

2024 Retrospective

by Amanda L. Woods

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By all accounts, AISTech 2024 marked a momentous week for the steel industry. A record 8,377 attendees traveled to Columbus, Ohio, USA, for the largest event in AIST's history.

"For many years, the AIST membership has represented a barometer for the overall health of the steel industry," AIST's executive director Ron Ashburn said.

"Our membership is at record levels, and I would translate that to imply the health of the steel industry is better than ever."

The Technology Conference also saw record attendance at 2,298, and the program offered 462 presentations across 111 sessions.

The Iron & Steel Exposition smashed previous records, with 662 booths and 687 total exhibiting companies. The total exhibit space was a staggering 123,650 net ft² (11,487 net m²) – nearly 20,000 net ft² more than any previous AISTech!

"The growth of events like AISTech underscores the importance of technological innovation for the steel industry today," Ashburn added.





Record-Breaking Numbers!

8,377

steel professionals

687

steel exhibitors

462

steel presentations



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Each year, AISTech kicks off one day prior to the start of the conference with the AIST Foundation Golf Classic. This year, 136 golfers enjoyed a day at New Albany Links Golf Club on Sunday, 5 May. These individuals helped raise over US\$30,000 for the AIST Foundation.



That afternoon, roundtable discussions were held for AIST's Women in Steel and Young Professionals initiatives. In these sessions, AIST members came together to brainstorm ways to bolster membership, share ideas for programming and make new connections. The Women in Steel Roundtable had a record 85 attendees, and the Young Professionals Roundtable was sold out at 50.

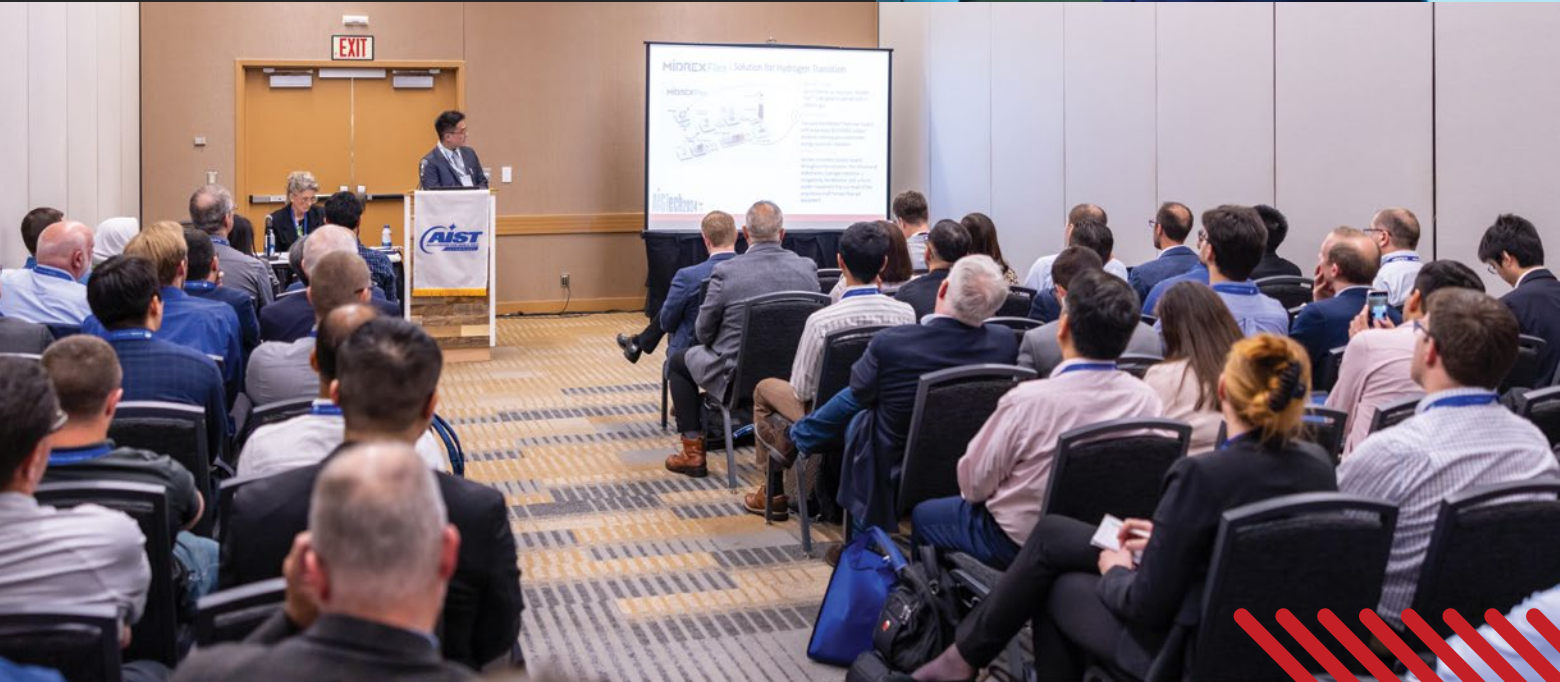
The Technology Conference began the following morning with the J. Keith Brimacombe Memorial Lecture, given this year by Sunday Abraham, director R&D at SSAB Americas. Abraham presented his lecture, "Integrating Physics-Based Modeling and Artificial Intelligence for Smart Manufacturing," to an audience of 400 attendees.





This year marked the 25th anniversary of the J. Keith Brimacombe Memorial Lecture.

The topic of Abraham's lecture was faithful to the work Brimacombe was famously known for: the use of models for training and knowledge transfer onto the shop floor to optimize processes, improve efficiency and quality, and enhance worker safety. Abraham gave detailed examples of physics-based models using artificial intelligence; for example, electric arc furnace energy and material balance, prediction of bath temperature and chemistry, and estimating ladle slag chemistry.



Throughout the rest of the week, attendees of the Technology Conference had the opportunity to listen to presentations and panel discussions across all areas of the steelmaking process. Following the trend of recent years, much of the discussion focused on sustainability and decarbonization.

“The steel industry is committed to and invested in a sustainable future,” Ashburn said. “To achieve this fundamental objective, we must understand and leverage the best technology available, which is the reason AISTech exists.

“Specifically for AISTech, we’ve seen a dramatic rise in decarbonization technologies presented across the last four years. The number of individual papers presented at this benchmark event is up 270% in that time.”

AIST 2023–2024 president Barry Schneider noted, “if you look at the papers being presented at this conference, it’s amazing how many of them are sustainability related. And it’s not just theoretically, these are papers demonstrating technologies [that are currently being trialed].”





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“And when you walk by a room and you see it’s standing room only, that’s because everybody wants to know those ideas,” Schneider continued. “AIST is that common ground where it doesn’t matter what technology people have, it doesn’t matter about political solutions. It’s a technical exchange for people to get together and talk about how we get where we need to go.”

On the second morning of the conference, Schneider had the opportunity to hand out this year’s Board of Directors Awards at the President’s Award Breakfast. This year 1,300 conferencegoers attended the breakfast to recognize excellence in steelmaking and the dedication to the industry exemplified by this year’s group of award recipients.


In honor of AIST’s 20th anniversary, four individuals known as the “AIST pioneers” — William Barker, Ian Sadler, Joseph Rutkowski and Thomas Goettge (posthumously) — were collectively named AIST Distinguished Members and Fellows.



These gentlemen received the award in recognition of their exemplary leadership, courage and wisdom during a time of peril in the North American steel industry. With over 40 steel producers bankrupt or insolvent in the early 2000s, the dire situation depleted the resources of the Iron & Steel Society and the Association of Iron and Steel Engineers such that neither was able to adequately fulfill its independent mission of service. Recognizing the utmost importance of technical and professional development for all within the industry, particularly and especially in times of significant change, the “pioneers” envisioned a singular association with industrywide appeal and global reach. Despite skepticism, Barker, Goettge, Rutkowski and Sadler built support for what would become AIST among key stakeholders — producers, suppliers, academics and staff — and in 2004 united these formerly independent groups under a shared purpose: to advance the technical development, production, processing and application of iron and steel.



Barry Schneider and Ron Ashburn presented the 2024 AIST Distinguished Member and Fellow Award to the AIST Merger “Pioneers” (left to right): Schneider, Joseph Rutkowski, William Barker, Ian Sadler and Ashburn.



Receiving the award, Bill Barker said, “We would like to recognize Tom Goettge, who was part of our group, and we miss him and his contributions to the organization.”

Ian Sadler added, “When I look back over 20 years, two words kept coming back to my mind, and I realized that the four of us always held a high degree of respect and trust — not only with each other, but also in interacting with all the other stakeholders. With respect and trust, things get accomplished more easily — and much, much faster. So AIST came into being built on the foundation of respect and trust — and has gone on to be more successful than we ever dared to imagine back in 2004.”

For a complete list of the Board of Directors award recipients, see pages 98–104.



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Capping off the breakfast, Ternium chief executive officer Máximo Vedoya delivered the keynote address, titled “Shaping the Future: The Steel Industry Challenges.” Vedoya addressed two challenges that he considers to be the top priorities for the industry: decarbonization and China.

While the steel industry contributes 8% of global CO₂ emissions, Vedoya said he believes the industry is a core part of the solution. To grow as an industry, to secure capital to invest in new technologies and to attract the best talent, he said the industry should loudly deliver this message: “Steel is an infinitely recyclable material, and there is currently no substitute with fewer emissions. Globally, more steel is recycled than twice the combined total of all other recyclable materials. Steel also plays a fundamental role in the energy transition, serving as the material for structures in



renewable energy projects such as solar panels, wind energy towers, thermal power plants, and hydroelectric stations.”

Concerning China, Vedoya addressed the “China Shock” and newer “China Shock 2.0” caused by the country’s overcapacity.

“We cannot allow China to continue taking away quality production and jobs, driven by unfair imports, and to the detriment of our industry,” he said. “We need to strongly address unfair trade, from dumping to transshipment in all its forms. Countries that fail to grasp this threat will face a tsunami that will impact employment and economic development.”

Concluding his presentation, Vedoya said, “Together as a region, by fostering a spirit of cooperation and solidarity, we can navigate the complexities of the global economy and emerge stronger, more resilient, and better equipped to shape our future.”

You can read the transcript of Vedoya’s lecture on pages 82–91.



AIST TOWN HALL



The final plenary session, AIST's Town Hall Forum, was held the following day. Five panelists took to the stage to discuss the "sustainable optimism" that colors the industry today. Daniel Brown of Big River Steel – A U. S. Steel Co., Wendell Carter of Cleveland-Cliffs Inc., Christopher Graham of Steel Dynamics Inc., Prasanna Joshi of ExxonMobil and David Sumoski of Nucor Corp. served as this year's panel of experts.

Chaired by George Koenig of Hatch and moderated by KDKA-TV (CBS)'s Jon Delano, the discussion explored key opportunities and concerns impacting the entire industry.

The Town Hall Forum traditionally features executives from leading steel-producing companies as well as an industry supplier. This year, Prasanna Joshi joined the panel, representing a customer of the steel industry: ExxonMobil.

"The first ingredient in being a sustainable industry is profit," Ashburn said. "Without profit, we have no hope at being energy-efficient, environmentally conscious, people-focused or



Prasanna V. Joshi, Vice President, Technology — Low Carbon Solutions, ExxonMobil



David A. Sumoski, Chief Operating Officer, Nucor Corp.



Wendell L. Carter, Executive Vice President, Technology, Cleveland-Cliffs Inc.



Daniel R. Brown, Senior Vice President – Advanced Technology Steelmaking, United States Steel Corporation; Chief Operating Officer, Big River Steel – A U. S. Steel Co.

safe, which are all critical ingredients when speaking about sustainability. To be profitable, we need customers for whom we can provide sustainable solutions. Listening to our customers and understanding their concerns is always a good thing.”

You can read a synopsis of the forum on pages 56–59. In addition, all three plenary sessions are available to watch on AIST’s YouTube channel.



Christopher A. Graham, Senior Vice President, Flat Roll Steel Group, Steel Dynamics Inc.





Throughout the week, student members of AIST had the opportunity to showcase their work, meet with industry professionals and learn from the experts. Eighty-nine students from 12 countries attended AISTech this year. Students also had the opportunity to tour Cleveland-Cliffs Middletown Works to see steelmaking processes up close.

At the University-Industry Relations Roundtable (UIRR), which is held each year at both AISTech and MS&T, 70 representatives from industry, industry human resources/ talent acquisition and academia gathered to share updates from their respective companies/ universities. The objectives of the UIRR are to increase the number of professors teaching a steel-related curriculum and to increase the number of students interested in a career in the steel industry. The group heard reports from Colorado School of Mines, The University of Alabama and AM/NS Calvert LLC.

Over in the Exhibit Hall, industry suppliers and technology providers turned out in force to be a part of the largest exposition in AIST history. Features, refreshments and contests kept attendees busy while making their way through the expansive exhibit space. The Exhibit





Hall was buzzing with excitement on Wednesday afternoon as Josh Dunlap of Hyster Co. drew the winning number for the Chevy™ Silverado truck.

First-time exhibitors and veterans alike found the expansive Exhibit Hall a place to make important connections and get in front of their customers.

Michael Hobden, TML Group, has been coming to AISTech (and the annual conferences of AIST's predecessor societies) since 1995, making this year his 29th appearance. Hobden said, "What I like most about AISTech is meeting up with new people, getting to know people, networking and meeting old friends as well — and, of course, the technology exchange is marvelous."



Jeff Keeling, vice president of sales and marketing at Brokk Inc., said his company saw a great turnout at AISTech. "Customers throughout the industry continue to seek methods to increase safety and automate dangerous, manual processes. Our booth was popular because that's what we strive to provide to all facilities. We're looking forward to attending AISTech next year." ♦

