



## The Thinkwise Platform: the powerful calculation engine supporting a new generation assetmanagement software

More than a hundred Dutch municipalities use GBI software for the management and maintenance of their assets. One of the silent strengths behind this successful management platform is the Thinkwise AI-powered Model-driven development platform. After 11 years the GBI calculation engine is still up-to-date and is available in a new generation GBI software: GBI World.

Taking care of operational sewer systems, safe roads, well maintained greenery, sustainable lighting and attractive playgrounds are just a few examples of the range of activities of a public space manager. A range that will only become more challenging in the coming years. Bas Boonstra, GBI product manager: 'The outdoor space plays a key role in themes such as climate adaptation, conservation and a healthy living environment. And at the same time, assetmanagers are tasked with achieving maximum quality, at minimum societal cost.'

An impossible task without a good management and information system. Many Dutch municipalities use the GBI management system. This asset management system was developed by Antea Group in the 1980s and supports managers in the smart and effective management of the living environment. The software provides for two important functions: the registration of all physical assets that a municipality owns (roads, sewer system, public parks and gardens, traffic signs et cetera) and planning and forecasting the maintenance of these assets.

### Thinkwise: a strategic development partner

Thinkwise has long been one of the development partners for the GBI management system. Bas Boonstra: 'As Antea Group we combine our years of experience with regard to assetmanagement, data, information and ICT in GBI. We develop

a lot of software in-house. Where necessary, we work with specialist parties that are dedicated to our vision with a proactive attitude and have future-proof solution. The Thinkwise Platform played a crucial role in this.'

For example, Antea Group developed two components of the GBI software together with Thinkwise: the GBlappsbank and the GBIkennisbank. The GBIkennisbank (knowledge base) contains all the information about measures, prices and maintenance strategies for assetmanagement. The GBlappsbank is used for producing cost calculations and long-term forecasts. Calculation apps are available for all municipal assets. GBI can be used by every municipality, because the apps take account of the local circumstances and ambitions.



### GBI World: new release in the cloud

Managerial challenges are changing. And assetmanagement software must evolve with it, which is why Antea Group developed GBI World. Bas Boonstra: 'A future-proof management system, with tools for the manager of tomorrow.' With GBI World we have brought the assetmanagement system with all its modules and the underlying database to the cloud. Bas Boonstra: 'This provides users access to their data and GBI applications from any location. Connectivity is guaranteed through the use of APIs. This enables a service-oriented way of working, because you can easily share information and

*'GBI World the platform for the manager of tomorrow'*

cooperate within one environment. This will provide a platform that responds to the growing demand from fellow departments, policymakers and citizens for integrated planning, sharing acreage data or integrating real-time sensor info and amenity data.'

Thinkwise and Antea Group also worked closely together on the development of GBI World. An important innovation is that all GBI components and modules have been combined in one web portal in GBI World. This required a switch to the Thinkwise Web GUI so that the GBlappsbank and GBIkennisbank are available as a web application in the new cloud environment. This simplifies cooperation and the integration with the new map module, GBImaps. Bas Boonstra: 'All information is now available within one environment and can be easily shared. This satisfies the principle of Common Ground, which requires the data to be separated from the software and processes.'

### **Better functionality and greater ease of use**

Another change is that the Oracle backend has been replaced by an open source PostgreSQL database. The GBlappsbank connects to this. However, under the surface the calculation core of GBI, which has been developed with the Thinkwise Platform, has remained intact.

Bas Boonstra: 'This guarantees that all calculation methods in the GBlappsbank are maintained effortlessly with every new upgrade and release. The GUI has been modernized to further improve the look and feel for the users. Various functional improvements have also been implemented.'

With GBI World, managers in the Netherlands can rely on assetmanagement software that fits the tasks of today as well as those of the future. Bas Boonstra: 'I'm a big fan of managing public space. With the public space playing such a key role managers more than ever are given the responsibility of combining and achieving various tasks. This requires the support of flexible software and extensive assetmanagement knowledge. Not only of assets and integrated programming but also of organizational processes, people, data and IT. Thanks to partners like Thinkwise we can continue to combine all these aspects and make a contribution to a future-proof living environment.'

### **GBI management system**

An attractive living environment, now and in the future

Antea Group contributes to a pleasant public space with data-driven solutions and innovative software. As the market leader in assetmanagement we are further developing the professional field with our customers and partners. With GBI we offer the best and most sustainable management system for assets in the public space. We contribute now and in the future to an attractive living environment where people want to live, work, relax and meet. Because we want to continuously optimize our GBI assetmanagement system, Antea Group has completely renewed the GBI 'engine' and we are now able to roll out new releases faster. The upgrade to the new GBI World release is being steadily rolled out and delivered to our customers. Their valuable asset data is transferred in its entirety without any changes.

### **Model-Driven**

With a model-driven platform you define business software in a graphical manner instead of writing millions of lines of code. This makes it possible to develop software very quickly and in a manageable way that exactly matches how your company works and responds to developments in the market. The Thinkwise platform offers the highest productivity in the model-driven development market, and is at least 10 times faster than traditional software development. The resulting business software automatically adapts to future technologies. In addition, existing legacy software can be rapidly modernized with the Thinkwise Platform by using the built-in "Upcycler" technology. Legacy software is once and for all a thing of the past.