

## **NIST SIT Workshop**

(Gaithersburg, Maryland, 15 - 19 September 2014)

# **Telecommunications Standards Development Society, India (TSDSI)**

## **India's Telecom SDO**

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# Flow of Contents

- ❑ Formation of TSDSI
- ❑ Structure and the Working Methods
- ❑ Current Status in M2M, RNES and CN

## Working Groups

- ❑ Q&A

## (India's only Recognized & Accredited TSDO)

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**Synergize with all Telecom Stakeholders**

**Facilitate coordinated development of Standards for Telecom, especially suited to Indian environment**

**Interact proactively & actively participate in international standards development organizations and forums**

**Recommend new Standards for consideration by the Government for national and global adoption**

# Path to Evolution

NTP 2012 envisages Setting up TSDO

**GSC, Korea:**  
Govt.'s Decision to set up TSDSI

DoT Approval to Bye-laws and MoA of TSDSI

Launch of TSDSI

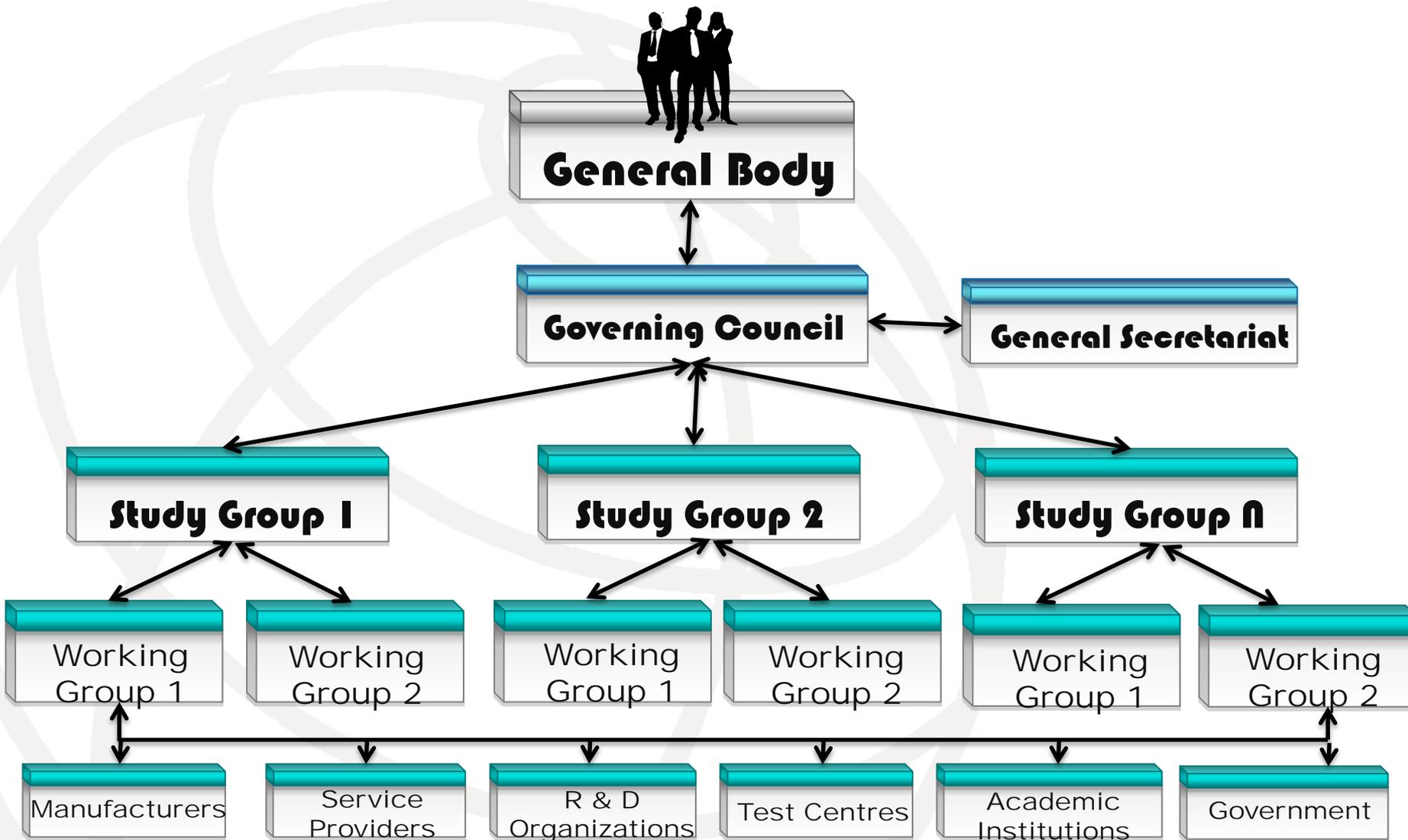
TSDSI Registered under Societies Registration Act 1860

## Acronyms Used Above

TSDSI	Telecommunications Standards Development Society, India
TSDO	Telecommunications Standards Development Organization
NTP 2012	National Telecom Policy 2012
GSC, Korea	Global Standards Collaboration Meeting held at Jeju, Korea
DoT	Department of Telecommunications
MoA	Memorandum of Associations

**Feb-June, 2014:**  
Three TSDSI Governing Council Meetings held

# ORGANIZATIONAL STRUCTURE



# GOVERNING COUNCIL



- Department of Telecommunications (DoT)/
- Telecommunications Engineering Centre (TEC)/
- Wireless Planning & Coordination Wing (WPC),
- Department of Electronics and Information Technology (DeitY)



IIT Bombay



Centre for Development of Telematics (C-DOT)



Vihaan Networks Ltd.

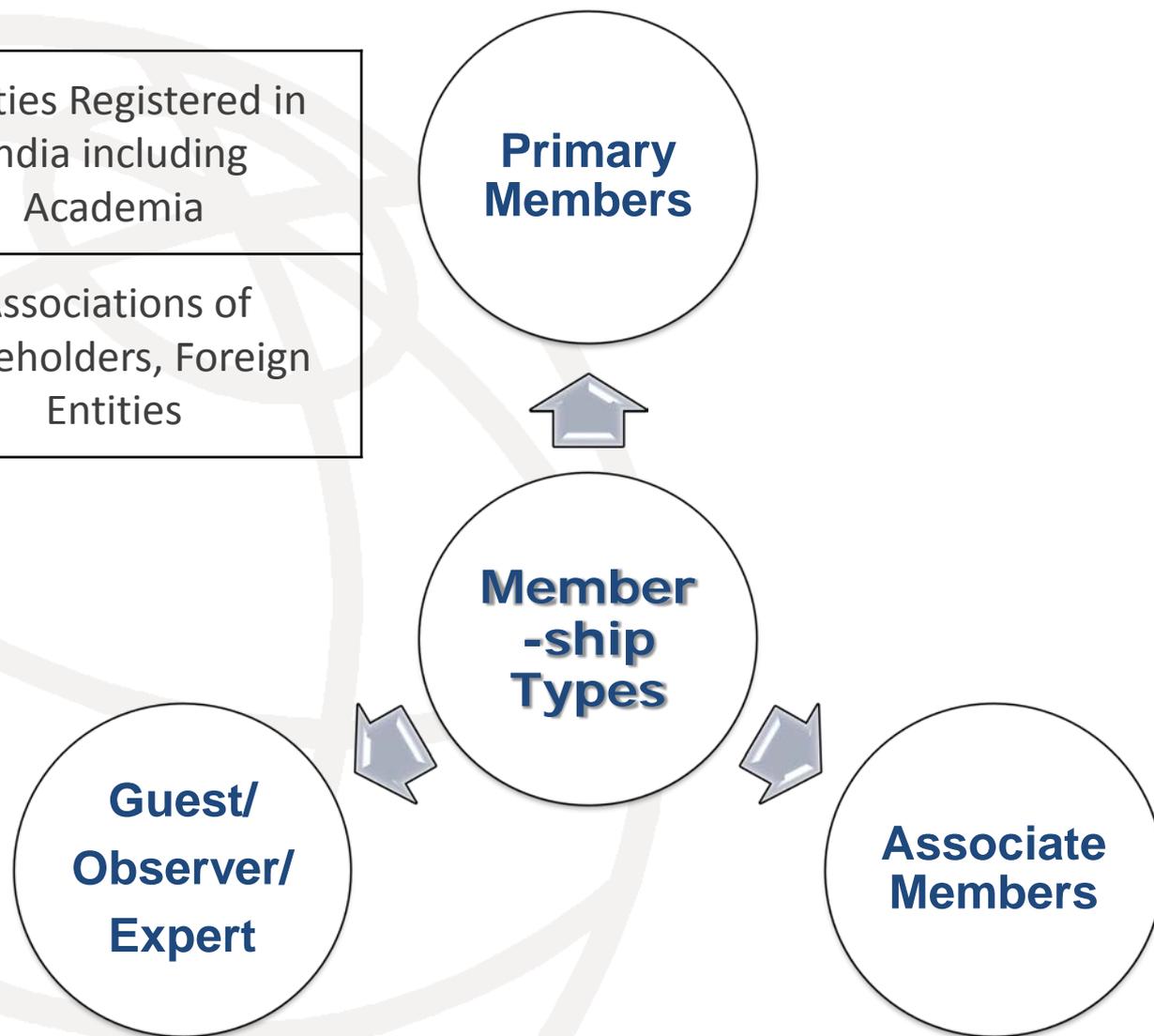


IIT Madras



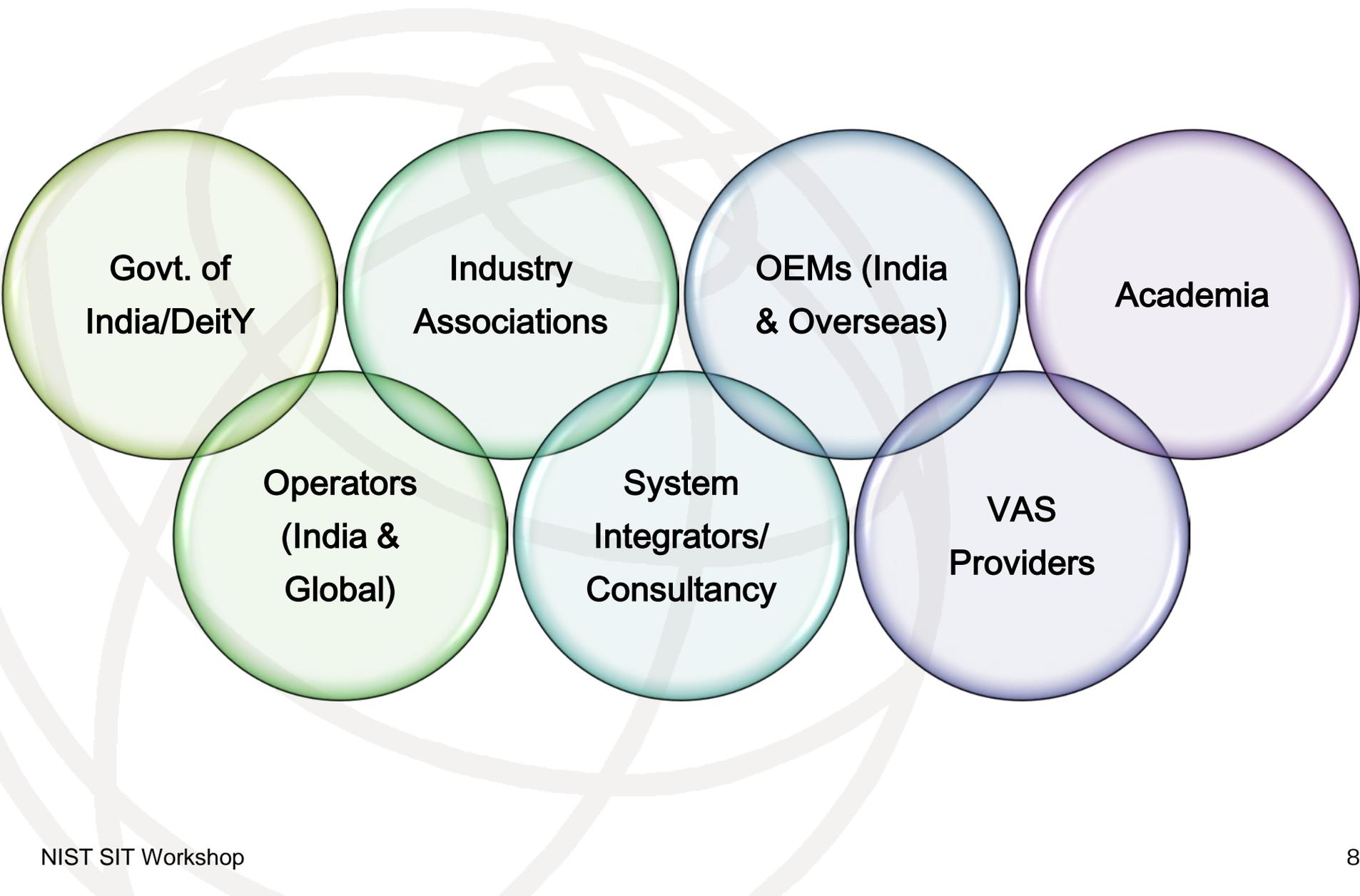
# MEMBERSHIP TYPES

<b>Primary Member</b>	Entities Registered in India including Academia
<b>Associate Member</b>	Associations of Stakeholders, Foreign Entities



***For Membership Details, kindly visit the Website***

# MEMBERSHIP



# COOPERATION AGREEMENTS SIGNED WITH SDOs:



ARIB



ATIS



CCSA



ETSI



TTA



TTC

# COOPERATION AGREEMENT SIGNED WITH CERTIFICATION BODIES:



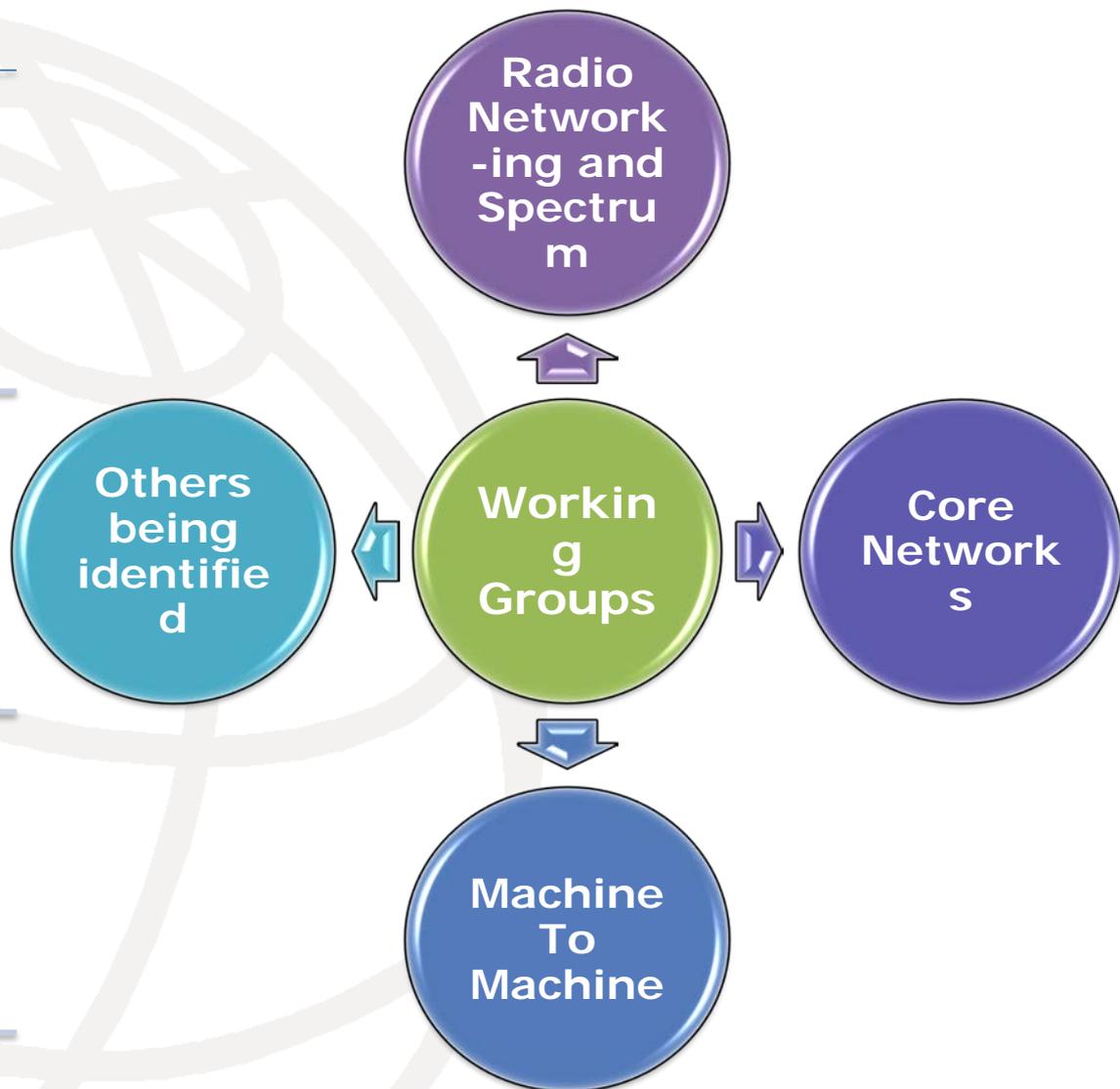
Global Certification Forum

# WORKING MODEL

PROPOSALS  
BROUGHT IN BY  
MEMBERS

DISCUSSIONS  
AMONG WG/SG  
MEMBERS

CONSENSUS AND  
VOTING BASED  
APPROVAL



# New Working Groups To Be Launched

- ❑ Security
- ❑ Energy Efficiency
- ❑ Backhaul

## About to Join

- ❑ ITU (Sector Member as a Regional SDO)
- ❑ APT (as an Affiliate)
- ❑ 3GPP (as a Partner)
- ❑ oneM2M (as a Partner Type 1)

# CURRENT STATUS IN M2M WG

## Study Topics

### 1. Requirements of Vertical Industries (Use cases)

Utilities

Transport/Automobile

Remote Asset Monitoring

Health (Consumers & Rural)

Track & Trace

Pollution Control

Agriculture

Smart Home/Consumers

Internal Security

### 2. Naming & Addressing

### 3. Security & Privacy

### 4. Service layer Architecture, Interfaces and Protocols

### 5. Impact on Radio Active Network and Core Network

# CURRENT STATUS IN M2M WG

## Positioning with OneM2M

### OneM2M (Work Groups)

1. Requirements

2. Architecture

3. Protocols

4. Security

5. Management Abstraction and Semantics

3GPP

### TSDSI

1. Requirement  
(Use cases applicable for India)

2. Naming & Addressing

3. Service Layer  
Architecture, Interfaces  
and Protocols

4. Security & Privacy

5. Operations and Management  
(Work Shop)

6. Impact on RAN & CN

## CURRENT STATUS IN M2M WG

### Next Steps

- Start with identifying use cases appropriate for Indian Geography.
- Finalized the format / template in which the use cases need to be captured.
- Agreement on Scope, Objective and Approach for each of the Sub-Topics.
- Schedule a Workshop on O&M, Device Management, remote diagnostics.

# CURRENT STATUS IN RADIO NETWORK EVOLUTION AND SPECTRUM (RNES) WG

- Biweekly Conference Calls
- Based on the issue statements developed by the RNES WG, three technical contributions received
  - Enhancements to circuit switched fall back (CSFB) feature *(Huawei, Airtel - lead)*
  - 3G / LTE – WiFi interworking for seamless experience across HetNet deployments *(Intel - lead)*
    - Presented by Intel in a joint RNES and CN conference call
  - **Viability of channel utilization to predict WLAN performance** *(IIT Bombay - lead)*

## RNES- MAJOR ACCOMPLISHMENTS

- TSDSI submitted a contribution
  - Inputs from TSDSI regarding **CSFB feature** (S2-142023)
  - **Aim:** to reduce call setup times
  - **Proposal submitted to 3GPP SA WG2 meeting #103** held in Phoenix, USA, 19-23 April, 2014 Our contribution led to the formation of a 3GPP work item on enhanced CSFB feature
- Significant interest in the topic **3G / LTE – WiFi interworking**
  - A sub-study group is already formed

# RNES- EXAMPLES OF IMMEDIATE ISSUES

- ❑ Carrier Aggregation for LTE Bands 3 and 40 (FDD/TDD)
  - ❑ Work Item introduced in 3GPP (with support from Airtel, Huawei, HiSilicon, Ericsson, Qualcomm, Korea Telecom (KT))

## CURRENT STATUS IN CORE NETWORK (CN)

- ❑ Weekly/bi-weekly CN WG calls
- ❑ First two issue statements presented affecting both RNES & CN WG
  - Flash-SRVCC based CSFB option for reducing call set up time from Huawei & Bharti Airtel
  - WLAN-3G/LTE interworking for seamless experience across HetNet deployments from Intel
- ❑ The first line item is mainly driven from RNES WG
- ❑ The second line item is of significant interest among the members, hence a joint study group between RNES & CN WG being formed

## CN- RECENT ACTIVITIES

- ❑ Presentation from Airtel and Tata TeleServices on the current Indian Core Network Deployment challenges
- ❑ vEPC – NFV deployment scenario challenge
  - ❑ Presentation at a special session by ETSI expert on NFV
- ❑ Cloud EPC, Cloud Radio Access Controllers (RNC, BSC, etc.), Cloud MSS



# Thank You

## Let Us Work Together

Visit us at [www.tdsi.org](http://www.tdsi.org) for more details