Japan and Industrial Standards 2017



JISC

Japanese Industrial Standards Committee Secretariat

About the JISC

The Japanese Industrial Standards Committee (JISC), Japan's national standardization body, plays a central role in developing standards in Japan covering a wide range of technologies and industries. JISC is also responsible for Japan's growing contribution to setting international standards through its work with the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC).

The scope of standardization has gone beyond manufacturing and is being expanded to cover a variety of fields such as servicing, IoT, management, etc., driven by technological innovation and the transformation of our society. Standardization not only assures interoperability, safety and quality of products and services, but also offers solutions to global challenges such as the Sustainable Development Goals adopted at the UN.

As a global hub for science and technology, and as a country that is facing various challenges including an aging population, Japan is committed to promoting standardization and contributing to tackling those globally shared goals. JISC takes into account the economic, social and environmental impacts when developing standards and maintains active participation in international standardization activities.



Economic Factors

As innovative technologies such as Artificial Intelligence, the Internet of Things and robotics are newly invented, companies and industries in different fields have started to be connected and are creating new sources of value in our economy. Standards play a significant role in coordinating workflows and processes for systems that are connected to the standards. JISC strongly supports and will pursue the development of standards that will open doors for these types of businesses.
Related topics: smart manufacturing, automated driving, sharing economy

Social Factors

We must, however, remember that all standards have human beings at their central focus. Standards should not only connect machines to machines, but also connect machines to humans. The Japanese government is advocating a vision called “Society 5.0”, a societal-digital-transformation plan, whose stakeholders include citizens, governments, academia, industries and others. JISC is eager to discuss the complex challenges our society is now and will soon be facing, and try to identify possible solutions through standardization. We actively promote standards which contribute to realizing an inclusive society where all people can work and live together.
Related topics: aging society, pictograms, cyber-physical system

Environmental Factors

It is obvious that our environment is in a precarious state. A great number of people around the world still have insufficient access to necessary resources such as clean water, electricity and food, while excessive use of resources in the other parts of the world are threatening future generations. As developing countries start to consume more resources, their effective use is going to be a big challenge to be tackled on a global scale. JISC continues to bring Japanese technologies and experiences to the international standardization communities to address environmental sustainability issues.
Related topics: smart city, zero energy building, asset management



JISC Activities in 2017

JISC's standardization initiatives are focused on the following three missions.
- Active participation in international standardization activities (ISO/IEC)
- Development, revision and withdrawal of Japanese Industrial Standards (JIS)
- Administration of accreditation and certification for the JIS Marking and JNLA laboratory accreditation systems.

Participation in ISO and IEC

1 JISC's relationship with ISO and IEC

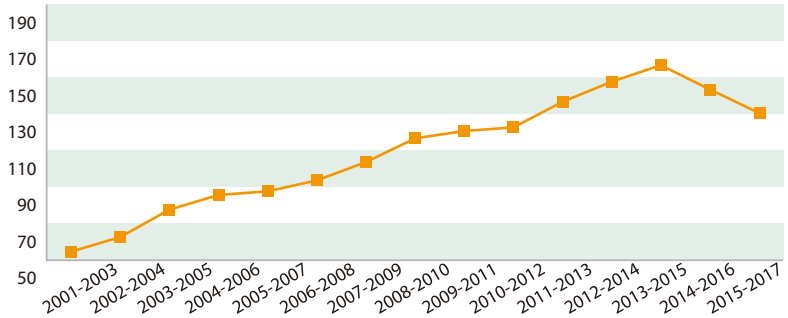
As an active member of ISO since 1952, JISC is a permanent member of the ISO Council and the Technical Management Board (TMB), playing a key role in policy-making. In 2017, JISC made 96 new proposals for international standards.
JISC joined the IEC in 1953. At the IEC, JISC participates as a permanent member of the Council Board (CB), as well as the Standardization Management Board (SMB) and Conformity Assessment Board (CAB), helping shape policy. In addition, two Japanese members sit on the Market Strategy Board (MSB). Raising Japan's profile at the IEC, Dr. Junji Nomura of Panasonic Corporation served as IEC President from 2014 to 2016 and now serves as IEC Immediate Past President for the term from 2017 to 2018. Japan made 40 new proposals for new standards in 2017.

Participation in ISO and IEC (as of Dec. 31, 2017)

	ISO	IEC
Number of committees	748	195
2017 budget (1000 CHF)	39,782	23,550
Contribution by Japan (1000 CHF)	1,479	919
Technical Committees and Sub-Committees in which Japan participates	633	181
Technical Committees and Sub-Committees for which Japan serves as Secretariat	75	26
Technical Committees and Sub-Committees for which Japan serves as a Chair	57	20

* CHF: Swiss Franc * JTC 1 included in ISO

International Standards Proposed by Japan (Combined ISO and IEC Total)



2 International standards led by JISC

Driving safety of vehicles

In December 2017, ISO 19237 (Pedestrian detection and collision mitigation systems) was issued based on the proposal filed by Japan. These standards are expected to contribute to popularizing vehicles with built-in preventive safety functions (e.g. automatic braking systems) that work effectively in low-light or dark conditions, in order to reduce the chance of collisions between vehicles and pedestrians.

Sustainable community infrastructures

In December 2017, ISO 37153 (Smart community infrastructures -- Maturity model for assessment and improvement) was issued based on the proposal filed by Japan. It is expected to facilitate an environment in which the performance level of infrastructure services and technologies (e.g. energy conservation) are accurately assessed, thereby contributing to sustainable communities.

Japanese Industrial Standards (JIS)

1 Development, revision and withdrawal of JIS

Based on JISC recommendations, 142 new standards were published, 316 standards were revised, 107 standards were withdrawn and 1,440 standards were confirmed in 2017. As of December 31, 2017, there are 10,622 active JIS.

2 Harmonization of JIS with international standards

Japan has stepped up efforts to harmonize JIS with international standards since the World Trade Organization (WTO)/Agreement on Technical Barriers to Trade (TBT) came into force in January 1995.

■Consistency between JIS and International Standards

Total number of JIS	10,622 standards
Number of JIS with corresponding international standards	5,855 standards
JIS identical to international standards (IDT)	39%
JIS modified from international standards (MOD)	59%
JIS non-equivalent to international standards (NEQ)	2%

(Figures as of Dec. 31, 2017)

(Note 1)
The degree of correspondence of the standards with international standards (IDT, MOD, NEQ) is in accordance with the definition of ISO/IEC Guide 21-1.

(Note 2)
The rate of harmonization is measured based on the "percentage of JIS with corresponding international standards."

Revision of the standards for pictograms

In light of the forthcoming 2020 Tokyo Olympic and Paralympic Games, Japan recognizes the importance of making pictograms more concise for overseas tourists as well as Japanese nationals. To this end, JISC revised JIS Z8210 (Public information symbols) for the purpose of making these pictograms consistent with those under the ISO.

Revision of the JIS for the safety of LED-lamps

In October 2017, JISC revised JIS C 8156 to further improve the safety of self-ballasted LED-lamps for general lighting services use, in line with the revised IEC 62560. New requirements, such as the strength of fitting of the body into the socket, and the instructions for use conditions, were added.

3 References to JIS in technical regulations

As of December 31, 2017, there are 7,587 references of JIS in 206 Japanese laws and regulations.

■Major Japanese laws and regulations referencing JIS

Name of laws and regulations	Number of JIS References
Act on Securing Quality, Efficacy and Safety of Products including Pharmaceuticals and Medical Devices (former Pharmaceutical Affairs Act)	1,349
Fire Service Act	647
Building Standards Act	607
Industrial Safety and Health Act	455
Measurement Act	422
Act on Safety Assurance and Quality Improvement of Feeds	290

(Note) In addition to the above, there are approximately 370 references to JIS in notifications under the Electrical Appliances and Materials Safety Act.

Conformity Assessment

1 Conformity assessment under IEC

JISC actively participates in all four international conformity assessment (CA) systems administered by IEC/CAB: IECEE, IECEx, IECQ and IECRE. Issuing or recognizing certificates by certification bodies in Japan under these CA systems promotes global trade in goods and services in the field of electrotechnology. JISC currently serves as a Vice-Chair of the Certification Management Committee (CMC), the highest policy-making body of the IECEE.

Conformity assessment activities under IEC in Japan

	CBs	Recognied TLs	Issued Certificates	Recognized Certificates	Legislation that utilizes the certificates for its conformity assessment procedure
IECEE	4	51	17,012 (in 2016)	628 (in 2016)	The Electrical Appliances and Materials Safety Act
IECEx	1	1	2 (in 2017)	116 (in 2017)	The Industrial Safety and Health Law
IECEQ	1	—	18 (in 2017)	—	—
IECRE*	—	—	—	—	—

CB: Certification Body TL: Testing Laboratory
IECRE*: The System launched in 2014

2 Conformity assessment related to JIS

The Ministry of Economy, Trade and Industry operates the following conformity assessment systems.

JIS Mark

Manufacturers that receive certificates of conformity from accredited certification bodies are eligible to add labels with the JIS Mark to their products. All certification bodies accredited for the JIS Marking System must comply with ISO/IEC 17065. The certification process consists of two steps: evaluation of the conformity of products with the relevant JIS and evaluation of the manufacturer's quality management system. As of March 2018, there are 24 JIS-accredited certification bodies, including three outside of Japan, which have issued about 8,700 certifications for JIS Marks.

Japan National Laboratory Accreditation System (JNLA)

JNLA is responsible for Japan's system of assessing the competence of and accrediting testing laboratories to issue test reports based on JIS testing methods.

International Cooperation

JISC fosters cooperative relationships with countries around the world through standardization initiatives that contribute to regional economic development.

May 2017

The 40th Annual General Meeting of Pacific Area Standards Congress (PASC 40) in Vancouver, Canada

PASC aims to strengthen collaboration and promote participation in international standardization activities, including ISO/IEC-related activities in the Asia-Pacific region. At the 2017 Annual General Meeting (AGM), members introduced new ISO/IEC standard proposals and reported on their regional activities. Japan introduced four standard proposals for standardization including refrigerated delivery services.
In 2018, JISC will host the 41st AGM in Okayama city, Japan. The theme of the AGM is "Standards for Human Centered Society – How can standards support a sustainable and inclusive society?" PASC members will discuss the challenges and opportunities through cooperative standardization activities to achieve the goal. An open workshop linked to the theme will be held before the AGM.

July 2017

The 16th Northeast Asia Standards Cooperation Forum in Jeju Island, the Republic of Korea



Convened annually since 2002, the forum aims to strengthen cooperation on standardization activities between Japan, China and Korea and to promote collaboration in some specific fields. In 2017, the forum convened in Jeju Island, Korea, and reached an agreement on cooperation in five fields, including standardization of quality requirements of thermal power infrastructure.

February 2018

CEN-CENELEC-JISC Secretariat Meeting in Brussels, Belgium

JISC has worked with the European Committee for Standardization (CEN) and European Committee for Electrotechnical Standardization (CENELEC) since late 1990s in accordance with the Cooperation Agreement between JISC and CEN-CENELEC. This agreement promotes cooperation by experts from both sides in several technical areas of mutual interest. The 2017 meeting discussed Japan-Europe cooperation in the fields of standard essential patents, circular economy and standardization priorities.

March 2018

JISC-IEC Human Resource Development Seminar in Ho Chi Minh, Vietnam

The seminar aims to cultivate experts and build human networks to vitalize IEC international standardization activities in Asia.
In 2018, the seminar focused on Smart Cities and LED lighting technologies.

March 2018

Joint JISC-ISO Workshop on Rubber standards in Penang, Malaysia

Organized by JISC with ISO to enhance international standardization activities in the ASEAN region. About 40 participants from ACCSQ (ASEAN Consultative Committee on Standards and Quality) Rubber Product Working Group attended the program focused on new work item proposal procedures, role of project leader and twinning procedure for the ISO.

Frylow



Ministry of Economy, Trade and Industry

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