Artificial Intelligence (AI) Standardization

Standardization efforts - Bureau of Indian Standards (BIS)

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Bureau of Indian Standards

"National Standards Body of India"

Promote Harmonious development of the activities of Standardization, conformity assessment and quality assurance of goods, articles, processes , systems and services and for matters connected therewith or incidental thereto

Bureau of Indian Standards (BIS)

1947
Indian Standards Institution (ISI)

2016
Bureau of Indian Standards (BIS) Act 2016

1986
Bureau of Indian Standards (BIS) Act 1986

BIS – Core activities

- Standards Formulation

- Conformity Assessment

  – Product certification

  – Self declaration of conformity

  – Hallmarking

  – System Certification

- Testing

- Training
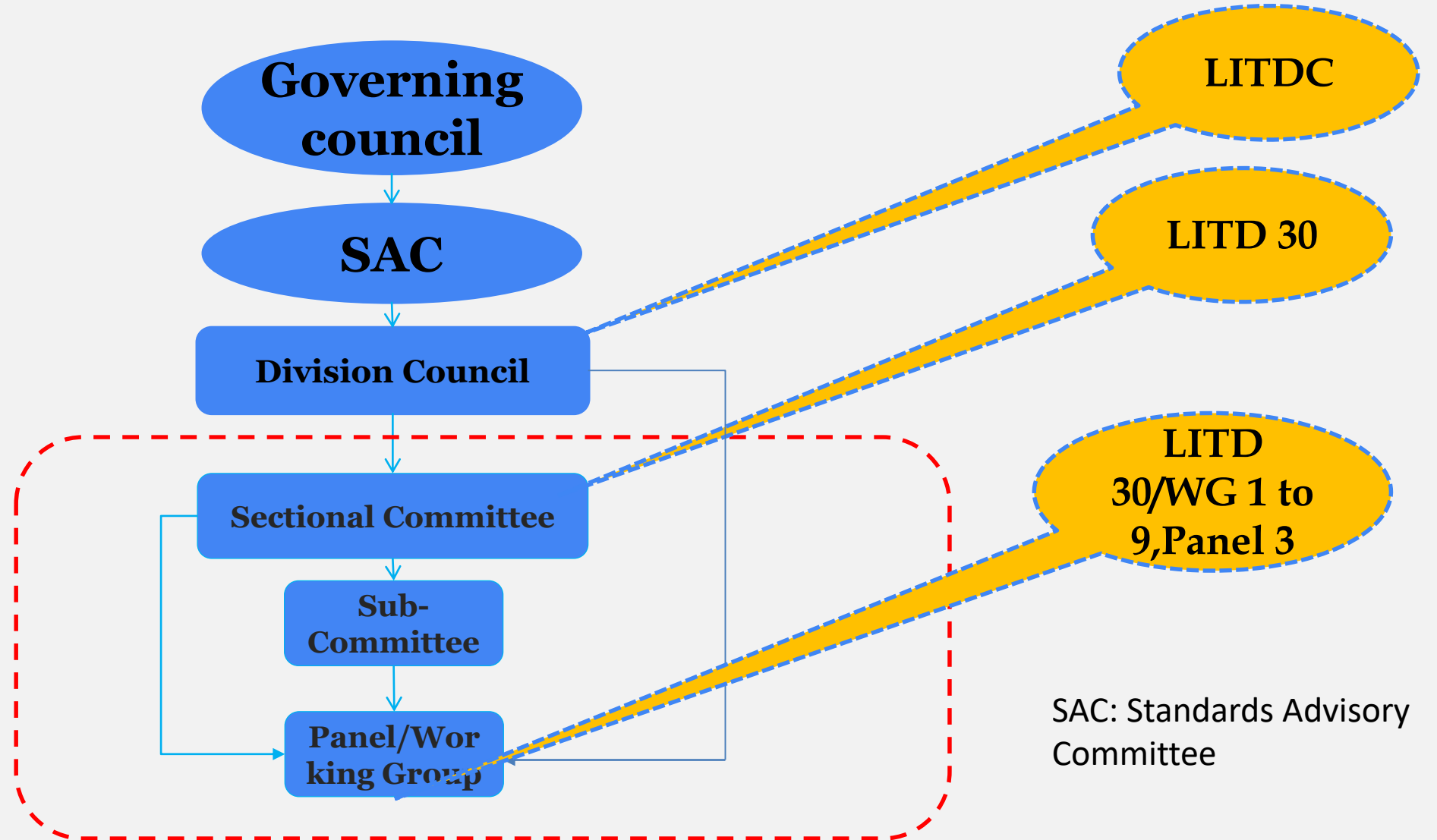
Standards Development

Standards Formulation

- National Standards are formulated based on the concept of Consensus by the Division Councils and the Sectional Committees under it.

- There are 16 Division Councils presently covering almost all the field of activities.

- LITDC(Electronics & IT Division Council) is responsible for formulation of Indian Standards in Electronics & Information Technology field.

Standards Formulation Structure

SAC: Standards Advisory Committee

Stakeholders

National Standards are formulated based on the concept of Consensus through meetings by the Division Councils and the Sectional Committees under it.

- Government
- Regulators
- Industry
- Laboratories
- Research & Developments
- Consumers
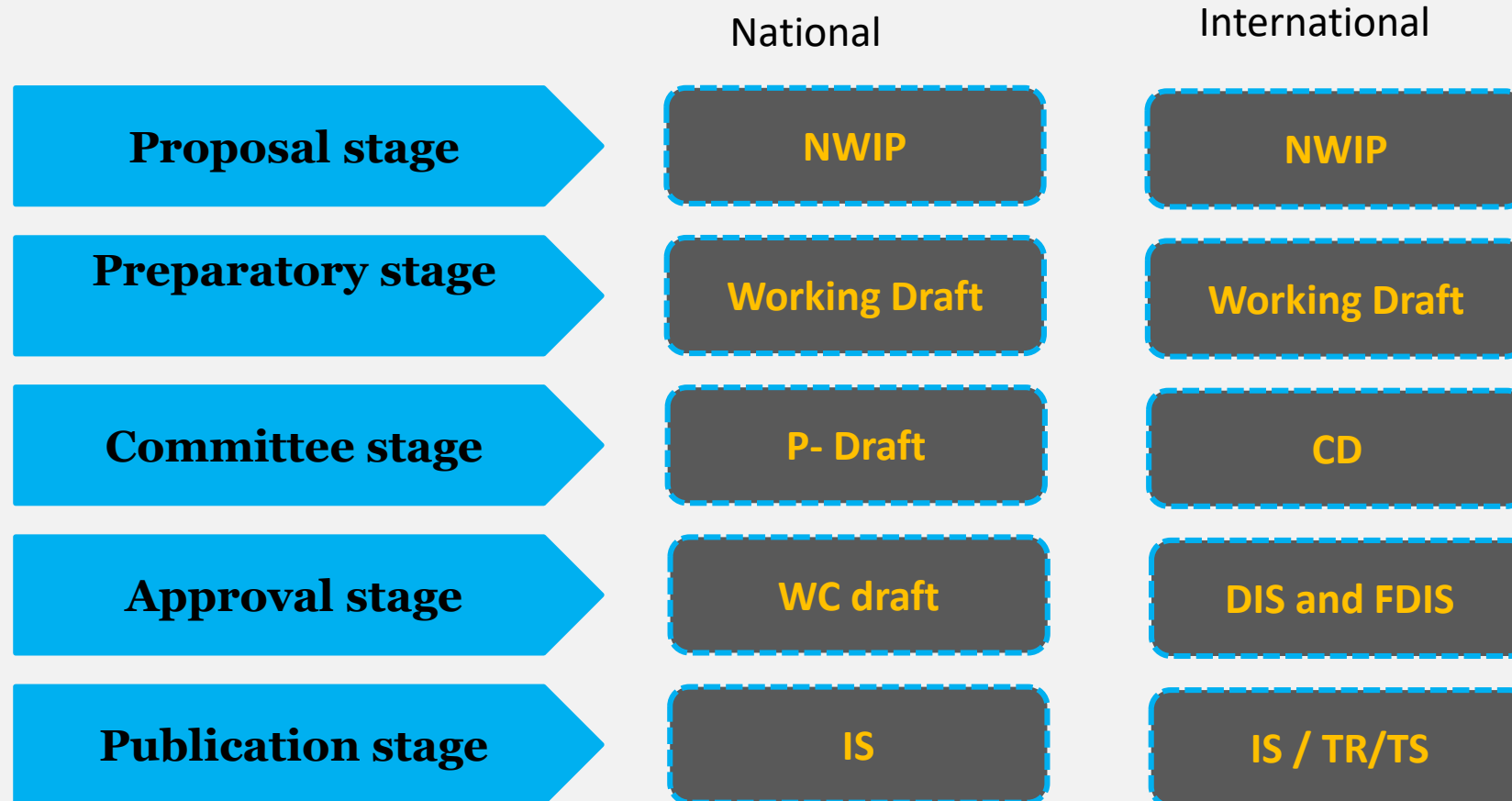- Individual experts
- Academia

Standards Formulation - Process

- Development of Indian Standards (Indigenous Standard)

- Adoption of International Standards as Indian Standards (Technically Equivalent, Identical)

Standard Formulation Process

	National	International
Proposal stage	NWIP	NWIP
Preparatory stage	Working Draft	Working Draft
Committee stage	P- Draft	CD
Approval stage	WC draft	DIS and FDIS
Publication stage	IS	IS / TR/TS

NWIP : new work item proposal, P- Draft : Preliminary draft, CD : Committee draft , DIS : Draft International Standard, IS : Indian/International Standard , TR : Technical Report , TS : Technical Specification

Standards Formulation - Process

- Proposal – Indigenous or already existing international standard – by Committee or any individual/organization

- Approval of subject by Committee

- Working Draft preparation by Panel/Working Group

- Preliminary Draft (P- Draft)/CD – circulated to Committee members for comments

- Comments discussed & resolved in respective meetings

- Wide Circulation Draft (WC –Draft)/DIS/FDIS – to all possible stakeholders

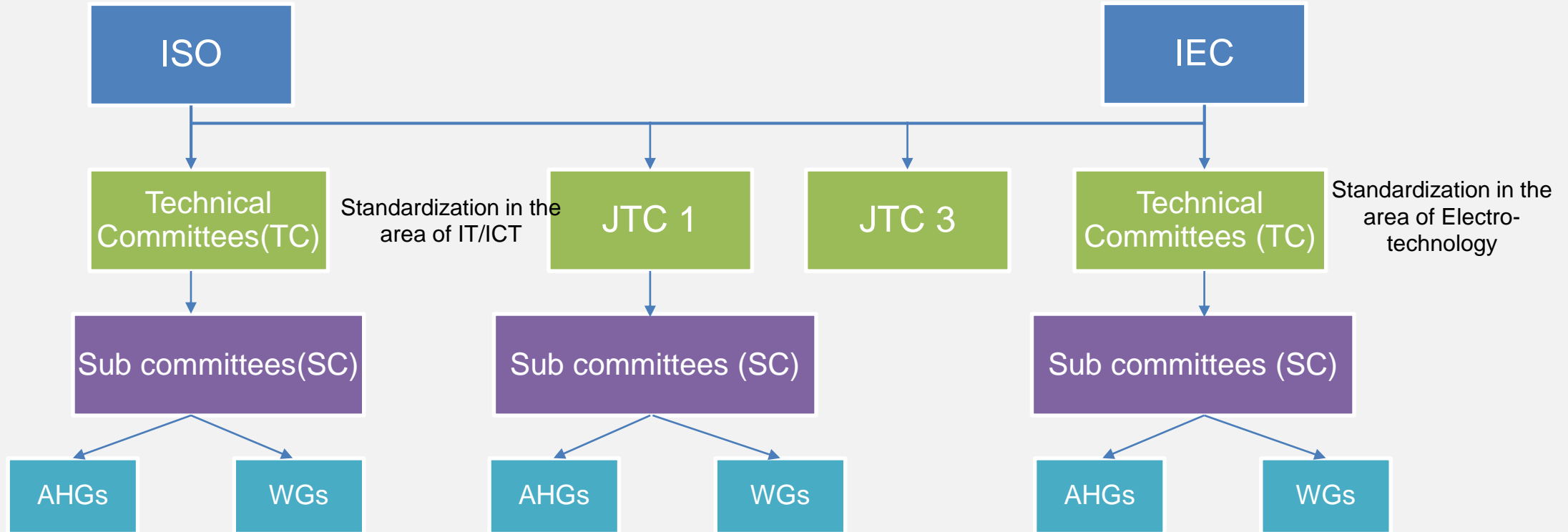- Comments resolution and finalization

- Publication of IS

Participation in International Standardization Process

- Sectional Committees under LITDC act as National Mirror Committees for the corresponding ISO/IEC Technical Committees and Subcommittees

- Nominate Experts at Working Group level, where working drafts for International Standards are prepared

- Send comments on documents at proposal stage (NP/NWIP), committee stage (CD, CDV) and approval stage (DIS, FDIS)

- Propose new subjects for formulating international standards

- Provide Chairperson, Convener, Editor, Co-editor

- Undertake Secretariat Work

- Host Meetings

Structure of ISO/IEC committees

Standardization in the Area of Artificial Intelligence

- **At National Level -** LITD 30 Artificial Intelligence

- **At International Level –** ISO/IEC JTC 1/SC 42 "Artificial Intelligence"

LITD 30 Artificial Intelligence

Scope :"Standardization in the area of Artificial Intelligence and Big Data"

National Mirror committee of ISO/IEC JTC 1/SC 42

https://www.services.bis.gov.in/php/BIS_2.0/bisconnect/dgdashboard/committee_sso/composition/386/2

https://www.services.bis.gov.in/php/BIS_2.0/bisconnect/dgdashboard/committee_sso/workingGroupDetails/386

https://www.services.bis.gov.in/php/BIS_2.0/bisconnect/pow_new/

LITD 30 Artificial Intelligence

- BIS Technical committee - LITD 30 Artificial Intelligence

- Constituted in December 2017

- Scope : Standardization in the area of Artificial Intelligence and Big Data

- National Mirror committee of ISO/IEC JTC 1/SC 42

- First Meeting of LITD 30 – March 2018

- 10 Working Groups/Panel under LITD 30

- 40 Member Organizations

Panels/WGs Under LITD 30

- LITD 30/WG 1 "Foundational Standards"

- LITD 30/WG 2 "Data"

- LITD 30/WG 3 "Trustworthiness"

- LITD 30/WG 4 "Use cases and Applications"

- LITD 30/WG 5 "Computational approaches and characteristics of artificial intelligence systems"

- LITD 30/WG 6 "Testing of AI-based systems"

Panels/WGs Under LITD 30

- LITD 30/WG 7 "AI enabled health informatics "

- LITD 30/WG 8 "Functional Safety and AI systems"

- LITD 30/WG 9 "Natural language processing systems"

- LITD 30/Panel 3 "Levels of Specification for AI Systems"

JTC 1/SC 42 Artificial Intelligence

Scope:

Standardization in the area of Artificial Intelligence

- Serve as the focus and proponent for JTC 1's standardization program on Artificial Intelligence

- Provide guidance to JTC 1, IEC, and ISO committees developing Artificial Intelligence applications

JTC 1/SC 42 Artificial Intelligence

Working Group 1 'Foundational Standards'

Working Group 2 'Data'

Working Group 3 'Trustworthiness'

Working Group 4 'Use Cases and applications'

Working Group 5 'Computational approaches and characteristics of artificial intelligence systems'

JTC 1/SC 42 Artificial Intelligence

Joint Working Group (JWG 2) between ISO/IEC JTC1/SC42 and ISO/IEC JTC1/SC 7'**Testing for AI Systems"**

Joint Working Group (JWG 3) between ISO/IEC JTC1/SC42 and - ISO/TC 215 '**AI enabled health informatics'**

Joint Working Group (JWG 4) between ISO/IEC JTC1/SC42 and IEC TC65/SC65A '**Functional safety and AI systems'**

Joint Working Group (JWG 5) between ISO/IEC JTC1/SC42 and ISO/TC 37 '**Natural language processing'**

Expectation from members

- ➢ Regular Participation in the meeting

- ➢ Regular contribution by way of reviewing documents and providing inputs

- ➢ Identifying new area of standardization

- ➢ Specific expectation from experts registered in groups of JTC 1/SC 42 committee

  - – Participation in WG(working group) meetings

  - – Reviewing documents and providing inputs

  - – Considering proposing proposal for formulation of new standards

  - – Providing update to LITD 30 w.r.t WG work and their contributions

Standardization is collaborative effort, *organizations willing to contribute* in standardization may submit their request at https://www.services.bis.gov.in/php/BIS_2.0/eBIS/

There is **no membership fee**, all you had to do is to provide your regular inputs.

Thank you