

Engineered nanomaterial mechanisms of interactions with living systems and the environment: a universal framework for safe nanotechnology

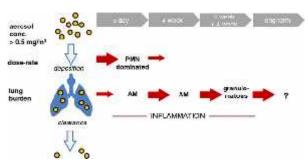




NanoMILE's Output: A framework for classification / grouping of MNMs according to their impacts,

whether biological or environmental:

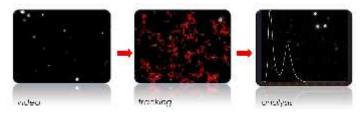
- **Description** of mechanisms
- **Protocols** Characterization
- Data on structure, fate, toxicity, etc.
- Models: QSAR/QPAR tool
- Guidance: to study MNM impacts
- Design rules for tailoring MNM impacts



Summary of results after 5 days and 4 weeks of inhalation exposure to Ceria nanomaterials (BASF)

NanoMILE's impact

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For core business	On context	On tools
For MNM industry		
 Safer products Demonstration of safety Help replacement of unsafe products Safer sites (emissions) 	 Stabilized regulation (REACH, GHS,) Public confidence on impact of new MNM →Safer activity → More sustainable economic development 	New protocols for own or external labsNew equipment for own labsNew OSH rulesProtocols for NM synthesis
For Lab "industry"		
- More accurate and significant tests - New equipment	- Stabilized essays (REACH, GHS,) →More sustainable economic development	New protocolsNew equipmentNew OSH rules
For risk assessment consultants		
- More accurate and significant methods & tools	- Stabilized methods and data (standards, REACH,) →More sustainable economic development	- Enhanced RA tools



Nanoparticle Tracking Analysis (NTA) of NanoMILE partner Malvern counts and sizes particles by the video tracking, simultaneously, of many individual particles

How to use NanoMILE's results?

MNM industry:

- R&D: Integrate knowledge in your tools and policy
- Direct use of NanoMILE's tools & services
- Request integration by your service providers

Lab "industry":

- Integrate new protocols in your offer
- Labs: purchase new equipment

Risk assessment consultants:

- Integrate knowledge in your tools & offer
- Direct use of NanoMILE's tools & services

NanoMile Quick facts

Coordinator: University of Birmingham Website: www.nanoMILE.eu

Duration: 01.03.2013 - 28.02.2017 Budget: 13 M€- EC contribution: 9.6 M€

NanoMile's Industrial partners

















