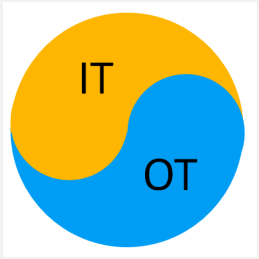
MOMi 4th Industrial Revolution

Manufacturing Operations Management Institute

An ***Expert*** Division of ATS Global

IT/OT Convergence for a Connected Factory (MA041)



In 2017, Gartner said *"The rising interest in the Internet of Things (IoT) and digital business transformation means that new opportunities will emerge and associated risks will need to be mitigated. Doing so will involve high levels of cooperation between IT and the groups managing the operational technology (OT) monitoring or controlling the physical devices and processes in the enterprise."*
Therefore, IT leaders (CIO) need to prepare for the transition of their organizations to the converging, aligning and integrating of IT and OT environments. This is the cornerstone of using Industry 4.0, the industrial Internet, (I)IoT and cyber-physical systems with maximized benefit.

Convergence of Information Technology (IT) and Operations Technology (OT) is often a challenge. It is not just a challenge because of new and exciting technologies but also because of new ways of thinking. This tends to be even a bigger challenge when two different worlds, that have worked separately and with completely different systems, technologies and vendors, must integrate in the context of IIoT and the Industrial Internet.

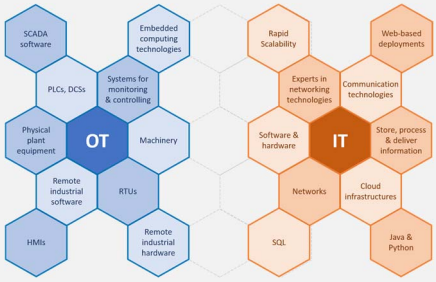
In this comprehensive non-technical workshop, the participant will be presented with background on the IT/OT convergence challenge. We will then discuss the reasons why it is a must for organization. Throughout the workshop related subjects will be explained, like Smart manufacturing & Industry 4.0, (I)IoT, cyber-physical systems, cyber-security and standardization (ISA-95), as these are part of the reason why this convergence is a must.

Finally, the Center of Excellence (CoE) concept will be introduced. This will include the needed governance structure. Case studies following journey of other companies will be presented and discussed.

This program is delivered as a one-day workshop (classroom) or as 2 four-hour sessions (online).

Agenda

- Introduction
- IT and OT: What are the differences?
- IT and OT combining convergence and the business together
- Governance and Center of Excellence (CoE)
- Some examples)
- Conclusions



Price and Schedule

Registration Fee: EUR 895

Schedule: see www.mom-institute.org or ask Sarah Knight (sara.knight@mom-institute.org).

Vision

MOMi's vision is to support manufacturers embarking on manufacturing excellence programs, MES/MOM deployment and the transition to the 4th Industrial Revolution.

MOMi offers best-practice education and business consultancy services to support the full change cycle from awareness and feasibility to continuous improvement initiatives in a dynamic operations environment.

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

Our experience, your success

MOMi's Instructors

Thought Leaders in Manufacturing Operations

- MOMi's team of instructors has extensive experience in manufacturing and education. The instructors are also excellent business consultants.
- MOMi's education services comprise a large number of standard courses and workshops on relevant topics.
- Programs are delivered as public sessions as well as in-house. In the last case, the content can be tailored to your specific situation.
- MOMi's education programs and workshops are delivered by independent, professional instructors.

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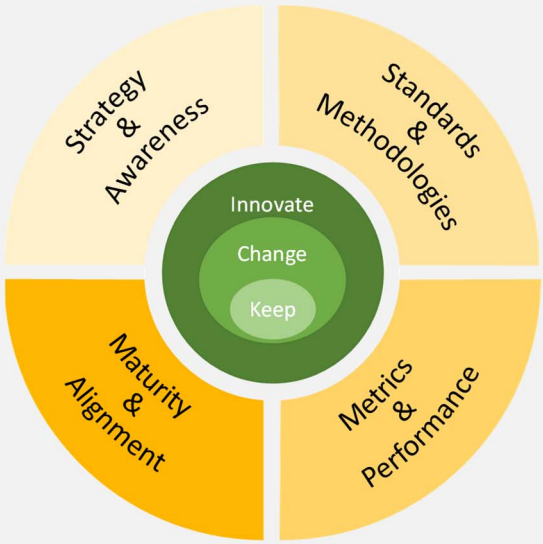
MOMi Education: A Comprehensive Set of Programs

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



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

- Manufacturing Maturity
- Business and IT Alignment
- MOM Centre of Excellence

- Metrics Framework
- Continuous Improvement

Strategy & Awareness

- Smart Manufacturing & Industry 4.0 Strategy
  In this workshop, practical, deployable smart manufacturing strategies are discussed and the vision of Smart Manufacturing and Industry 4.0 examined. Based on considered Smart Strategies to start implementing the vision, the participants walk away with a plan of action to deliver that most valuable of commodities.
- MES/MOM for Executives
  The MES/MOM for Executives provides an independent view of MES/MOM and the benefits and pitfalls for manufacturers.
- Business Case
  This workshop provides practical approaches to identify the key business elements and risks and to justify MES/MOM projects. The participants gain experience in quantifying the potential benefits from exercises based on real cases.

Standards & Methodologies

- MOM related ISA Standards (e.g. ISA-95, ISA-88)
  These courses define approaches to integrating manufacturing systems with enterprise business systems, other manufacturing systems and automation & control systems. Models are presented to standardize manufacturing processes and activities.
- Cyber Security
  This course is based on the ISA/IEC-62443 (ISA-99) standard: Security for industrial automation and control systems. An approach is presented to implement security effectively and efficiently in manufacturing and automation & control systems. Program and processes of a cyber security management system to sustain security are discussed and trained through exercises.
- MESA MES/MOM Global Education Program
  The MES/MOM Methodologies program instructs manufacturers, producers and solution providers on how to marry the power of modern Information Technologies (IT) and the process / project rigor to implement them with your operational expertise to unlock the potential within your operations.

Metrics & Performance

- Metrics Framework
  This interactive workshop provides insight in how to define an appropriate metrics framework to monitor key aspects of manufacturing performance to drive improved real-time decision making. This includes strategic, tactical and operational aspects of manufacturing operations. The participants are trained in defining/selecting the relevant metrics in real cases and construct the metrics structure via a top-down and bottom-up approach. The Metrics Maturity Model is introduced as a guide for performance assessment.
- Continuous Improvement
  These Continuous Improvement workshops provides understanding of the various methodologies and when and how to apply them in manufacturing.
  - Introduction of Lean Manufacturing, Kaizen and Six Sigma
  - Variability Reduction and Standardization
  - Continuous Improvement in Manufacturing
  - DMAIC process

Maturity & Alignment

- Manufacturing Maturity
  This workshop introduces the concept of the manufacturing maturity model to align the operational processes, the organization, the people's skill sets and the enabling and supporting technologies (IT). The ISA-95 Activity Model is used as a tool to determine the level of an organization's capability to have mature, robust and repeatable manufacturing operations.
- Business and IT Alignment
  Alignment of Business and IT is a prerequisite for improving manufacturing maturity. The participants learn to assess and to create a step-by-step approach to enhance this alignment. Aspects included are business strategy, IT strategy, organizational and infrastructural processes and IT infrastructure and processes.
- MOM Centre of Excellence
  Successful execution of a manufacturing transformation strategy to increase their manufacturing maturity requires re-organization and alignment of corporate IT and manufacturing engineering priorities. The participants learn how to setup a MOM Centre of Excellence team that can bridge the gaps between the corporate enterprise and the local plants and connect manufacturing and IT in order to increase the manufacturing maturity and therefore the company's performance.

MA041 – October 28, 2021

www.mom-institute.org

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