STATE OF THE NATION 2024

GUEST CONTRIBUTION

JAMES FRAKE - EXPONENT

DATA, TRENDS & PREDICTIONS **FOR EUROPEAN INDUSTRIES**

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JAMES FRAKE, MANAGING SCIENTIST,
EXPONENT

EUROPEAN CONSUMER ELECTRONICS SAFETY OBSERVATIONS

Several significant regulatory overhauls will have major impacts on the European consumer electronics market. Some of the changes are being driven at the EU-level while others are the result of the UK reviewing its own product safety policies.

EU regulations

EU General Product Safety Regulation

One of the widest-reaching product safety rules is the EU's General Product Safety Regulation (GPSR). It could impact all products sold into the EU market.

The GPSR will replace the existing General Product Safety Directive (GPSD). One of its key goals is to improve alignment between conformity-assessment marked (CE-marked) and non-CE-marked products. Under the regulation, all products placed on the EU market will need documented evidence that they are safe. This must be provided through a technical file. These files will likely be similar to existing mandatory technical files for consumer electronic products under other measures such as the Electromagnetic Compatibility Directive (EMC Directive), the Radio Equipment Directive (RED), and the Low Voltage Directive (LVD).

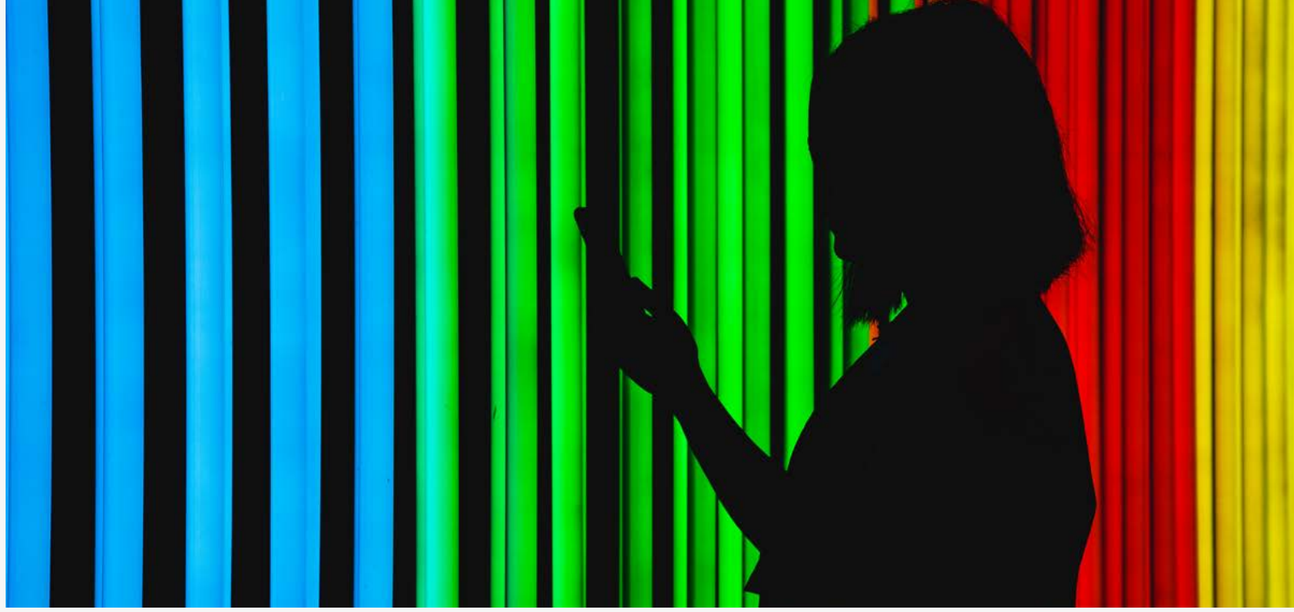
Aspects and risks, or categories of risks, which do not fall under other harmonised standards or CE-marking product categories will be covered by the GPSR and will require additional risk assessments. The GPSR will also act as a safety standard for products involving new technologies not yet governed by existing regulations. Those products will also need to have risk assessments conducted before they can be placed on the EU market.

EU Battery Regulations

Since entering into force on 17 August 2023, the EU Battery Regulations have spurred a series of secondary legislation. These include standards for battery passports, electric vehicles, e-mobility devices, and the repair and reuse of batteries. Progress on drafting these standards by the various committees is currently underway within multiple working groups under the European Committee for Standardization (CEN).

Until draft standards are published for public consumption, the exact requirements for companies using batteries within products or manufacturing batteries themselves remains unclear. The text from the EU Battery Regulation does, however, mention some high-level factors. These include carbon footprint declarations for certain types of batteries, supply chain due diligence, third-party verification of polices, end-of-life management of batteries—including recycling targets, targets for recycled material use in new batteries, and likely standards for the process of reuse, repair, and repurposing of battery packs. Conformity assessment procedures for manufacturers of battery packs, labelling requirements, and battery passports for some types of batteries, and product risk obligations are also mentioned in the regulation.

These changes are likely to have a large impact on not only the product requirements but also will impose requirements for any economic operators themselves, specifically; due diligence policy obligations, management systems, risk management obligations and third party verification of that these obligations are met. Battery manufacturers will also have requirements to undertake conformity assessment procedures, which may also need to be assessed by a third party (a notified body). These requirements vary, depending on company net turnover and the battery type produced.



EU Product Liability Directive

While it doesn't only apply to the consumer electronics market, proposed revisions to the EU Product Liability Directive (85/374/EEC) may have a considerable impact on businesses selling electronic products on the EU market.

Aspects of the draft bill include enhanced considerations for software as part of a product, provisions if there are defects within product software—including for AI/machine-learning systems, expansion to the ranges of damages and types of defendants, and changes to the burden of proof and discovery processes.

These changes may result in further measures being put in place to ensure that software—including AI/machine-learning systems—are designed with additional safety and reliability features in mind. There may also be mandates for adequate maintenance of documentation to show that safety considerations have been taken during the product design process.

An AI Liability directive proposal, which compliments this act, has also been drafted.

EU Artificial Intelligence Act

Increased scrutiny of AI-based technologies appears to be a strong trend moving forward. The EU Artificial Intelligence Act (AI Act) has not yet been published, but based on the political agreement reached on 8 December 2023, it will be aimed at ensuring that AI systems are "safe." The AI Act discusses a risk-based approach, classifying AI systems into four risk categories: unacceptable, high, limited, or minimal/no risk. Any AI systems which "negatively affect safety or fundamental rights" such as those that are used in products falling under the EU Product Safety Legislation, will be considered "high risk."

Although it is currently unclear exactly how this may substantially impact the consumer electronics space, some factors for consideration could include biometrics or biometric identification systems, emotion recognition, and algorithms which support the influencing of users.

Aspects of AI technology and digitally-connected products will also fall under the General Product Safety Regulation and its requirement for risk assessment of new technologies. The health risk posed by these types of products needs to be considered when product safety is concerned. This includes the risk to the mental health of vulnerable consumers, particularly children.

Electronics Standards IEC/EN 60335

EN 60335 is a key EU harmonized standard under the Low Voltage Directive and the Machinery Directive. These directives pertain to "Household and similar electrical appliances – Safety." The current version of the standard is from 2012, though it was amended in 2021, and aligns with standards in the Official Journal of the EU (OJEU).

JAMES FRAKE, MANAGING SCIENTIST, **EXPONENT**

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However, the International Electrotechnical Commission (IEC) released a new version of 60335-1 in December 2023 (IEC 60335-1:2023). This new version includes several major updates, such as a revised requirements for battery-operated devices and battery charging, requirements on appliance outlets and socket outlets, moisture resistance requirements for products, requirements for optical radiation hazards, and the introduction of requirements on USB sockets in abnormal operating conditions.

This version of 60335-1 is not currently listed in the OJEU, but it may be prudent to anticipate what potential changes could be implemented in the future if designing new products.

UK regulations

UK Product Safety Review

The UK Office of Product Safety and Standards (OPSS) undertook a review of UK product safety regulations, which involved a consultation with external parties. The consultation outlined several potential initiatives, including a "hazard-based" product risk assessment system, additional duties and enhanced reporting requirements for online marketplaces, due care requirements for unsafe product listings, increased consumer information for online "higher risk" listings, and changes to product inspection and civil product liability. Other possible revisions include an increased role for OPSS in coordination of local authorities, the need for local authorities to send recall notices and safety incidents directly to OPSS when knowledge of an unsafe product is present, and changes to enforcement, civil monetary penalties, and improvement notices.

These changes are currently only proposals. If they are passed, it will impact the consumer electronics market and any economic operators selling products onto the UK market. A hazard-based product risk assessment system may increase scrutiny of devices containing batteries due to the high hazard these products can pose in some circumstances.

Micromobility Battery Safety

Several aspects of micromobility safety have recently gained attention. OPSS issued warnings relating to the purchase of e-bikes or e-scooters over the Christmas period. The London Fire Brigade also issued a warning relating to e-bike and e-scooter battery fires in 2023.

A bill put forward by UK advocacy group Electrical Safety First on the safety of electric-powered micromobility vehicles calls for regulators to require third-party safety assessments for micromobility products, introduce disposal regulations, and address fire safety concerns. Those operating in the micromobility space should remain vigilant to see if the UK agencies implement the group's recommendations.

Conclusion

The new and revised policies will impact stakeholders across the electronics industry by adding more supplier due diligence and more liability to companies manufacturing and distributing electronics products. There is also the challenge of having to navigate differences between UK and EU legislation. Companies will need to be sure they have thoroughly evaluated all the parts of their operations that will be impacted by the changes.

For further insight on European product safety spanning the Automotive, Medical device, Pharmaceutical, Food and drink, and Consumer product industries, download the full edition of the **Recall Index report:**

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Website: sedgwick.com/brandprotection
Telephone: +44 (0) 333 300 0901
Email: brand.protection@sedgwick.com

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