The decarbonization of the global steel industry is a generational challenge, and steelmakers across the world have pledged to reduce their carbon emissions and modernize their production processes in the coming years. It’s no surprise, then, that much of the discussion at the latest AIST Leadership Conference focused on decarbonization.

Each year the Leadership Conference brings together the leaders of AIST’s Board of Directors, Technology Committees and Member Chapters to assess the state of the Association and where it’s headed.

The 2022 event was held at the Omni Rancho Las Palmas Resort & Spa in Rancho Mirage, Calif., USA, on 6–8 November alongside AIST’s Western Conference, which is organized by the Southern California and Northern Pacific Member Chapters. The Southern California Member Chapter also held its annual holiday dinner dance at the venue on Saturday, 5 November. A golf outing was held in the morning followed by an evening reception on Sunday, 6 November, for attendees of both conferences.

The Leadership Conference kicked off on the morning of 7 November with a welcome from AIST’s executive director, Ronald Ashburn, who gave a detailed presentation on the overall “health” of the Association. Membership has seen a strong rebound in recent years, building back from the COVID-19 pandemic.

While the average age of the membership has been dropping (now 48.9 years old, down from the mid-50s), he noted that AIST’s Young Professional membership has declined 41.4% since 2019.

Ashburn stressed the importance of AIST membership in building a “better, healthier, more sustainable industry in its current footprint.”

He gave a follow-up presentation on the overall health of the steel industry. Several challenges exist for the industry, including war, political instability, inflation, energy crisis, supply chain interruptions, global overcapacity (to the tune of 35%), climate change demands and overall workforce development.

The focus then shifted to decarbonization. Ashburn provided an overview of the decarbonization goals laid out by major steel producers. He noted that countries with higher proportions of electric arc furnaces (EAFs) generally have lower CO₂ emissions intensities, while countries with lower proportions of EAFs have higher carbon emissions.
“The time is right for steel decarbonization,” he said, citing ESG pressures that steelmakers face from society, customers, investors and competitors.

Next on the agenda was a presentation titled “Energy Crisis and Net Zero: Implications for the Iron and Steel Industry” by author Steve Goreham of the Climate Science Coalition of America. He explored the energy challenges the world faces and will face in the future, warning that “Europe’s energy crisis is a taste of the future.”

Goreham spoke about climate change from a scientific perspective and went on to discuss misconceptions about energy and resources.

Following Goreham’s presentation, the attendees participated in an “Air-It-Out” session in which they offered ideas and tactics for how AIST can improve its outreach and programming.

Brian Bliss, AIST’s general manager — programs and publications, then presented an update on the National Institute of Standards and Technology (NIST) grant AIST has received and what it means for the Association. The objective of the grant is to develop a road map that will identify and prioritize research projects to address the technologies, infrastructure and workforce needs that will advance steel manufacturing competitiveness across the steel industry value chain. See more details about the grant in this issue’s Association Update on page 7.

The rest of the day was devoted to prioritizing initiatives identified by the attendees from the earlier Air-It-Out session.

Next door at the Western Conference, technical presentations were given on topics including confined space safety practices, oxy-fuel combustion installations, modernized slab yards and high-value productivity and sustainability solutions. The conference drew 23 attendees from steel-producing and steel-related companies in the western United States. The one-day program also included vendor displays and shared breaks with the attendees of the Leadership Conference. For a full recap of the Western Conference, turn to page 232.
The second day of the Leadership Conference began with a new segment: a Young Professionals Panel Discussion that spotlighted young industry leaders. Moderated by Alex England of Tokai Carbon Graphite Electrodes, the panel discussion featured Liz Hunter of Nucor-JFE Steel Mexico, David Kober of iba America and Britt MacKinnon of Hatch.

The panelists discussed challenges they’ve faced in their careers, what the industry can do to support Young Professionals and how having a mentor has helped them.

“Having a coach and a mentor, someone who has your best interest at heart, someone who will push you and challenge you in your career, is incredible,” Britt MacKinnon said. “There’s no limit to how many great mentors you can have in your career and your life.”

The panelists tackled the topic of perception of the industry, which had been mentioned in the previous day’s Air-It-Out session. While the perception may exist that the steel industry is not high-tech, “There’s a lot of very sophisticated process and technologies that exist in the industry,” David Kober said. He added that AIST’s Digital Transformation Forum for the Steel Industry is a perfect place to bring Young Professionals, as he believes the topics discussed there would resonate with them.

“Perception is what kills us,” Alex England said. “We need to push the message that we’re at the forefront of technology and decarbonization.”

Liz Hunter, a past AIST scholarship recipient, added, “We can’t keep doing things the way we’ve always done them.”

Following the panel discussion, the attendees split into three groups. The AIST Executive Committee held a meeting, the representatives from AIST’s Member Chapters held a workshop and the attendees from AIST’s Technology Committees held an open discussion on the NIST grant.

Brian Bliss led the Technology Committee session, in which the group evaluated the four themes of the NIST grant: electrification of processes; alternative energy sources and low-carbon fuels; material and energy optimization; and carbon capture utilization and sequestration. Within those themes, the group identified subthemes and technologies that should be included in the road map.

The Member Chapter workshop was led by Stacy Varmecky, general manager — sales
and marketing, and Jill Liberto, member chapter advisor. Liberto opened the workshop with an overview of Chapter growth metrics and programming updates. Varmecky then outlined AIST’s efforts to address high-priority challenges in steel manufacturing that are broadly deployable to manufacturing sectors in alignment with the requirements of the NIST grant, specifically workforce development and diversification initiatives. For manufacturing industries like steel, this includes attracting qualified talent and building a sustainable team of employees with the right mix of skill sets to avoid a labor shortage. The focus of the workshop was to create a baseline for the U.S. steel sector by identifying the workforce development concerns, suggesting solutions or ways to approach the barriers, and providing action items to create a plan for the near and long term. Working in small groups, the attendees engaged in thoughtful discussions to identify the challenges and offer applicable solutions from the industry’s perspective to aid AIST in developing a road map.

That afternoon, a Leadership Perspectives session was held, in which the audience heard from Gregory Mason, board member, Metinvest BV; chairman, United Coal Co.; and chairman, Smart Maritime Group.

Mason answered questions posed by Ron Ashburn about his career and personal life, including his childhood growing up in Ukraine. He came to the U.S. in 1978 and was hired at a small company that did installation engineering for mills. Because he could draw, he started as a draftsman; after two weeks, he was moved into engineering. Over the following decades he worked at various engineering firms and steel producers. One of the best places he worked, he said, was Krupp, where he got his first introduction to the world of electric steelmaking.

He shared his views on what makes a good leader, the importance of organization, and the strengths of the steel industry.

At the conclusion of the session, Mason offered advice to those thinking about coming into industry: “Stop thinking and just do it.”

A Young Professionals Panel Discussion brought together young leaders from across the industry. AIST would like to thank all of the sponsors of the 2022 Leadership Conference: