



REGIONE BASILICATA

Overview of the involvement of local Research

**Organisations, Enterprises, Universities in
national and international projects on Earth**

Observation applications and services.

(Earth Observation, Satellite Navigation and Telecommunication)

**INNOVA Consorzio per l'informatica e la
Telematica s.r.l.**

ORGANISATION PROFILE AND EXPERIENCE

Section 1 - Contact details

Organisation Name (full name)	INNOVA Consorzio per l'Informatica e la Telematica s.r.l.	Contact person:	
Organisation acronym (Abbreviation)	INNOVA	Title	Mrs.
Address	Recinto Il Fiorentini, 10	First Name	Marina
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Region	Basilicata	Fax	+39 0835 264705
Country	Italy	Skype	Marina.Doubell
www address	www.consorzio-innova.com	E-mail	doubell@consorzio-innova.it

Section 2 - Type of organisation

If you are an Enterprise

Enterprise type	<input checked="" type="checkbox"/> Private <input type="checkbox"/> Non profit	Is your Company a Small-Medium sized Enterprise (SME)?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	<input type="checkbox"/> Public <input type="checkbox"/> Other	if YES, Number of Employees	<input type="checkbox"/> < 10 <input checked="" type="checkbox"/> > 10 and < 50 <input type="checkbox"/> < 250
<p>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:</p> <ul style="list-style-type: none"> • 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. 			
Owned by a non SME:		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	

Description of the organisation (max 1.000 characters):

INNOVA is an Italian SME, founded in 1989 and based in Matera. We specialize as a technology and service provider for the Earth Observation sector. Our main areas of expertise are:

- Remote Sensing
- Synthetic Aperture Radar (SAR) Satellite and Ground Based sensor Applications:
 - Interferometry
 - Oil Spill and Coastal Monitoring
 - Land slide monitoring
- GPS Radio Occultation techniques to measure Atmospheric Parameter Profiles
- Infomobility Systems based on GPS - GPRS
- High Performance Computing - GRID
- Geographical Information Systems (GIS)

We collaborate with key players in the Italian Space Industry, such as ASI (Italian Space Agency), Telespazio and Thales Alenia Space, and numerous Research Institutes and Universities.

We are a member of CREATEC, Consortium for the Environment and Technological Innovation, uniting innovative IT organizations of the Basilicata Region.

We are also members of AIPAS (Association of Italian SMEs working in the space sector), EARSC (European Association of Remote Sensing Companies) and AFCEA (Armed Forces Communications and Electronics Association).

Staff information

Actual Staff profiles involved in Space Technology activities (e.g. engineers, physicists, computer scientists, mathematicians, administrative, etc.)

- 7 ICT
- 15 Eng
- 1 Physicist
- 3 Sales Dept.
- 1 Administrative

If you are a Research Organisation

Research Organisation type	Research Organisation (<input type="checkbox"/> Private <input type="checkbox"/> Public) High Education School / University / Institute (<input type="checkbox"/> Private <input type="checkbox"/> Public) <input type="checkbox"/> Other, please specify:
Description of the organisation (max 1.000 characters):	
Staff information	

Section 3 - Description of your main expertise and activities in the field of Earth Observation Technologies

Areas of expertise (max 2.000 characters)	<p>INNOVA is a service and technology provider for the EO sector. Our most significant expertise is related to Synthetic Aperture Radar and Infomobility Systems:</p> <p><u>SAR</u> INNOVA has extensive expertise in remote sensing applications that use Synthetic aperture radar data acquired by satellite sensors such as COSMO-SkyMed. The focusing and post-processing of high resolution (i.e. Spotlight) SAR</p>
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data represents the main expertise of the company.
 Currently INNOVA is involved in the development of environmental applications that utilize data from heterogeneous sources (SAR satellite data, optical satellite data, ground sensors) by means of software tools able to integrate multi-mission and multi-sensor data (i.e. SARWorkbench modular software tool <http://www.consortio-innova.com/static/gsdview/index.html>).

GB SAR

INNOVA is currently investing to integrate its satellite SAR data toolbox with Ground Based SAR data in order to expand its monitoring functionalities to provide integrated monitoring services. The aim is to supply not only the software tools, but also provide a monitoring service through a GB SAR sensor to monitor specific land slide risk areas that are affected by climate change or anthropic causes.

Infomobility Systems

Our second main area of expertise is based on providing innovative Fleet Management and Infomobility services. We have extensive know-how in designing and developing ad hoc solutions to monitor and manage employee and vehicle resources. INNOVA has its own web-based infomobility system to be soon integrated with a non-invasive fuel sensor. We also provide specific solutions designed for very specific sectors, such as our Waste Management Solution.

The list below shows the technologies used by INNOVA in its software development projects:

Component/technology	Applied solutions
Programming Languages	Java, C , C++, PHP, ASP, JSP, Python
High Level Languages	IDL, Matlab
Web Server	Apache , IIS
Application Server	Tomcat, JBoss
RDBMS	MySql, Postgres SQL, MS SQL server
Analysis and modelling of SW systems	UML, Visio, Rational Rose
Server Operational Systems	Windows 2000/2003/2008, Red Hat Linux, Fedora, Debian
Client Operational Systems	Windows, Linux
Web Browser	Internet Explorer, Mozilla Firefox
CMS tools for the management of web contents	Joomla, OpenCMS, IceFace
GIS	Esri ArcGis, Mapserver, GRASS

Keywords describing the activities performed by the organisation
 (if needed more than one)

1. SAR
2. Infomobility Systems
3. RO
4. GIS

Section 4 - List of Projects implemented in the last 5 years

Project	FP6 InterRisk Project
Title	Interoperable GMES Services for Environmental Risk Management in Marine and Coastal Areas
Project Acronym	InterRisk
Source of funding / Programme	EU FP6
Status	Completed
Role of the organisation	Partner
Responsible	Nansen Environmental and Remote Sensing Center (NERSC)
Duration	From (09/2007) to (09/2010)
Content	<p>Short description of the project (max 1000 characters)</p> <p>The overall objectives of InterRisk are to develop an open system architecture for interoperable, GMES monitoring and forecasting services for marine and coastal areas. Based on a pan-European architecture, providing data based on satellite data, in situ data and numerical models needed to monitor and forecast marine environmental crisis events. INNOVA has developed the processing chain to provide a Mediterranean Sea Basin Oil Slick service, using ASI's OSAD sw, implementing OGC nodes to export results in WFS and WMS format, and a WCS format data catalogue. The service is registered on the InterRisk web-portal. A national web-portal provides data of any oil slicks detected in the Mediterranean.</p>
Website	http://interrisk.nersc.no/

Project	ASI Pilot Project
Title	PRogetto pilota inquinamento Marino da Idrocarburi
Project Acronym	PRIMI
Source of funding / Programme	ASI national funding
Status	Completed
Role of the organisation	Partner
Responsible	Telespazio S.p.A
Duration	From (month/year) to (month-year)
Content	<p>Short description of the project (max 1000 characters)</p> <p>Project to realize an operative system for Oil Spill detection to constantly survey, detect, and foresee the direction of spread of marine oil spills.</p> <p>The system is based on satellite data. The system will be able to predict the characteristics of the oil spills, such as composition, thickness and age; foresee the evolution of the oil spill, such as possible direction of spread and consequences on the ecosystem; and provide invaluable statistical data to all users, allowing them to plan and carry out monitoring and surveillance operations.</p> <p>INNOVA is in charge of developing an IDL application to detect Oil Spills both in manual and automatic mode, utilizing multi-mission SAR data. The results can be exported in PDF, HTML and GML format. Research and development of algorithms to extract wind and current data, dynamic land masking, and Oil Spill features.</p>
Website	http://spatial.telespazio.it/plone3.0/Primi

Project	COSMO-SkyMed
Title	Constellation of Small Satellites for Mediterranean basin Observation
Project Acronym	COSMO-SkyMed

Source of funding / Programme	National funding (ASI and Italian MoD)
Status	In progress
Role of the organisation	Partner
Responsible	Thales Alenia Space and Telespazio S.p.a.
Duration	From (2006) to (on-going)
Content	<p>Short description of the project (max 1000 characters)</p> <p>The COSMO-SkyMed Programme is without a doubt the biggest Italian space project of all times. Its first generation foresees a total constellation of 4 radar satellites for Earth Observation for dual (civilian and military) use.</p> <p>INNOVA is and has been involved in various stages of the COSMO-SkyMed programme:</p> <ul style="list-style-type: none"> - developed deformatting processors for all acquisition modes; - developed Spotlight focusing processors; - presently assisting both Telespazio and Thales Alenia Space with the commissioning phase of the first three satellites; - carried out under an ASI contract the interpretation of real CSK data, qualitative and quantitative InSAR analysis, and are currently developing tools and applications to utilize multi-mission SAR and optical data.
Website	http://www.cosmo-skymed.it/it/index.htm

Project	Italian Space Agency national project
Title	ROSA per OCEANSAT-2 Data Processing Centre
Project Acronym	ROSA
Source of funding / Programme	ASI national funding
Status	In progress
Role of the organisation	Partner
Responsible	ISMB - Istituto Superiore "Mario Boella" - Torino
Duration	From (09/2008) to (in progress)
Content	<p>Short description of the project (max 1000 characters)</p> <p>R.O.S.A. stands for Radio Occultation Sounder for Atmosphere and is the name given to the Radio Occultation receiver of this ASI Space Mission, geared mainly to better understand Climate Change.</p> <p>The sounder is hosted on ISRO's OCEANSAT-2 satellite, launched on the 23rd September 2009, and part of an operational mission devoted to Oceanographic studies.</p> <p>INNOVA is in charge of:</p> <ul style="list-style-type: none"> • developing the Data Processing Centre; • development the advanced processor and its integration in the Ground Segments of Matera (Italy) and Hyderabad (India); • development of products and added value applications that utilize Radio Occultation data
Website	

Section 5 - Priority Topics of Interest

INNOVA's expertise falls into the following FP7 calls:

- Environment
- Space
- Security
- Transport
- Research for SMEs