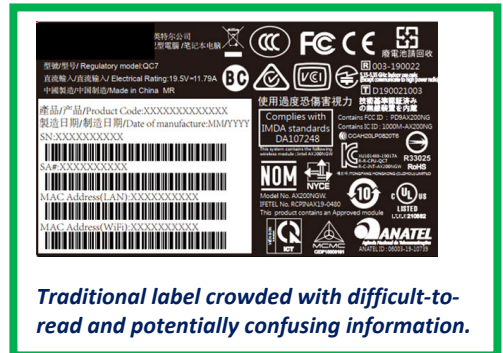


ITI Position Paper: E-Labeling

Current Challenges in Product Labeling and Information

Regulations governing products in the information and communications technology (ICT) sector set mandatory requirements for user guide information and product labels, marks, and markings to be affixed on products and packaging. These are meant to convey consumer and regulatory compliance information. Third-party testing or certification organizations also set contractual requirements for registered trademark symbols to be affixed on products as verification of product testing and certification.

For products in the global market, the number of labels, conformity assessment (CA) marks, and user instruction marking requirements continues to increase. A typical product intended for the global market could now have far more than 20 CA marks and associated markings in addition to various package labeling and user instruction requirements. Although some labels and instructions, such as product safety warnings, should be available to a user before a product is plugged in or started, other information is not as critical for user safety or product operation and could be accessed via electronic means. In fact, providing this additional, non-critical, information using an e-label would allow manufacturers to maintain and provide access to a full set of data required by regulators on dedicated servers, while still reducing product and packaging labels and packaging inserts.



The physical labelling problem is made worse by the redundancy of labels, CA marks, and user information driven by each country's standards and regulatory requirements. Government regulators and third parties may not recognize that their unique processes and requirements could be aligned with a harmonized labeling program, thus reducing redundancy, while still serving national interests.

As ICT manufacturers are required to squeeze more and more labels, CA marks, and information to the user onto products or within the packaging, the situation is especially challenging for:

- ICT products that are small (and getting smaller);
- ICT products for which aesthetically pleasing design is important;
- Consumers/users who are confused by clusters of labels, CA marks, and information;
- Commercial and professional users of products who do not need or benefit from such labels; and
- Manufacturers who are complying with the required labels, marks, and markings for products in global markets, including updates of labels and user guide information over time (e.g., revising label artwork, regulator changes, scrapping old inventory, etc.).

Electronic Labeling is the Solution

Electronic-labeling, or e-labeling, is an electronic means to display regulatory and other important information to consumers and regulators more effectively and efficiently than physical labeling. This can be accomplished either via a product's own built-in display, by providing a link to an internet website, or by providing a scannable source such as a QR code on the product packaging, in the in-box document, or affixed to the product. E-labeling can exist in combination with, or as an alternative to, traditional physical product marks, markings, and statements. E-labels provide advantages over physical labels, CA marks, and user information by:



1. Allowing for **greater consumer and regulatory personnel access to information**, including the ability to provide consumer and regulatory information in different languages because of greater space available on a display or referenced website. Because information is stored digitally, there are far fewer constraints to an increase in displayed information, product redesign is not needed to incorporate more or new information, and information can more easily be updated as labeling requirements evolve.
2. **Reducing physical waste, materials used, and environmental impacts**, particularly when the amount of paper used in package inserts is drastically reduced and product and packaging markings are updated digitally rather than physically.
3. Making **regulatory enforcement simpler and more efficient** because the electronic databases to which e-labels refer can be monitored or checked in real time.
4. **Cutting costs** by eliminating expensive and time-consuming label designs and updates and allowing more streamlined exports of products to various countries.
5. **Enhancing product traceability** by providing a digital record of the product's journey from manufacturer to consumer. This can help companies improve quality control and recalls and can also be helpful for regulatory compliance.
6. **Increasing durability** because, unlike physical labels, e-labels are not damaged and/or destroyed over a product's lifetime.
7. **Enhancing product aesthetics**, resulting in higher customer appeal and economic value, and limiting redesign of products, thus **getting products to consumers faster**.
8. **Improving accessibility** with digital online or on-screen information rather than small print on physical labels or papers that offer little to no accessibility capabilities or features.
9. **Centralizing information**. E-labels, such as QR codes, function as doorways to all product related information, including, but not limited to, Digital Product Passports, declarations of conformity, instruction manuals, energy efficiency statements, warranty repair information, and eco-labels.

Recommendations for Regulators

E-labeling offers several benefits over traditional paper labeling, making it a more efficient, sustainable, accessible, and customer-friendly solution for product and compliance information needs.

- ITI encourages regulators to examine which information must be physically on a product (e.g., safety warnings) and which could be effectively and efficiently accessed via digital means.
- ITI recommends that regulators allow and encourage e-labeling to meet regulatory and consumer needs while improving business operations.
- ITI supports e-labelling via product displays or via a QR code on the product packaging, in the in-box document, or affixed to the product. Using a single QR code enhances the overall consumer experience while multiple individual QR codes can cause confusion.
- ITI recommends regulators reference the international standards ISO/IEC 22603-1:2021 and ISO/IEC 22603-2:2022 (incorporate relevant parts of these as the technical basis in their respective regulations) and engage and collaborate internationally on e-labelling implementation.

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