



**MY DIGITAL INDIA + MAKE IN INDIA**

**=**

**MY INDIA INTEGRATED ECONOMIC GROWTH**

(To Transform India into a digitally empowered society and knowledge economy)

**By**

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**IIFCL**

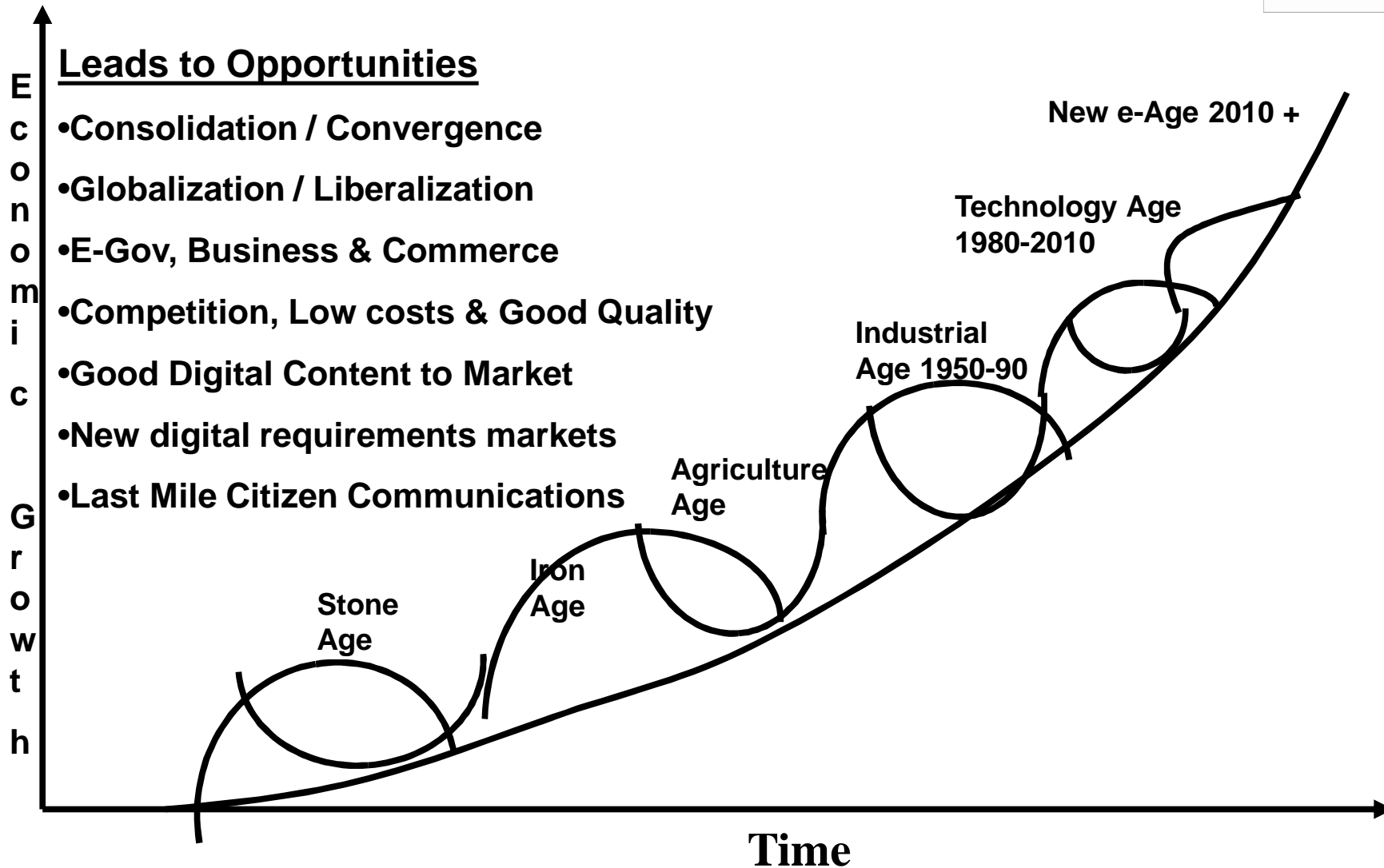
6<sup>th</sup> Feb 2015

# CONTENTS

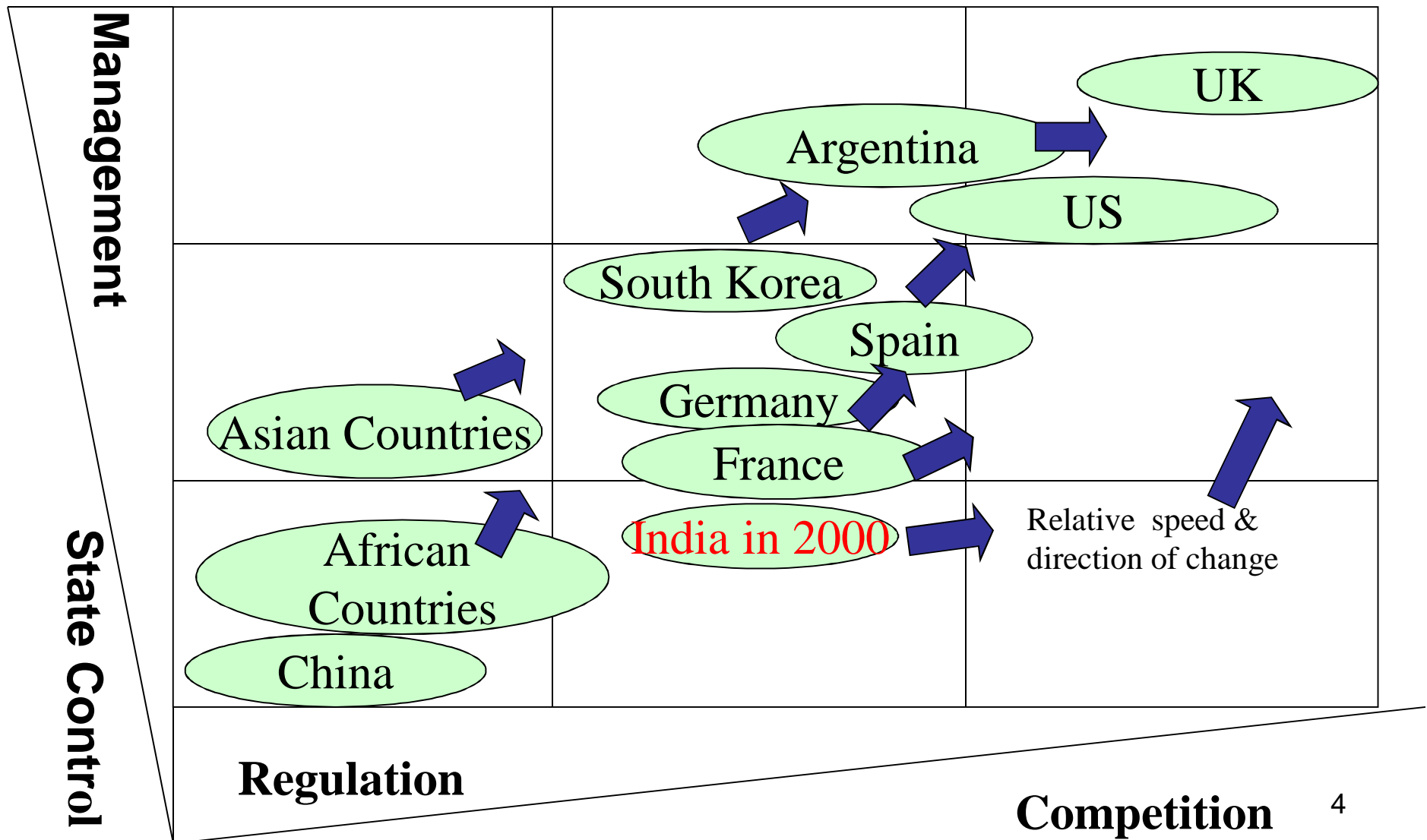


- Migration To Digital Economy Age
- Current Indian Telecom Reforms & Digital Connectivity
- Pillars for New e-Integrated Digital Economy
- Wireless+Wireline+CableTV : Single Digital Pipe Connectivity
- Conclusion for My Digital and Make In India

# INDIA MARCHING TOWARDS DIGITAL AGE & NEW ECONOMY



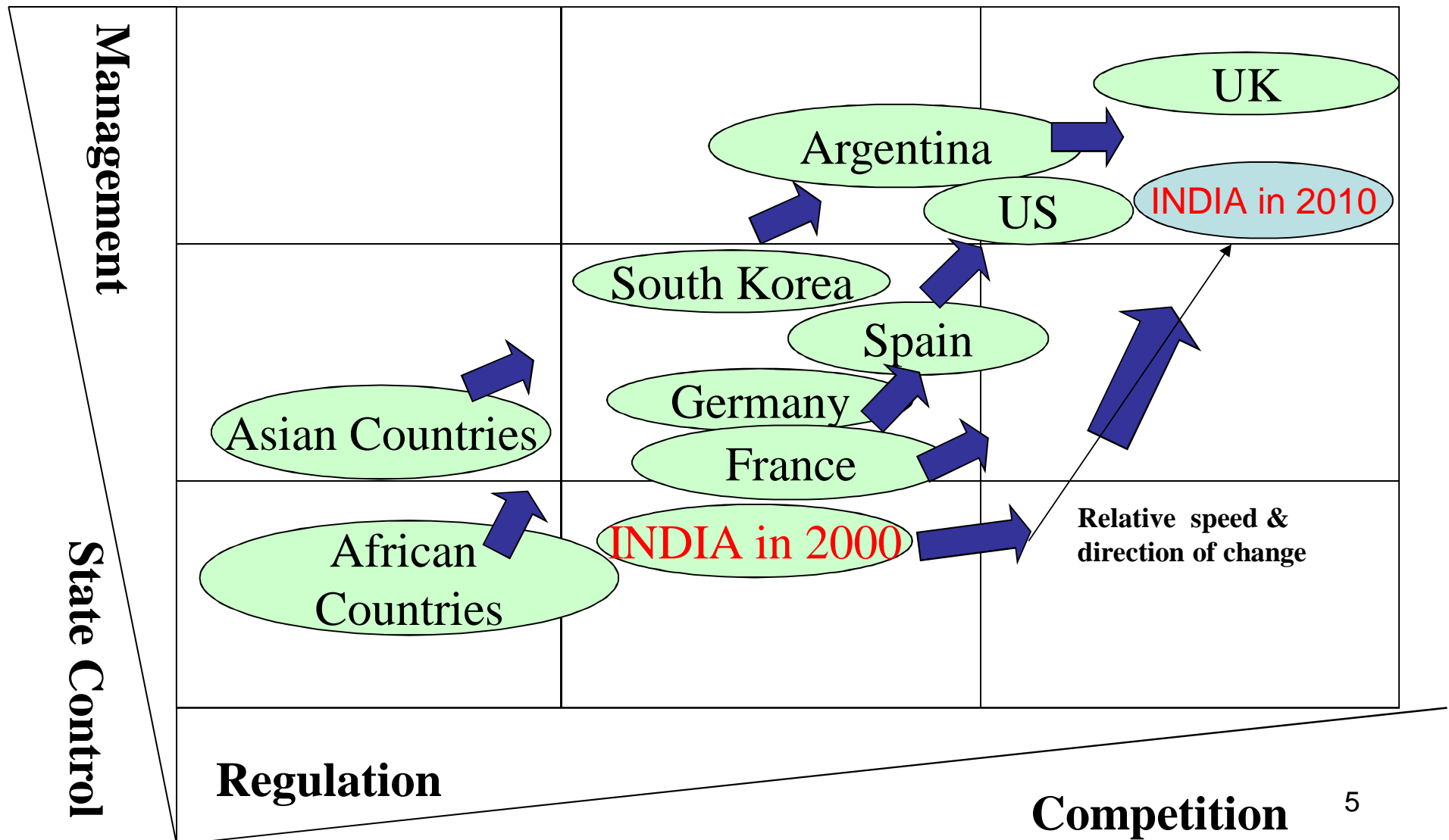
# 1994 - 2000 REFORMS UNLOCKED THE INFOCOM VALUE



# INDIA 2000-2010 TELECOM REFORMS LED TO GROWTH, COMPETITION, CHEAPER & QoS



Led To High QoS, High MOU and Low Tariffs



# Present Indian Digital Infocom Services



## **Wire Line (Copper/Coaxial) Connectivity :**

- Basic Telecom Services (BTS) - Access – 33 Mn Connections
- Cable TV Services (CTVS) – Access – 110 Mn Connections
- Internet Service Provision (ISP) – Access – 300 Mn Users

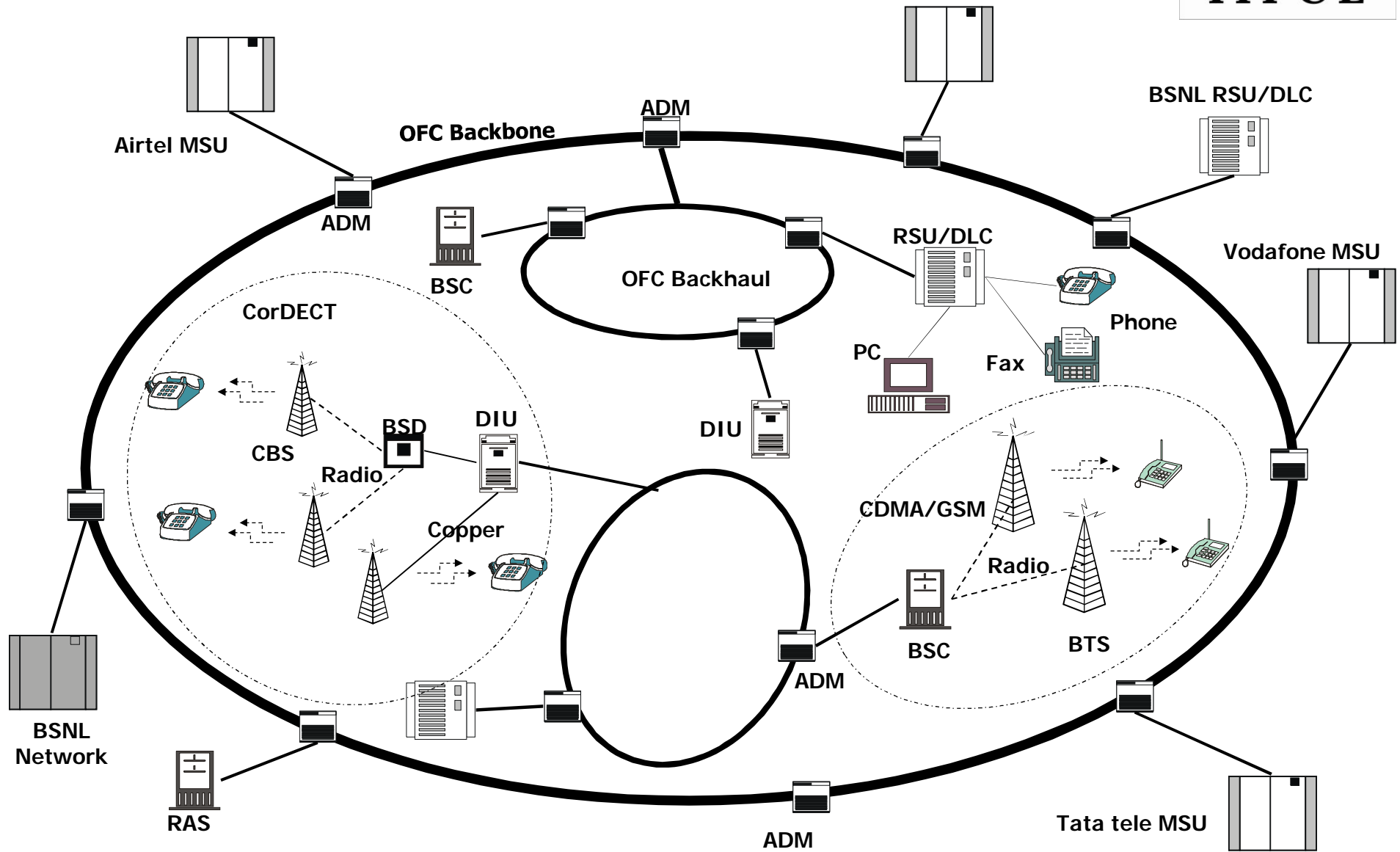
## **Wireless Connectivity :**

- Cellular Mobile Telephone Services (CMTS) – Access 800 Mn Connections
- Satellite Services (Sat) – TXM
- Public Mobile Radio Trunk Services (PMRTS) – Access
- DTH – Access (No Return Path) – 44Mn Connections

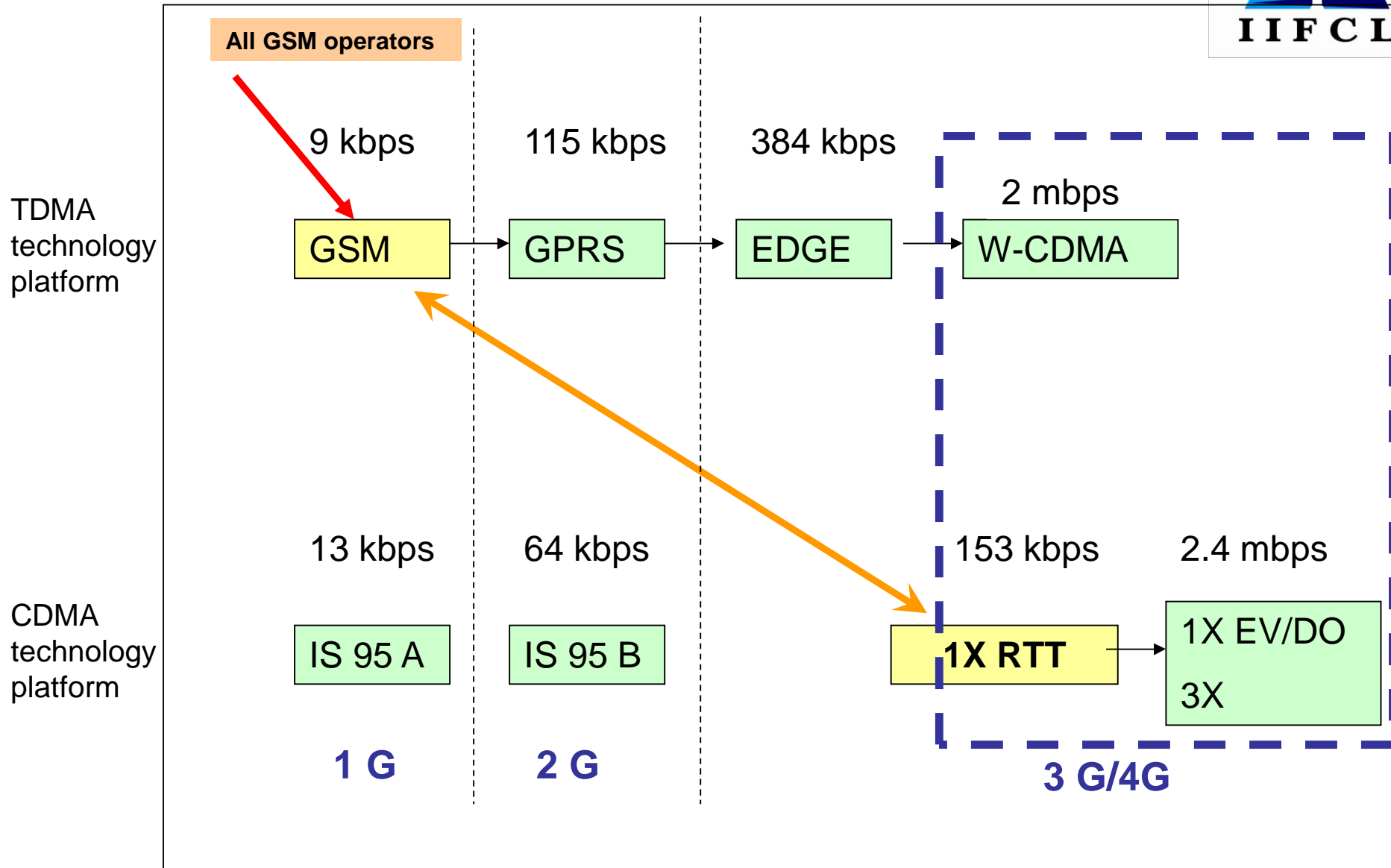
## **Wire Line (Fiber) & Wireless Connectivity:**

- National Long Distance Telephony (NLD) - TXM
- International Long Distance Telephony (ILD) - TXM
- E-governance (e-gov) - Access

# INDIAN DIGITAL INFOCOM INTEGRATED NETWORK ARCHITECTURE



# DIGIAL TECHNOLOGY - MIGRATION PATHS TO 3G & 4G





# Pillars for New e-Integrated Economy



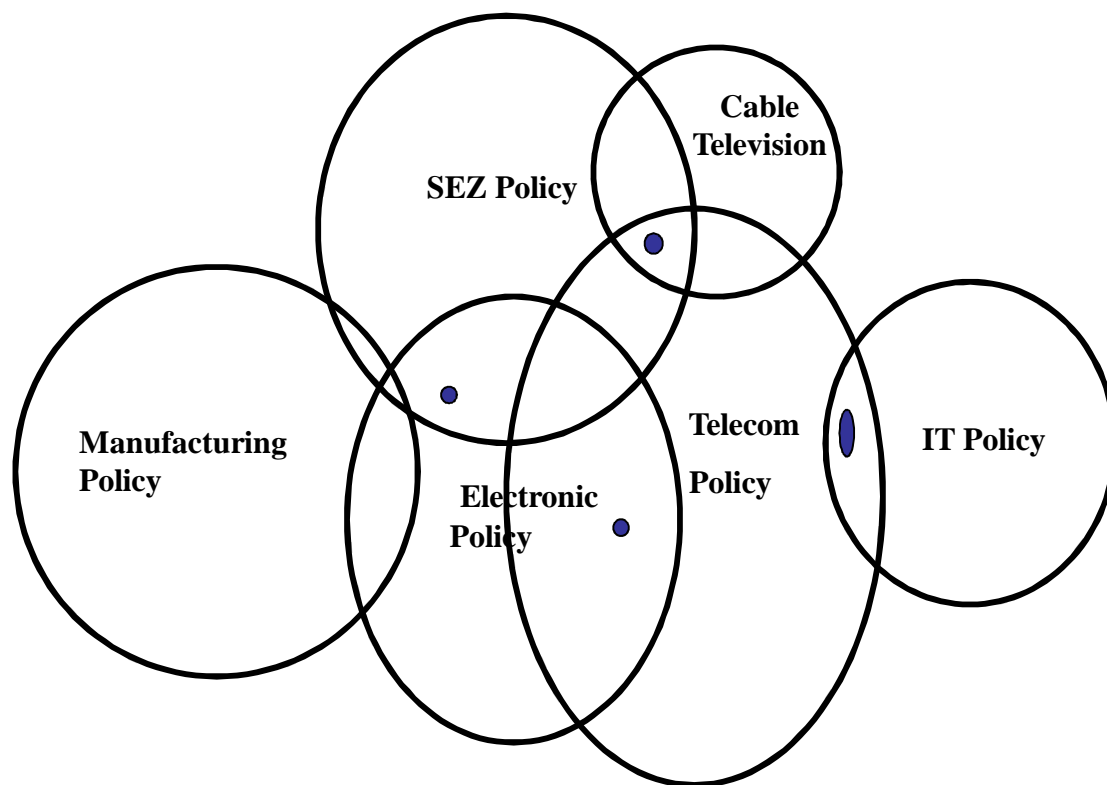
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- Good *Holistic Policies* (*NTP 2012, IT 2012, Electronics 2012, Cable TV, ESMD-SIP, SEZ, etc*) *Execution* without overlapping
- *Convergence* of above Policies will reach the benefits to the Citizens & Corporates to speed up the *Digital Capital Formation*
- Leads to *Make In India* across the e-value chain from Electronic components, modules and systems in high volumes and cheaper products to create e-infrastructure by Corporates
- Leads to cheaper *e-services* to all the citizens connecting *My Digital India* seamlessly the Rural and Urban India
- Leads to high growth of digital internet penetration across India enhancing *e-gov, e-business and e-commerce* leading to high economic growth across India
- Leads to minimization of Migration of citizens from Rural areas to Urban areas and concentrate on the *AGRICULTURE* Sector the need of the hour for enhancing our GDP and welfare of Farmers

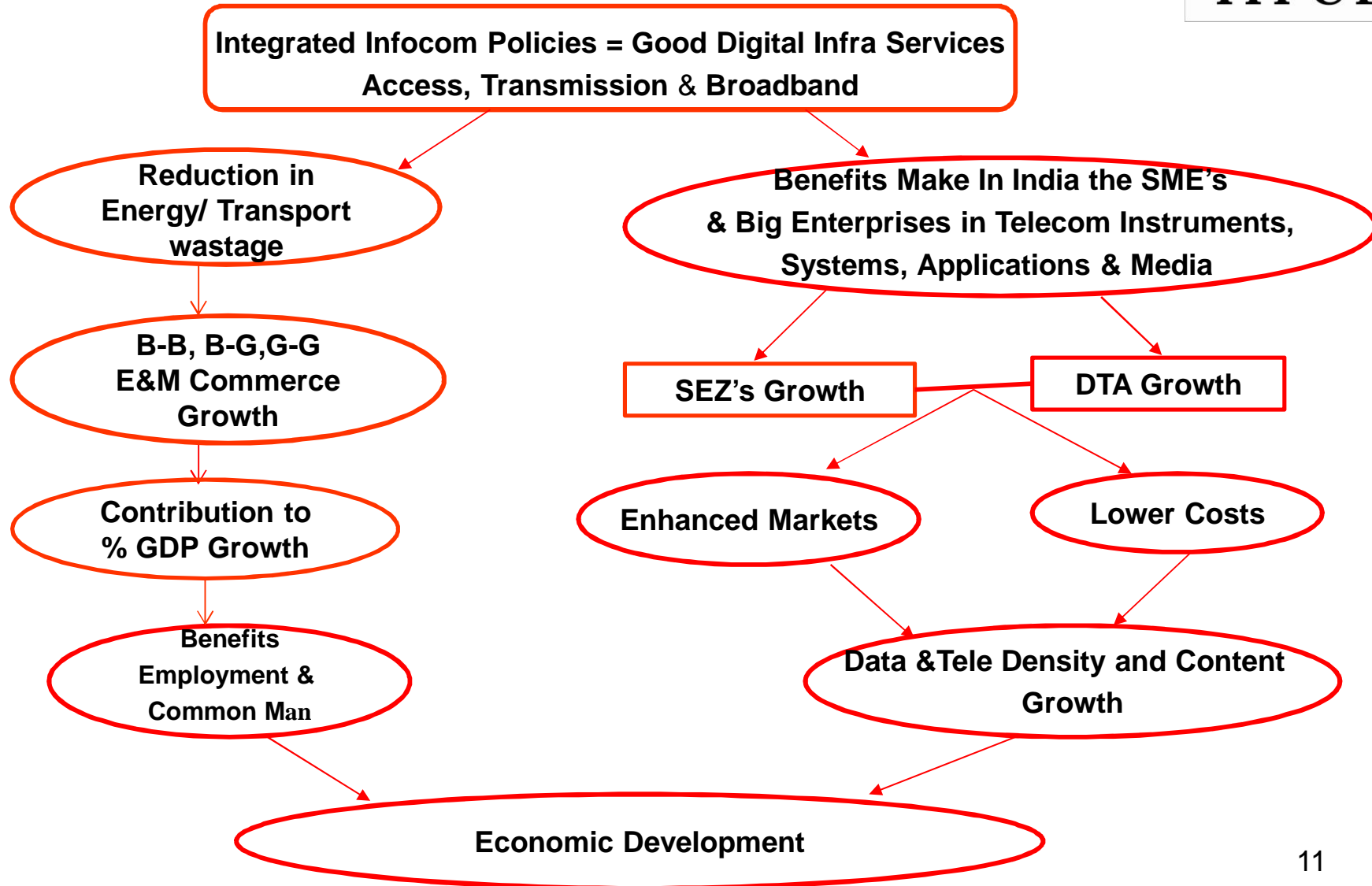
# E-POLICIES CONVERGENCE LEADS TO HIGHER DIGITAL INFRA NETWORK GROWTH



- **Related Sector Policies have to Converge to form Quick Digital Capital Formation**
- **Reaches the Policy Benefits to Corporates and Citizens**
- **Leads to Low Cost Digital Infra and Timely Availability of Low Cost Products and Services across country**



# INDIAN DIGITAL INFOCOM INTEGRATED INFRASTRUCTURE DEVELOPMENT



# Digital Connectivity

# Technology

**Fixed Line**  
33 Mn Connections

ADSL/IP

**Cable TV**  
110 Mn Connections

ADSL/DOCIS/IP

**Mobile**  
800 Mn Connections

PCM TDM/IP

**Internet Cloud**

Leading to  
Triple Play

Voice

Video

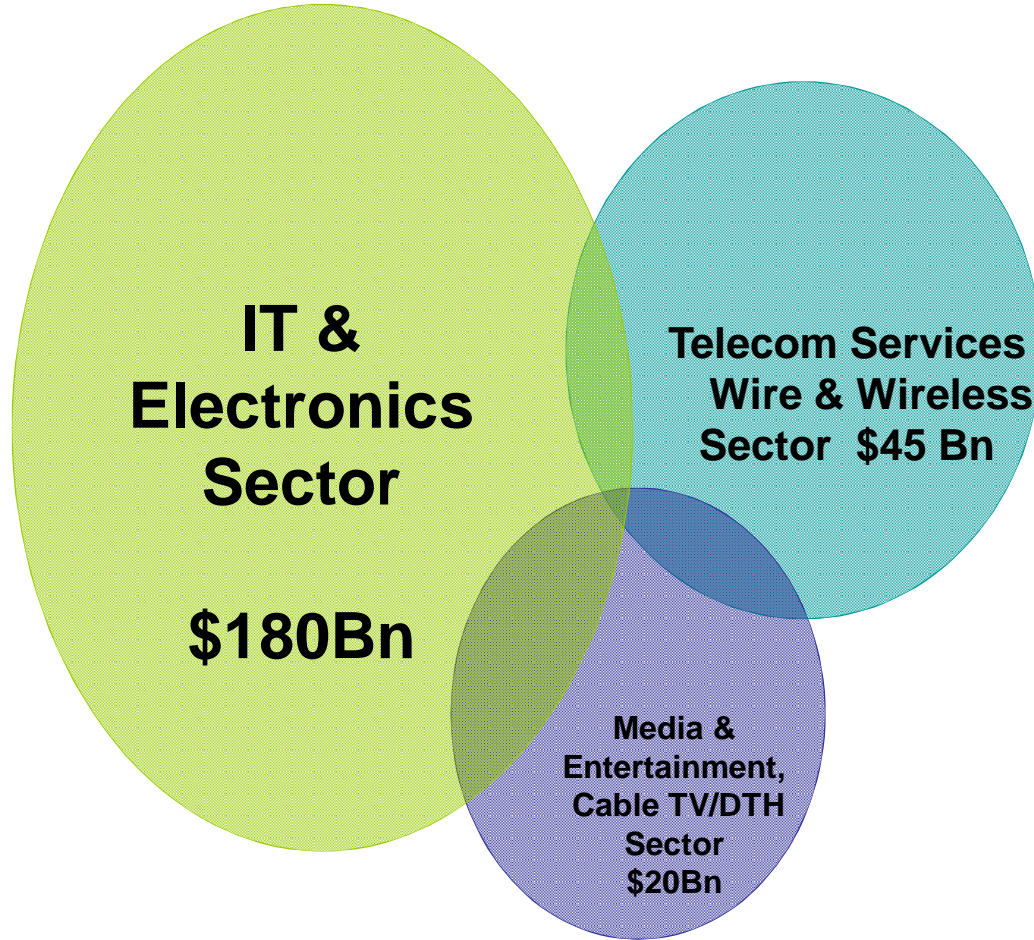
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## Convergence of Business Models for Speedy Digital Connectivity: But **Low Cost** Spectrum, Modems and STB's are need of the hour



- ***BSNL & MTNL*** can leverage the ***33Mn fixed copper lines*** infra across the country by partnering with Cable TV, ISP or other service providers and earn revenue in the 70:30 ratio without putting any Capex by BSNL & MTNL
- This ***idle infra sharing*** model by BSNL will enable Voice, Data and Video/ TV to reach every house on the same Telephone line
- The ***110 Mn Cable TV*** connections can offer the Voice, Data and Video/ TV using the proper Modems and STB's are made available to LCO's and MSO's and can reach the remote places in the country
- For ***Wireless 800 Mn*** Connectivity the Spectrum Price is the key - ***A low cost of Spectrum will lead to High Demand and Elasticity*** for the Data, Voice and Video services and specifically in the ***700, 800 and 900 MHz spectrum band*** which are the sweet spot.
- The present Reserve Price/ MHz is on the higher side which will make the service costly and affordability will be an issue for the Rural and sub-urban citizens

# RELATED INDUSTRY CONVERGENCE IN 2014



# INDIAN TELECOM ECONOMICS



	<b>2001-2008</b>	<b>2010-12</b>
<b>Valuation/ Sub</b>	<b>\$600- \$1000</b>	<b>\$100 - \$135</b>
<b>Capex Cost/Sub</b>	<b>\$150</b>	<b>\$80 to \$40</b>
<b>Acquisition Cost /Sub</b>	<b>Rs.800</b>	<b>Rs.1600</b>
<b>Churn</b>	<b>5%</b>	<b>25%</b>
<b>Active Subs</b>	<b>90%</b>	<b>50% - 60%</b>
<b>Tele-Density</b>	<b>Real</b>	<b>60% (Real) 82% (Virtual)</b>
<b>ARPU</b>	<b>\$8</b>	<b>\$3</b>
<b>MOU</b>	<b>200 Minutes</b>	<b>400 Minutes</b>

## CONCLUSION



- Implement & Execute all Digital related 2012 Policies
- Keep **Spectrum Auction Prices/MHz optimum** for offering low cost and affordable services to citizens with Rural as end point
- With good Economic Regulation, Policy & Technologies Convergence will create **Make In India – Digital Manufacturing & Services** businesses opportunities to Entrepreneurs
- Data & Entertainment Services will reach the **Last Mile connection** in Rural Areas on the strong Digital Infocom Infra
- New VAS business models **evolve** for e-gov, e-bus, e-commerce etc
- A win-win situation for the **Global and Indian investors**
- Indian Digital Infrastructure will form strong bonding for IT, Communications & Entertainment and provide value to all the **Stake Holders and contribute to GDP**





**Thank You**

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