

# DIGITALIZATION OF LABORATORIES THROUGH LIMS IN THE ERA OF INDUSTRY 4.0



## An interview with the CEO

Philip Moerke, Chief Executive Officer at Fink & Partner's, underlines the importance of digitalization of laboratories through the implementation of LIMS software. Why is [FP]-LIMS an IoT technology for an upgrade to Lab 4.0?

**You are Chief Executive Officer at Fink & Partner's, a company for LIMS software development. How does a Lab 4.0 look like, and which aspects must be considered while planning the construction of a brand-new laboratory?**

A Laboratory 4.0 is a next-generation laboratory that includes specific features of the world of Industry 4.0.

In specific, a Lab 4.0 involves automation, complete digitalization, flexible, modular work environment, and measurement devices, which communicate with each other. Therefore, the choice of the right laboratory software solution plays a crucial role. LIMS, also known as Laboratory Information Management System, is an IT solution for the laboratory that can "digitalize" and automatize workflows and therefore reduce errors.

**What was the role of laboratory software until Industry 4.0?**

LIMS solutions are on the market since the early 1980s, and this is a meaningful sign to show how digitalization in this area begun. In fact, laboratory software has always been a crucial factor in improving production and productivity and, therefore, improving quality management processes. With the outbreak of Industry 4.0, lab software, especially LIMS, has become more decisive than ever, thanks to its high-potential flexibility. We have noticed that our clients made improvements in production and productivity since installing [FP]-LIMS, or [DIA] Analysis Management before.

**What is LIMS, and how does this software concretely "digitalize" laboratory workflows?**



As we mentioned before, LIMS is the acronym for Laboratory Information Management System and concerns a laboratory software solution to collect, analyze, manage, merge, archive data and samples. Also, LIMS is crucial to manage lab workflows and to connect and calibrate measurement devices. LIMS is known for its flexibility and reliability and can be considered an ultimate lab assistant that organizes everything in your lab!

My company, Fink & Partner GmbH, developed a LIMS solution, called [FP]-LIMS, which, thanks to its sophisticated and flexible software architecture based on modules, can be customized and adjusted according to customers' requirements. [FP]-LIMS is an IoT technology because it makes digitalization processes in your lab just easier, starting with connecting your measurement devices with each other, even if they are produced by different manufacturers, and automatically imports data through its open interfaces. Nevertheless, some clients still work with the manual import, which explains the flexibility and adaptability of [FP]-LIMS to client's requirements. Also, [FP]-LIMS communicates with upper-level systems such as ERP and SAP, and since 2020 has the certified interface to SAP S/4HANA®.

**Considering the future of laboratory informatics, how do you see LIMS developing within the next five years? What will be, according to your experience, the needs of the laboratory informatics industry?**

The laboratory industry has been developing quicker and quicker these days, and it is difficult to predict every step it will take. However, one thing is certain: laboratories worldwide look for precision, reliability, flexibility, and a good relation between prices and products. High-quality products are crucial investments for the future, and LIMS software is designed to grow to adapt to quick changes and new requirements. For this reason, we recommend starting with a "smaller" installation to get an upgrade in the following couple of years concerning new users, lab devices, and analyses.



**[FP]-LIMS**



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Chief Executive Officer  
Fink & Partner GmbH

