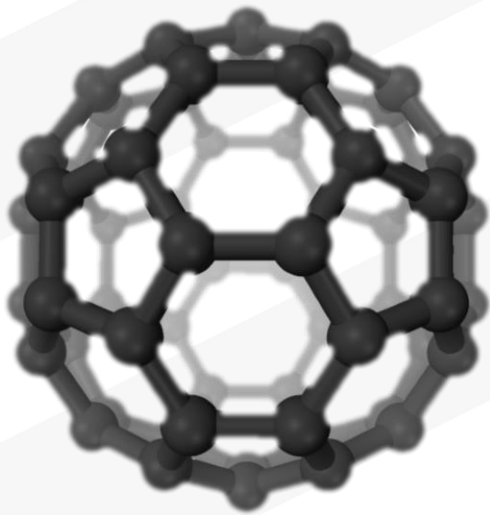


LEITAT

managing technologies



Nano- technologies

Expertise in Nanomaterials

Nanotechnology

- Chemical modification & production of nanoparticles
- Nanofiber fabrication
- Multifunctional and smart materials
- Nanobiosensors
- Chemical and morphological analysis

Health

- Antibody engineering
- In vitro & In vivo models (22 cell lines + STEM cells) Pre-clinical assays
- NanoBioSensors
- Toxicology (FDA guidance & GLP standards)

Advanced polymers

- Synthesis of biopolymers & compounding, biodegradable polymers and smart polymers (e.g. conductive, chromic, luminescent)
- Physical testing of nanocomposites

Energy

- Energy harvesting modules design and development
- Post-lithium batteries
- Fuel cell technologies
- Supercapacitors

Industrial biotechnology

- Microbial/Enzymatic fuel cells technology
- Antimicrobial products for microbial control
- Waste valorization

Surface treatments

- Paints, coatings and inks technologies, formulation application, drying/curing and properties
- Microencapsulation technologies (protection, self-healing)
- Preparation and decontamination of surfaces

Nanosafety

- LCA of nano-enabled products
- Risk & release assessment
- Toxicological studies (in vivo and in vitro)
- Nanofiber-based protective systems
- Standardization (AENOR Committee)

Smart Systems

- Thermoelectricity design and prototyping
- Development & integration of sensors, actuators and biosensors
- Wireless communications
- Electronics on flexible substrates

Environment

- Air quality control including COV and microbial contamination
- Water treatment technologies (electrochemical, nanotech, biotech...)
- CO₂ capture and valorization

New production processes

- Simulation & reverse engineering
- Additive manufacturing
- Robotics, artificial vision systems, digital image processing
- Ionic liquids

Photovoltaic systems

- Organic/hybrid PV technologies
- Down-shifting and up-conversion
- Solar concentrators and tracking systems
- Photovoltaic refrigeration concepts

Food

- Smart packaging
- Nanobiosensors
- Environmental management system

Relevant EU projects awarded



NANOFASE (H2020/646002) Nanomaterial FAte and Speciation in the Environment

ALION (H2020/646286): High Specific Energy Aluminium-Ion Rechargeable Batteries for Decentralized Electricity Generation Sources



ALISE (H2020/666157): Advanced Lithium Sulphur battery for Hybrid Electric Vehicle

BASMATI (H2020/646159): Bring innovation in the Scaling up of nano-materials and Inks for printing



GUIDEnano (FP7/604387): Assessment and mitigation of nano-enabled product risks on human and environmental health

NANOSOLUTIONS (FP7/309329) Biological Foundation for the Safety Classification of Engineered Nanomaterials



NANoREG (FP7/310584): A common European approach to the regulatory testing of nanomaterials

EUROTAPES (FP7/280432): European development of Superconducting Tapes



POROUS4APP (H2020/686163): Pilot-plant production of controlled doped nanoporous carbonaceous materials for energy and catalysis applications

EIROS (H2020/685842): Erosion and Ice Resistant composite for Severe operating conditions



caLIBRAtE (H2020/686239): Performance testing, calibration and implementation of a next generation system-of-systems Risk Governance Framework for nanomaterials

MIDES (H2020/685793): Microbial Desalination for Low Energy Drinking Water



Horizon 2020 topics of interest – 2016

H2020-NMBP-2016-2017

NMBP01 – 2016 - Novel hybrid materials for heterogeneous catalysis

NMBP03 – 2016 - Innovative and sustainable materials solutions for the substitution of critical raw materials in the electric power system

NMBP08 – 2016 - Affordable weight reduction of high-volume vehicles and components taking into account the entire life-cycle

NMBP09 – 2016 - Biomaterials for treatment and prevention of multiple sclerosis

NMBP10 – 2016 - Nanoformulation of biologicals

NMBP17-2016 - Advanced materials solutions and architectures for high efficiency solar energy harvesting

NMBP26- 2016 - Analytical techniques and tools in support of nanomaterial risk assessment

NMBP33 – 2016 - Networking and sharing best experiences in using regional clusters strategies with a focus on supporting innovation in the NMBP thematic area.

PILOT01 – 2016 - Pilot lines for manufacturing of materials with customized thermal/electrical conductivity properties

PILOT02- 2016 - Pilot Line Manufacturing of Nanostructured Antimicrobial Surfaces using Advanced Nanosurface Functionalization Technologies

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