Nanosafety issues along their life cycle of nanoadditives incorporated in NM-enabled products

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The commercialization of nano-enabled products and their societal acceptance requires the insurability of safety at all stages of the product life cycle. Current uncertainties on the safety of such products need to be carefully addressed to avoid public fears blocking the benefits of nanotechnology. Sound scientific information must be generated to identify potential risks of nano-enabled products on human and ecosystems health and, when considered unacceptable, efficiently mitigate such risks. This has to be done in a holistic manner, taking into consideration all stages of the life cycle of these products, to protect the safety of workers, downstream users and consumers, the ecosystems, and the general population that may be exposed through the environment.

Monitoring the release during the use phase of nano-enabled products is one of the most challenging areas, in identifying the potential risks posed by nanomaterials on human and environmental health. Several European projects are focused on evaluating the release in the use phase of nano-enabled products: Nanopolytox, GUIDEnano and NANOSOLUTIONS and Nanorelease in which LEITAT Technological Center is either participating or coordinating.

In this talk, the nanosafety issues related to the use of nanoadditives in nano-enabled products will be presented. Furthermore, specific examples from the projects afore mentioned will be described.