

Win-win partnerships

Why the IEC works with consortia and consortia work with the IEC

Cooperation with the IEC allows consortia to turn common technology standards into broadly accepted international standards; IEC International Standards comply with World Trade Organization (WTO) rules and are internationally recognized. The IEC provides consortia with access to its internationally recognized consensus-based standardization process in their area of work and to four international Conformity Assessment Systems. Together they help speed up market access.

Consortia play an important role in the development of standards and their adoption and use for global trade. That is why the IEC (International Electrotechnical Commission) has engaged in over 750 liaison arrangements with more than 200 organizations, resulting in many important international standards. Such partnerships also allow consortia and the IEC to share insights to stay closely in touch with market developments. For a full list of IEC's global partnership, refer to <https://www.iec.ch/partners-and-liaisons>.

With the rapid pace of digitalization, technology and societal changes, consortia are expanding their framework of stakeholders beyond industry and professional members. The IEC's neutral and globally recognized platform facilitates the participation of these new participants to address emerging technological and societal needs.

How consortia work with the IEC

- Liaison agreements with some or all working groups of a technical committee
- Collaboration with other consortia in a single IEC working group for a single standard
- Streamline consortia specification to meet IEC requirements for an International Standard to be used globally in their industrial sector
- Access to reports on the work of a technical committee or subcommittee

Over the years, the IEC has worked with many consortia to turn their industry or product specifications into IEC International Standards.

Product standards:

Audio, video and multimedia is a fast-moving technology area, with many consortia and Fora developing their specifications, which are then implemented into products commercialized worldwide. IEC TC 100 *Audio, Video and Multimedia Systems and Equipment* has accelerated the development of IEC International Standards based on mature specifications from consortia in accordance with the ISO/IEC Directives. With an expert membership from 44 participating member countries and 18 liaison organizations, TC 100 has developed several consortia and Fora specifications including:

Consortia and IEC TC 100 partnerships	Resulting IEC International Standards
Digital Living Network Alliance (DLNA)	IEC 62481 series: Digital Living Network Alliance home networked device interoperability guidelines

USB Implementers Forum (USB IF)	IEC 62680 series: Universal Serial Bus Interfaces for data and power
Open IPTV Forum (OIPF)	IEC 62766 series: Consumer terminal function for access to IPTV and open Internet multimedia services
AirFuel	IEC 63028: AirFuel Alliance resonant baseline system specification
Association of Musical Electronics Industry (AMEI) in Japan & the MIDI Manufacturers Association (MMA)	IEC 63035: MIDI (Musical Instrument Digital Interface) – MIDI Manufacturers Association

Industry standards

In the field of industrial automation TC 65 *Industrial Process Measurement, Control and Automation* and its subcommittees have been working with over a dozen consortia to publish a series of international standards including:

Consortia and IEC TC/SC 65 partnerships	Resulting IEC International Standards
ISA, EtherCat, ODVA Inc, PROFIT International, PNET, MODBUS, FieldComm Group, SERCOS, CC-Link	IEC 61158 series: Industrial communication networks - Fieldbus specifications
	IEC 61784 series: Industrial communication networks - Profiles
	IEC 62443 series: Industrial communication networks - Network and system security
OPC Foundation	IEC 62541 series: OPC Unified Architecture
FieldComm Group	IEC 62591 Industrial networks - Wireless communication network and communication profiles - WirelessHART™
MODBUS	IEC 62453 - Field device tool (FDT) interface specification

Standardization for emerging technologies

Consensus-based international standards together with the testing and certification protocols that are part of the IEC Conformity Assessment schemes, facilitate the adoption of emerging technologies. They help build trust, ensure safety, simplify production scale-up for commercialization, and verify performance and interoperability with already installed technologies.

Nanotechnology is one such emerging technology. IEC TC 113 *Nanotechnology Electrotechnical Products and Systems/WG 8 Graphene Materials* has piloted a project to support a Graphene Flagship research programme in Europe, consisting of 210 partners and associated members from

23 countries. This has increased the visibility of involved consortia and increased the number of technical experts participating in standardization projects.

Table 3

Consortia and IEC TC 113 partnership	Resulting IEC International Standard
Graphene Flagship Standardisation Committee (GFSC)	IEC 62607-6-xx series: Nanomanufacturing - Key control characteristics – Graphene based materials

Interoperability of Medical Devices and harmonization

In the area of medical devices, many different stakeholders contribute to the development of international medical standards. Specifications developed by consortia play an important role in ensuring interoperability. TC 62 *Electrical equipment in medical practice* and subcommittees work with consortia such as Continua, MITA, HL7, IHE, and DICOM,

IEC TC 62 cooperates with the International Medical Device Regulators Forum (IMDRF) in building a strong foundation for the Global Harmonization Task Force on Medical Devices (GHTF).