INDIA – SURGING AHEAD

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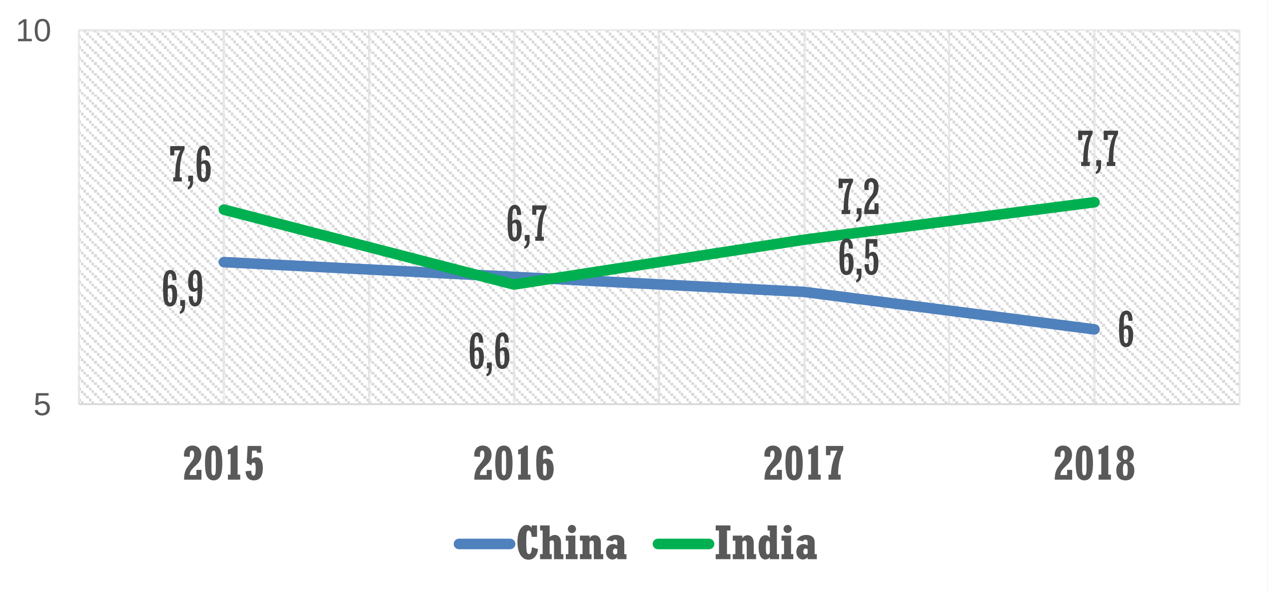
Economy

- Economy grew by 7.6% in 2015-16 ~ fastest in the world.
- Officially a $2 Trillion economy.
- Sectoral contribution to GDP
  - ❑ Agriculture ~ 17.5%
  - ❑ Industry ~ 31.8% (Manufacturing ~ 17.4%)
  - ❑ Services ~ 50.7%
- Moderate inflation @ 5~6%.
- Population @ 1.25 billion
- Current account deficit ~ 0.8% of GDP (2016); Exptd. 1.3% in 2017
- FDI ~ $55 Billion (2015-16); $29 Billion (Apr-Sep 2016)
- Forex ~ $367 Billion (Jan 2017)
- Govt. Debt to GDP @ 67%; Household Debt to GDP ~ 10.1%.
- Unemployment Rate – 4.9%; Labour Participation Rate ~ 52.5%.
- Trade (2015-16): Exports ~ $262Bn; Imports ~ $380Bn.
- Central Bank Interest Rate ~ 6.5%; Bank Lending Rate ~ 9.7%.
- Credit Rating:
  - ✓ Moody's : Baa3 (Positive)
  - ✓ S&P : BBB- (Stable)

Economic Forecast

- ❑ World Bank: India's growth for 2016-17 fiscal ~ "still robust" @ 7% despite demonetisation…India will regain momentum with 7.6% growth in 2018 and 7.8% growth in 2019.
- ❑ Demonetisation Impact:
  - ❑ World Bank: Aid liquidity expansion in the banking system; help lower lending rates, and boosting economic activity.
  - ❑ Moody's: Strengthen India's institutional framework by reducing tax avoidance and corruption.

IMF Forecast till 2018



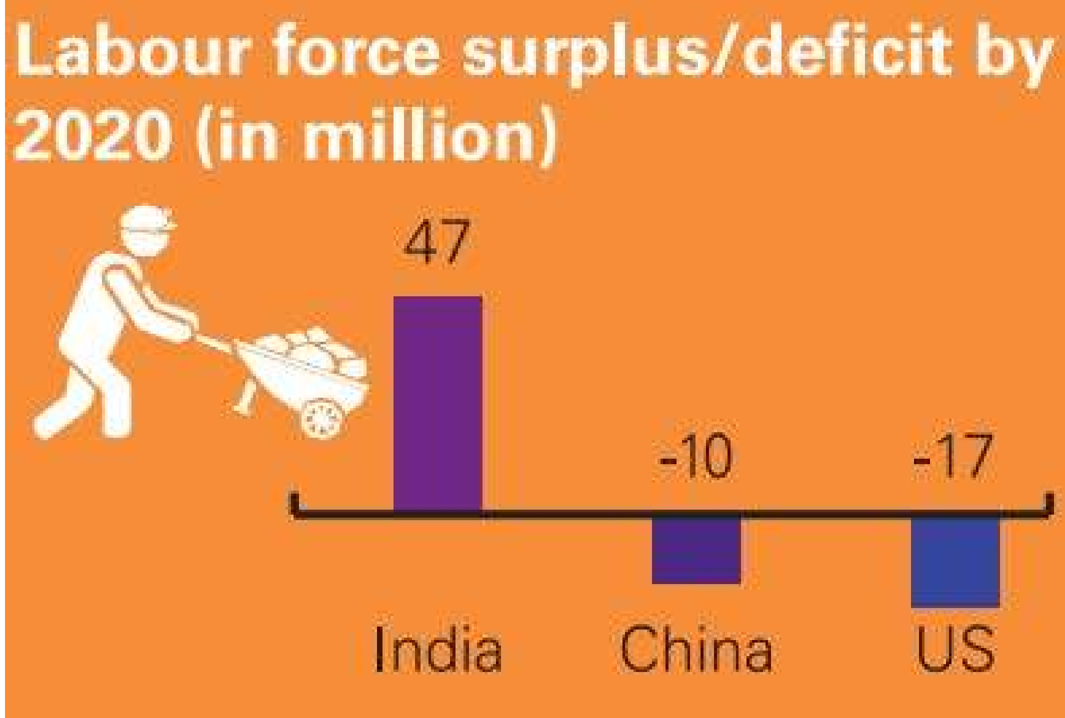
Young Demography

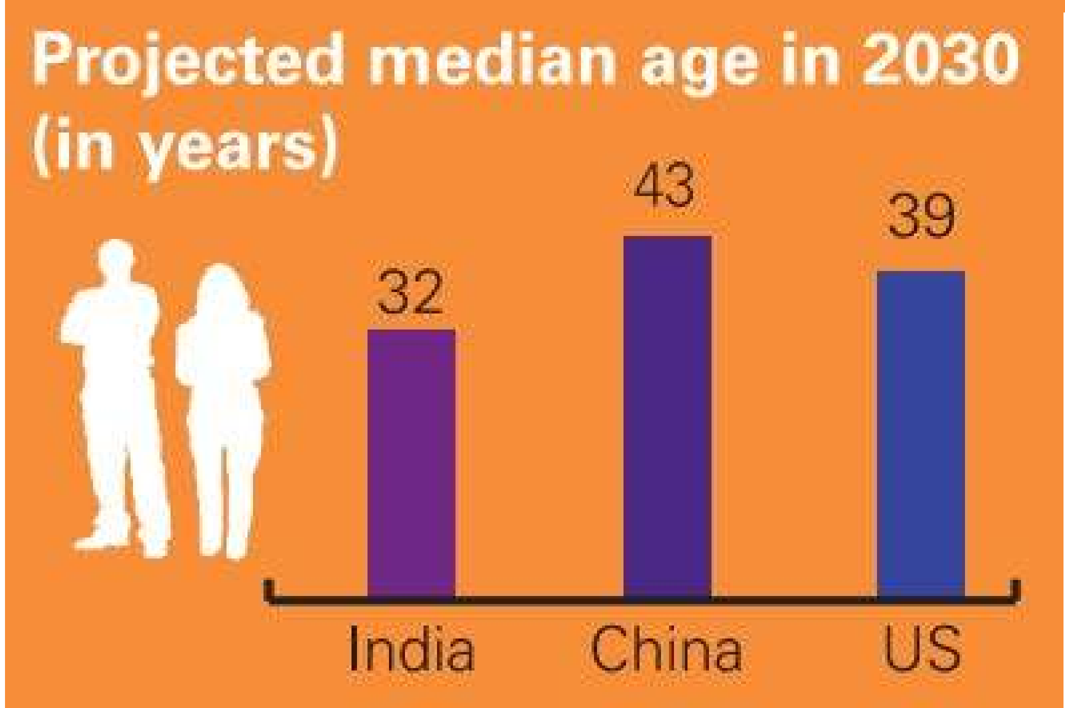
- World's youngest country by 2020, with an average age of 29 years…A surplus workforce of 47 million against a deficit of 10 million in China and 17 million in the U.S.

- By 2030: India's workforce will have an average age of 32 years. In comparison, during the same period, the average age is expected to be 43 years in China and 39 years in the U.S

- Young Demography: A window of opportunity ~
  - ✓ To improve labour productivity,
  - ✓ To increase domestic production,
  - ✓ To enhance revenue from services,
  - ✓ To increase savings; and
  - ✓ To reduce the burden of old residents on the working population.

- Empowered with unique demographic advantages and guided efforts, India is poised to position itself among developed economies within the next 10–15 years. .





Ease of doing business

- Single-window clearance, 14 central government services are integrated with e-Biz portal.
- **Cooperative and Competitive Federalism**
  - Greater devolution of finances to States – 42% share for states in the divisible pool of taxes.
  - States assessed on 8 broad parameters of Ease of Doing Business.
- **Goods and Services Tax** has been approved by the Parliament...will be in place by July 2017.
- New Bankruptcy Law Passed.
- New IPR policy announced.
- Investor Facilitation Cell – INVEST INDIA, established to guide, assist and handhold investors during the entire life cycle of a business.
- Road-map to reduce corporate tax from 30% to 25% laid down.

Highlights of Budget 2017-18:

- Foreign Investment Promotion Board (FIPB) to be abolished…since 92% of all FDI is allowed through automatic route.
- Legislative reforms to simplify, rationalize & amalgamate existing labor laws into 4 Codes on Wages, Industrial Relations, Social Security & Welfare and Safety & Working Conditions.
- **Minimum Alternate Tax (MAT)** credit allowed to be carried forward up to a period of 15 years (10 years at present).
- **Corporate tax** for smaller companies with annual turnover of up to 50 crores **reduced to 25%**.
- **Concessional tax rate of 5% withholding tax** being charged on interest earned by foreign entities in ECBs /Government securities extended till 30.6.2020 and also extended to Masala bonds.

Ease of doing business…2

- As part of the Ease of Doing Business, the Make-in-India (MII) program was launched on 25 Sept 2014.

- MII focuses on:
  - Attracting investment into manufacturing by introducing a business friendly regulatory environment, fostering innovation, enhancing skill development, protect IPR, and build best-in-class manufacturing infrastructure.
  - Increase manufacturing share in GDP from 16% to 25% by 2022.
  - Create 100 Mn additional jobs by 2022.
  - Completely overhaul the FDI regime.
  - **25 Sectors identified**: Automobile, Auto Components, Aviation, Biotechnology, Chemicals, Construction, Defence, Electrical Machinery, Electronic Systems, Food Processing, IT & BPM, Leather, Media & Entertainment, Mining, Oil & Gas, Pharma, Ports & Shipping, Railways, Renewable Energy, Roads, Space, Textiles & Garments, Thermal Power, Tourism & Hospitality, and Wellness.

A pentagon of corridors is being envisaged to facilitate manufacturing and to project India as a global manufacturing destination.

1. Amritsar Kolkata Industrial Corridor
2. Bengaluru Mumbai Economic Corrido
3. Chennai Bengaluru Industrial Corridor
4. Delhi Mumbai Industrial Corridor
5. Vizag Chennai Industrial Corridor

FDI

- No. 1 FDI Destination in the World.
- Most open economy in the world for FDI.
- FDI Equity (April – Dec 2016): US$36 Bn (+22%)
- National Investment and Infrastructure Fund (NIIF) created with a corpus of USD6.2 billion.

- No. 1 Rank out of 110 countries on the Baseline Profitability Index (BPI) – 2015

BPI Ranking (2015)

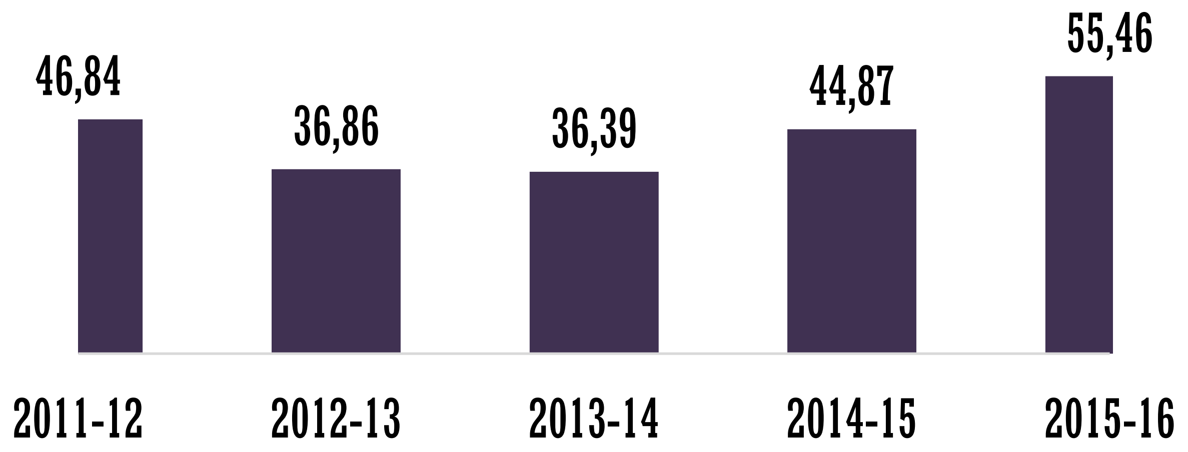
India	:	1
U.S.	:	50
China	:	65
Brazil	:	99
Russia	:	108

Factors on which success of FDI depends on:

- Growth of Asset Value
- Preservation of Value while the asset is owned
- Ease of repatriating profits

"As per BPI Index, India is the Best Bet for Investors"

INDIA FDI FLOWS (US$ billion)



100% FDI allowed in 92% of sectors, including:

- Industrial Parks, and Construction Development
- Railways, Telecom, Defence and Petroleum & Natural Gas – Exploration.
- Airports – Greenfield & Brownfield; Ground Handling Services; MRO facilities; Flying & technical institutes.
- Credit Information Companies, Non-banking Finance Companies, and Asset Reconstruction Companies
- Pharma, Bio-tech, Medical Devices – Greenfield & Brownfield
- Mining – coal & lignite, metal & non-metal ores
- Trading – Wholesale & B2B E-commerce, Food Products Retail Trading, and Duty Free Shops.

India Ranking

- **World Bank** ~ India will be the world's fastest growing major economy in 2017.

- **UNCTAD World Investment Report (2015)** ~ India climbs 6 places to reach 9th rank, joining the league of the world's top 10 countries by FDI inflows.

- **World Economic Forum 2015** ~ Up 16 places to reach **39th** on the Global Competitiveness Index.

- **World Bank's 2016 Logistics Performance Index.** ~ Moved up 19 ranks to reach **35th** position.

- **Global Innovation Index** ~ India moved up 16 ranks to reach **66th** position.

Goods & Services Tax (GST)

- GST is a destination based tax on goods and services.
- Levied at all stages: Manufacturing to Consumption.
- Only the value addition will be taxed.
- Burden of tax is to be borne by the final consumer.
- **Dual GST:** Centre (CGST) and States (SGST) will simultaneously levy it on a common tax base.
- **Integrated GST (IGST):** Will be levied and administered by Centre on every inter-state supply of goods and services.
- Location of the supplier and the recipient within the country is immaterial for the purpose of CGST.
- SGST would be chargeable only when the supplier and the recipient are both located within the State.

- Rates of GST will be decided by the GST Council. omprising of the Union Finance Minister (Chair), the Minister of State (Revenue) and the State Finance/Taxation Ministers.
- GST Council has fixed a 4-tier structure of 5%, 12%, 18% and 28%.
- What products fall under which tax bracket is being decided.
- Target Date for Implementation: July 2017

Benefits of GST

- Pave the way for a common national market.
- Reduction in the overall tax burden on goods which is currently estimated at 25%-30%.
- Make Indian products competitive in the domestic and international markets.
- Revenue gain for the Centre and the States due to widening of the tax base, increase in trade volumes and improved tax compliance.
- GST is transparent and easier to administer.

GST…2

Commodities outside the purview of GST:

- Alcohol for human consumption.
- Petroleum Products viz. petroleum crude, motor spirit (petrol), high speed diesel, natural gas.
- Aviation turbine fuel & Electricity

- Tobacco & tobacco products would be subject to GST.
- Centre would have the power to levy Central Excise duty on these products.

Taxes that GST will replace

Central Taxes	State Taxes
1. Central Excise duty	1. State VAT
2. Duties of Excise (Medicinal and Toilet	2. Central Sales Tax
3. Preparations)	3. Luxury Tax
4. Additional Duties of Excise (Goods of Special Importance)	4. Entry Tax (all forms)
5. Additional Duties of Excise (Textiles and Textile	5. Entertainment and Amusement Tax (except when levied by the local bodies)
6. Products)	6. Taxes on advertisements
7. Countervailing Duties (CVD)	7. Purchase Tax
8. Special Additional Duty of Customs (SAD)	8. Taxes on lotteries, betting and gambling
9. Service Tax	9. State Surcharges and Cesses so far as they relate to supply of goods and services
10. Central Surcharges and Cesses so far as they relate to supply of goods and services	

Railways

Indian Railway Facts:

- 114,000 km of tracks: Caters to 15% of public transport & 30% of total freight
- 12,500 trains ferrying 22 Mn passengers and 7,400 trains carrying 3 Mn tons of freight every day respectively.
- Employs 1.4 Mn people – world's 7th largest employer with revenues: US$25 Bn (2014-15)

New Initiatives:

- **100% FDI allowed under the automatic route** in construction, operation, and maintenance of suburban corridor projects, high-speed train, dedicated freight lines, railway electrification, mass rapid transit systems, passenger/freight terminals and signaling systems.
- **Mumbai-Ahmedabad 508 km High Speed Railway Corridor**: Japan to fund 80% of the US$ 15 billion project @ 0.1% interest with a 15-year moratorium on a 50-year repayment period.
- **Project Nilgiri (Wifi Services at Stations):** In partnership with Google, wifi hotspots will be set up in 400 stations in the 1st phase. In 2nd phase wifi on running trains.
- **Locomotive and wagon manufacturing:** Contracts worth US$ 6.2 billion signed with GE & Alstom for diesel and electric locomotives.

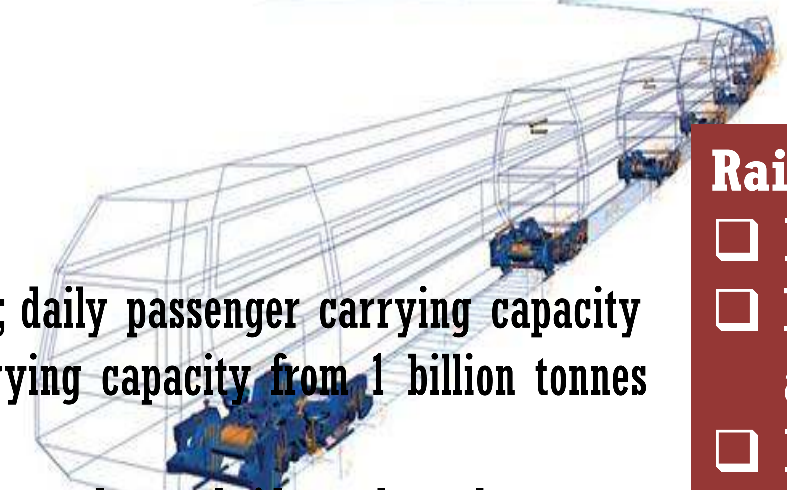
New Objectives:

- Increase investments
- Decongesting heavy haul routes
- Speed up trains
- Better amenities & safety
- Improving railway systems

Investment Planned:

USD 133.5 billion over the next 5 years ending 2019

Railways…2



TARGETS:

- Increasing track length by 20% to 138,000 km; daily passenger carrying capacity from 21 Mn to 30 Mn; and annual freight carrying capacity from 1 billion tonnes to 1.5 billion tonnes.
- Replace 3,450 railway crossings with 920 under and over-bridges through an investment of US$1 billion.
- Redevelop/Modernize 400 railway stations through PPP model.
- Introduction of bio-toilets and vacuum toilets, waste-to-energy plants at stations, conducting energy audits etc.
- Installation of train protection warning systems and train collision avoidance systems.
- Installation of surveillance cameras in trains and railway stations.

Railway Investment opportunities:

- ❑ Dedicated Freight Corridors (DFC)
- ❑ Railway lines to and from coal mines and ports
- ❑ Development of high-speed tracks and suburban corridors
- ❑ Re-development of railway stations and freight terminals
- ❑ Power generation and energy saving
- ❑ Setting up wagon, coaches and locomotive unit
- ❑ Gauge conversion
- ❑ Network expansion.

FOCUS ON SPEED:

- Increase speed of 9 railway corridors from 110-130 kmph to 160-200 kmph.
- Increase the average speed of freight trains to 100 kmph (unloaded trains) and 75 kmph (loaded trains).
- Diamond quadrilateral network of high-speed rail to connect major cities.
- Introduction of bullet trains (350 kmph speed) and semi-high speed trains (16—200 kmph speed).

ROADS

QUICK FACTS:

- Road Network: 4.8 million Km…accounts for 60% of total goods movement and 85% of total passenger traffic in the country.
- National highways make up about 2% of the network but account for 40% of road traffic.

Road Projects Awarded & Completed

Status/Year	2014-15	2015-16
Awarded	7,566 km	10,000 km
Constructed	4,410 km	**6,029 km**

2016-17: 25,000 km of National Highways to be awarded

Govt. aims at building **30km** road stretch per day from 2016.

NORTH EAST FOCUS:

Total Length of the NE Highway: 13,258 Km - 109 Projects of length 7,148 km underway…Rest to be awarded.

New Initiatives:

- **Bharatmala:** Build National Highways to connect coastal/border areas, tourist places and all district headquarters. – Contours of the program being worked out.
- **Setu Bharatam:** To make National Highways free of railway level crossings. Project involves:
  - Building 208 Railway over Bridges @ an estimated cost of USD 3.1 Bn
  - Replacing 1500 old bridges @ a cost of USD 4.5 Bn.
- **Eastern Peripheral Expressway**: a 135 km six-lane expressway with a total project cost of USD 3.7 Bn – Already awarded & work has commenced.
- **Western Periphery:** 135 Km in 2 sections – Manesar-Palwal (52 Km) – Completed; and Kundali-Manesar (85 Km) – Awarded.
- **Delhi–Meerut Expressway:** A 150 km project with a total project cost of USD 1 Bn – Already awarded.

Up-coming High Profile Road Projects:

- ✓ **Vadodara–Mumbai Expressway (400 Km)**
- ✓ **Bengaluru-Chennai (334 Km) on NH4**
- ✓ **Delhi-Jaipur (261 Km) on NH8**
- ✓ **Kolkata-Dhanbad (277 Km) on NH2**

ROADS...2

POLICY SUPPORT:

- Industry status for the road sector.
- FDI of up to 100% and increased concession periods of up to 30 years.
- 100% tax exemptions in any consecutive 10 years out of 20 years.
- Duty free imports of certain identified equipment for construction plants.
- Amendments made to the Model Concession Agreement (MCA) for BOT projects.
- Segregation of Civil Cost from Capital Cost for National Highway (NH) Projects for appraisal and approval.
- Rationalized compensation for concessionaries executing NH projects in BOT mode for delays not attributable to them.
- Exit Policy for Private Developers: 2 years from start of operations, irrespective of date of award of project.

Highlights of Budget 2017-18

- Budget allocation for highways @ 64,900 crores ($9.7 Bn) in 2017-18.
- 2,000 km of coastal connectivity roads identified for development.

Awarding of Road Projects:

Road projects in India have always been awarded in one of the three formats—BOT annuity, BOT-toll and EPC.

- **BOT annuity**, a developer builds a highway, operates it for a specified duration and transfers it to the government, which pays the developer annuity over the concession period.
- **Under BOT-toll**, a concessionaire generates revenue from the toll levied on vehicles using a road.
- **In EPC**, the developer builds with government money.

HYBRID ANNUITY MODEL announced (2016):

- **Govt. commits up to 40% of the project cost over a period and hands over the project to the developer to start road work.**
- **Revenue collection will be Govt.'s responsibility, while developers will be paid in annual instalments over a period of time.**
- **HAM gives enough liquidity to the developer and the financial risk is shared by the government.**

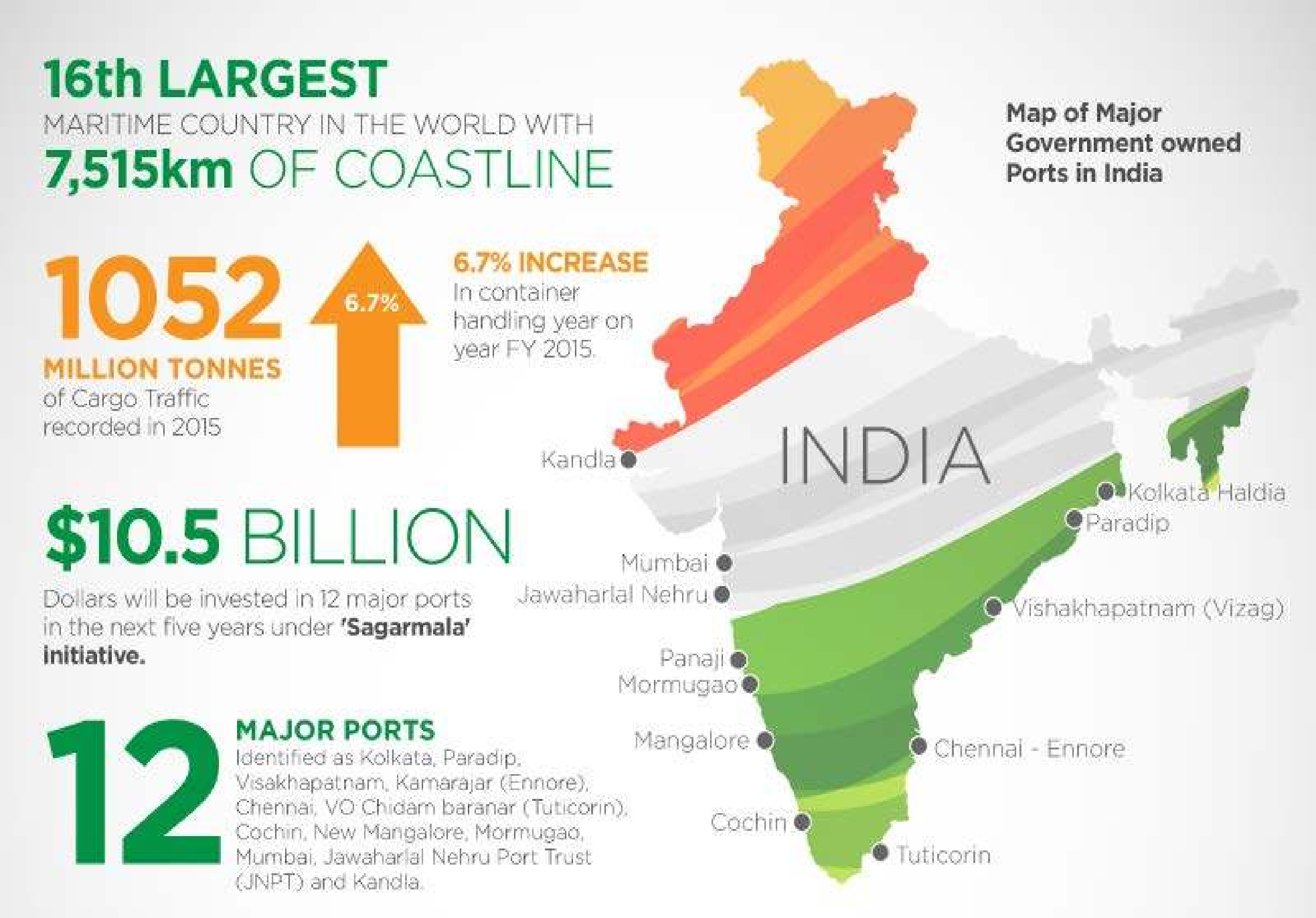
Ports

India has 12 Major Ports (administered by the Central Government), and around 200 notified Non-Major Ports (administered by the State Governments).

Traffic handled by Indian ports in FY2014–15 was 1052.1 MTPA. By 2025, the ports are required to handle a cargo of 2500 MTPA.

Focus of Port Modernization programme:

1. Mechanization – improvement of gate processing & rake turnaround time.
2. Dredging: Increase draft up to 23 meters to handle container vessels of >15,000 TEUs and super-max vessels (50,000 to 60,000 DWT).
3. New Terminal Developments.



Maritime Agenda 2010-20

- Increase percentage share of India to 5% in global ship building
- 10% share in global ship repair for India by 2020.

Sagarmala

New ports:

- 5-6 new ports have been proposed to be built.
- Over 40 port-capacity enhancement projects – modern port infrastructure – mechanization of berths and deepening of drafts to accommodate larger vessels.

Rail-Port connectivity:

- Over 80 projects are being planned
- Focus: Heavy-haul rail corridor to evacuate large volumes of coal, freight-friendly expressways to enable efficient movement of containers on key routes, and the development of strategic inland waterways.

Port-led industrialization:

- 14 Coastal Economic Zones (CEZs) along the coastline.
- Clusters to have industries from the energy, bulk materials as well as discrete manufacturing segments.

Coastal communities:

- Developing opportunities for fishermen and other coastal communities as well as development of the numerous islands along India's coastline.

SAGARMALA project aims at:

- Optimizing multi-modal transport to reduce the cost of domestic cargo,
- Minimizing the time and cost of export-import cargo logistics,
- Lowering costs for bulk industries by locating them closer to the coast, and
- Improving export competitiveness by locating discrete manufacturing clusters near ports.

The government is expected to invest US$16 billion in the SAGARMALA project.

Urban development

- **100 Smart Cities** – Retrofit/Redevelop or build Greenfield cities planned.
- Growing Urbanization~75% of GDP by 2030.
- **Smart City Mission:** Drive economic growth and improve the quality of life in the country by enabling local area development and harnessing technology
- **60** cities already approved.
- Projects that commit at least 30% of the total cost for low-cost affordable housing ~ exempted from the minimum built-up area and capitalisation requirements.
- 100% FDI in automatic route permitted for operation of townships, malls, and business centres. Floor area restriction and minimum capitalisation removed; easy exit option for foreign investors.

Investment Outlay:

- Smart Cities Mission from FY2015-16 to FY2019-20 is more than **US$15 billion.**
- Atal Mission for Rejuvenation and Urban Transformation (AMRUT) from FY2015-16 to FY2019-20 is appx. **US$7.5 billion**

Urban development…2

Sector	Investment Potential
Smart Energy	✓ Implementation of 8 smart grid pilot projects with an investment of US$10 million for energy storage ✓ Power Grid Corporation of India has planned to invest US$ 26 billion in the next 5 years; about 130 million smart meters would be installed by 2021.
Smart Environment	✓ The Ministry of Water Resources plans to invest US$ 50 billion in the water sector.
Smart Transportation	✓ Govt. of India has approved a US$4.13 billion plan to spur electric and hybrid vehicle production by setting up an ambitious target of 6 million vehicles by 2020.
Smart ICT	✓ Cloud computing is expected to involve into a US$4.5 billion market in India by end-2016. ✓ US$333 million allocated to 7 cities (Delhi, Mumbai, Kolkata, Chennai, Ahmedabad, Bengaluru and Hyderabad) under the Safe City Project.
Smart Building	✓ India is expected to emerge as the world's 3rd largest construction market by 2020 by adding 11.5 million homes every year. ✓ Intelligent Building Management System market estimated to reach US$ 2 billion by end-2016.

AMRUT

Atal Mission for Rejuvenation and Urban Transformation

- AMRUT envisages urban India's transformation by focusing on:
  - ➢Water supply.
  - ➢Sewerage facilities and septage management.
  - ➢Storm water drains to reduce flooding.
  - ➢Pedestrian, non-motorized and public transport facilities, parking spaces etc.
  - ➢Enhancing amenity value of cities by creating and upgrading green spaces, parks and recreation centers, especially for children.

- **500 cities selected.**
- **Total estimated outlay: USD7.5 billion till 2019**

BUSINESS OPPORTUNITIES

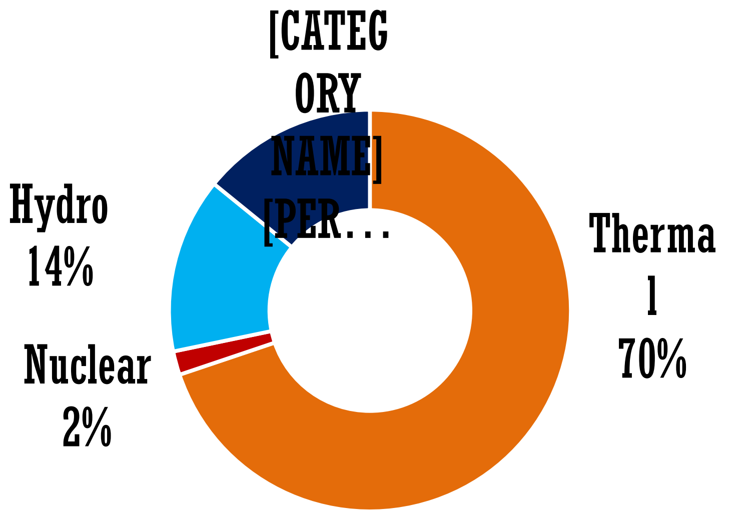
- Water treatment plants, pipelines, metering and grid management solutions, de-silting, ground-water recharge, etc.
- Waste management: decentralized underground sewerage networks, sewage treatment plants, waste collection-transport treatment integration, septage cleaning-transport treatment, storm water drainage and reuse, etc.
- Urban transportation: Ferry vessels, pathways, skywalks, non-motorised transport, multi-level smart parking, bus rapid transport system, etc.
- Green zone components: Landscaping, creating of green infrastructure (parks, ponds, etc.), vertical greening, etc.
- Reform implementation would need services like implementation, consulting, monitoring and evaluation services

Power for All (PFA)

- 24x7 power to all households, industry, commercial businesses, agriculture farm holdings, and any other electricity consuming entity by FY 2018-19.
- PFA covers the entire spectrum of the power sector, including generation, transmission, distribution, renewables, energy conservation and customer initiatives.
- Focus on modernising transmission and distribution infrastructure.
- Setting up 5 new coal–based Ultra Mega Power Projects (UMPPs) with supercritical technology, under the plug and play model ~ investments of USD15.1 billion.

- **New Renewable Targets By 2022:**
  - Solar: 100GW
  - Wind: 60 GW

- **International Solar Alliance (ISA):**
  - Coalition of 121 prospective member countries between the Tropics of Cancer & Capricorn. ISA will be a Treaty-based organization, headquartered in India.
  - ISA Framework Agreement opened up for signature in Marrakech during COP22.
  - 27 Countries already signed up.



Investment Outlay:
US$45.2 billion in power transmission and distribution business to achieve its targets under the Power for All initiative.

The government has set a goal to add 115,603 MW of power capacity by 2017 and 101,745 MW between 2017 and 2022

Coal Mines Special Provisions Bill, 2015: Allocation of coal blocks through auctioning.

Renewable Energy

Grid-connected Capacity (Sept. 2016):

Renewable Source	GW
Wind	28.08
Solar	8.51
Bio-Power	4.99
Small Hydro	4.32
TOTAL	**45.91**

Off-Grid /Captive Power (Sept. 2016):

Renewable Source	GW
Waste-to-Energy, Biomass cogeneration, Biomass Gasifiers, Aero-generators, Solar Photovoltaic Systems, Water Mills	**1.38**

India's
Intended Nationally Determined Contribution (INDC)

- ❑ Reduce the emissions intensity per unit GDP by 33 to 35 percent below 2005 by 2030.
- ❑ Increase the share of non-fossil-based power capacity from 30 percent today to about 40 percent by 2030.
- ❑ Create an additional carbon sink of 2.5 to 3 billion tons of CO_2 through additional forest and tree cover.

SOLAR

India's Solar Potential: **748 GW**

National Solar Mission: 100GW by 2022…Capacity break-up:

- Rooftop Scheme : 40GW
- Entrepreneur Scheme : 20GW
- Already planned : 10GW
- State Policy : 10GW
- Public Sector : 10GW
- Private Sector : 5GW
- Independent Power Producers : 5GW

- ❑ New target envisages **$100 Billion** investment in solar over the next 7 years.
- ❑ Fixed targets for grid-connected solar power through the mandatory use of Renewable Purchase Obligations (RPOs) by utilities backed with a preferential tariff.

- ❑ Majority of Indian projects adopted crystalline silicon technology, with an average efficiency of 16-17%.

Current status of manufacturing:

- ❑ At the start of April 2016, India had 1.2GW of cell and 5.6GW of module production capacity.
- ❑ Photo-Voltaic industry dependent on imports of critical raw materials and components.
- ❑ Low capacity to manufacture silicon material & solar thermal.

Opportunity for Manufacture:

- ❑ Concentrator collectors, receivers, crystalline silicon technology components etc.
- ❑ Off-grid technologies: Micro grids of 150 watts (powering 20 households) to 5 kilo watt (40 households and commercial use like water pumps) in villages; lanterns, street lighting; refrigeration etc.

Business Models in India:

- **Feed-in-tariff:** Developers sign a PPA at fixed tariffs.
- **Renewable Energy Certificates.**
- **Open Access** – Developer supplies to any 3rd party at negotiated rates.
- **Captive & Group Captive:** Consumers offtake the majority of the output from the captive & own at least 26% of equity.
- **Sites & Parks** - Developer develops the infrastructure and charges a rental fee from

Policy Support:

- 100% FDI via auto route for solar cell manufacture.
- 10-year tax-holiday for solar projects.
- Accelerated depreciation @80% within first 2 years of commercial operation.
- Exemption from Open Access Charges, Wheeling & Banking Charges etc.
- Developers get a fixed sum per unit energy generated in addition to tariff.
- No Excise Duty for RE generation components.
- Customs Duty @ 5% for selected components of RE generation power projects.
- 30% subsidy for off-grid PV & Solar Thermal.
- Payment Security Mechanism to cover defaults by state utilities/distribution companies.

WIND

Facts:

- National Institute of Wind Energy (NIWE) estimated that India's installable wind energy potential is about **302 GW** with towers of a height of **100 metres**.
- India ranks No.4 in terms of installation capacity after China, the US and Germany.
  - Installed Capacity: 28.08 GW (Sept 2016)
  - Tamil Nadu installed capacity: 7.63 GW.
- New Capacity Installation Target: 60 GW by 2022.
- Domestic wind manufacturing capacity: 10,000 MW
- **Turbine suppliers:** Gamesa, Suzlon, Inox, Regen, Wind World, LM Wind and Senvion.
- **Grid integration challenges:**
  - Green Corridor programme: Objective is to improve linkage between India's regional (southern) grids with its national grid.
  - This will facilitate interstate transmission.

National Offshore Wind Energy Policy, 2015 (NOWEP)

- Guidelines allow for setting up offshore wind farms within territorial waters that extend up to 200 nautical miles from the coastal baselines of India.
- NIWE will allocate the blocks to the project developers through an open international competitive bidding process.
- NIWE will give single window clearance.
- Environmental Impact Assessment, oceanographic surveys, environmental audit etc. to be done before the blocks of offshore wind energy can be demarcated.

Policy Support:

- Raw material used in manufacturing of wind turbine generators have been exempted from the Special Additional Duty of 4%.
- No excise duty and Customs duty @ 5% on import of forged steel rings used in the manufacture of bearings used in wind operated electricity generators.
- Accelerated depreciation (AD) @40% (*to save income tax*) and Generation Based Incentive (GBI) Scheme: 50 paise per kWhr of electricity generated for at least 4 years and up to 10 years. Incentive will stop once pay-out reaches INR 1 crore (US$ 163,000) per MW of capacity. Scheme ends 2017. Companies can opt either for AD or GBI, but not both.
- The tax on coal for the National Clean Energy Fund (NCEF) doubled to Rs. 400 per ton. NCEF is used for supporting research and clean energy technology solutions.

Oil

Fossil fuel meets 75% of energy demand.

- **Crude Oil Dependency – 81%**
- **Gas import dependency – 45%.**

- **2015-16: Crude Oil**
  - Imports @ 202 MMT.
  - Domestic Production @ 37 MMT
- **Crude Suppliers:** Middle East – 58%, South America – 18%, Africa – 16%, and Russia – 0.1%.
- **Refining Capacity:**
  - Existing: 230 MMTPA spread across 23 refineries.
  - Will grow to 310 MMTPA in next few years.

Strategic Oil Reserves:

- Phase-I: Underground rock caverns for storage of 5.33 MMT of crude oil at Vishakhapatnam (1.33 MMT), Mangalore (1.50 MMT) and Padur (2.5 MMT) have been created.
- 5.33 MMT reserve of Phase-I is estimated to supply appx. 10.5 days of crude requirement (consumption of 2015-16).
- Phase-2: Caverns at 2 more locations - Chandikhole in Odisha and Bikaner in Rajasthan, will be set up.
- Phase 1 + Phase 2 = 15.33 MMT of Strategic reserve capacity of
- There is 63 days of estimated commercial reserve of crude oil, petroleum products and gas in India.

Oil…2

To enhance domestic oil and gas production on March 10, 2016 Government announced the **Hydrocarbon Exploration and Licensing Policy (HELP):**

- **Uniform license:** Enabling exploration and production of all forms of hydrocarbon - conventional as well as unconventional oil and gas resources including CBM, shale gas/oil, tight gas and gas hydrates.
- **Open acreage policy:** To enable E&P companies choose the blocks from the designated area.
- **Cess and import duty** will not be applicable on blocks awarded under the new policy.
- **Marketing and pricing freedom** for the crude oil and natural gas produced.
- **Revenue sharing model**
  - Government will not be concerned with the cost incurred and will receive a share of the gross revenue from the sale of oil, gas etc.
  - Lower royalty rates for offshore areas.

FDI Policy:

- 100% FDI through automatic route is allowed for exploration activities of oil fields, infrastructure related to marketing of petroleum products, petroleum product pipelines, market study and formulation and petroleum refining in private sector.
- 49% FDI allowed in Petroleum refining owned by Public Sector Undertaking (PSU), without any disinvestment or dilution of domestic equity in the existing PSUs.

Gas

Government Targets:

- ❑ Move towards a gas based economy
- ❑ Energy Basket: Share of natural gas to rise to 15%.
- ❑ Double LNG imports to 50 MMTPA in next few years.

(1MMTPA=1.314 bcm)

LPG

- ❑ Imports @ 9 million tonnes
- ❑ Major Suppliers: Qatar, Saudi, and UAE

4th largest LNG importer in the world

- ❑ Sources: Qatar – 61%, Nigeria – 14.7%, Others – 24.3%
- ❑ 2014-1: 18.5 bcm
- ❑ 2015-16: 21.3 bcm
- ❑ 2016-17 (Estimated): 28 bcm

Domestic Gas Production @ 32 BCM (-4.2%)

Dynamics of Gas Pricing in India

- ❑ Landed price of re-gasified LNG determines demand.
- ❑ MENA region, India's preferred LNG source. New sourcing destinations
  - ▪ Australia, the US, and Russia.
  - ▪ Australia: Expanding liquefaction capacity to 85 MMTPA by 2020.
  - ▪ U.S.: 50 MMTPA by 2019.
- ❑ LNG prices below $8 per mmbtu more acceptable in India.

Natural Gas Pipeline Network:

- ❑ Operation: 16,232 Km (412 MMSCMD per day)
- ❑ Construction: 8,604 Km (400 MMSCMD per day)

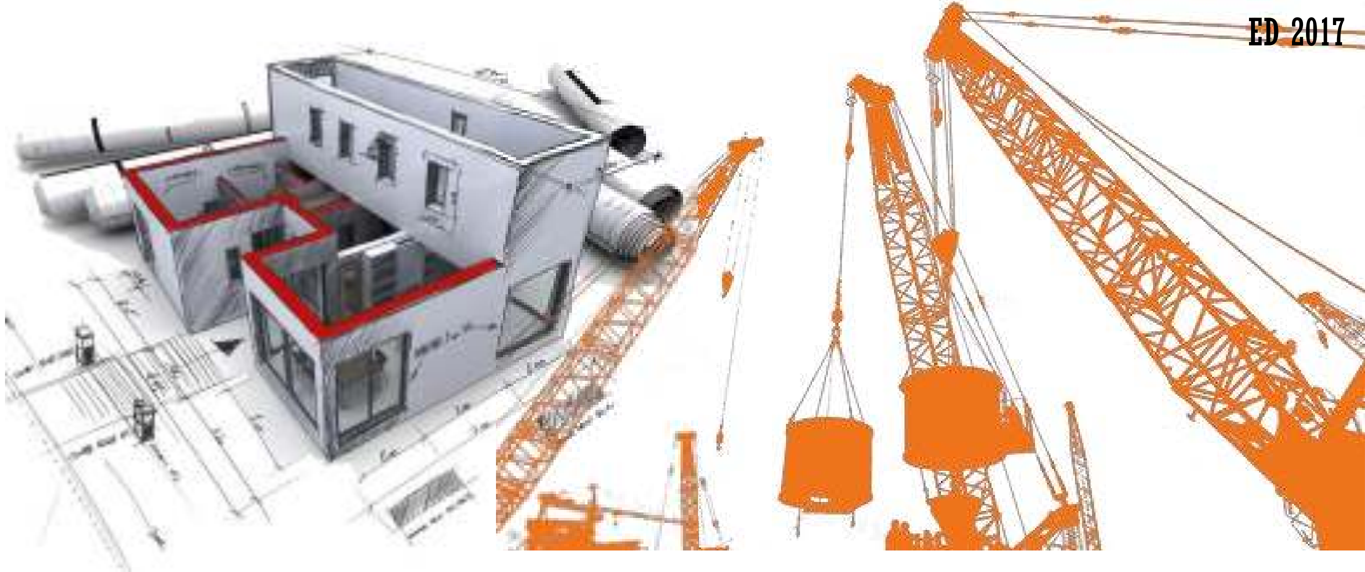
FDI Policy: 100% FDI through automatic route allowed in Exploration activities of natural gas fields, infrastructure related to marketing of natural gas, natural gas/pipelines, and LNG Regasification infrastructure.

- Total **installed LNG capacity in India** is **21.6** MMTPA
  - Dahej: 10 MMTPA
  - Hazira: 5 MMTA
  - Kochi: 5 MMTPA
  - Dabhol: 1.6 MMTA

- **New LNG Terminals:**
  - New LNG terminal of 5 MMTPA at Ennore, Tamil Nadu is at an advanced stage.
  - Two new R-LNG terminals of 5 MMTPA capacity each (at Dhamra and Kakinada on the east coast) are also planned to be developed.

- **Future LNG Regasification capacity:**
  - >65 MMTPA of new capacity planned by 2030
  - Both land-based LNG terminals and Floating Storage Re-gasification Unit (FSRU)

CONSTRUCTION



100% FDI by automatic route is allowed in construction development of the following:

- Townships
- Roads & Bridges
- Residential & Commercial premises
- Hotels & resorts
- Hospitals
- Educational institutions
- Recreational facilities
- City and regional level infrastructure.

- 100% FDI under automatic route is permitted in completed projects for operation and management of townships, malls/ shopping complexes and business centres.
- No minimum floor area or minimum capitalization requirement.

- Each phase of construction development project will be considered as a separate project for the purposes of FDI.
- A **foreign investor will be permitted to exit and repatriate foreign investment before the completion of project** under automatic route, subject to a lock-in-period of three years.
- **Lock-in period will not apply for FDI** into hotels and resorts, hospitals, SEZs, educational institutions, old age homes and NRI investments.
- FDI is not permitted in an entity which is engaged or proposes to engage in real estate business, construction of farm houses and trading in transferable development rights (TDRs).
- **Budget 2017-18:** Affordable housing will be given "infrastructure" status…enabling low-cost housing to avail associated benefits.

Textiles & Garments

- Textiles contribute 5% to GDP; 14% to overall Index of Industrial Production (IIP) and 15% to exports.
- 2nd largest employer after agriculture ~ employs over 45 million people directly and 60 million indirectly.
- 2nd largest producer of textiles and garments in the world.
- Availability of complete value chain – from fibre to fashion.
- 1st in global jute & cotton production; and 2nd largest producer of silk & manmade fibres.
- India accounts for almost 24% of the world's spindle capacity and 8% of global rotor capacity.
- 100% FDI allowed in Textiles.
- 60%+ of textile & garments exported to the U.S. and EU.
- India has FTA with ASEAN
- Current market size is $127 Billion (Domestic~$87 Billion and Exports~$40 Billion)…expected to grow to $223 Billion by 2021.
- Global textile/garment sourcing houses have offices in India.

- Govt. of India approved a Rs 6,000 crore (US$900 million) package for textiles and apparel sector with an aim to create 10 million new jobs in three years and attract investments of $11 billion with an eye on $30 billion in exports.
- **Technology Upgradation Fund Scheme (TUFS):** Rolled out in Jan 2016 with a budget provision of Rs.17,822 crores ($2.3 Billion) for the next 7 years; expected to attract an investment of Rs. 1 lakh crore ($15 Billion) and generate 3 million jobs.
- **Apparel and Garment Centres** set up in all the 8 North Eastern States to promote entrepreneurship in apparel manufacturing and provide employment to the local population
- **Integrated Processing Development Scheme** rolled out to provide up to 50% assistance for Common Effluent Treatment Plants with Zero Liquid Discharge system, subject to a ceiling of Rs.75 crore; six projects sanctioned to support processing clusters.

Textile Machinery

- Market size for textile machinery sub-sector is Rs 12,308 crore.
- The sector has been growing at 5.1% p.a over last 3 years.
- Production, currently at Rs 6,960 Cr has grown by 9.6% p.a.
- Import constitutes a significant portion of total demand at 63%; also 35% of total production is exported.

TECHNOLOGY GAPS IN TEXTILE MACHINERY

WEAVING

- Shuttleless looms (rapier >400 rpm; air jet > 800 rpm; water jet > 800 rpm)

KNITTING

- High speed circular knitting machinery (Micro -processors)
- Warp knitting

PROCESSING

- Environmentally sustainable processing,
- High speed wide width processing and
- Special purpose processing and finishing machinery (e.g. plasma-finishing)

INDUSTRIAL STICHING

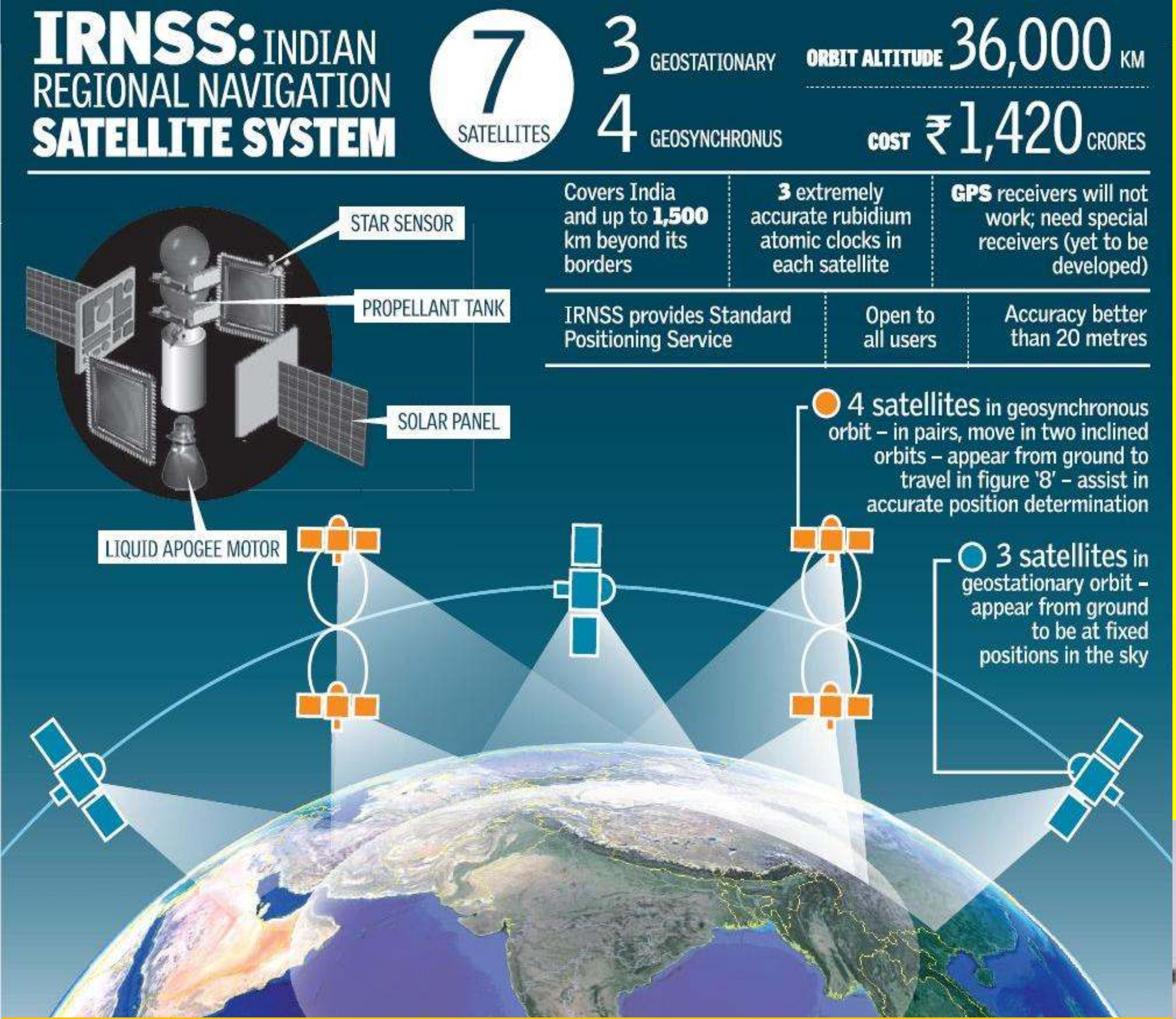
- Hi-tech industrial stitching/sewing machinery (lockstitch, over-lock, Cover stitch, bar tacking, pocket set, button holes, etc.)

Space

- **ISRO:** Established in 1969, the Indian Space Research Organization (ISRO) is headquartered Bengaluru. Its vision is to "harness space technology for national development", while pursuing space science research and planetary exploration.

- **ANTRIX:** Is the commercial arm of ISRO and an agency for providing launch services for customer satellites, on-board ISRO's launch vehicles - Polar Satellite Launch Vehicle (PSLV) and Geo-Synchronous Satellite Launch Vehicle (GSLV).

- **Feb 15, 2017:** ISRO successfully launched a record **104 satellites** in one go using the PSLV… Of the 104 satellites, 101 belong to foreign countries.
  - 96 from U.S. and one each from Israel, Kazakhstan, the Netherlands, and Switzerland.



- **1960s:** Beginning of the Indian space program.
- **1975:** Launched 1st satellite –ARYABHATTA.
- **2008/09 Chandrayaan-1:** India's 1st unmanned moon mission carried the Moon Impact Probe payload and made the discovery of water on the moon.
- **2014:** 1st country to **reach Mars** in its 1st attempt.
- **2014:** Successfully tested the **"crew module"** aboard the **GSLV MK3**.
- **May 2016:** Successfully tested the Reusable Launch Vehicle-Technology Demonstrator (**RLV-TD**).
- **June 22, 2016:** ISRO launched 20 satellites in one mission.
- **Aug 2016:** ISRO successfully tested the indigenously developed **Scram Set** (or air breathing) engine.. The engine will be used to power India's Reusable Launch Vehicle at hypersonic speed.

April 2016: India completed launching **7 satellites** as part of the **Indian Regional Navigation Satellite System** to offer **GPS services**.


RLV-TD

DEFENCE

- 4th largest defence spender @ US$ 50.7Bn (2016-17)…estimated to reach US$ 64Bn by 2020.
- 36% of defence spend assigned to capital acquisitions.
- Only 25% of defence equipment is manufactured in India.

Defence Procurement Policy – DPP 2016

- Highest preference for Indigenous Designed Developed and Manufactured (IDDM) equipment.
- Sourcing Norms: 60% to be locally sourced if design not Indian; and 40% local content if design is Indian.
- Offsets policy liberalized for foreign vendors: Obligation to invest at least 30% of the contract value in India will kick in at Rs.2,000 crore, a significant increase from the (previously @ Rs.300-crore)
- Special focus on MSMEs, and on "Make in India".
- 10% weightage for superior technology, instead of selecting the lowest bidder only in financial terms.

Defence Production – Self reliance

- All naval ships & submarines are being built in India.
- 75% of the total acquisition orders of the Indian Army are with Indian firms.
- Examples: Tejas LCA; Naval Warships – INS Kochi & INS Kolkata; Submarine – INS Kalvari; Akash Missile System; HTT40 – Basic Trainer aircraft; Dhanush-155mm/45 calibre artillery gun system etc.

New Defence Deals concluded:

- 36 Rafale jets – Deliveries between Sept 2019 to Apr 2022 – Provision for offsets ~50% of value.
- 2 Phalcon/IL-76 AWACS valued and 10 Heron TP UAVs.

Domestic Players:

- Between Jan 2001 and Feb 2016, 333 industrial licences have been granted to private firms for defence manufacturing.
- Serious players such as Bharat Forge Ltd (BFL), Reliance Industries Ltd (RIL), Tata group, Larsen and Toubro Ltd (L&T), Godrej Group and the Mahindra Group have built a portfolio in electronics, land systems, aerospace products and short-range missiles.
- BFL has tied up with Rafael Advanced Defense Systems Ltd and Elbit Systems Ltd and UK-based Rolls-Royce Corp.
- Tata group has tied up with US-based firms Sikorsky Aircraft Corp., Lockheed Martin Corp. and Boeing Co.
- Reliance has tied up with the French company Thales (for underwater systems), Ukraine-based Antonov (for transport aircraft) and Israel's Rafael (for air-to-air missiles).
- Mahindra has tied up with Airbus for helicopters and UK's Ultra Electronics for underwater weapon systems.

Indigenously developed Tejas LCA inducted into the Indian Air Force in July 2016

Defence Export Regime:

- Requirement of End User Certificate (EUC) has been dispensed with for the export of parts, component, sub-assemblies and sub-systems;
- Issuing advance / in principle clearance for exploring business opportunities abroad.
- DRDO laboratories and test facilities of other organizations of the Ministry of Defence (MoD) are made available to the Indian Domestic Defence Industry based on their requirement and availability.
- Exports in 2015-16 reached US$ 303Mn.

CIVIL AVIATION

- 9th largest aviation market in the world with a market size of US$ 16 Billion...3rd largest by 2020.
- Domestic aviation market clocked 81 million flights; a growth of over 20.3% in 2015 — the highest ever growth rate recorded in the world.
- Combined fleet size of all airlines about 430 planes...Airbus and Boeing estimate India will need 1,610 and 1,740 jets, respectively, over the next 20 years.
- Only 75 airports in the country have a scheduled airline service. There are 350 unused airstrips – reviving these airports are high on government agenda.
- Govt. is planning to invest around $120 Billion in airport infrastructure and aviation navigation services over the next decade.

Growth Drivers:

- Growing economy and rising disposable incomes.
- Increased competition among airlines, especially among low-cost carriers.
- Fall in prices of Aviation Turbine Fuel.
- Rise tourism flows – E-visa scheme extended to 150 countries.
- Modern airports, and greater use of technology.

New Civil Aviation Policy 2016:

- Airlines can commence international operations provided they deploy 20 aircraft or 20% of total capacity, whichever is higher.
- Open Skies Policy for SAARC and countries beyond 5000 km from Delhi.
- Focus on Regional Connectivity.

New Order:

- Spice Jet, India's 4th biggest airline - 13% share, is buying up to 205 Boeing planes worth $22 Billion to fuel major expansion of its domestic operations.

MRO business opportunity:

- The Maintenance, Repair and Overhauling (MRO) business of Indian carriers is around US$ 750Mn;
- 90% of Indian airplanes are serviced outside India – in Sri Lanka, Singapore, Malaysia, UAE etc.

Liberalized FDI Policy:

- 100% FDI through automatic route in greenfield airports.
- 100% FDI in brownfield – automatic route up to 74% and government route beyond 74%.
- 49% FDI through automatic route in Scheduled Air Transport / Domestic Passenger Airline…100% for NRIs.
- 100% FDI through automatic route in non-scheduled air transport service
- 100% FDI through automatic route in Helicopter / Seaplane services.
- 100% FDI through automatic route in MRO operations, flying training institutes, and technical training institutions.
- 100% FDI through automatic route in Ground Handling Operations.

NEW MRO POLICY:

- Tools and tool-kits used by the MRO have been exempted from Customs and Excise duty.
- Restriction of one year for utilisation of duty free parts removed.
- Import of unserviceable parts by MROs for providing exchange / advance exchange allowed.
- Foreign aircraft brought to India for MRO work will be allowed to stay up to 6 months or as extended by the Directorate General of Civil Aviation (DGCA). The aircraft can carry passengers in the flights at the beginning and end of the stay period in India.

AUTOMOTIVE

- India's automotive industry is one of the most competitive in the world.
- Auto industry produced a total 19.84 million vehicles (passenger vehicles, commercial vehicles, three wheelers and two wheelers) in April 2015-January 2016.
- Auto sector attracted FDI worth US$ 15.07 billion during the period April 2000 to March 2016.
- Auto-component industry is growing at a fast pace. The turnover of the ancillary industry reached US$ 40 billion in 2015, while exports were at US$ 11 billion.
- The majority of India's car manufacturing industry is evenly divided into three "clusters" located in Chennai in Tamil Naidu, Pune in Maharashtra and Manesar in Haryana.

- ❑ Auto sector contributes 7% of India's GDP.
- ❑ 3rd largest market globally with an annual turnover of USD 145 billion by 2016.
- ❑ 31% of small cars sold globally are manufactured in India.
- ❑ Auto industry will grow to US$ 260 to 300 billion by 2026 – Create 65million additional jobs and contribute over 12% to India's GDP.
- ❑ National Mission for Electric Mobility (NMEM) 2020 to foster adoption of electric and hybrid vehicles and encourage their manufacturing in India.
- ❑ 100% FDI allowed in auto sector via the automatic route.

START-UP INDIA

#startupindia

Envisions building a strong eco-system for nurturing innovation and Startups in the country and empowering Startups to grow through innovation and design.

Features of the Scheme:

- Simple Compliance Regime based on Self-certification
- Legal support & fast-tracking patent examination at reduced costs.
- Relaxed norms of public procurement for start-ups
- Faster Exit.
- Fund support through a corpus of US$ 1.5Bn.
- Credit guarantee support ~ US$ 75Mn per year for 4 years (ending in 2020)
- Tax exemption for 3 years.
- Start-Up Fests & Annual Incubator Challenge

- India ranks 3rd globally in terms of the number of start-ups.
- 19,000 technology-enabled start-ups. Dominated by Internet and financial services start-ups.
- World's youngest start-up nation ~ 72% founders less than 35 years in age.
- Bengaluru ranks 15th globally in Start-up Ecosystem Ranking for 2015.
- Number of start-ups with Series A round funding in 2014 was 46 while it increased to 114 in 2015.
- Total Start Up investment: $4.7 billion in 2014 to $ 7.2 billion in 2015.

Venture Capitalists (VC) operating in India:

- Early VCs: Seedfund, Accel, Kae Capital, and Venture East.
- Late VCs: Helion, Sequoia, Matrix.

DIGITAL INDIA

VISION:

- **Digital infrastructure for every citizen**: This includes internet availability, digital identity, mobile phones, bank accounts, safe and secure cyber space, etc.
- **Governance and services on demand**: It includes real-time availability of services on mobile phones and online platforms, enabling electronic and cashless financial transactions possible, etc.
- **Digital empowerment of citizens:** It encompasses universal digital literacy, availability of digital resources in Indian languages, etc.

ACTION PLAN:

- Setting up of a pan-India fibre-optic network .
- Wi-Fi services in cities with a population of more than 1 million.
- Broadband access to 250,000 village clusters by 2019
- Digital lockers to each citizen, allowing them to store all their original identification documents and records
- Universal mobile phone connectivity
- Net Zero Electronic Imports by 2020
- Focus on moving toward automation in delivery of government services
- Achievement of a leadership position in IT toward betterment of health, education and banking services

BUSINESS OPPORTUNITIES:

- Electronics manufacturing
- Telecom sector
- On-line education
- Healthcare
- Broadband sector

Highlights of Budget 2017-18:

- Budget for pan-India Fibre-option network increased to Rs. 10,000 crores ($1.5 Bn)
- End 2017-18, high speed broadband connectivity on optical fiber will be available in more than 150,000 villages under Bharat Net Scheme.
- A DigiGaon (Digital Village) initiative will be launched to provide tele-medicine, education and skills to villages through digital technology.

DEMONETIZATION

Nov 8, 2016: Demonetisation of high denomination bank notes (Rs. 500 and Rs. 1000) announced.

Reasons for Demonetization:

- Rampant Tax evasion.
- Bred a parallel economy; unacceptable for an inclusive society.

What will demonetisation achieve?

- Eliminate corruption, black money, counterfeit currency and terror funding.
- Promote digitisation of the economy.
- Increased flow of financial savings and greater formalisation of the economy, all of which would eventually lead to cleaner and higher GDP growth and tax revenues.

Will Demonetization slow down the Indian Economy?

- To have only a transient impact on the economy.
- Surplus liquidity, created by demonetisation, will lower borrowing costs and increase the access to credit. This will boost economic activity, with multiplier effects.

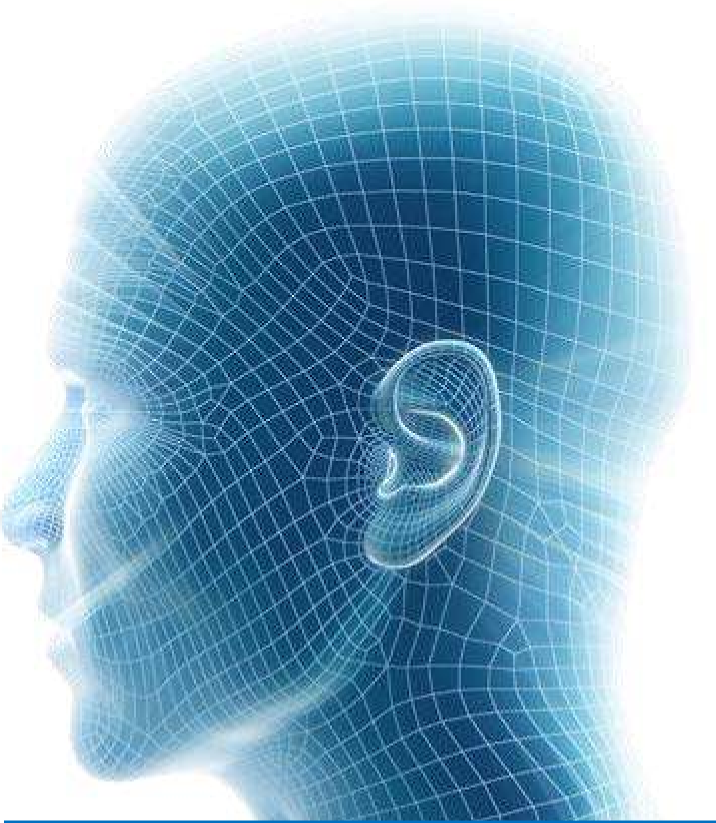
IMF while revising India's GDP forecast for 2016, has projected a GDP growth of 7.2% and 7.7% in 2017 and 2018 respectively.

Government Efforts to Promote Digital Payments

- **BHIM App:** A unified payment interface (directly linked to the bank account – no need to load money) and which allows wire transfers between two bank accounts has been launched.
- **Schemes to promote the usage of BHIM:** Referral Bonus Scheme for Individuals and Cash Back Scheme for Merchants.
- **Aadhar Pay**: A merchant version of Aadhar (National Identification Card) enabled payment system will be launched…to benefit those without debit cards, and mobile phones.
- Transaction above Rs. 300,000 will not be permitted in cash.
- **Exemption of Customs and Excise** on Micro ATMs as per standards version 1.5.1, Fingerprint reader / scanner, Iris Scanner, Miniaturised POS card reader for m-POS (other than Mobile phone or Tablet Computer), Parts and components for manufacture of the above mentioned devices.

IT

- India is fast emerging as a digital economy…Digital India, Make in India, Skilling India are creating a renewed thrust on the domestic market.
- Indian IT companies can offer solutions in the following segments:
  - ✓ Social Mobile Analytics & Cloud (SMAC),
  - ✓ ERP, CRM, mobility and user experience technologies.
  - ✓ Business Process Management sector, which is being driven by greater automation, expanding omni-channel presence, application of analytics across entire value chain.



- ❑ 2015: Indian IT Industry clocked revenues of USD 146 billion…Exports segment USD 98.5 Billion…Domestic market grew by 14%- fuelled by ecommerce
- ❑ 2016: Exports to grow by 12-14%; Domestic market – 15-17%.

INDIA for IT

- The Indian IT and ITeS industry is divided into 4 major segments – IT services, Business Process Management (BPM), software products & engineering services, and hardware.
- The IT-Business Process Management (IT-BPM) industry constitutes 8.1% of India's GDP, adding about USD115 to 120 billion to the Indian economy.
- Largest export market for IT Services: U.S. & EU.
- India - world's largest sourcing destination for IT industry, accounting for 67% of the US$ 124-130 billion market.
- Cost competitive in providing IT services – 3 to 4 times cheaper than the US.
- India is also gaining prominence in terms of intellectual capital with several global IT firms setting up their innovation centres in India.

ELECTRONICS

- Indian Electronics System Design and Manufacturing (ESDM) industry is one of the fastest growing sectors in the country.

- Changing global landscapes in electronics design and manufacturing capabilities, and cost structures have turned the attention of global companies towards India.

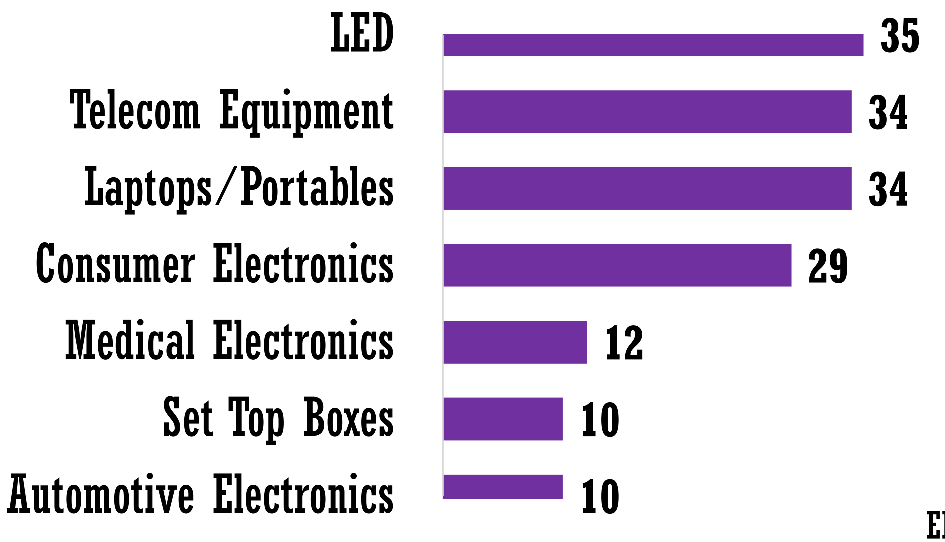
- **State of Play:**
  - 65% of the electronics is currently imported;
  - 25-30% of the systems simply assembled;
  - less than 10% of the electronic systems are completely designed and manufactured in India.
  - Almost 100% of semiconductors are imported.
- Domestic production can cater to a demand of only \$100 Bn by 2020… **demand-supply gap of \$300 Bn.**

Electronics imports, are currently the 3rd highest, next to crude and gold.

Top 10 electronic products contributing about 70% by total revenue include:

- Mobile Phones
- Flat Panel TVs
- Notebooks
- Desktops
- Digital Camera
- Inverters & UPS
- Memory Cards & USB Drivers
- 4W EMS
- LCD Monitors
- Servers

Segment: 2020 Mkt. Size



ELECTRONICS…2

- **Policies to promote ESDM industry include:**
  - ✓ National Policy on Electronics
  - ✓ Preferential Market Access
  - ✓ Modified Special Incentive Package (MSIP) Scheme
  - ✓ Fab policy
  - ✓ Electronic Manufacturing Clusters (EMCs) and Information Technology Investment Regions (ITIRs)
  - ✓ Export Incentives

National Policy on Electronics

- To achieve a turnover of $400Bn by 2020 by investing $100Bn.
- To build a supply chain…raise local production from 20~25% to over 60%.

Preferential Market Access

- Preference for locally manufactured electronic goods in Govt. procurement…not less than 30 % of the total procurement.

Modified Special Incentive Package Scheme (MSIPS)

- Subsidy of 25% on Capex if the ESDM unit is in non-SEZ and 20% on capex if within SEZ…available for investments made within 5 years from date of approval.
- 200% deduction on R&D for electronic chip manufacturing units.
- Reimbursement of central taxes and duties (like custom duties, excise duties and service tax) for 10 years in select high- tech units like Fabs, Semiconductor Logic and Memory chips, LCD fabrication…applications accepted till Dec 2018.
- **Budget 2017-18:** US$111 million) worth incentives under MSIPS scheme.

Electronic Manufacturing Clusters Scheme

- Grant assistance for setting up Greenfield & Brownfield EMCs.

Export Incentives

- 0% Basic Customs Duty on products covered under the Information Technology Agreement (ITA) of WTO & Specified raw materials used for manufacture of electronic components and optical fibers and cables.
- Focus Product Scheme (FPS) – Duty Credit 2% of FOB and Special Focus Product Scheme (SFPS) – Duty Credit 5% of FOB.

Pharmaceuticals

- Recognized globally for high quality medicines at affordable prices.
- US$ 30 Billion plus turnover [50% domestic and 50% exports]…CAGR of around 14% since last 5 years.
- Around 10,500 registered manufacturing units.
    - 2500 bulk drug manufacturing units and
    - 8000 formulation units.
- India has 10% of the global bulk drugs market which is @ US$ 110 Billion.
- Ranked 3rd globally in volume and 14th in value.
- Compared to U.S., R&D cost is just 12.5%, Clinical Trials 10% and Manufacturing cost at 35%.
- India supplies:
    - 10% of total global Pharmaceutical production.
    - 20% of total volume of global generics.
    - 30% of the world requirement of Anti-HIV drugs.

- India produces medicines under all therapeutic categories: Anti-infective, Cardio-vascular, Anti-cancer, Anti-AIDs, Gynaecology, Neurological, Dermatology, Gastro-intestinal, Respiratory, Analgesics, Anti Diabetic, Vitamins/ Minerals/ Nutrients etc.
- Exports to 200+ countries. Top markets - U.S., Russia, Germany, Austria & UK.
- India has the largest US-FDA, WHO-GMP, EDQM, TGA, MHRA and Health Canada compliant pharma plants outside USA.
- 1400 WHO-GMP approved plants, and 253 EDQM approved plants are located in India.

New Initiatives:

- Track and trace system (barcoding) for export of pharmaceuticals and drug consignments.
- 100% FDI allowed in Greenfield & Brownfield pharma projects.

- **India Pharma Vision 2020:**
    - ❖ Making India one of the leading destinations for end-to-end drug discovery and innovation.
    - ❖ Catapult India into one of the top five pharmaceutical innovation hubs by 2020.

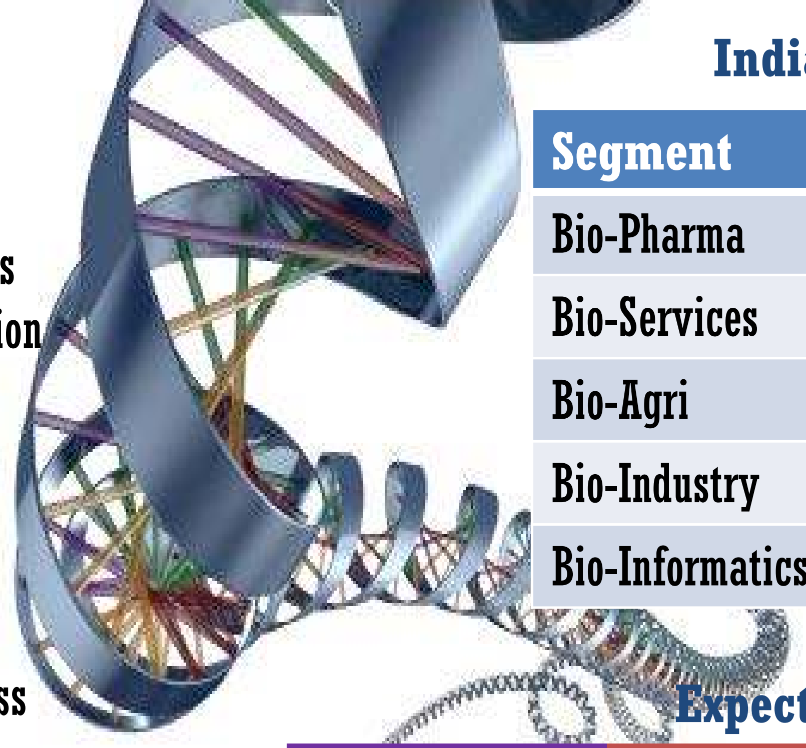
Biotechnology

- India ranks amongst the top 12 biotech destinations in the world and ranks 3rd in the Asia-Pacific region
- Industry growth…in excess of 20% CAGR.

India's Strengths:

- Top-ranked universities.
- World-class strengths in chemical, biological, and environmental sciences alongside a fabulous process engineering community.
- Pharma companies that have solid track records in manufacturing products and processes related to chemical compounds, including enzymes, proteins and antibodies.
- Cost arbitrage of up to 50% for global companies wanting a presence in India.
- Abundant and Diverse genetic profile.
- Established biotechnology infrastructure.

100% FDI is allowed in Bio-technology



India's Biotech Industry (2015)

Segment	Revenue	% Share
Bio-Pharma	US$ 4.2 Billion	62%
Bio-Services	US$ 1.3 Billion	18%
Bio-Agri	US$ 1.0 Billion	15%
Bio-Industry	US$ 270 Million	4%
Bio-Informatics	US$ 70 Million	1%

Source: Frost & Sullivan

Expected CAGR (2016-25)

Bio-Parma	Bio-Services	Bio-Parma	Bio-Industrial
❑ API manufacturing ❑ Biosimilars ❑ Cell & Gene Therapay ❑ Biologics ➢ Marine Technology	❑ Clinical Research Organizations (CROs) ❖ Contract Manufacturers (CMOs)	❑ Genetically Modified Vegetables ❑ Transgenic Rice ❖ Horticulture ➢ Bio-Fertilizers	❖ Bio-Textile ➢ Waste-Treatment ➢ Bio-Fuels

❑ >25% growth ❖ 15-25% growth ➢ 10-15% growth

Medical Equipment

- US$ 5.5Bn Indian medical equipment market ~ 4th in Asia after Japan, China and South Korea.
- Expected to be a USD 25-30Bn industry by 2025…growing at a CAGR of around 15%.
- Imports constitute around 75% of sales (30% from U.S.).
- 750+ medical devices manufacturers present in India ~ SMEs and MSMEs (90% with annual turnover >USD10M) have a 25% market share.
- MNC ~ share of 40%–50% in consumables, instruments and appliances and, 80%–90% in all other sub-segments.
- Several MNCs have been increasing their manufacturing footprint and locating research centres in India to serve both the Indian and global markets.

Indigenous Manufacturing:

- Haryana: Low-end consumables, dental equipment
- Gujarat: Stent manufacturing
- Karnataka: Medical IT, Implants, PCR machines
- Tamil Nadu: Diagnostics, Critical Life Support systems, Ophthalmology.
- Indian manufacturers are producing low-cost, high-quality devices and are also exporting to specific regions:

Indigenous Product	Export Destination
Heart Valve	Thailand, Kenya, Myanmar
Low Cost ACT Scanner	Southeast Asia
Ultrasound & Color Doppler	Japan
Intra-ocular Lens	African countries

Medical Equip…2

- Segments of the Indian medical device industry:

Segment	Market Share
Instruments & appliances	34%
Diagnostic imaging	31%
Consumables and implants	19%
Patient aids and others	16%

Regulatory Structure:

- Medical devices are treated as "drugs" under the Drugs & Cosmetics Act, 1940
- Jan 2015: Draft Drugs & Cosmetics (Amendment) Bill 2015 released.
- April 2015: Dept. of Pharmaceuticals issued the Draft National Medical Device Policy 2015, which sets out the regulatory structure for medical devices.

Growth Drivers:

- Rising Income levels: Per-capita income to rise from the current US$1,508 to US$2,672 by 2020.
- Ageing Population: Population above 60 years of age is expected to reach 300 million by 2050.
- Increased Prevalence of life-style diseases
- Governments commitment to provide better healthcare: Per-capita healthcare expenditure to increase from 1.04% of GDP to 2.5% of GDP by 2020.

Why Manufacture in India?

- FDI up to 100% under the automatic route permitted for manufacturing of medical devices.
- Legal regime robust…India is a signatory to the TRIPS Agreement and has strong patent, trade mark and copyright protection.
- Competition law to ensure level playing field.
- **Budget 2017-18:** New Rules to be formulated to attract investments in the Medical Devices sector.

E&RD

- According to Consulting Firm – Zinnov: "India accounted for $12.3 billion, or 40%, of the total of $31 billion of globalized engineering and R&D (E&RD) in 2015".

- The Indian E&RD market is expected to reach US$ 38 Bn by 2020.

- Services offered by Indian E&RD Firms include:
  - Supporting clients on innovation
  - Enabling access to new markets (SBMs)
  - Designing products for emerging markets (frugal engineering)
  - Innovating on existing designs to suit market needs and client requirements
  - Driving end-to-end product development

- There are over 400 service providers and captives offering ER&D services from India
- Over 200,000 engineers have been employed by service providers and captives in India
- Indian service providers invest around 3.5% in R&D
- India-based ER&D centres resulted in cost savings of USD 20 billion for global organisations

E-commerce

- India's E-commerce business valued @ US$ 38 Bn 2016…US$70~90 Bn by 2020.
- 70 Mn online shoppers…100 Mn by end-2017.
- 63% of e-commerce is travel-related (tickets, hotel bookings etc.
- E-tail business @ 29%
- Mobile/DTH recharge seeing >1 Mn transactions per day.
- Electronics & Apparel are choicest purchases.

❑ India's leading e-commerce companies – Flipkart (45% share), Snapdeal (26%), Amazon (12%), PayTM (7%) and Others (10%).

❑ Mode of Payment: Cash on Delivery (76%), Debit Cards (10%), Credit Cards (7%), Net Banking (5%), and Others (2%)

Policy Support:

- 100% FDI via automatic route is permitted in B2B e-commerce.
- FDI in B2C e-commerce is permitted in the following cases:
    - ❑ Single brand entities allowed to venture into E-commerce.
    - ❑ Manufacturers allowed to sell via e-commerce.

DRIVERS of E-commerce:

❑ Young demography: >90% of online shoppers in India belong to the 18 – 35 year age group.
❑ Gender usage: 65% male and 35% female
❑ Rising Broadband & 3G penetration
❑ Rising standards of living & upwardly mobile middle class with high disposable incomes and busy lifestyles.
❑ Urbanisation will increase to 40% from 31%
❑ Growing nuclear households.

Growth in Mobile Phone user base is helping the growth of the E-commerce Industry

- According to World Bank: "A 10% increase in broadband penetration would yield a 1.38% increase in GDP growth".
- India's Internet economy to reach a value of US$200 billion by 2017.
- **2016 data**:
    - ❑ **1 Billion+** active mobile phone subscriptions.
    - ❑ **402 million+** internet users.
    - ❑ **300 million+** smart phone users.

Retail

Market Size: India's retail market (Organized and unorganized) is about US$ 600 Billion…expected to reach over US$ 1 Trillion by 2020.

Organized Retail Stands at 8% today…to grow to 15-17% by 2020.

Growth Drivers:

- Favorable demographics
- Increasing urbanization
- Nuclear families
- Rising affluence
- Growing preference for branded products; and
- Higher aspirations

Multi-Brand Retail:

- 51% FDI allowed (through Govt. route).
- Minimum FDI: $100 Million.
- 50% of FDI to be invested in '**backend infrastructure**' within 3 years of the first tranche of FDI.
- Back-end infrastructure: Investment towards processing, manufacturing, distribution, design improvement, quality control, packaging, logistics, storage, ware-house, and agriculture market produce infrastructure.
- Investment in Land and payment of Rent not counted as "Back-end".
- At least **30% domestic sourcing** from small industries (with investments of US$ 1 Million).

Cash & Carry / Wholesale:

- 100% FDI allowed through the Automatic route;
- Brand owners can wholesale activities.

Duty Free:

- 100% FDI permitted under automatic route in Duty Free Shops located and operated in the Customs bonded areas.

Single Brand Retail:

- 100% FDI allowed through the Govt. route.
- 30% of local sourcing mandatory. Requirement to be reached over a period of 5 years the date of opening of first outlet.
- 30% local sourcing requirement relaxed for High technology products (e.g., Apple products) subject to government approval
- Single-brand retail trade permitted to undertake ecommerce activities.

Food Processing

- Size of the Indian Food Market @ US$ 191 Bn.
- Processed Food Market over US$ 100 Bn.
- Low-level of food processing: Less than 10%
  - Fruits & Vegetables – 2%
  - Poultry – 6%
  - Marine – 8%
  - Milk – 35%
- India has an arable land of 184 million hectares, 20 agri-climatic regions and 46 of the 60 soil types in the world.
  - No. 1 producer of milk in the world at 90 million tons per annum.
  - 2nd largest producer of fruits & vegetables – 150 million tons.
  - 3rd largest producer of foodgrains & fish.
  - Largest livestock population – 512 million
- Growth Drivers: Large raw material base, over 1 Billion consumer base, and proximity to food importing nations.

A 2012 study (adjusted for 2014 wholesale prices) estimated that the annual value of harvest and post-harvest losses of major agricultural produce in India was of the order of Rs. 92,651 crore or US$ 14 Billion.

THRUST ON DEVELOPMENT:

- 42 Mega Food Parks
- 138 Cold Chain Projects
- 60 Modern Abattoirs

Organic Food Market:

- High unorganized.
- Dominated by pulses and foodgrains.
- Growing at 25-30% annually.
- Current market size @ US$ 360 million…Projected to reach US$ 1.36 Billion by 2020.
- Practiced in 12 states in about 4.72 million hectares.
- Govt. plans to bring an additional 200,000 hectares of land under organic farming by 2018.
- State of Sikkim is the first 100% producer of organic food in India.

Production of Food Maps

- Ministry of Food Processing Industry along with YES Bank released Food Maps on India.
- Apart from providing details on availability of fruits and vegetables, the maps cover all major agri commodity classes - Cereals, Oilseeds, F&V, Meat, Poultry, Fish and Dairy.
- Graphs on annual food wastage, current food processing levels across major perishables and state-wise share of food processing industries are included.

Food Processing…2

Policy Support:

National Agricultural Market – E-market Platform launched.

- E-market platform for farmers to sell produce to licensed traders at any wholesale market in India.
- Platform launched on April 14, 2016 and at present links 21 wholesale markets in 8 states.
- 585 wholesale markets to be linked by March 2018.
- Expected to benefit small farmers.
- www.enam.gov.in

Mega Food Parks Scheme (MFPS)

- MFPS are modern infrastructure facilities for food processing along the value chain from farm to market based on hub and spokes model.
- Each MFPS is spread over 50 acres of land and will have 30-35 units with an investment of about Rs. 250 Crore or US$ 37.5 million.
- Financial assistance provided in the form of grant-in-aid @ 50% of eligible project cost in general areas and @ 75% of eligible project cost in North East Region and difficult areas subject to maximum of Rs. 50 crore (US$ 7.5 million) per project.
- 42 MFPS approved – 5 operational.

Cold Chain Scheme (CCS)

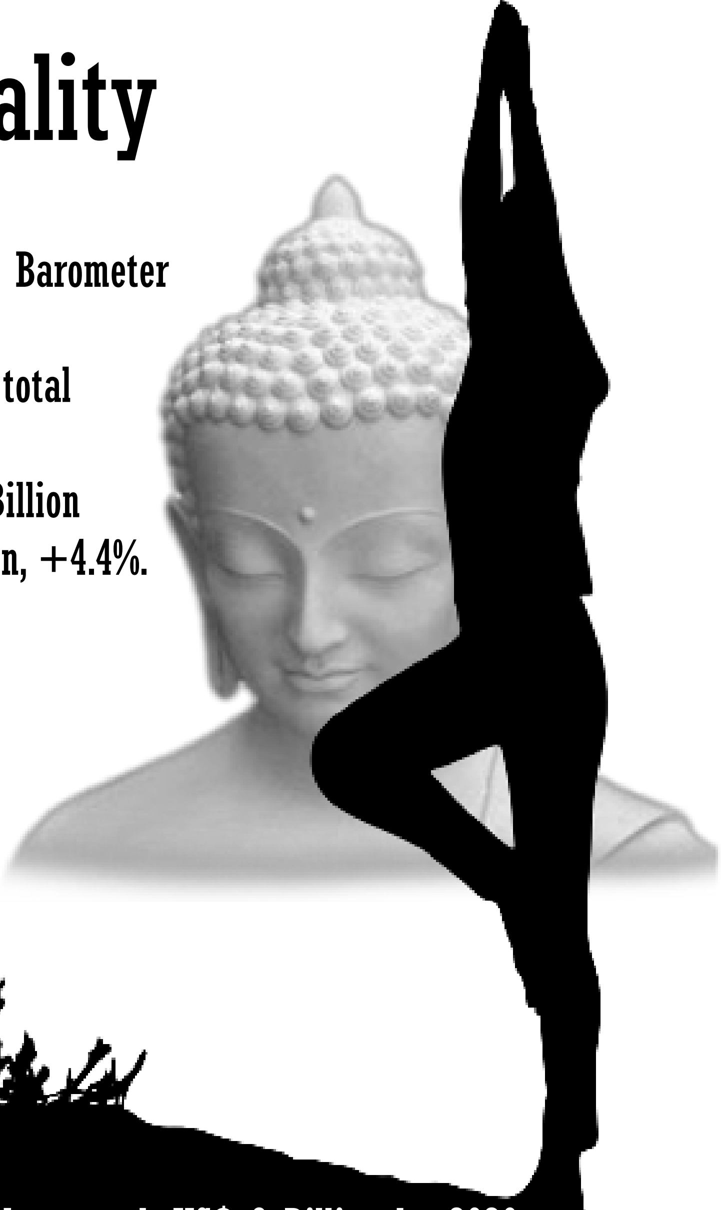
- Financial assistance in the form of grant-in-aid @ 50% of the total cost of plant and machinery and technical civil works in general areas and 75% for difficult areas subject to a maximum of Rs.10.00 crore.

FDI Policy & List of select Incentives:

- 100% FDI is allowed under automatic route in food processing industry and food infrastructure including food parks, distillation & brewing of alcohol, cold storage chain and warehousing.
- 100% FDI is allowed through the Govt. route in the marketing of food products produced and manufactured in India.
- 150% deduction allowed for setting and operating cold chain facility or warehousing facility for agricultural produce.
- 100% deduction allowed for beekeeping and production of honey and beewax.
- 100% Tax exemption for first 5 years of operation, and after that 25% of profits are exempted from tax. Benefit allowed for 10 years.
- No excise duty on machinery for installation of cold storage or for preservation, storage, or processing of agricultural, apiary, horticultural, dairy, poultry, aquatic and meat products.
- Customs Duty @ 5% for all goods related to food processing imported as part of a project.

Tourism & Hospitality

- India ranks 40th globally in terms of international tourist arrivals. (UNWTO Barometer – May 2016)
- Tourism sector contributes 12.36% of total employment.
- Tourism Earnings in 2015: US$ 19.6 Billion
- Total Foreign Tourist Arrivals: 8 million, +4.4%.
- Region-wise tourist arrivals in India:
  - West – 30.6%
  - South – 29.1%
  - North – 28.4%
  - East – 11.4%
  - North East – 0.5%



Incredible India

Policy Support:

- Hotel and Tourism related industry has been declared a high priority industry and Foreign Direct Investment (FDI) is allowed up to 100% under the automatic route.
- Extension of Investment Linked tax incentives under Section 35AD of the Income Tax Act to new hotels of 2-Star category and above anywhere in India.
- Reserve Bank of India (RBI) has de-linked credit for hotel projects from Commercial Real Estate (CRE), thereby enabling hotel projects to avail credit at relaxed norms and reduced interest rates.
- Ministry of Finance has included the following two categories of hotels in the "Harmonized List of Infrastructure Sub-sector".
  - Three Star or higher category classified hotels located outside cities with population of more than 1 million.
  - Hotels with a project cost of more than Rs.200 crore ($30 Mn) each in any place in India and of any star rating.
- E-Visa scheme extended to 150 countries.

Wellness Tourism

- Currently a 3 Billion market…expected to reach US$ 8 Billion by 2020.
- India is well-known for its quality and affordable surgeries for heart bypass, heart valve replacement, angioplasty, hip replacement, knee replacement, spinal fusion etc.
- World class hospital infrastructure.

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THANK YOU
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