

# EUROPEAN BUSINESS INNOVATION

## & RESEARCH CENTER S.A.



Parcul stiintific si tehnologic

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### Brief presentation

RTD activities and domains:

AERONAUTICS and SPACE ENGINEERING MICRO- and NANO-TECHNOLOGY

CLEAN and RENEWABLE ENERGY SUSTAINABLE & PRECISION AGRICULTURE

### EBIC the EUROPEAN BUSINESS INNOVATION & RESEARCH CENTER

is a private research center (its shareholders and founders are Romanians and natural persons) and the main objectives of its activity are specific consulting and business management in innovation, scientific research and technologic research and its development within the specific programs of the European Union such as FP7, and the appropriate actions for these objectives are: assistance, support, promotion, development, dissemination, finance and project management of implementing innovation and more important the management of the EU research programs in general.

EBIC is EBN member and representative in Romania (EUROPEAN BUSINESS AND INNOVATION CENTERS NETWORK) and as BIC (Business and Innovation Center) is the instrument to assist regional development providing all specific EBN/BIC services and activities respectively by the support, promotion and development of local Business and Innovation Centers, the Business Incubators, to set up Small or Medium Sized Enterprises (SMEs) in general and specially for Romanian peoples for the development of innovative activities within the existing SMEs based on inventions, know-how and new innovative ideas for both the technology and management.

EBIC has developed as a fully integrated innovative research and design organization following the EC guidelines within the BIC initiative of EC, based on center of excellence principles and the organizational structure is the following: Research and Design, Innovation and Special Projects, FP7 Project Management, Prototypes, Demos and sub-Production, Support for SMEs involved in Research and Technology Development, private scientific main research activity is in the aeronautics and space engineering domain.

Our Strategic relationships are developed with the Aviation Institute INAV S.A., the National Institute of Micro- and Nano-technology IMT S.A., ROSA, Romanian Chamber of Commerce and Romanian Commodities Exchange.

### The Last International Participation:

"Thematic Processing, Modelling and Analysis of Remotely Sensed Data"

ISPRS SYMPOSIUM 8-11 May, 2006, International Institute for Geoinformation Science and Earth Observation ITC, Enschede, NL.

### RTD Project presentation

MICRO- and NANO-TECHNOLOGY

Project FP6 - 2005 - ESA SURE AO, partner IMT:

**ACTIVE SHIELDS SYSTEMS - PROTECTION FOR HIGH SPEED SPACE DEBRIS (ASS)**

The Project aim is to experiment the Active Shields Systems, as a new technology to improve safety on board of ISS, for all satellite and spacecraft systems during the space exploration. This is the industrial proposal of EBIC with partners IMT and INAV.

This proposal is an advanced technical solution for the protection against high speed space debris and particles travelling in space at very high speeds. The ASS total weight is estimated at 1.5 kg and the overall size 125 x 100 x 115 mm. The ideal design and capability will include even its own down-link communication system able to provide status data at each 90 minutes and independent solar power supply at the limit of maximum 3 kg and requiring no additional time spend by astronauts. The Project objectives are: to develop an experimental model, installation on ISS, flight tests and monitoring, and at the end the final study evaluation for protection capability. The return of the iteam can be done any time later following that period of space exposure.

A Future Project for ESA SURE AO, partner IMT:

**Active Protection Systems for the Electromagnetic Turbulence (APSELT)**, this is a future FP7 project.

The Project aim is to experiment Active Protection Systems for electromagnetic turbulence in space, a new technology to improve safety on board of ISS, for all satellite and spacecraft systems during space exploration. The Electromagnetic Turbulence was discovered in 1986 at low altitude in the Earth's atmosphere as result and interactions of both solar activity and planet electromagnetism. It was presented in 2003 at ESA/ROSA and UNOOSA Workshop, as advanced technology for both detection-monitoring sensors and active protection against high energy space electromagnetic turbulence, is using both micro and nano-technology, high and low energy electromagnetic fields system, to eliminate the variable energy impact, providing safety for all onboard space electronics, including for the civil aircraft. Project objectives are: to develop the experimental models, installation on ISS, flight tests, protection-sensors monitoring capability, evaluation of the test model.

