aurelis Real Estate GmbH & Co. KG

IBB GIS – the information platform for real-estate related data

AED-SYNERGIS has implemented a pilot project for the „Region South“ of the real-estate corporation aurelis Real Estate GmbH & Co. KG for the purpose of introducing a professional geo-information system (GIS). The aim in future is to pool and optimally display the data on the about 650 real estate properties within the aurelis business unit.

In its portfolio aurelis has a total of slightly less than 19 million square meters of former railway property, split up among approx. 1,055 properties. Nation-wide the company is represented with areas located close to the city centers, the majority being in metropolitan areas and economically interesting conurbations, for example Hamburg, Berlin, Hannover, Rhine-Ruhr, Rhine-Main, Stuttgart, Nuremberg und Munich. This gives investors and property developers the opportunity to utilize attractive free urbanistic areas for urban development projects. aurelis creates the prerequisites for such projects.

The company develops the areas in cooperation with the local authorities up to the point of planning legislation. The areas are then ready for construction and can be sold. Furthermore, aurelis lets objects in the real-estate portfolio for industrial use. The scope of real-estate objects ranges from undeveloped areas via halls to buildings. The scope of use ranges for example from storage and parking areas, to restaurant & catering, logistics or trade.

Initial situation:
For management of the aurelis real-estate property there is a high day-to-day need for information which is met by existing online services (e.g. Geodaten-Online (for online geo data), Grundbuchauszug-Online (for excerpts of the land register). Comprehensive internal data on assets, maintained in SAP and the respective documents of cadastral administration and as well as data of the former real-estate owner Deutsche Bahn AG are coordinated in day-to-day business with the online data and serve as basis not only for the complex decision-making processes in municipal development, but also for the decisions in asset management for renting objects within the existing portfolio and in the process of selling plots.

Requirement:
Due to the multitude of information available in a wide variety of media and programs, it was necessary to harmonize the operating processes. The aim was to use the real-estate property as reference to make further data and information accessible to all parties involved. It was furthermore necessary to keep the data up-to-date at all times, to achieve a planning reliability by mapping the real-estate properties with exact plot dimensions and to provide access to the information via a standard platform, and thus as a consequence to facilitate and optimize work processes.

Implementation:
This is a classic task for GIS. For process realization the Esri based geo-information system GeoOffice and WebOffice were purchased from AED-SYNERGIS in summer 2010. The name of the system IBB-GIS is derived from the development units IBS (Immobilien-Bestandsbewertungseinheit = real-estate assessment unit) implemented by aurelis. For data processing, data updating and converting an expert’s workstation was set up with GeoOffice in the initial
project phase via which data from the cadastral authorities (ALB, DFK) are periodically integrated into the system. On this basis the real-estate properties are calculated and updated with exact dimensions of the cadastral units. IBB now offers the basis for pooling and utilizing all further expert procedures. In the 2nd project phase the web workstation on the basis of WebOffice was introduced. For this purpose, a workflow was created to periodically generate a secondary data base from the expert’s workstation.

In order to ensure that these processed data are made accessible to all users; they are hosted externally at AED-SYNERGIS on the basis of WebOffice and ArcGIS for Server. The scalability of WebOffice enables the users to „tailor-fit“ their GIS infrastructure on a desktop, web or mobile platform. The web application which can be accessed from any workplace at aurelis using a standard browser, now serves as central data platform and combines geographic data (among others DSK, WMS online services) with the IBB business data of aurelis.

In addition to convenient data requests, the web client features a multitude of additional functionalities which contribute to facilitating and optimizing business procedures. With the dimensioning function it is easy to temporarily enter work statuses into the cadastral map and to exchange these documents with colleagues at work. This allows various plan versions for sales areas or detailed plans for rentable areas to be generated at high speed via the user-friendly construction and editing functions.

Via the plot function every aurelis employee has access to a true-to-scale plan in PDF-format or paper printout for pending contractual negotiations. The integrated e-paper function additionally supplies automated IBB status reports of combined information from the technical data and graphics by pushbutton. In addition it is possible to generate trans-portfolio information for partial portfolios to satisfy the complex information requirements of portfolio and asset management.

**Forecast:**

The target for 2011/12 is to implement a further integration of the geo-information system into the existing system aurelis landscape. In the next steps the plan is to link further expert procedures. Concrete prototypes to embed SAP and Sharepoint are already available. Plans have also been made for an intelligent link with the established Asset Management information system (AMISS).

**Conclusion:**

As Robert Wieder, employee in portfolio management at aurelis Region Süd (South) states, „integrating IBB GIS into our work processes turned out to be an indispensible tool after only a short period of time. In particular the simple-to-use web application facilitates the day-to-day business of each individual employee considerably."

**For further information contact:**

Robert Wieder  
aurelis Region Süd  
Portfolio Management/Asset Management  
Phone: +49 89 544559-47  
robert.wieder@aurelis-real-estate.de

Martin Adolph  
aurelis Region Süd  
Head of Asset Management  
Phone: +49 89 544559-60  
martin.adolph@aurelis-real-estate.de

Malte Rabels  
AED-SYNERGIS GmbH  
Head of Consulting  
Telefon: +49 89 45026-505  
malte.rabels@aed-synergis.de
IBB GIS – Hub for real estate and business information

aurelis Real Estate GmbH & Co.KG
and
AED-SYNERGIS

San Diego, 27.07.2012

Robert Wieder & Malte Rabels
Aurelis – Company Profile

Aurelis:
- Has a comprehensive property portfolio across Germany
  - More than 1.300 real estate properties in Germany
  - 70% are located in a densely populated area, e.g. Hamburg, Berlin, Munich, Stuttgart, Frankfurt
- Is organized in four regional offices (Region North, West, Middle and South)
  - More than 170 Employees
  - Offices in Munich, Frankfurt, Duisburg and Hamburg
  - Largest Regional Office is located in Bavaria
    - manages approximately 650 properties

Main Targets:
- Development of usage concepts in close cooperation with municipalities
- Managing the projects up to the point that planning law takes effect and the plots are ready for construction
- In addition, aurelis rents for commercial occupancy
  - The selection of portfolio objects ranges from parcels of land, depots to buildings
How to create a map before using ArcGIS?

- property maps were available only as PDF
- single map download for each property
  - cadastral map
  - aerial photographs
- combination was done in PowerPoint
  - boundaries were manually drawn
  - Map creation with copy/paste
- lack of georeference
  - Factual data only available in tables, without connection to the graphics

Poor Results
- labour intensive procedure
- costly
- time consuming
- prone to errors
Step 1: data qualification process
- Determination of property boundaries on the basis of cadastral maps
- Link of factual and graphical data within the GIS
  - Link to SAP-extracts based on excel-sheets
  - Link to a DMS
- In production since autumn 2010

Step 2: cloud concept for the aurelis web-based IBB information system
- Virtual hosting environment based on ArcGIS Server and WebOffice
  - Hosted in Vienna
    - Reduction of maintenance costs
    - Focus knowledge to main interests
    - Access for all employees
  - Focused on Region South in Bavaria
- Information system for
  - Viewing
  - Analysis
  - Reporting
  - Maps
- In production since beginning of 2011

Step 3: Introduction to all aurelis regional offices
- Roll-out is planned for 2012/2013
IBB GIS – hub for information

IBB GIS – Web
Hub for real estate
and business information

Legend:
cs = web/cloud data services
L = in house, restricted data
Technical Solution

- Expert GIS workstation
- Web-based workstation

Flow:
- Collection
- Conversion
- Processing

- Search
- Analysis
- Report
- Print

Central geodatabase and ArcGIS for Server

Online services for additional data
User Interface IBB GIS

Map area
- Cadastral maps
- Property maps
- Ortho photos
- Web Map Services

Applications
- Owner information
- Sharepoint documents
- SAP
- Photos
- ePaper reports

Search
- Parcel
- Property
- Address

Tools
- Navigation
- Selection
- Measurement
- Export
- Data Views
- Print
- Scale
For each usage a specific client

- the important aspect: only one administration – but several specific clients out of the box
Workflow 1: Overview
Workflow 2: Zoom in
Workflow 3: IBB with Orthophoto
Workflow 4: IBB with WebMapServices
Workflow 5: IBB with cadastral map
Workflow 6: Link to Sharepoint
Workflow 7: Link to SAP
Workflow 8: Link to photos
Workflow 9: ePaper Reports
Robert Wieder
aurelis Real Estate GmbH & Co. KG
Hackerbrücke 6 (ZOB)
80335 München
www.aurelis-real-estate.de
Mail: robert.wieder@aurelis-real-estate.de

Malte Rabels
AED-SYNERGIS GmbH
Carl-Wery-Str. 22
81739 München
www.aed-synergis.de
Mail: malte.rabels@aed-synergis.de