

## ICCRAM

Universidad de Burgos-International Research Center in Critical Raw Materials for Advanced Industrial Technologies  
Burgos, Spain



### ABOUT

Universidad de Burgos-ICCRAM (UBU-ICCRAM) is a privileged Research and Innovation core, integrating an Excellence International Center in Critical Raw Materials and competence Center devoted to Advanced Industrial Technologies.

ICCRAM takes parts in the knowledge and Innovation Community from the EIT (KIC-Raw) as well as in several Action Groups within the European Innovation Partnership in raw materials such as MIREU, ENCRAM, InTrain4RM, RESET and SUBST\_EXTREM, and is the Coordinator of the recently awarded RAW-NANOVALUE.

ICCRAM also leads the CRMs, Industrial and Resource Efficiency Strategy in Castilla y León (Spain), where it is a key agent in the RIS3 plan of this region. UBU-ICCRAM is a founder member of industrial clusters such as CYLSOLAR (Castilla y León renewable energy and energy solutions Cluster) and CBECYL (Castilla y León capital goods and industrial automation Cluster), maintaining a strong alliance with large scale industrial associations like SERCOBE (National Association of manufactures of capital goods) and international organisations as EU-NANOFUTURES.

### EXPERTISE

UBU-ICCRAM offers a unique combination of valuable complementary capabilities:

- Applied Nanotechnology
- Materials by design-New materials technology-New alloy discovery-CRM substitution
- Circular economy approach, LCA, sustainability and ecodesign; Ecocompatibility and Nanobiotechnology
- Experts in Materials Science, Circular Economy and Law (Policy for land planning)
- Value chain design, substitution, critical raw materials and raw materials flow. Expert for the commission in the value chain design and roadmap of advanced materials and nanotechnology for EU

- Carrying out Circular Economy assessment and fate of CRMs with Municipality of Burgos and Government of Castilla y León
- Coordinators of CRM RIS3 strategy in Castilla y León. Experts and authors of RIS3 strategy
- Coordinating City Council platform on Circular Economy
- Expert in prediction of political risk
- Prediction of society reactions
- Establish industrial channels for mapping industrial demand of CRMs in EU (already carrying out this activity in three H2020 projects CRMs related)

UBU-ICCRAM, as a political-strategic partner, coordinates the cooperation between Regional Government (Burgos City Council, Castilla y León Government), Development Agencies (ADE Castilla y León) and European Associations (EURADA, ERRIN) to perform pilot demonstration projects (Industrial Prototypes, Energy Efficiency, Smart Cities, Circular economy) and to foster the replicability of different technologies to be mirrored across EU regions.

### FACILITIES & SERVICES

- Supercomputing facility
- Materials mechanical characterisation laboratory: small-punch tests, servo-hydraulic general purpose testing machines (100kN and 250kN) suitable for static or fatigue testing
- X-Ray TAC (computed X-Ray tomography) and environmental chambers for the study of materials degradation
- Nanosynthesis, materials processing and production lab.
- Complete laboratory on Advanced Materials and Condensed Matter Physics (X-ray diffractometers, NMR, XRD, AFM/STM, TEM, SEM, AFM-RAMAN etc)
- Last generation complete laboratory on environmental compatibility analysis, nanotoxicity and nanosafety
- Laboratory of Toxicity, Food safety, biochemistry, agriculture in a singular facility



### MORE INFORMATION

Website: <http://www.ubu.es/iccram>

Contact: Rocío Barros García & Alfredo Bol  
rbarros@ubu.es & alf\_bol@ubu.es