SME / Association / Researcher profile form

Date (dd/mm/aaaa): 30/08/2010

Profile valid until (dd/mm/aaaa): 30/08/2011

Section 1 - Contact details

Organisation Name (full name)	LIDAX INGENIERIA s.l.
Organisation acronym (Abbreviation)	LIDAX
Address	Av. Cristóbal Colón, 16
Postal code	28850
City	Torrejón de Ardoz, Madrid
Country	Spain
www address	www.lidax.com

Contact person:	
Title	Head of Commercial Dpt.
First Name	Carlos
Family Name	Laviada
Telephone	+34 91 678 08 05
Fax	+34 91 656 39 01
E-mail	laviadahc@lidax.com

Section 2 – Type of organisation

If you are an Enterprise

Enterprise type	☒ Private ☐ Non profit ☐ Public ☐ Other	**Is your Company a Small-Medium sized Enterprise (SME)?**	☒ YES ☐ NO
		if YES, Number of Employees	☐ < 10 ☒ > 10 and < 50 ☐ < 250

According to Article 2 of the annex of Commission Recommendation 2003/361/EC of 6 May 2003, which applies from 01 January 2005, an SME (Micro, Small or Medium-sized Enterprise) is an enterprise which:

- has fewer than 250 employees,
- has an annual turnover not exceeding 50 million euro, and/or
- an annual balance-sheet total not exceeding 43 million euro.

http://europa.eu.int/comm/enterprise/enterprise_policy/sme_definition/index_en.htm

Owned by a non SME:	☐ YES ☒ NO

Description of the organisation (max 1.000 characters):

LIDAX is a Know-How based SME that specializes in the development of advanced mechanical systems for on-ground and space scientific instrumentation from conceptual design to integration and testing.

All the product life cycle is controlled by Space Quality Standards based on ECSS ESA Program Quality Standards.

LIDAX R&D line is the Development of sub-micron mechanisms and systems that can operate at cryogenic temperatures (cooled under 70K). These systems are needed for IR Scientific Instruments and Innovative robotic exploration instruments. Also applications can be found in High Energy Physics and Particle Accelerators Lines.

SME / Association / Researcher profile form

If you are an Association

Association type	☐ SME ☐ Industrial ☐ Cultural ☐ Civil society ☐ Other:	**Sector of activity**	
Description of the association (max 1.000 characters)**:**			

If you are a Research Organisation

Research Organisation type	Research Organisation (☐ Private ☐ Public) High Education School / University / Institute (☐ Private ☐ Public) ☐ Other, please specify:
Description of the organisation (max 1.000 characters):	

Section 3 – Sector of interest

FP7 Programme	☒ Cooperation (Click for choosing the Theme) ☐ Ideas ☐ People ☐ Capacities (Click for choosing type of programme)
Further information on the sector of interest (max. 500 characters)	**Space instrumentation: Development of Space Innovative Instrumentation such as Cryogenic instruments, Far Infra-red instruments, Robotic Exploration** **Space Systems and components: Part of telescopes and Service Module such as Linear actuators, M2 Hexapods, Hold downs,…** **On-ground Instruments: Part of Innovative Scientific Instruments such as Telescope Instrumentation, Particle accelerator…**

SME / Association / Researcher profile form

Research topic according to the work programme (if available, specify the code of the topic(s) that you are interested in, e.g. ENV.2010 2.1.3-4.or KBBE-2010-1-7-01)	**Actividad 9.2: Strengthening the foundations of Space Science and technology. Area 9.2.1: Research to support space science and exploration** **Topics:** - **Focus on robotic exploration** - **Innovative instrumentation** - **Mobility on planetary surfaces** - **In space and from-surface propulsion** - **In space power generation**

Section 4 - Description of your expertise

Description of the expertise (max 2.000 characters)	**From 2004 LIDAX has identified the Development of High Resolution (sub-micron) cryogenic Mechanisms as primary R&D Line.** **Objective and Applications: Space and on-ground Instruments. Infra-Red Instrument. Far Infra-red instruments. Also High energy physics and Particle Accelerators may be potential users of LIDAX Know How.** **The most important skills and expertise acquired for cryogenic instruments development are:** - **Development of sub-micron linear actuators based on COTS. Special research on lubrication** - **Development of sub-micron sensor** - **Research on specific methodologies for high resolution testing under cryogenic environment** **Also specific instrumentation has been developed or acquired for testing cryogenic mechanisms:** - **Specific cryostat for mechanisms testing** - **Linear Interferometer that combined with cryostat allows the measurement of nanometer displacements at cryogenic temperatures** - **Angular autocollimator that combined with cryostat allows the measurement of micro-radians rotations at cryogenic temperatures** **Apart of this expertise LIDAX has long experience in the development of sub-systems for space applications. So all the Program Quality and Program Management Procedures used for Space developments are well known and implemented in all organization activities.**

SME / Association / Researcher profile form

Keywords describing the expertise offered (if needed more than one)	**Cryogenic Mechanisms** **High resolution mechanisms** **Cryogenic Testing** **Infrared Instruments** **Far Infrared Instruments**

Section 5 – Your previous experience in FP projects

Former participation in FP European projects?	☒ YES ☐ NO
If YES	Project title: Magnetic-Superconductor Cryogenic non-contact Harmonic Drive Acronym: MAGDRIVE
Activities performed	☒ Research ☐ Demonstration ☐ Training ☐ Technology ☐ Dissemination ☐ Management ☐ Other:
Please describe briefly (max. 700 characters):	In this project LIDAX is responsible for guarantee the Harmonic Drive type mechanisms can be used as space component and comply with space standards. LIDAX acts as final user of this component. Also, based on previous expertise, LIDAX will give support to the testing phase of mechanism.

Section 6 – Expectations

Term commitment	☐ Short (< 1 year) ☒ Medium (1 to 3 years) ☐ Long (more than 3 years)
Commitment offered	☒ Research ☐ Demonstration ☐ Training ☒ Technology ☐ Dissemination ☒ Management ☐ Other:
Proposed role in the project	☐ Coordinator ☒ Work package leader ☐ Partner ☐ Other role:
Expected results for your organisation (max 500 characters)	**Advancement in Know How required for the Development of high resolution space cryogenic mechanisms. As part of this activity may be:** - **Design, Construction and Testing of a Component (movement actuator, positioning sensor, mirror support, mirror scanner, FPA thermo mechanics, Optical Bench)** - **Testing of the complete system or instrument**

SME / Association / Researcher profile form

Section 7 – International cooperation

Are you interested in international cooperation?	☒ YES ☐ NO
If YES, please specify the geographical area(s) of interest	☒ Mediterranean area ☐ Balkan area ☐ Russia and NIS (Newly independent States) ☐ Asia ☐ Africa ☐ South America ☐ Other:

I agree with the publication of my data

Please fill in the form and send to: ricercapartner@apre