

# Standardization in ICT

*Overview of Government of India*

*of*



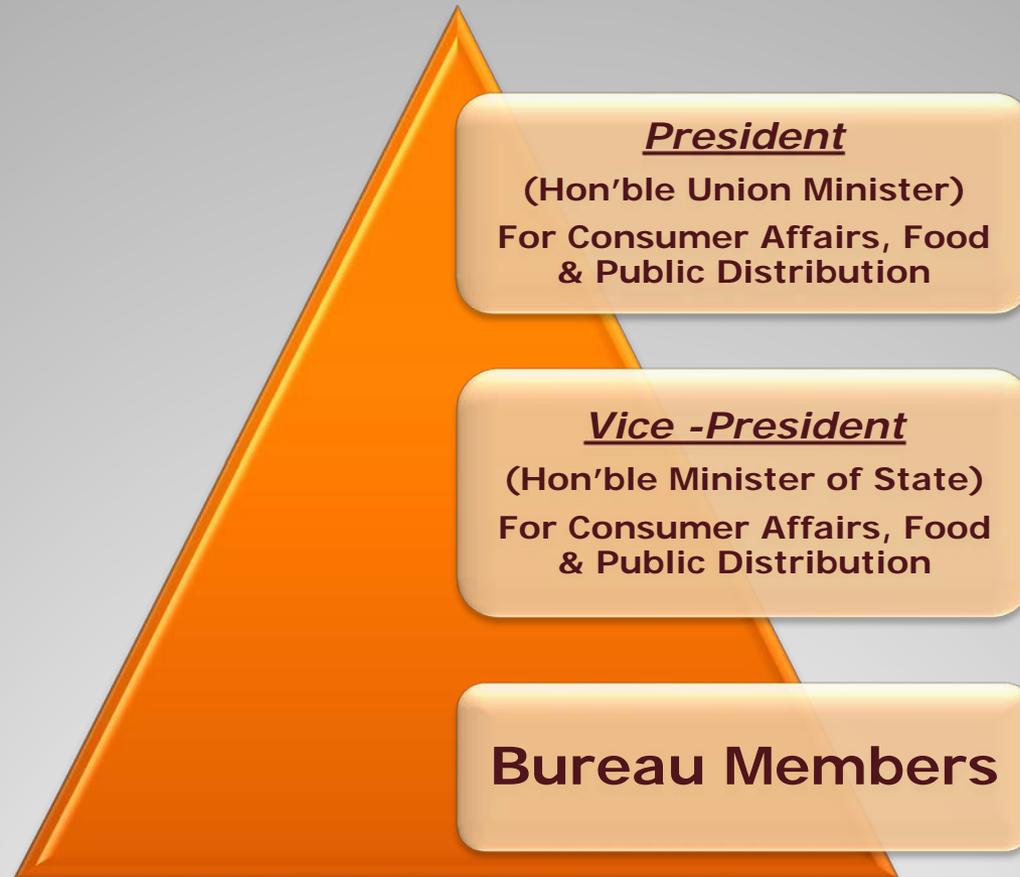
**ELECTRONICS INDIA**  
*Billion Needs Million Chips*

The National  
Standards Body of  
India

- Bureau of Indian Standards (BIS) took over the work of Indian Standards Institution (ISI) through enactment of *BIS Act (1986)* by the Indian Parliament

ISI was set up in  
Jan 1947 by a  
resolution of the  
Parliament

**BUREAU OF INDIAN STANDARDS**



***Bureau of Indian Standards -  
Standards Body of India***

BUREAU

*EXECUTIVE COMMITTEE*



STANDARDS ADVISORY COMMITTEE

*DIVISION COUNCIL*



SECTIONAL COMMITTEE

*SUBCOMMITTEE*      *PANEL/WG*

**Structure of Committees**



**Technical Sectors  
(14 nos.)**



**Sectional Committee**



**Panel**

**STANDARD FORMATION in  
TECHNICAL SECTORS**

- **Basic & Production Engineering**
- **Chemical**
- **Civil Engineering**
- **Electronics & Telecommunications – (Information Technology)**
- **Electro technical**
- **Food And Agriculture**
- **Management And Systems**
- **Mechanical Engineering**
- **Medical Equipment And Hospital Planning**
- **Metallurgical Engineering**
- **Petrochemical, Coal & Related Products**
- **Textile**
- **Transport Engineering**
- **Water Resources**

## **Technical Sectors**



## Stakeholder Approach for Standard Formation

Consultations involving all Stakeholders



Documents sent for public comments before finalization



Consensus Principle



Balanced Committee Structure



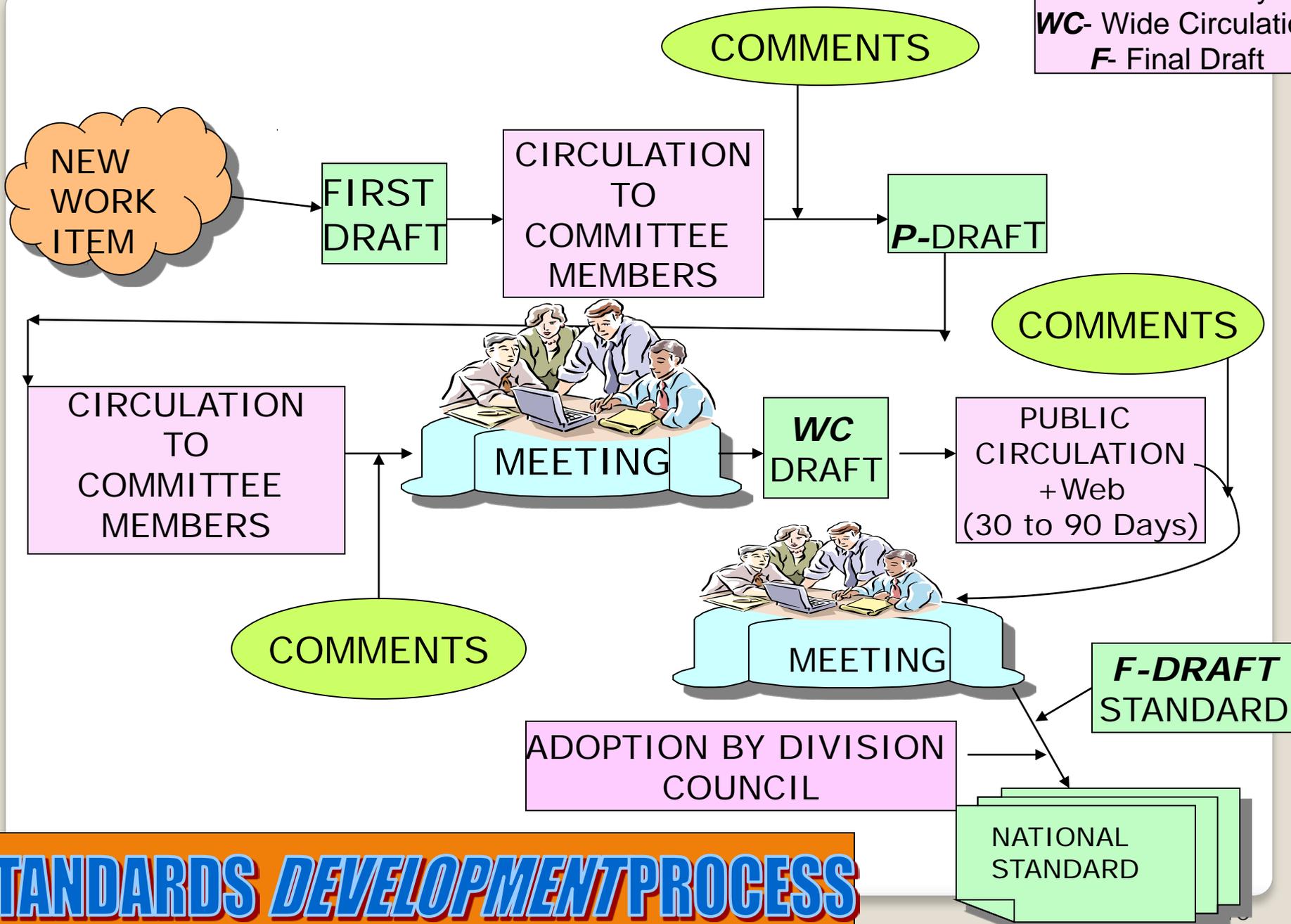
Compliance of WTO/TBT Principles

**APPROACH TO STANDARDIZATION**

- ***Proposal*** – Indigenous or already existing international standard – by Committee or any individual/organization
- ***Approval of subject*** by Committee
- ***Preliminary Draft*** – circulated to Committee members for comments
- ***Comments discussed*** & resolved in Committee meeting
- ***Wide Circulation draft*** – to all possible stakeholders
- Comments resolution and ***finalization***
- ***Publication*** of IS

## Standards Formulation - Steps

**\*Note**  
**P-** Preliminary  
**WC-** Wide Circulation  
**F-** Final Draft



# STANDARDS DEVELOPMENT PROCESS

# PRESENT FOCUS

NEED BASED &  
DEMAND DRIVEN STANDARDS

PERIODIC REVIEW for NEEDED  
UPDATION

HARMONISATION WITH  
INTERNATIONAL  
STANDARDS

FASTER DEVELOPMENT  
OF STANDARDS BY ADOPTION WHERE FEASIBLE

## STANDARDS FORMULATION

Technical Division	Tech Committees	Published Standards
<b>Total</b>	<b>317</b>	<b>18773</b>
<u>Chemicals</u>	20	1589
<u>Civil Engineering</u>	34	1747
<u>Electro Technical</u>	37	1503
<u>Electronics, Telecommunications, And Information Technology</u>	19	1502
<u>Food And Agriculture</u>	26	1957
<u>Management Systems</u>	10	238
<u>Mechanical Engineering</u>	26	1191
<u>Medical Equipments And Hospitals</u>	18	1152

**Standards Published by BIS**

Technical Division	Tech Committees	Published Standards
<u>Metallurgy</u>	26	1673
<u>Petroleum And Coal</u>	11	1387
<u>Production And General Engineering</u>	33	2117
<u>Textiles</u>	24	1156
<u>Transport Engineering</u>	17	1131
<u>Water Resources</u>	16	430
<b>Total</b>	<b>317</b>	<b>18773</b>

**Published Standards of BIS**

*Due to the demand of technology which is fast changing and since national standard making is time taking process , there are initiatives beyond BIS*

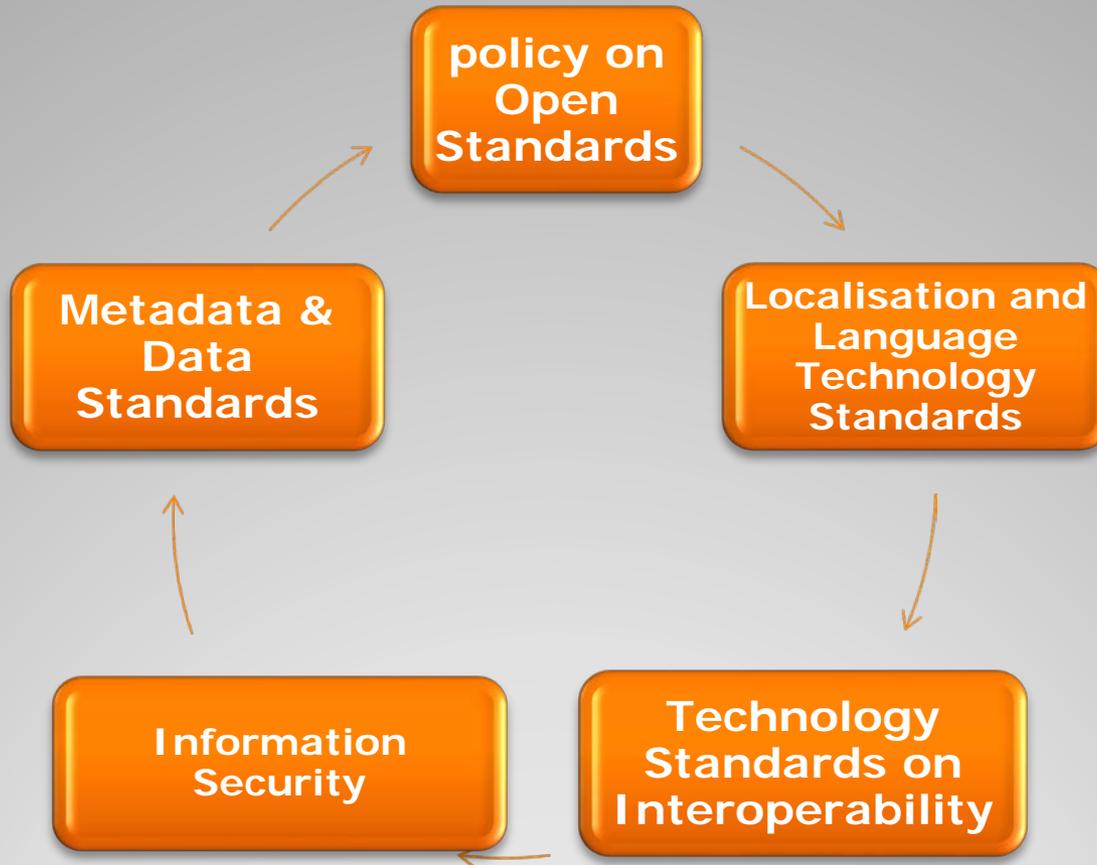
**Initiatives in Standardization other than BIS**

- *E – Governance Standards*
- *Cloud Standards*
- *Cyber Security Standards (BIS)*
- *Biometric Standards*
- *Telecom Standards*

- *TEC*
- *STQC*
- *TSDSI*
- *DSCI*
- *UIADI*



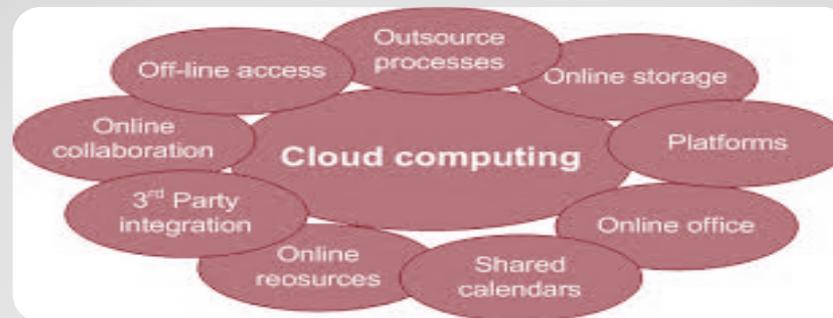
**Other Initiatives**



# Initiatives for e-Governance

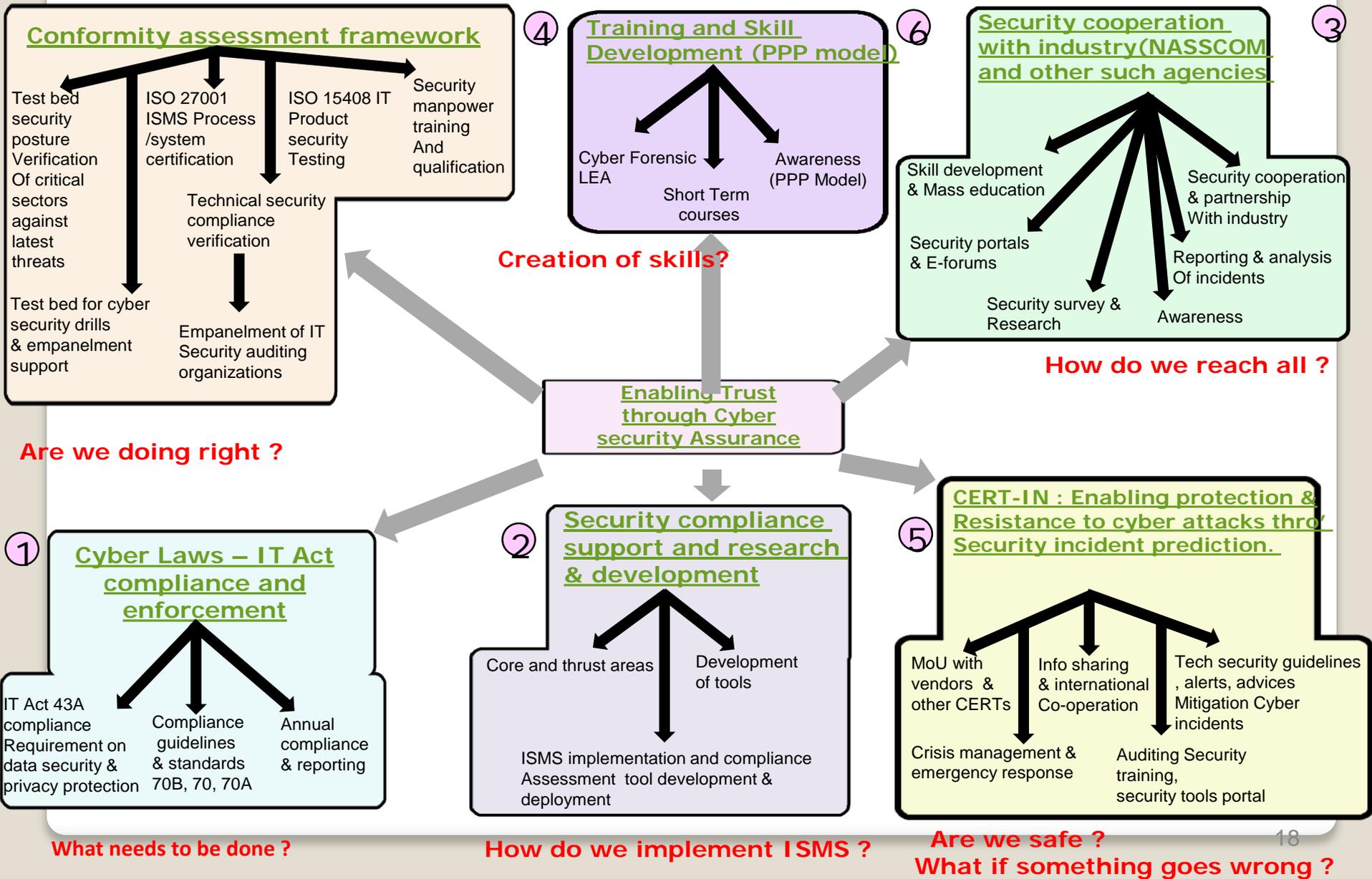
## MeghRaj (Cloud Initiative by Government of India)

- Launched on 4th February 2014, implemented by NIC.
- Termed as the 'GI- Cloud' (MeghRaj).
- Aimed at **accelerating delivery of e-services** in the country and optimizes ICT spending of the Government.
- **Architectural vision is to set up discrete cloud computing environments spread across multiple locations following a set of common guidelines and standards issued by the Government of India.**



# Cloud Computing – Deity

# Cyber Security – Eco system



- **Security of Cyber Space – Snap shot of efforts**

**(6 Levels of simultaneous action)**

**Government**

*(Policy, Plan, IT Act, Directives, CMP)*

**Public – Private Partnership**

*(JWG)*

**Technical -**

*(Honey pots, sensors, situational awareness, R&D)*

**CIIP and CERT-**

*(Section 70A and 70B of IT Act)*

**Individual /Professional -**

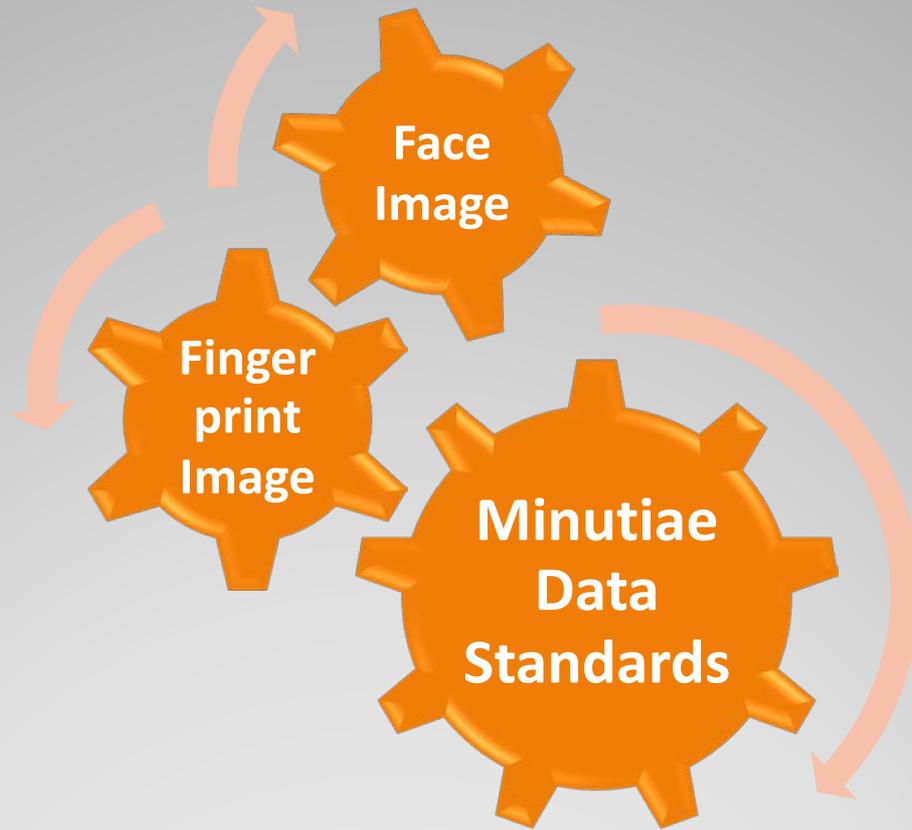
*(Awareness & capacity building)*

**International -**

*(Information sharing and cooperation)*

**Initiative of Deity**





**Biometric Standards for e-Governance  
(Initiatives of DeitY)**

**Biometric Design Standards for UID Applications**

**Fingerprint scanner specification for enrolment devices**

**Fingerprint scanner specification for authentication devices**

**IRIS- specification for enrolment devices**

**IRIS- specification for authentication devices**

**Biometrics Specifications - UIDAI**

- **TELECOM STANDARDS**

- Department of Telecom promoting development of new standards with organisations like TSDSI / TEC
- Participation in international standardization bodies to contribute in formation of global standards
- Framing of rules, related to Telecom Devices, Networks, Security, Wireless and Spectrum etc.
- **Standards include:**
  - **Product Standards**
  - **Standard in Wireless & RF Domain**
  - **Security**



# Initiatives in Telecom Sector

## 1. **TEC (Telecom Engineering Centre) has mandate to:**

- Specification of common standards with regard to Telecom network equipment, services and interoperability.
- Prepare and Publish Generic Requirements (GRs), Interface Requirements (IRs).
- Issuing **Interface Approvals, Certificate of Approvals, Service Approvals & Type Approvals.**
- Formulation of Standards and Fundamental Technical Plans.
- Interact with multilateral agencies like APT, ETSI and ITU etc. for standardization.
- Develop expertise to imbibe the latest technologies and results of R&D.
- Provide technical support to DOT and technical advice to TRAI & TDSAT.
- Coordinate with C-DOT on the technological developments in the Telecom Sector for policy planning by DOT.

# Telecom Engineering Centre - TEC

## 2. TRAI (Telecom Regulatory Authority of India)

- **Regulates telecom services**  
(including fixation/revision of tariffs for telecom services which were earlier vested in the Central Government)
- **Growth of telecommunications** in the country in a manner and at a pace which will enable India to play a leading role in emerging global information society.
- Provide a fair and **transparent policy environment**, which promotes a level playing field and facilitates fair competition.
- To provide the required **direction to the evolution of Indian telecom** market
- **To issue regulations, orders and directives** covering tariff, interconnection and quality of service as well as governance of the Authority.
- **Telecommunications Dispute Settlement and Appellate Tribunal (TDSAT)**  
(set up by TRAI to adjudicate any dispute between a licensor and a licensee)

**TRAI**

## *The Data Security Council of India (DSCI)*

- Not-for-profit organization engaged in Industry Standards
- Aims to promote the country as a secure destination for information technology (IT) outsourcing and was founded by [NASSCOM](#), an Indian IT-BPO (business process outsourcing) consortium.
- Framework of best practices for IT business process outsourcing ([BPO](#)) service providers, banking and financial services, manufacturing, e-governance, telecom, public sector units (PSU) and e-commerce companies.

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

- One of the International Standards developing Organisation
- Standards development by involving all stake holders - Government, Academia and Industry
- Maintain technology neutrality and provides a uniform playing field for all of its members.

# Other Forums



## *Development Organization of Standards for Telecommunications in India (DOSTI)*

- Not-for-Profit Organization & contributing to global standardization in the field of telecommunications.
- *(Founding members include Cellular Operators Association of India (COAI), Association of Unified Telecom Service Providers of India (AUSPI), Ericsson, Qualcomm, Nokia Siemens Network, Center of Excellence in Wireless and Information Technology (CeWIT), Telecom Center of Excellence (TCOE), Indian Company Tejas Networks, IIT Mumbai, IIM Ahmedabad etc)*

## *Global ICT Standardization Forum for India (GISFI)*

- Non-profit organization registered as a “Society”
- *An initiative of “Indian industry and University Research Establishment “ to produce industry driven ICT standards for Indian environment.*

## **Other forums**

- **TEC -** *Telecom*
- **STQC-** *Electronics & IT*
- **BIS-** *Electro-technical*
- **Cyber Security-** *Cert-In*
- **NIC –** *e-Governance Standards*
- **Biometric-** *UIDAI*



**Implementing Agencies**



- *Ministry of Power*



- *Ministry of Environment*

**Other Ministries involved in ICT standardization**

*India is an active member of :*



• IEC



• ISO



• ITU

**Indian membership**

THANK YOU

**\*Security**

**\*Software & System Engineering**

**\*e-Governance**

**Information  
Technology**