ASSECO CENTRAL EUROPE

solutions for demanding business
Asseco Geo-solution for Public Sector
Asseco Geo-solution for Public Sector

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Asseco Group at a glance

Companies Founded in
1990 Slovakia | 1991 Poland

Strategic Partnership
2004 Asseco Group

Software House
Truffle 100
No. 6 in Europe

IT Company
No. 1 in CEE Region

Companies Listed on
Warsaw Stock Exchange
Tel Aviv Stock Exchange
NASDAQ Global Markets

Present in
40+ Countries

Headcount
18,500 People

Financial results 2014
1.5 EUR bil.
152 EUR mil.

Revenue
EBIT
Our offices worldwide
Selected public sector references

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Asseco Central Europe at a glance

- Founded in 1990
- IT Services Provider no.1 in Slovakia
- One of the Strongest Software Houses in CEE Region
- Listed on Warsaw Stock Exchange
- Present in 6 Countries
- Headcount: 1,450 People
- Revenue 2014: 117.8 EUR mil

MEMBER OF ASSECO GROUP
Asseco Geo-solution for Public Sector

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Our Products

**LIDS**
GIS system, offering rich functionality to record, manage, process and conducting analyzes of spatial objects and their attributes.

**TOMS**
The integrated solution for process-oriented IT support for Asset owners, Asset management and Asset Service in the utility and telecommunication sector with the aim of an optimal operational asset management.

**WFMS**
The mobile Workforce Management Solution (WFMS) is an application platform which is used to manage mobile crews and to support performance of work orders in the field.

**AMES**
AMES provides support for administrative, legal, surveying and financial services processes for all types of real estate.

**AGportal**
AGP Technology (Asseco Geoportal Technology) brings together geospatial technology, enterprise web services and flexible process control on a web-based technology platform.

eDocu stores, organises and validates information related to things important to you in a simple, structured and secure cloud environment and makes it easily accessible.
LIDS – Geographic Information System (GIS)

- Complex GIS, Network Facility and Property management
- 25 years of continuous development
- Huge functionality for working with spatial and attribute data
- Core base for IT support of processes in distribution
- Complex system
- Modern architecture (3-tier, SOA)
- Spatial database Oracle 12g
- Based on standards – J2EE, SOA
- AM/FM(GIS/NIS System)
## LIDS - main functionality

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| ▪ Capturing of geographical, spatial and attributive data | ▪ Bulk data update  
▪ Data checks  
▪ Deriving data by position | ▪ Spatial analysis  
▪ Topological tasks  
▪ Tracing | ▪ Complex data viewing  
▪ Thematization  
▪ Printing and plotting  
▪ Complex reporting  
▪ Data Exchange by API |
Data capturing support
Various data sources, incl. external map data (OGC standards)
Thematic outputs, plots – huge possibilities
LIDS EDIT - MICROSTATION
LIDS EDIT – AUTOCAD MAP
LIDS Explorer – Desktop Client
LIDS Browser – Web Client
LIDS Mobile

- Native Android app
- Free Mapbox component independent on Google services
- Use magnifier glass to precisely specify position in map
- Configure in metadata list of layers and their properties
- Display feature info, incl. solution for dense places
- Display point markers as vectors from LIDS
- Display LIDS WMS / WMTS
- Display external WMS / WMTS
- Display position according to GPS
- Work with attachments incl. camera integration
- Edit attributes
- Edit graphics
- Search
- Measure
- Offline mode
WFMS - Mobile Workforce Management

BACKGROUND SYSTEM (DATABASE / GIS)

WORK FORCE MANAGEMENT

WEB BASED CLIENT

TABLET BASED CLIENT

engineer

dispatcher

mobile worker
AG Portal – Unified Communication and Integration Interface
Responsive design

solutions for demanding business
Used Standards

**INSPIRE**
A notable motivation for the implementation of Geoportal can also be the European Commission initiative INSPIRE (INfrastructure for SPatial InfoRmation in Europe), which specifies the general rules for establishing a European spatial data infrastructure to support environmental policies.

**OpenGIS® specification by OGC:**
- Web Feature Service (WFS)
- Web Map Service (WMS)
- Styled Layer Descriptor (SLD)

**Geography Markup Language (GML)**
Saving the geometry of vector spatial data in data structures of `SDO_Geometry` (Oracle Locator/Spatial).
AMES – Facility Management

- Integrated solution for asset management and infrastructure
- Integration of technical, operational, business, economical data
- Main goal: The elimination of data chaos
- Property register - detail characteristics, needed for everyday activities related to property (lots, buildings, rooms, energy meters, equipment...)
- Support of processes
  - Taxes calculation
  - Legal relationships
  - Helpdesk for defects announcement
  - Measurement of energy consumption
  - Rooms and people
  - ...
- Integration with ERP, HR
  - SOA architecture
TOMS – Enterprise Asset Management

- IT support of daily work of the asset management company (technical documentation, maintenance, faults, outages, work orders, requests, planning, design, construction, ...).
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Cadastral Information System

**Cadastral Information System (CIS)** is a comprehensive information system, which provides computer support for performance of all state administration activities of the Real Estate Register and ensures other services, especially provision of information to clients of the register – individuals, entrepreneurs and public administration organizations. Users can gain data from the register in line with the legal regulations via remote access. CIS ensures administration of legal relations towards real estate and also administration of technical data about items of real estate. The system contains means for administration of attribute and geodetic information integrated in a common database, as well as means for support of executive and administrative activities in terms of management of the Real Estate Register and for administration of document funds.
Land Parcel Identification System (LPIS)

**Land Parcel Identification System (LPIS)** is a geographic information system, in which the method of use of agricultural land is recorded. LPIS provides quality data about agricultural land used, especially for the purposes of problem-free handling of administration and checks on applications for EU agricultural grants.

LPIS is an independent reference register, which serves farmers as a fast source of information about the land they use. On the basis of this information, they are able not only to fill in the grant application, but also ascertain which restrictions relate to their farming (the so-called Nitrates Directive etc.).
Agriculture and Forestry

The state, but also private owners, must fulfil a wide range of obligations and tasks while managing forests and on doing so, adhere to the set rules. In terms of this, they process a range of agendas and create related documents. Most of the above-mentioned agendas work with data about regions and thus can utilize the information support of systems designed for work with spatial data to their advantage - the Geographic Information System for Agriculture and Forestry.

Joint use of spatial data (map data) by the state and private entities thus ensures an increase in efficiency in terms of organization, promotion and checks on fulfilment of the determined obligations in terms of the above-mentioned agendas. The customer gains a comprehensive, uniform database of spatial data for resolution of geographical analyses, creation of specialized map outputs and preparation of background maps for individual agendas in terms of resolution of agriculture and forestry management problems.
Typical functions of GIS in Agriculture and Forestry

- searching for a vegetation group, detection of a land parcel under a vegetation group,
- detection of plant stock, estimation of felling levels, proposal for felling areas and valuation of assets,
- work with data from the Real Estate Register,
- analytical queries, measuring of distances and areas, calculations of height profiles, area intersections etc.,
- map compositions and printouts of various types of specific-purpose land use and forestry maps,
- evaluation of the characteristics of production and economic management according to various criteria (location, ownership and user, geomorphological, climatic and pricing etc.),
- evaluation of the state of health of forests,
- evaluation of statistical economic indicators.

GIS outputs come in the form of text or numerical summaries, statistical graphs, thematic vector or raster maps, spatial models and a combination of these options.

The professional public will have a map portal available and also a tool for publication and provision of data using standard web services.
Topographical middle scale map

A topographical middle scale map is a detailed topographical map showing geographical reality in a scale of 1:10 000 to 1:200 000. A digital topographical map is a geographical model of the terrain, based on a topographical map of a specific scale. The content is made up of several types of geographical topography objects stored in the database in the form of vector data together with attribute data. The resulting data can be utilized by a wide range of users, including state administration institutions, authorities and several other organizations.
Support for management of operation and maintenance of the road or highway network or the railroad infrastructures

The Traffic Infrastructure Information System is a system, which ensures supervision of the current traffic situation, if allows for management of traffic via telematics equipment and provides traffic information via information signs, sending of RDS-TMC and the Internet.

Input information from telematics equipment is stored in a central data store. The current status and results of data evaluation are available at the dispatcher’s workplace, where monitoring and control software is implemented. This provides a well-arranged visualization of the requisite operating statuses on the infrastructure and allows for automatic or semi-automatic traffic management.

The system also includes a module, which supports planning, management and checks on performance of maintenance work on the given sections and equipment.
The Traffic Infrastructure Information System

The Traffic Infrastructure Information System for support of administration, operation, maintenance and development of traffic infrastructures includes:

- Technical records and documentation of all equipment and objects on the basis of a GIS type system.
- Asset records (land parcels, buildings, ownership relations, rental and leasing).
- Planning and management of maintenance and repairs.
- Resolution of extraordinary situations (faults).
- Support for organization of work in the field (management of work crews).
- Checks, ensuring safety.
- Support for development of investment construction projects.
Crisis Management Support

Designed to support planning, organization and performance of activities relating to resolution of crisis or extraordinary situations. It also includes support for performance of preventative activities, such as analysis and evaluation of security risks.

We offer a comprehensive system, which supports all of the main phases of crisis management:

• preparation of a crisis plan,
• implementation of preventative measures,
• management of crisis situations,
• recovery and evaluation.
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Czech national office for surveying, mapping and cadaster

- 1:10 000 digital map of whole Czech republic
  - Drawn & maintained in LIDS
- 1 central server
- 100 editing seats around country using internet connection
The Public Administration Digital Map of Olomouc region

- Project defined by the Ministry of Interior
- financed by Integrated Operational Program of EU

- Web portal of land use planning
- Tools for administration and updating data for land use planning
Running projects in Poland

- PKN Orlen
  - Implementation of LIDS with AMES

- Internet dla Mazowsza
  - EU project
  - Documentation of telecommunication infrastructure

- Synthos Dwory
  - Documentation of infrastructure
  - Cooperation with Synthos Czech Republic
ARIMR project:
- ARIMR = Polish accredited paying agency - distribution of EU subsidies to the agricultural sector
- cooperation with ARIMR since 2001; ACP was subcontractor for Hewlett-Packard
- since 5/2014 ACP is "prime" contractor; since 10/2014 ACE cooperates in „GIS“ solution

Main goals of „new“ project:
- Modernization of the existing system according to new legislative
- Technological modernization of IT system, chiefly GIS system
- Replacement of existing GIS (Intergraph GeoMedia) for LIDS products

Project stages:
  - web portal for farmers; enables enter applications for subsidies via web
  - migration data from Geomedia to LIDS
- II. Stage – IACSPlus => integrated LIDS Browser  4/2015 – 9/2015
  - check and processing the data used for calculation of subsidies
  - working with historical data, web services for spatial data analysis
  - system for management of cadastral map „discrepancies“
  - many custom functionality (Task workflow manager + GIS special functionality)

Project interesting specifics:
- ~ 150 millions records of vector data + ~ 1,5 TB orthophotomaps (TIFF files)
- ~ 2500 user for IACSPlus stage / in future 1,5 million of applications via web
- „well dimensioned“ infrastructure (~ 40 Jboss with LIDS applications, DB server with 60 cores)
IMGW - Institute of Meteorology and Water Management

- Project is realized by ASSECO POLAND for Instytut Meteorologii i Gospodarki Wodnej
- Subcontractors:
  - ASSECO CE
  - rdGIS (polish GIS company)

- Location:
  - **Poland and surrounding** (from gulf of Bothnia to south border of CZ)

- Project goals:
  - **Presentation of data of meteorological measurements and forecasts in the map portal**
    - LIDS Browser integrated in IMGW Portal
  - **Data presented according to time**
    - Measurements – vector data of 8 meteorological phenomena from about 2 000 of meteorological stations imported every one hour
    - About 100 weather forecasts of 10 meteorological phenomena created by 4 kind of numeric models (ALADIN and COSMO with different resolution) generated every 6 hours
      - Mainly raster files for two meteorological phenomena also vector data (wind barbs, type of precipitation)
      - Every day more then 10 000 raster images registered in the system!
  - **Publishing all the data via WMS (WFS)**
Internet dla Mazowsza

- Building of backbone and distribution optic network

- Nodes
  - 42 backbone nodes (DWDM devices)
  - 308 distribution nodes (CISCO routers)

- Network
  - 542 km backbone network (48 fibers)
  - 1385 km mixed network (96 fibers)
  - 1713 km distribution network (12/24 fibers)
Selected references – portal solution

Czech Statistical Office
Redesign of statistical information system
Selected references – portal solution

Czech Social Security Administration
Online services for inhabitants and employers
Selected references – portal solution

Technische Werke Ludwigshafen
information portal (CO₂ etc.)
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Our offering is built around special technical solutions for the companies managing extensive assets (e.g. wide distribution networks (electricity, gas, water, wastewater, telecommunication, district heating), wide landscape (cadaster, agriculture, forests, rivers etc.), large industrial areas, mines, municipalities, transport infrastructure – roads, railways), public offices, insurance companies (evaluation of the flood areas and other risks) etc.

As a particular modules we can offer:

- **Geographic Information System (GIS) LIDS.** LIDS is on the market for more than 26 years and now we have its 7th generation. We have more than 100 customers in CZ, SK, DE, CH, A, PL.

- **Mobile solution for the management of the field workers** (Workforce Management System).

- **Web portal** based solutions for the presentation of the data (including geoportal presenting maps) and interaction with the customers.

- **Our Enterprise Asset Management (EAM) system TOMS** for IT support of daily work the asset management company (technical documentation, maintenance, faults, outages, work orders, requests, planning, design, construction, ...).
Asseco Geo-solution for Public Sector

Apart from our products, we can also offer extensive experience in the areas of data analysis and data acquisition, analysis and development of cadastral systems and basic registers of eGovernement public administration.

All our systems are completely developed by Asseco Central Europe and could be easily modified, customised or translated to other languages. We can also use the advantage that all products are developed and owned by us therefore we can very efficiently offer its operation in the cloud environment and use SaaS business model. Our strength is that we are not only a supplier of the software product but we are also a system integrator able to integrate different solutions into a functional system. We have a lot of experience with integration for instance with SAP solutions, different SCADA solutions etc.
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Thank you for your attention

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