



**XIII European Slag Conference**

Luleå, Sweden, June 16-18, 2026

## **PROGRAM**

### **XIII European Slag Conference 2026**

***From Innovation to Application: The Future of Steel Slags***

# Monday 15 June 2026

**12:00-19:00** Registration, *Kulturens hus 4<sup>th</sup> floor*

**17:00-19:00** Special session on Industrial symbiosis, *Lilla salen (5th floor)*

*Session chairs: Valentina Colla (Scuola Superiore Sant'Anna); Han Yu (Swerim AB)*

**17:00-17:20** Industrial Symbiosis in the Steel Industry: guidelines and roadmap in by-products use from RFCS Symbio-Steel project

**Agnieszka Morillon<sup>1</sup>**

David Algermissen<sup>1</sup>, Valentina Colla<sup>2</sup>, Teresa Annunziata Branca<sup>2</sup>, Alice Petrucciani<sup>2</sup>, Claudia Sergi<sup>3</sup>, Daphne Mirabile<sup>3</sup>, Filippo Cirilli<sup>3</sup>, Lina Kieush<sup>4</sup>, Johannes Rieger<sup>4</sup>, Chuan Wang<sup>5</sup>, Erland Nylund<sup>5</sup>, Han Yu<sup>5</sup>, Tova Jarnerud Örell<sup>5</sup>, Delphine Snaet<sup>6</sup>

<sup>1</sup> FEhS Institut fuer Baustoff-Forschung e.V., 47229 Duisburg, Germany

<sup>2</sup> Scuola Superiore Sant'Anna, TeCIP, ICT-COISP, 56124, Pisa, Italy

<sup>3</sup> RINA CONSULTING - Centro Sviluppo Materiali SPA, 00128 Castel Romano, Italy

<sup>4</sup> K1-MET GmbH, 4020 Linz, Austria

<sup>5</sup> Swerim, 97125 Lulea, Sweden

<sup>6</sup> European Steel Technology Platform ASBL, 1000 Brussels, Belgium

**17:20-17:40** Analysis of relevant results, trends and perspectives of Industrial Symbiosis solutions

**Valentina Colla<sup>1</sup>**

Teresa Annunziata Branca<sup>1</sup>, Alice Petrucciani<sup>1</sup>, Agnieszka Morillon<sup>2</sup>, David Algermissen<sup>2</sup>, Claudia Sergi<sup>3</sup>, Daphne Mirabile<sup>3</sup>, Filippo Cirilli<sup>3</sup>, Lina Kieush<sup>4</sup>, Johannes Rieger<sup>4</sup>, Chuan Wang<sup>5</sup>, Erland Nylund<sup>5</sup>, Han Yu<sup>5</sup>, Tova Jarnerud Örell<sup>5</sup>, Delphine Snaet<sup>6</sup>

<sup>1</sup> Scuola Superiore Sant'Anna, TeCIP Institute

<sup>2</sup> FEhS Institut fuer Baustoff-Forschung e.V.

<sup>3</sup> RINA CONSULTING - Centro Sviluppo Materiali SPA

<sup>4</sup> K1-MET GmbH

<sup>5</sup> Swerim AB

<sup>6</sup> European Steel Technology Platform ASBL

**17:40-18:00** KPI-Based Assessment of Industrial Symbiosis Solutions within the RFCS Symbio-Steel Project: Slag Recycling Evaluation

**Lina Kieush<sup>1</sup>**

Johannes Rieger<sup>1</sup>, Valentina Colla<sup>2</sup>, Teresa Annunziata Branca<sup>2</sup>, Alice Petrucciani<sup>2</sup>, Claudia Sergi<sup>3</sup>, Daphne Mirabile<sup>3</sup>, Filippo Cirilli<sup>3</sup>, Agnieszka Morillon<sup>4</sup>, David Algermissen<sup>4</sup>, Chuan Wang<sup>5</sup>, Erland Nylund<sup>5</sup>, Han Yu<sup>5</sup>, Tova Jarnerud Örell<sup>5</sup>, Delphine Snaet<sup>6</sup>

<sup>1</sup> K1-MET GmbH, 4020 Linz, Austria

<sup>2</sup> Scuola Superiore Sant'Anna, TeCIP, ICT-COISP, 56124, Pisa, Italy

<sup>3</sup> RINA CONSULTING - Centro Sviluppo Materiali SPA, 00128 Castel Romano, Italy

<sup>4</sup> FEhS Institut fuer Baustoff-Forschung e.V., 47229 Duisburg, Germany

<sup>5</sup> Swerim, 97125 Lulea, Sweden

<sup>6</sup> European Steel Technology Platform ASBL, 1000 Brussels, Belgium

- 18:00-18:20 Industrial Symbiosis between Biomass Processing and Steelmaking: Insights from the BioReSteel Project  
**Chuan Wang**<sup>1</sup>  
<sup>1</sup> Swerim AB, Luleå, Sweden
- 18:20-18:40 Slag as the supply chain interface – biocarbon meets scrap and H-DRI  
**Erland Jarl Nylund**<sup>1, 2</sup>  
Tova Jarnerud Örell<sup>1</sup>, Johan Martinsson<sup>1, 3</sup>, Jim Allansson<sup>2</sup>  
<sup>1</sup> Swerim AB, Kista, Sweden  
<sup>2</sup> Luleå University of Technology (LTU), Luleå, Sweden  
<sup>3</sup> KTH Royal Institute of Technology, Stockholm, Sweden
- 18:40-19:00 On Industrial symbiosis enablers: the importance of facing and solving technical and policy issues  
**Daphne Mirabile**<sup>1</sup>  
Loredana Di Sante<sup>1</sup>, Filippo Cirilli<sup>1</sup>, Chiara Lanzini<sup>2</sup>, Riccardo Monaci<sup>2</sup>  
<sup>1</sup> Rina Consulting - Centro Sviluppo Materiali SpA  
<sup>2</sup> Confindustria Brescia
- 19:00-20:30 **Reception, Kulturens hus 5th floor**

## Tuesday 16 June 2026

- 08:00-09:00 **Registration, Kulturens hus 4th floor**
- 09:00-09:20 **Opening and welcome, Stora salen (4th floor)**
- 09:00-09:20 Welcoming address  
**Christer Ryman**, Jernkontoret, chairperson of the 2026 Euroslag conference  
**Thomas Reiche**, FEhS Institute, chairperson of the Euroslag association
- 09:20-10:20 **Introduction Day 1, Stora salen (4th floor)**  
*Session chairs: Fredrik Engström (Luleå University of Technology); Marko Mäkikyrö (SSAB Europe)*
- 09:20-09:50 Slag utilization in Europe after the transition of the steel industry (**Keynote**)  
**Andreas Ehrenberg**<sup>1</sup>  
<sup>1</sup> FEhS - Institut für Baustoff-Forschung e.V.
- 09:50-10:20 Physicochemical properties of slags for the mitigation of CO2 emissions in steel industry (**Keynote**)  
**Joohyun Park**<sup>1</sup>  
<sup>1</sup> Hanyang University

- 10:20-10:50** **Coffee break, Kulturens hus 5th floor**
- 10:50-12:05** **Sponsor message and poster pitches, Stora salen (4th floor)**  
*Session chair: Mikael Larsson (Swerim AB); Christer Ryman (Jernkontoret)*
- 10:50-11:05 Sponsor presentation - HARSCO
- 11:05-11:08 Poster: Sustainable carbon for slag foaming from lab experiments to EAF pilot trials with hydrochar - **Chuan Wang**; Yu-Chiao Lu; Andrey Karasev; Erik Sandberg; Björn Glaser
- 11:08-11:11 Poster: Metallurgical slag in concrete for maritime structures – Results of 8-year practical field test - **Volkert Feldrappe**; Andreas Ehrenberg; Lydia Becker
- 11:11-11:14 Poster: Recovery of metals from sludge and sediment using by-product slags - feasibility study - **Agnieszka Renman**; Frank Lipnizki; Gunno Renman; Fredrik Engström
- 11:14-11:17 Poster: Carbonation of BOF Slag considering Pressure, Temperature and Time Dependencies - **Andreas Neumann**; Zhenja Rozhkova; Ralf B. Wehrspohn
- 11:17-11:20 Poster: Circular Valorisation of EAF slag for CO2 capture & Industrial Symbiosis using EAF slag slurry - **Mahmood Shamsan**; Aditya Sinha; Shah Saud; Thomas Descheyer; Precious Nwajei
- 11:20-11:23 Poster: Classification of Mineral Phases and Manganese Distribution in Steel Slag - **Hiromi Eba**; Yunosuke Aida
- 11:23-11:26 Poster: Demonstrating processed EAF slag at scale as a high-performance SCM - **Laura Stefanini**; Luke Hunter; Grace Gledde; Madeleine Quin; K. H. C. Yap; Alex Dawes; Syed Mughees; Will Knapp
- 11:26-11:29 Poster: Dissolution Behavior of Secondary Additives in Steelmaking Slags - **Florian Kek**; Alexander Halwax; Jan Eisbacher-Lubensky; Patrick Stahl
- 11:29-11:32 Poster: Effect of Treatment Processes on the Phase Structure and Stability of Steelmaking slag - **Wenfeng Gu**; Jiang Diao; Takayuki Iwama; Yasushi Sasaki; Ryo Inoue; Shigeru Ueda
- 11:32-11:35 Poster: Evaluation of EAF Slag as a Sustainable Aggregate in Counterweight Concretes within the Scope of Green Transformation - **ÇETİN BAĞLAN**; OĞUZ IŞIK; Sinan ARAS; Serdar ERDEMİŞ; Gözde KAYA; Mehmet Buğra UYSAL
- 11:35-11:38 Poster: FESEM-EBSD as a tool for slag characterization - **Anniina Merenluoto**; Rita Kallio; Matias Jaskari; Eetu-Pekka Heikkinen; Ville-Valtteri Visuri; Jaakko Louhisalmi
- 11:38-11:41 Poster: From Innovation to Application: Integrated Thermodynamics and AI Approaches for Focused Metal Extraction from Slags - **Alberto Rivera Romero**; Carola Celada-Alonso; Felix López Gómez
- 11:41-11:44 Poster: Grinding aids for basic oxygen furnace slag: grindability and use in Portland cement and alkali-activated binders - **Milad Eskandarinia**; Elijah Adesanya; Brant Walkley; Juho Yliniemi
- 11:44-11:47 Poster: Influence of Calcium Oxide Content on the Valorisation of Tantalum-containing Slag - **Joao Weiss**; Daniel Munchen; Bernd Friedrich

- 11:47-11:50 Poster: Investigation on Electric Arc Furnace Slags and applications as Supplementary Cementitious Material - **Marco Cantaluppi**; Elijah Adesanya; Juho Yliniemi
- 11:50-11:53 Poster: Effects of slag former quality on slag forming in the EAF process - **Markus Carlborg**; Mohamed Elsadek; Conny Engström; Matias Eriksson; Markus Broström; Caisa Samuelsson
- 11:53-11:56 Poster: Quantitative mineralogy and mineral processing of Waelz slag as an alternative secondary raw material - **Carsten Gondorf**; Christian Wuppermann; Lars Gronen; Volkert Feldrappe; Devrim Gürsel; Tobias Vreatz
- 11:56-12:05 Poster: Phosphorus Refining of Slags and Sludges: Pathways Toward Sustainable Resource Recovery - **Andrey Karasev**; Mingsong Yang; Björn Glaser
- 12:05-13:00 Lunch break, Kulturens hus 4th floor**
- 13:00-14:10 Legislation, rules and standards, Stora salen (4th floor)**  
*Session chairs: Craig Heidrich (Australasian Slag Association); Anna Sokol (FEhS - Institute)*
- 13:00-13:30 Iron and Steel slags in REACH: a long relation with hurdles (Keynote)  
**Hans Kobesen**<sup>1</sup>  
<sup>1</sup> Tata Steel Netherlands and Convenor Working Committee REACH registration
- 13:30-13:50 Informing Slag Management Policy through Modeling: A Multi-dimensional Approach to Predict Cr(VI) Water Emissions  
**Shana Joy Baumgartner**<sup>1</sup>  
Alexey V. Cherkaev<sup>2</sup>, Johan Berg Pettersen<sup>1</sup>, Gabriella Tranell<sup>1</sup>  
<sup>1</sup> Department of Materials Science, NTNU, Alfred Getz' vei 2B, Trondheim, 7034, Sør Trøndelag, Norway.  
<sup>2</sup> Minerals Processing Division, Mintek, 200 Malibongwe Dr, Randburg, 2194, Gauteng, South Africa.
- 13:50-14:10 French guidelines for the use of ferrous slags in civil engineering works: environmental and health risk assessment  
**Jérémie DOMAS**<sup>1</sup>  
<sup>1</sup> C.T.P.L. – Technical and Promotional Centre for iron and steel sLags
- 14:15-15:15 Supplementary Cementitious Materials I, Stora salen (4th floor)**  
*Session chairs: Gerd Bolte (Heidelberg Materials); Caisa Samuelsson (Future Eco North Sweden AB)*
- 14:15-14:35 SAF slags from DRI-based steel production as clinker substitute for low-carbon cements  
**Dominik Ebert**<sup>1</sup>  
Daniel Schubert<sup>2</sup>, David Algermissen<sup>1</sup>, Andreas Ehrenberg<sup>1</sup>, Jannes König<sup>3</sup>, Gökhan Karagülmez<sup>4</sup>, Rüdiger Deike<sup>4</sup>  
<sup>1</sup> FEhS - Building Materials Institute  
<sup>2</sup> thyssenkrupp Steel Europe AG

<sup>3</sup> Heidelberg Materials AG

<sup>4</sup> University of Duisburg-Essen, Institute for Technologies of Metals

14:35-14:55 Valorization of Future Electric Arc Furnace Slags as Supplementary Cementitious Materials: Case Studies

**Anton Andersson**<sup>1, 2</sup>

Andreas Lennartsson<sup>1</sup>, Joo Hyun Park<sup>2</sup>, Fredrik Engström<sup>1</sup>

<sup>1</sup> Luleå University of Technology, Process Metallurgy

<sup>2</sup> Hanyang University, Department of Materials Science and Chemical Engineering

14:55-15:15 The research project DRI-EOS - Modification of DRI-based EAF slag for use in the cement industry

**Joachim Schneider**<sup>1</sup>

Dominik Ebert<sup>2</sup>, Jesko Gerlach<sup>3</sup>, Sophie Wunderlich<sup>4</sup>, Annika Henke<sup>5</sup>, Markus Dorndorf<sup>6</sup>,  
Andreas Ehrenberg<sup>2</sup>, Burkart Adamczyk<sup>1</sup>, Christian Adam<sup>1</sup>, David Algermissen<sup>2</sup>

<sup>1</sup> Bundesanstalt für Materialforschung und -prüfung (BAM)

<sup>2</sup> FEhS – Institut für Baustoff-Forschung e.V.

<sup>3</sup> Holcim (Deutschland) GmbH

<sup>4</sup> Salzgitter Mannesmann Forschung GmbH

<sup>5</sup> GP Friedrich GmbH

<sup>6</sup> LOI Thermprocess GmbH

**14:15-15:15 Research and Innovation I, Lilla salen (5th floor)**

*Session chairs: Sander Everstein (Tata Steel Netherlands); Valentina Colla (Scuola Superiore Sant'Anna)*

14:15-14:35 Considerations for Efficient Slag Practices in HPSR Steelmaking

**Ville-Valtteri Visuri**<sup>1</sup>

Tero Vuolio<sup>1</sup>, Iivari Lappeteläinen<sup>1</sup>, Eeli-Matti Sassi<sup>1</sup>, Michael Zarl<sup>2</sup>

<sup>1</sup> Process Metallurgy Research Unit, University of Oulu, Finland

<sup>2</sup> K1-MET GmbH, Austria

14:35-14:55 Sustainable Direct Alloying of Manganese in liquid steel by Aluminothermic Reduction from Ladle Refining Slag

**Sripushpa Kakara**<sup>1, 2</sup>

Elizaveta Cheremisina<sup>2</sup>, Ryo Inoue<sup>2</sup>, Takayuki Iwama<sup>2</sup>, Shigeru Ueda<sup>2</sup>, Ashok Kamaraj<sup>1</sup>

<sup>1</sup> Sustainable Metallurgy & Industrial Technologies (SMITH) Research Lab, Department of Materials Science and Metallurgical Engineering, Indian Institute of Technology Hyderabad, Sangareddy, India 502282

<sup>2</sup> Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, Japan.

14:55-15:15 Soil pH Improvement with Steelmaking Slag under Simulated Upland Wet–Dry Cycles

**Takayuki Iwama**<sup>1</sup>

Shohei Koizumi<sup>2</sup>, Megumi Obara<sup>1</sup>, Ryo Inoue<sup>1</sup>, Shigeru Ueda<sup>1</sup>

<sup>1</sup> Tohoku University

<sup>2</sup> Nippon Steel

**15:15-16:00 Coffee break and poster session, Kulturens hus 5th floor**

**16:00-17:20 Slag treatment I, Stora salen (4th floor)**

*Session chairs: Davide Mombelli (Politecnico di Milano); Rita Kallio (University of Oulu)*

**16:00-16:20 Recovery of valuable metals from steelmaking slags – a view from a geometallurgical perspective**

**Lars Gronen<sup>1</sup>**

Simon Wölfelschneider<sup>2</sup>, Devrim Gürsel<sup>3</sup>, Andreas Bremen<sup>4</sup>, Pavell Ivashechkin<sup>2</sup>, Michael Dohlen<sup>5</sup>, Gerald Stubbe<sup>2</sup>, Volkert Feldrappe<sup>1</sup>, Tobias Vraetz<sup>3</sup>

<sup>1</sup> FEhS Institut für Baustoff-Forschung e.V.

<sup>2</sup> VDEh - Betriebsforschungsinstitut GmbH (BFI)

<sup>3</sup> Advanced Mineral Processing Technologies Teaching and Research Unit, RWTH-Aachen University

<sup>4</sup> Co-reactive GmbH

<sup>5</sup> tkMSS – thyssenkrupp MillServices and Systems GmbH

**16:20-16:40 Adaptation of the hydrogen-plasma smelting reduction (HPSR) process into stainless steelmaking**

**Mert Saraçoğlu<sup>1</sup>**

Joop van Deursen<sup>1</sup>, Jérémy Chaulet<sup>2</sup>, Muxing Guo<sup>1</sup>, Bart Blanpain<sup>1</sup>, Annelies Malfliet<sup>1</sup>

<sup>1</sup> KU Leuven, Department of Materials Engineering, 3001, Belgium

<sup>2</sup> Aperam Stainless Europe, R&D, Isbergues, France

**16:40-17:00 Targeting the recovery of Co, Ta and Nb through the identification of EnAM in gas-phase synthesised fayalitic model slag**

**Apet Nikoyan<sup>1</sup>**

Manuel Vollbrecht<sup>2</sup>, Krishnanjan Pramanik<sup>1</sup>, Lucio Colombi Ciacchi<sup>1</sup>, Lutz Mädler<sup>1,2</sup>

<sup>1</sup> University of Bremen

<sup>2</sup> Leibniz Institute for Materials Engineering IWT

**17:00-17:20 Process sustainability: Use of internal ladle slag in the EAF**

Liviu Brabie<sup>1</sup>, **Sara Rosendahl**<sup>2</sup>, Björn Haase<sup>3</sup>, Susane Naeverno-Sand<sup>4</sup>, Mattias Warne<sup>5</sup>, Per Johan Hogberg<sup>4</sup>, André Ulmgren<sup>6</sup>, Nazem Jalali Pooria<sup>7</sup>, Min Chen<sup>8</sup>

<sup>1</sup> Swerim AB

<sup>2</sup> SSAB formerly Swerim AB

<sup>3</sup> Höganäs Sweden AB

<sup>4</sup> Celsa Nordic

<sup>5</sup> Allied Mineral Products Europe BV formerly Höganäs AB

<sup>6</sup> Carbomax AB

<sup>7</sup> ABB formerly Höganäs Sweden AB

<sup>8</sup> Swerim AB

**16:00-17:20 Research and Innovation II, Lilla salen (5th floor)**

*Session chairs: Anton Andersson (Luleå University of Technology); Ryo Inoue (Tohoku University)*

**16:00-16:20 Physical properties of electrical steelmaking slags with industrial practices, a study through experiments and modeling**

**Xintong Du<sup>1</sup>**

Ali Emami<sup>1</sup>, James Small<sup>1</sup>, Shuigen Huang<sup>2</sup>, Shuai Zhang<sup>2</sup>, Muxing Guo<sup>2</sup>, Yoongu Kang<sup>3</sup>, Marie-Aline Van Ende<sup>3</sup>

- <sup>1</sup> R&D, Tata Steel Netherlands, 1951JZ, IJmuiden, the Netherlands  
<sup>2</sup> Department of Materials Engineering, KU Leuven, BE-3001 Leuven, Belgium  
<sup>3</sup> Department of Mechanical Engineering, TU Eindhoven, 5612AZ, the Netherlands

16:20-16:40 Effect of alumina addition on the viscous behavior of iron silicate slag

**Sohei Sukenaga**<sup>1</sup>

Junson kokubo<sup>1</sup>, Masanori Tashiro<sup>1</sup>, Ko Mibu<sup>2</sup>, Junichi Takahashi<sup>3</sup>, Jiang Liu<sup>3</sup>, Yong Wang<sup>4</sup>,  
Hiroyuki Shibata<sup>1</sup>

<sup>1</sup> Tohoku University

<sup>2</sup> Nagoya Institute of Technology

<sup>3</sup> Sumitomo Metal Mining Co., Ltd.

<sup>4</sup> Wuhan University of Science and Technology

16:40-17:00 Fate of Chromium and Vanadium after long-term liming with iron and steel slags in two German field trials

**Hans-Peter Koenig**<sup>1</sup>

Martin Rex<sup>1</sup>, Lars Gronen<sup>1</sup>, Uwe Pihl<sup>2</sup>

<sup>1</sup> FEhS-Institut für Baustoff-Forschung

<sup>2</sup> thyssenkrupp Steel Europe AG

17:00-17:20 Thermal behaviour of trace elements introduced by alternative raw materials in burning of cement clinker

**Lukas Larsson**<sup>1</sup>

Markus Broström<sup>1</sup>, Bodil Wilhelmsson<sup>1, 2, 3</sup>, Matias Eriksson<sup>1, 3</sup>, Markus Carlborg<sup>1</sup>

<sup>1</sup> Umeå Universitet

<sup>2</sup> Heidelberg Materials Cement Sverige AB

<sup>3</sup> MinFo - Swedish Mineral Processing Research Association

18:30-22:00 **Conference dinner at Elite Stadshotellet,**

## Wednesday 17 June 2026

08:30-09:00 **Registration, Kulturens hus 4th floor**

09:00-10:30 **Introduction Day 2, Stora salen (4th floor)**

*Session chairs: Fabritius Timo (University of Oulu); Andreas Ehrenberg, (FEhS Institute)*

09:00-09:30 Slag from Steelmaking in Sweden (Keynote)

**Björn Haase**<sup>1</sup>

Christer Ryman<sup>2</sup>

<sup>1</sup> Höganäs Sweden AB

<sup>2</sup> Jernkontoret

09:30-10:00 Composition and reactivity of engineered electric arc furnace slags and use as SCM for Portland cement (Keynote)

**Frank Bullerjahn<sup>1</sup>**

Gerd Bolte<sup>1</sup>

<sup>1</sup> Heidelberg Materials AG

10:00-10:30 From innovation to application, development of a pozzolan SCM product (Keynote)

**Åke Roos<sup>1</sup>**

<sup>1</sup> Boliden

**10:30-11:00 Coffee break and poster session, Kulturens hus 5th floor**

**11:00-12:20 Slag treatment II, Stora salen (4th floor)**

*Session chairs: David Algermissen (FEhS Institute); Ko-Ichiro Ohno (Kyushu University)*

11:00-11:20 Dry Granulation of Ladle Slag: From Pilot Trials to Patented Building Materials

**Marta Guzzon<sup>1</sup>**

Mattia Bissoli<sup>1</sup>, enzo Chiarullo<sup>1</sup>, Enrico Malfa<sup>1</sup>, Cristina Barbieri<sup>2</sup>, Vincenzo Liuzzi<sup>2</sup>, Alberto Spaggiari<sup>2</sup>

<sup>1</sup> Tenova S.p.A.

<sup>2</sup> Kerakoll

11:20-11:40 Evaluating Technologies for Valorizing EAF Slag Suitable for the Cement Industry

**Hugo Joubert<sup>1</sup>**

Piet Jonker<sup>1</sup>, Orhan Demir<sup>1</sup>

<sup>1</sup> Tenova Pyromet

11:40-12:00 Production and characterization of thermophosphate fertilizer obtained by EAF ferronickel slag and bone ash.

**Davide Mombelli<sup>1</sup>**

Matteo Reda<sup>1</sup>, Carlo Mapelli<sup>1</sup>, Guilherme Frederico Bernardo Lenz e Silva<sup>2</sup>

<sup>1</sup> Politecnico di Milano, Dipartimento di Meccanica, Via La Masa 1, 20156 Milano, Italy

<sup>2</sup> Universidade de São Paulo, Escola Politécnica. Avenida Professor Mello Moraes, 2463, Cidade Universitária, 05508030 São Paulo (SP), Brazil

12:00-12:20 Closing the Loop on EAF Slag: Silicon as a Key to Immobilizing Free Lime and Safely Binding Heavy Metals

**Fiona Pickart<sup>1</sup>**, Philipp Donhause<sup>1</sup>, Bernd Friedrich<sup>1</sup>

<sup>1</sup> IME Process Metallurgy and Metal Recycling at RWTH Aachen University

**11:00-12:20 Research and Innovation III, Lilla salen (5th floor)**

*Session chairs: Joohyun Park (Hanyang University); Elsayed Mousa (Swerim AB)*

11:00-11:20 Synthetic EAF-slag mineralogy, microstructure and leaching behaviour as function of chemistry and cooling practice

**James Small<sup>1</sup>**

Jonathan Zepper<sup>2</sup>, Jolien Linckens<sup>1</sup>, Stefan Melzer<sup>1</sup>, Dominik Ebert<sup>3</sup>, David Algermissen<sup>3</sup>, Burkart Adamczyk<sup>4</sup>, Joachim Schneider<sup>4</sup>, Mary van Wijngaarden<sup>1</sup>, Christian Adam<sup>4</sup>, Sieger van der Laan<sup>1,2</sup>, Pieter Koopmans<sup>1</sup>, Sander Everstein<sup>1</sup>

<sup>1</sup> Tata Steel Netherlands, IJmuiden, The Netherlands

<sup>2</sup> Eindhoven University of Technology, The Netherlands

<sup>3</sup> FEhS – Institut für Baustoff-Forschung, Duisburg, Germany

<sup>4</sup> Federal Institute for Materials Research and Testing (BAM), Berlin, Germany

11:20-11:40 Focus on titanium, vanadium, phosphorus and chromium when improving cementitious properties of EAF slags

**Rita Kallio**<sup>1, 2</sup>

Eetu-Pekka Heikkinen<sup>2</sup>, Anniina Merenluoto<sup>2</sup>, Petri Sulasalmi<sup>2</sup>, Jaakko Louhisalmi<sup>3</sup>, Anton Andersson<sup>4</sup>

<sup>1</sup> GTK (Geological survey of Finland)

<sup>2</sup> University of Oulu

<sup>3</sup> SSAB Europe, Finland

<sup>4</sup> Luleå University of Technology, Sweden

11:40-12:00 Evaluation of Slag Foaming in an Electric Arc Furnace under Pulverized-Coal Injection

Fuga Sato<sup>1</sup>, Takayuki Iwama<sup>1</sup>, Wenfeng Gu<sup>1</sup>, Ryo Inoue<sup>1</sup>, **Shigeru Ueda**<sup>1</sup>

<sup>1</sup> Tohoku University

12:00-12:20 Standard Specification for Low Carbon Concrete using Ground Granulated Blast Furnace Slag and Fly Ash

**Craig Heidrich**<sup>1</sup>

Stephen Foster<sup>2</sup>

<sup>1</sup> Australasian (iron & steel) Slag Association

<sup>2</sup> UNSW School of Civil and Environmental Engineering Sydney

**12:20-13:20 Lunch break, Kulturens hus 4th floor**

**13:20-15:00 Valorization and best practices, Stora salen (4th floor)**

*Session chairs: Frank Bullerjahn (Heidelberg Materials); Björn Haase (Höganäs AB)*

13:20-13:40 Two Decades of Full-Scale Field Experience with Stainless Steel Slags in Landfill Covers: Evidence from Hagfors, Sweden

**Lale Andreas**<sup>1</sup>

<sup>1</sup> Luleå University of Technology

13:40-14:00 Saint-Gobain's ladle slag processing plant in Raahe promotes circular economy in the construction industry

**Gunnar Lauren**<sup>1</sup>

<sup>1</sup> Jaakko Louhisalmi, Business Development Manager at SSAB By-product sales & development

14:00-14:20 Performance Evaluation of SMA Concrete Pavements Incorporating BOFS on Heavy Traffic Roads in Kaohsiung, Taiwan

I-MIN WU<sup>1</sup>, Jian-Shiuh Chen<sup>2</sup>, **Huang-Fu Chen**<sup>1</sup>

<sup>1</sup> CHC Resources Co., Ltd., Kaohsiung, Taiwan

<sup>2</sup> Department of Civil Engineering, National Cheng Kung University, Tainan, Taiwan

14:20-14:40 Valorization of Ladle Furnace Slag via Accelerated Carbonation for Rubber Compound Applications as sustainable filler

**Anna Gobetti**<sup>1</sup>

Giorgio Ramorino<sup>1</sup>, Marcello Gelfi<sup>1</sup>, Paolo Brazzo<sup>2</sup>, Giovanna Cornacchia<sup>1</sup>  
<sup>1</sup> University of Brescia, Department of Mechanical and Industrial Engineering, Brescia (BS), Italy  
<sup>2</sup> Resilco S.r.l., Bergamo (BG), Italy

14:40-15:00 Investigation on dry and wet natural carbonation of steelmaking slag

Carlo Mapelli<sup>1</sup>, **Davide Mombelli**<sup>1</sup>, Gianluca Dall'Osto<sup>1</sup>, Andrea Riccardi<sup>1</sup>, Elena Da Val<sup>2</sup>, Roberto Moreschi<sup>2</sup>, Giovanni Baldo<sup>2</sup>  
<sup>1</sup> Politecnico di Milano, Dipartimento di Meccanica, Via La Masa 1, 20156 Milano, Italy  
<sup>2</sup> Fassa Bortolo S.r.l., via Lazzaris 3, 31027 Spresiano (TV), Italy

**13:20-15:00 Research and Innovation IV, Lilla salen (5th floor)**

*Session chairs: Eetu-Pekka Heikkinen (Oulo University); Maria Öström (Heidelberg Materials)*

13:20-13:40 Rapid chemical analysis of liquid slag

**Jonas Petersson**<sup>1</sup>, David Malmström<sup>1</sup>, Saga Bergqvist<sup>1</sup>  
<sup>1</sup> Swerim AB

13:40-14:00 Experimental and CFD based investigations on potentials of steel slags as thermal energy storage solution

Akhil V. Panicker<sup>1</sup>, Nikolaos Gavriilidis<sup>1</sup>, Huilin Li<sup>2</sup>, Gunvor M. Kirkelund<sup>2</sup>, Lisbeth Ottosen<sup>2</sup>, **Ming Chen**<sup>1</sup>  
<sup>1</sup> Dept. of Energy Conversion and Storage, Technical University of Denmark, Denmark  
<sup>2</sup> Dept. Of Environmental and Resource Engineering, Technical University of Denmark, Denmark

14:00-14:20 Distribution and Condensation Behavior of Samarium in CaO-SiO<sub>2</sub>-FeO-P<sub>2</sub>O<sub>5</sub>-MgO Slag for Permanent Magnet Recycle

Takayuki Iwama<sup>1</sup>, Wenfeng Gu<sup>1</sup>, Shigeru Ueda<sup>1</sup>, **Ryo Inoue**<sup>1</sup>  
<sup>1</sup> Institute of Multidisciplinary Research for Advanced Materials, Tohoku University

14:20-14:40 Condensation Behavior of Vanadium in Specific Mineral Phases of Steelmaking Slag

Riku Tsuneda<sup>1</sup>, Takayuki Iwama<sup>1</sup>, **Atsuki Miyoshi**<sup>2</sup>, Yukihiro Goda<sup>2</sup>, Muneyoshi Sawayama<sup>2</sup>, Shigeru Ueda<sup>1</sup>, Ryo Inoue<sup>1</sup>  
<sup>1</sup> Institute of Multidisciplinary Research for Advanced Materials, Tohoku University  
<sup>2</sup> R&D Laboratory, Kobe Steel

14:40-15:00 In-situ observation of steel-slag separation behaviors in hydrogen-based direct reduction (DRI)

Qing Zhu<sup>1,2</sup>, Xianfeng Hu<sup>3</sup>, **Wangzhong Mu**<sup>1,4</sup>  
<sup>1</sup> Engineering Materials, Department of Engineering Science and Mathematics, Luleå University of Technology, 97187, Luleå, Sweden  
<sup>2</sup> Key Laboratory of Electromagnetic Processing of Materials (Ministry of Education), School of Metallurgy, Northeastern University, Shenyang 110819, P.R. China  
<sup>3</sup> Swerim AB, Aronstorpsvägen 1, SE-974 37, Luleå, Sweden  
<sup>4</sup> Department of Materials Science and Engineering, KTH Royal Institute of Technology, Brinellvägen 23, Stockholm, SE-100 44 Sweden

- 15:00-15:30** **Coffee break and poster session, Kulturens hus 5th floor**
- 15:30-17:10** **Supplementary Cementitious Materials II, Stora salen (4th floor)**  
*Session chairs: Mikael Larsson (Swerim AB); Åke Roos (Boliden Smelters)*
- 15:30-15:50 Black granulated slag from EAF - a first milestone towards a sustainable future  
Elke Kaindl<sup>1</sup>, **David Algermissen**<sup>2</sup>, Dirk Mudersbach<sup>1</sup>, Dominik Ebert<sup>2</sup>, Andreas Ehrenberg<sup>2</sup>, Anna Sokol<sup>2</sup>  
<sup>1</sup> Max Aicher Umwelt GmbH  
<sup>2</sup> FEhS - Institut für Baustoff-Forschung e.V.
- 15:50-16:10 EAF and BOF slags as components in low-carbon cements  
**Simon Blotevogel**<sup>1,2</sup>, Katharina Schraut<sup>1,2</sup>, Alexis Meriot<sup>1</sup>, Roberta Alfani<sup>1</sup>, Martin Cyr<sup>2</sup>  
<sup>1</sup> Ecocem Materials Ltd  
<sup>2</sup> Université de Toulouse
- 16:10-16:30 Integrated Valorization of EAF and BOF Steel Slags for Metal Recovery and Modified Cementitious Material Production  
Elsayed Mousa<sup>1</sup>, **Mats Åhlin**<sup>2</sup>, Paul Sandberg<sup>2</sup>, Guozhu Ye<sup>1</sup>  
<sup>1</sup> Swerim AB, Aronstorpsvägen 1, 974 37 Luleå, Sweden  
<sup>2</sup> Cemvision AB, Box 2376, 10318 Stockholm, Sweden
- 16:30-16:50 Comparitive study of air and water granulation of DRI-EAF slag at 6-ton pilot scale  
**Mattia De Colle**<sup>1</sup>  
<sup>1</sup> ArcelorMittal Global Research and Development - Maizieres
- 16:50-17:10 Cementitious investigation of slags arising from the Hlsarna ironmaking process  
Christiaan Zeilstra<sup>1</sup>, **Andreas Ehrenberg**<sup>2</sup>, Marcel Bruin<sup>3</sup>, Cornelis Teerhuis<sup>1</sup>  
<sup>1</sup> Tata Steel Europe  
<sup>2</sup> FEhS  
<sup>3</sup> Heidelberg Materials
- 17:10-17:25** **Closing ceremony, Stora salen (4th floor)**
- 17:10-17:25 Closing remarks  
**Christer Ryman, Jernkontoret, and, Thomas Reiche, FEhS Institute & Euroslag**
- 17:45-21:00** **Visit to SWERIM including light meal/refreshments, Buses from the entrance**

# Thursday 18 June 2026

**09:00-16:00** Tour to **Boliden Rönnskär smelter**, *Bus 1, departs from Kulturens hus*

**10:00-15:00** Tour to **SSAB steel plant**, *Bus 2, departs from Kulturens hus*

**10:00-13:00** Tour to **Gammelstad Church Town (UNESCO World Heritage Site)**, *Bus 3, departs from Kulturens hus*