

# Safe and reliable components for the ITC sector

The ITC (Information Technology and Communications) sector relies heavily on electronic components that are characterized by high volumes of production, rapid technological evolution and increasingly shorter life cycles. Like the ITC sector, the electronic component industry operates in a truly global market. Manufacturers are based both in industrialized countries and emerging economies, and all sell their products worldwide.

The globalization of the market and the growing demand for this type of product raise new challenges. Manufacturers need to access new markets and comply with local and regional certifications and approvals in many countries. In some parts of the world, legislative requirements have been in place for many years, while in others they are still under development. In some countries, regulations may be complex and lack in transparency, often due to multiple layers of legislation.

### Issues at stake

No manufacturer can keep abreast of all legislative requirements. For them, the first priority is to manufacture products conforming to the relevant standards. The second step is to have these products tested and certified. Both steps can be carried out at the national, regional or international level. Because of globalization, more and more countries recognize tests and certificates established elsewhere.

Manufacturers have developed well-established safeguards based on electrotechnical standardization to reduce risks inherent to the use of electrical and electronic products, such as electric shock, overheating, self-ignition and insulation problems.

But new issues are surfacing, most of them linked to the environment. Environmental protection has also become a global issue. Climate change and energy efficiency are everyone's concern, manufacturers and consumers included.

In the past, the focus was almost exclusively on industrial pollution and waste. Nowadays, it is on the complete life cycle of a product, from raw material extraction, through design and manufacturing, to use, recycling and waste.

Today's directive is to reduce the use of raw and hazardous material, energy, fuel for transport and waste and to increase recycling.

### IEC is part of the solution

The IEC, developing International Standards that address these specific issues, can help meet this directive. The IEC operates three CA (Conformity Assessment) Systems in the field of electrotechnology. International testing and certification guarantee product safety and reliability, facilitate cross-border trade, open new markets and generally help manufacturers sell their products internationally, thus saving time and costs. A product tested and certified in one country will be accepted in numerous others without retesting or recertifying.

End products such as mobile phones or computers are handled by the [IECEE](#), the IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components, while electronic components are the domain of the [IECQ](#), the IEC Quality Assessment System for Electronic Components.



Safe and reliable products are essential in today's global market


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IECQ operates several schemes:

- Organization approval for manufacturers, specialist contractors and so forth
- Component approval for qualification, capability and process (production of components + assemblies)
- IECQ HSPM (Hazardous Substance Process Management)
- ECMP (Electronic Component Management Plan) for avionics and others, such as railways, medical equipment, and so forth

IECQ HSPM in particular has seen an extremely rapid expansion since its launch in 2005. This is no surprise: legislation restricting the use of hazardous substances in electrical and electronic products is already in place in many countries and under development in many others. Electronic component manufacturers are designing and promoting the use of green products.

#### **International Customer Seminar in Norway**

IECQ Executive Secretary Chris Agius  had the opportunity to present the system and its schemes at the 2009 international Customer Seminar organized by [NEMKO](#), the Norway-based company that is one of the world's leading testing and certification companies. Agius placed a particular emphasis on the IECQ HSPM Scheme, because the use of safe and reliable products is of concern to all electronic component manufacturers and suppliers who wish to play a role on the global market.

The seminar addressed issues such as RoHS (Restrictions of the use of certain hazardous substances in electrical and electronic equipment) compliance, regulations and governance for nanotechnologies and global trends concerning environment and energy efficiency. Many presentations gave updates on certification requirements in specific countries and regions (Canada, China, Republic of Korea, Vietnam and South America).

Trond Sollie, Senior Vice President, International Cooperation & Corporate Quality Assurance of the NEMKO Group, commented, "A periodical event as this is important for many of NEMKO's clients in order to be updated about regulations and procedures for conformity assessment in different regions/countries worldwide. IEC's Conformity Assessment Systems are offering the basic elements for the documentation required in the target regions/countries and therefore an integral part of NEMKO's service deliverables."

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