

Nemko News in Brief for December 2021 (Finalized)

Dear Reader,

Another year has passed. One must hope and trust that 2022 will prove to be better than the past two years concerning the current pandemic, which at present shows few signs of diminishing. Global headlines in December were much about the new Omicron variant of the virus which spreads more quickly, causing new lockdowns of the society in many countries, not least in Northern Europe. Consequences of low vaccination rates in some countries appear clearly on the hospitalization and death statistics.

There were also headlines about climate related tragedies, including:

- Historic tornados hitting 8 states in the US, killing more than 100 people and causing extreme damage on buildings and infrastructure.
- Research shows that arctic warming is now double of the global average.
- The tropical storm Rai hit the Philippines as a typhoon, killing >400 and leaving >500 000 homeless.

Regarding high level politics, the US and Russian presidents had positive web-conferences with focus on Ukraine issues, which cause international concern.

Other good news included the Nobel Peace Prize 2021 being awarded jointly to two well-known news editors from the Philippines and Russia respectively, "for their efforts to safeguard freedom of expression, which is a precondition for democracy and lasting peace".

The following articles in this last newsletter for 2021 also include some good news

Contents

- **New UK cyber security regulation**
- **Update on Brazilian regulations for wireless equipment**
- **Europe introducing "right to repair"**
- **Expanding the presence in USA**
- **Promising new solder composition for exposed electronics**
- **Coming events**

Hoping that you are having a nice celebration and good start of the Roman New Year, 😊

Best regards

T.Sollie

Editor

P.S. If you know of colleagues or others you think should get this monthly newsletter, please refer to [this link](#) for registration.

New UK cyber security law *(Based on internal Yammer announcement by Geir Horthe)*



The UK Parliament is introducing a new law called Product Security and Telecommunications Infrastructure Bill (PSTI), which requires IoT manufacturers, importers, and distributors to meet certain cyber security requirements. It supports the introduction of gigabit-capable broadband and 5G networks to protect citizens against the risks associated with insecure consumer-connected devices.

The new cyber security regulation will be mandatory and apply to all in-scope connected-consumer-products made available to UK consumers, regardless of method (sale, gift, online, etc.).

Examples of such products are Smart phones, Connected children's toys and baby monitors, Smart doorbells, smoke detectors and locks, Base stations and hubs for IoT connected appliances, such as washing machines and fridges.

There are two alternative routes for complying:

1. To implement the security requirements detailed in the legislation, which have been derived from and align with the top three guidelines from the [Code of Practice for Consumer IoT Security](#), and key provisions within the standard [ETSI EN 303 645](#).

2.To apply specific provisions/clauses of designated relevant standards which provide similar levels as the security requirements detailed in the legislation. This will enable the government to facilitate alignment across jurisdictions.

In case of non-compliance, companies can be fined up to £10 million or four per cent of their global turnover, as well as up to £20,000 a day in case of an ongoing contravention.
As with European directives, e.g. the Low Voltage Directive, the main responsibility is on the manufacturer or on the authorized representative/importer (for manufacturers outside the UK). Also, a publicly available UK declaration of conformity (DoC) will be required.
From the time of publishing, a 12 months' grace period is foreseen before the new law is enforced.

For further information, please contact Geir.Horthe@nemko.com

Update on Brazilian regulations for wireless equipment

(Based on internal announcement on Yammer by Vanessa Wen)



Brazil's National Telecommunication Agency ANATEL has published the following two new 'Acts' for wireless telecommunication equipment:

- **Act 10002**, which updates the Act 3151 (published in June 2020) related to the technical requirements for Access Terminal Station (Devices with [WWAN](#) function)
- **Act 10003**, which Updates the Act 3152 (also published in June 2020) related to the technical requirements for Mobile Phones.

The main changes are:

- Inclusion of technical requirements for [5G NR](#) Frequency Range 2 (FR2) for Standalone & Non-Standalone inter-band & Intra-band non-contiguous.
- Inclusion of technical requirements for [NB-IoT](#) NB2
- Update of the applicable reference standards to the latest (2021) editions of relevant European standards ETSI TS 136 521-1 (V16.8.1), ETSI TS 138 521-1 (V16.6.0) and ETSI TS 138 521-3 (V16.6.0).

The updated standards entail new combinations of 4G and 5G dual connectivity ([EN-DC](#) combinations). ANATEL has therefore granted until end of May 2022 for all manufacturers to present testing reports covering the new EN-DC combinations for already approved devices.

The Act 3151 including the Act 10002 updates can be seen at [this link](#) , while the Act 3152 including the Act 10003 updates can be seen at [this link](#).

Moreover; due to the continuing impact of the Corona pandemic, ANATEL has published [Official letter N° 233/2021](#), which extends the "Streamlined renewal process" once more, whereby all existing certificates with expiration date between 6 March, 2020 and 31 July 2022 are exempted from renewal testing. Unless the product has been modified, only new external/internal photos must be provided, and remote audits continue to replace face-to-face audits.

For further information, please contact vanessa.wen@nemko.com

Europe introducing "right to repair"



Based on the [Ecodesign Directive](#) the European Commission sets requirements in Ecodesign-regulations for various types of energy-consuming products. These regulations, cover, among other, requirements for reparability of electronic products and must be met by manufacturers and importers who will market such products in the EU/EEA countries.

Reparability has increased attention by both environmental organisations and consumers. The main reason is the relatively short lifespan of electronic devices and the difficulty of disassembling these devices in order to reuse well-functioning parts and components.

The repair requirements are added to already existing other ecodesign requirements for certain products, and distinguish between the following three main aspects:

- Availability of spare parts** to ensure that certain spare parts are available for professional repairers for a specified period of time after the products have been placed on the market;
- Repair and maintenance information** to allow professional repairers to access certain repair and maintenance information;
- Information obligations** to provide the users of the product instructions for use, including specific instructions to enable them to carry out maintenance work, on a website accessible free of charge.

So, the Ecodesign regulations which are now under preparation for smartphones and tablets will mandate the access to spare parts and availability to repair instructions to independent repair shops. Some manufacturers preparing for this may choose to take further steps and allow capable product owners to make their own repairs by providing access to genuine parts and tools. In fact, Apple has already [announced](#) that for some of their newer mobile phone models, owners will have possibility to replace displays, batteries and cameras themselves. To which extent this really will be an option, will surely depend on the prices of these parts.

For further information, please contact Jonlvar.Tidemann@nemko.com

Expanding the presence in USA



In order to expand the core offerings to customers in North America, Nemko has now acquired Professional Testing (EMI), Inc. (PTI) in Texas, USA. PTI's head quarter is in Round Rock (just North of Austin) where their laboratories for product safety, reliability and hazloc/explosive atmosphere are located, and has in addition laboratories in Austin where their EMC testing facilities are located. The details of PTI's capabilities can be seen [here](#) With currently 22 employees, these facilities will significantly increase Nemko's operations in Southern USA.

PTI has >30 years of experience in various industries including IT, measurement, medical, military, aerospace, marine, and oil and gas, and has during that time had significant growth. Now, existing PTI customers will have access to expanded services beyond laboratory testing, including International Approvals, Product Certification, Management System Certification, and Cyber Security services. Additionally, PTI customers will have access to Nemko's laboratories, offices and extensive partner network in Asia, North America, Europe, Middle East, and Africa allowing for expanded opportunities and global market access.

"The strategic location of Nemko PTI in the middle of the fast-growing Dallas, San Antonio and Houston triangle will open up new opportunities for growth in the region" says Ole-Martin Oien, General Manager of Nemko USA. "This acquisition enhances Nemko's primary laboratory, certification and international approval services while significantly expanding our hazardous location and explosive atmosphere facilities".

Further information may be seen [here](#) or by contacting Ole-Martin.Oien@nemko.com

Promising new solder composition for exposed electronics



Lead has traditionally been the base metal of solder but, due to its toxicity, is nearly phased out by legislation such as the European [RoHS Directive](#) (2002/95/EC) and the [WEEE Directive](#) (2012/19/EU).

The present most common replacement of lead as solder metal is an alloy of Tin, Silver and Copper. This mix is, however, prone to the formation of brittle intermetallic compounds which is a major technical challenge in power-electronics products with high operating temperature.

So, there is strong demand for solder metals which are more resistant to cracking over a product's lifetime when operating in a harsh environment, and which also can contribute to reduction in energy and materials required for the product manufacture.

A group of international researchers has reportedly developed a new formula for solder that could help to reduce cracking and premature degradation in vulnerable electronics for exposed applications, e.g. subject to high temperatures and/or vibration such as in electric vehicles.

The new alloy formula includes nanoparticles and other microalloying elements that enhance the properties and the reliability of solder joints.

The research leading to the new potential solder formula was conducted by a British university in partnership with researchers in Japan and Malaysia and was funded by [a British program](#) intended to promote collaborative research in the field of climate change.

The motive for the present project has primarily been the growing need of reliability for long term survivability of electrical vehicles, where the weakest link in the many electronics devices are usually the solder interconnects. More information may be seen [here](#)

Coming events

21 January - Nemko Italy webinar: 'Automotive E-mark certification' (In Italian)

For information, please click [here](#) and for registration [here](#)

IEC Academy courses and webinars

Information may be seen [here](#).

GSO courses in the Arabic Gulf Region

Information about themes, places and times may be seen [here](#)

Receive invitations to Nemko webinars on current compliance matters

The webinars will be conducted in English, and one will be able to access the recordings afterwards, for own use and sharing with others.

Please [register here](#).

