



# Case study



Lab Servant registers  
hazardous substances  
for Radboud University

“Lab Servant is an assistant for safe and time-saving work in the laboratory”



**Lab Servant**  
[www.labservant.nl](http://www.labservant.nl)





**The science faculty of Radboud University recently commissioned the Lab Servant for the registration of hazardous substances in the laboratories. A market survey revealed that the Lab Servant best meets the requirements of an academic research institution. In good cooperation with the developers, the software was implemented in 2016, which also resulted in specific adjustments for the "borrowing" of chemicals between research groups and for making bulk items from the internal warehouse eligible for subsidy. The bottom line is always that the researchers must be able to work safely with hazardous substances without sacrificing the progress of their research.**

The Lab Servant is a 100% web based application, developed in collaboration with Delft University of Technology, and supports safe working in the laboratory. One of the modules is focused on ordering and registration of hazardous substances. After a thorough market exploration of available systems, the science faculty of the Radboud University has chosen the Lab Servant because of the good conformity with the specific wishes of (academic) research laboratories.

In a good cooperation, the implementation of the Lab Servant was carried out in 2016. After years of loyal service, the Tracelab system was replaced by the Lab Servant.

Not only registration but also ordering was included. A live link of the new system with Chemwatch makes it possible to assess the hazards of the substances to be purchased at the time of ordering and, if necessary, to choose an alternative. This is in line with the wishes of the Dutch Ministry of Social Affairs to limit the use of hazardous substances as much as possible. This is a serious issue for universities because they want to play an exemplary role in the training of a new generation of researchers.

The science faculty of Radboud University has a stock of nearly 40,000 containers of chemicals from 140 different suppliers. To a large extent these are stored centrally so that researchers can "borrow" them for the duration of their experiment. For that borrowing and returning, a specific facility was built in the Lab Servant. In doing so, the researchers can see which substances are available, but also who has just borrowed a container that they need at that moment. Work has been taken off the plate of the logistic employees because the process of borrowing and returning can be administered entirely with a barcode scanner.

A number of articles such as solvents and waste drums are purchased in bulk and delivered to the research groups from a central warehouse. In order for the costs to be eligible for subsidy, the transfer to the research groups must be linked 1:1 to the purchase order of the articles at the supplier. A specific



**“almost 40.000  
containers with  
chemicals”**



## “Processes of the logistics center are arranged in a 'lean' way”

warehouse function within the Lab Servant has been developed, which takes all these kinds of preconditions into account. The result is "accountant proof".

A lot of attention was given to the activities of the logistics center during the design of the processes and the configuration of the software. The processes are designed "lean" using a tablet and barcode scanner as much as possible, optimised pick lists c.q. routing through the warehouse and a complete integration of the Lab Servant with corporate systems. With the latter, retyping information is no longer necessary. The mutual exchange of information between systems means that both have a complete information set so that the assessment does not have to be done in two systems.

In 2017, the complete implementation of the Lab Servant was completed to the satisfaction of all involved. Researchers and logistics center can work with better information that also saves them time. This also brings the main objective to its full advantage:

"Every staff member of the faculty leaves the lab as healthy as he/she arrives in the morning."

### Work safely

Frans van Spijk (HSE employee):

*"The link with Chemwatch makes it very accessible for researchers to consult information about the dangers of chemical compounds. This information is immediately shown in the Lab Servant with the material that a researcher needs for his research. For me as an HSE employee, it will be easier to start a conversation with the researchers about their own health (and that of others!) In the lab environment."*



### Easy ordering and borrowing

Luuk van Summeren (project leader / researcher):

*"With us, a researcher can place an order for new substances from a supplier via a web shop. If a substance has ever been purchased, the researcher can also "borrow" it internally from the chemical warehouse. We also have an internal warehouse for solvents et cetera where a researcher can place an order. All these ordering routes are available to the researchers via the Lab Servant, which passes on the orders for further processing to our corporate systems."*



## Alternatives for hazardous substances

Frans van Spijk (HSE employee):

*"A researcher who orders a new substance immediately sees in the first step whether a substance is carcinogenic or is on a list of one of the ministries as threatening for health, as a drug precursor or as a raw material for terrorist purposes. The researcher can then choose another substance. If this is not possible because of the research needs, we as an institution at least have a proper registration which enables us to monitor the use of hazardous substances and to account about it to society."*

## Less management

Luuk van Summeren (project leader / researcher):

*"Due to the high natural turnover of PhD students and postdocs, it is essential to synchronize the users of the Lab Servant with the HR source file. During his or her appointment, a researcher automatically receives certain access rights. Manual tracking of the users is unworkable with our scale, so we are happy that the Lab Servant takes care of that via a web service with the HR source file."*

**"Manual  
maintenance  
of users is  
unworkable"**



## About Lab Servant BV

The Lab Servant software for safe and time-saving work in the laboratory is marketed by Lab Servant BV. The Lab Servant has been established in close collaboration with TU Delft since 2011, in which TU Delft acts as a launching customer. The various modules of the Lab Servant are currently finding their way to other research institutions in the Netherlands. Lab Servant BV was founded by Han Bakker (MSc biochemistry) and Koos van Leeuwe (PhD physics).