Knowledge is becoming the only economic resource, whereas others, i.e. capital and labour are being limited to the role of its supplementary factors"

Peter Drucker - "The father" of the contemporary management methods.

ACTIVITY

Rapid development of technology and continuous growth in the need for knowledge, make it increasingly crucial to be able to effectively gather more and more data and to process them into information which helps in achieving specific aims in different areas of human activity like spatial planning, feasibility study, environmental protection, crisis management, location based services and many others.
Within the past few years a new trend in GIS could observed – a surge in demand for temporal dimension in a new, spatiotemporal model what is provoked by the need to analyse how spatial patterns change over time.
GeoProhaus Ltd is focused on obtaining spatio-temporal data in four-dimensional model with use of state of the art methods and processing that data into information needed by a client with use of specialized tools, knowledge and people's experience.

THE TEAM

All members of the Company's Team are university graduates. Apart from the knowledge from schools they are also experienced in implementation of different projects, from geodesy and cartography to GIS. They were developing their knowledge at training courses on the use of tools for acquisition and processing geospatial data organised, among others, by ESRI, Trimble-INPHO and EXELIS VIS. Some of them were also participating in photogrammetric and cartographic projects abroad, for example in Iraq, Libya, Kuwait.

PRODUCTS & SERVICES

Base Products ◆ Orthophotomap ◆ Digital Terrain Model ◆ Digital Surface Model ◆ Ground Control ◆ Archive Resources Digitization.

Topographic Database The term "Topographic database" includes the data resources, data management system as well as appropriate system of financing and organisation. Information and functional range as well as technological level are defined by relevant guidelines. Topographic data comprises over a dozen fundamental data themes that support multiple purposes defined by Spatial Information Infrastructure (SDI).
The company has been conducting entire process beginning from gathering of data until to creation of geospatial database. The TDB is one of the basic GeoProhaus products, being also the basis for different thematic maps created at the Company.

3D City models GeoProhaus offers generation of 3D models of the terrain relief, as well as of built-up and green areas. Models of buildings may be generated from photographs or laser scanning data, at four levels of details. Also thermal models of buildings can be built.

Environment Monitoring ◆ Environmental pollution monitoring ◆ Inland waters inventory (sounding, bottom profiles and 3D models of riverbeds and reservoirs) ◆ Floodbanks monitoring.
Using multi-temporal image data it is possible to visualize effects of the environmental pollution (such as "acid rains" or growing desertification) and also to identify sources of damages. Moreover, it is possible to permanently monitor environmental conditions (at the local or global levels). Data used for that purposes may originate from sectorial databases, field surveys and inspections, periodical photogrammetric flights (also with the use of UAVs), historical and new satellite images and sensor networks.

Feasibility Study Elements of feasibility study of a project in the field of sustainable development and spatial planning.
◆ Thematic maps ◆ Spatial analyses ◆ In situ measurements ◆ Remote Sensing observations ◆ Surveying ◆ Visualization.

Inventory of historical objects Historical objects may be inventoried with the use of photographs or laser scanning techniques. Depending on the needs data may be collected from the terrain surface, from a crane or from the air (UAVs, planes). In the case of archaeological research the ground penetrating radar (GPR) is an invaluable technique which allows to penetrate and detect subsurface objects.
Results may be presented as 3D models, cross-sections, different forms of visualization (such as orthoplans of facades) and may be amended by descriptive data (attributes).

The principle of our company is a partnership with the client during the project, consisting in training of the client team from very beginning of the project, parallel to the project execution (“on-the-job” training). Such policies ensures a smooth takeover of the project and its continuation by the customer.

CLIENT - PRODUCTS - TOOLS

MARKET SEGMENT CLIENT	PRODUCT	SOFTWARE /ESRI, Inpho, Dephos, open source, etc/	Satellite Images, Aerial Photography	UAV	IBS	MMS Lidar	GPS
Governmental Administration	National Topographic Database	✓	✓	✓		✓	✓
Local States Governments	Local GIS	✓	✓	✓	✓	✓	✓
	Topographic Database	✓	✓			✓	✓
Municipalities	Roads and Streets Inventory	✓	✓			✓	✓
	3D City Models (3 levels)	✓	✓	✓		✓	✓
	Digital Terrain & Surface Models	✓	✓	✓	✓		✓
	Orthophotomap	✓	✓	✓			✓
National Forestry	Forest Roads Inventory	✓	✓			✓	✓
	Ecological Corridors Inventory	✓	✓	✓		✓	✓
	Forest Health Assesment	✓	✓	✓		✓	✓
Environment Protection	Searching for Environmental Pollution and Polluters ▪ *Energy Emission* ▪ *Thermal Pollution (water)* ▪ *Natural Scenery Pollution*	✓	✓	✓	✓	✓	✓
	Inventory of Damages caused by Natural Disasters *(storms, floods, fires, droughts, river erosion etc.)*	✓	✓	✓	✓	✓	✓
Power Industry	Power Transmission Line Inventory Power Transmission Line Inspection	✓	✓	✓		✓	✓
Regional Water Managements	Water Pollution Assessment Inland waters inventory	✓	✓	✓	✓		✓
Telecommunication	Digital Surface Model Inventory of TelCom nets	✓	✓	✓			✓
Tourism	National & Regional Tourist Development projects	✓	✓	✓	✓	✓	✓
	Tourist maps at different scales.	✓	✓		✓		✓
	Mapping tourist routes out	✓	✓			✓	✓
Directorate General National Roads and Motorways	Roads and Streets Inventory	✓	✓			✓	✓
	Selection of the best route for the outsize loads transport	✓	✓		✓	✓	✓
Crisis Centers	DTM, DSM for RTV (*Rapid Terrain Visualization*)	✓	✓	✓		✓	✓

IBS - Integrated Bathymetric System
UAV - Unmanned Aerial Vehicle equipped with infrared camera and lidar.
MMS - Mobile Mapping System