



# *Next wave of Challenges in ICT for India*

*: Issues and Priorities*

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# Agenda

- *Present status*
- *Ideal Scenario*
- *Observation of Trend*
- *What needs to be done*
- *How*
- *Suggestions if any*

# Present status

## Emerging India

- 2<sup>nd</sup> largest telecom market in the world
  - Mobile subscriber grew 400x to 900 Mn in a decade
  - Over 300 Mn internet subs; over 50% through mobile phones
  - Fastest growing and third largest smartphone market
- World's most competitive market
  - Cost of service is the lowest
  - All global equipment players active

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## National Telecom Policy 2012

- To create an inclusive knowledge society.....
- To promote R&D, design, development and manufacturing in the domestic telecom equipment manufacturing.
- To create a road-map to align technology, demand, standards and regulations for enhancing competitiveness of domestic manufacturing

# Challenges - 1

*Technological :To catch with the technological race: 2G-3G-4G-5G*

- Home to Leading Design Talent for the world
  - ✓ 1000+ R&D centers; All major MNCs have India R&D centers
  - ✓ Top-3 in fabless/semiconductor design talent
  - ✓ Potential for “frugal” innovation

*Make in India: From becoming consumer to innovator & Exporter*

**Promotion of Innovation**

**Investment**

Digital Divide

**Availability & Accessibility**

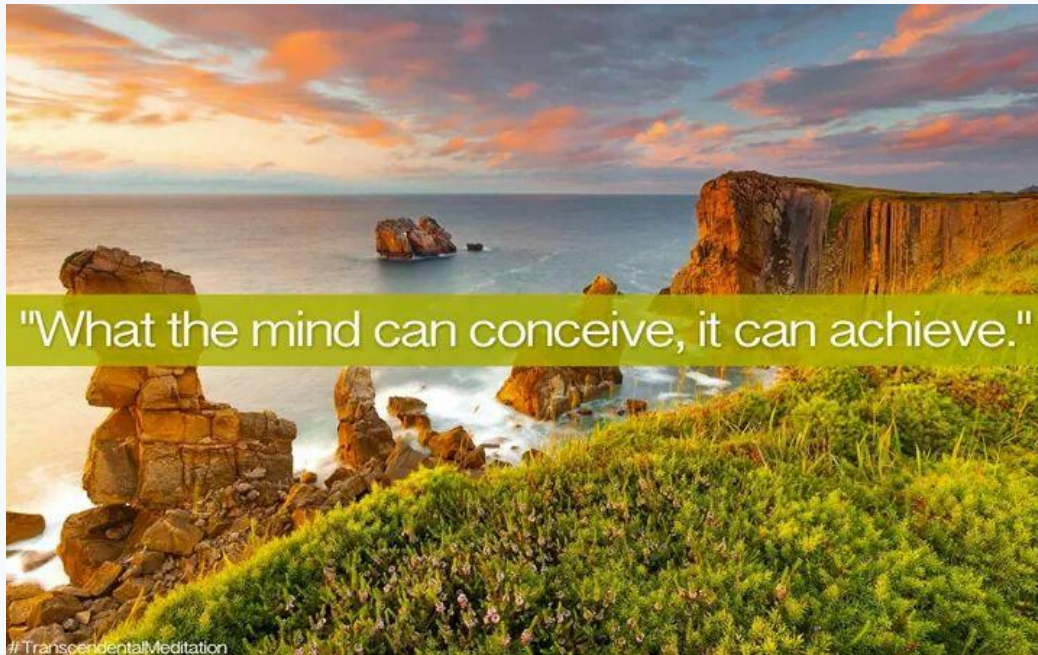
**Affordability**



# Ideal Scenario: Happiness for All with ICT

## Make in India

## Digital India



- ✓ Through innovation, research, design and development in India
- ✓ Mentoring and hand holding
- ✓ Entrepreneurship development
- ✓ Technology incubation
- ✓ IPR development &
- ✓ Standardization

# Challenges -2. Transformation: When the path is not designed in a smooth way, there is always risks and accidents.

With Intelligently designed highways and intelligent transport system, It is just a JOY RIDE

Understanding the priorities of the people



3/21/2015







# Obsevation of Trend -1

## STEAM

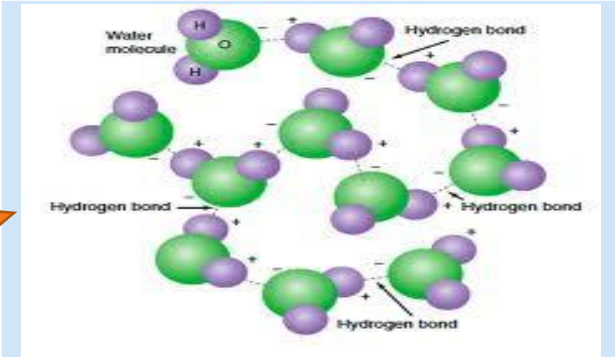


Joint family living in one location can be considered as ICE like structure



Nuclear family settling in far off places with separate houses and always moving : Water like situation

## WATER



Decreasing social cohesion due to more individual approach

With Broadband connectivity, do you think the human society life cycle can reverse ?



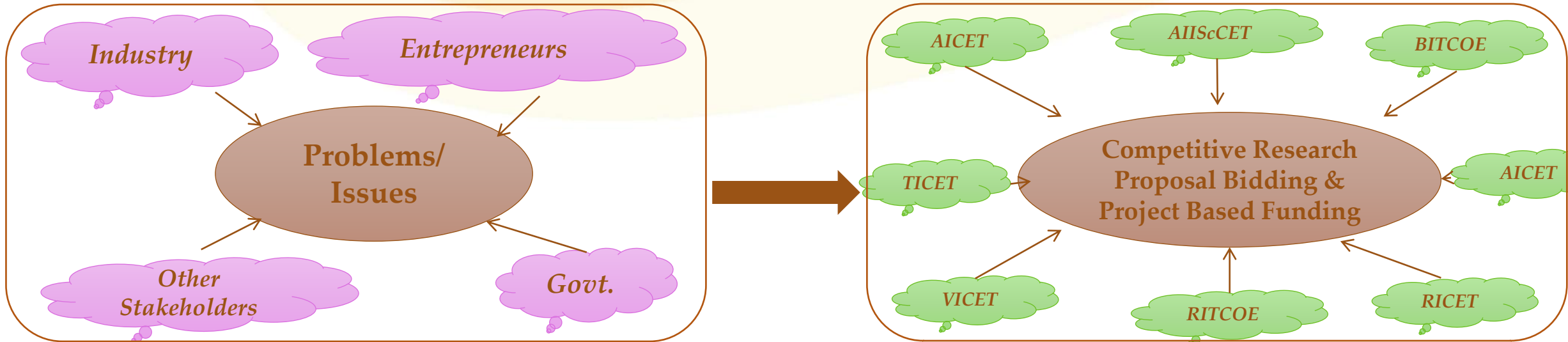
# What needs to be done ? Invest in Bharat & Promotion of Innovation

Technology incubation centres

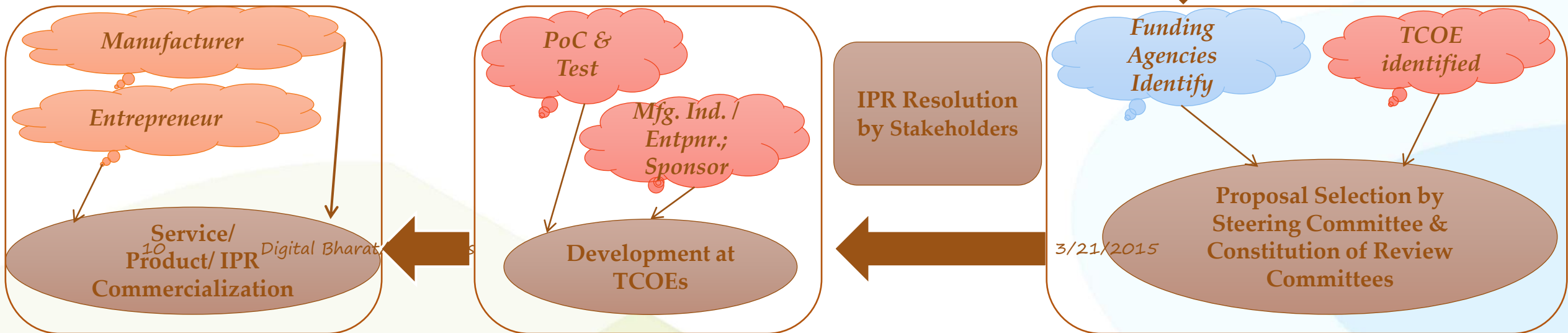
From seed to tree



# How ? Transforming TCOE as enabler for innovation



5 Phd/Post Doc always available to support development  
 Each Centre can have Academic Partners

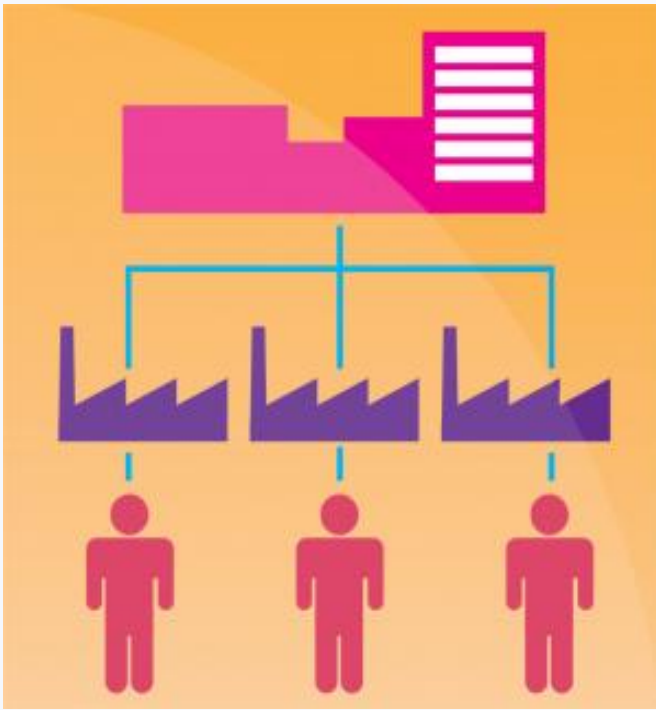




# Observation of Trend-2: Internet of things will transform the manufacturing sector

The factory of the future is online – and on your doorstep

Return of single lot production



- Warehouse racks will report when they're running low on stock and automatically re-order, and production lines will synchronize their throughput rates across the globe.

- one-off production will make a comeback as single items become much easier and cheaper to produce.



20th Century type

Low cost, technology

Mass production



21st Century type

Competitiveness

Strategy

Variety, safety

Multiple variety of small quantity

# And How ? Attracting people from cities to invest in villages

Multipurpose hall with high speed broadband connectivity

- Yoga
- Education
- Sports
- Trade
- Entertainment



Digital Bharat/Challenges

Motivated digitally skilled people can make a successful digital India



Well structured layout which can be developed in to something called "Broadband Square" with public private partnership





*Thank you*

*For any suggestions & sharing ideas  
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