

## REFERENCE STORY ANTEA GROUP

Many software suppliers are fully aware that their product becomes increasingly outdated due to changing technology or business requirements. The same thing happened to Antea Group, an internationally operating engineering and consulting firm. To ensure that they no longer need to renew their software, the company has opted for the Thinkwise model-driven low-code software development platform. Using this platform Antea Group has developed its Public Space Management System (GBI - Gemeentelijk Beheer Informatiesysteem).

Antea Group supplies its Public Space Management System (GBI) to over one hundred Dutch municipalities. The application provides them with two important functions: the registration of all the property that a municipality owns (roads, sewage systems, parks, sports fields, lampposts, traffic signs, etc.) and the planning and budgeting of the maintenance of these capital goods. In 2011, for this second function, Antea Group made the strategic choice to have GBI developed using the Thinkwise low-code development platform. Antea Group supplies the developed product to its customers in a license model.

### **Planning and cost estimates**

According to lepe Soet, GBI consultancy group manager, GBI is extremely important for municipalities. "Every municipality has to deal with the planning and budgeting of maintenance to its property. However, because every municipality has a large quantity and a large variety of property, it is difficult to gain insight into when a road or sewage system needs to be replaced." This is why Antea Group has developed the Public Space Management System. GBI can be deployed by every municipality, even if there are always differences "Antea Group never has to throw away software again thanks to Thinkwise"

lepe Soet GBI Consultancy Group Manager





for each municipality. "We take account of this when setting up GBI. Consider, for example, the maintenance of the sewage system. The type of soil can have an effect on the life-expectancy of a road or the underlying sewage system. In Apeldoorn, for example, there is sandy ground, which increases the lifetime of the sewage system and roads when compared to say Gouda, where they lie in peat soil."

#### **Continuous redevelopment**

The first version of GBI was completed in 1982 and Antea Group is currently using the sixth version of the software. Soet: "We have had to redevelop GBI on a number of occasions. This was necessary because IT technology changed or because the business rules that we must comply with for institutions like the NEN were again amended. We had to throw away the old system and develop it again. So we continuously had to work with a new version. That is, of course, extremely inefficient and ineffective." Soet continues: "We therefore started to look for a software supplier that could guarantee us that with their software our system would not become outdated. It appeared that Thinkwise could offer us something that would do that."

#### **Proof of concept**

Prior to the choice for Thinkwise, Antea Group first looked around the market for other low-code software suppliers such as Mendix and Outsystems. Soet says: "Through the history of Antea Group software development has never been easy. Initially, we did not believe the promises that Thinkwise were making. However, when after only two weeks they were already able to demonstrate an almost fully operational proof of concept, our management and I were quickly convinced. During the pilot project Thinkwise had already achieved 80 percent of our requirements with their model-driven development platform. Furthermore, Thinkwise works very precisely and accurately and these are attractive characteristics for a software builder."

# Task-oriented GBI apps and four important advantages

GBI version 6 is the first version that has been built in cooperation with Thinkwise. The actual development is done

by Thinkwise. Antea Group takes care of drawing up the specifications and the testing and acceptance of the components developed by Thinkwise. "Thinkwise is a very accurate software developer. A condition for the cooperation was that we should very clearly state our requirements beforehand. But because of this we received exactly what we had agreed upon. There are very few errors in the delivered software, so that we have been able to considerably trim down our testing process", Thus Soet.

The software that has been delivered are the specific GBI apps. These task-oriented apps are tuned to the various management levels. All apps work in the same manner and with the same recognizable steps. "Through the combination of a modular structure of our GBI apps and the Thinkwise model-driven development methodology the GBI user interfaces, irrespective of the domain – whether it concerns a viaduct or a sewage system – all look the same. So everybody, from policy advisor to road maintenance authority, can use the apps. If you know the structure of one app, than you know all the apps. This makes management of the public space easy and efficient." Furthermore, this manner of software development is also far more efficient, which provides GBI with attractive time and cost savings. "The longest overrun that we have had with Thinkwise was only three days."

Soet emphasizes that in total four important results have been achieved. Antea Group had the desire and the ambition that the software they used did not become outdated, and that is a great success. There will never be a GBI version 7 due to technical requirements. In addition, the software was delivered according to plan and almost without errors, which are two important results for Antea Group. The municipalities also benefit from the new software. The process steps in the GBI apps are easily recognizable for the employees, which makes the apps easy to use. This is also an important benefit. Our customers are very satisfied."

#### **Expansion abroad**

There are also expansion plans with GBI. Soet says with pride: "At this time GBI is used by so many municipalities in the Netherlands that it serves 7.5 million citizens. We naturally want to serve the entire municipal market of the Netherlands and, due to the great success in our own country, we also have expansion plans to take GBI into Belgium and France."