

January 14, 2022

We are not back to normal ... yet!

Time is flying and we are already half-way the first month of the new year. We hope you had a good start. Of course, we want to get back to a more normal situation with less impact of COVID-19 as soon as possible. Right now, with the very active Omicron variant we have to be patient and continue to work online as much as possible.

Therefore, MOMi is not yet offering classroom education programs, with the exception of some in-house trainings if the situation and regulations allow. Recently, we have added all the public education programs scheduled for next year to the Event Calendar on our website.

In every Newsletter, we highlight and explore in more detail one of our training programs and workshops. In this edition, the Training in Focus is 'Smart MES/MOM' which combines elements of two other popular programs: "MES/MOM: All You Need to Know!" and "Smart Manufacturing and Industry 4.0 Strategies".

We also lift a corner of the veil of the renewed Global Education Program "MES/MOM Methodologies" from MESA International. After 11 years, in which continuously (small) changes and improvements were made, the program has gotten a major upgrade. Read about the most important changes on page 3.

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



The entire MOMi team wishes you a very Happy Healthy and Prosperous 2022!

Jan Snoeij, President

What Our Customers Say

"From the feedback we received I also think that everybody enjoyed the $2\frac{1}{2}$ day training and really could see a benefit in it. Many thanks for that. Doing that online would have been impossible, or at least not even half as effective, I think."

Matthias Kratz, Head of Manufacturing IT, Robal AG Classroom tailor-made program, November 2021

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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NEWS: MESA Africa Year End Summit

November 17-18, 2021 – MESA Africa held its successful Year End Summit "The Art of the Possible: Manufacturing Without Limits".

In his key note at this hybrid event, MOMi president and senior consultant Jan Snoeij shared some observations for manufacturers in these challenging times.

Summarizing Jan concluded:

- Manufacturing is not just about plants, but also includes end-to-end supply chains and the entire product lifecycles.
- Perfect order delivery asks for visibility and transparency and requires consistent and timely information.
- Collaboration in our factories and with our supply chain and product lifecycle partners is key!
- Advanced technologies and methodologies will help to become less dependent on our resources and more agile. It enhances our workers' skills and offer tools for further improvement.
- Characteristics of best-in-class: standardize and digitalize and apply an holistic approach in line with your strategy.
- Don't forget about your people. They make the difference!

Donna Slater from Creamer Media published in Engineering News a summery of Jan's presentation: "Manufacturers need to innovate to survive in post-Covid-19 environment".

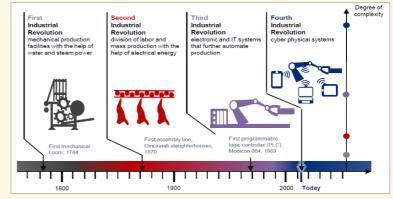
Want to know more? Just contact us.

MOMi Education in Focus: Smart MES/MOM

Talk of the Fourth Industrial Revolution, Internet of Things, Digital Twin and Threads, Big Data Analytics, Smart Factories, ... is all very exciting. But how does that work and how to apply these advanced technologies successfully?

Every industrial revolution is built on a solid foundation of the previous one. The fourth industrial revolution – Smart Manufacturing and Industry 4.0 – need a mature Industry 3.0 basis: MES and MOM.

In this program, together we answer some key questions with respect to the deployment of MES/MOM as a (next) step towards Smart



Manufacturing (Industry 4.0). Based on practical examples and our imagination, we will explore what 'Smart' means in your own manufacturing operations and determine how ready you are.





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NEWS: MESA GEP MES/MOM Methodologies Renewed

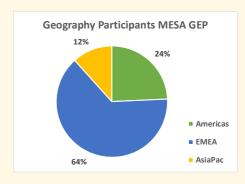
A little bit history first ...

On February 28 – March 1, 2011 the first MESA Global Education Program (GEP) "MES/MOM Methodologies" was delivered to a group of 12 participants by MESA Authorized instructors Alain Plasschaert and Jan Snoeij. The GEP comprises three programs:

- MES/MOM Methodologies Certificate of Awareness (CoA01)
 - o a program of two days classroom or three 4-hour online sessions.
- MES/MOM Methodologies Certificate of Competency (CoC01)
 - o a program of four days classroom or five 5-hour online sessions.
- B2MML & Integration Fundamentals Certificate of Competency (CoC02)
 - o a program of one day classroom or two 4-hour online sessions.

Till the end of last year, the GEP attracted 1777 participants for the three programs of which the MES/MOM CoC was most popular (70%) followed by the MES/MOM CoA (28%). The B2MML & Integration program had not that many participants. However in 2020, 23% of all participants attended this course.

The graph at the right shows that nearly two-third of the participants came from the Europe, Middle East and Africa region and about one quarter from the Americas.



Major overhaul of the MES/MOM CoC program ...

In the 11 years of this GEP program continuously (small) changes and improvements were made. The most important changes are:

- In the renewed version, a special introduction course is added with actual trends and observations in manufacturing and MES/MOM, which serves as a basis for all other courses in the program.
- Another foundational element is the course about standards. In this part, there is more explicit
 focus on MES/MOM and all information is up-to-date with the latest versions of them. Next to
 this, a special course on Smart Manufacturing and Industry 4.0 has been added, including a wide
 range of advanced technologies and the explanation how MES/MOM forms the foundation for
 leveraging these technologies successfully. The course about solution architecture now also
 comprises the modern standards like Reference Architectural Model Industrie 4.0 (RAMI4.0)
 and Industrial Internet Reference Architecture (IIRA).
- More time will be spend on "Manufacturing Maturity" as a facts based approach for creating roadmaps toward a future improved situation: assessment – analysis – plan to improvement.
- More explicit attention for Manufacturing Master Data Management, because this is a
 prerequisite for a adequate response to the increasing dynamics of the demand and also for
 Smart Manufacturing.
- Justification of the investment in MES/MOM and smart manufacturing initiatives (ROI) remains important. Explicit examples of successful cases are added, including best practices how to find the benefits.



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In general all courses will have more pragmatic examples and more answers to "How to ..." questions.

Each course still comes with test questions to be answered during and after the program, which need to be done with good result (85% score for each course) to obtain the valuable MESA certificate. Next to this, interactive elements as exercises and assignments are included in the renewed program.

The courses are designed to be delivered in both classroom and online. More details will be published soon on the websites from MESA International and MOMi.



Roll-out ...

February 21, 2022 the renewed "MES/MOM Methodologies CoC" program will be delivered online as a pilot. After an analysis, the program will be finalized and provided according to the published schedule. The CoA version will be renewed afterr the launch of the CoC program. It is expected to become available in May 2022.

The "B2MML & Integration Fundamentals" program has already been revised last year.

REVIEW: IT/OT Convergence is not just about Technology (webinar)

November 25, MOMi hosted our final webinar of the year. Presented by President and Senior Business Consultant Jan Snoeij, we delved into the world of IT OT Convergence. A subject that needs some time and effort put into it if our customers want to move effortlessly into the world of Smart Manufacturing.

The truth is all these new ways of thinking and working still revolve around the basic principles of manufacturing, taking raw materials and turning them in to valuable products. How the way in which we do this is changing, and this is where the discussion of IT OT convergence becomes essential. Over a 30-minute session, Jan looked at the differences of IT and OT, explored the challenges of brining these two very separate worlds together and how to change the way in which our people think.



The webinar raised questions such as,

- Has the Internet of Things (IOT) changed how IT/OT convergence occurs? Will the IoT eliminate this challenge?
- Our resources are stretched, where should we start? IT? OT? If we can't focus of both simultaneously.
- What's the typical timeframe of defining a team and kicking off an IT/OT alignment project?
- Is a Center of Excellence (COE) the best approach to measuring the success of an IT/OT project?

You can listen back to the webinar and the answers to the questions here.



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Discover your (financial) Potential and Plan it in a Roadmap

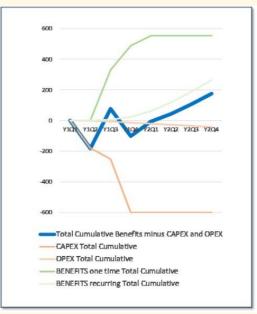
Manufacturers that consider IT improvement projects in their manufacturing operations, digital manufacturing, or industry 4.0 transformation, will come across the questions of what investments will be required and what will be the value or benefit of each step. Ultimately answering the question when will we have our payback?

With services like "Discover your potential" our MOMi business consultants can help to identify improvement potential of the shopfloor operations and translate that potential into supported estimates for valued KPI improvements. With the estimates MOMi will chart out and evaluate financial scenarios:

- Expected one-time and recurring value of planned project steps
- Budgeted project investments and cost
- Timing / expected duration of projects

This helps to answer scenario questions, like:

- Which sequence of projects gives us the fastest payback? Or
- When can we expect break-even if we plan in a realistic pace?



The picture illustrates a real case with a series of ten project steps, each with their specific budgeted one-time investment and recurring cost, and one-time and recurring benefits. Done in sequence the timeline calculates in this example a break-even in just under 1.5 years.

PREVIEW: Shopfloor User Management

Earlier this month, senior business consultant Mathijs Philips wrote a nice article about shopfloor user management:

Many new IT systems on the manufacturing shopfloor require a login from a named user, often for good reasons for example:

- Security: "Is the system operated by a known user?"
- Role-based authorizations: "Is the user authorized to approve the batch and close the order?"
- Audit trail requirements: to record what happened and who performed which transaction.



The effect of using personal user accounts on the shopfloor is easily underestimated. ... Download this article and read more here.



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Training Schedule



Join Our Online Education

Program	Days	Start date	Location	Price (€)
Smart MES/MOM	2	2022-01-19	Online (14:00 – 18:00 CET)	1.595
MESA MES/MOM Certificate of Awareness (CoA01)	3	2022-01-25	Online (14:00 – 19:00 CET / 08:00 – 13:00 EST)	2.395
Smart Manufacturing and Industry 4.0 Strategies	3	2022-02-08	Online (09:00 - 13:00 CET)	1.595
Cybersecurity for Manufacturing	2	2022-02-16	Online (13:00 - 17:00 CET)	895
MESA MES/MOM Certificate of Competency (CoC01)	5	2022-02-21	Online (14:00 – 19:00 CET / 08:00 – 13:00 EST)	3.950
MESA MES/MOM Certificate of Competency (CoC01) in French	5	2022-03-08	Insavalor – Lyon (F)	3.950
Serialization in Manufacturing	2	2022-03-09	Online (14:00 - 18:00 CET)	895
MESA B2MML & Integration Fundamentals (CoC02))	2	2022-03-16	Online (14:00 – 18:00)	1.995
MES/MOM: All You Need to Know!	3	2022-03-22	Online (13:00 - 17:00)	1.595
Applying ISA-95: All You Need to Know!	4	2022-04-5	Online (14:00 – 18:00 CET / 08:00 – 12:00 EST)	2.150

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 8 participants or more – or if you want to participate with a smaller group. Attractive reduced fees may apply.

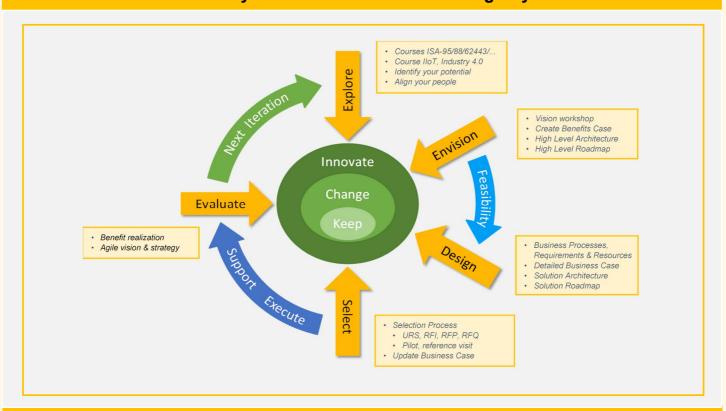
For more information and registration, see our <u>website</u>.





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MOMi Business Consultancy: Control the Business Change Cycle



MOMi Education: A Comprehensive Set of Programs

