



Assessorato all'Università e Ricerca Scientifica,
Innovazione Tecnologica e Nuova Economia,
Sistemi Informativi e Statistica



INTERNAZIONALIZZAZIONE DEI Centri Regionali di Competenza



BENECON – REGIONAL COMPETENCE CENTRE FOR CULTURAL HERITAGE, ECOLOGY AND ECONOMY

Benecon carries out analysis and evaluation of the territory, environmental reclaiming, recovery and maintenance of landscape, archaeological, urban and construction settings and in addition designs and develops green businesses and eco-museum areas. The main outputs are:

The principal outputs

Aerophotogrammetric Camera and Lidar System

The aerophotogrammetric camera carries out the georeferential survey on a territorial scale, which can be integrated with Geographical Information Systems (GIS), for the purpose of monitoring terrain use, pollution, vegetation conditions and mountainside stability, of detecting infrastructures and services exposed to geological risk, of studying environmental impact, of analysing physical and biological characteristics of water bodies and of elaborating thematic maps. The Lidar (Laser Imaging Detection and Rancing) system hits the ground from the plane above determining with precision the altimetric course for the purpose of determining altitude and frequency. The benefits lie in simultaneously having the numeric image of the territory with the digital model spread out over it, integrated with the expertise of the Ars Laboratory for the operations of calibration and the post-processing phases.

Hyperspectral Aerotransported System CASI 1500 – TABI 320

The CASI 1500 system is a high resolution (1500 pixel) hyperspectral aerotransported detection system capable of taking images of large areas of territory with a single scan and rendering three-dimensional objects up to 25 centimetres in size.

The TABI 320 system is a broad band thermal hyperspectral aerotransported system for territorial-scale detection capable of distinguishing temperatures up to a tenth of a degree and rendering high resolution images.

The Benecon Centre's CASI 1500 – TABI 320 System, as well as being the most advanced in its category, is also the only one operating on continental Europe.

ThermacamSC 3000

This high speed data acquisition thermographic system with QWIP sensor, for advanced thermal analysis, was designed to meet the demand for thermal analysis in scientific, non-destructive testing applications and in target shape identification. The images of invisible infra-red or heat radiation represent a precise measuring instrument without entering into contact with high temperature bodies.

The Structure

- The Benecon Centre avails of 250 researchers from four universities of the Campania region and two research centres and a wealth of state-of-the-art scientific instrumentation.
- Benecon has set up an Environment-Description-Structures Laboratory (ARS), in the municipality of Frignano, a few kilometres from Aversa, furnished with a wealth of high tech equipment. The range of activities of the research centre is focused on three macro-areas: Environment, the Description of the territory and the investigation of the Structure and chemistry of materials.
- The Centre holds a patent for the Carta Uni.Te.Mi.Ca (Catalogued Minimal Unit of the Territory Map), a platform which appoints the network of competences through the processes of differentiation and measurement of all the material and immaterial components of the natural and man-made environments.

- The Centre supplies support to strategic environmental evaluation processes for territorial planning, introducing the principle of pre-emptive environmental analysis to any type of planning choice (Directive 2001/42/CE).

Potential Market

This heterogeneous offer of products and solutions, particularly in the fields of environmental, territorial and building evaluation and analysis, is suited for the national and European markets in the areas of construction, civil engineering, energy, lighting, acoustic, electromagnetic fields, air, water and soil quality analysis, and conservation and promotion of cultural heritage.

Commissioning Bodies/Clients: Società Haichuang (Technical Support Services _ manual for the recovery and conversion of use of buildings in the Italian quarter of Tianjin - S.I.RE.NA Città Storica S.C.p.A.); Special Superintendence for the Museum Hub of Florence (Georadar Investigation of Michelangelo's David); Campania Region; Molise Region; Municipality of Naples; Municipality of Piedimonte Matese; Municipality of Sessa Aurunca; Municipality of Marcianise; Campania Region Commission of Evaluation and IACP; Second University of Naples; Mediterranean University of Reggio Calabria; General Command of the Guardia di Finanza (Agreed Protocol for teledetection activities); Experimental Centre for Engineering s.r.l. (ICS).

Tecnological contact

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