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ABSTRACT

* Strategic Environmental Management

# Possible applications and constraints of the ECOSIM project in the Polish test site

The ECOSIM project builds a model based information and decision support system for urban environmental management. It integrates data acquisition and monitoring systems, GIS, and dynamic simulation models in flexible client-server architecture based on standard protocols. The first phase of the ECOSIM project – detailed project plan, quality and dissemination plan, a range of technical specification, and initial ECOSIM Demonstrator. The second project phase concentrates on the implementation of the Demonstrator at the three validation sites Athens, Berlin, Gdansk.

The ECOSIM Project was tested over an area of 100x100 km, i. e. It is practically cover the whole area of the Gdansk Province, which is situated in the centre of Northern Poland, bordering the Baltic Sea. The geographic co-ordinates of this area are 54$^{o}$02' and 54$^{o}$51' north and 18$^{o}$01' and 19$^{o}$39' east.

The main requirements by ECOSIM end users, (considering atmosphere, surface water, groundwater, soil pollution) that must be satisfied by the project are:

- determination of the background of pollution in a given area
- determination of pollution level under existing weather conditions or industrial disasters
- capability of transferring or providing information to other users about harmful pollution over a given area
- detection of economic subjects emitting large quantities of harmful substances to the atmosphere
- determination and definition of protection zones

Among the main anxieties worrying officials at various institutions are:

- little experience related to ecological systems, which from the outset took a fast speed to „die" soon a natural death, or for lack of money, or no determination of official who were responsible for providing aid to such programs
- poor equipment referring both to data environmental acquisition (human natural environment monitoring) and possibility to buy high quality hardware of SUN type for further exploitation of the system
- necessity to maintain such a system for constant use and operational functioning

The successful accomplishment of signing the agreement for carrying out the project ECOSIM seems to be a great success of the Polish part.

The process of unifying countries into larger unites irrespective of nationality, which is among others, the European Unity imposes an obligation on union members to take an unanimous attitude to all aspects relating to the environmental protection. Such a possibility is definitely offered by the ECOSIM project which provides a new look upon the environmental protection problem firstly with respect to our nearest surrounding, the commune, or the town in which we live.