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Introduction

Welcome to our Newsletter!

A quick review of 2020! Big changes happened very quickly for our industry because of the global pandemic. With companies either scaling up production (pharma, medical devices, food & beverage), scaling down (e.g. aerospace, automotive) or changing their production portfolios (e.g. Dior, Louis Vuitton making medical sanitizers; JCB and Caterpillar making ventilators), the need for digital transformation was reemphasized. The team at MOMi have been on hand to help our customer reevaluate their production through education and business consultancy services.

In every Newsletter, we highlight and explore in more detail one of our training programs and workshops. In this fifth edition, the Training In Focus is <u>LIMS In Manufacturing</u>: <u>All you Need to Know!</u>

MOMi provides business consultancy services based on industry best practices, with customer specific needs as a priority. These are based on best practice approaches, but always tuned to the specific needs of our customers. Throughout these newsletters, our business consultants will highlight aspects of these services. In this edition we will focus on master data management.

I hope you will enjoy reading this fifth edition of the MOMi Newsletter. Please, let us know if you have any questions and/or suggestions either via our <u>website</u> or by e-mailing <u>Sarah Knight</u>.

Especially in these days of the global COVID-19 crisis, the MOMi team wishes you good health personally and businesswise for 2021!

Jan Snoeij, President

MOM Solution Guide: LIMS/ELN

On 4th February 2021 part 2 of the MOM Solution Guide will be released. Its focus is LIMS and ELN with manufacturing as the scope.



It is clear from the participation of 6 vendors that the LIMS/ELN vendors are less used to this kind of activity than the MES vendors where we had 43 participants.

The typology for the laboratories is very important. The typology requirements should fit with your laboratory functions. If not, it is more likely you will need customization.

In the next figure the production / QC laboratories are covered very well.

About MOMi

The Manufacturing Operations Managament Institute (MOMi) is an Expert Division of ATS Global.

MOMi offers best-practice business consultancy services to support the full change cycle in a dynamic operations environment and provides strategic and tactical advice to manufacturers, delivering the 4th Industrial Revolution.

MOMi provides independent education programs to manufacturers, preparing their people to leverage new smart technologies through the power of knowledge.

Our team has extensive experience in supporting manufacturers around the globe and provides best-practice services to help them to continuously improving their performance (step-by-step).

MOMi's consultants and instructors work from a pragmatic basis to deliver effective, deployable strategies. MOMi's team consists out of independent, professional experts in the domain of Manufacturing Operations Management.

More: www.mom-institute.org



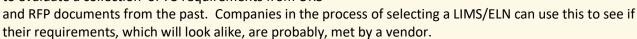
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MOM Solution Guide: LIMS/ELN (cont...)

Looking at the answers in detail we see that 2 LIMS/ELN vendors are scoring themselves as focusing on production / QC laboraties. The other 4 are generic solutions.

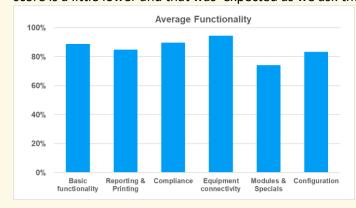
Like in the MES solution guide, the vendors were asked many different questions about their solution, their services and their focus.

Unlike the MES guide is that for LIMS/ELN we asked to evaluate a collection of 73 requirements from URS



The requirements are sorted in 6 categories: Basic Functionality, Report & Printing, Compliance, Equipment Connectivity, Modules & Specials and Configuration.

We see good scores for coverage of these requirements on all categories. The score for Modules & Specials score is a little lower and that was expected as we ask there also for functionality that is not typical



manufacturing. However there might be companies and situations where this is also in scope for the selection and interesting to know.

With this overview it will be much easier to construct a short list of vendors that will comply to your requirements in such a way that you can implement effectively the needed requirements.

Having collected much more information from the vendors and combining it with the most upto date LIMS/ELN knowledge the Solution

Guide LIMS/ELN will provide you with a relevant and informative report.

The report will be available for purchase from our www.mom-institute.org on 4th February 2021.

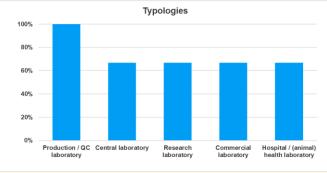
MOM Solution Guide: LIMS/ELN Webinar

How to select a LIMS fit for your business needs?

On 23 February 2021 MOMi will host a webinar to introduce the report and present key findings. The webinar is an opportunity to discover how to use the report in selections and decisions for upgrade.

LIMS/ELN is part of the fundamental technology to build your connected factory. LIMS/ELN (and quality data and information) is critical for companies in their journey to a mature organization.

Both managing the laboratory and presenting the quality information to the rest of the organization reliable and timely is what you can expect from a LIMS/ELN solution in general. But detailing these business needs down into requirements, and selecting the right solutions for your business can be a challenge. This is where the MOM Solution Guide LIMS/ELN can help! Regitser today at www.mom-institute.org





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Training In Focus: LIMS in Manufacturing: All You Need to Know!

The manufacturing industry is changing: Talk of Big Data, the Internet of Things, the Fourth Industrial Revolution, Smart Factories, ...

The laboratory and the quality data & information are part of the discussion, as laboratories need to be smart too. Not an easy task, as laboratory managers often struggle already with the reasons for deploying a Laboratory Information Management System (LIMS). The reasons for LIMS can be quite diverse, and the benefit can be outside the QA/QC department themself:



- To be compliant to Tracking & Tracing requirements more efficiently
- Eliminate typing over data from equipment
- Reducing the risk of errors by having better data integrity
- Replacing custom developed solutions and uncontrolled Excel sheets
- Enforcing and following analytical protocols
- Having information (in reports, dashboard or metrics) timelier and more efficient without using excel and other manual activities
- Automatically generating legally needed reports and overviews
- Reducing non-adding value time because of a better planning overview of backlog of work

MOMi's training "LIMS All you need to know" is a 1-day classroom or 2-session online instructor led course in which the participant will learn all about LIMS and its environment. All the experience of both selecting and implementing LIMS has been used to develop this course.

The training addresses the LIMS solutions available on the market today and tomorrow, highlighting the best practices for successfully justifying, implementing and sustaining them long term. Other subjects addressed in the course:

- an introduction to the relevant industry standards for Manufacturing Quality, like ISA-95
- aspects to create a well-designed roadmap to improve your quality performance
- typical interfacing and business case.

One important lesson from the training, shared here: Whatever you want to achieve by introducing LIMS, the start should always be: go back to the basic processes and keep it simple.

This training course is designed for *Lab managers/QA managers* (and their assistants). Helping to leverage the full potential of using a LIMS both in short and long term. A successful implementation requires alignment of your ways of working in quality operations, organization & governance, your people's skill set and the supporting IT.



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Business Consultancy in Focus: Master Data Management

With the ongoing digitalization, it is crucial to be in control of master data for reasons of continuity, flexibility and innovation power. Companies found out with the pandemic how true this is. But master data control is a challenge because it is connected to all kingdoms in your organization. From production to quality, from planning and scheduling to content management and from purchase to R&D.



From experience we know that building a business case
without at least a certain level of architecture choices, structure definitions and scoping you are building a castle on quicksand.

When discussing manufacturing/product master data management everybody wants to have control in their own dedicated solutions controlled by themselves. Even if there is no version control, approval workflow or audit trail. Which are the basics of the basics.

To define the structure, scope, architecture and processes we have a standardized approach in 5 sequential steps.

 NPDI process. To understand better the creation and handover of product master data in an organization we will look at the process NPDI (New Product Development and Introduction). Are there issues? Who owns what (master) data and until when? Who creates, changes and makes (master) data obsolete?



- 2. Evaluate current situation and near future. Who is responsible and who accountable? What systems/solutions are master or slave? Use of current solution for master data? User requirements?
 - Look at touch points with typical IT systems in the manufacturing domain.
 - Are there existing plans to change the current situation?
- 3. Product master data model. A product master data structure will be proposed by exploring a test set of products to develop and test a model.
- 4. Master data roadmap report. Content of the report:
 - The standardized process(es) for product life cycle management.
 - Benefit of a PDM/PLM solution.
 - Architecture advise.
 - Structure of the product master data
 - High level roadmap for implementation.
- 5. Workshop report final draft. Explaining and discussing the results in the master data roadmap report. This step is essential for change management.



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With this approach most stakeholders will be on board. Needed decisions are made or it is understood that they must be made. The information of step 1, 2 and 3 can be used to create a benefit case.

This standard MOMi service will have the result that either the current processes and solution can be adjusted, or a selection can be done for solutions like a PDM/PLM.

What Our Customers Say

Ján Uhrinovský, Functional Analyst – Manufacturing Systems:

"Having followed the MESA CoC course in may 2018 it helped me a lot to grow into my role and hopefully into my next role. It is a great collection of ideas and principles that I still use throughout my project work.

It also gains a lot of positive feedback from my current supervisors. We're taking some actual steps towards standardization across the board thanks to that.

Personally, having all this knowledge in my backpack helps me in my professional growth and creates opportunities for me that I am confident to seize.

I hope in 2021 to follow another MESA course, about B2MML, and learn a bit more about the integration rules there, which I later on plan on applying to a set of different projects where this advanced knowledge will come in handy."



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Training Schedule

Course Name	Days	Start Date	Location	Price
Smart Manufacturing and Industry 4.0 Strategies - Online	3	January 26, 2021	Online (14:00 - 18:00 CET / 08:00 - 12:00 EST)	EUR 990
Serialization in Manufacturing - Online	2	February 2, 2021	Online (13:00 - 17:00 CET)	EUR 750
MESA MES/MOM Certificate of Competency (CoC01)	5	February 8, 2021	Online (14:00 - 19:00 CET / 08:00 - 13:00 EST)	EUR 3950
LIMS in Manufacturing: All You Need to Know! - Online	2	March 3, 2021	Online (13:00 - 17:00 CET)	EUR 750
MESA MES/MOM Certificate of Awareness (CoA01)	3	March 15, 2021	Online (14:00 - 19:00 CET / 08:00 - 13:00 EST)	EUR 2395
MESA B2MML & Integration Fundamentals Certificate of Competency (CoC02)	2	March 18, 2021	Online (14:00 - 18:00 CET / 08:00 - 12:00 EST)	EUR 1995
MES/MOM: All You Need to Know! - Online	3	March 23, 2021	Online (13:00 - 17:00 CET)	EUR 990
Cybersecurity for Manufacturing (ISA/IEC 62443) - Online	2	April 14, 2021	Online (13:00 - 17:00 CET)	EUR 750
MES/MOM Standardization using ISA-95 for Operations - Online	2	April 20, 2021	Online (13:00 - 17:00 CET)	EUR 750
MES/MOM: All You Need to Know! - Online	3	May 18, 2021	Online (13:00 - 17:00 CET)	EUR 990
Manufacturing Maturity to Improve Performance - Online	2	May 26, 2021	Online (13:00 - 17:00 CET)	EUR 750
MESA MES/MOM Certificate of Competency (CoC01)	5	May 31, 2021	Online	EUR 3950
Smart Manufacturing and Industry 4.0 Strategies - Online	3	June 8, 2021	Online (14:00 - 18:00 CET / 08:00 - 12:00 EST)	EUR 990
IT/OT Convergence for a Connected Factory - Online	2	June 16, 2021	Online (13:00 - 17:00 CET)	EUR 750
MESA MES/MOM Certificate of Awareness (CoA01)	3	September 7, 2021	Online	EUR 2395

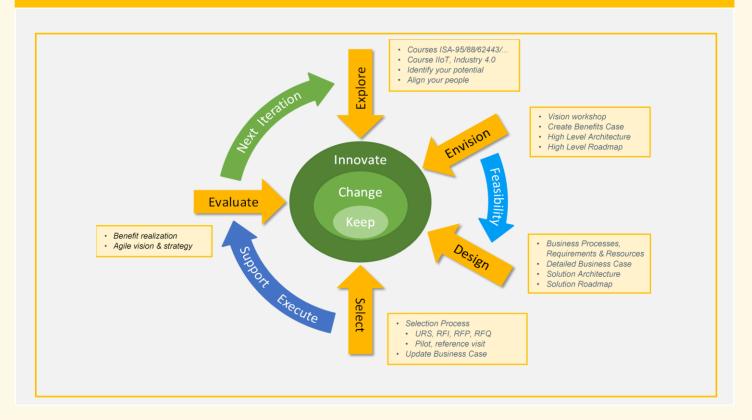
MOMI's education programs are delivered as public sessions as well as in-house. In the last case, the content can be tailored to your specific situation. Please ask <u>Sarah Knight</u> for more details about In-house programs – typically for 10 participants or more – or if you want to participate with a smaller group. Attractive reduced fees may apply.

For more information and registration, see our website.



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MOMi Business Consultancy: Control the Business Change Cycle



MOMi Education: A Comprehensive Set of Programs

- Smart Manufacturing and Industry 4.0 strategy
- MES/MOM for Executives

Manufacturing MaturityBusiness and IT Alignment

• MOM Centre of Excellence

• Business Case



- MOM related ISA Standards
- Cyber Security
- MESA MES/MOM Global

- Metrics Framework
- Continuous Improvement