

# International Research Center in Critical Raw Materials

for Advanced Industrial Technologies

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# What is **ICCRAM?**

ICCRAM is a competence Center of the University of Burgos devoted to advanced materials and Critical Raw Materials for advanced industrial technologies. This Center carries out different researching activities in four principal lines: Synthesis of nanomaterials, Computational simulation, Nanosafety and Sustainability. From these lines, ICCRAM approaches different topics of interest at European level (substitution of CRM, design of new materials, Biophysics, Biotechnology, Industrial technology, Efficiency resources management, Circular Economy and Eco-innovation ...)

ICCRAM is a leading actor in international organizations as PROMETIA, the European Innovation Partnership (EIP) on Raw Materials, the Nanosafety Cluster or the International Association of Nanotechnology Industries.

ICCRAM is involved in numerous European Projects **H2020**. Some of them are within the Excellent Science pillar **Marie Skłodowska Curie** or the competitive **FET-OPEN**, as well as the **NMBP** Program and **Social Challenge 5**, related to Circular Economy and Raw Materials.

## RESEARCH Lines

### Computational Simulation



- Genome materials: to accelerate the discovery of new technological materials
- Material multiscale modelling
- Ab-initio thermodynamics and phase transformations

#### Projects



### Synthesis of Nanomaterials



- Innovative materials for energy conversion and storage
- Solid-state route to nanomaterials
- Structural, microstructural and morphological characterization

#### Projects



### Biotechnology



- (Nano)materials toxicology analysis
- Biofilm formation and antimicrobial activity determination
- Biocatalyst immobilization and characterization

#### Projects



### Sustainability



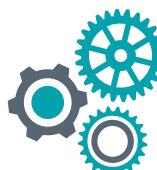
- Critical Raw Materials
- Life Cycle Assessment
- Circular Economy and sustainable solutions

#### Projects



## COLABORATION with Burgos City Council and Castilla y León government **INDUSTRY**

ICCRAM collaborates actively with the City Council of Burgos and the government of Castilla y León, and their industry.



### Objectives

- 1 Boost and support the industrial development through R&D and Knowledge Transfer.
- 2 Develop new Circular Economy model to contribute to the sustainability of the territory.
- 3 Position the city and the region as demonstrator units of innovative projects in a national and international context, specifically within the framework of H2020.