

## THE NEXT STEP IN THE JOURNEY

# AIST'S DIGITAL TRANSFORMATION FORUM FOR THE STEEL INDUSTRY

BY AMANDA L. BLYTH

In May 2021, after a year of virtual events, AIST made the leap back into in-person events; or, in this case, hybrid events. The association successfully held the second Digital Transformation Forum for the Steel Industry on 17–20 May, with 104 attendees logging on virtually and 72 coming in person to the Omni William Penn Hotel in Pittsburgh, Pa., USA.

Franck Adjogble of SMS group Inc. attended in person. “The atmosphere was great,” he said. “The attendees were happy to get back together after the long period of struggle with COVID. In addition, the event was the premiere of its kind as a hybrid conference for all of us, post-COVID.”

While the inaugural Digital Transformation Forum, held in 2019, gave an overview of and insights into different components of Industry 4.0, this year’s event dove into the specific topics of machine learning (ML) and artificial intelligence (AI).

“This year, the presentations shared tangible results from use cases that attendees were able to bring back and consider for their own processes,” Christopher Burnett of Thermo Fisher Scientific said. Burnett is part of the “Core Team” that organizes the forum.

The event featured a keynote presentation each day, the first by Carlos Alba of ArcelorMittal Global Research and Development. He highlighted a few success stories in which digitalization led to additional value that was not captured in the past. He noted that ArcelorMittal’s digitalization approach has changed “the way we purchase scrap, do maintenance, achieve excellent quality, schedule our lines, manage our inventories and approach our customers.”

The forum included two panel discussions, one featuring representatives from steel-producing companies and the other featuring suppliers.

The producer panel included Carlos Alba; Jena Kreuzer, Gerdau Long Steel North America Cartersville Mill; Daniel Dewitt, Steel Dynamics Inc. – Flat Roll Group Butler Division; Sabyasachi Bandyopadhyay, Big River Steel; Rob Oldroyd, Nucor Steel–Decatur LLC; and Mike Dudzic, ArcelorMittal Dofasco G.P.

The six panelists were asked how their companies prepare their workforce for digital transformation and to describe the challenges they’ve faced along the way.

The panelists described their respective companies’ digitalization journey, which most said were “maturing” or still in its infancy.

Rob Oldroyd said, “[Nucor Steel] Decatur is a microcosm of what is happening all around Nucor plants. Working from home was a completely alien concept! But we were able to ensure continuity of projects and learn new skills.”

The supplier panel included Ruth Kirkwood-Azmat, Primetals Technologies LLC; Markus Schulte, SMS digital; Michael Tay, Rockwell Automation; Marco Corbella, Tenova; and Mukesh Ranjan, Noodle.ai. The group was presented with questions from the pre-conference attendee survey.

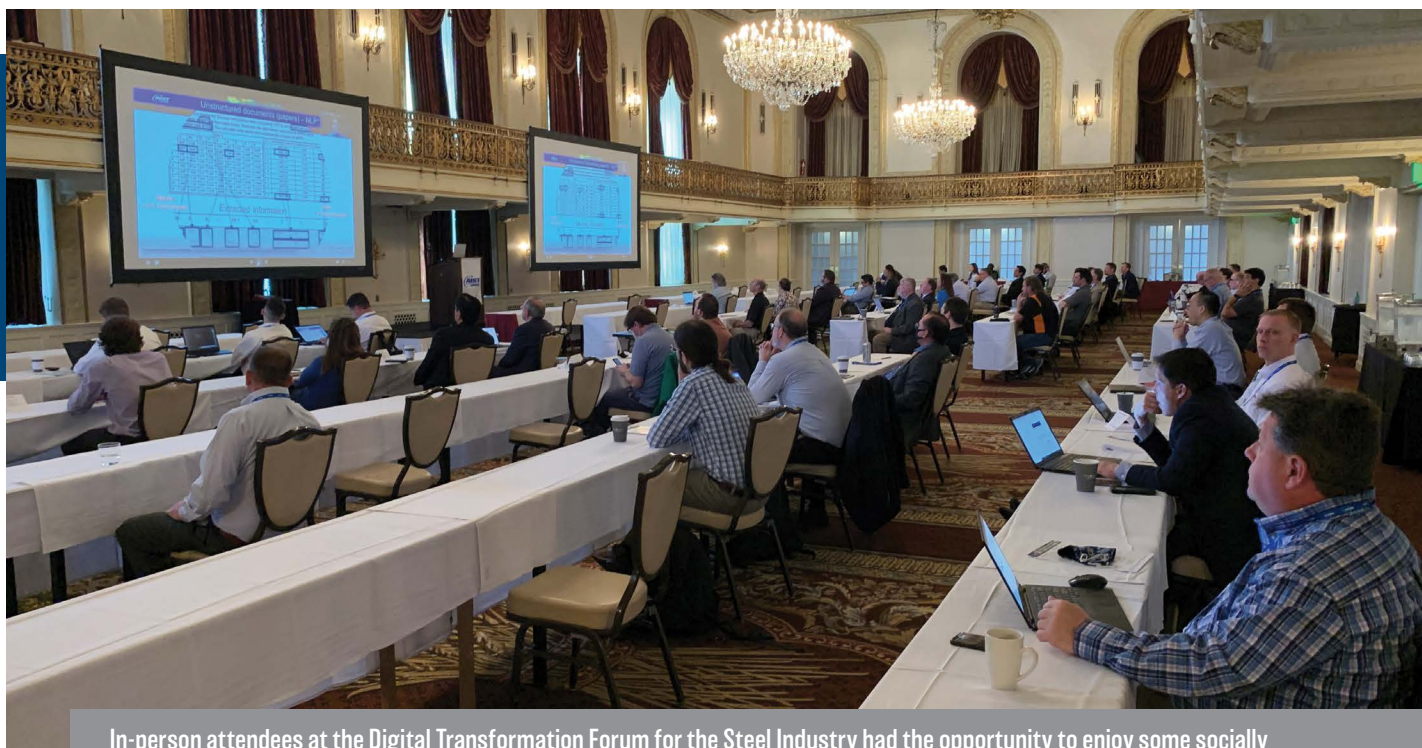
A point that several panelists made throughout the session was the importance of planning when it comes to digital transformation projects — for example, defining value; planning for the short, medium and long term; and determining the workloads of in-house staff versus partner companies.

Mukesh Ranjan said steelmakers need to have “faith in the technological innovation. There is deep-seated skepticism in the steel industry. Forums like this have made a dent in it.”

One recurring theme throughout the forum was the human element of digital transformation. This was most notably explained in a keynote presentation by Sushma Walker of Nucor, who said, “If we’re not connecting as people, all of this is for naught.”

She stressed the importance of following up with and sitting down with employees rather than simply training them. This is especially important when, in the shift to digital technologies, employees are having to “unlearn” things they’ve done for years.

“We talk about the change but not the process involved in the change. Training alone doesn’t help. Everything takes longer than you anticipate. You need to sit down with employees in addition to training.”



In-person attendees at the Digital Transformation Forum for the Steel Industry had the opportunity to enjoy some socially distanced networking and viewed presentations from in-person and on-screen presenters.

Thomas Pfatschbacher, Primetals Technologies Austria GmbH, touched on the importance of culture in his presentation, “Progress and Key Success Factors of Digital Transformation in the Metals Industry.” His presentation identified focus areas for digitalization in the metals industry and key factors for success. Cultural aspects, he noted, are an important factor in digital transformation journeys, and should be considered throughout the entire process.

Another aspect of the human element is collaboration, which several presenters noted is key to digitalization. Pritam Pritu of IBM stressed this in his presentation, “AI in Steel Ecosystem — Achieving Measured Scale for Digital Transformation.”

Having experimented with AI, Pritu maintains that the industry is now ready to move to the next chapter. He identified four keys to success: collaborate and interoperate; re-imagine workflows, infusing AI and automation; and transform to net zero. Industry leaders, he said, should “quell the barriers to innovation and attract the

workforce of the future, and collaborate to compete for collective prosperity.”

In his keynote lecture, Sabyasachi Bandyopadhyay introduced a term that was used throughout the forum: digital natives (those born after 1980). In contrast, digital immigrants, who are heavily represented in leadership positions, were born prior to 1980. He explained how digital natives are comfortable using new technologies, and are able to help digital immigrants navigate their way through new platforms.

The COVID-19 pandemic has brought to light the differences between digital natives and digital immigrants, and has provided ample opportunity for collaboration. It has also prompted companies to rethink how they can safely operate with reduced on-site staff, or how to train their workers using augmented reality platforms.

To learn more about the Digital Transformation Forum for the Steel Industry, visit [AIST.org](http://AIST.org). ♦

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