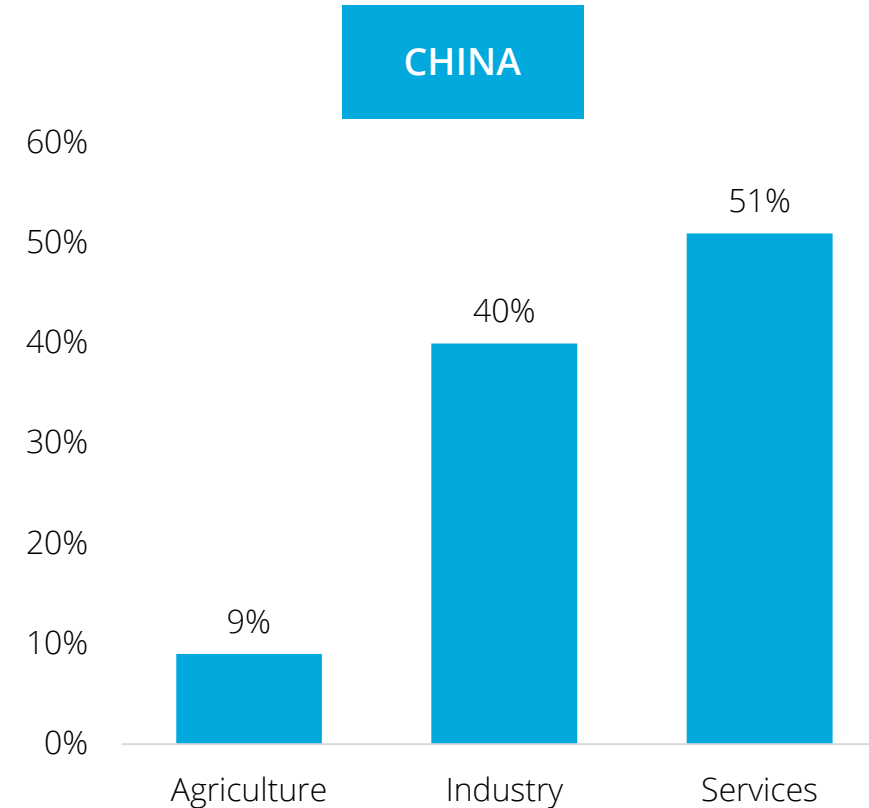
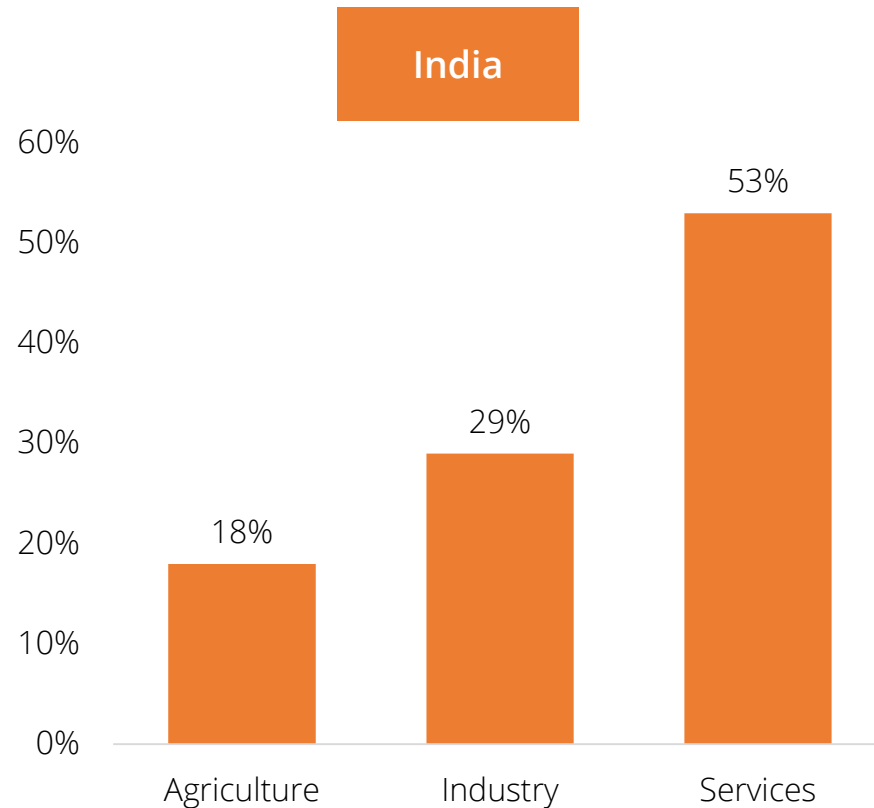
Investment as a % of GDP stands at >50% over the last few years

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





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

India Startup Ecosystem



3rd

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

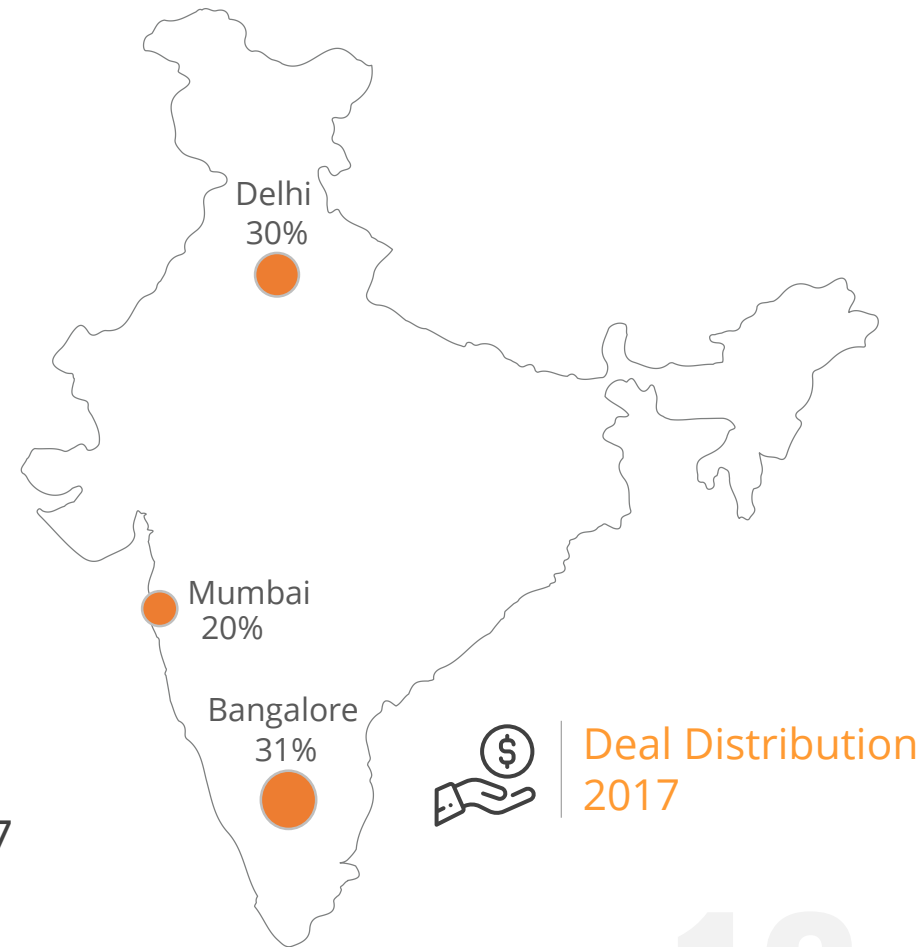
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Startups at a glance

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



New flywheel ramping up

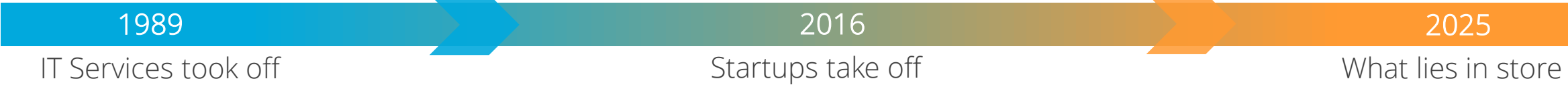
IT Services



USD 175 Bn revenue

USD 115 Bn exports

4.25 Mn People Employed



Startups

2025

Projections



100,000 Startups



Employ 3.25 Mn



USD 500 Bn Market Value

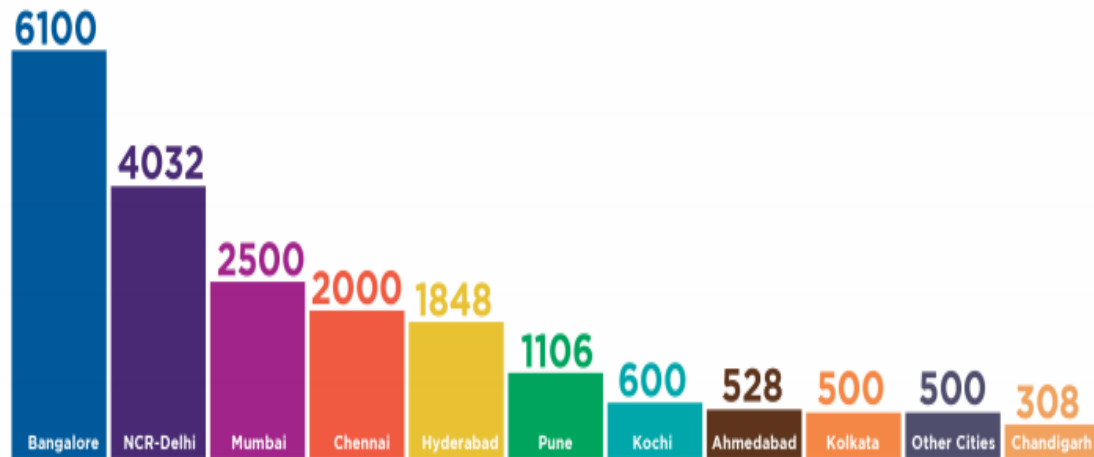


#2 after US



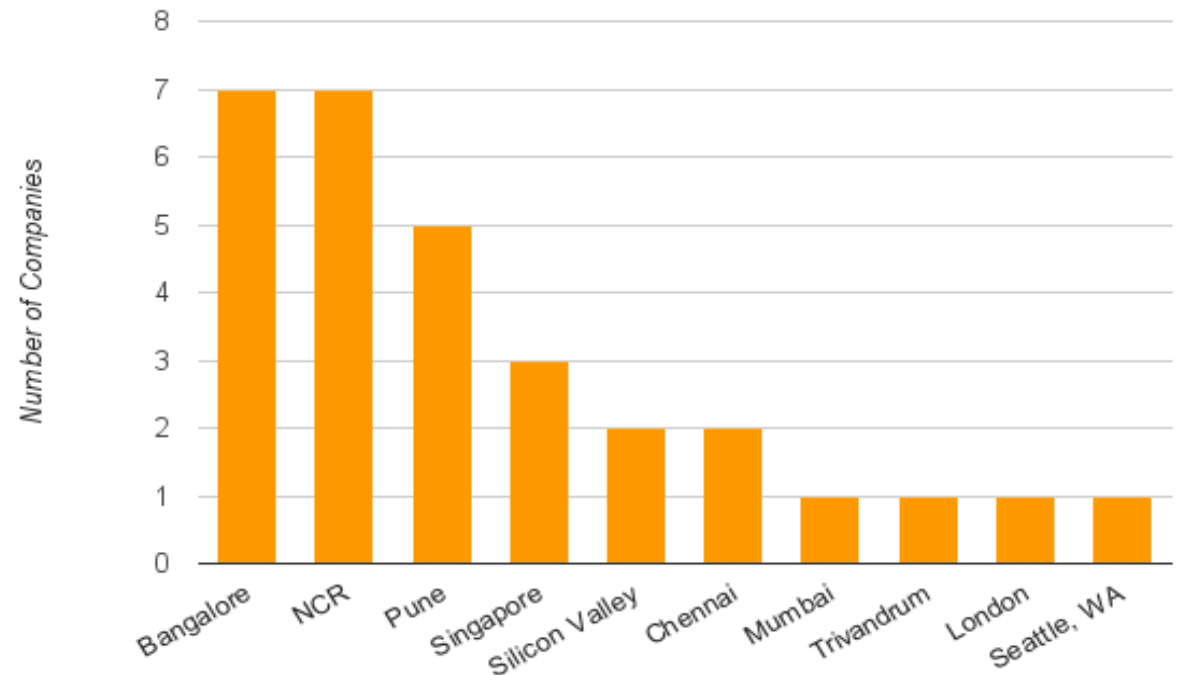
30 Mn SMEs lifted

Startup landscape by city



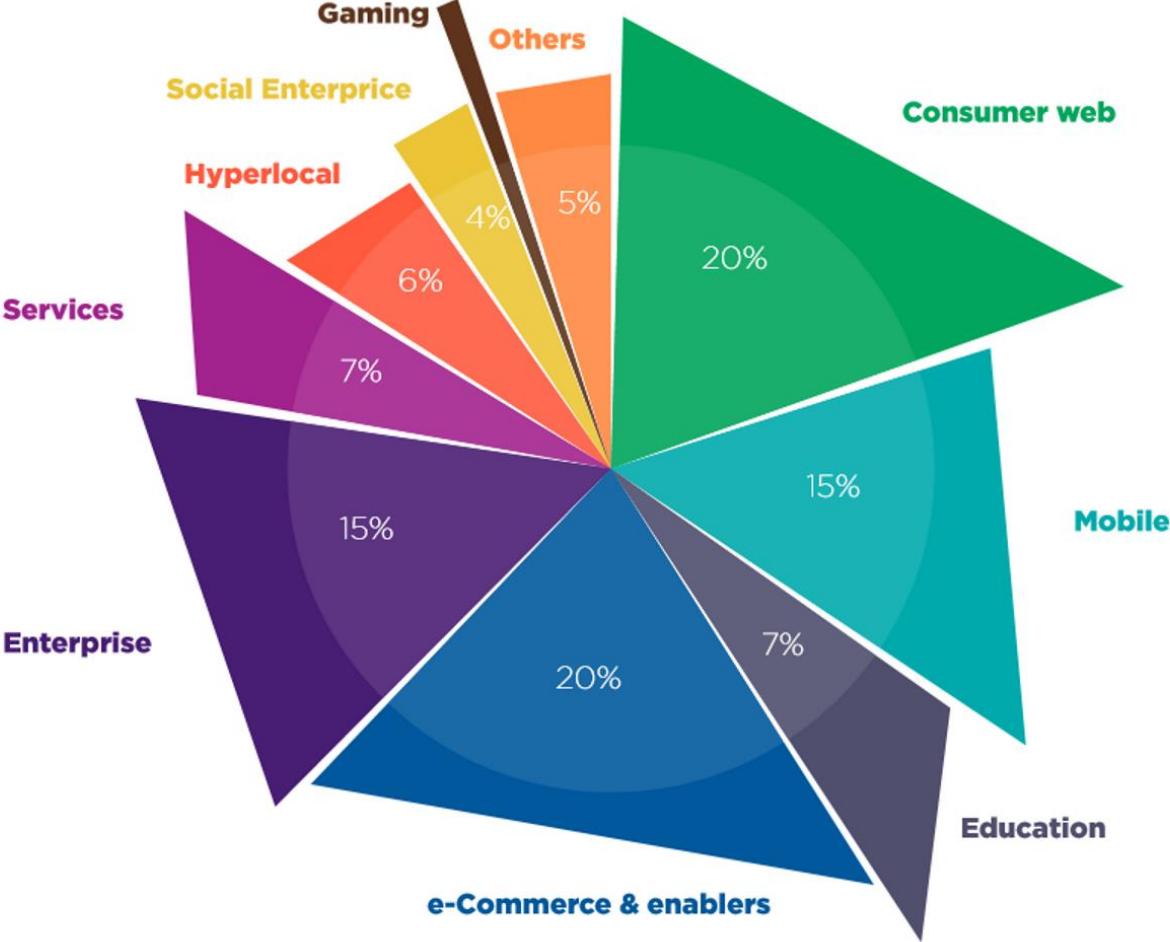
Historically concentrated in Bangalore (31.44%), Delhi (20%), Mumbai (13%) and Chennai (10%)

Headquarter Location Choice of Top 30 Companies



Bangalore strong in B2C

Distribution of Startups by sector



Source: Yourstory

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Companies that crossed USD 1 Billion in valuation



Mu Sigma

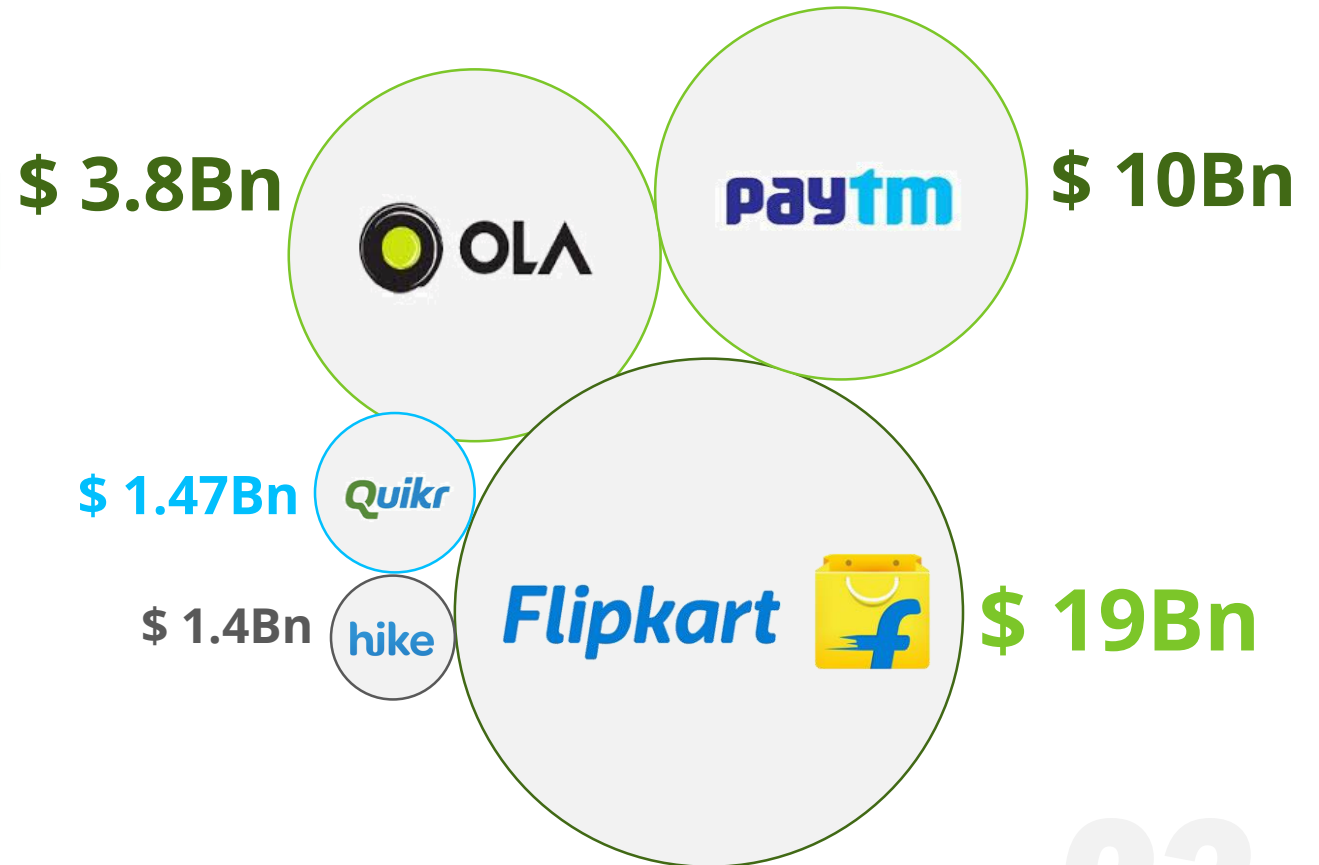


Source: Yourstory

© TV Mohandas Pai



B2C Valuations



Source: Yourstory

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Top 30 Companies - B2B Valuations



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

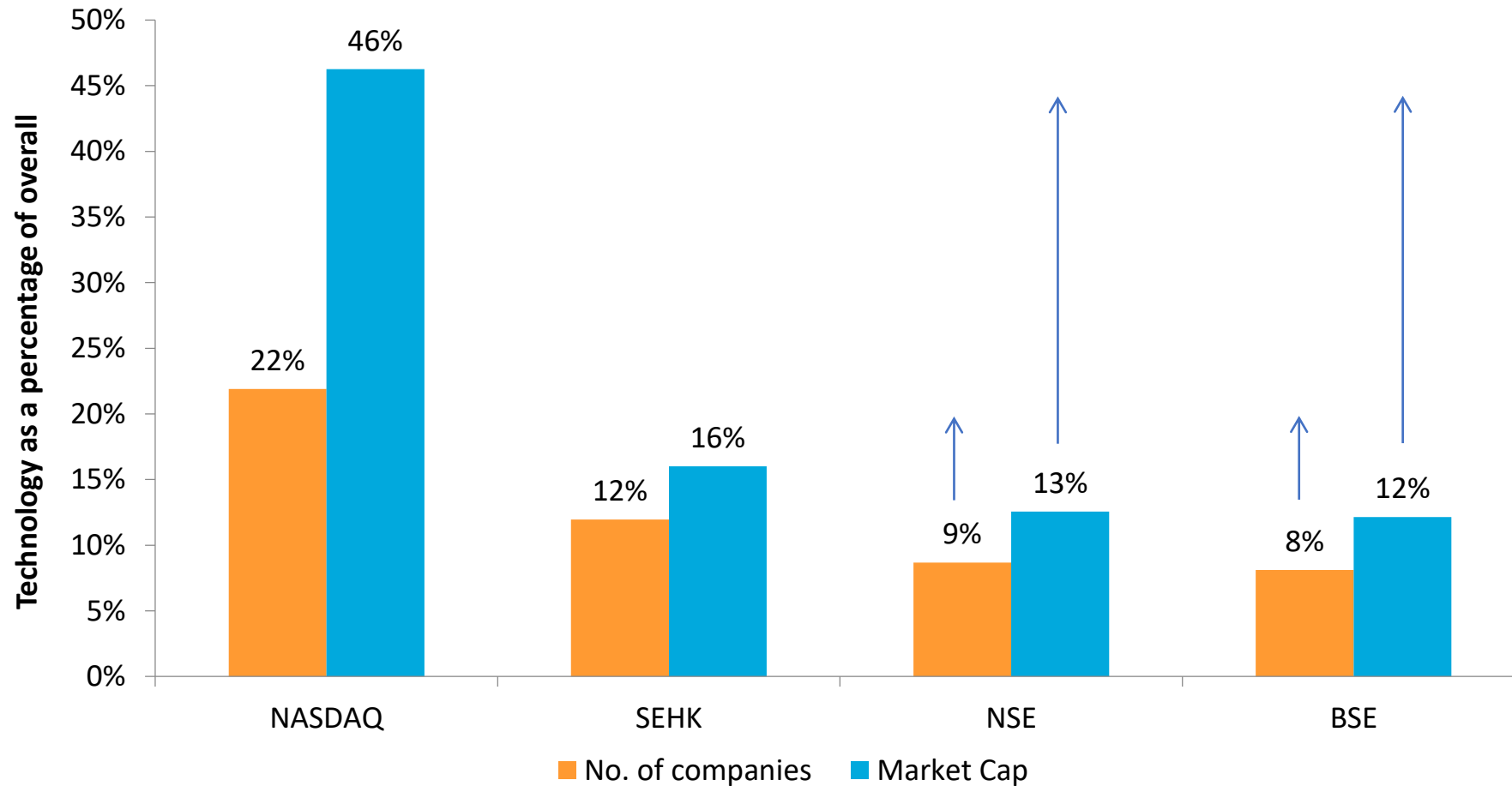
USD 10.25 Bn

Growing
rapidly!

24

Startup Valuations

Set to grow dramatically in coming years



A close-up, profile view of a man with dark hair and a beard, wearing a maroon jacket. He is holding a smartphone up to his eye, as if taking a photo or video. The background is a blurred outdoor scene with a yellow building and greenery under a clear blue sky.

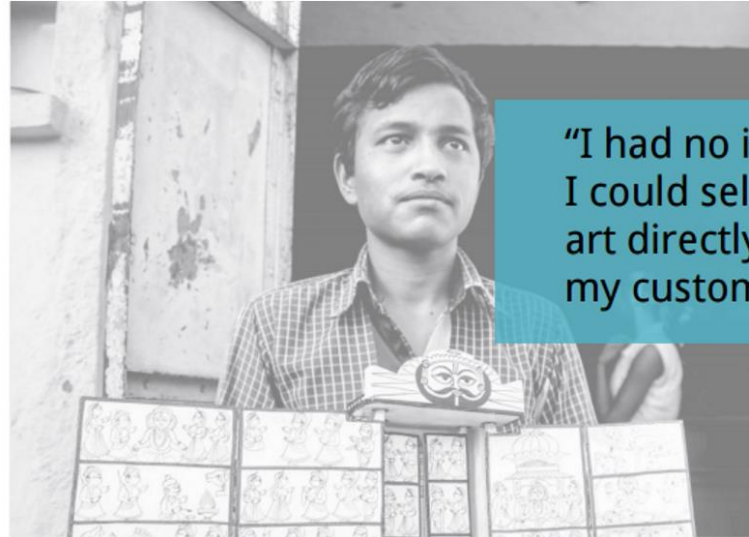
**So what will the future of
Startups look like?**

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"



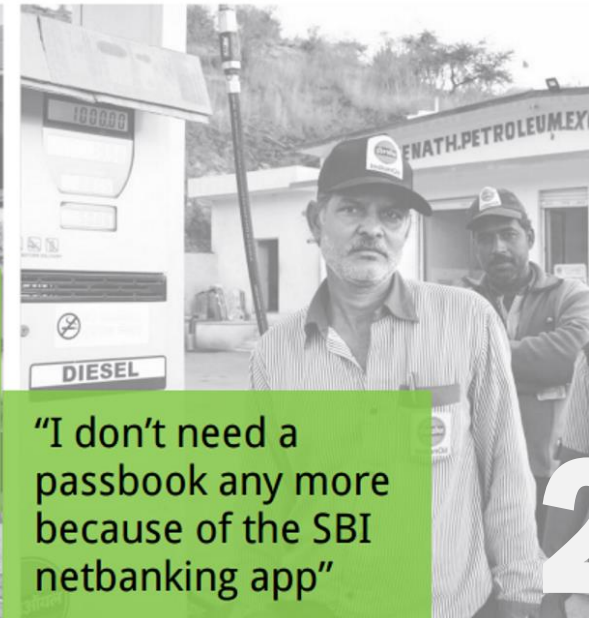
"3G nahi to hotspot sahi"



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

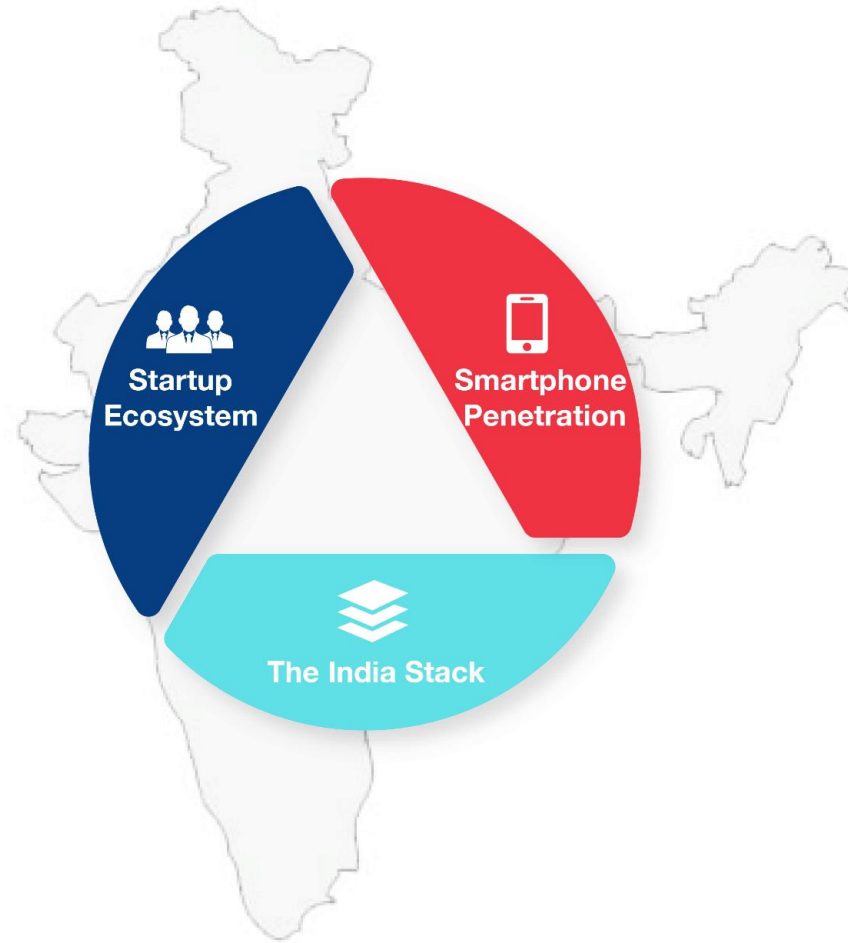


"The internet has helped us cut the middleman and changed our lives forever"



"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

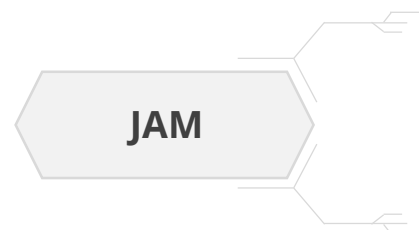
Aadhaar e-KYC,
E-sign, Digital Locker



PRESENCE-LESS
LAYER

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

Aadhaar
Authentication



Jan Dhan

+



Aadhaar

+

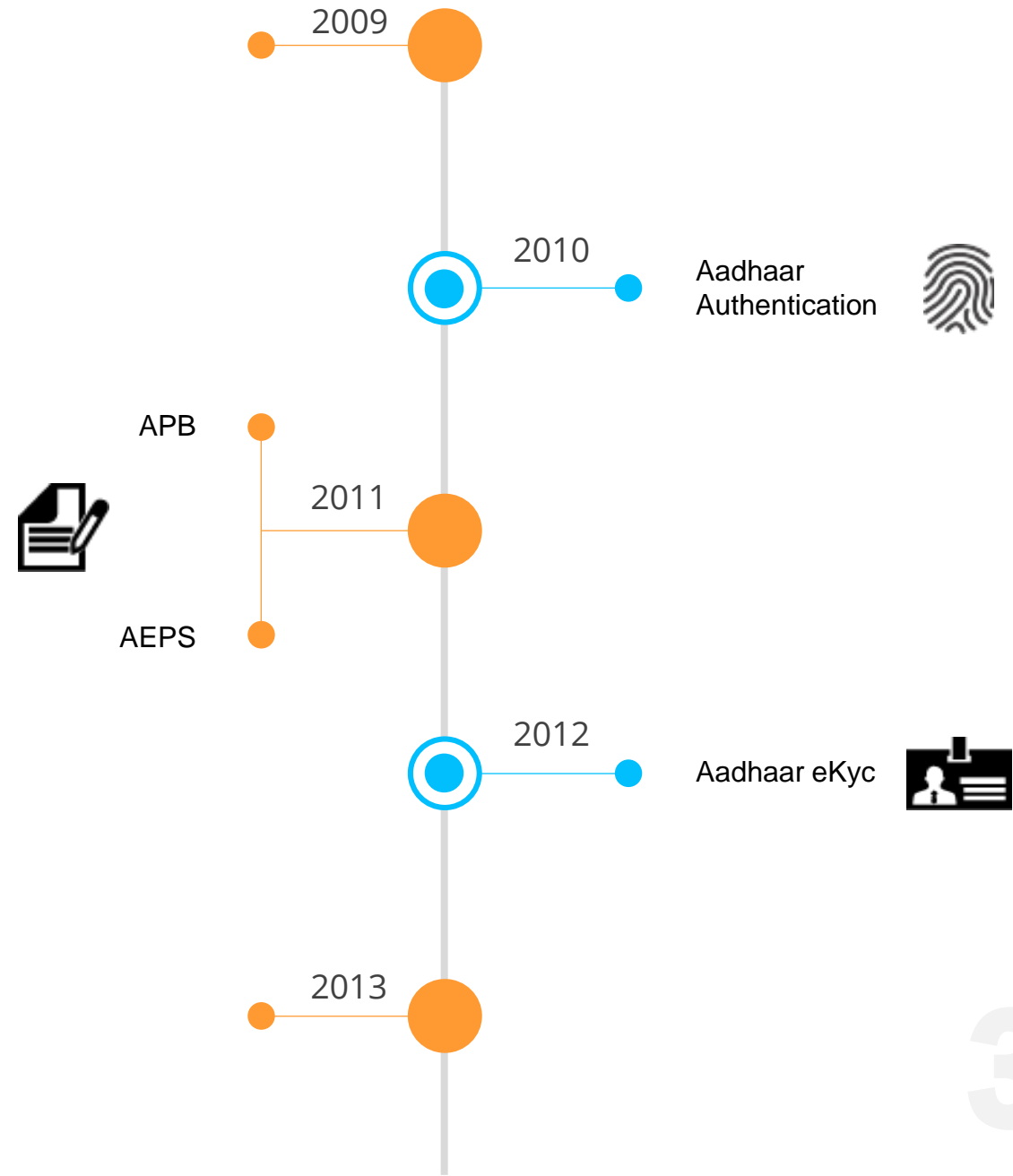


Mobile

29

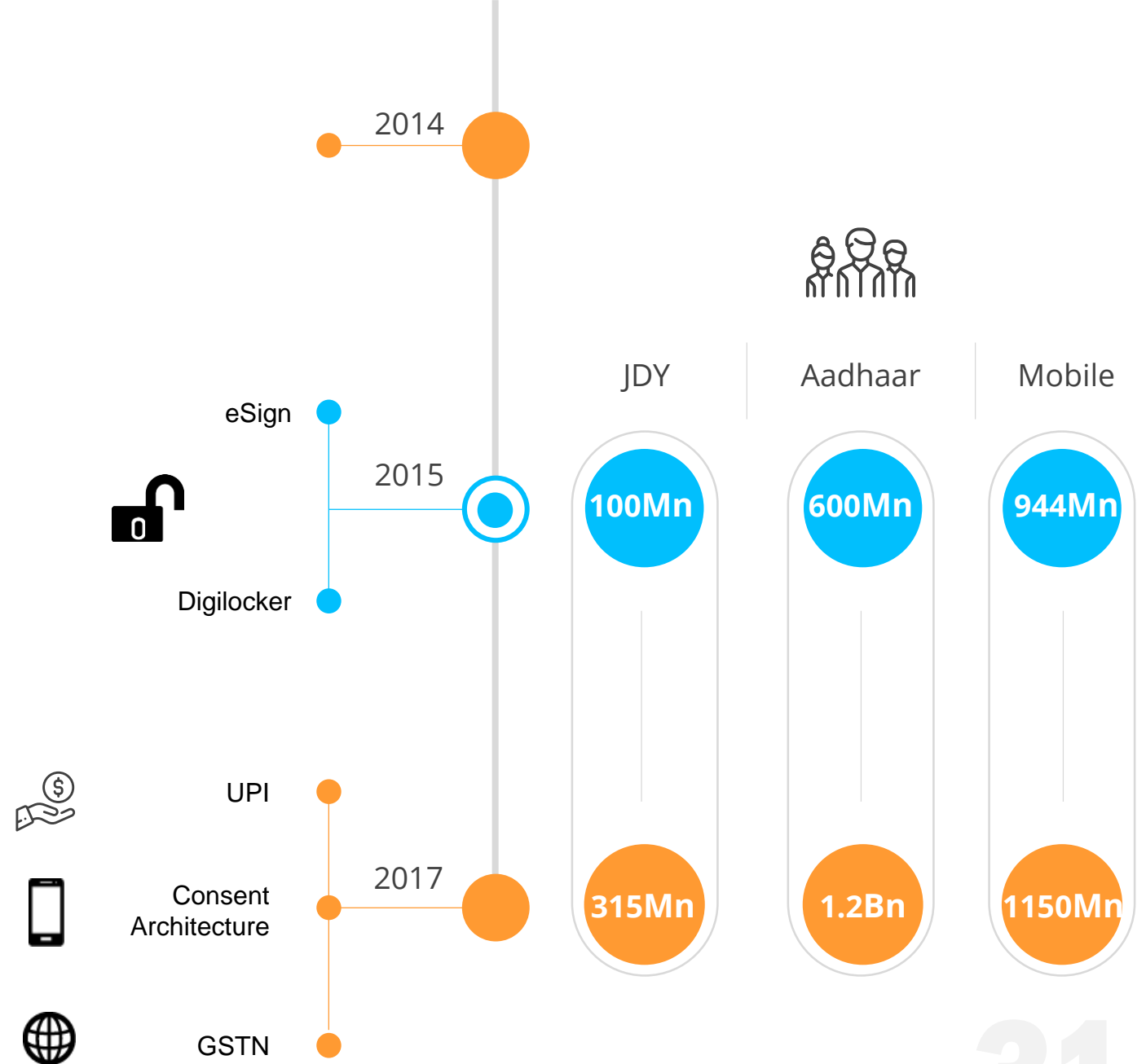
The Evolution of the India Stack – Built on JAM

Source: Ericsson Mobility Report, PMJDY, Aadhaar Web Sites

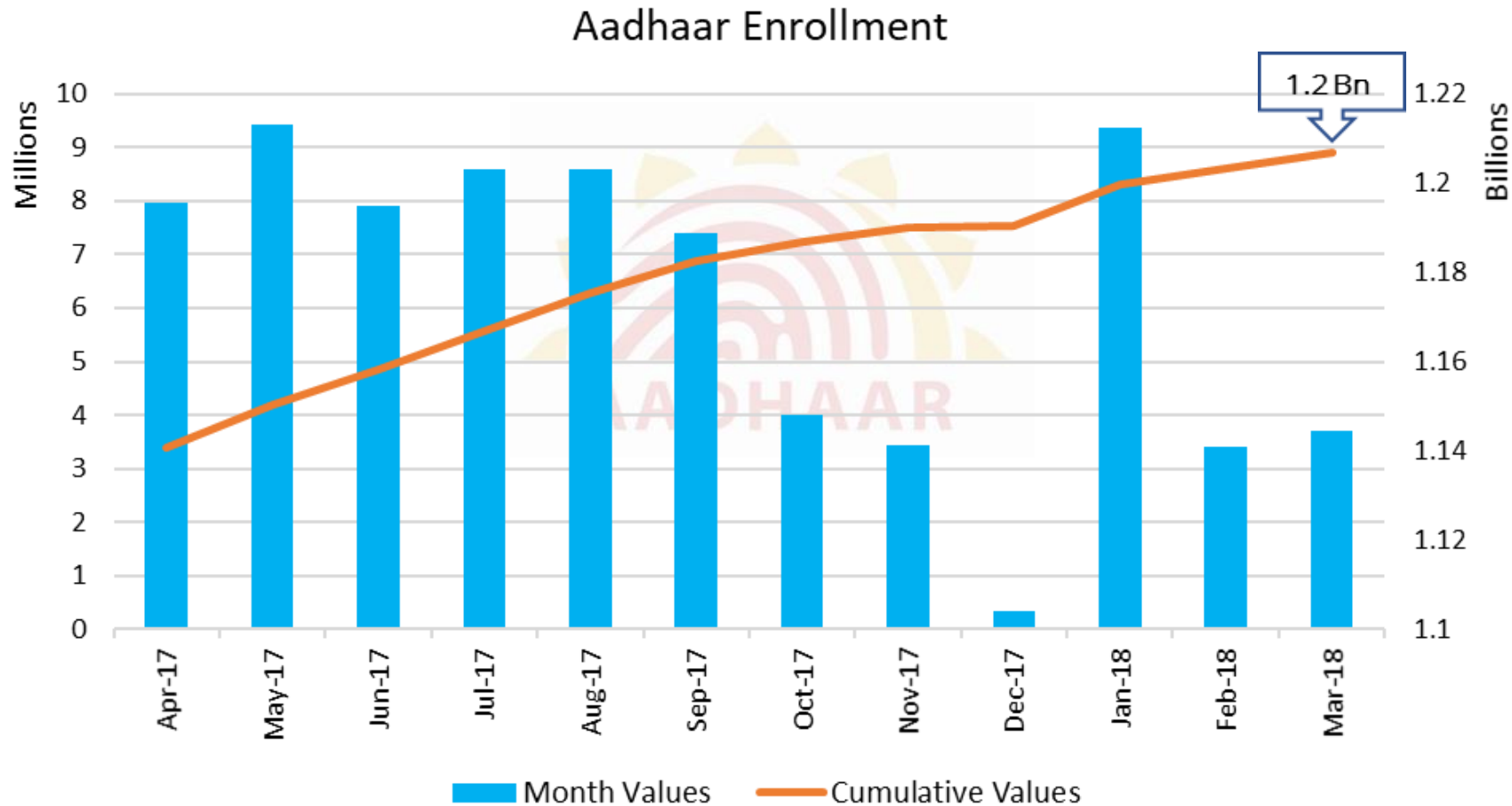


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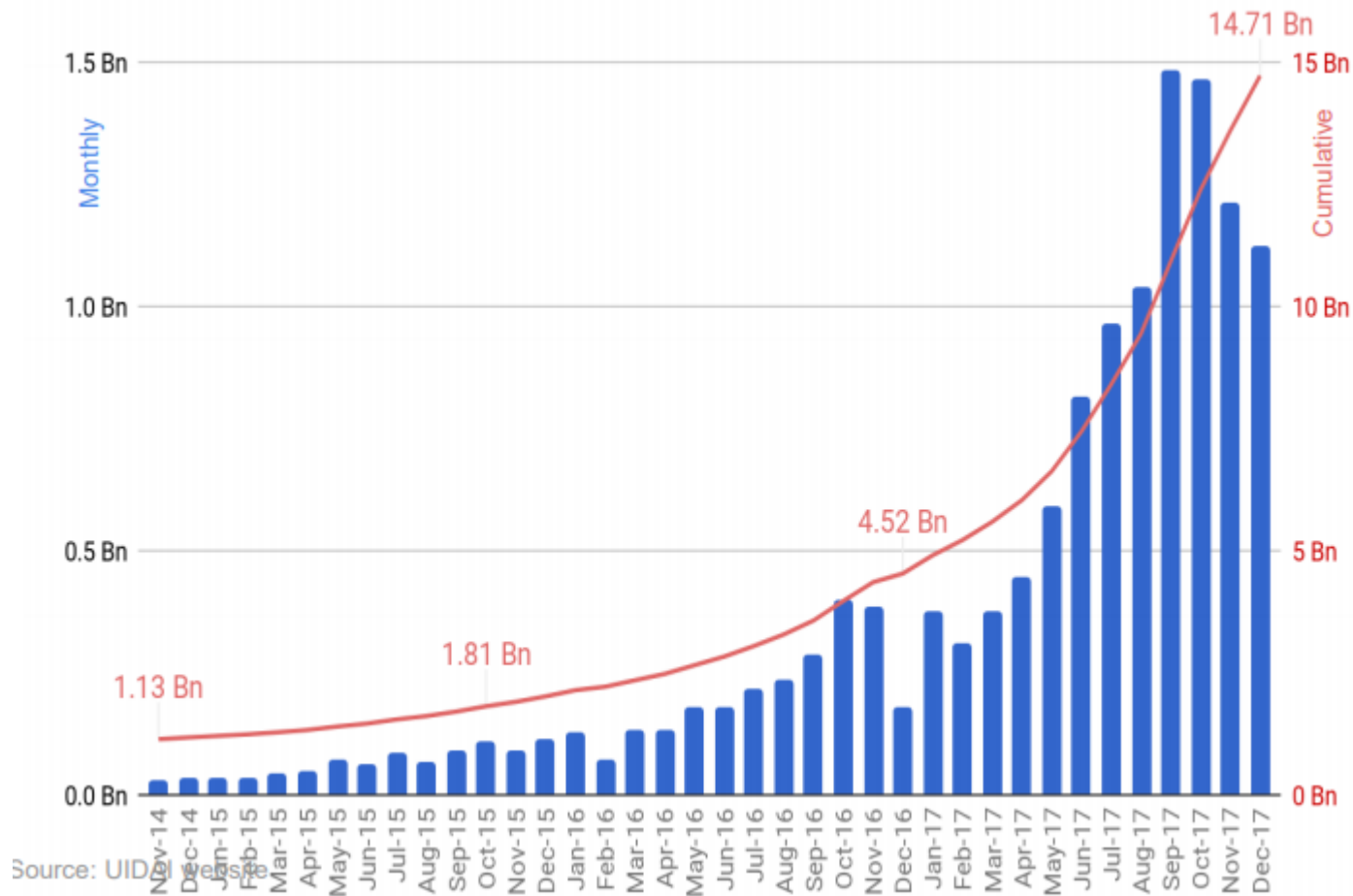


>90% have enrolled for Aadhaar



Source: UIDAI Public Data

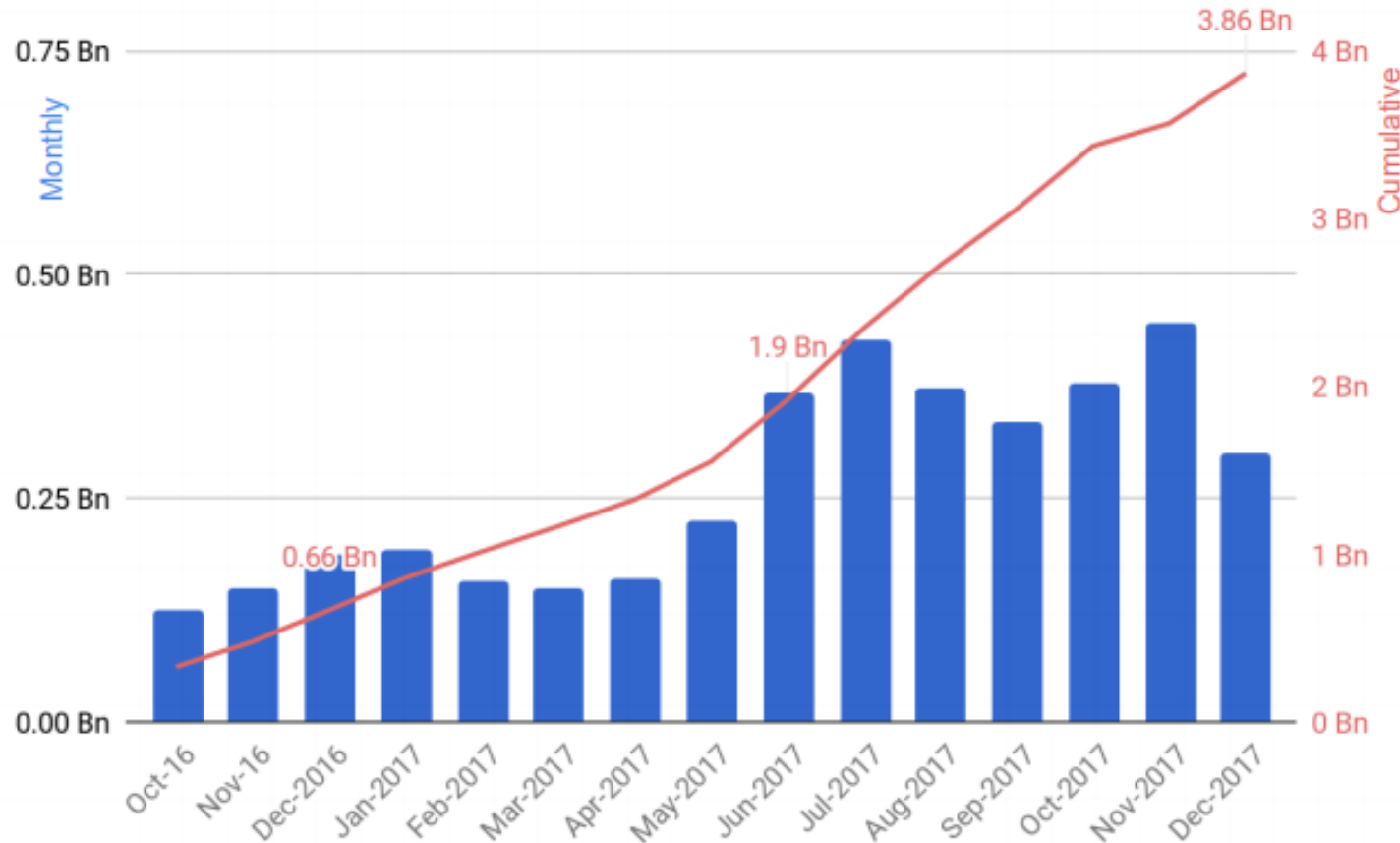
Daily Aadhaar Authentications



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



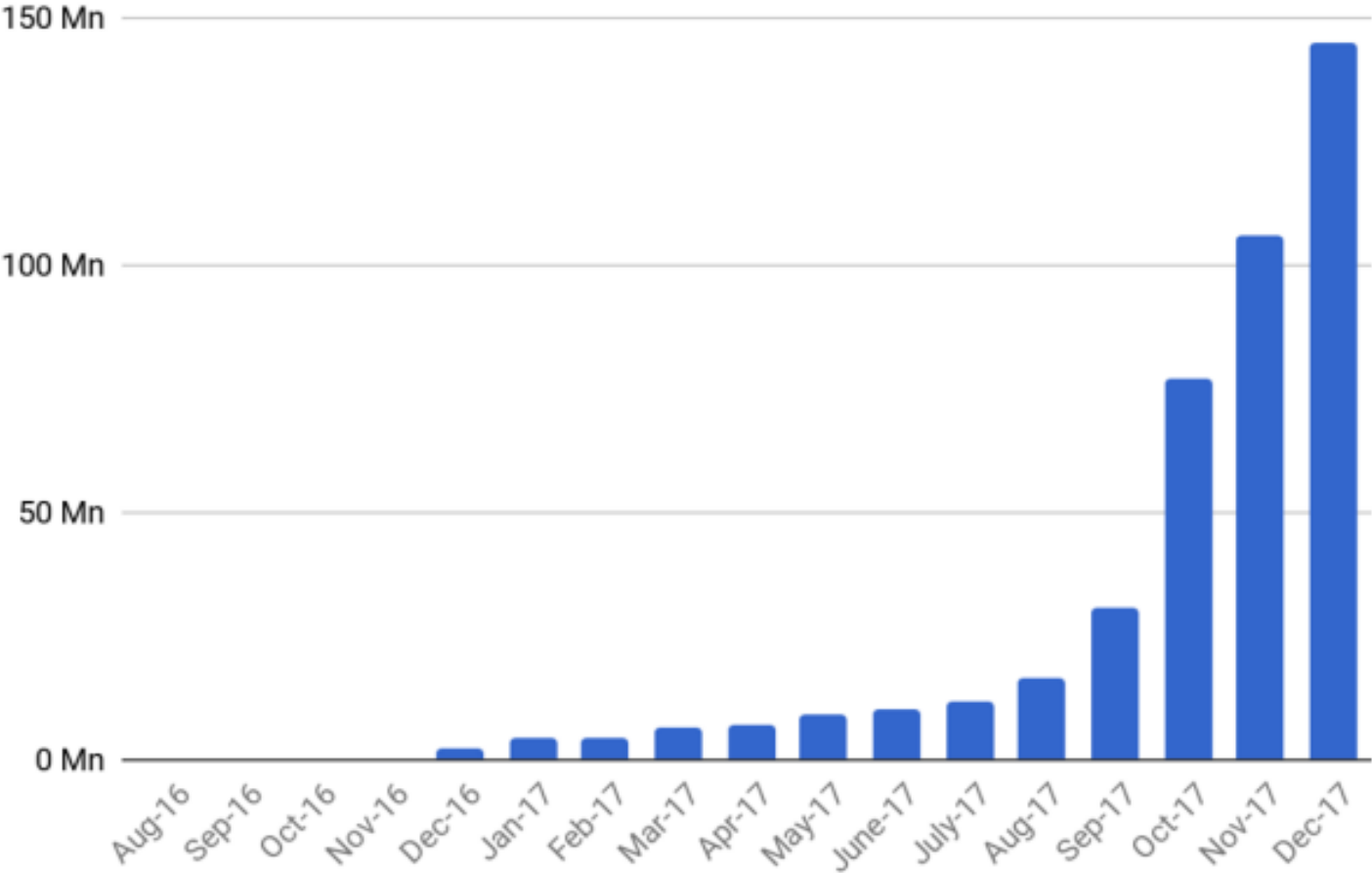
3.9 Bn total eKYC API calls
(Only 0.6 Bn before Dec 2016)

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



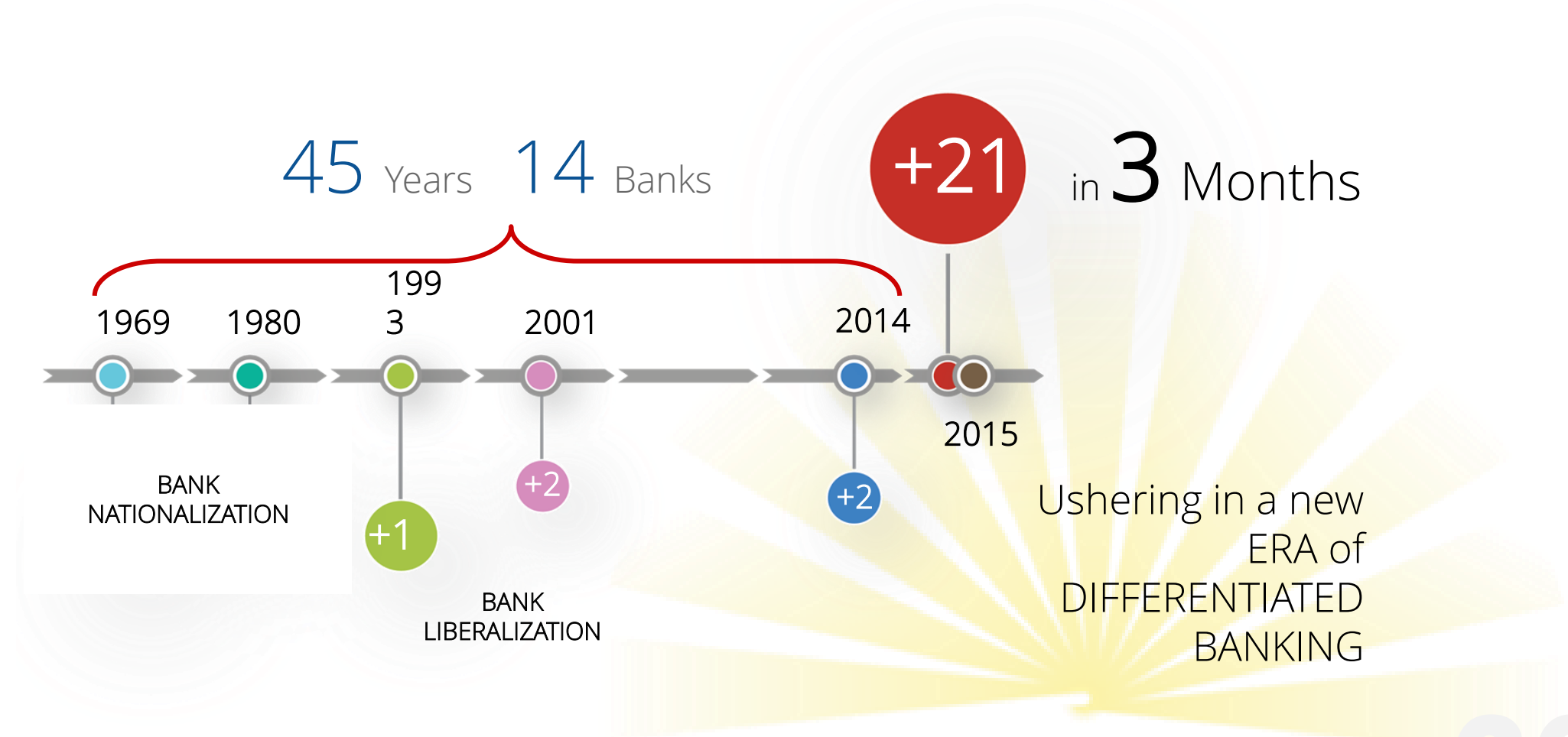
Card Transactions, after 20 years are at **300 Mn** a month

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

Source: RBI

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



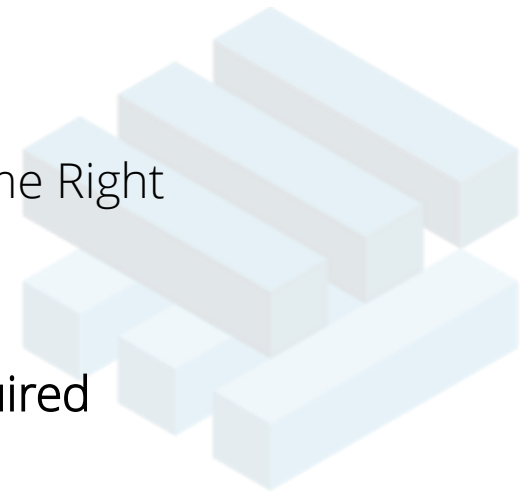
Branch Capacity
Freed up by 10%



> 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

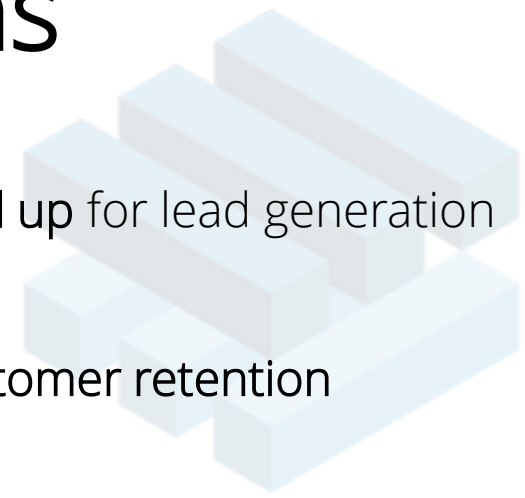
 Transaction Time down from
4 hours to 2 mins

 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

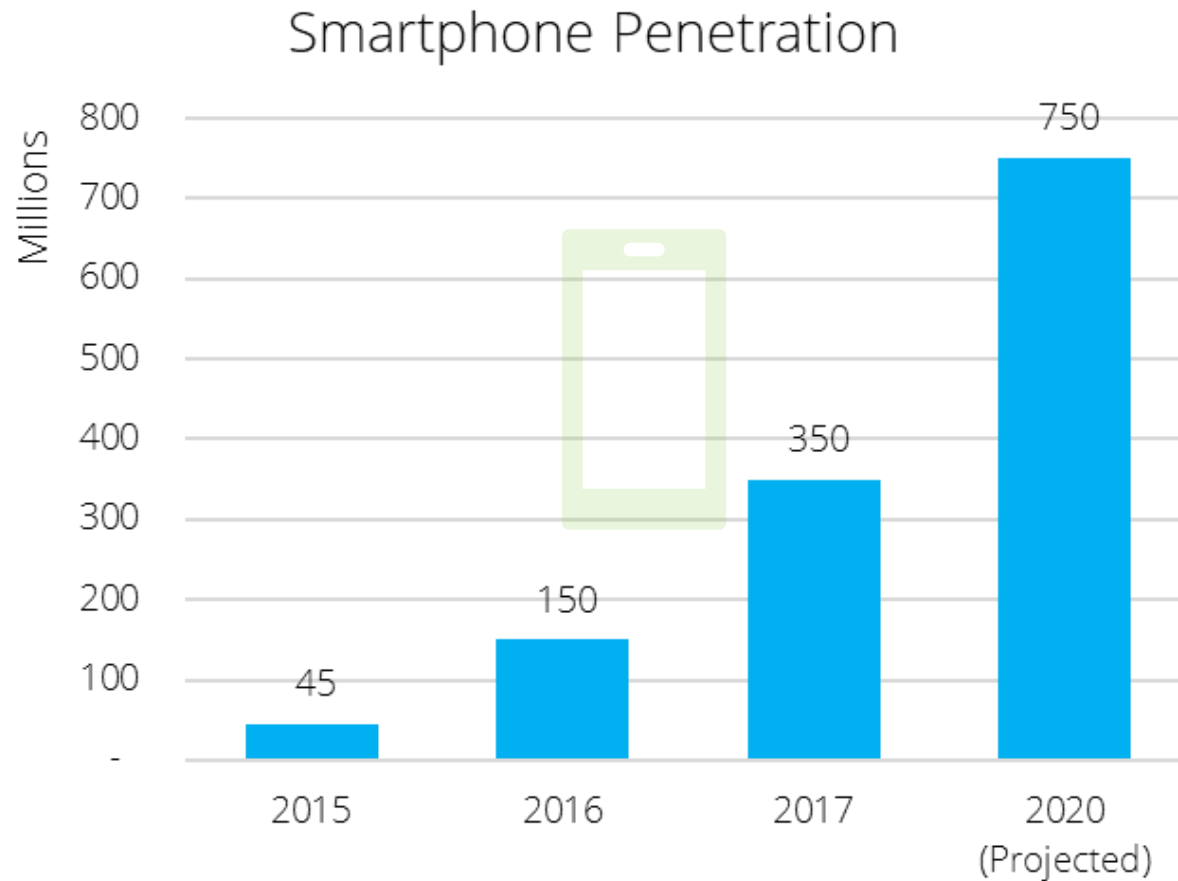
 Onboarding time down from
1 day to 4 mins

-  Onboarding Rate
50M in < 2 months
-  Saved INR 15 / SIM issued

-  Customer Experience
“Walk Out Working”
-  Saved 15,000 Trees



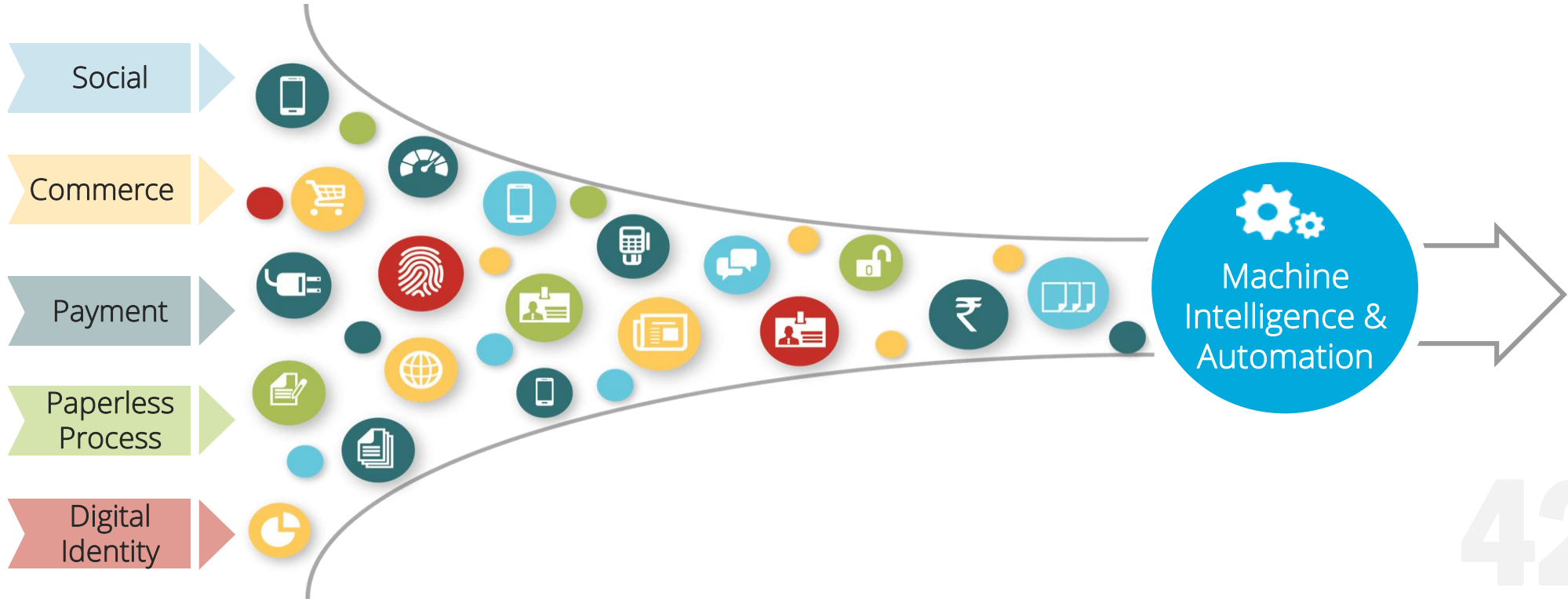
The rise of smartphones



Current sales
about 25Mn
smartphones
per quarter

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

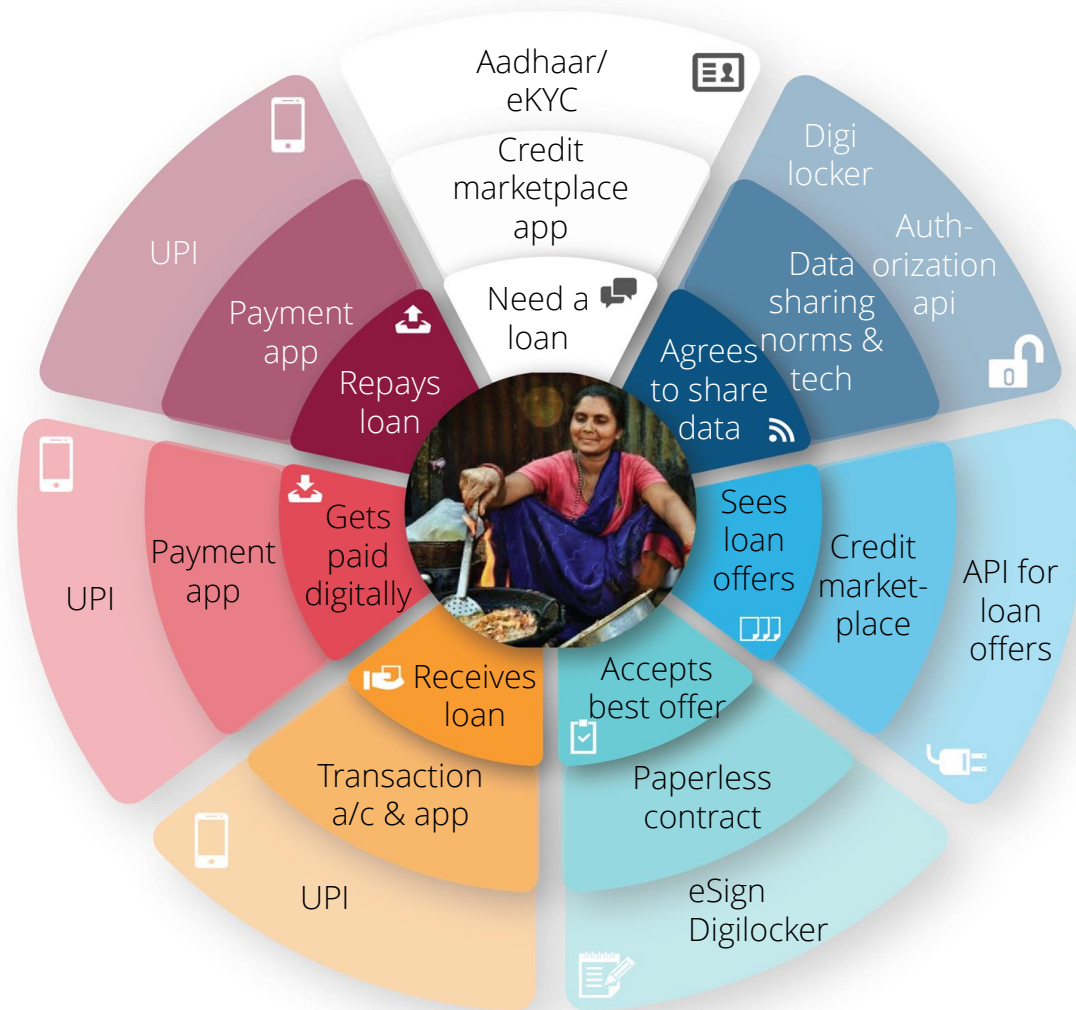
Cashless, Paperless & Presence-less Service Delivery





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

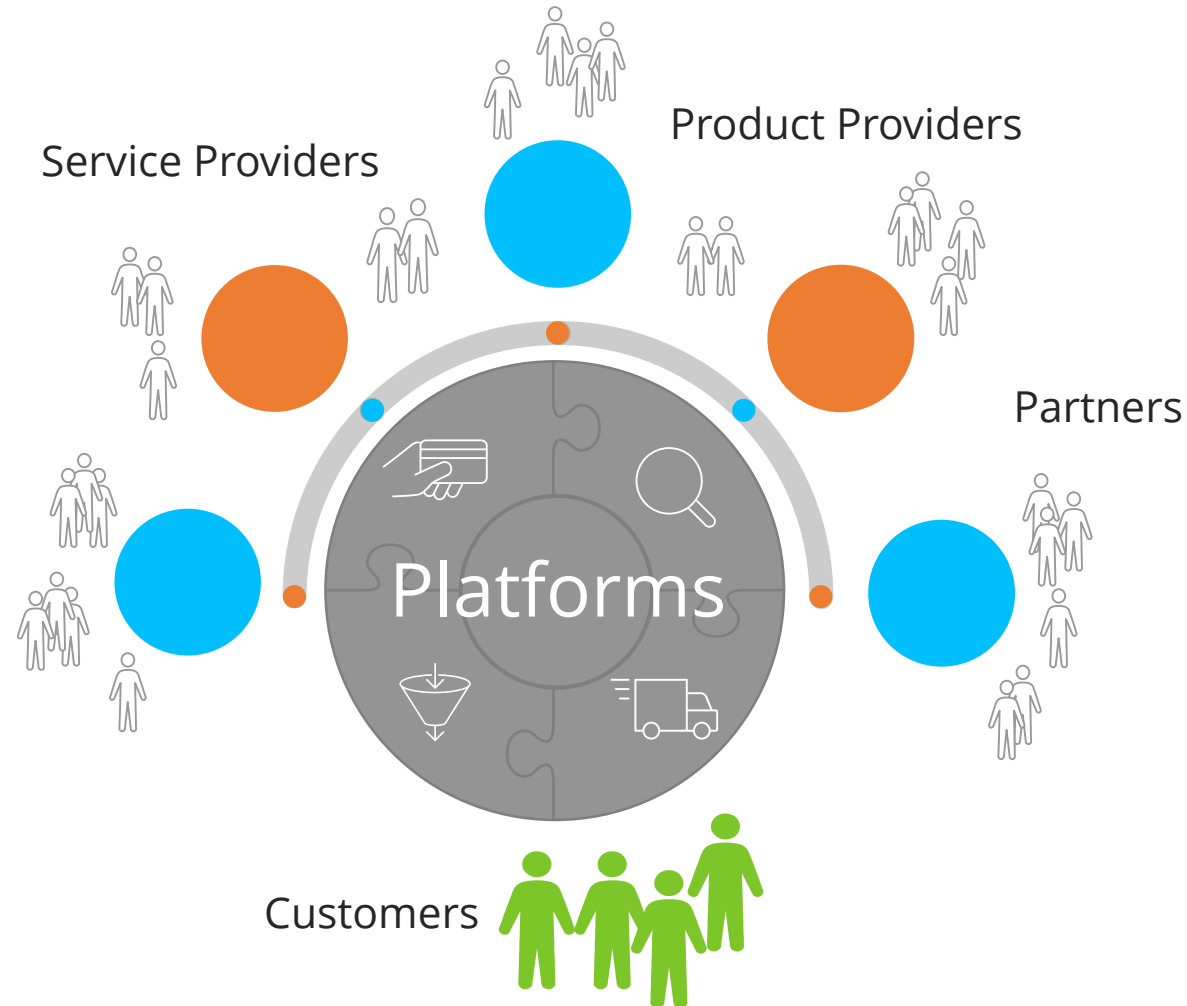
Credit without friction



Paperless instant credit markets based on digital exhaust

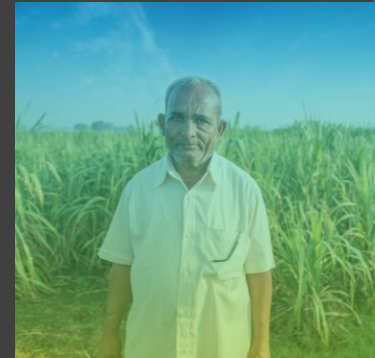
Bringing millions into the formal economy

New Age Platforms are Digitising their Ecosystems



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

Digitise the supply chain and their customers



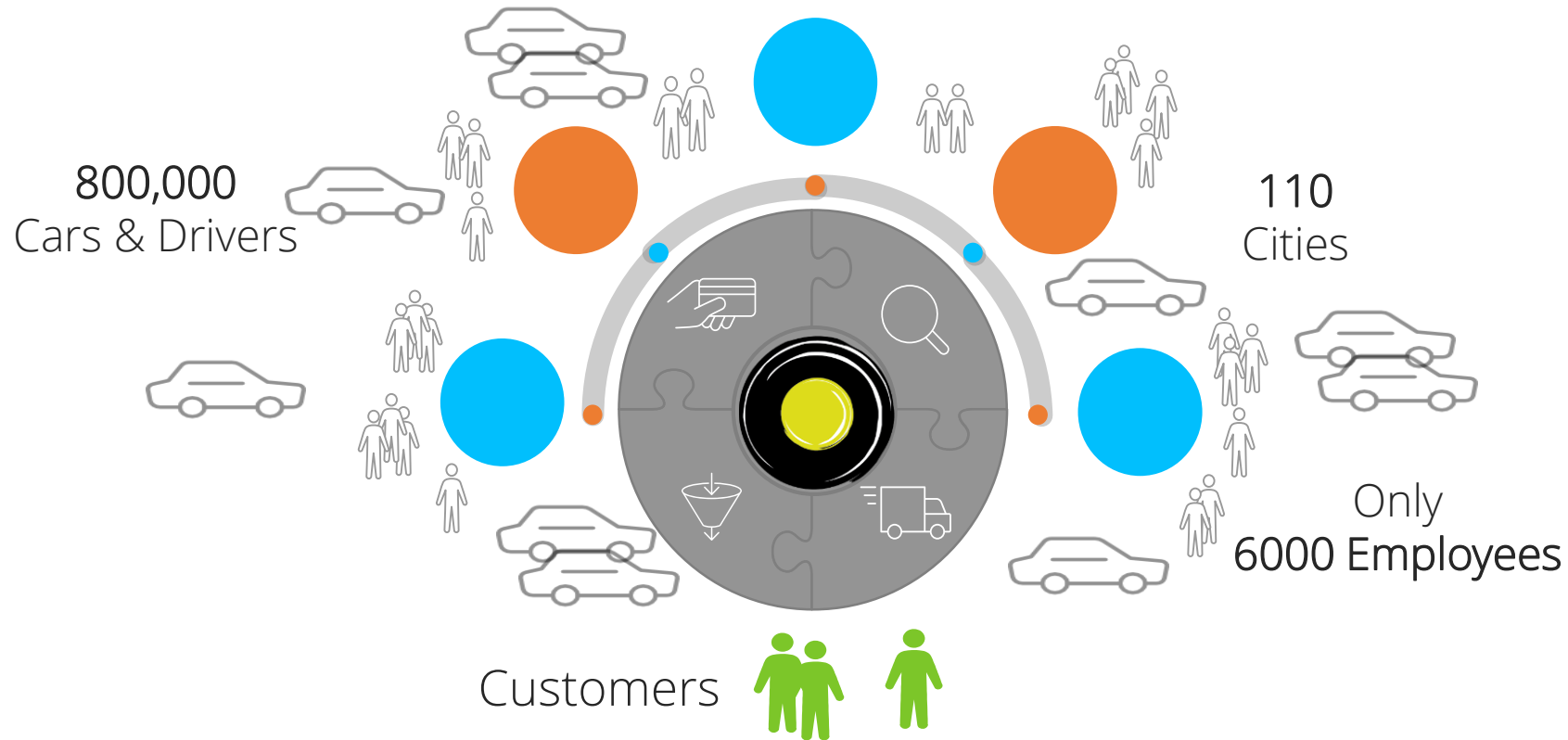
Leave digital footprints for service providers, and customers alike

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

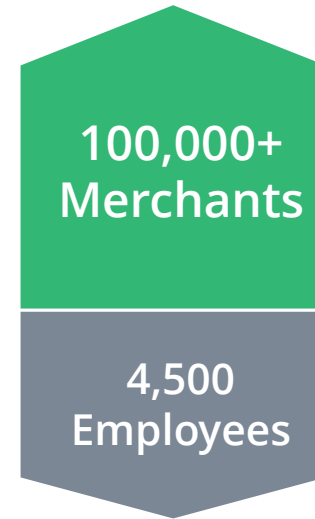
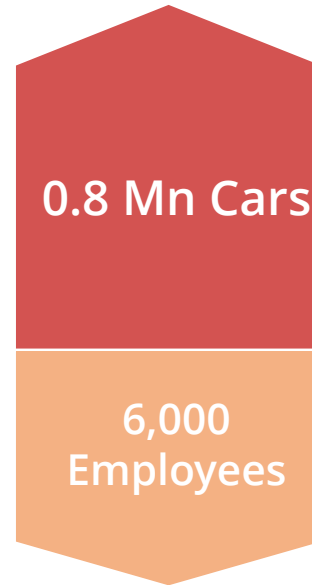
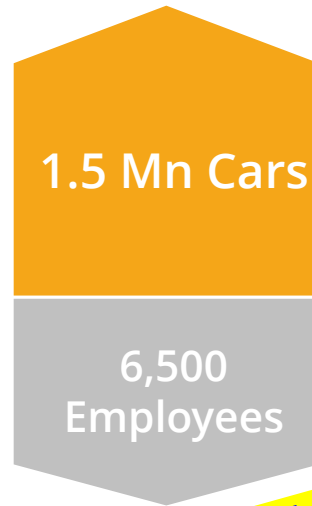
Large number of service providers
Each service provider creates multiple jobs

47

Jobs



Market Estimates Only



48

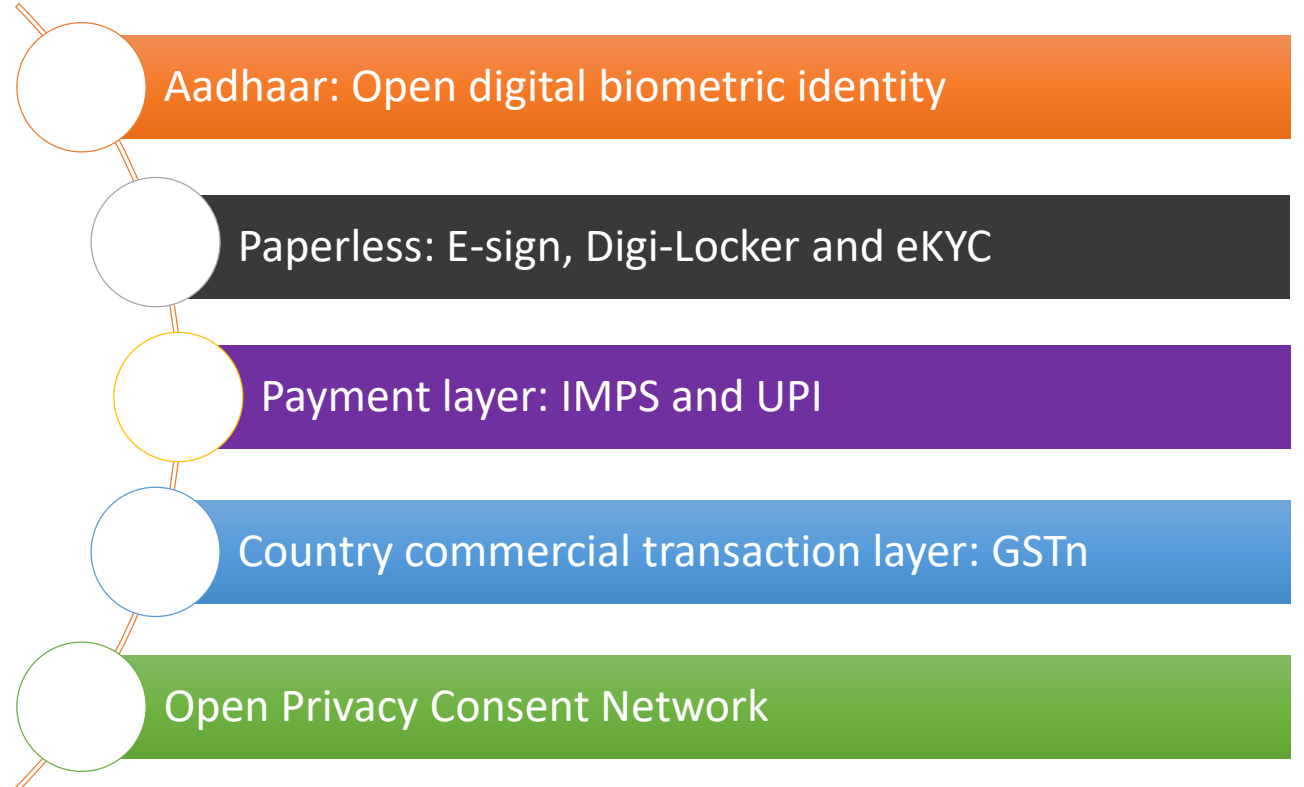
Accelerating Change

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



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



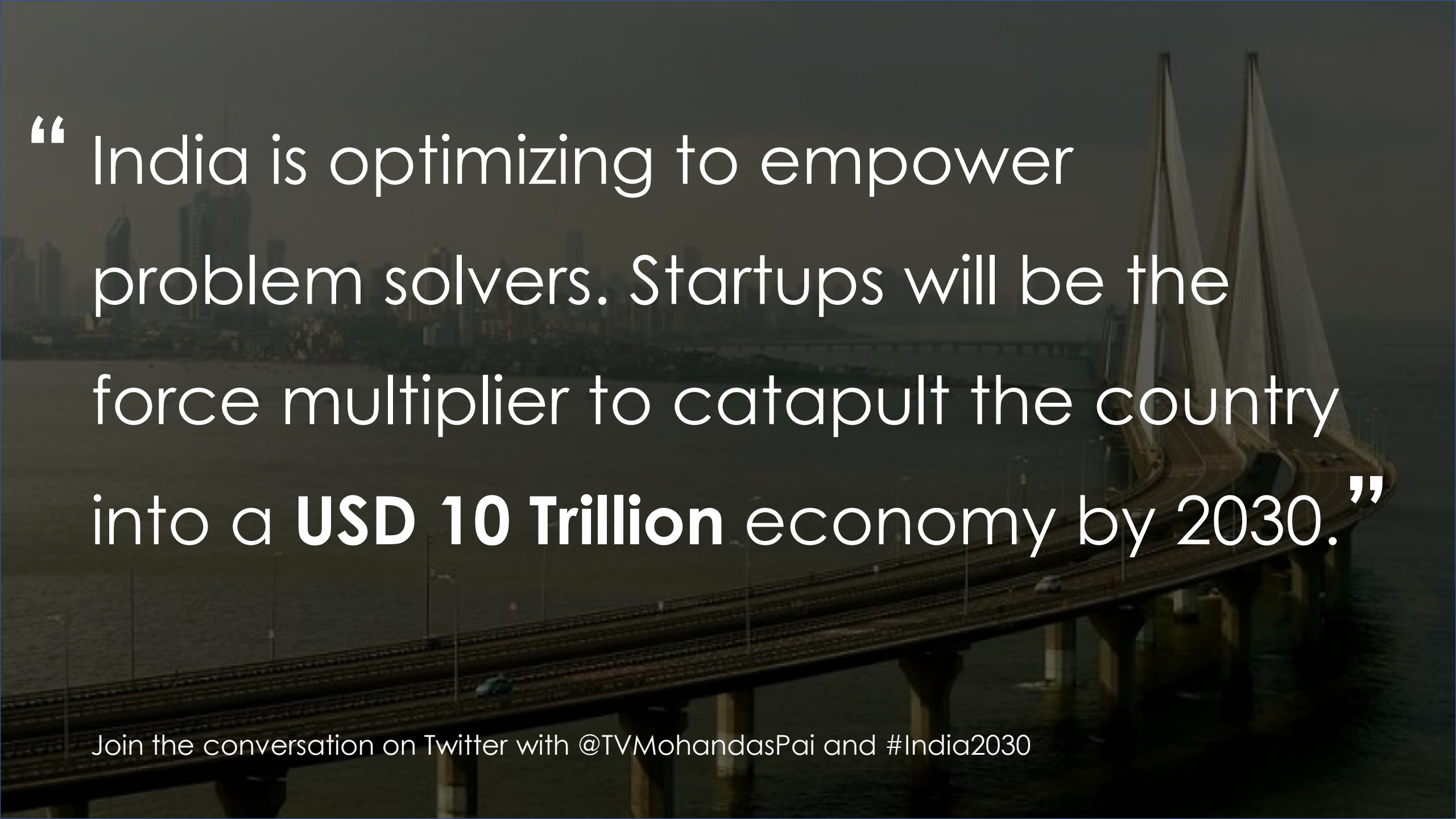
Innovative Solutions to India's Hard Problems

- 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

50



“ 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