



# The IECEE

**Taking conformity assessment further**

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# About conformity assessment

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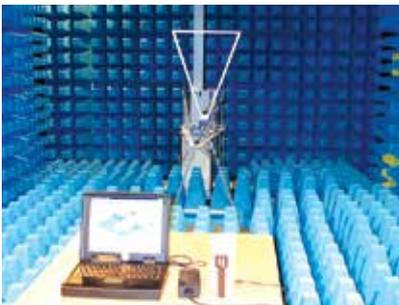


IECEE operates the successful CB scheme. The scheme offers the potential of one test (based on IEC International Standards) and one certification (to show the conformity), to obtain one or more national certification marks as appropriate (the visual symbol for proof of conformity) or simply for third party documentation of product conformity. IEC worldwide Conformity Assessment Systems cover all scenarios: an internationally recognized one-stop shop.

## **Conformity assessment provides tangible benefits for the different stakeholders**

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For **governments**, it helps reduce trade barriers caused by different certification criteria in various countries, and helps countries meet their obligations as stipulated in the World Trade Organization's Agreement on Technical Barriers to Trade. It is important to understand that conformity assessment covers regulated and non-regulated areas.



## **IECEE sees four main underlying reasons for carrying out conformity assessment**

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The first is **safety**: manufacturers/suppliers need to assure that their marketed products are compliant with relevant safety standards, while governments establish regulations generally intended to protect the population against potential risks associated with the products.

For **industry**, it reduces delays and costs of multiple testing and approvals since a product can be certified once by a single certification body (CB) and that certification can then be accepted by others all over the world, normally without the need to assess the product or system again. This means that products can get to market more quickly and with less expense (that is, fewer tests), and that products can have access to a larger market (potentially the entire world).



The second is **quality**: buyers/wholesalers want to ensure the quality of purchased products and unhindered market access.

Conformity assessment also provides assurance that the goods being purchased will perform to expectations and are reasonably safe when used as intended.



The third is **interoperability**: product manufacturers and end users want assurance that their products are fit for purpose and can interact in harmony with other products, services and installations comprising an overall operational environment.

The fourth is **consistency**: manufacturers/suppliers want to ensure that their marketed products are compliant with the sample assessed.

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**The fundamental principle of conformity assessment is to determine whether a product adheres to specified requirements, such as in the IEC International Standards.**

There are three types of assessment:

**First party:** the manufacturers evaluate their own products. This may include product construction evaluation and testing in their in-house test laboratories and may provide a supplier's declaration of conformity.

**Second party:** the companies buying the product perform their own product evaluations, which may include product assessment and testing by use of their own laboratory.

**Third party:** independent parties carry out product evaluation and testing.

IECEE conformity assessment offers third party services as the best means of providing independency and impartiality. Having a worldwide system to recognize certificates provides the greatest gains through uniformity and efficiency. IECEE is a system for mutual recognition of certificates of conformity and also a tool to access the worldwide markets directly, when national authorities and regulators, retailers, buyers and vendors accept the CB test certificate and associated test report. Mutual recognition rests on the confidence built through having the competence of each member laboratory and certifier assessed by its member peers.

Openness is an important aspect of the IECEE System. The systems are open to any user anywhere in the world. Thus, even manufacturers in non-IEC member countries can benefit from using the CB scheme.



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# What is IECEE?

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IECEE is a multilateral certification system based on international standards prepared by the IEC (International Electrotechnical Commission). Its members use the principle of mutual recognition (reciprocal acceptance) of test results to obtain certification or approval at national levels around the world.

IECEE multilateral conformity assessment schemes, based on IEC International Standards, are truly global in concept and in practice, thereby reducing trade barriers caused by different certification criteria in different countries and helping industry to access new markets. Removing the significant delays and costs of multiple testing and approval allows industry to market its products faster, whilst reducing financial costs. With increasing market demand, IECEE is expanding its activities into new fields.

As the world of electrotechnology is exploding, people are relying daily on products whose design and construction they do not understand. Reassurance is needed for such users and consumers that their product is reliable and will meet their expectations in terms of performance, safety, durability and other criteria in compliance with international standards that align with local regulations.

**How can the industrial user and the final consumer be sure that the product they buy conforms to the criteria of an IEC International Standard?**

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IECEE schemes exist to provide just this reassurance.

Using IEC International Standards for certification at the national level ensures that a certified product has been manufactured and type-tested to well-established international standards. The end user can be sure the product complies with state-of-the-art technical requirements.



### What does it do?

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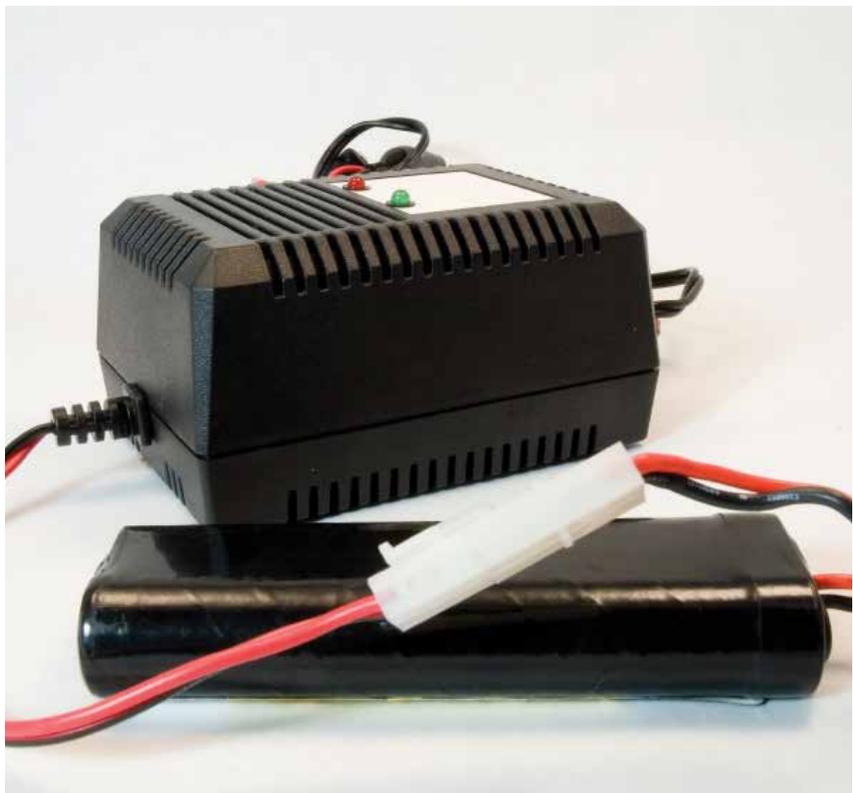
IECEE makes international trade in electrotechnical equipment and components easier and less costly by reducing technical barriers to trade. A typical example of a technical barrier is the differing certification requirements across various countries. IEC International Standards and IECEE help to eliminate these technical barriers, because electrical equipment manufactured to IEC International Standards and tested within the IECEE System ensures the same high level of safety no matter where these products are made and tested.



### Why should I be interested?

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The IEC saves both time and money by reducing overall manufacturing costs. Different certification requirements in various countries meant that previously, manufacturers had to test their electrical equipment over and over each time they wanted to export to a new market. Each test took time and cost money. Now, redundant testing is well avoided because the IECEE operates according to the principle of mutual recognition where type-testing has to be done only once.



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# Products and services concerned

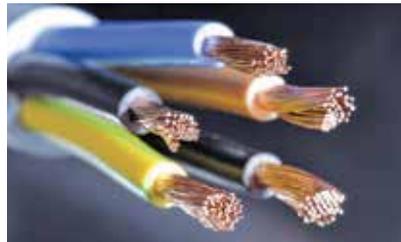
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There are 23 categories of electrical equipment and testing services covered by IECEE.

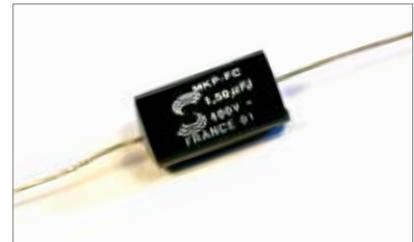
The full list of categories and IEC International Standards that relate to them are available at [www.iecee.org](http://www.iecee.org)



**BATT**  
Batteries



**CABL**  
Cables and cords



**CAP**  
Capacitors as components



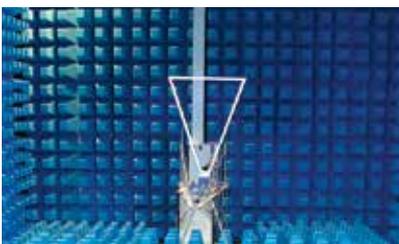
**CONT**  
Switches for appliances and automatic controls for electrical household appliances



**E3**  
Electrical energy efficiency



**ELVH**  
Electrical vehicles



**EMC**  
Electromagnetic compatibility



**HOUS**  
Household and similar equipment



**INDA**  
Industrial automation



**INST**

Installation accessories & connection devices



**ITAV**

Information technology audio video



**LITE**

Luminaires



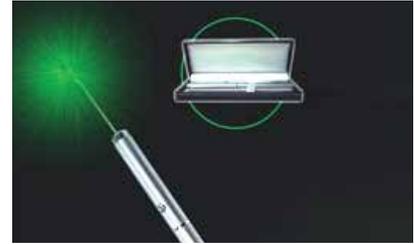
**MEAS**

Measuring instruments



**MED**

Electrical equipment for medical use



**MISC**

Miscellaneous



**OFF**

IT and office equipment



**POW**

Low voltage, high power switching equipment



**PROT**

Installation protective equipment



**PV**

Photovoltaics



**SAFE**

Safety transformers and similar equipment



**TOOL**

Portable tools



**TRON**

Electronics, entertainment

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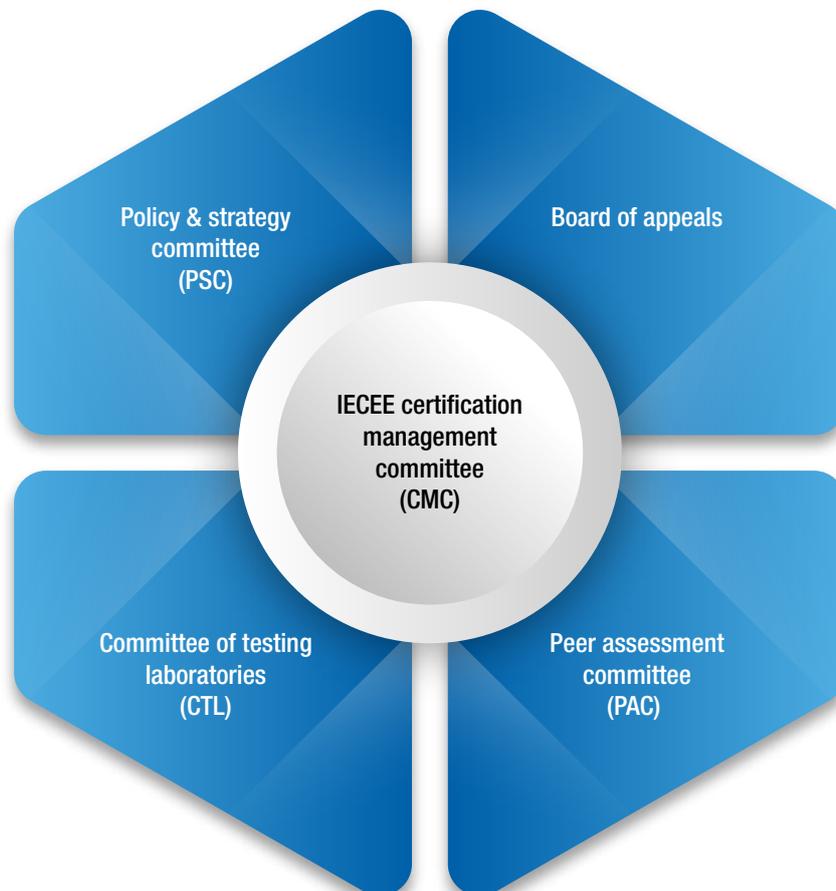
# IECEE structure

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IECEE governing structure rests with the certification management committee (CMC) supported by the committee of testing laboratories (CTL) for technical issues, by the peer assessment committee (PAC) for

the peer assessment programme. The board of appeals has the responsibility to arbitrate disputes and formal complaints filed by members and stakeholders. The policy & strategy committee (PSC) is an appointed

group of senior industry and certification experts that ensures IECEE is always up-to-date with the current and future market trends, and is also responsible for new services development.



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# Participating countries and bodies

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IECEE is represented worldwide and qualifies the national certification bodies (NCBs) within each country that will be responsible for recognizing and issuing CB test reports and certificates. Membership in IECEE is open to any country in which

there is a full or associate member National Committee of the IEC.

The authorities and markets in countries without any NCB will also accept CB test certificates and CB test reports.

You can find a full list of IECEE members and accepted NCBs and associated testing laboratories on our website: [www.iecee.org](http://www.iecee.org)

## The IECEE member countries at present:

	Argentina		Greece		Russian Federation
	Australia		Hungary		Saudi Arabia
	Austria		India		Serbia, Rep. Of
	Bahrain		Indonesia		Singapore
	Belarus		Israel		Slovakia
	Belgium		Italy		Slovenia
	Brazil		Japan		South Africa
	Bulgaria		Kenya		Spain
	Canada		Korea, Rep. Of		Sweden
	Chile		Malaysia		Switzerland
	China		Mexico		Thailand
	Colombia		Netherlands		Turkey
	Croatia		New Zealand		Ukraine
	Czech Republic		Nigeria		United Arab Emirates
	Denmark		Norway		United Kingdom
	Finland		Pakistan		US
	France		Poland		Vietnam
	Germany		Portugal		

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# IECEE schemes

## How do they work?

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An application for a CB test certificate and associated test report may be made to any IECEE national certification body (NCB).

The test laboratory of the NCB will carry out the relevant tests based on the applicable IEC International Standards and issue a test report.

This will be reviewed and validated by the NCB which will subsequently issue a CB test certificate.

When wishing to sell his/her products in other countries, the applicant sends the CB test certificate and associated test report to the participating NCBs located in these countries.

After an administrative review of the CB test certificate and test report, the relevant certification bodies will issue their national certification, normally without any re-testing of the product, because they recognize and have confidence in the testing and assessment that have already been done.

The applicant may now be authorized to affix the national marks of conformity of the other NCBs to the products and export them to these countries.



# Mutual recognition of CBTC by members



## IECEE processes

The CB scheme is applicable to electrotechnical equipment and components primarily intended for use in homes, offices, workshops, healthcare facilities and similar locations.

The CB scheme is based on the issue and use of CB test certificates (CBTC) which provide evidence that representative samples of the product have successfully passed tests to show compliance with the requirements of the relevant IEC International Standards.

A supplementary report providing evidence of compliance with declared national differences in order to obtain national certification or approval may also be attached to the CB test report.



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<sup>1</sup> CBTL stands for CB testing laboratory



### CB scheme direct acceptance by the market place

The success of the IECEE CB scheme is also due to its popularity in the various worldwide marketplaces where CB test certificates and test reports are considered as proof of compliance with the safety requirements according to the IEC International Standards.

As a matter of fact, CB test certificates and test reports are commonly accepted by national regulatory authorities, retailers, buyers and vendors for accessing the relevant markets directly.



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# The IECEE

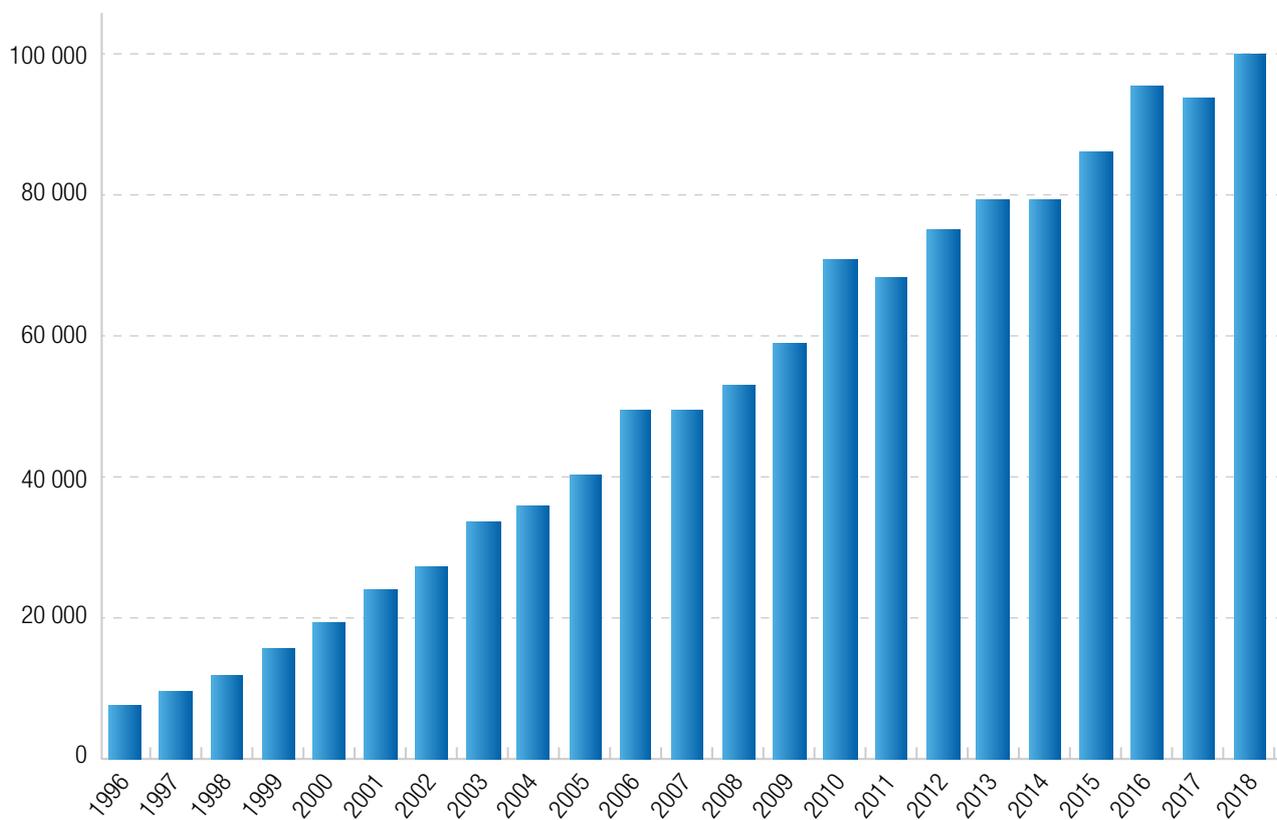
## Yesterday, today, tomorrow

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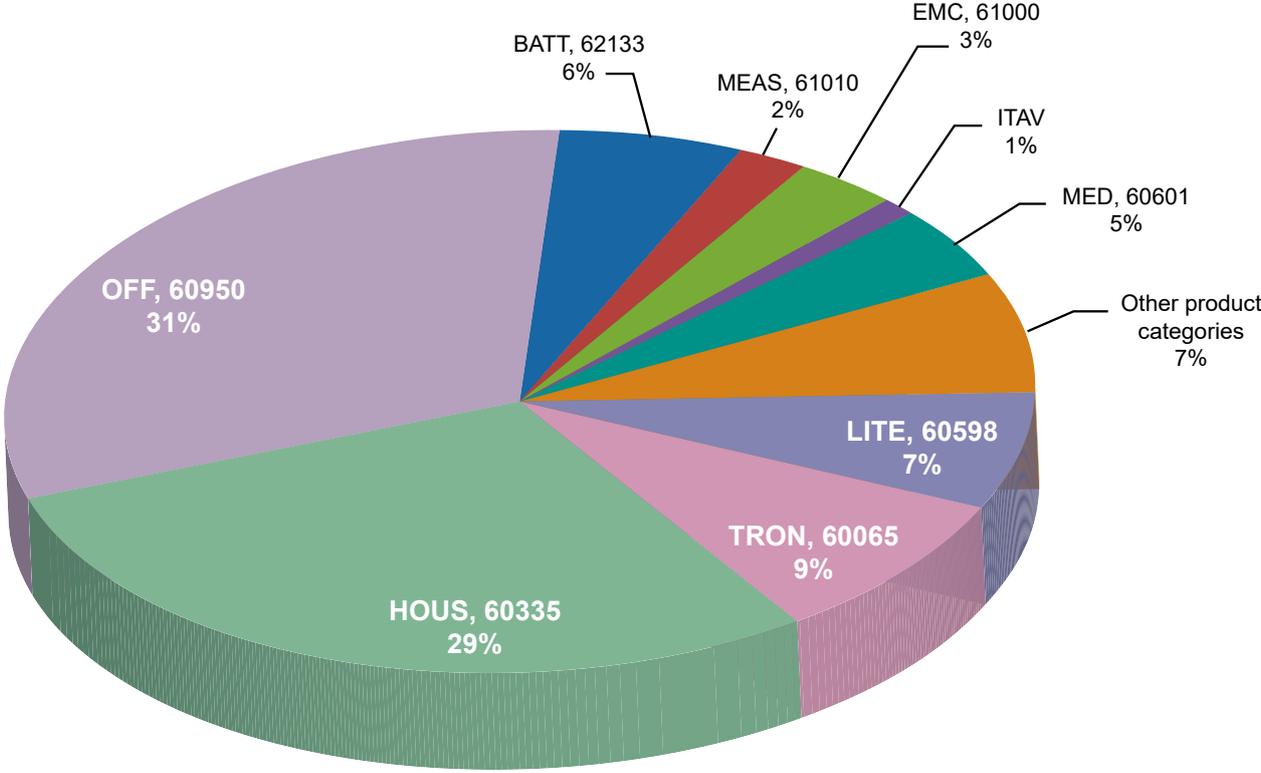
### IECEE statistics

The spectacular growth of the number of CB test certificates shows clearly that the CB scheme is properly answering the market needs.

**Number of IECEE certificates issued annually from 1996 to 2018**



**Top 10 product categories in the last five years (2014, 2015, 2016, 2017 and 2018)**



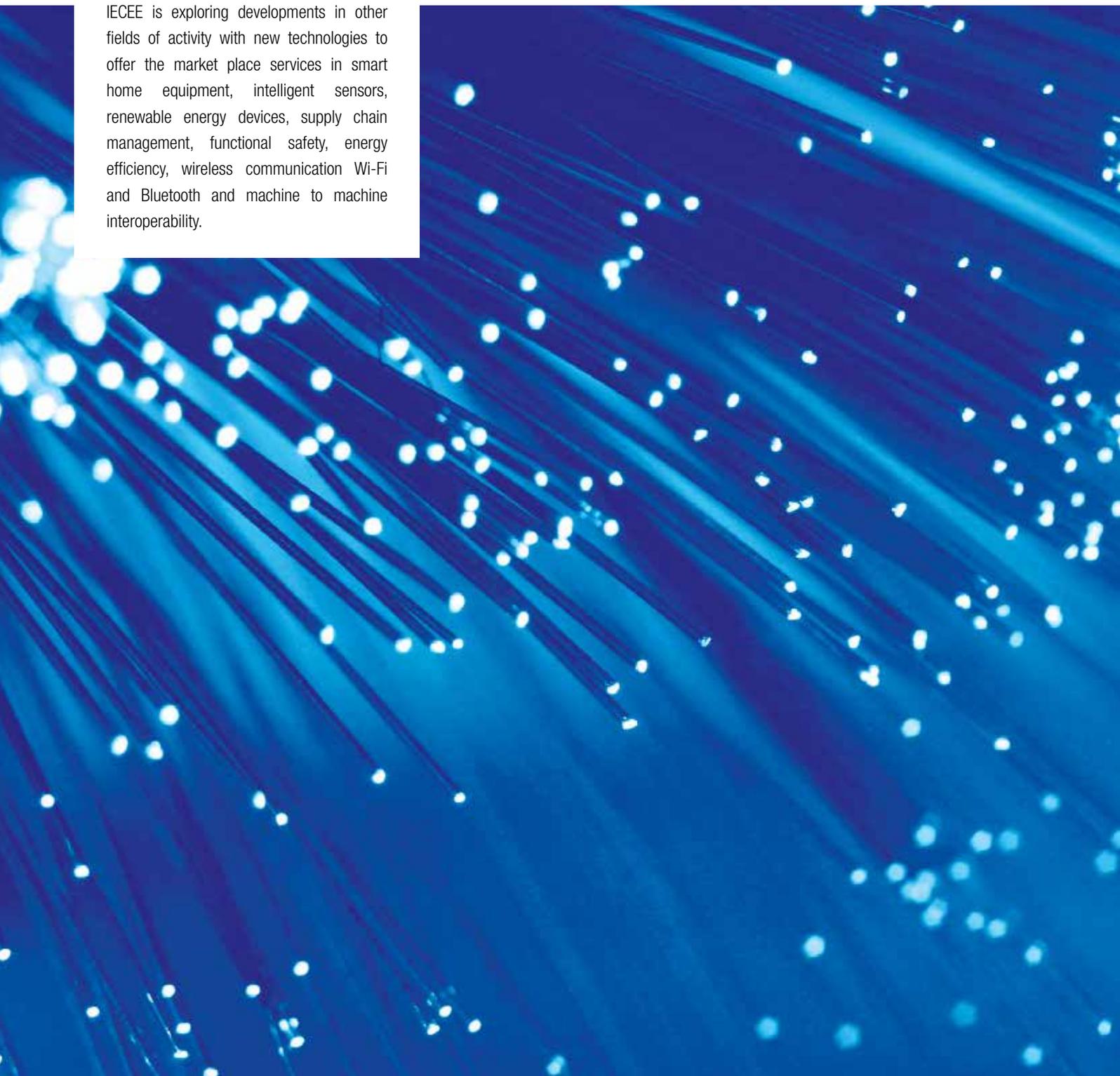
- |   |                 |   |                 |   |                          |
|---|-----------------|---|-----------------|---|--------------------------|
|  | OFF, IEC 60950  |  | EMC, IEC 61000  |  | ITAV                     |
|  | HOUS, IEC 60335 |  | MEAS, IEC 61010 |  | BATT, IEC 62133          |
|  | TRON, IEC 60065 |  | MED, IEC 60601  |  | Other product categories |
|  | LITE, IEC 60598 |   |                 |   |                          |

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# Future development of IECCE

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IECEE is exploring developments in other fields of activity with new technologies to offer the market place services in smart home equipment, intelligent sensors, renewable energy devices, supply chain management, functional safety, energy efficiency, wireless communication Wi-Fi and Bluetooth and machine to machine interoperability.



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# Globalizing conformity assessment

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Because globalization and competition are leading to rapid changes, technical barriers to trade remain a serious concern and the industry is anxious about time to market, the shortening life cycle of products and the need to reduce cost.

- IECEE schemes offer the true “passport” for getting market access to different countries.
- IECEE schemes answer the market needs for international product certification.
- IECEE schemes prove that certification and testing costs can be reduced.



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# Further information

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Please visit the IEC website at [www.iec.ch](http://www.iec.ch) for further information. In the "About the IEC" section, you can contact your local IEC National Committee directly. Alternatively, please contact the IEC Central Office in Geneva, Switzerland or the nearest IEC Regional Centre.

## Global

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IEC System of Conformity  
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for Electrotechnical Equipment  
and Components



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