

# AIST European Steel Forum 2019

Organized by



Endorsed by



23–25 October • Leoben, Austria

Event Host



## Wednesday, 23 October

Venue: Falkensteiner Hotel, Leoben II Room

14:00

### Welcome

Prof. Peter Moser, Vice Rector, University of Leoben, and Ronald Ashburn, Executive Director, AIST

14:15–15:15

### AIST Elliott Lecture: Process Metallurgy of 21st-Century Steelmaking – The State of the Art and the Emerging Challenges

Larry Heaslip, Technical Director, Interflow Techserv Inc.

15:30–16:15

### AIST President's Lecture: Steelmaking Research through Industry – University Collaboration at the PSMRC

Prof. Ronald O'Malley, F. Kenneth Iverson Chair, Professor and Director, PSMRC, Missouri University of Science and Technology, and 2019–2020 AIST President

16:30–16:50

### AIST University & Industry Relations: SUSU Research Center for the Development of Digitalization

Prof. Dr.Sc. Leonid Sokolinsky, Vice Rector, South Ural State University, Russia

17:00–18:00

### "The Next Generation" – Panel Discussion

Panelists will discuss perspectives for sustaining a pipeline of engineers and scientists for the global steel industry, including ideas on recruitment and diversity.

Moderator: Prof. Peter Moser, Vice Rector, University of Leoben

Panelists:

- Dr. Harald Holzgruber, CEO, President and Managing Director, INTECO
- Prof. Ronald O'Malley, F. Kenneth Iverson Chair, Professor and Director, PSMRC, Missouri University of Science and Technology, and 2019–2020 AIST President
- Prof. Johannes Schenk, Head of Metallurgy, University of Leoben, and Board Member, K1-Met GmbH
- Sebastian Sanberger, student, ASMET Student Chapter leader
- Raphael Berger, mechanical engineering doctoral student, University of Leoben

18:00–19:00

Welcome Reception

08:15–16:00

### Joint Meeting: International Iron Metallurgy Association (IIMA)/AIST Direct Reduced Iron Technology Committee

Erzberg Meeting Room

Invitation Only

## Thursday, 24 October

Venue: University of Leoben, Aula Room

08:30–09:00

### Welcome

Dr. Harald Holzgruber, CEO, President and Managing Director, INTECO, Prof. Peter Moser, Vice Rector, University of Leoben, and Ronald Ashburn, Executive Director, AIST

09:00–10:30

### Industry Leader Panel

This moderated discussion on the issues driving the steel economy will feature industry executives sharing perspectives from North America and Europe. The panel will debate the effects of recent consolidations and capital investments, the growing deployment of Industry 4.0 technologies, and the efforts to reduce the industry's carbon footprint.

Moderator: Ronald Ashburn, Executive Director, AIST

Panelists:

- Carl De Maré, Vice President, ArcelorMittal Group CTO, Head of Technology Strategy
- Barry Schneider, Senior Vice President, Flat Roll Steel Group, Steel Dynamics Inc.
- James Bruno, President, U. S. Steel Košice S.r.o.
- Martin Pei, Executive Vice President and CTO, SSAB
- Chiara Tassin, Digital Transformation Officer, ABS

10:30–10:45

Break

10:45–12:15

### CO<sub>2</sub>-Free Steelmaking: Status and Further Developments

The dream of CO<sub>2</sub>-free steelmaking has started to evolve although mass production still remains a vision. At the 2018 AIST European Steel Forum, Hybrit/SSAB, K1-Met/VA, Sandvik and Tenova outlined their strategy and path to the industrialization of their process. Recently, Salzgitter (SALCOS), ArcelorMittal (Stellanol) and thyssenkrupp (ChemtoCarbon) have announced similar initiatives. This year, the panelists will present their latest developments in these innovative CO<sub>2</sub>-free ironmaking processes.

Moderator: Prof. Johannes Schenk, Head of Metallurgy, University of Leoben, and Board Member, K1-Met GmbH

Panelists:

- Carl De Maré, Vice President, ArcelorMittal Group CTO, Head of Technology Strategy
- Thomas Buerger, Head of R&D Ironmaking, voestalpine Stahl GmbH
- Martin Pei, Executive Vice President and CTO, SSAB
- Dr. Volker Hille, Head of Corporate Technology, Salzgitter AG
- Dr. Matthias Weinberg, Head of Competence Center Metallurgy, thyssenkrupp



12:15 – 13:45

### Iron Feedstock for Efficient Steelmaking: Comparing Ore-Based Metallics and Scrap

Steelmakers continue to use a greater variety of iron units in all steel production routes (integrated and mini-mills). The main options are blast furnace hot metal, gas- or coal-based DRI/HBI, and scrap, which can vary significantly by process and by country/region. Understanding the value, quality evolution and market dynamics of the iron feedstock is vital to producers as it is usually the largest cost in steelmaking. This session will focus on understanding strategies and the latest developments for creating the most efficient mix of ore-based metallics and/or scrap in steel production.

Moderator: José Noldin, Director Steel Applications, Lhoist

Panelists:

- Ludmila Nascimento, CEO, Tecnoled Desenvolvimento Tecnológico S.A.
- Baris Çiftçi, Head, Raw Materials Markets, World Steel Association
- Thomas Buegler, CEO, K1-Met GmbH
- John Atherton, Secretary General, International Metallics Association
- Jeremy Jones, Managing Partner, CIX - Continuous Improvement Experts

13:45 – 14:45

Lunch

14:45 – 16:15

### Making Steel Safer: Achieving an Accident-Free Workplace Through Robotics

Over the years, steelmakers have focused efforts to reduce their accident ratio by improving safety management, exchanging best practices and using appropriate PPE; nevertheless most of the activities are still performed manually by operators with direct exposure to harsh environments and dangers. To achieve a zero-accident working environment, some producers have introduced different technologies and robotic applications. This session will focus on the evolution of robotics in the steel industry including challenges, solutions and future developments.

Moderator: Gianluca Maccani, CEO, BMGroupUSA

Panelists:

- David Corsini, CEO of Danieli Telerobot Labs
- Michele Vezzola, Vice President Robotics, BM Group
- Dr. Martin Hirschmanner, Vice President Mechatronics, Primetals Technologies Austria GmbH
- Patrick Hansert, Executive Vice President Americas, Badische Stahl Engineering GmbH

16:15 – 16:30

Break

16:30 – 18:00

### Innovation in Plant Design

Steel industry capital investment is driven by the never-ending quest for improved efficiency, greater economic returns and enhanced environmental performance. Representatives from several leading steel OEMs will showcase latest innovations and discuss how their solutions are helping steelmakers improve operational performance.

Moderator: Mauro Bianchi Ferri, Managing Director, Acciarium

Panelists:

- Dr. Harald Holzgruber, CEO, President and Managing Director, INTECO
- Rolando Paolone, Executive Vice President R&D, Danieli & C. Officine S.p.A.
- Dr. Jens Kempken, Executive Vice President, SMS group GmbH
- Dr. Thomas Pfatschbacher, Vice President Casting, ESP, Digitalization, Primetals Technologies
- Paolo Argenta, Executive Vice President, Tenova Metals

19:00

### Gala Dinner

Falkensteiner Hotel

## Friday, 25 October

9:00 – 15:00

### Plant Tours

- voestalpine Stahl Donawitz and Radwerk IV
- Breitenfeld Edelstahl AG and Radwerk IV

## Event Sponsors



## Event Contributors

