



## Welcome to our Newsletter

The end of year is here (or nearly) and the team at MOMi have enjoyed a busy year with our customers.

Throughout 2024 the team at MOMi have continued to support our customers through business consultancy services and independent manufacturing education.

This year MOMi celebrated 10 years in business and 10 years in partnership with MESA International. Our customers continue to find benefit in attending our manufacturing education. Business Consultancy is growing year on year, being able to support our customers through the changes in manufacturing is something we as a team are always proud of.

As always if the team at MOMi can support your manufacturing requirements, please reach out to either myself, [Gerard Ipskamp](#) or [Mathijs Philips](#).

We would like to take this opportunity to wish our customers a relaxing festive period and a happy healthy 2025. We look forward to continuing to support your business needs.

**Sarah Knight**

**MOMi Team Lead; Global Education Program Manager**

[Sarah.Knight@mom-institute.org](mailto:Sarah.Knight@mom-institute.org).

## About MOMi

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

MOMi offers independent 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 Digital Transformation.

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](http://www.mom-institute.org)

## Latest News

### White Paper – Getting Ready for Next Level Manufacturing Operations with AI

By Mathijs Philips

Talk about AI is all over the place, developing with tremendous speed, showing us good suggestions, new ideas, creativity, new insights and predictions.

So: Where can AI help in the Manufacturing Operations Management domain?

In MOMi's whitepaper on AI in manufacturing you can explore valuable use cases of AI in manufacturing operations today: where is AI applied and where does it bring value? And this is already an interesting point: various other technology introductions have been hyped in the past years, and not all of them bring valuable use cases forward.

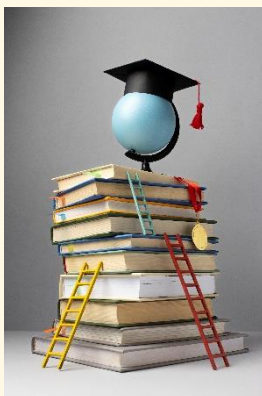
On the other hand, the white paper explores the prerequisites, the fundamentals, for AI to be successful in the MOM domain. The summary:

- Take care of your data and organise it;
- Consider where you will find AI solutions in the IT landscape for manufacturing;
- Consider your manufacturing maturity, assessing: where are we now, what do we need as a next step, and how can AI help?
- Support the organisation and culture change becoming more data-oriented.

Download the whitepaper here (<http://www.mom-institute.org>), or contact MOMi here ([mathijs.philips@mom-institute.org](mailto:mathijs.philips@mom-institute.org)) for questions, plan a meeting, or follow up.



## MESA Global Education Refresher Program



Over the past 12 years MESA Internationals Global Education Program (GEP) has been industry's leading independent manufacturing education. The go-to place for manufacturers to learn how to get the most out of manufacturing systems, providing foundational knowledge to educate the manufacturing industry on MES and MOM systems.

Developed by industry leaders the MESA GEP has educated in excess of 1200 people. During 2022 MOMi MESA Approved Instructors Gerard Ipskamp and Jan Snoeij set about the task of updating the course materials for both the Certificate of Competency and Certificate of Awareness with the latest in industry technology and trends.

To support this update of the courses two new refresher courses have launched to support those former attendees of the both the MESA CoC and CoA to update their education. Discover how both the MESA CoC refresher and MESA CoA refresher can bring your MES/MOM knowledge back up to speed. Click the links below ↓↓↓

[MESA MES/MOM Certificate of Awareness Refresher](#)

[MESA MES/MOM Certificate of Competency Refresher](#)

## MOMi Education in Focus

### ISA-95: The best education on standard for manufacturing

By Principal Instructor Gerard Ipskamp

MOMi created its ISA-95 education to support the different levels of the organization. These education courses are available over 5 different durations, (2-hour, 4-hour, 8-hour, 16-hour, and 24-hour), with differences in content and depth of coverage. This way we can serve different audiences in a manufacturing organization, each with their own needs for level of detail, corresponding to the roles.

#### 2-Hour course

Target roles:

- Executives and senior management: CEOs, CFOs, COOs, and other high-level executives who need a basic understanding of ISA-95 to make informed strategic decisions.
- Sales and marketing teams: To understand the implications of ISA-95 on product offerings and customer communication.

#### 4-Hour course

Target roles:

- Middle management: Plant managers, production managers, and other mid-level managers who require a slightly more detailed understanding to oversee implementation projects.
- IT managers and staff: IT professionals who need to understand the standard for system integration.

#### 8-Hour Course

Target Roles:

- Project managers: Those responsible for planning and overseeing ISA-95 implementation projects.
- Process- and application owners
- System Integrators and solution architects: Professionals designing and integrating ISA-95 compliant systems.

## 16-Hour Course

### Target Roles:

- Technical leads and engineers: Automation engineers, process engineers, and control engineers who will be directly involved in the technical aspects of implementation.
- Advanced IT and MES professionals: Professionals focused on Manufacturing Execution Systems (MES) and detailed IT integration.
- BI and reporting specialists. Data scientists. AI and ML specialists

## 24-Hour Course

### Target Roles:

- Subject Matter Experts (SMEs): Professionals who will become the in-house experts and trainers on ISA-95.
- Data/information architects.
- Comprehensive project teams: Complete project teams responsible for major ISA-95 implementations, including all roles mentioned in the 8-hour and 16-hour courses.

By tailoring the course duration and content to the specific needs and responsibilities of different roles within a manufacturing organization, you can ensure that each group receives the most relevant and effective training.

## Business Consultancy in Focus

### ISA-95: the standard that drives integration and efficiency in manufacturing



The ISA-95 standard, also known as IEC/ISO 62264 and titled “Enterprise – Control System Integration,” establishes an information model that defines the interfaces between control functions and enterprise functions. It includes standardized terminology and a consistent set of concepts and models, making it easier to integrate business and manufacturing operations.

ISA-95 models specify the information exchange requirements between systems for finance, logistics, production, maintenance, inventory, and quality. This standard serves various purposes, such as guiding the definition of user requirements, and assisting in the selection of Manufacturing Operations Management (MOM) suppliers.

With the rise of Industry 4.0, where new technologies frequently make older ones obsolete, ISA-95 remains highly relevant. Unlike technology itself, which constantly evolves, ISA-95 offers a stable framework that continues to drive manufacturing forward. It is important to understand that an information model is not the same as infrastructure or protocol; while the model defines the information (e.g., materials to be processed or shipped), the infrastructure and protocols are the means to transport that information. ISA-95 ensures clarity, structure, and consistency in manufacturing information, regardless of the technology being used, making it a technology-agnostic standard. Additionally, the ISA95 standard is a good help to keep IT solutions, connections and databases structured in the manufacturing operations domain. And by doing so, avoid a spaghetti of point solutions, all interfaced differently to each other.

#### Role of the ISA-95 activity model

A core component of the ISA-95 standard is its **activity model**, which provides a structured framework for defining and organizing the interactions between business and manufacturing systems. The activity model describes different levels of manufacturing operations and how they interact with business processes. It enables you to categorize activities into various layers and map to IT solutions.

For example, the activity model can be used to understand how production orders from an ERP system translate into detailed shop floor schedules in an MES. By breaking down these activities, manufacturers can clearly identify the flow of information between departments like logistics and production, ensuring that systems are integrated efficiently.

## Use of use cases in gathering and organizing requirements

The ISA-95 standard is also effective when using **Use Cases** for gathering and organizing requirements. Use Cases provide real-world scenarios that help stakeholders, such as production managers and IT teams, understand the specific functional requirements for system integration. It needs to be said that when using the activity model for describing the (critical) requirements for a use case, you need to add additional more (detailed) requirements.

By using use cases, manufacturers can:

### Clarify Functional Requirements

- Use Cases allow teams to model scenarios, such as how a production order is processed from ERP to MES, or how quality control data is fed back into production planning. This helps in identifying and documenting detailed functional requirements for each system.

### Ensure Stakeholder Alignment

- Different departments, such as production, quality, and logistics, can contribute their perspective to Use Cases. This ensures that the final solution meets the needs of all stakeholders. For example, a use case might describe how production schedules are impacted by unexpected downtime, leading to the requirement for real-time machine status data integration.

### Streamline Communication

- Use Cases act as a common language between technical and non-technical stakeholders. This simplifies the communication of needs and ensures that everyone is on the same page when discussing how systems should interact.

## Key Benefits of ISA-95 in Manufacturing

**Standardized messaging:** ISA-95 improves communication between various departments in manufacturing, such as production, logistics, and quality, by standardizing the language and data exchange. For example, using Business to Manufacturing Markup Language (B2MML), companies can standardize message formats between ERP and MES systems, ensuring consistent interpretation of production orders, inventory data, and scheduling across different platforms.

**Clear user requirements:** The ISA-95 activity model, combined with use cases, provides a structured approach to defining user requirements. A manufacturing company implementing a MES, for instance, can use ISA-95 to define functional requirements for tracking production orders, ensuring a smooth integration between finance and production operations.

**Cost reduction:** By standardizing information exchange through B2MML, ISA-95 helps reduce costs related to automation in manufacturing. For example, a plant that integrates an automated

material handling system can easily connect it with existing systems for inventory and production planning, avoiding custom interfaces and reducing rework costs.

**Reduced engineering efforts:** ISA-95 reduces lifecycle engineering efforts by providing a consistent model for system integration. A global manufacturer can roll out the same system integration across multiple locations, using ISA-95 to standardize performance monitoring and reporting, significantly reducing the time and effort to create custom solutions for each site.

**Operational Maturity and Standardized Messaging:** ISA-95 promotes operational maturity by enabling standardized messaging through B2MML. As manufacturing companies grow and adopt new technologies, such as IoT devices and advanced sensors, ISA-95 ensures that modern systems integrate seamlessly with older, legacy MES and ERP systems. For example, a factory using IoT sensors to monitor machine performance can easily feed this data into enterprise systems in real time. This enhances decision-making and overall operational efficiency.

For nearly two decades, ISA-95 has improved communication between stakeholders, helped companies clearly define their needs through structured activities and use cases, reduced automation costs, minimized engineering efforts, and promoted operational maturity through standardized messaging. Its continued relevance ensures that manufacturers will benefit from it as well into the future.

## Business Consultancy case: Find the way to digital with an industrial equipment manufacturer

### Senior Business Consultancy – Mathijs Philips

“We are looking for Digitalization in Manufacturing, but we don’t know where to start”. That was one of the starting points for an industrial equipment manufacturer to contact MOMi and ask for business consultancy support. And after getting connected, digging deeper, having interviews, site visits, shopfloor tours, MOMi has been helping out to find the road to Digital. Some topics that have been on the table in this case to find the right direction:



**Manufacturing maturity** deserves attention to find the right starting point. Understanding where a manufacturing organization is, what level of organization and control is present today, the stronger and weaker points of current operations, and what is needed for one level up tomorrow?

**Value** cannot be overlooked. Value is not just a number to justify a budget, it is more about a common understanding of what should be expected from all the effort that needs to be put into digitalization of manufacturing. What do we expect to come out of it, that makes life easier, performance better? How can we explain in a one-liner why we make all the effort?

**IT applications landscape:** in its core, digital manufacturing is about business, shopfloor performance and result. But there is no digital without IT. So understanding is important of which IT solutions are on the shop floor already, where is the pen and paper, excel and machine

connections. How does the current Manufacturing Operations Application landscape look like, and where are the gaps, which solutions can fit in sustainably?

**Change and support:** Change in working processes and responsibilities will be inevitable, and not exploring this change will make it hard to build up support and enthusiasm. And the contrary is true as well: with a clear picture of what can or should change, it is easier to get enthusiastic and behind plans.

So, with addressing these subjects, sharing expertise and bringing in learnings from practice, the road to digital manufacturing becomes clear and concrete.

If your organization is contemplating digitalization in manufacturing, we are here to help you assess, plan, and execute a strategy that aligns with your unique needs. Reach out to connect, [schedule a free online meeting with this link](#).

## What our Customers Say...



### Royal Swinkels

#### Master data Quality and PLM/LIMS selection (2024)

*"MOMi has been fantastic in helping us select both a PLM and LIMS system. Thanks to their expertise and guidance, the entire process was very structured and efficient. Gerard Ipskamp, with his expertise and sharp insights, guided us through the entire selection process and ultimately helped us make an informed decision.*

*Thanks to MOMi, we were able to select the right suppliers within a short period of time. Their approach was professional and goal-oriented, and with their guidance, we were able to identify the best options for our organization.*

*We are very pleased with our collaboration with MOMi and Gerard Ipskamp and would definitely recommend them to other companies looking for a PLM or LIMS system. MOMi helped us in making this important decision, and we are confident that with their help, we made good choices."*

**Marye Klaasen; Head of QESH; Swinkels**

#### Komatsu MES Selection (2024)

*"Our engagement with MOMi proved to be more valuable than anticipated as they not only facilitated our internal assessment of manufacturing maturity and value areas, but also provided industry expertise and best practices for future steps into digital manufacturing."*

**Kyle Melat, Business Transformation Velocity Manager, Komatsu**



## Education Schedule

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.

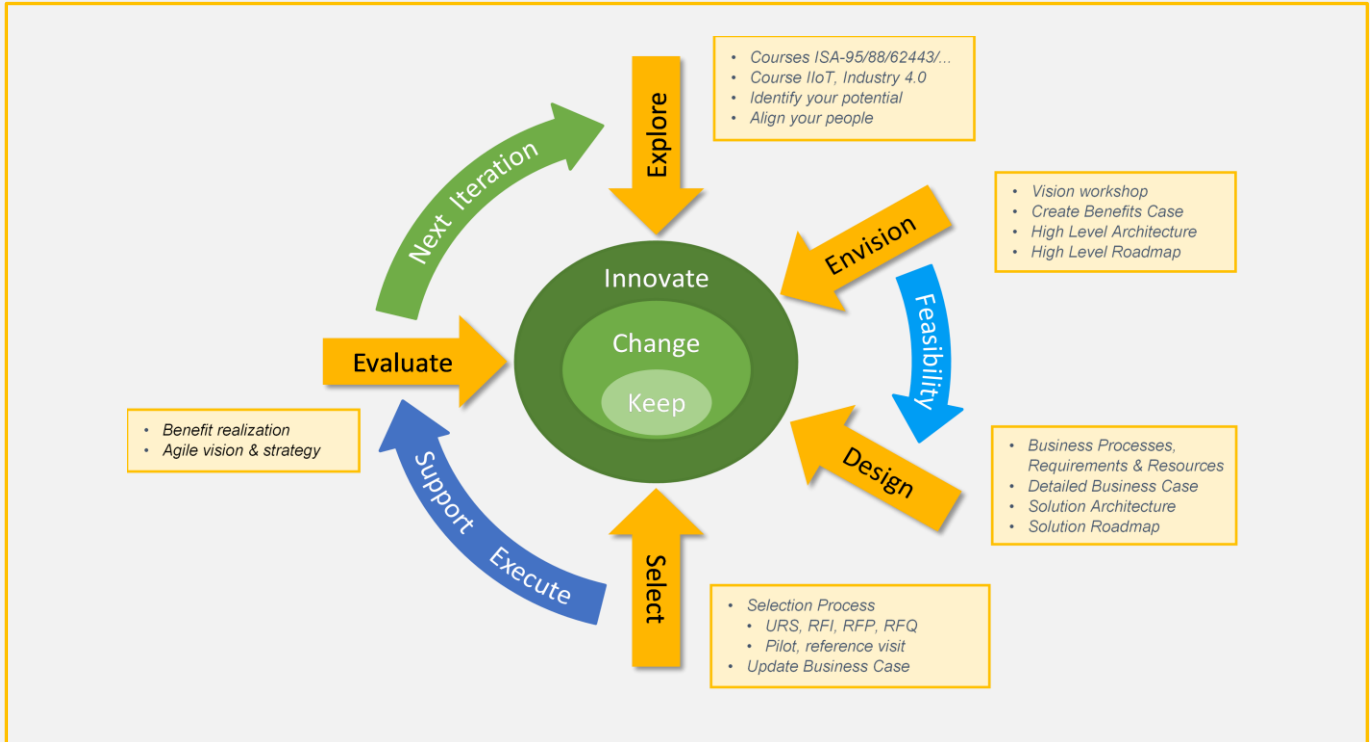
Please ask [Sarah Knight](#) for more details about In-house programs, for 10 participants or more, or if you want to participate with a smaller group. Attractive reduced fees may apply.



For more information and registration, see our [website](#).

Course Name	Days	Start Date	Location	Price	Register
<a href="#">MESA MES/MOM Certificate of Awareness (CoA01)</a>	3	January 15, 2025	Online (14:00 - 19:00 CET / 08:00 - 13:00 EDT)	2450	<a href="#">Registration</a>
<a href="#">MESA MES/MOM Certificate of Competency (CoC01)</a>	5	January 20, 2025	Online (14:00 - 19:00 CET / 08:00 - 13:00 EDT)	4000	<a href="#">Registration</a>
<a href="#">IT/OT Convergence for a Connected Factory</a>	2	February 6, 2025	Online (14:00 - 18:00 CET / 08:00 - 12:00 EDT)	1120	<a href="#">Registration</a>
<a href="#">MESA Certificate of Awareness Refresher – CoAR1</a>	2	March 10, 2025	Online (14:00 - 18:00 CET / 08:00 - 12:00 EDT)	1200	<a href="#">Registration</a>
<a href="#">MESA Certificate of Competency Refresher - CoCR2</a>	3	March 12, 2025	Online (14:00 - 19:00 CET / 08:00 - 13:00 EDT)	2000	<a href="#">Registration</a>
<a href="#">MESA MES/MOM Certificate of Awareness (CoA01)</a>	3	March 18, 2025	Online - In French - (10:00 - 16:00 CET)	2450	<a href="#">Registration</a>
<a href="#">MESA MES/MOM Certificate of Awareness (CoA01)</a>	3	March 18, 2025	Online - US Time Zone (10:00 - 16:00 EDT)	2735	<a href="#">Registration</a>
<a href="#">Applying ISA-95 for Operations</a>	2	April 1, 2025	Online (14:00 - 18:00 CET / 08:00 - 12:00 EDT)	1120	<a href="#">Registration</a>
<a href="#">Business Case to Justify MOM Investments</a>	2	April 3, 2025	Online (14:00 - 18:00 CET / 08:00 - 12:00 EST)	1120	<a href="#">Registration</a>
<a href="#">MESA MES/MOM Certificate of Competency (CoC01)</a>	5	April 7, 2025	Online - US Time Zone (11:00 - 16:00 EDT)	4465	<a href="#">Registration</a>

## MOMi Business Consultancy: Control the Business Change Cycle



## MOMi Education: A Comprehensive Set of Programs

