POLE OF COLLABORATION IN NEW FUNCTIONAL ALLOYS - POCAL

Goal of the project

To develop a cross-border network for R&D in New Functional Materials Engineering, adapted to the specific areas of interest (metallurgy) and novel developments (functional, multifunctional and intelligent materials as well as micro and nanoengineering) in the field
Via:

- transfer of knowledge for the beneficiaries looking for continuous education (from their existing aptitudes in metallurgy into novel materials fabrication),
- a base for research and training for students and researchers
- information and connections through collaboration, for beneficiaries looking to develop independent activities in the field of Advanced Materials and Micro/Nanoengineering.

Short description of the project

- Creation of POCAL Cross-Border Network
- Development of interconnected innovation clusters
- Joint research in Advanced Functional Materials
- Design of the transfer of knowledge mechanisms
- Promotion activities
- Development
- Preparation for self-support

Project implemented by

- Politehnica University Timisoara, Romania
- Minning and Metallurgy Institute Bor, Republic of Serbia

Implementation period

23.09.2016 -22.09.2017

Main activities

1. Design & implementation of POCAL mechanisms
2. Media campaign and POCAL web portal
3. Focusing meeting
4. Study of regional needs and opportunities
5. Updating the fabrication and functional exploration laboratory
6. Publication in special issue of Journal "Copper"
7. Equipment acquisition for microstructural investigations
8. Materials development and optimization
9. Materials characterization
10. Demonstrator
11. Common activities to publish scientific papers
12. Participation in scientific international events
13. POCAL ToK Center
14. Open day
15. Workshop
16. Joint applications
17. Preparation for self-support

Results

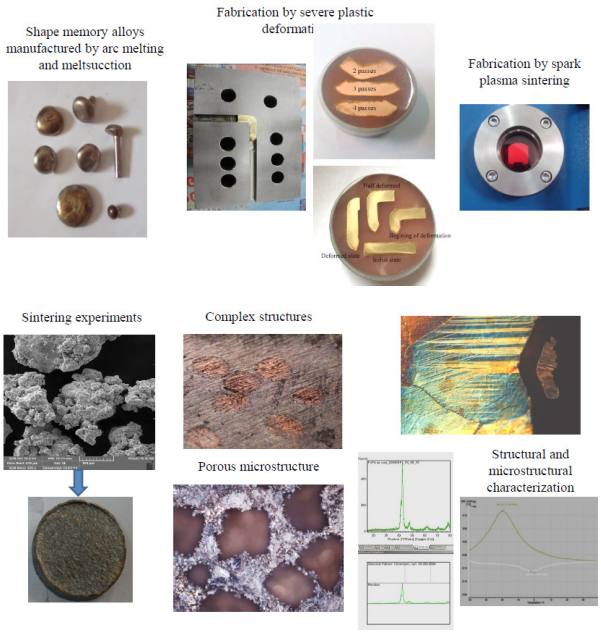
High vacuum microfabrication unit

Spark plasma sintering unit

X-ray diffraction unit

Acquisition of new equipment

Development of new materials and technologies



Patent application: Shape memory controlled diaphragm

Cross-border collaboration: workshop, open day

Applicability and transferability of the results:

Development of the capacity of the partners to develop coordinated research in the field of advanced materials micro and nanoengineering, including via collaboration with industrial partners.

Research Centre

POCAL Transfer of Knowledge Center

Financed through/by

Romania – Republic of Serbia IPA Cross-border Cooperation Programme.

Research team

UPT Team
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Joint financial manager: Ms. Adriana Szakallas/ Monica Bota
Joint marketing manager: Dr. Ing.Iosif Hulka
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Researcher 2: Prof. Victor Budau
Researcher 3: Assoc. Prof. Dragos Utu
Researcher 4: MSc. Ing. Lazar Soveja

IRMB Team
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