Implementation of Safe by Design. Lessons learnt from the Nanotechnology sector

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The Safe by Design (SbD) implementation concept for nanomaterials and nano-enabled products is currently being developed under different European initiatives to cover uncertainties and risks regarding the nanosize [1]. The concept helps innovators to be prepared for regulation and regulators to be prepared for innovation; establishing transparency and trust between innovators, regulators, and consumers. The final goal being to design safer products in a cost-efficient manner, applying the precautionary principle, so uncertainties and risks can be identified and managed as early as possible. To implement the SbD concept, the Safe by Design Implementation Platform has been developed under NanoReg2 and currently is being updated in Gov4nano. The Platform is a web-based management structure, to support industry working with nanomaterials both in processes and product development. The final aim being that safer products arrive on the market in a cost-efficient manner, always taking into account hazard and exposure issues to workers, consumers and environment. The Platform is regulatory driven and implements life cycle thinking early in product development. At present TEMAS Solutions and others have tested this approach with different companies from different sectors and some examples will also be presented.

[1] Kraegeloh A, Suarez-Merino B, Sluijters T and Micheletti C Nanomaterials 2018 (8) 239