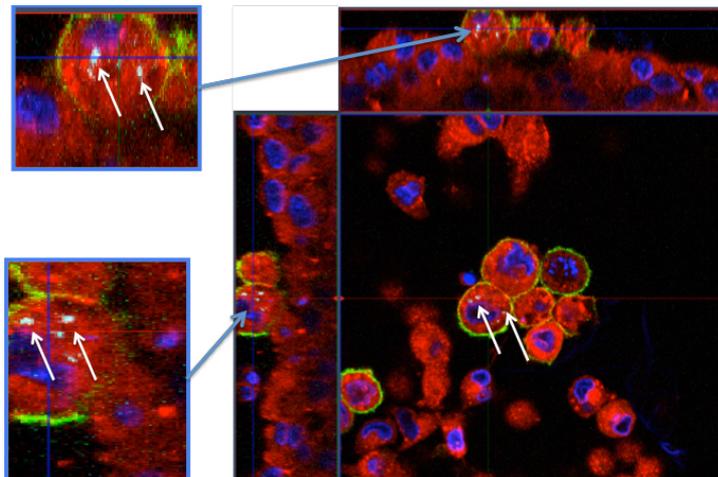


## RiskGONE

Towards a better risk governance of engineered nanomaterials



### Inspiration

As the nanotechnology field is fast-growing, the number of engineered nanomaterials is increasingly developing, with all the safety risks that might cause. Currently, the general opinion is that risk assessment approach routinely used for conventional chemicals is also applicable to engineered nanomaterials (ENMs).

However, the OECD and ISO test guidelines, as well as the Standard Operating Procedures (SOPs), need to be adapted and validated to be fully applicable to ENMs. In addition, there is a need for standardize methodologies applied to the characterization, hazard and risk assessment of ENMs to fulfil the requirements of the European policy. Establishing a risk governance of nanotechnologies is therefore of great interest among the European Union for both policy makers and ENMs producers.

### Innovation

RiskGONE aims to support the standardisation and validation process for ENMs by evaluating, optimizing and prevalidating the SOPs and ISO test guidelines as well as integrating them into a framework for risk governance. Together with its partners, LIST will establish a transparent and self-sustained risk governance council that will act as a science-based governance body for ENMs safety. It will provide responsible 2-way communication with stakeholders and civil society, based on high quality information.

With proven experience in the producing and ecotoxicology testing of ENMs, LIST will perform Round Robin exercises, as well as multimodal testing of OECD test guidelines and ECHA methods, but also on methods not yet considered by OECD. This approach will be preferred to the *ex novo* production of assays and methods in order to ensure the reliability and efficiency of the risk assessment methodologies.

This risk assessment framework, relying heavily on current strategies for the risk assessment of conventional chemicals, will be complemented by methods for estimating environmental, social and economic benefits. It will incorporate ethical aspects and societal risk perception and will manage acceptable and unacceptable risks through transfer or mitigation.

### Impact

RiskGONE will establish a European risk governance related to nanotechnology through the creation of a governance council. The latter will be composed of a panel of experts, and will be representative of different member states. The Round Robin exercises conducted by LIST will enable to both harmonize the risk assessment methodologies of ENMs, but also to provide robust and reliable draft guidance documents for the evaluation and decision processes of the risk governance council. RiskGONE will be able to provide pre-validated SOPs and test guidelines that might be of great interest for the OECD regulations.

#### Partners

Agencia Estatal Consejo Superior De Investigaciones Cientificas (ES) , Agence nationale de sécurité sanitaire de l'alimentation (FR) , DECHEMA Gesellschaft für Chemische Technik und Biotechnologie (DE) , European Environmental Citizens Organization for Standardization (BE) , Factor Social (PT) , Fundacion CID (ES) , Ideaconsult Limited Liability Company (BG) , Institut za medicinska istrazivanja i medicinu rada (HR) , Iran Nanotechnology Initiative Council (IR) , Malsch TechnoValuation Ethic School (NL) , Norwegian Institute for Air Research (NO) , Novamechanics Limited (CY) , QSAR Lab Spolka z Ograniczona Odpowiedzialnoscia (PL) , Swansea University SU (UK) , Transgero Limited (IE) , The Regent of University of California (US) , The University of Birmingham (UK) , Università Ca' Foscari Venezia (IT) , Université Catholique de Louvain (BE) , University of Bergen (NO) , University of Maastricht (NL)

#### Financial Support

Horizon2020

#### Contact

5, avenue des Hauts-Fourneaux  
L-4362 Esch-sur-Alzette  
phone: +352 275 888 - 1 | LIST.lu

Dr Arno GUTLEB ([arno.gutleb@list.lu](mailto:arno.gutleb@list.lu))  
Dr Tommaso SERCHI ([tommaso.serchi@list.lu](mailto:tommaso.serchi@list.lu))  
© Copyright April 2024 LIST

LUXEMBOURG  
INSTITUTE OF SCIENCE  
AND TECHNOLOGY

