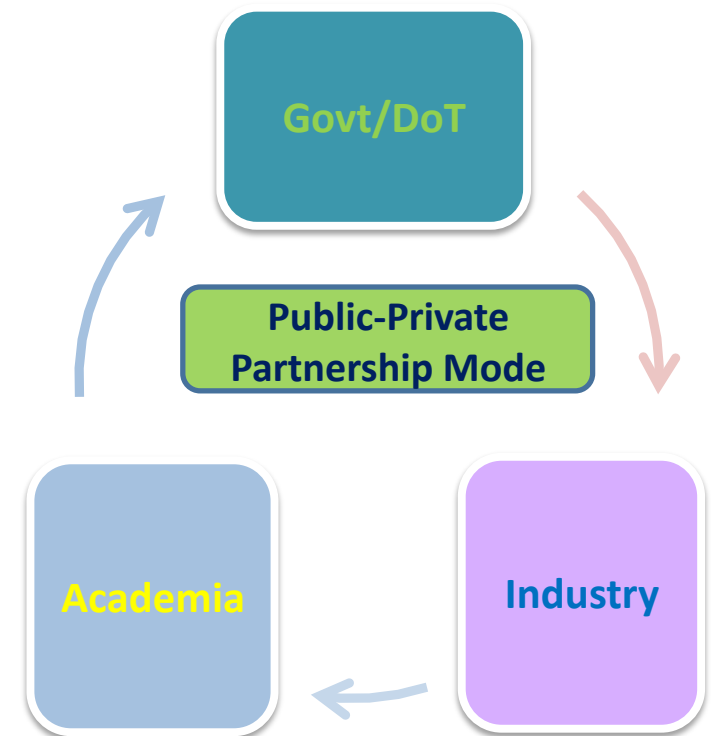


India Evaluation Group

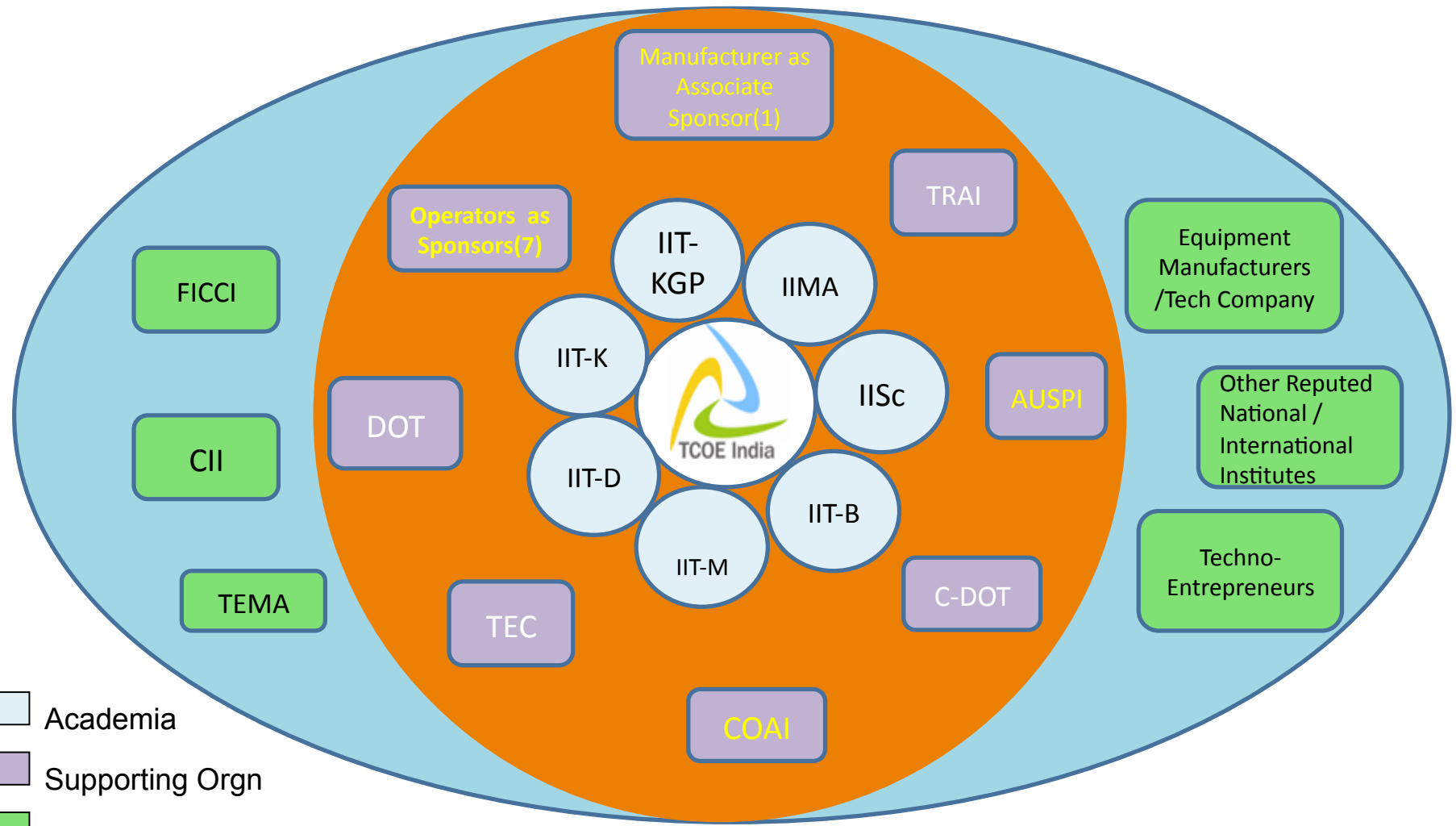
An Overview

Kiran Kuchi
CEWiT

TCOEs Across India



Participating Entities of TCOE



Strength of the TCOE India partners

- **Top Seven Institutes** of the country
- **Top Seven Telecom Operators** with 98% of the 470 Million subscribers
- **National Government** supported
- **Industry Associations** like COAI, AUSPI on board

Public Private Partnership (PPP) initiative

Research Areas addressed by TCOEs

- Rural Applications and Technology: 14 projects
- Energy and Telecom Infrastructure: 12 projects
- Security and Disaster Management: 7 projects
- Telecom Policy and Impact: 6 projects
- Next Generation Networks: 5 projects
- Miscellaneous: 15 projects
(Capacity Building)

Motivation for Evaluation by TCOEs

- Adopt forthcoming Technologies to **Indian context and environment**
- Helps in its Role of **Policy Advocacy to the Govt of India**
- **Builds a critical mass** of Researchers & Students

Candidate RITs of Interest

- Our interest:
 - IEEE 802.16m
 - 3GPP LTE/LTE-A
- Both TDD and FDD modes
- India is looking to IMT-A technologies to provide cost-effective broadband connectivity to her citizens
 - Wire line penetration is modest (40M), compared to
 - Wireless cellular (430 Million)
 - Growth rate of 12-15 million users per month

Evaluation Focus

- Spectral efficiency with **unity reuse**
 - High population densities and limited spectrum
- Primary interest: **Cell Edge performance for Nomadic users**
 - Secondary interest: High mobility scenarios > 100mph
- Fixed/nomadic rural deployment
 - Not high-speed rural, Large cells
- Primary interest: 2 or 4 antenna BS and 2-antenna user terminal
 - Secondary interest : 8 antennas

Additional evaluation

- **Outage performance at cell-edge**
 - Studying alternative criteria to 5th percentile; e.g., performance of users with SINR < 2 dB for nomadic users
- Performance of QoS based Schedulers
 - Response of RIT to India specific services and scenarios

Evaluation Process

- Faculty members/scientists and scholars from various IITs/IISc, being part of TCOEs, form teams
 - Each team takes up some evaluation cases
- Centre of Excellence in Wireless Technology (CEWiT) provides support for simulators, etc
 - CEWiT active participant in IEEE 802.16m and 3GPP LTE/LTE-A
- Interacting with other EGs / proponents for calibration, comparison of results, etc
 - CEWiT is the liaison
- **Single** consolidated **Evaluation Report** from TCOE India Co-ordination Centre

Contact Information

- CEWiT
 - Kiran Kuchi, kkuchi@cewit.org.in
- TCOE
 - J Jena
 - *Director, TCOE India Coordination Centre,*
jjena@coai.in, [Tel:+911126598652](tel:+911126598652)
 - Web: www.tcoe.in