



ASIA-PACIFIC TELECOMMUNITY
**The 34rd APT Standardization Program Forum
(ASTAP-34)**
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The Telecommunication Technology Committee (TTC)

TTC Activity Report



TTC Activity Report

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TTC, Japan
ASTAP-34, 18, April 2022**

Questions for SDOs in this workshop

Q1: National ICT standardization process

Q2: National legislation relevant to ICT standardization

Q3: The role of Government and
SDOs/Forum/standardization committee

Q4: Industry engagement

Q5: Any recommendation to APT Members in setting up
national standardization regime

Q6: Any suggestions to ASTAP and APT

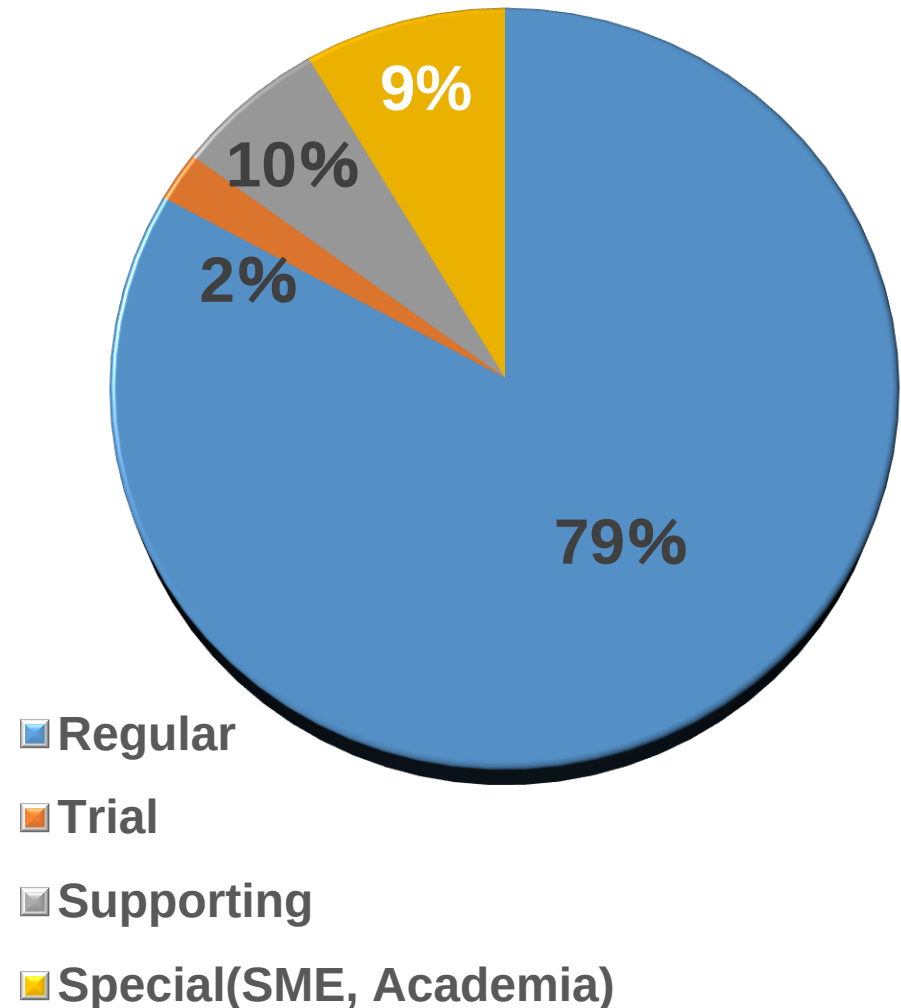
TTC's Mission

- TTC is a private and non-profit organization **accredited by the Japanese Administration** as an SDO in Japan
- Established in **1985** (NTT's privatization)
- TTC is an SDO **qualified by ITU-T Recommendation A.5 & A.6** Q3
- TTC's mission is to **develop and disseminate the TTC standards** applicable both in Japan and in other areas in particular in the Asia-Pacific region Q6
- Substantial and preparatory discussions on **the upstream activities to ITU-T** are extended by TTC Working Groups and their outcomes should be submitted to MIC for authorization as the formal Japanese contribution Q1
Q3

TTC Membership

Q5

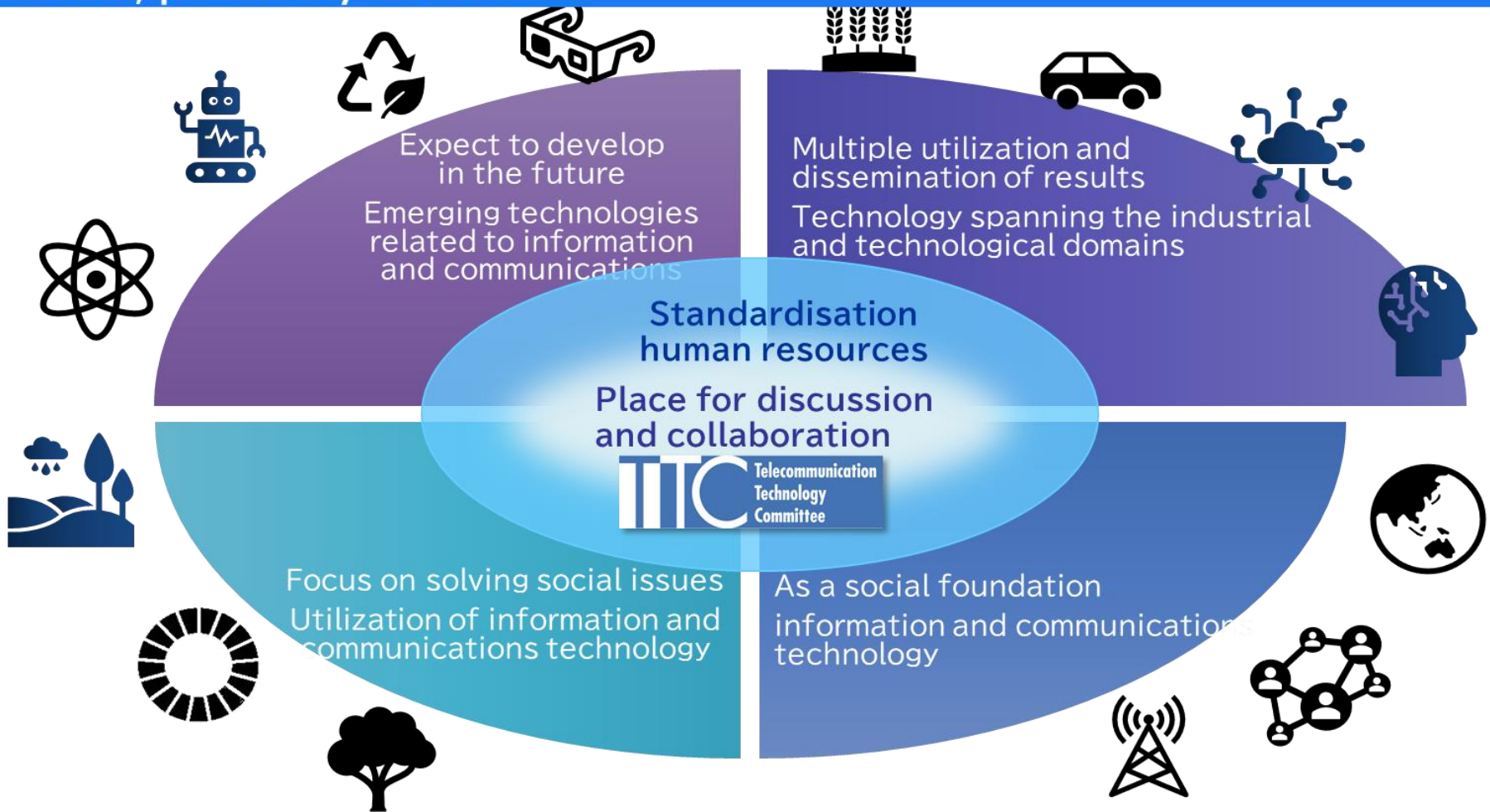
Member types	No.
Regular	77
Trial	2
Supporting	10
Special (SME, Academia)	9
Total	98



[Note] As of March 2021

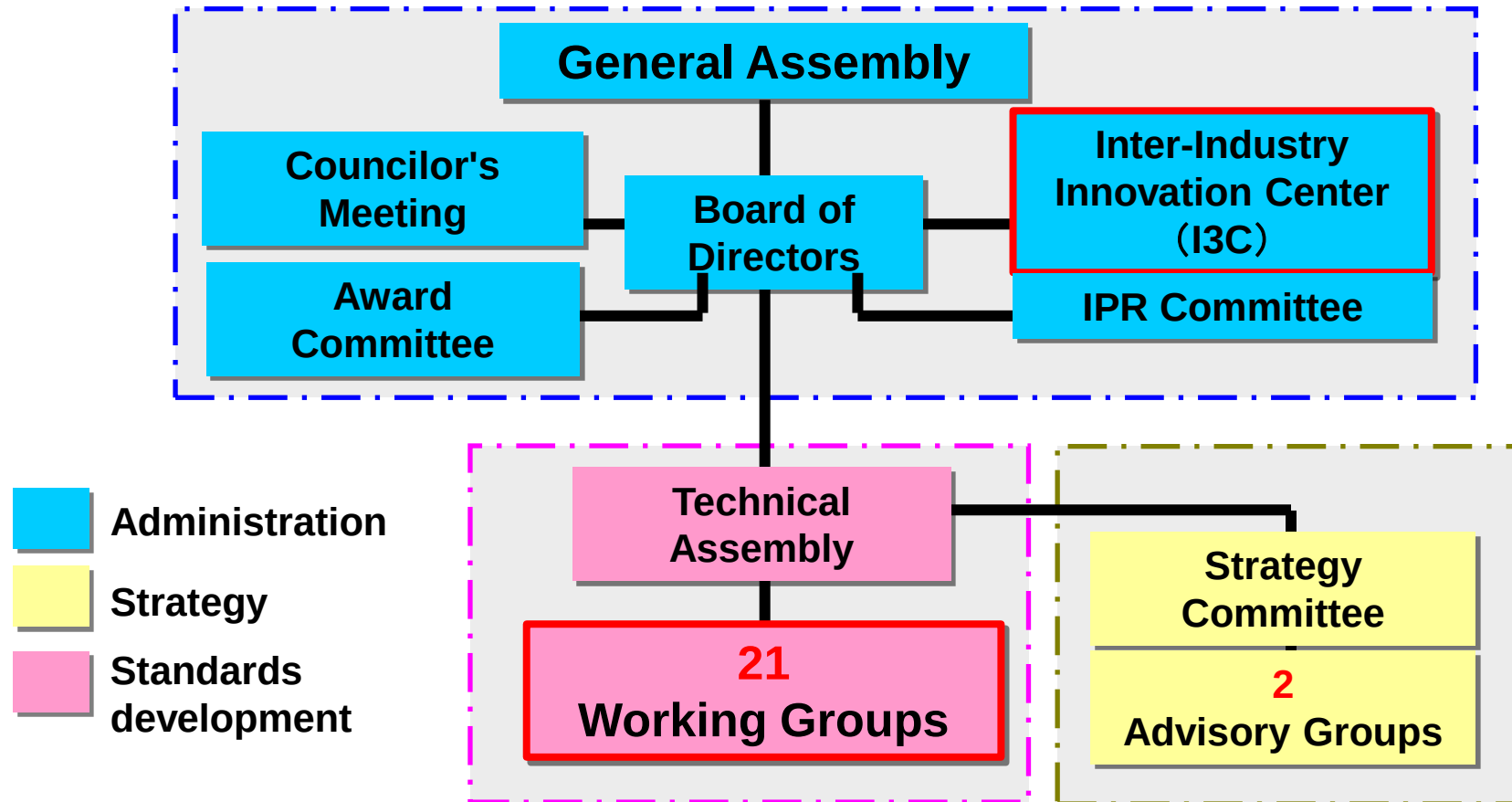
Background – Roles of TTC

Provide opportunities for discussion and collaboration across industries and technologies in a timely manner, and support the creation of new value beyond the establishment of standards, particularly for members



TTC's Organization Chart

Q5

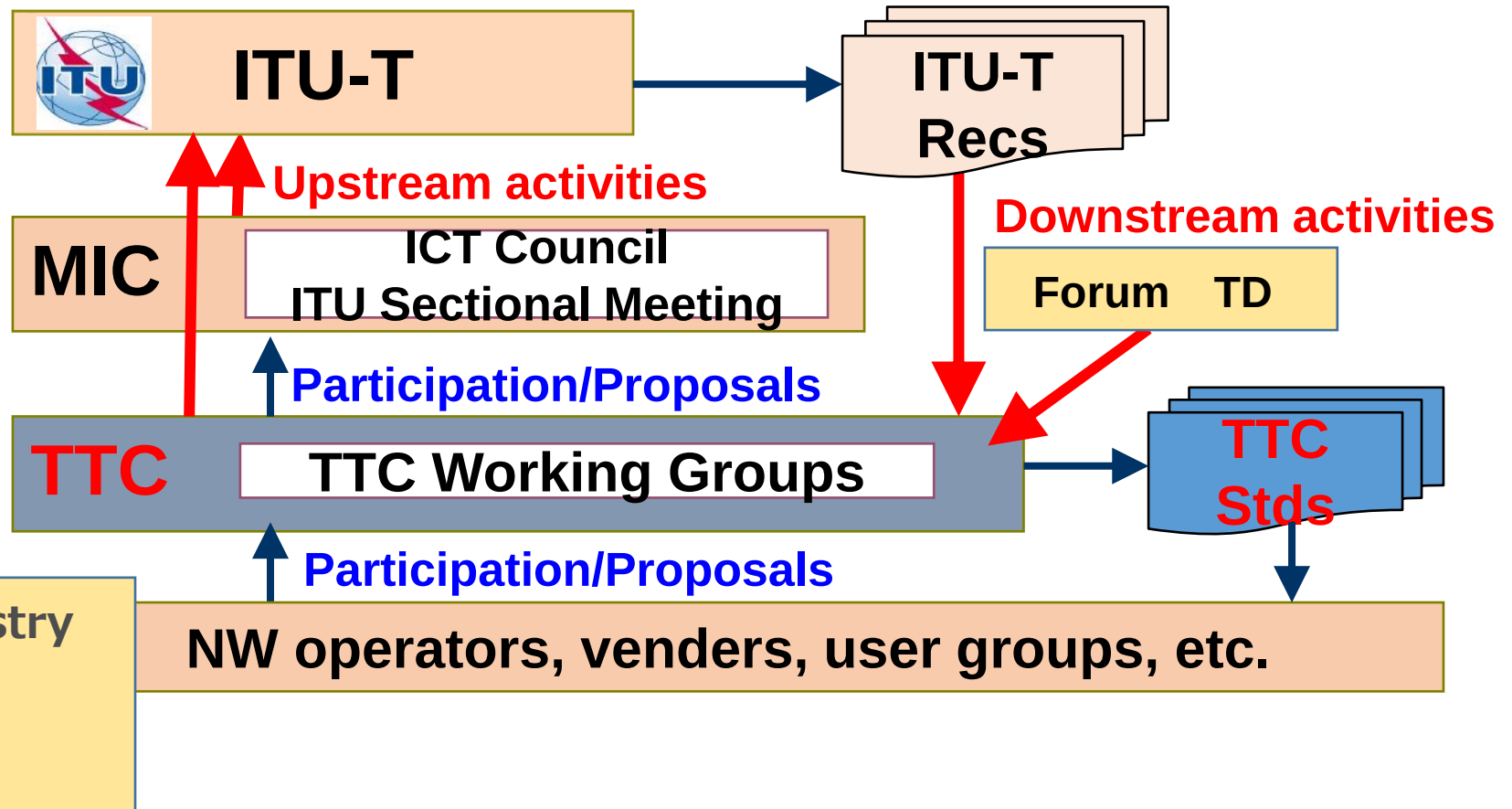


TTC Standards Development Process

Q1

Q3

Q5



[Notes] MIC: Ministry of Internal Affairs and Communications in Japan

Summary of Standardization Activities – WGs structure

Q5

- New Machine Vision SWG under Multimedia Application WG
- Establishment of AHG for FG AN

Divisions	WGs		Major Sub-Working/Ad Hoc Groups				
ICT utilization Application	Multimedia applications	BSG	e-health	Accessibility	ILE	Machine vision	ICT climate change
	Connected car	IoT Smart City					
Platform	AI utilization	Security	Fire & disaster system				
	oneM2M	Enterprise network					
Protocols, network management and quality	Signal control	Network management	QoS/QoE				
	Numbering plan						
Architecture	Network Vision		Soft error				
	Mobile network management	3GPP					
transport Access Area NW	IoT Area Network	Transport network and EMC	FG AN support				
	Access network	Optical fiber					

Cross-Sectoral Activities: Cooperation with JIIA

- JIIA (Japan Industrial Imaging Association) established the International Standards Promotion Committee in 2021.
- Machine Vision SWG was established in cooperation with JIIA in order to respond to the diversification of international standardization activities centering on communications technology and machine vision technology.



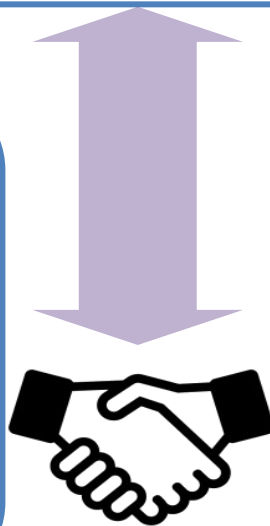
ITU-T SG16: Multimedia

Q5/16 : Artificial intelligence-enabled multimedia applications

Q21/16 : Multimedia framework, applications and service

JIIA

International Standards
Promotion Committee



TTC

Expert Committee on
Multimedia Applications
/ Machine Vision SWG



Responding to ITU-T Study Groups

Q1

Q3

As of April 2022

L: Lead Working Group

X: Working Group to respond to questions in the SG
and to make proposals for the SG

R: Related Working Group

As of April 2022 L: Lead Working Group X: Working Group to respond to questions in the SG and to make proposals for the SG R: Related Working Group			TTC Working Groups																TTC Advisory Groups		
			Transport, Access and Area Network				Architecture			Protocols, NW Management and QoS/QoE			Platforms				ICT Applications				
			Transport Networks and EMC	Access Network	Optical Fiber	IoT Area Network	Network Vision	3GPP	Mobile Network Management	Signalling	Network Management	Numbering Plan	AI for Next Gen. Services	oneM2M	Security	Enterprise Network	Multimedia Application	Connected Car	BSG	IoT · Smart City	Global Collaboration
ITU-T Study Groups	SG2	Operational aspects of service provision and telecommunication management									L										
	SG5(EMC)	EMF, environment, climate action, sustainable digitalization and circular economy	L			R															
	SG5(Climate Change)	EMF, environment, climate action, sustainable digitalization and circular economy																L			
	SG11	Signalling requirements, protocols, test specifications and combating counterfeit telecommunication/ICT devices					R	R	L					R	R						
	SG12	Performance, QoS and QoE				X				L					R	R					
	SG13	Future networks and emerging network technologies				R	L	R	R					R		R					
	SG15	Networks, technologies and infrastructures for transport, access and home	L	X	X	X															
	SG16	Multimedia and related digital technologies				R										L	X				
	SG17	Security				R								L		R	R				
	SG20	IoT and smart cities and communities				R	R			R				R	R		R	R		L	
	TSAG	Standardization Strategy, Management and coordination of Study Groups																		L	

Categories of TTC Documents

Q1

Q3

Q5

Type	Description	Relevant SDOs
JT	TTC Standards based on ITU-T Recommendations	ITU-T
JP	TTC Standards based on deliverables developed by regional SDOs or partnership projects	3GPP, 3GPP2, oneM2M
JF	TTC Standards based on the de-facto standards/deliverables developed by <u>f</u>ora	IETF, IrDA, NMF, IEEE, etc.
JJ	TTC Standards developed originally by Japan/TTC	-
JS	TTC Standards based on ISO Standards	ISO
TS	Technical Specifications	3GPP, 3GPP2, oneM2M, etc.
TR	Technical Reports	3GPP, 3GPP2, oneM2M, etc.

Cross-Sectoral Activities: Cooperation with W3C

Q3



W3C

World Wide Web Consortium

JF-W3C-wot-architecture-20200409 Web of Things (WoT) Architecture (W3C Recommendation 9 April 2020) I.<Overview> The W3C Web of Things (WoT) is intended to enable interoperability across IoT platforms and application domains. Overall, the goal of the WoT is to preserve and complement existing IoT standards and solutions. In general, the W3C WoT architecture is designed to describe what exists rather than to prescribe what to implement. This WoT Architecture specification describes the abstract architecture for the W3C Web of Things. This abstract architecture is based on a set of requirements that were derived from use cases for multiple application domains, both given in this document. A set of modular building blocks are also identified whose detailed specifications are given in other documents. This document describes how these building blocks are related and work together. The WoT abstract architecture defines a basic conceptual framework that can be mapped onto a variety of concrete deployment scenarios, several examples of which are given. However, the abstract architecture described in this specification does not itself define concrete mechanisms or prescribe any concrete implementation.

F-W3C-wot-architecture-20200409
Web of Things (WoT) Architecture



TTC

IoT Area Network
expert committee



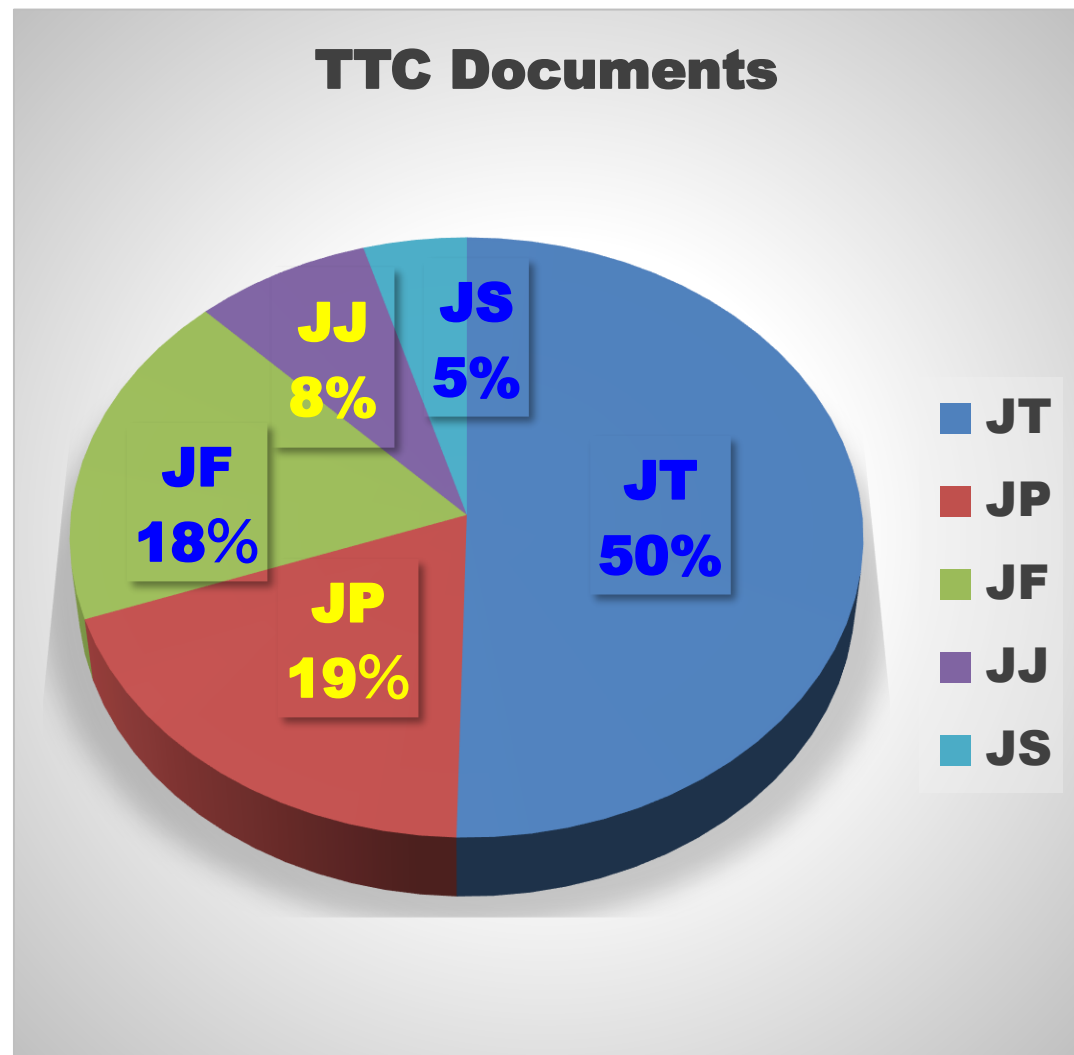
JF-W3C-wot-architecture-20200409
Web of Things (WoT) Architecture

Number of TTC Documents

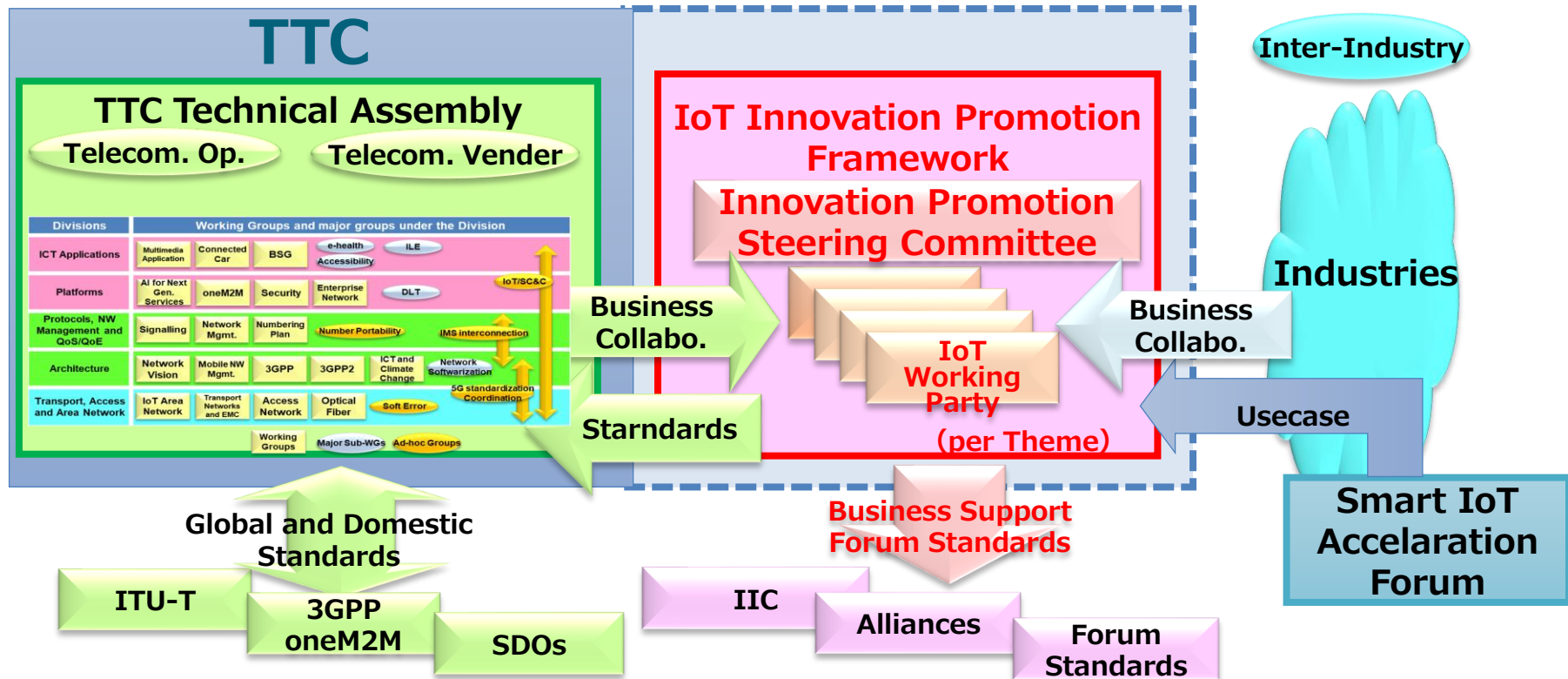
Q4

Cate gory	No.	Increase from last year
JT	457	+9
JP	173	0
JF	166	0
JJ	70	0
JS	41	+1
TS	15,782	+1254
TR	679	+42

[Note] As of March 2021



[Note] This graph does not include TS or TR.



A new framework promoting **innovation activities** and **inter-industry community bridges** to stimulate practical business and technology studies in IoT service/application development.

Inter-Industry Innovation Center (WP Activities)

- Promoting the Inter-Industry Innovation Working Party (WP) as a Cross-Sectoral Activity
- The active WPs are:

High Definition Video Data Medical Application Study Group

- ◆ Aiming at standardization of color information of medical high-definition images such as 8K endoscopes (proposal to ITU-T)
- ◆ The Medical Innovation Consortium, companies involved in endoscopy and imaging, and broadcasters will participate in the discussions and submit the results to the ITU-T.

BHQ

- ◆ In order to maintain and improve the health of the brain, we are conducting information exchange on the Brain Healthcare Quotient (BHQ), which was developed as a unit to describe the state of brain health based on MRI images of the brain, research and study on examples of its utilization, demonstration experiments, and dissemination and development.
- ◆ Cooperation with ITU-T SG 16 in examining use cases for brain information platform (completion of recommendation)
- ◆ Members of the BHQ Consortium, including manufacturers of home appliances, food products, medical devices and daily necessities, participate.

Cross-Sectoral Activities: SDO Collaboration

- Cooperation among domestic standardization organizations based on liaison among international standardization organizations is necessary.

SPCG(Standard Programme Coordination Group)



**ISO TMB: Technical
Management
Board**

**IEC SMB:
Standardization
Management Board**



**ITU
TSAG: Telecommunication
Standardization Advisory
Group**



JISC: Japan Industrial Standards Committee



TTC: TSAG Task Force



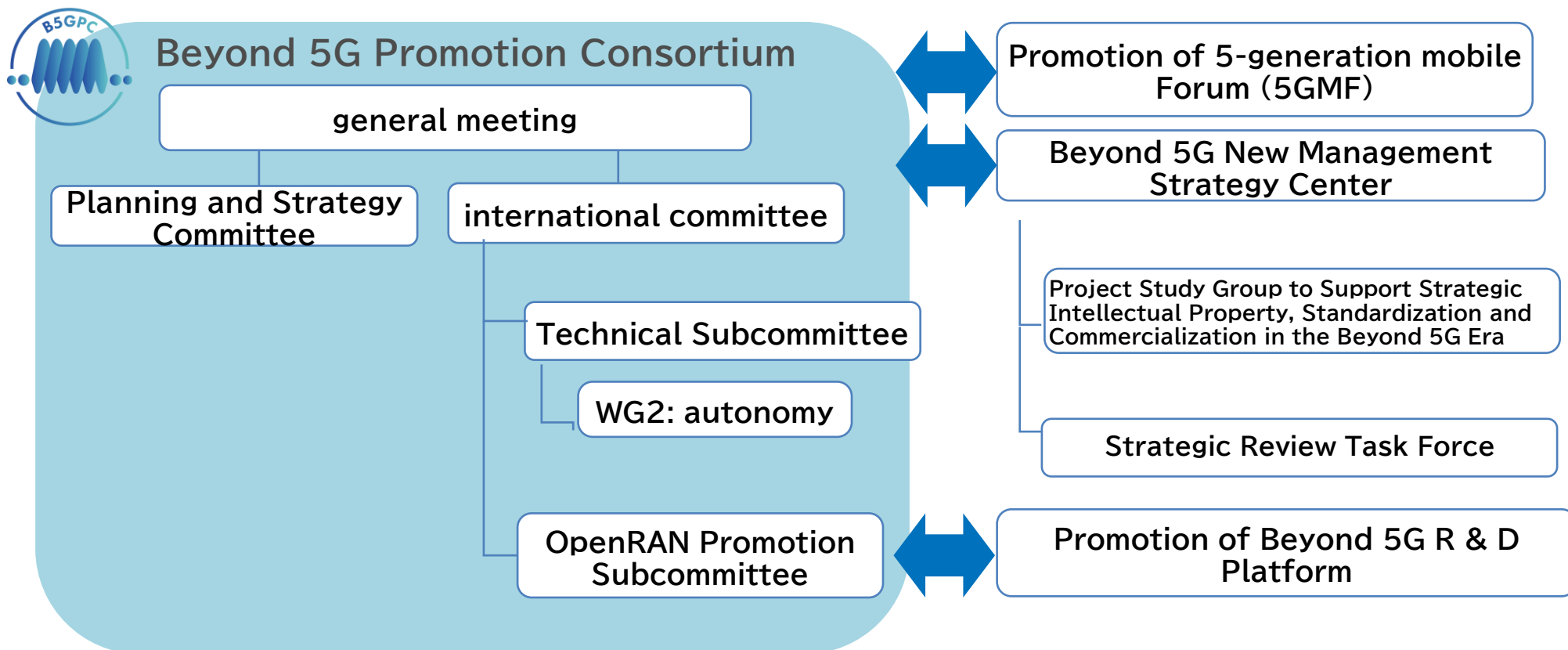
**IEC-APC: IEC Activity Promotion
Committee ***

*IEC-APC: A private-sector-led organization that supports IEC upper management in cooperation with the JISC Secretariat

Beyond 5G Promotion Activities

Q4

- In order to strongly and positively promote the "Beyond 5G Promotion Strategy" (the Ministry of Internal Affairs and Communications, June 2020), the "Beyond 5G Promotion Consortium" was established by industry, academia and government in 12, 2020.
- The TTC participates in various activities and makes recommendations for the realization of Beyond 5G.



TTC's Officers

- Chairman of the Board:
Prof. Hiroshi Harashima
- CEO & Senior Vice President:
Dr. Hideyuki Iwata
- Secretary General:
Mr. Nobuyuki Tajiri
- Director General of I3C:
Dr. Hideyuki Iwata

