

http://www.uni-sz.bg

ISSN 1313-7069 (print) ISSN 1313-3551 (online) doi:10.15547/tjs.2015.s.01.020

# APPLICATION OF GEOGRAPHICAL INFORMATION SYSTEMS (GIS) IN BUSINESS

R. Ralcheva, A. Ivanova, M. Angelova, P. Ivanov, N. Markov\*

Faculty of Economics, Trakia University, Stara Zagora, Bulgaria

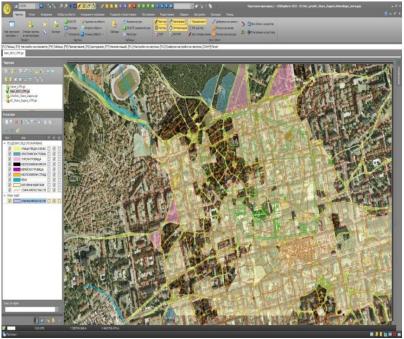
#### **ABSTRACT**

Today, geographical information systems are the most common tool for managing and visualizing large flows of information. **The goal of this study** is to present some applications of GIS in the real business environment. **Results** are focused on workflow optimization and increased efficiency of the use of GIS systems. **Conclusions** are directed on introduction of modern GIS systems in the business.

### **INTRODUCTION**

The combination of powerful mapping and object - oriented tools with large amounts of data is fundamental in terms of increased

global and regional competition in agricultural production. GIS applications, offered on the Bulgarian market is developing dynamically, according to the information users.



**Illustration 1.** View from GIS based application

## MATERIALS AND METHODS

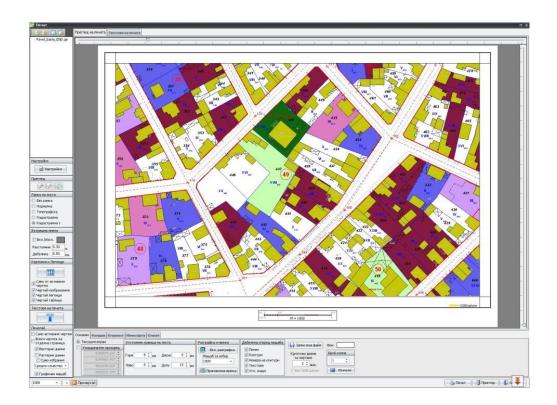
The use of GIS applications in agricultural production will lead to a result in the following areas:

\*Correspondence to: Nedelin Markov, Stara Zagora, Student campus, Trakia University, Faculty of economics, 6000, +359 42 699 436 email: n\_markov@uni-sz.bg

- 1. Optimizing the management process following the introduction of automated
- 2. processing systems inherent in GIS environments;
- 3. Increasing the capacity planning and management of agro operations, and hence will derive direct economic benefits through the reduction of operating costs.

In 2015 it is planned to introduce GIS in Educational - the experimental farm at Trakia University. The funds for this are provided by

the target subsidy for research of the university.



Illustrations 2. Outlined view of farmland

#### **RESULTS**

It is expected to optimize the management and administrative process in the following areas:

- 1. Automatic generation of documents related to the rights of use of agricultural land;
- 2. Automated links with external users of information;
- Individual approach to the treatment of individual agricultural properties are responsive to their physico - chemical properties;
- 4. Expected cumulative effect is a 5 % increase in economic efficiency.