



# REGMINA

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Project full title:

# REINFORCEMENT OF REGIONAL MICROSYSTEMS AND NANOSYSTEMS CENTER - REGMINA

Type of funding scheme: Coordination and support

Funded under: FP7-REGPOT-2007-1

Grant agreement no: 205533

Duration: 36 months (01.05.2008. - 01.05.2011.)

Coordinator: Prof. Dr Zoran Djurić

Project officer: Ciaran Dearle

#### About the Centre

The Centre of Microelectronic Technologies and Single Crystals, a department within the Belgradebased Institute of Chemistry, technology and Metallurgy, is the only Serbian institution fully dedicated to research in the fields of microsystems and nanosystems. It is oriented to applied research of different solid-state sensors and detectors, microelectromechanical (MEMS) structures and nanostructures for a wide range of practical applications, including industry, environmental protection, health protection, etc.

The Centre covers all stages of a research cycle, starting from the fundamental theory, proceeding with simulation, micro- or nanofabrication and characterization and ending with a finished device. Our vision is to boost the Centre into a regional center of excellence in sensor micro- and nanosystems, enabling it to fully integrate into the EU research, at the same time ensuring a sustainable growth of its research resources and wider coverage of topics.

About the Project

The main idea of the proposal is to reinforce the Centre of Microelectronic Technologies into center of excellence. Towards this realization, one of the urgent needs is to improve connections with the EU.

It is necessary to alleviate brain drain and to turn it into brain gain, to improve situation with outdated and nonfunctional equipment, to improve mobility of researches in both directions, with a practical insight into European practices and common procedures.

At the same time, the Centre would work in the other direction as well by spreading the EU excellence and knowledge about the state of the art science in this less (*advanced*) developed part of the world.

#### Main goals of the project are:

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- Purchasing of new equipment, which would improve both leading position of the Center in the field of microsystem and nanosystem technologies in Serbia and the Western Balkans and competence for future EU projects applications
- Renewal of the outdated equipment towards reinforcement of the Center
- Training of young researchers with the goal to form experts able to participate in both theoretical and experimental research;
- Two workshops and two open days are planned for scientific and industrial partners in order to improve established connections, establish new connections and increase general awareness

## <u>New Equipment</u>

One of the main objectives of the project was renewal and upgrade of the existing facilities. In the course of three years of REGMINA project duration the following equipment was purchased, installed and training of personnel was organized:



- Laser writer LW405 (Microtech s.r.l.)
- Lock-in amplifier Model 7280 (Ametek)
- FT-IR 6700 Fourier Transform Infrared spectrometer (Thermo Scientific Nicolet)
- iN10 FT-IR microscope (Thermo Scientific Nicolet)
- SPM Ntegra Scanning Probe Microscope (NT-MDT)
- Spectrum analyzer RSA3308B (Tektronix)
- Wafer bonder AML-AWB-04 (AML)









#### <u>Young Researchers</u>

An important component of the Reinforcement of internal facilities workpackage is the career development for young researchers.

The goal was to hire four young researchers through contractual activity for a period of two years. A precise career development plan was generated to this purpose with the goal to form experts able to participate in both theoretical and experimental research.

The young researchers were chosen from among the best students from the faculties covering the relevant research field for the REGMINA project. Their choice was done according to the valid legislature and these fulfilled the personal quality requirements.

Depending on their performance, the young researchers were offered an opportunity to achieve permanent positions within the Centre and were included in new national project.

#### **Dissemination and Promotional Activities**

Various activities were organized in order to increase the visibility of the Centre and to disseminate the knowledge and expertise to industry, academia and general public. These include organization of workshops, organization of open day, forming of an outreach group among industrial and SMA representatives and presentation of project results at international conferences.



# <u>Networking</u>



The advancement of the integration of WBC science into European scientific trends has been achieved through the planned mobility of researchers, networking and other intended methods of mobilization of human and material resources. It was also realized through the dissemination plans which include networking with distinguished scientists from the EU.

<u>Contact Us</u> For Additional Information:

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