WEEK AT A GLANCE





TUESDAY, NOVEMBER 5			WEDNESDAY, NOVEMBER 6					THURSDAY, NOVEMBER 7	
8:00		8:00	RE	EGISTRATION / BF	REAKFAST / COFF	AKFAST / COFFEE 8:0		REGISTRATION / BREAKFAST / COFFEE	
8:30	REGISTRATION INVITE ONLY International Manufacturing-X Meeting Building: MDF Room: 112AB	8:30	•		•		8:30	000	
9:00		9:00	WORKSHOP The Evolution of SM Architecture & Technologies: Compliance with Open Architectures & Open Specifications Building: MDF Room: 112A		WORKSHOP Smart Manufacturing — Why It Matters and How to Achieve It Building: MDF Room: 112C		9:00	KEYNOTE WITH Q&A CESMII 2.0: A Vision of Growth & Accelerated Adoption	
9:30		9:30					9:30	of Smart Manufacturing in the U.S.	
10:00		10:00					10:00	Building: MDF Room: 112ABC	
10:30		10:30					10:30		
11:00		11:00					10:50	BREAK	
11:30		11:30	LUNCH				11:30	EXECUTIVE LYMPE	
12:00		12:00					12:00		
12:30		12:30		BREAK			12:30	Building: MDF Room: 112ABC	
1:00	INVITE ONLY International Manufacturing-X Meeting Continued Building: MDF Room: 112AB	1:00	INVITE ONLY Smart Manufacturing Executive Council Meeting Building: 5600 Room: H308	Building: MDF Room: 112A Meet in MDF Lobb			1:00	LUNCH	
1:30		1:30				Manufacturing Demonstration Facility (MDF) Meet in MDF Lobby	1:30		
2:00		2:00					2:15	BREAKOUT SESSION SM Architecture Essentials, Supporting Manufacturers on their SM for Energy Productivity and	
2:30		2:30		O TOUR 2 Manufacturing Demonstration Facility (MDF) Meet in MDF Lobby		WORKSHOP Highlighting CESMII Project Success Stories Building: MDF Room: 112C	3:15	Upen Specifications, Sri Journey – Strategies, 100is, Clean Energy Industries	
3:00		3:00						Building: MDF Room: 112A Building: MDF Room: 112B Building: MDF Room: 112C	
3:30		3:30					3:30	BREAKOUT SESSION Smart Manufacturing in Action: BREAKOUT SESSION BREAKOUT SESSION BREAKOUT SESSION	
4:00		4:00		DRIVE TIME		4:30	Industry Examples - Shaping the Future of SM for Integrated Reducing Cost & Complexity Smart Manufacturing Talent Supply Chains with SMMs		
4:30		4:30	BREAK		(SHUTTLES	(SHUTTLES PROVIDED)		Building: MDF Room: 112A Building: MDF Room: 112B Building: MDF Room: 112C	
5:00	BREAK	5:00	WELCOME RECEPTION Member Expo • Cocktails • Hors d'oeuvres Building: 5700 Room: Court of Flags				4:45	OOO CLOSING STATEMENTS	
6:00	- BILAIT	6:00					5:30		
7:00	INVITE ONLY DINNER	7:00						INVITE ONLY	
8:00		8:00					7:00	Oct in Board Needing & Working Britise	

BACK TO AGENDA



WEDNESDAY, NOVEMBER 6TH

8:30a-11:30a | MDF 112A | TRACK 2 • WORKSHOP

The Evolution of SM Architecture & Technologies:

Compliance with Open Architectures & Open Specifications

Discover how SM Profiles create an interoperability-enabled architecture for manufacturing systems, facilitating strategic solutions development and seamless data normalization across various sources. Learn the benefits of a graph-based approach to information modeling, enabling significant analytical capabilities and insights. Explore the value of a GraphQL API for modernizing application development by abstracting the complexities of disparate plant floor data sources. Understand the role of advanced manufacturing systems modeling and supply chain data interchange in enhancing decision-making, optimization, and standards-based information exchange.

Speakers: <u>Jonathan Wise</u>, CESMII | <u>Doug Lawson</u>, ThinkIQ | <u>Rob Schoentaler</u>, ThinkIQ | <u>Steve Blackwell</u>, AWS <u>Erich Barnstedt</u>, Microsoft

8:30a-11:30a | MDF 112B | TRACK 1 • WORKSHOP

Smart Manufacturing — Why It Matters and How to Achieve It

In today's competitive landscape, Smart Manufacturing is no longer a luxury but a necessity for manufacturers. This session will demystify Smart Manufacturing, explaining why it matters and how it can revolutionize your business. We will explore how to bridge the gap between technology enablement and business strategy, creating new capabilities that seamlessly integrate people, processes, and technology.

Key topics include understanding the mindset and principles of Smart Manufacturing, synergies with Lean manufacturing, moving beyond traditional process control and dashboards, the vital OT-IT partnership, the role of Smart Manufacturing platforms, how to address workforce concerns, and embrace your suppliers as ecosystem partners.

Finally, we will guide you through the critical success areas, from assessing your current state and establishing a strategic vision to prioritizing quick wins and long-term plans. Join us to gain practical tactics and a clear roadmap for implementing Smart Manufacturing in your organization.

Speakers: Conrad Leiva, CESMII | Jim Wetzel, NxGen

11:30a-1:00p | OUTSIDE MAIN ENTRANCE (MDF) | ALL TRACKS Break / Lunch

12:30p-4:30p | Main Campus • Building: 5600 • Room: H30 | INVITE ONLY Smart Manufacturing Executive Council Meeting

This invite-only session will focus on the advancement & further development of a Smart Manufacturing playbook, emphasizing collaborative efforts and innovative strategies for the industry, and investigating synergies with the International Manufacturing-X Council.

Lunch will be provided from 12:00p-12:30p in Building: 5600 • Room: H30

Speakers: Smart Manufacturing Executive Council

1:00p-2:30p | MDF 112A | WORKSHOP

Panel and Discussion: Cross Agency Alignment and Support for MDF and CESMII Wednesday, November 6, 2024

Join us for a panel discussion and workshop to explore how the Manufacturing Demonstration Facility (MDF), and CESMII (The Smart Manufacturing Institute) can align with and leverage support from multiple government agencies to address manufacturing challenges through Smart Manufacturing technologies and education. MDF and CESMII will provide brief overviews of each organization's mission and how they complement one another. Leaders from DOE, NIST, DOD and NSF will provide their perspectives on collaboration and support opportunities for MDF and CESMII. The workshop will conclude by identifying actionable initiatives for future collaboration, aimed at driving Smart Manufacturing innovation to meet the evolving needs of the manufacturing sector.

Speakers: <u>Sudarsan Rachuri</u>, DOE | <u>Haresh Malkani</u>, CESMII | Leaders From Federal Funding Agencies

1:00p-2:30p & 2:30p-4:00p | MDF | Tour

Manufacturing Demonstration Facility (MDF) Tour

The Manufacturing Demonstration Facility (MDF) at Oak Ridge National Laboratory (ORNL) offers an innovative environment for advancing manufacturing technologies. The tour provides insights into state-of-the-art manufacturing processes, including additive manufacturing, carbon fiber technology, and energy-efficient production methods. Participants will see firsthand how MDF collaborates with industry, academia, and government to develop and scale up new manufacturing techniques - including a live implementation of the CESMII Smart Manufacturing Interoperability Platform. The facility emphasizes the integration of advanced materials, digital manufacturing, and sustainable practices, aiming to transform the manufacturing landscape and enhance competitiveness in various sectors.

BACK TO AGENDA



WEDNESDAY, NOVEMBER 6TH (CONTINUED...)

2:30p-4:00p | MDF 112B | TRACK 1 • WORKSHOP Highlighting CESMII Project Success Stories

This session will highlight successful SM implementations by CESMII project teams covering a variety of use cases across different industry verticals during the last 5+ years. This session will delve into how these organizations leveraged Smart Manufacturing technologies to achieve significant improvements in operational and energy productivity. Learn about the collaborative technical approach they took, the solutions they implemented, the measurable benefits they realized, the challenges they faced, and how these outcomes can be leveraged to enable success for your organization.

Speakers: Miquel Corcio, CESMII | Haresh Malkani, CESMII | Various Project Teams (TBD)

5:00p-8:00p | Main Campus • Building: 5700 • Room:Court of Flags Welcome Reception: Kickoff for CESMII 2024 Member Meeting

Join us for an exciting Welcome Reception to kick off the CESMII 2024 Member Meeting. This event will feature a warm welcome and an engaging presentation on the rich history of Oak Ridge National Laboratory (ORNL). Explore the CESMII Member Expo, where you can connect with exhibiting CESMII members while enjoying a night of cocktails, hors d'oeuvres and networking with industry leaders.

During the reception, attendees can participate in an exclusive tour of the <u>Hewlett Packard Enterprise Frontier</u>, or OLCF-5, the world's first exascale supercomputer. Frontier became operational in 2022 and, as of December 2023, is the world's fastest supercomputer.

Speakers: Department of Energy Leadership | ORNL Leadership | Exhibitors

Please note that shuttles will be provided to transport from MDF to Main Campus. More Information.

THURSDAY, NOVEMBER 7TH

8:30a-10:30p | MDF 112ABC | ALL TRACKS • KEYNOTE

CESMII 2.0, A Vision of Growth & Accelerated Adoption of Smart Manufacturing in the U.S.

Engaging our members in an important dialogue, we'll establish a clear vision on supporting U.S. manufacturing productivity and energy productivity objectives. As we transition from CESMII 1.0 to CESMII 2.0, we'll highlight our evolved mission and approach, detailing our updated roadmap, five-year plan, and essential funding. We'll discuss new playbooks for streamlined Smart Manufacturing, provide updates on current platform implementations, and outline our ambitious 2030 goals. To make this transition successful, we need to hear from our members, ensuring their insights and feedback shape our future direction.

Speakers: CESMII Leadership | ORNL Leadership | DOE Leadership

10:30p-10:50p | Break

10:50a-1:00p | MDF 112ABC | ALL TRACKS • EXECUTIVE PANEL

A Playbook to Strengthen the U.S.' Competitiveness Through Smart Manufacturing

The decline of manufacturing productivity by worker here in the US requires a renewed, more urgent focus on the democratization of Smart Manufacturing. The Smart Manufacturing Executive Council – the 'Voice of Industry' – has created and will share a profound set of guidance, strategies and investments that are essential in our nation's quest to become more productive. They will directly address seven key stakeholder groups—Federal Policy Makers, Manufacturing Leadership, Technology Providers, Consultants & System Integrators, Machine Builders, Education/Upskilling, and Suppliers.

Speakers: Matt Littlefield, LNS Research | Cyril Perducat, Rockwell Automation | Lisa Zasada, General Mills | Tony Huffman, Koch Industries | Chris Micena, Formerly Nestle Purina | Jeff Abell, General Motors | Larry Megan, Baldwin Richardson Foods

1:00p-2:15p | OUTSIDE MAIN ENTRANCE (MDF) | ALL TRACKS Lunch

BACK TO AGENDA



THURSDAY, NOVEMBER 7TH (CONTINUED...)

2:15p-3:15p | MDF 112A | TRACK 2 • BREAKOUT SESSION

SM Architecture Essentials, Open Specifications, Interoperability, and UNS

This session will emphasize the long-overdue need for technology providers and vendors to align with open Smart Manufacturing Platform specifications, backed by CESMII. Learn from real-world use cases presented by some of the industry's biggest players, highlighting the necessity of adopting these standards in the future of U.S. Manufacturing. Concluding with a panel discussion from technology vendors at Rockwell Automation, AWS, Microsoft, and Inductive Automation as they discuss the critical importance of standards and interoperability in smart manufacturing.

Speakers: <u>Jonathan Wise</u>, CESMII | <u>Erich Barnstedt</u>, Microsoft | <u>Steve Blackwell</u>, AWS <u>Travis Cox</u>, Inductive Automation | <u>Srinivas Kuppa</u>, Symphony AI | <u>Doug Lawson</u>, ThinkIQ <u>Andrew Ellis</u>, Rockwell Automation

2:15p-3:15p | MDF 112B | TRACK 1 • BREAKOUT SESSION

Supporting Manufacturers on their SM Journey – Strategies, Tools, Certified Professionals

Discover the strategic plan and priorities for the CESMII Smart Manufacturing Roadmap Professional Community. This session will outline our vision for continuously evolving Smart Manufacturing tools through active contributions from our professional community. Learn about our efforts to expand our national and regional community presence, fostering collaboration and innovation across the industry. Join us to explore how you can participate in shaping the future of smart manufacturing tools and how you can contribute to this professional network.

Speakers: Conrad Leiva, CESMII | Art Crider, SCMEP | Jim Wetzel, NxGen Group

2:15p-3:15p | MDF 112C | TRACK 1 • BREAKOUT SESSION

Smart Manufacturing for Integrated Supply Chains with SMMs

This session will outline the upcoming CESMII 2.0 RFP focused on Smart Manufacturing for Supply Chains. We'll dive into key project requirements, explore areas of interest for industry stakeholders, and discuss how these projects aim to enhance supply chain visibility, resiliency, and productivity. Learn how you can contribute and benefit from these initiatives, with a focus on the opportunities for SMMs to play a critical role in shaping the future of supply chains through innovative solutions and active engagement in CESMII's efforts.

Speakers: Miguel Corcio, CESMII | Haresh Malkani, CESMII | Various Project Teams (TBD)

3:15p-3:30p | ALL TRACKS Break

3:30p-4:30p | MDF 112A | TRACK 2 • BREAKOUT SESSION

Smart Manufacturing in Action | Industry Examples - Reducing Cost & Complexity

Discover what smart, interoperable applications look like, and what sets them apart from the traditional, proprietary approaches that are still far too prevalent. Witness live demonstrations and hear real world success stories from industry experts and CESMII members. Don't miss this chance to see smart manufacturing in action and learn from firsthand experiences.

Speakers: Jonathan Wise, CESMII | John Harrington, Highbyte | Travis Cox, Inductive Automation

3:30p-4:30p | MDF 112B | TRACK 1 • BREAKOUT SESSION

Shaping the Future of Smart Manufacturing Talent

Join us to discuss the comprehensive plan for Workforce SM Education, focusing on how CESMII members can actively participate, validate priorities, and expand partnerships. This session will cover strategies for scaling smart manufacturing (SM) education nationwide and supporting the development of SM micro-credential pathways. Learn how you can contribute to building a skilled workforce ready to meet the demands of the evolving smart manufacturing landscape. Discover the benefits of collaboration and how to leverage educational initiatives to enhance your organization's capabilities.

Speakers: Conrad Leiva, CESMII | Paul Perkins, Amatrol | James Wall, SACA

3:30p-4:30p | MDF 112B | TRACK 1 • BREAKOUT SESSION

Smart Manufacturing for Energy Productivity and Clean Energy Industries

This session will outline the upcoming Request for Proposal (RFP) under CESMII 2.0, with a specific focus on energy productivity in conventional and clean energy industries. These projects will demonstrate scaling of SM solutions in multiple factories in selected industries for energy consumption benefits. We will discuss the key requirements for these projects and learn about the areas of interest for industry stakeholders. Gain insights into how you can contribute to and benefit from these projects, and explore the opportunities for your organization to play a crucial role in making an impact on energy productivity and sustainability.

Speakers: Miquel Corcio, CESMII | Haresh Malkani, CESMII | Various Project Teams (TBD)

BACK TO AGENDA



THURSDAY, NOVEMBER 7TH (CONTINUED...)

4:45p-5:00p | MDF 112ABC | ALL TRACKS Closing Statements

5:30p-7:00p | MDF 112B | INVITE ONLY CESMII Board Meeting & Working Dinner