Eurofins estimates data processing time has been cut in half since implementing OpenLAB Enterprise Content Manager, meaning that customers can be served faster and more cost effectively.

In the Netherlands, Eurofins Analytico does soil and water testing for major engineering companies and public bodies. In the past, the laboratory used about 23 different software packages and printed out every analysis. Implementation of Agilent’s OpenLAB Enterprise Content Manager (ECM) has enabled the company to serve its customers faster, more reliably and more cost-effectively and save over half a million sheets of paper each year.

The laboratory employs over 200 people, including support/administrative staff, and handles about 1500 samples a day.

"Analysts can do their jobs with more satisfaction and less stress. Customers get their results faster and the data is reliable."

— MARTIN HERMSEN, ANALYST IN THE R&D DEPARTMENT AT EUROFINS ANALYTICO BV
The need for flexibility

Conducting thorough testing on samples requires a range of instruments and techniques. The company uses GC, GC/MS, triple quadrupole GC/MS, ICP-OES, ICP-MS, CFA (continuous flow analysis), LC, IC, UV/Vis and others.

In the past, the laboratory handled its data using about 23 different CDS or data (re)processing software packages from different vendors. This posed a challenge, as Arjan Veldhuizen, technical manager of Eurofins Analytical, explained. "We wanted to reduce the number of different software tools and standardize our method of data (re)processing so we could be as productive as possible."

There were other challenges too. So many samples and tests per sample meant large quantities of paper output from instruments, which needed to be managed and stored. Analysts would print out results; take them to their office where they would be evaluated and determine whether to repeat any tests that were not conforming. This was a time-consuming and paper-intensive process. "We wanted to get rid of our archive facility for paper, save about 600,000 sheets of paper per annum and, most importantly, improve the quality of the data processing and retrieval," continued Veldhuizen.

The lab had already purchased and implemented a scientific data management system (SDMS): Waters Nugenesis, but it had limitations with respect to archiving and sharing data from Agilent GC/MS systems. "It was not the solution that would take us any further; a comprehensive, central electronic data storage was needed to meet our needs," explained Veldhuizen.

Agilent products implemented

- OpenLAB Enterprise Content Manager (ECM) with
- OpenLAB ECM Business Process Manager (BPM)
- MSD Productivity ChemStation
- MassHunter for ICP-MS
- OpenLAB Instrument Control Manager (ICM)
  (now available as OpenLAB CDS EZChrom Edition)

Eurofins products implemented

- Review Browser
- LIMS connections

Customer benefits

- Standardization and flexibility
- Improved quality of data processing and retrieval
- More than half a million sheets of paper saved per year
- Performance per analyst almost doubled
- Customers served more quickly and cost effectively
Improving traceability

After evaluating several vendors, Eurofins Analytico chose Agilent, which was already a trusted supplier for many of the lab’s instruments. It has now implemented Agilent OpenLAB Enterprise Content Manager (ECM) as their SDMS, as well as other Agilent software. The ECM can manage and organize all electronic content regardless of source. This includes analytical data, analytical instrument results, photographs and images, PDF files and forms, scanned paper files, emails, Microsoft Office files and electronic reports.

Implementing the OpenLAB ECM system has addressed several challenges that the company faced. It has enabled the lab to save costs on data (re)processing. With the audit trail and versioning features, it has also helped increase the transparency of manual integration and record changes. This, in turn, has improved traceability.

Integrating Agilent ChemStation with OpenLAB ECM enables the lab to access common ECM functionality directly from the ChemStation user interface. It also enables analysts to load and save methods, sequences, and data directly from the ECM and to access files stored within the ECM without leaving ChemStation. In addition, access to all ECM search functionality is available inside ChemStation. This same functionality is available with the latest ChemStation release: OpenLAB CDS ChemStation Edition.

This integration provides a familiar interface with minimal training effort. It also provides search capability over the whole archive from within ChemStation, as well as central ChemStation storage. Using ChemStations for reprocessing, users can access ECM from any point in the company network. It is also possible to archive and retrieve any other data in the background and to archive, retrieve and reuse the data of printed reports of any system.

“*We’ve almost doubled the performance per analyst.*”

— ARJAN VELDHUIZEN, TECHNICAL MANAGER OF EUROFINS ANALYTICO BV

Better service for customers

The OpenLAB ECM system has helped Eurofins to increase the service level that it provides to customers. The lab has to report results to clients within the shortest possible time frame, often within nine hours of sample receipt. Better and more automated sample management helps the company to meet its targets.

Veldhuizen has been pleased with the results. “We’ve almost doubled the performance per analyst. We have more reliable data in a shorter time.”

This is good news for Eurofins’ customers because it enables them to get results of their soil and water tests back more quickly and therefore make faster progress on important engineering projects. “This enabled us to introduce an even shorter delivery time, a reduction of 20% from the previous, shortest turnaround time. This benefits clients who work on remediation projects where contractors are waiting for our results before they can start work,” noted Veldhuizen.

“Analysts can do their jobs with more satisfaction and less stress. Customers get their results faster and the data is reliable.”, commented Martin Hermsen, analyst in the R&D Department at Eurofins Analytico.
Data retrieval

Another benefit of the new system is in the retrieval of old data. “Retrieval of older data is much quicker,” noted Veldhuizen. Indeed he explained that retrieval of old data was very difficult to do, if at all, when it was all housed in a paper archive facility.

Hermsen added: “One of the main reasons we started the project was to get reliable data and a system where you could find old data fast and could reproduce data in exactly the same way as in the past.”

Cost savings

There are also cost benefits to Eurofins. “OpenLAB ECM can improve productivity and save costs after proper installation and design,” said Hermsen. He noted that the company now saves, in one year, €6,000 on paper consumption, €10,000 on square feet of space and €7,500 on other costs.

The paper cost savings come because implementation of the system removes 99% of the paper used in data handling. Hermsen explained that the company’s new approach leaves analysts with just one sheet of paper per sample.

OpenLAB ECM has already helped Eurofins save on staffing costs too. “We’ve been able to move our staff to more important projects. As we continue to automate data processing and evaluation with the Eurofins Review Browser, analysts will focus on other areas of the business.” The Review Browser was developed exclusively for Eurofins. It is a ChemStation-based macro-language tool to assist data processing and evaluation and is integrated with OpenLAB ECM to retrieve and store the processed information.

“We have more reliable data in a shorter time. Retrieval of older data is much quicker.”

— ARJAN VELDHUIZEN, TECHNICAL MANAGER OF EUROFINS ANALYTICO BV
A big project

Bringing Agilent’s OpenLAB ECM system to Eurofins Analytico was a big project and required careful consideration of the company’s specific needs. “This is an extensive implementation,” said Freek Varossieau, Product Specialist at Agilent. “With such a complex implementation there is always a need to fine tune. Eurofins had developed a special review program for its MSD Productivity ChemStation data. It allows users to view the actual chromatogram on one screen and on another screen, in parallel, the results combined with the corresponding LIMS request. In a single view the user now can make fast decisions on the results and send them to the LIMS.

“In parallel, Eurofins implemented an OpenLAB chromatography data system to control the newly purchased 7890 GCs with low thermal mass (LTM) ovens for mineral oil analysis. As this reduced the run time to less than 4 minutes per analysis, advanced reporting was developed to cope with the large quantity of results pouring in.”

Veldhuizen described Eurofins relationship with Agilent as very good. “The process from purchasing to installation is always the stage where the expectations are transformed to real practice. That is the stage where finding solutions for upcoming challenges depends on the support of Agilent, not only in techniques but also in knowledge and determination to solve challenges,” he said.

The future

The new data management system will also help Eurofins as it works on plans for future development. “We want to fully virtualize the OpenLAB system and link as much equipment as possible to the system, including the triple quadrupole GC/MS systems and ICP-MS systems,” said Veldhuizen. The lab also plans to switch to OpenLAB CDS to replace their Waters Empower installations.

According to Martin Hermsen, this project is planned for the end of 2013 and the start of 2014. “We will be able to put all our data from the different analytical systems in ECM so we will become more effective. We expect to greatly improve productivity while reducing laboratory costs when the production system is running. This will be efficient because all triple quadrupole GC/MS instrument data will be processed with our new review software,” he added.

All this adds up to strong return on investment for Eurofins Analytico and, ultimately, for the company’s customers.

To learn more about OpenLAB ECM, visit us at: www.agilent.com/chem/openlabecm

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