Geographic Information System Service

INTRODUCTION

The Geographic Information System Service of the Mediterranean Institute for Advanced Studies is an interdisciplinary horizontal service that gives support to the IMEDEA scientific research teams in oceanographic, cartographic, geographic information systems, and environmental studies. The aim of the GIS Service is to improve technical and equipment support to optimize the available resources to the scientific researches and to promote research results amongst the scientific community and amongst society as a whole.

IMEDEA GIS SERVICE GOALS

- ➢ GIS architecture & infrastructure maintenance
- ➢ GIS application development
- ➢ GIS consulting services & technical support
- ➢ GIS database development & data repository management
- ➢ Global Positioning Systems (GPS) consulting
- ➢ Cartographic products
- ➢ Geospatial analysis

THE UGIZC PROJECT,
a GIS Approach

A Geographical Information System and a scientific spatial data infrastructure (SSDI) node of the Balearic coastal areas are developed within the GIS IMEDEA service with the support of the project UGIZC (Unit for Integrated Coastal Zone).

The littoral SSDI provides visibility to the research results of the UGIZC projects and constitutes an instrument of support to the decision making process in a frame of Integrated Management of Coastal Zones (ICZM)

UGIZC project
http://www.costabalearsostenible.es

SCIENTIFIC SPATIAL DATA INFRASTRUCTURE

In accordance with the European Union initiative INSPIRE directive to develop Spatial Data Infrastructure (SDI) in Europe, there is a CSIC led initiative to develop a Scientific SDI. The IMEDA GIS service aim at leadership this process and become a node of that SDI.
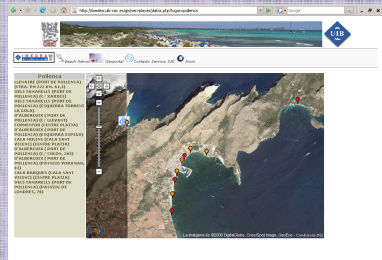
The Spatial Data Infrastructure integrates data, metadata and geographical information into Internet, which provides to locate, identify and Access to such information by its potential users.

Building and promoting Open Geospatial Consortium (OGC) services, like Web Map Service (WMS), Web Feature Service (WFS), Google submitted KML (formerly Keyhole Markup Language), and more.

FUTURE CHALLENGES

- ➢ Collect all the IMEDEA scientific data and building a geodatabase repository. Static information from different campaigns and real time data delivery from oceanographic observation devices, like:
  - ✓ Gliders (underwater autonomous vehicles)
  - ✓ Oceanographic-meteorological mooring (that provides meteorological, hydrographical and biogeochemical information from the water column).
  - ✓ Video-based coastal zone monitoring system.
- ➢ Pilot GIS project: beach server.

- ➢ Build a Geosensor network promoting de evolution from a GIS environment to a Scientific-SDI node infrastructure. Offering services over thick and thin clients. Using map viewers and building and promoting OGC services.

GIS-Team

Responsible
Miguel González
miguel.gonzalez@uib.es

Technicians
Marta Fuster
marta.fuster@uib.es

Charo Canas
charina.canas@uib.es

Contact
+ 34 971611011
sig.imedea@uib.es