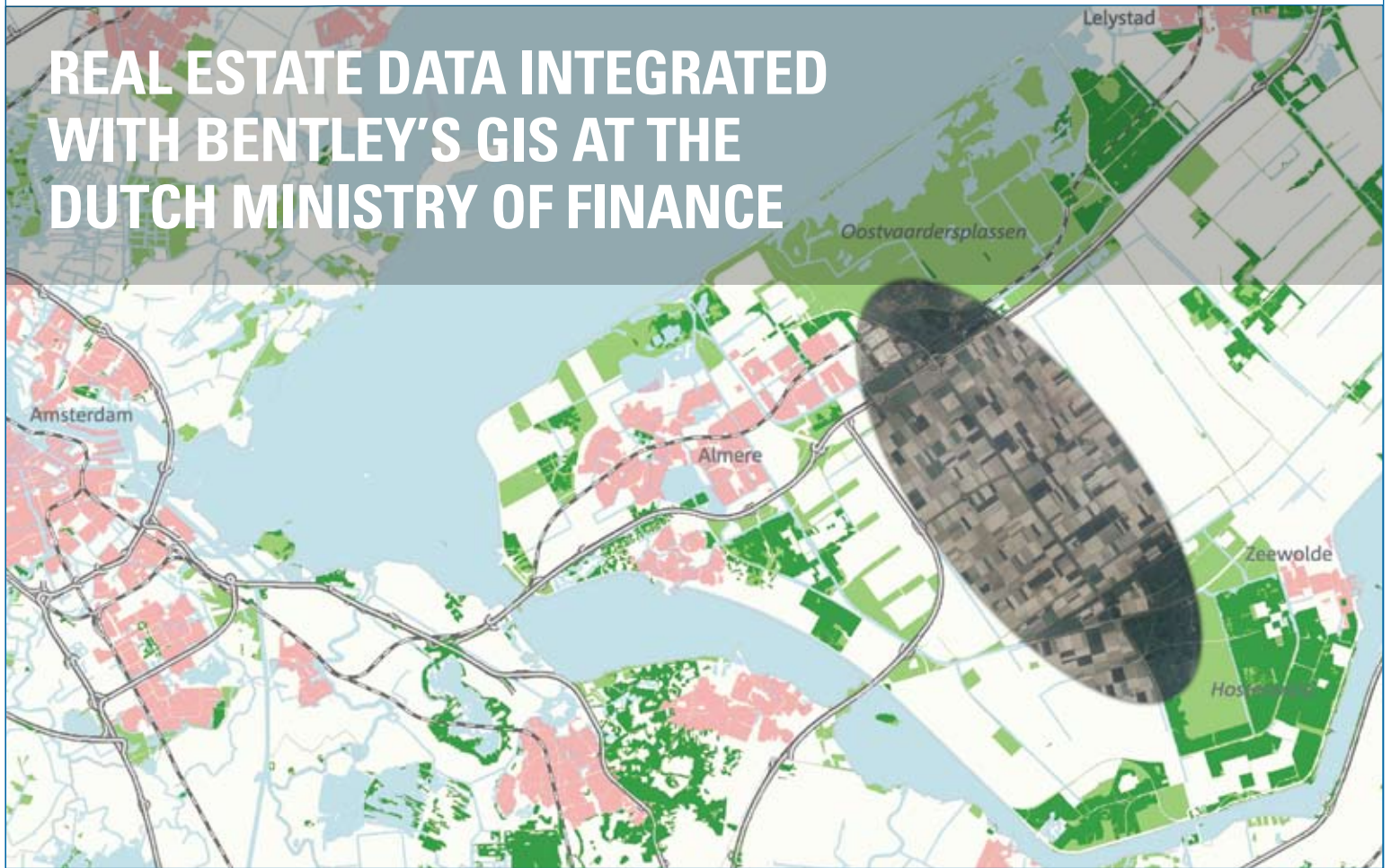


REAL ESTATE DATA INTEGRATED WITH BENTLEY'S GIS AT THE DUTCH MINISTRY OF FINANCE



The Dutch State Property Service (known as Domeinen in Dutch), a part of the Dutch Ministry of Finance, owns and manages a diverse range of land assets and buildings including central government buildings, educational establishments, hospitals and healthcare buildings, military establishments, buildings of historical importance, farmland, harbours, roads and even motorway service stations – and since this is the Netherlands, a significant portion of the 'land base' is comprised of water.

The State Property Service has the fiduciary responsibilities to manage the state property assets optimally on behalf of the Dutch government and therefore the Dutch people. That means achieving an optimal return on the assets managed whether through rental agreements, long term leases or outright sales.

The State Property Service is the largest owner of land in the Netherlands. The land bank managed in 2005 was approximately 4 million acres or 1.6m hectares comprised of 60,000 individual parcels. Revenues in 2005 were approximately \$600m or 500m Euros. And with 250 employees, this Dutch government agency is like a mid-sized corporation.

So how did the State Property Service go about its business of maximizing the value of its real estate before its recent innovations? First, there was no association or integration of the administrative real estate data – contracts, leases, etc. - and the GIS data. This meant that cadastral parcels could not be readily associated with the administrative data. These data had to be linked manually as paper files which leads to errors – and sometimes costly ones, or indeed ones that could be embarrassing for an administrative branch of the Dutch Government. Drawings, paper files and old-fashioned methods were used to determine lot sizes, square feet and other important contractual terms. In the absence of being able to view parcels in a geospatial environment, it was very hard to assess what

are managed and stored on the server side in the Bentley® Geospatial Server™ for mid-office workflow and presented to the user on-demand via Bentley® Geo Web Publisher™ for front office activities. Front-office workers can initiate changes via redlines and these changes are automatically routed to the back-office GIS team for execution using Bentley® PowerMap.™

There are three elements of innovation in this solution: first, the integration of GIS and SAP R/3, second, the object-based workflow management system and third, the use of Web services and open standards such as XML and GML.

And finally, the system is innovative because the response times and user experience are outstanding. It takes less than one second to present the combined administrative and geospatial data on the end-user's screen once a parcel has been selected.

The State Property Service has reduced its costs with this new system through:

- Removal of paper from the system - this has added efficiencies through reduced labour and materials costs and now, no paper flows between the GIS team and the contract administrators.
- Improved exchange of geospatial data and other information between government departments produces significant annual savings and a higher return on properties – much data can now be sent electronically instead of as paper files (maps and contracts).

- The State Property Service is finding that actual land areas were up to 3-5% greater than had been recorded in the contracts – this will lead to a growth in revenues – and why was it the case? Because the calculation operations were entirely manual the team had been building in a safety margin - now that the cadastral calculations are automated and carried out in the GIS environment they are 100% accurate.

There is another element to the return on investment story. There are further benefits from improved accuracy and completeness of the records - the vastly improved workflows have allowed the State Property Service to understand the true value of their real estate holdings and, as a result, increase their revenues.

Sebastiaan Sintemaartensdijk of the Dutch State Property Service comments, "Our immediate savings from eliminating paper documents, improving interdepartmental communication and increasing revenues through more accurate geospatial information have made this project a success. However, there is an even bigger payoff. By combining our GIS information with our SAP real estate data, Bentley has enabled the Dutch State Property Service to more accurately see the context of its real estate assets and thereby realize a greater value for them."

Now, when negotiating a lease, or the sale or purchase of a parcel, the Ministry can make these decisions in the context of other parcels that they own. Administrators can now add

contiguous parcels to a proposed sale or lease. Or perhaps they can achieve a higher purchase price because they can see that the parcel is in a highly sought after area.

To date, the system holds data on 2.5 million parcels and the State Property Service – in cooperation with the Dutch Cadastre - is planning on adding the remaining 5 million parcels which will give them substantially all of the Netherlands within their system. This will mean that the Dutch State Property Service will be able to see each of the parcels they own or need to buy in their full context.

Innovation with GIS technology and other enterprise systems at the Dutch State Property Service has led to appreciable productivity gains and many other Dutch government agencies are reviewing this project to learn how they too can benefit from integrating GIS information into commercial workflows.

PROJECT SUMMARY

Organization

The Dutch State Property Service – part of the Dutch Ministry of Finance

Vertical Market

Geospatial Innovation

Project Objectives

- Integrate SAP Real estate with Bentley GIS to improve decision-making
- Lower administrative costs for real estate transactions
- Improve decision making on real estate transactions through the provision of better information to contract administrators
- Re-design workflows to ensure high data integrity
- Use cadastral information from the Dutch Cadastre to support decision making

Fast Facts

- The State Property Service has the fiduciary duty to manage the state's property assets
- The State Property Service is the largest owner of land in The Netherlands

- The landbank (comprising both land and water) comprises 60,000 individual parcels with a total surface area of 1.6m hectares or 4m acres
- The State Property Services GIS system utilizes Bentley GIS technology integrated with SAP real Estate
- The project used Bentley's XML Feature Modeling (XFM) technology to speed the integration process
- The object-based workflow management system is based on Web services and open standards such as XML and GML
- The GIS data is stored in the Bentley Geospatial Server and manipulated in Bentley PowerMap
- The system handles 2.5m parcels in total and it is planned to bring this to 7m within the next year

Bentley Products Used

- Bentley Geospatial Server
- Bentley Geo Web Publisher
- Bentley PowerMap

