

LEAP: take the next step with the new MOVE3 visualization engine

Remove the manual steps and errors from your deformation analysis? And see all your management objects in a clear dashboard? This is now possible with LEAP: the MOVE3 visualization engine from Sweco.

A good deformation analysis is indispensable for the management of important infrastructure, such as bridges, tunnels and pipelines. This involves determining shape changes in objects over a period of time. But every surveyor knows that collecting and processing the data for such an analysis can be very time-consuming. Can't we improve this process? With this thought in mind, Koen Segers, a data visualization consultant at Sweco, set to work. The end result is LEAP: an engine that enables smart and fast deformation analyses by processing, storing and visualizing MOVE3 output files.

Room for improvement

Koen is used to thinking in solutions. In the current process of surveying, reporting and deformation analysis, he saw room for improvement. He explains: "Surveyors go into the country with sophisticated equipment to measure the heights of bridges, tunnels, but also pipelines, for example. They then calibrate that data in MOVE3. The resulting output (.cor file) is very important for reporting to our customers, such as municipalities and provinces. After all, they have to use the data to determine how and when to act on the maintenance of a bridge or tunnel. The big problem is that the current process from measurement to reporting takes a long time. In addition, MOVE3 data are often still pasted together with text editors and Excel, and therefore a mistake is easily made."

What's under the hood?

Koen got to work and looked for a solution to make customer deformation analyses easier and faster. He is convinced that he succeeded with LEAP, Sweco's new MOVE3 Visualization Engine. "With our new engine, deformation analysis becomes very easy. I sometimes describe it myself as a powerful engine, processing MOVE3 data in one fell swoop and sending it to a database. If you then look further under the hood, you will see that a dashboard is linked to this database via a live connection. In this dashboard, the development of the measurements over time is displayed statistically. Where possible, predictions are made and shown immediately. All the customer has to do is place the output file from MOVE3 in a folder, the script does the rest."

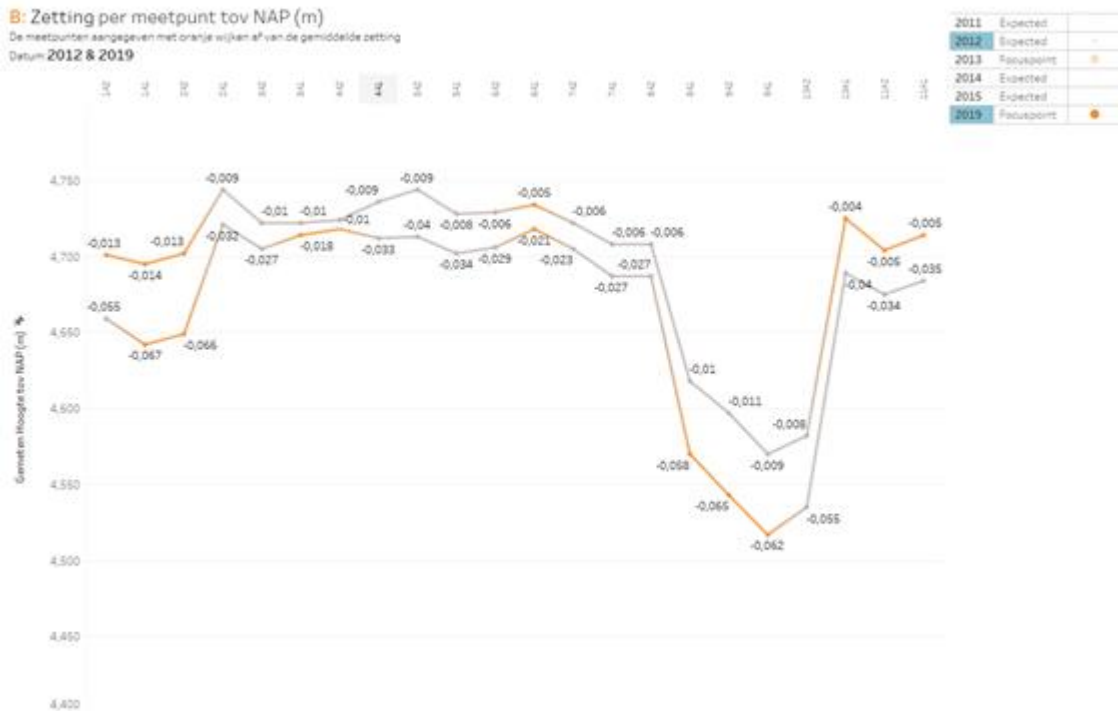


Figure 1. Example of deformation analysis settlement vs. baseline and NAP in the dashboard

Development over time on the Y-axis: 709

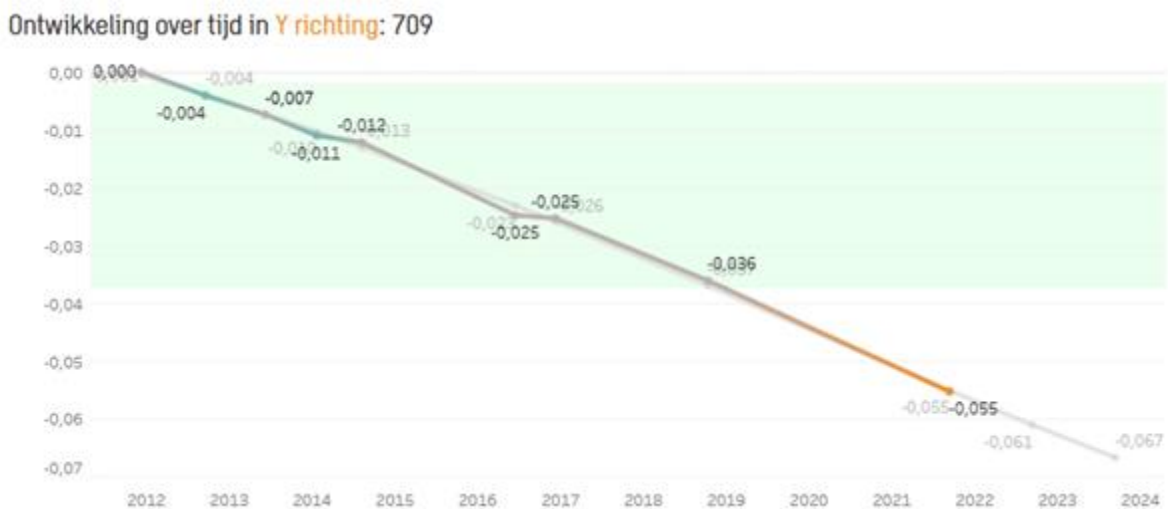


Figure 2. Example of deformation analysis settlement versus baseline and prediction in the dashboard

No more manual errors

The initial descriptions of LEAP are promising. But who benefits the most from this product? Koen explains: "This software can really be very valuable for the surveyor. Partly because it takes the manual steps and errors out of the process of deformation analysis. Furthermore, no more time needs to be spent in text editors or Excel files for data processing and visualization. They can then

better focus on their specialty: fieldwork. And for asset managers, with the push of a button, all the information about their assets is processed, calculated and visible in the dashboard. They will be especially happy with the insights, which LEAP offers about the management of their bridges, tunnels and locks."

Digitalization gaining momentum

In addition to saving time and standardizing data processing, Koen knows of another gain. "I notice that many organizations are looking for ways to digitize their work. With LEAP, you really accelerate that process. Digitizing starts with organizing your data. That requires following certain rules, which you as an organization must first learn. That's not always easy and can take a long time. That's why we took that learning process away from the client, so they can get started with LEAP right away."

Want to know more?

Are you curious about the possibilities of the new MOVE3 Visualization Engine for your organization? Please contact Koen Segers (koen.segers@sweco.nl) or René Krul (rene.krul@sweco.nl). They will be happy to help you.

You can also contact us through <https://bgtsoftware.nl/contact/>