

Nano Science, Technology and Industry Scoreboard

Nano Mark, a Useful Means to Facilitate Exportation

2018-12-17

Over the past decade, some countries have developed their own nano marks for the purpose of labeling nanotechnology-based products. Taiwan, Iran, Thailand, Malaysia, and Russia are some cases in point. These nano marks pave the way for the exportation of nano-products.

The more nanotechnology advances, the more the use of "nano" prefix in naming nanotechnology products prevails; thus, the necessity of a mark representing whether a product is certainly nanotechnology-based becomes more and more prominent. Just like the certification mark on a commercial product is an indication of its quality level, assuring costumers that the product has met certain standards.

Accordingly, in an attempt to identify nano-products as well as the products containing nanostructures, some countries have created their own nano marks. <u>Taiwan</u>, <u>Iran</u>, <u>Russia</u>, <u>Malaysia</u>, and <u>Thailand</u> are among those countries, while some others are planning to design such a mark for themselves. The following sections expand on a few of the countries having their own unique nano marks.

Taiwan

Since 2004, <u>Taiwan</u> has developed a mark called "<u>Nano Mark</u>", which is applicable to products in all industrial sectors, with the exception of cosmetic and beauty products. This mark, whose maximum validity period is limited to three years, is awarded to companies by the Ministry of Economic Affairs (<u>MOEA</u>) of <u>Taiwan</u>, partly financed by the very ministry and the remainder by the companies themselves; so far, 55 companies have labeled a total of 2,715 of their products with "Nano Mark". Official inspections for issuing this mark are conducted by the Industrial Technology Research Institute (<u>ITRI</u>).

Iran

The "Nano-meghyas", which means nano-scale in Persian, is a mark designated for all industrial nano-products in <u>Iran</u> since 2007. This mark is a one-year certificate able to be extended for another three years by the end of the first year. Up to this point, 196 Iranian companies have earned this mark for 498 of their nano-products.

This mark is granted under the authority of the Technology-Market Services Corridor (TMSC), which is affiliated with the Iran Nanotechnology Innovation Council (INIC), in collaboration with three private companies assigned as official inspectors for considering applications. The Nanotechnology Laboratory Network together with the Nanotechnology Committee of Food and Drug Organization (IFDA) jointly work with the Technology-Market Services Corridor for awarding this mark to companies. Applications for earning this mark, are processed according to inspection instructions as well as national and international standards.

Russia

The "Nanocertifica" mark has been used in Russia since 2011 to identify nanotechnology-based equipment as well as products and nanomaterials, which has successfully been issued to 187 products up until now. Rusnano, a state-owned joint-stock company, authorizes this mark, and Nanocertifica, a private independent company, is its executive and inspector in which it cooperates with the Russian Federal Agency on Technical Regulating and Metrology (GOST R).

In Addition to its activities relating to this mark, Rusnano also seeks to develop and commercialize nanotechnology by investing in its applications in various fields. This company has recently invested in the extraction of certain chemicals from plants by means of a nanotechnology-based procedure which have application in preparing beverages. In 2012, Rusnano invested over \$79 million in a telecommunication company to unleash the full potential of Wi-Fi technology, and around \$600 million in 13 different projects. Reportedly, the company produced \$900 billion worth of products in 2015, and has planned to establish more than 100 factories and R & D centers by 2020. Last year, the company's CEO proposed selling Russian nano-products to the Prime Minister of Japan.

Malaysia

Malaysia has introduced the "NanoVerify" mark for its nano-products in all industrial sectors since 2014. This mark that remains valid for two years has so far been awarded to 34 products. The Ministry of Science, Technology and Innovation of Malaysia authorizes this mark in collaboration with the NanoMalaysia company as its executive, while related inspections according to international standards are carried out by the SIRIM QAS company in partnership with organizations such as the Malaysian Investment Development Authority (MIDA) and the Ministry of Domestic Trade and Consumer Affairs (KPDNKK).

The NanoVerify mark has been optional in this country until recently; however, plans are underway by NanoMalaysia to make it mandatory for every product into which nanotechnology has somehow found its way; and in this regard, the related legal procedure is being followed at corresponding ministries and organizations. For becoming acquainted with the activities of other countries, Malaysia is now cooperating with Taiwan, Russia, Thailand, and Iran, each of which is a member of the Asia Nano Forum, having its own plans, regulations, and requirements for the nano mark.

According to state officials, <u>Malaysia</u> will sign an agreement with <u>Iran</u> on nanotechnology-related certificates in the coming year, following the agreement signed with <u>Taiwan</u> last year. NanoMalaysia has recently set up some joint ventures with a couple of Russian companies to invest in nanotechnology business together. This company also proposed a joint venture to Rusnano for co-investing in several projects set to continue until the end of 2017, as a result of which Malaysian nano-products could get into European markets.

Thailand

The "Nano Q" has been a two-year mark applicable to nano-products in the industrial sectors of paint and coatings, textile, and hygienic surfaces in Thailand since 2012. The number of products labeled with this mark is not yet available. The Nano Q mark is issued under the authority of the National Science and Technology Development Agency (NSTDA) of Thailand together with the National Nanotechnology Center (NANOTEC), and the Nanotechnology Association of Thailand (NAT) is its executive and inspector, in collaboration with the National Institute of Metrology (NIMT).