Partners

Project Details

PROJECT TITLE: Anticipating Safety Issues at the Design Stage of NAno Product Development

ACRONYM: ASINA

STARTING DATE: 01 March 2020

DURATION: 42 months

TOPIC: NMBP-15-2019 Safe by design, from science to regulation: metrics and main sectors (RIA)

EU CONTRIBUTION: 5,998,386.06 euro

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More Info:

www.asina-project.eu

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ASINA

Anticipating Safety Issues at the Design Stage of NAno Product Development

Project objectives

ASINA aims to:

• support the fast industrial uptake of nanotechnology by providing Safe-by-Design solutions and supporting tools;

• give entrepreneurs knowledge and awareness of Safe-by-Design potential;

• increase confidence in Safe-by-Design nanomanufacturing by improving the interaction and integration of different stakeholders (entrepreneurs, scientists, regulators, innovators, policy makers).

For this purpose, the project will take into consideration the important nano design features of coating and encapsulation and related Value Chains (VCs).

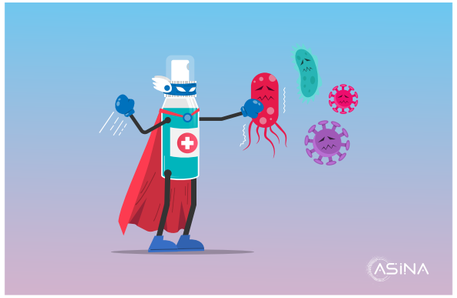
ASINA will develop a specific Safe-by-Design Management Methodology, consistent with modern business management systems, to deliver Safe-by-Design solutions and inform design decisions. The project will establish a pilot action, involving test beds and pilot plants, for testing and validating the methodology contents as specific implementations that can be generalized to other engineered nanomaterials, nano-enabled products and industrial case studies.

ASINA roadmap

ASINA will finally export the methodology to the industry through a roadmap (including guidelines, analytical tools, best practices) and other standardization deliverables such as CEN-CWA, as a realistic way to ensure diffusion of the ASINA SMM and its industrial implementation worldwide.

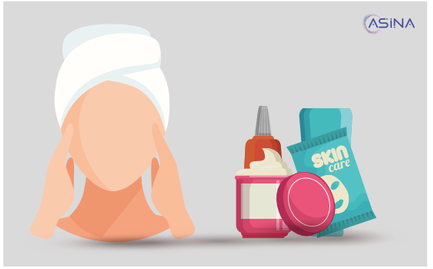
2 case studies

Based on their relevance for safety concerns, production volumes, environmental/societal benefits, and associated economic values, the following NEPs and associated production value chains are considered:



ANTI-MICROBIAL / ANTI-BIOFILM / DEPOLLUTANT COATINGS IN CLEAN TECHNOLOGY

NANO STRUCTURED CAPSULES DELIVERING ACTIVE PHASES IN COSMETICS



Expected impacts

Safe-by-design approaches and tools at an early stage of the nanomaterial development process

Quality workplaces that ensure maximum technical and economic performance in line with acceptable risk levels

Control and mitigate exposure after release of NMs from products

Develop and validate low-cost techniques for delivering an integrated exposure driven risk assessment and the associated design of the required post-use monitoring

Increased industrial competitiveness

Impact on human health, environment and regulations