# NNIT

## THE FACTORY OF THE FUTURE DEMANDS A QUALITY DIGITAL CONTROL TOWER

**NNIT LABORATORY SERVICES** 

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### THE FACTORY OF THE FUTURE DEMANDS A QUALITY DIGITAL CONTROL TOWER – DIGITALIZED QUALITY CONTROL (QC) LABORATORIES ARE AN ESSENTIAL PART OF IT

As digital maturity in life science manufacturing evolves, digitalization efforts expand beyond the production shop floor. A quality digital control tower, enabling oversight and progress monitoring of quality testing and product release processes, is key to improving transparency and productivity, and thereby a faster streamlined product release. Digitalization of quality control laboratories is an essential building block.

In life sciences organizations, quality control laboratories are responsible for the quality testing necessary to verify the manufactured products' compliance with quality specifications. Quality control (QC) test results are therefore an important part of the product release controls.Increasing the QC lab productivity and ensuring continuous compliance is a key contributor to a faster and streamlined product release process.

Today, many processes in QC laboratories are still based on numerous manual tasks, documented in paper journals. In some organizations, Laboratory Information Management Systems (LIMS) have been introduced as the system of record to capture QC testing results. However, they often still rely on manual data transfer to and from instruments and paper-based process for supporting inventory and equipment management.

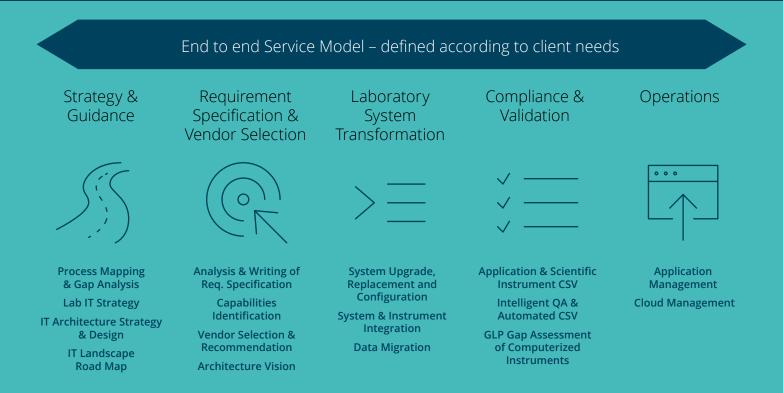
Today, many of the available commercial LIMS solutions offer functionality supporting uni- or bi-directional integration with instruments and as well as support digitalization secondary business processes as consumable inventory management and instrument certification. Life Sciences organizations can take a large step toward further digitalization of business processes in QC labs by leveraging functionality that is currently offered in the commercial standard solutions, but not yet fully utilized. The market offerings for laboratory automation solutions such as liquid handler robots, automated storage solutions, robotic arms and transport systems is becoming more diverse supporting both high-capacity demand as well as flexible and smaller throughput needs. To support seamless workflows in the QC labs, these solutions must be integrated with analytical instruments software and LIMS solutions to support data transfers.

To achieve the vision of a digital quality control tower, and streamline product release, the integration of the LIMS system and potential other lab solutions with a data analytics platform is also required, allowing for sharing of status and progress of quality control work to other organization stakeholders, like production and QA.

# Improving business processes by leveraging technology

NNIT believes that the digitalization of QC labs can be a significant contributor to achieving improved ways of working and contributing to a faster and streamlined product release process. The right digital solution roadmap is dependent on the business priorities and challenges of each organization. NNIT Laboratory Services can support each client in (1) identifying and analysing their business needs and processes, (2) identifying the right strategy and solutions, (3) implementing a solution, (4) and supporting the operations of the solution.

### LABORATORY IT SERVICES OVERVIEW





### **NNIT's Laboratory Services**

Our Laboratory domain expertise supports our efforts to apply the technology within the context of quality control. Our knowledge of various LIMS, CDS, SDMS and other solutions and of the business processes executed in quality control laboratories allow us to support our clients in expanding their teams with additional skills, best-practice knowledge, and capacity. Our quality and validation knowledge help us ensure that our solutions are GxP compliant. Additionally, our complementary knowledge of Manufacturing solutions e.g. MES, and Quality Management System (QMS) solutions, Microsoft and Cloud solutions, as well as different integration platforms, allow us to integrate Lab solutions between them and with other enterprise solutions.



#### About NNIT

We are an international digital consultancy specializing in life sciences and the public sector. Our team of leading industry subject-matter experts and technology consultants help you empower those who change lives – and make a mark.