

## Boskalis Environmental geotechnical laboratory goes digital



Case Study

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**Boskalis geotechnical laboratory is bidding farewell to its Excel-based data management system in favor of iVention's iLES. This will streamline the entire laboratory workflow.**

Once implemented, iLES will play a central role in the lab's sampling process, from the collection and logging of samples to processing test results, generating reports and even invoicing. Boskalis will even be able to manage price lists and discounts in iLES.

The laboratory in Papendrecht, The Netherlands has two main activities. Lab technicians run geotechnical and civil engineering tests for the Boskalis dredging company. They also conduct lab tests and research to support Boskalis Environmental in optimizing its soil cleaning process. "We do process control and process optimization research for our cleaning installations," said laboratory technician Rob Faas, who is responsible for implementing iLES at the Boskalis laboratory.

## Saving Time

The move to iLES came when the lab's self-built data management application had reached its capacity and functionality limits. The software was unsuitable to support laboratory processes. "We were using Excel, which we had strung together with scripts," said Faas. "This 'solution' had been developed in the 1990s. It didn't meet our requirements anymore and it had been poorly maintained. We sat down with our IT people and calculated how much time we would save if we got a new system. The estimate we arrived at was 10%. That would free everyone up to spend more time on knowledge-intensive work and less on routine matters."



'Improving efficiency and quality at the same time'





## Three Options

With the help of a consultant, the lab selected seven potential software packages. Eventually, three were left. Although they all looked equally good on paper, iLES had one big plus, recalled Faas. "The people at iVention were most driven and their bid was attractive. We had a good feeling about it."

## International Rollout

Implementation will initially be limited to the laboratory at headquarters. Once iLES is up and running there, Faas wants to consider an international rollout. He is specifically interested in using it in the mobile lab containers Boskalis deploys in projects all over the globe. "Our laboratory here in The Netherlands is big. We want to be sure everything runs like clockwork here before we start taking it further afield," he said. "Many of our projects are in the middle of nowhere, with unreliable internet connections. Paper's the only way to record any data, so we'll continue to do it manually there. But we do want to look into using iLES to streamline these projects." Ideally, the lab containers would be provided with an



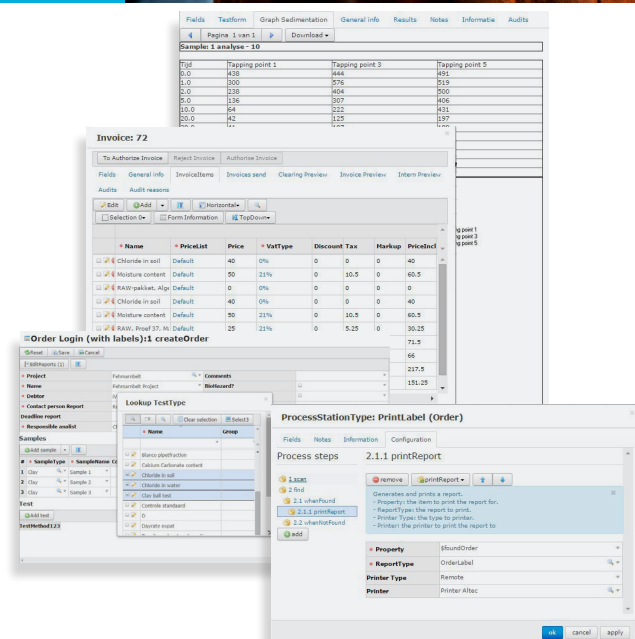
Rob Faas

'With an internet connection, it's literally plug and play'

operational iLES. With an internet connection, it would literally be plug and play. Another future option is iVention's mobile app for on-site sample data entry on a tablet. This iVention app works both online and offline and digitizes the paper workflow in the field.

## Flexibility

The software's functional design began in 2014. Currently, acceptance testing is underway with the lab providing iVention with feedback for fine tuning. "The system already contains all the functionalities we need," Faas explained. "Our main focus is ease of use and applicability, that's what we're thoroughly testing iLES for. Technically speaking we're almost there. Right now, we're



implementing some exceptions to the rule, obviously in close consultation with iVenton. Also, we had them design a sieving module. Soon all we'll have to do is weigh a sample and then that weight will be entered into iLES with an automatic return." Automatic invoicing requires a lot of flexibility. No matter how complicated a project is, the system must be able to calculate and add up all work involved, including every single exception, as Faas added: "So that includes that extra test, and that extra day of field work: it all has to be included in the final price. And that's typical of our lab—most of our work is anything but standard. Invoicing is harder to implement with so many exceptions. It's great that iVenton has taken up the challenge of ensuring this complicated component will run perfectly too."

## Automatic Certificate

Faas wants to limit computerization. He does not want iLES to reduce everything to a simple 'fill in the blanks' exercise. "No, I want the workflow to be partially computerized. We'll keep interpreting the data, but the administrative process—the routine work—should be automated. And when all analyses have been approved, this should result in an automatically generated certificate. The data will be directly entered into the report,



without any human assistance. This prevents typographical errors and reduces administrative work. But what we're not going to do is pre-program the entire data interpretation process by linking all the requirements to the data analysis. We're too specialized for that."

## Division of Roles

The LIMS configuration is the result of close collaboration between lab technicians and iVenton programmers. What was the division of roles? "We can handle a simple change on new test forms or build a new test, that's no problem. The report builder is in XML, that's iVenton's responsibility, just like adding additional features. We're comfortable handling basic functionalities ourselves, but reporting at database level and the whole workflow are on iVenton's plate. Our collaboration is very flexible. There's a lot we can do in-house and iVenton takes care of the specialized stuff."

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## About iVention

Since its establishment in 2009, iVention has shaken up the market for Laboratory Information Management Systems. Its flexible, 100% cloud-based applications have finally given laboratories a software system designed around the laboratory process. iVention's iLES is a cloud-based Laboratory Execution System. It enables laboratories to streamline their workflow and manage and computerize their routine work—even in highly regulated environments. iLES is a powerful management tool that can improve efficiency and quality. Applications are in use in the life sciences and pharmaceutical industry, in contract research organizations, the health care sector, the food and beverages industry, the environmental industry, in multinationals and at renowned institutions. Our staff understands laboratory workflows and knows laboratory software development inside and out. Our team of young IT talents and strategic consultants has rapidly grown to 20 strong. The iVention offices in The Netherlands are located in Utrecht and Zwolle. In January 2015, we started working with partners across Europe and opened a location in India. Are you done with old school thinking and curious about iVention's turn-key solutions? Just contact one of our consultants. We're happy to help.

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