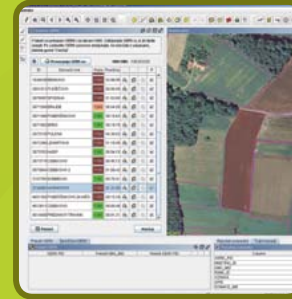# Agriculture-Related Products – IACS
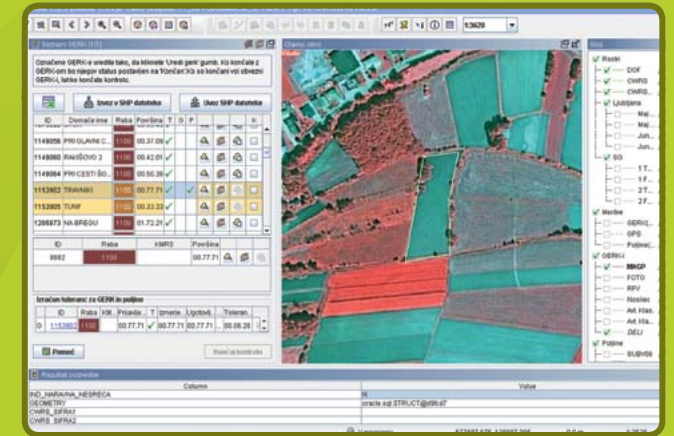
TURN-KEY GIS
FOR AGRICULTURE

Most of our solutions are based on Giselle – our in-house framework for efficient spatial data management and editing. The most prominent application of the Giselle framework is the LPIS system: the distributed system, installed on standard PC hardware, can provide spatial visualization and editing capabilities to more than 500 simultaneous remote users.

Farm Registry

Farm Registry is a web-based application with basic data about farms and farm holders. It is an umbrella application for all systems related to IACS – LPIS evidence.

LPIS

Sinergise's Land Parcel Identification System (LPIS) is used within Slovenia (since 2003) and Croatia (since 2008). It consists of a client-server based desktop application for editing graphical and descriptive information on agricultural land usage, a web-based GIS viewer for public use, and a support and monitoring module for improvement of the quality and efficiency of the end-users' work.

On-the-spot Checks

The on-the-spot control system has been developed to provide effective support for inspectors reviewing, determining, evaluating, and resolving irregularities in the field. Equipped with GPS receivers, latest aerial photography and satellite images, the inspectors perform measurements of claimed parcels and compare the overlays with imported declared data. After this procedure, a report is issued to the land owner and the data are notified and synchronized with the central database. The application assures flexibility, accuracy and proper course of the process, which greatly reduces the effort, time and number of errors.

Control with Remote Sensing

Giselle CwRS is powerful GIS software which fully supports the process of controls with remote sensing in accordance with the IACS regulations. It provides support for inspectors reviewing, evaluating and resolving irregularities.

Giselle Mobile On-the-Spot Checks

The mobile version of the OTS Checks improves the efficiency and quality of the field work as it brings all the required functions to a GPS device. Inspectors can easily measure fields, exclude illegible land, do the offset measures, etc. The application is able to calculate tolerance and compare it to the declared area. One can easily take a photo with a record of its location . All the data are easily synchronized with the laptop running Giselle On-the-Spot Checks, where further processing takes place. The application assures flexibility, accuracy and proper course of the process, which greatly reduces the effort, time and number of errors.

SINERGISE

OTHER PRODUCTS

General Purpose GIS

During the development of turn-key systems, we created some tools that can be used as independent products. They support processor intensive procedures, such as image processing and topology checking. Sinergise also offers a completely web-based GIS editing client, Geopedia, which has evolved into a countrywide crowd-sourcing GIS system.

Web-based GIS Editor

A pure HTML/JavaScript GIS editor is beneficial when it is used by a large number of users, who are not willing (or not capable) to install thick client applications, and when a Java applet is in the way. Sinergise's web-based GIS editor merges smoothly into all standard web browsers: Firefox, Internet Explorer, Safari, Chrome, etc. Advanced JavaScript and AJAX are used to provide the best user experience.

Image Server

The Giselle Image Server is the ideal solution for efficient distribution of ortophotography. The architecture consists of one central image server, many clients, and an optional local image server, one for each LAN of clients. The local image server instantly caches images and the central server ensures that the data are consistent and always up to date.

TopoCheck – Topology Checking

TopoCheck is an easy to use, powerful, cross-platform, fast and accurate utility tool for validation of spatial datasets, along with their attributes and metadata. This makes TopoCheck a perfect tool for use by data administrators, especially in organizations which are responsible for creation, management, distribution and use of large and important spatial datasets.

Projection Augmented Model

Two or more projectors are used to illuminate a 3D model, eliminating shadows and allowing realistic representation of spatial elements. We can simply visualize different contents on the white 3D model and thus generate an exciting experience for the viewer – perfect for schools and museums.
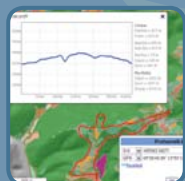
Who We Are and What We Do

Sinergise is a GIS company building large turn-key information systems in the field of agriculture (IACS) and real-estate administration. We focus on advanced applications for distributed GIS editing.

Sinergise started in 2003 as a GIS division of the company Cosylab. We discovered that the technologies developed by Cosylab for transmitting massive amounts of data through particle accelerators could also be used for GIS applications, which require serving giga-bytes of data from a central location to a large number of concurrent users. This resulted in the development of an application for managing land use in Slovenia for the Ministry of Agriculture, Forestry and Food. The results evolved into packaged solutions later used in England, Croatia and other countries.

In 2008, Cosylab's GIS unit was detached into a new company, Sinergise.

References

With Sinergise, it is not just about software, it is about knowledge and our effort to do whatever is needed for a project to be successful. The growing number of satisfied customers testifies to the quality of our integrated approach.

Slovenia: Ministry of Agriculture, Forestry and Food - Agency for Agricultural Markets and Rural Development - Surveying and Mapping Authority of the Republic of Slovenia - Veterinary Agency - Phytosanitary Administration - Forestry Service - Ministry of the Environment and Spatial Planning - Environmental Agency

Croatia: Ministry of Agriculture, Forestry and Rural Development

Macedonia: Ministry of Agriculture, Forestry and Water Economy

United Kingdom: Star-Apic

Contacts

Sinergise, laboratory for geographical information systems, Ltd.

Teslova ulica 30
SI-1000 Ljubljana
Slovenia

E-mail: info@sinergise.com
Phone: +386 [1] 477-66-76
Fax: +386 [1] 477-66-10

Director: Grega Milčinski

www.sinergise.com