

### India yesterday ...

### Two decades back

an investor travelling to India left with the following images...





The Gods



The Crowds

### And today an investor leaves with .....

Pro-active Government	Rising Economy	Infra Thrust	India Inc.	
				Indian economy
Ease of Doing Business	Demographic Dividends			is expected to grow at 7.3 per
Make in India	FDI liberalization	100 Smart Cities	M&A deals worth \$104.5 bn in 2018	cent in calendar year 2019 and
Structural Reforms	Tax reforms, GST	प्रथान मंत्री आवास योजना-शहरी Pisthan Manthi Awas Vojana-Vitian	World's 3rd largest start-up ecosystem	2020 - Moody's
Digital India	BSE– world rank top 10	Mission to Mars MANGALYAAN	4 <sup>th</sup> highest billionaire population	

## The India story: A picture of positivity

Moody's has raised India's credit rating from the lowest investment grade of Baa3 to Baa2, and changed the outlook from stable to positive

"India's GDP will exceed that of Japan and Germany combined. Indian output will also exceed the combined output of the three next largest emerging market economies - Russia, Brazil and Indonesia."

– Christine Lagarde, IMF Chief

India has jumped 53 places in last 2 years to reach the 77<sup>th</sup> rank in Ease of Doing Business rankings by World Bank

*"India is becoming an entrepreneurship model for the world"* 

- John Chambers, Ex-CISCO

"Starting of business was made easier through consolidation of multiple application forms and introduction of GST, while getting electricity was made faster and cheaper".

- World Bank



## Advantage India

GDP	Growth rate	Forex	Road network
<b>Bargest</b> Largest size in GDP (PPP) as per IMF - \$ 9.5 Trillion	<b>6.6%</b> For Q3 FY'18	\$407 Billion as per RBI	<b>2nd</b> Largest In the world 59 Lakh KM
Internet Users	Labour force	Urban population	Electronic Sector
<b>463</b> <b>Million</b> Also, 2 <sup>nd</sup> largest online market in the world	527 Million in September 2018	<b>3777</b> Million as per 2011 census (Every sixth person getting urbanized globally is an Indian)	\$400bn Electronic market expected to reach by 2020

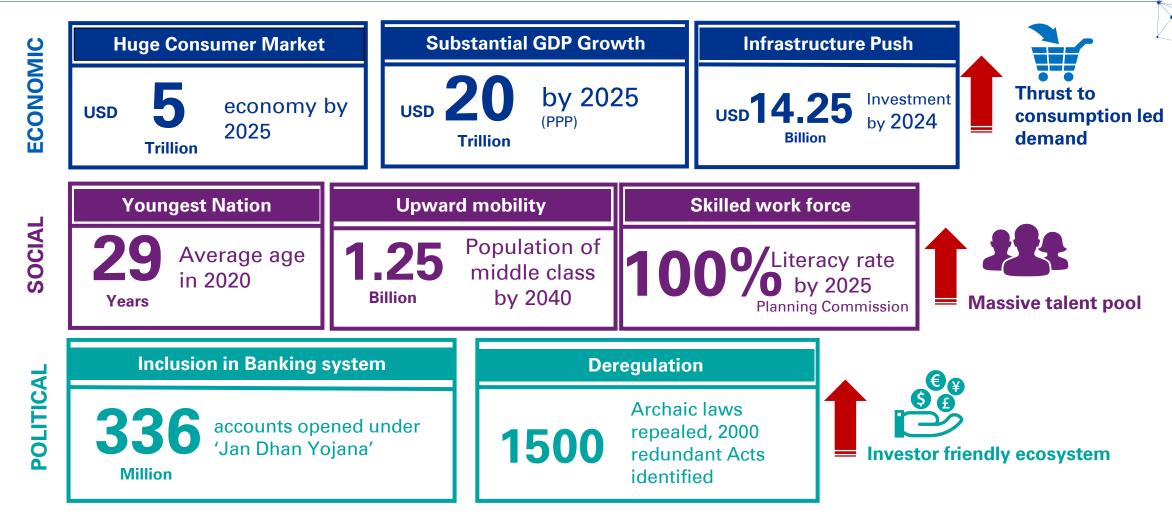
India's growth is set to pick up and is expected to grow at 7.2 per cent in the current fiscal on strengthening consumption - ADB

Source: Business Today, Economic times, Business Standard, Statista, Livemint, IBEF, The World Bank, Assocham, KPMG in India analysis

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## Creating unprecedented opportunities



Source: Financial express, moneycontrol, KPMG in India analysis, World Bank, India today





### KPMG in India



KPMG in India today combines over **11,300 professionals** led by over **600 Partners** and Directors

Established in September 1993, KPMG in India today operates from **21 offices in 14 cities** around the country

### **100+ services**

tailored to meet client needs and the market demand

### Services to over **5,000 clients in India**





# Government reforms



# Source of eureka.... government's big ticket programs

### Make in India

Enhancing manufacturing through investments, innovation, and infrastructure

### **Digital India**

Provides digital infrastructure and governance services to all citizens



### **Ease of doing business**

To enhance business conduciveness, through investor-friendly measures

### **Competitive federalism**

A system to rank states based on the 98-point action plan launched to enhance business conditions

### **Start-up India**

To build a strong eco-system for nurturing innovation and entrepreneurship



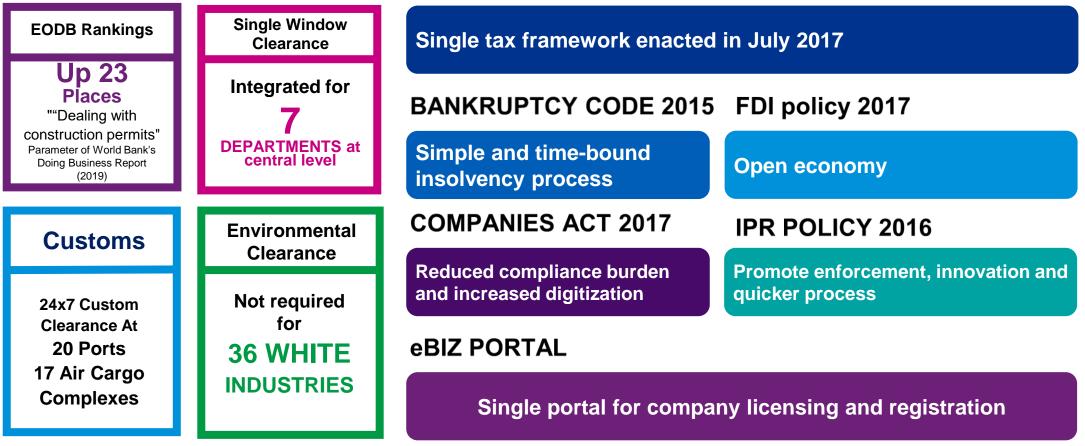
### **Skill India**

400 million youth to be skilled by 2022



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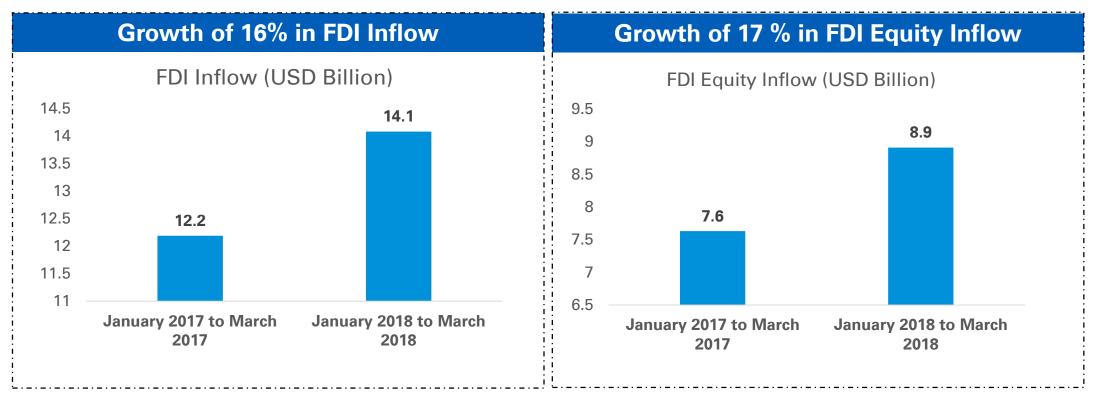
### **GOODS & SERVICES TAX**



Source: Make in India



### Unprecedented growth in FDI inflows in the last 2 years



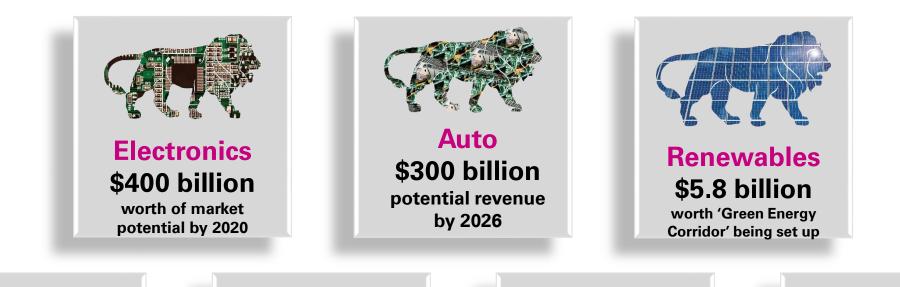
#### Electronics market in India is projected to reach \$ 400 billion by 2020

#### Source: DIPP, Make in India



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# For investors to tap the growing opportunity





Chemical \$200 billion growth by 2020

Source: Make in India



Electrical Machinery \$100 billion market value by 2022



Auto Comp \$200 billion potential turnover by 2026



IT & BPM \$300 billion growth by 2020



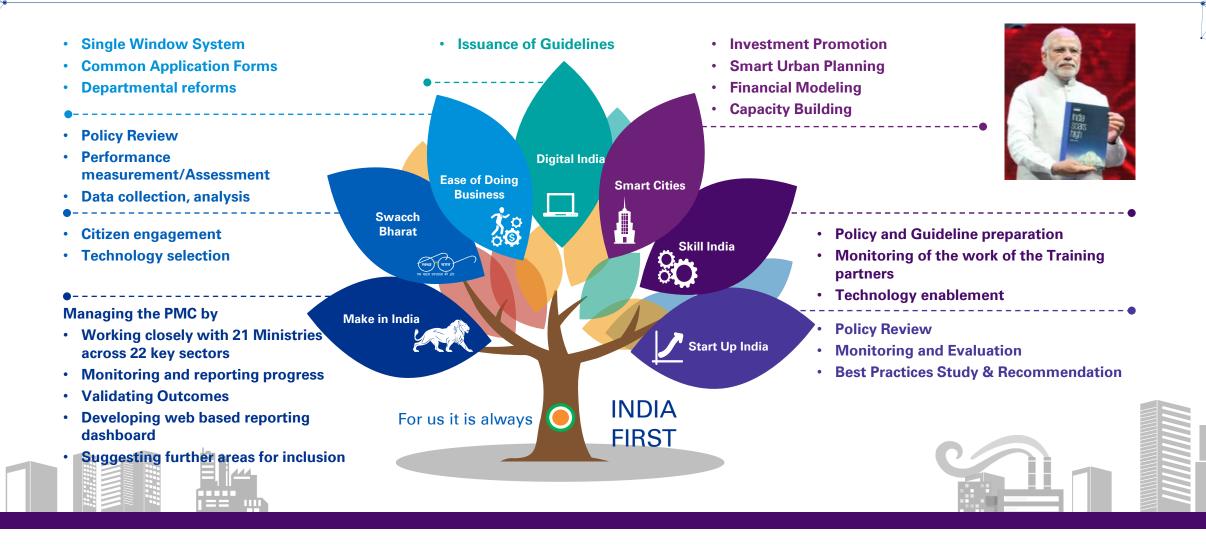
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## India - Taiwan Bilateral Relations



Source: Taipei Economic and Cultural Center and Invest India

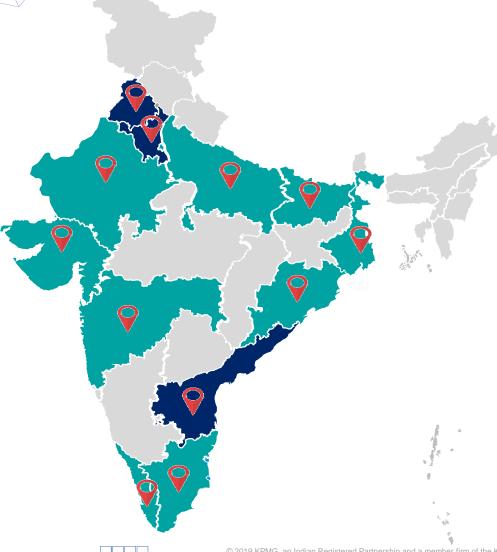






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# We are the leaders in IP and Regulatory reforms - have supported top 12 States over the past 3 years



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#### Andhra Pradesh

- Dedicated sector policies with attractive incentives: ESDM, IT, Agro FP, Textiles etc,
- · Dedicated Electronic manufacturing clusters to provide end to end ecosystem to industry
- Streamlined online land allotment and GIS based plot selection
- Assisted State in becoming No.1 in Ease of Doing Business rankings

#### Haryana

- Formulation of sector specific policies: IT&ESDM, Warehousing, Logistics & Retail, Textiles, Agro FP, Pharma etc.
- Sector specific IP event: Digital Haryana IP event themed on ESDM
- Dedicated incubator for IoT in collaboration with NASSCOM
- · Land reforms: GIS based land bank and transparent procedure for land allotment
- Assisted State in moving to 3<sup>rd</sup> rank from 6<sup>th</sup> rank in EoDB rankings 2017-18

#### Punjab

- Robust Industrial policy with a special focus on ESDM sector offering incentives up to 200% of fixed capital investment (FCI)
- Invest-Punjab Business First portal provides all regulatory clearances through a single window without any physical touch point
- Facilitating IT/ESDM companies to setup units on 1700 acres land reserved for IT/ESDM sector

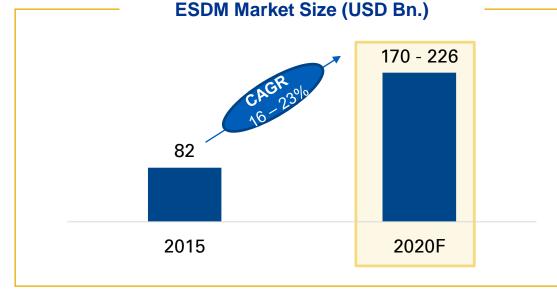
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# Sector opportunity

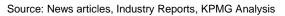


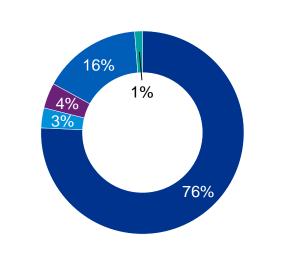
## ESDM sector is amongst the top 3 sectors attracting FDI



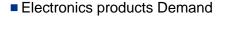
### **Key Facts**

- ~75% of India's rapidly growing ESDM demand is still met through imports, despite the market growing at a robust rate
- Mobile Devices and Consumer Electronics are the largest segments, contributing to Electronics Manufacturing revenues in India
- As increasing focus on local manufacturing and design led growth of the ESDM sector, IESA provided a budgetary support of USD110 million through schemes (FY 2017)





#### Market Segmentation (%) – 2015



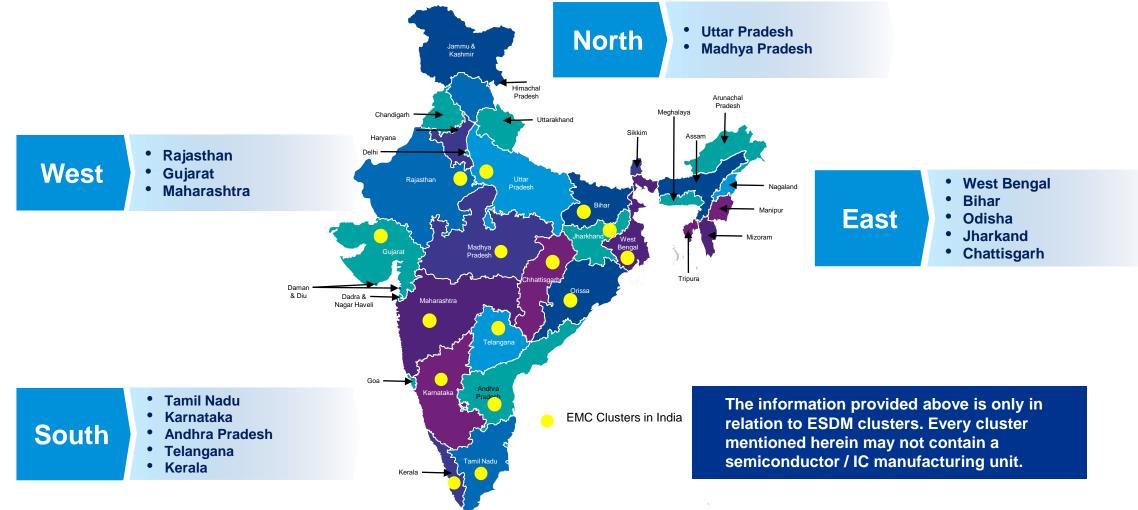
- Electronics products Exports
- Electronic component Market revenues from local manufacturing
- Design services market revenues
- EMS services revenues.

#### **Growth Drivers**

- Strong domestic consumer demand due to India's rising disposable incomes and digitalization
- Government Focus on setting up local manufacturing and assembling facilities through a combination of tax sops, industry-wide incentives, ease in foreign direct investment (FDI) rules, and raising import duties
- Policies and incentive schemes such as NEP, M-SIPS, EMCs driving investment and domestic participation



# India has 30+ cities with EDSM presence, with Bengaluru accounting for the majority

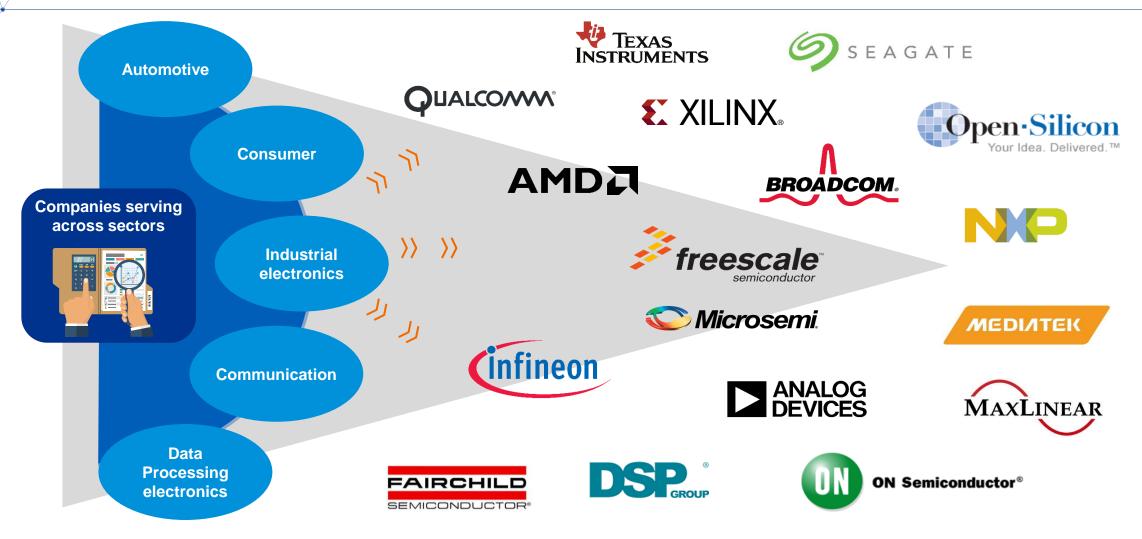


Source: News articles, Industry Reports, KPMG Analysis

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### There are several large players establishing presence in India



Source: News articles, Industry Reports, KPMG Analysis



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# Automotive Electronics and Mobile Devices are the fastest growing end markets for the ESDM Industry

End Use Industries	Future growth	Demand Drivers
Automotive Electronics		Advent of electric vehicles, increasing focus on automobile efficiency, connectivity and digitalization, energy alternatives like Lithium Iron battery, combined with development of futuristic technologies like autonomous driving etc.
Mobile Devices		Growth in demand due to availability of affordable smartphones, exponentially decreasine data tariffs and adoption of 5G technology
Telecom Equipment		Large scale deployment of 3G/4G/5G technologies, sensors, switches, Internet of Thing (IoT) and increasing rural demand for telecom services
Consumer Electronics		Rising disposable incomes, rise in urbanization, higher organized retail and availability of India-centric products
Information Technology & Source Automation		GOI push for "Digital India" and smart cities; growth of IT operations data, adoption of Bring-Your-Own-Device and IoT in organizations across industries
Industrial Machinery		Push for Make in India, industrial automation, demand for intelligent machinery from sectors like heavy engineering, automobiles, aerospace etc.

Illustrative outlook by potential end use segments

V. High

High

Source: News articles, Industry Reports, KPMG Analysis



V. LOW

l ow

Moderate

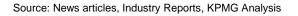
# Key Opportunities lie across various industries for the semiconductor market

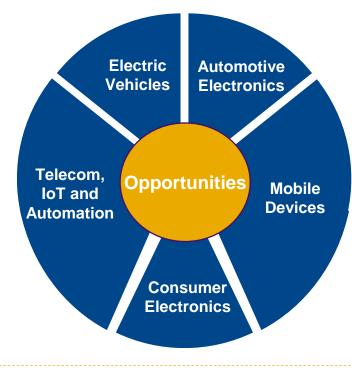
#### **Electric Vehicles**

- On board charger
- DC Converter
- Engine Control Unit
- · Electronic Power steering
- Automotive Cluster & LCD monitor
- HVAC Control Module

#### **Telecom, IoT and Automation**

- Communication Blocks WiFi, Bluetooth processers
- Power supply blocks
- Motor Driver block
- Interface blocks
- Switches, Routers





#### **Consumer Electronics**

- LED/ LCD Panels Sensors, Drivers
- Power Management Block
- Sensor IC
- Remote Control Wireless module, Sensors, LED drivers

#### **Automotive Electronics**

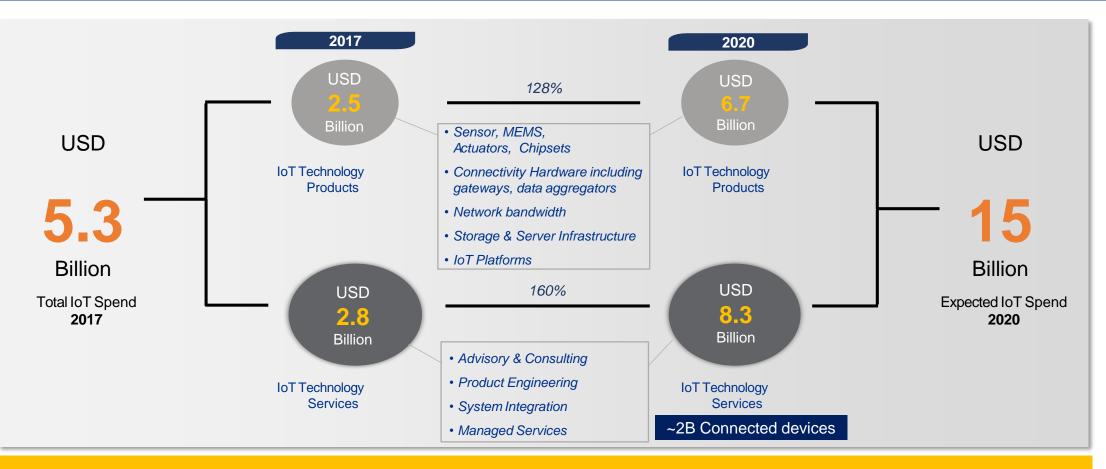
- LED Lighting
- Door, window and seat control system
- · Heating, ventilation and air conditioning
- · Navigation systems
- Telematics
- Transmission

#### **Mobile Devices**

- LED Drivers and screens
- Sensors Gyro, UV, Acceleration
- Lens Motor Drivers
- Amplifiers Headphone, Class-D
- Terrestrial Digital Black
- Camera module systems



# IoT can be a game changer in terms of opportunities in India



• Out of nearly 150+ startups, 60% have emerged during the last 3 years

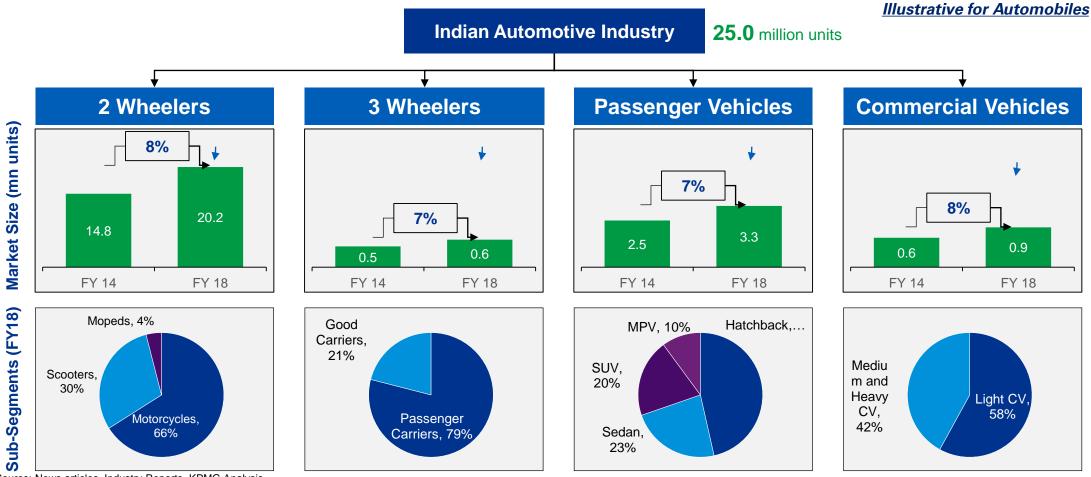
Indian IoT ecosystem has a diverse set of players including Hardware Vendors, Application Vendors, Network Operators and System Integrators

Source: Economic Times, NASSCOM, IDC Estimates

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### Automotive Industry

Indian Automotive Industry is estimated at 25 million units in FY 18. It is divided into 4 key segments – two wheelers (81%), three wheelers (3%), passenger vehicles (13%) and commercial vehicles (3%)



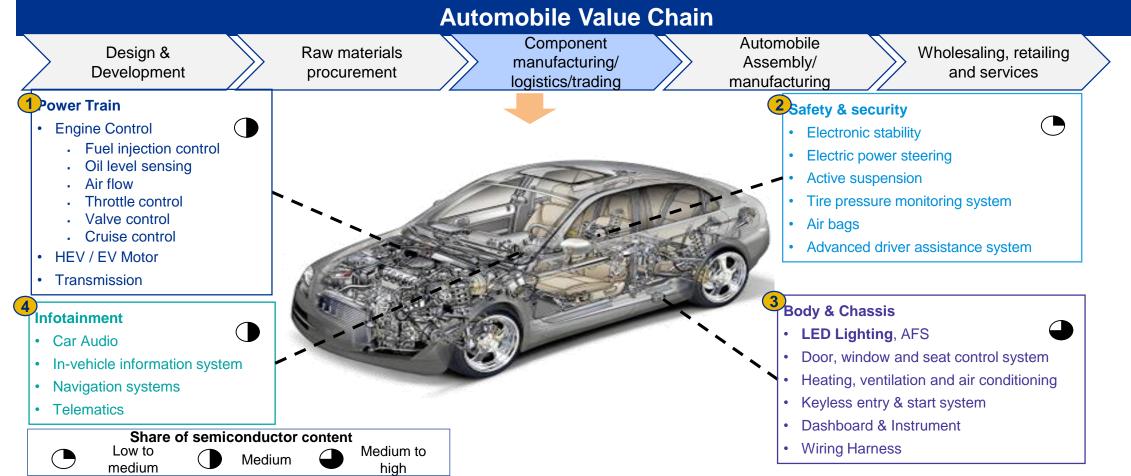
Source: News articles, Industry Reports, KPMG Analysis

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# In automobile value chain, semiconductors are used typically in the auto components manufacturing/trading stages



• Global auto component players such as Magnetic Marelli and Varroc are key suppliers of head/tail lamps to 2W/4W OEMs in India

• While there is some level of local manufacturing of sub-systems of LED lighting such as Heat Sink, Driver and PCB, the LED chip is mostly imported by both OEMs and EMS Source: News articles, Industry Reports, KPMG Analysis





# Operating environment



## National Policy on Electronics 2019

National Policy on Electronics (NPE 2019), approved by MeitY in February 2019, will replace NPE 2012 and proposes to propel the growth of ESDM industry in India

### Key Features

- Create eco-system for globally competitive ESDM sector: Promoting domestic manufacturing and export in the entire value-chain of ESDM
- Provide special package of incentives for mega projects which are extremely high-tech and entail huge investments, such as semiconductor facilities display fabrication, etc.
- Formulate suitable schemes and incentive mechanisms to encourage new units and expansion of existing units
- Promote Industry-led R&D and innovation in electronics, including grass root level innovations and Start-ups in emerging technology areas such as 5G, IoT, AI, Machine Learning, VR, Drones, Nano-based devices, etc.
- Provide incentives and support for significantly enhancing availability of skilled manpower, including re-skilling
- Special thrust on Fabless Chip Design Industry, Automotive Electronics Industry and Power Electronics for Mobility and Strategic Electronics Industry
- Create Sovereign Patent Fund (SPF) to promote the development and acquisition of IPs in ESDM sector
- Promote trusted electronics value chain initiatives to improve national cyber security profile

### **KEY TARGETS**

Promote domestic manufacturing and export in the entire value-chain of ESDM for economic development



Turnover of USD 400 Bn. by 2025

Targeted production of 1 Bn. Mobile handsets by 2025

Including 600 Mn. Handsets for exports

MAJOR IMPAC

Increased flow of investment and technology Higher value addition in domestic manufacturing



Source: News articles, Industry Reports, KPMG Analysis



# National Policy on Electronics has driven growth for the ESDM Sector in India through multiple initiatives and reforms



Ecosystem for global competitiveness





Source: News articles, Industry Reports, KPMG Analysis

- Encourage domestic manufacturing by building a comprehensive ecosystem, covering the entire supply chain, through suitable **Phased Manufacturing Programme (PMP)** and/or fiscal interventions
- Support to Industry through incentive mechanisms such as interest subsidy, credit default guarantee
- Import duty exemption on Capital equipment, to encourage setting up/ expansion of manufacturing units

Streamlining the processes for ESDM enterprises in the country by –

- Establish standards setting committee in MeitY to develop robust standards and guidelines for Electronics, IT, e-Governance etc.
- Create/ upgrade Lab Infrastructure/ Capacity for testing of electronics and IT goods including Cyber Security
- Simplified clearance processes for import of goods associated with R&D and design activity, Start-ups and in emerging technology sectors
- Focus on innovative technologies, research and innovations in emerging areas like IoT, 5G, AI, AR, VR, etc.
- Providing support for setting up of Incubation Centers/ CoE
- Enhancing availability of skilled manpower by setting up institutions and organizations like National Institute of Design and Innovation in Electronics
- Government is working closely with Private sector universities, colleges and other institutions to ensure availability
  of adequate skilled manpower



# National Policy on Electronics has driven growth for the ESDM Sector in India through multiple initiatives and reforms



Focus on removing regulatory barriers and increasing cross-border trade through initiatives –

- Improved export incentive under the Merchandize Export from India Scheme (MEIS) of Foreign Trade Policy
- Free Trade Agreements for electronics goods with emerging/ consumption based economies
- Focus on brand building through Market Development Fund to promote exports



 Provide special packages for Mega Projects such as Fabrication (FAB) units, including infrastructure status for FAB units

- Focus on driving indigenization in the microchips used by strategic and critical infrastructure sectors like Defense, Space etc., for design and production of chips
- Ensuring adoption of **Public Procurement (Preference to Make in India) Order 2017**, by state governments

Other Measures

Source: News articles, Industry Reports, KPMG Analysis

- Increased focus on Research, innovation and support to industry for green processes and sustainable e-waste management, with enforced guidelines on safe disposal of e-waste and development of e-waste recycling industry
- Development and establishment of Eco-parks in all states for safe processing of e-waste
- Facilitation of smooth logistics and warehousing of components and raw material across India, to improve
  operational efficiency



### Success Story - MediaTek

MEDIATEK

### everyday genius

- Over 21 years of existence
- 4<sup>th</sup> position among fabless chipset designers globally, with \$7.8bn revenue in 2017
- Key Focus on R&D, with 24% of revenues re-invested in R&D (2017), with focus on AI, Smart TVs, etc.
- Largest chipmaker for feature phones and tablets, 2<sup>nd</sup> largest for smartphones globally
- Investment of USD 100Mn in Indian semiconductor companies and FinTech companies like PayTM and MobiKwik
- Strong focus on AI and automation technologies to drive future growth

Source: News articles, Industry Reports, KPMG Analysis



Strong Focus on R&D and Innovation

Support for Indian national device standards

#### MediaTek India Key Highlights

- MediaTek started off with making chips for optical drives, feature phones and colour TVs
- Tied up with Indian manufacturers to cater to the local market initially, due to lack of chipmakers
- Provided proposition of complete solution, by providing hardware and software
- MediaTek's current focus on AI enabled Voice Tech devices like Amazon Alexa, etc. and AI focused chips in India
- Key area of concern: Data security and privacy
- Working with domestic brands to gain back market share from Chinese companies
- Working closely with Google to specifically target the ultra-low-cost smartphone segment, through an entry-level platform to help feature phone users to migrate to smartphone





**Price Competitiveness** 

#### **Company Profile**

- Present in India since 2004
- 60% of revenues attributable to chipset sales to smartphones in India
- Investments of over USD 6 Bn to support 'Make in India' initiative
- 600 employees in India, with plans to expand to 1,500 by 2020
- Providing Helio processors to Nokia, Xiaomi, Oppo, Vivo, Realme in India
- Currently, outsource manufacturing to TSMC for fabrication in Taiwan factories. Can begin Indian operations with packaging and testing
- Strong partnerships with Micromax and Lava
- Actively testing its 5G modems in collaboration with Reliance Jio



## Key considerations for entering the market

	1 Market Demand	<ul> <li>What is the expected addressable market potential in India? How is this market expected to grow, going forward?</li> <li>How much demand is being catered through domestic production vis-a-vis imports?</li> </ul>
	2 Value Chain	<ul> <li>What is the value chain for important segments in ESDM sector in India and where do semiconductors have applications in these value chains?</li> <li>What is the value chain for key end-user industries in India?</li> </ul>
Кеу	3 Customer Assessment	<ul> <li>Who are the key end user customers?</li> <li>How do these customers procure components?</li> <li>What are the typical selection criteria for different customers and relative importance of the criteria?</li> </ul>
Considerations	4 Competitor Profiling	<ul> <li>Who are the key players in the market? What is their point of differentiation?</li> <li>What are the strategies adopted by competitors to strengthen their position in the market?</li> </ul>
	5 Risk Assessment	<ul> <li>What are the key risks associated with establishing operations in the Indian market?</li> <li>What are effective mitigation strategies for the identified risks?</li> </ul>
	6 Market Strategy	<ul> <li>What should be market entry/ growth strategy for the Indian market?</li> <li>How should organizations go about implementing the market strategy?</li> </ul>



# Tax and Regulatory Scenario



## The evolving tax and regulatory landscape



### Focused efforts towards creating an investor friendly ecosystem



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## Tax and Regulatory Ecosystem



Imperative to analyze tax and regulatory factors as part of decision-making process



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## Key considerations before investing

### **LEGAL ENTITY CHOICE**

- Company
- Limited Liability Partnership (LLP)
- Branch / Liaison Office / Project Office

### **REPATRIATION OPTIONS**

Dividends, Management Service fee, Royalty, Buy-back of shares etc.

### **MODE OF FUNDING**

- Equity
- Quasi Equity (CCD,CCPS)
  - Debt

### **CHOICE OF JURISDICTION**

Direct investment / Intermediate Holing Company (IHC)

Optimal operating structure and tax incentives also key consideration for framing investment strategy



**Routes for Investment in India** 

### **Automatic Route**

- Permitted for most sectors
- No prior approval; Only post-facto filings
- Use of normal banking channels
- E.g. IT/ ITes, Infrastructure, Manufacturing

### **Approval Route**

- Projects not qualifying under automatic route
- Prior approval of concerned Ministries
- Limits on foreign investments for certain sectors
- E.g. Defence, broadcasting, print media etc.

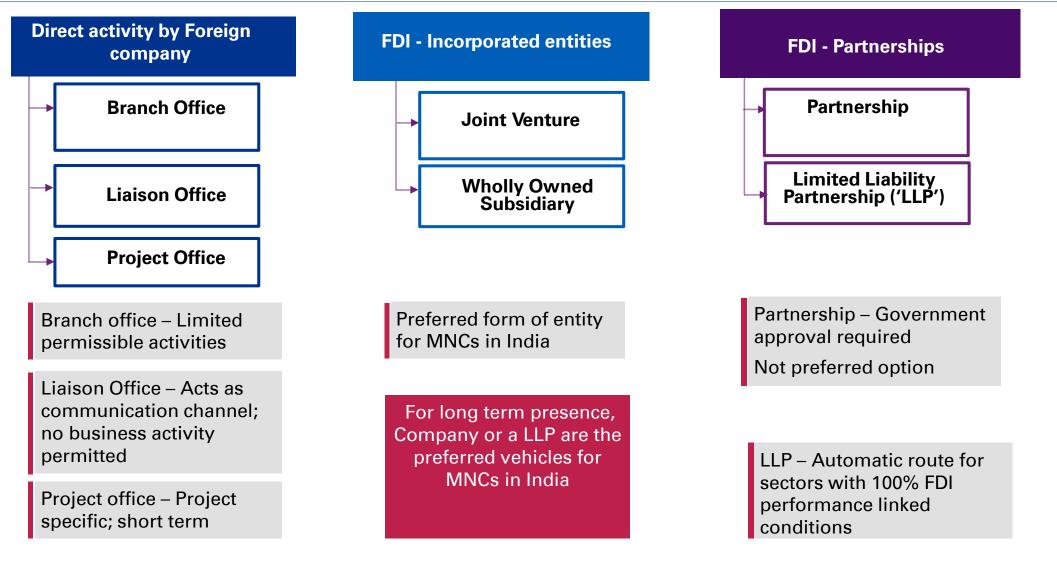
### **Restricted List**

- Real estate business
- Atomic energy
- Lottery/ Gambling business



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## Entity Options - India Entry Strategy





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Land Related	Infrastructure	Capital investment and employment	Others
Stamp duty waiver/ concessions Other concessions on registration charges, property taxes, conversion charges, etc. Single-window clearance	<ul> <li>Electricity duty exemption</li> <li>Rebates in tariffs for electricity/ water/ gas</li> <li>Subsidies on clean manufacturing technology, pollution control etc.</li> </ul>	<ul> <li>GST-linked subsidies / soft loan / exemption</li> <li>Exemption or refund of entry taxes</li> <li>Other subsidies (technology, transport, etc.)</li> </ul>	<ul> <li>Customized incentives for mega projects or investment in backward areas on negotiation with state governments</li> </ul>

Each State government has its own incentive policy, based on the amount of investments, project location, employment generation, etc. The incentives differ from State to State

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# State specific incentives - ESDM Sector

### **Uttar Pradesh** – *Electronic Manufacturing Policy, 2017*



- 100% State GST reimbursement (10 years)
- 100% exemption of stamp duty
- Interest subsidy of 5% per annum for a period of 7 years

### Maharashtra – Electronics Policy, 2016



- Power tariff subsidy of Rs. 1 per unit for 3 or 5 years
- Exemption from payment of Electricity duty for 15 years
- Eligible ESDM units exempted from payment of stamp duty

### Haryana - IT & EDSM Policy 2017



- IT/ ITeS industry for eligible for power @ INR
   5.49 per unit
- 100% Electricity duty exemption for 7 years
- 100% reimbursement of stamp duty and State GST(10 years)

**Telangana** – Electronics Policy, 2016

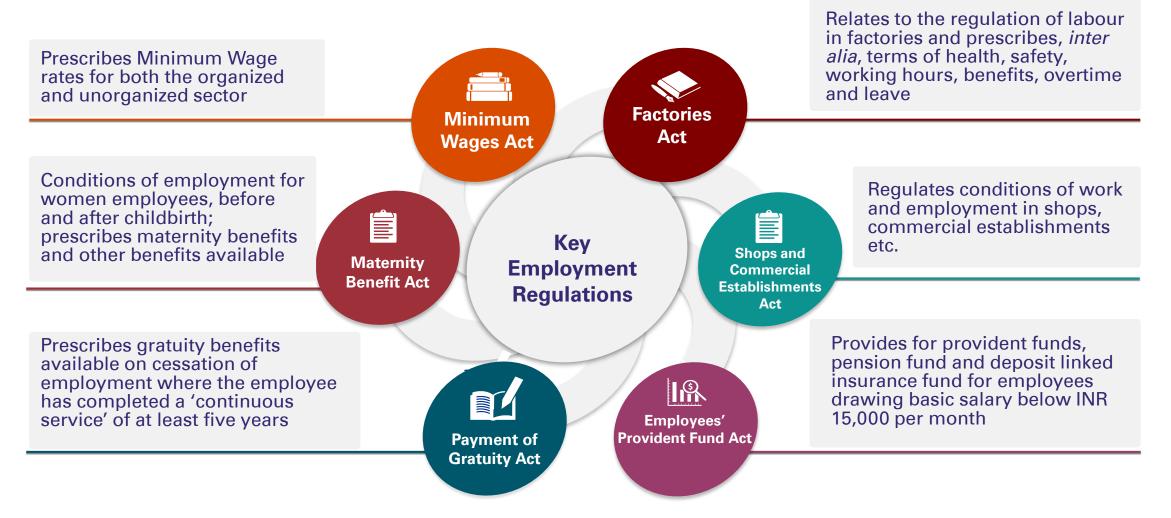


- 100% reimbursement of SGST upto 5 years/ 7 years
- Additional 10% investment subsidy for women
- 100% reimbursement of the Stamp Duty

While reimbursement of SGST, electricity duty exemption, stamp duty exemption are common benefits under all policies, the terms of the benefit vary from State to State



## Employment laws in India



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