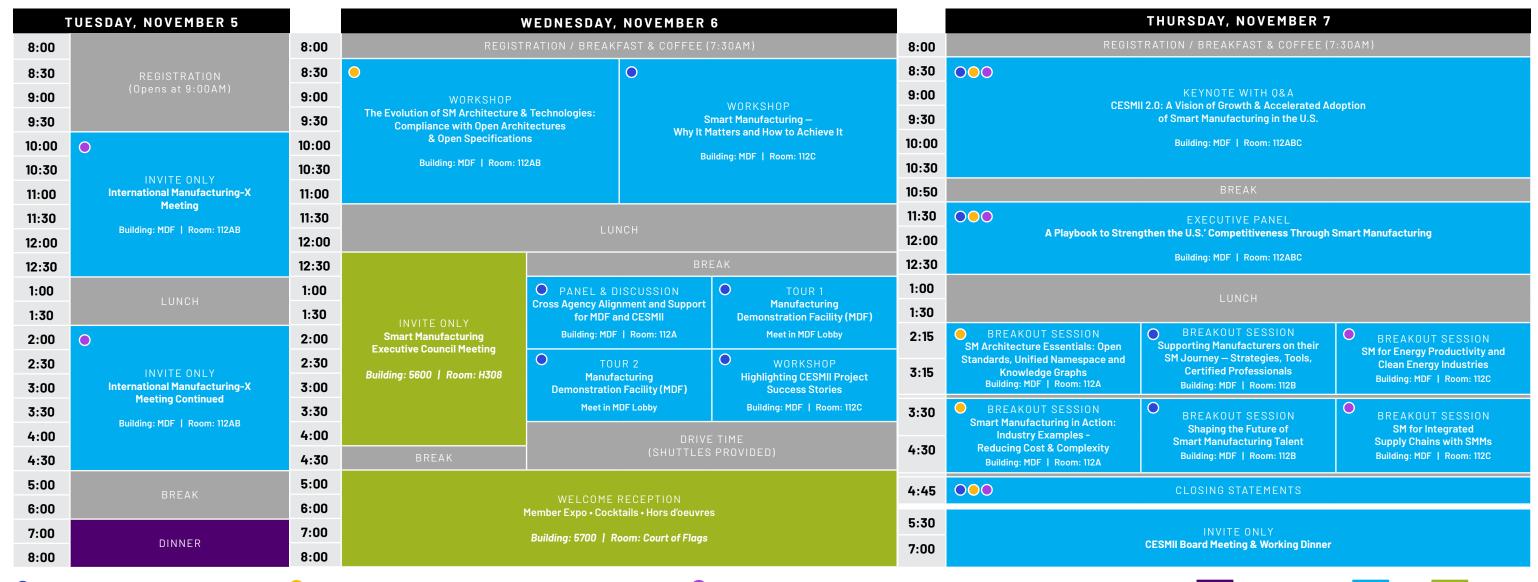
# **WEEK AT A GLANCE**





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### **TUESDAY, NOVEMBER 5TH**

REGISTRATION BEGINS AT 9:00AM | MDF LOBBY

10:00a-5:00p | MDF 112AB | TRACK 3 • INVITE-ONLY MEETING International Manufacturing-X

This invite-only International Manufacturing-X Meeting is aimed at fostering collaboration and driving innovation within the global manufacturing landscape.

Morning Session (10:00a - 1:00p): Kick off with an overview of International Manufacturing-X, featuring insights from John Dyck and Thomas Hahn. Engage in a panel discussion with representatives from the USA, Asia, and Europe, moderated by Oscar Lazaro, to explore regional developments in Manufacturing-X.

**Afternoon Session (2:00p - 5:00p):** Delve into the first projects of International Manufacturing-X, covering essential topics such as Data Space Principles, Smart Manufacturing Profiles, and the Product Passport. Key presentations will be led by experts including Kazuo Nakashima and Erich Barnstedt. The session will culminate in a discussion moderated by John Dyck and Thomas Hahn.

### **WEDNESDAY, NOVEMBER 6TH**

REGISTRATION & BREAKFAST BEGINS AT 7:30a | MDF LOBBY

8:30a-11:30a | MDF 112BA | 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: Doug Lawson, ThinklQ | Rob Schoentaler, ThinklQ | Suellen Lorkowski, CESMII | Jonathan Wise, CESMII

#### 8:30a-11:30a | MDF 112C | 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: H308 | 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: H308

Speakers: Smart Manufacturing Executive Council

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# **WEDNESDAY, NOVEMBER 6TH (CONTINUED...)**

1:00p-2:30p | MDF 112A | TRACK 1 • PANEL & DISCUSSION Cross Agency Alignment and Support for MDF and CESMII

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 the 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: Ryan Dehoff, Oak Ridge National Lab | <u>Jyoti K. Malhotra</u>, Ph.D., NIST MEP | <u>Haresh Malkani</u>, CESMII | <u>Raju Namburu, Ph.D.</u>, US Army Engineer Research and Development Center | <u>Kelley Rogers, Ph.D.</u>, NIST | <u>Christopher Saldaña</u>, DOE

1:00p-2:30p & 2:30p-4:00p | MDF Lobby | TRACK 1 • TOUR Manufacturing Demonstration Facility (MDF) Tour

The Manufacturing Demonstration Facility (MDF) at Oak Ridge National Laboratory (ORNL) showcases advanced manufacturing technologies, including additive manufacturing and carbon fiber. It emphasizes collaboration with industry, academia, and government to scale new methods and features the CESMII Smart Manufacturing Interoperability Platform, focusing on sustainability and competitiveness.

### 2:30p-4:00p | MDF 112C | 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: Miguel Corcio, CESMII | Haresh Malkani, CESMII | Various Project Teams

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 <u>CESMII Member Expo</u>, 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

REGISTRATION & BREAKFAST BEGINS AT 7:30a | MDF LOBBY

8:30a-10:30a | 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

10:30a-10:50a | Break

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### THURSDAY, NOVEMBER 7TH (CONTINUED...)

10:50a-1:00p | MDF 112ABC | ALL TRACKS • EXECUTIVE PANEL
A Playbook to Strengthen the U.S.' Competitiveness Through Smart Manufacturing

The nation's Smart Manufacturing Executive Council – consisting of 30 manufacturing executives – is convinced that the US' stagnating manufacturing productivity will benefit significantly from broad scale, accelerated adoption of Smart Manufacturing. They have created and will share a profound set of guidance, strategies and investments that are essential in our nation's journey to productivity and economic security. They will directly address seven key stakeholder groups—Federal Policy Makers, Manufacturing Leadership, Technology Providers, Consultants & System Integrators, Machine Builders, Educators, and Suppliers.

Speakers: Matt Littlefield, LNS Research | Andrew Ellis, Rockwell Automation | Lisa Zasada, General Mills | Tony Huffman, Koch, Inc. | Chris Micena, formerly Nestle Purina | Jeff Abell, General Motors | Larry Megan, Baldwin Richardson Foods

It's hard to overstate the value and strategic importance of industrial data infrastructure in reducing the cost and complexity of Smart Manufacturing. Getting this right will facilitate genuine, organic OT/IT convergence, and inspire a whole new generation of modeling capabilities and App development for manufacturing. This session will highlight the progress we're making in this area, including our work with Germany's Plattform Industrie 4.0 and the International Manufacturing-X Council to ensure harmonization of these important interoperability initiatives.

Speakers: Simon Jacobson, Gartner | Jonathan Wise, CESMII | Doug Lawson, ThinkIQ | Erich Barnstedt, Microsoft | Dominik Rohrmus, LNI 4.0 | Mark Johnson, Clemson University | Thomas Hahn, Siemens | Kazuo Nakashima, RRI - Robot Revolution & Industrial IoT Initiative

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

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

Smart Manufacturing Architecture Essentials: Open Standards, Unified Namespace and Knowledge Graphs

This session will emphasize the long-overdue need for technology providers and implementers to align with the open standards promoted by CESMII. Learn from the experts how to build a Unified Namespace that is truly interoperable and lends itself to the creation of Knowledge Graphs that can help drive the future of U.S. Manufacturing. Hear from technology leaders at some of the most innovative and influential companies working in this space as they discuss the critical importance of standards and interoperability in Smart Manufacturing.

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

#### 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

SM 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: Miguel Corcio, CESMII | Haresh Malkani, CESMII | Various Project Teams

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# THURSDAY, NOVEMBER 7TH (CONTINUED...)

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

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

SM 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: CESMII Platform Team | Smart Manufacturing Ecosystem

#### 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 112C | TRACK 1 • BREAKOUT SESSION

SM 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)

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

5:30p-7:00p | MDF 311 | INVITE ONLY CESMII Board Meeting & Working Dinner