

Korea-EU Horizon Europe Collaboration 2027

Mirela Dragan

Research Expertise

- Advanced Functional Materials: synthesis & design of inorganic materials
- Advanced Ceramics & Functional Oxides: high-performance material systems
- High-Entropy Alloys (HEAs): multi-component materials engineering
- High-Temperature Processing: advanced thermal treatment methods
- Structural, Thermal & Electrochemical Characterization

Target Call & Project Contribution

HORIZON-CL4-2027-01-MAT-PROD-22

Innovative Advanced Materials & New Production Processes |
Reducing Dependencies on CRMs/SRMs

➤ **Work Package Leader**

Materials Synthesis & Characterization

➤ **Framework Compliance**

Safe & Sustainable by Design (SSbD)

➤ **Management Support**

Project management & exploitation activities

Critical Raw Materials (CRM/SRM) Reduction

Material Redesign

Substitution of strategic & critical raw materials in functional systems

Process Optimization

Chemical process innovation to minimize raw material dependencies

Supply Chain Security

Enhanced resource efficiency and supply chain resilience

Data-Driven Methods

In-situ testing & computational methods for accelerated optimization

Collaboration Strategy & Goals

Key Objectives

- Build long term bilateral Korean-European partnerships
- Leverage complementary expertise
- Shared growth & strategic resilience

Driving innovation in advanced materials for sustainable industrial applications

**Expected
Consortium Role**

**Work Package
Lead
or Key Partner**