



Day 1

Tuesday 20 October 2026

ArcelorMittal Ghent and RodeBol Events

08:30 – 09:00

Registration for the plant visit

ArcelorMittal Ghent

09:00 – 12:45

Plant visit ArcelorMittal Ghent - optional

Guided visit of the steel plant

12:45 – 14:00

Lunch – ArcelorMittal Ghent

14:00 – 14:30

Transfer to RodeBol Events

CommunicationCampus, Sint-Denijslaan 485, 9000 Ghent

14:30 – 15:00

Registration – RodeBol Events

Opening session · Welcome and high-level addresses

15:00 – 15:05

Opening and welcome day 1

Conference Chairs

Inge Bellemans – Ghent University & Nuria Sanchez – ArcelorMittal

Wim Van der Stricht – ESTEP

15:05 – 15:25

CEO / Managing Director ArcelorMittal Ghent – ArcelorMittal

Welcome address

15:25 – 15:45

Sven Vandeputte – Managing Director, OCAS

Welcome address

15:45 – 16:05

Karen Hemelsoet – Ghent University

Title to be confirmed

16:05 – 16:25

From research priorities to European collaboration: the role of ESTEP

Wim Van der Stricht – Secretary General, ESTEP

16:25 – 16:45

DG Research and Innovation, European Commission

To be confirmed

16:45 – 17:05

European Research Executive Agency (REA), European Commission

To be confirmed

17:05 – 17:10

Closing of day 1

Conference Chairs

Inge Bellemans – Ghent University & Nuria Sanchez – ArcelorMittal

17:10 – 18:30

Poster session

18:30 – 21:30

Walking dinner – RodeBol Events

Day 2

Wednesday 21 October 2026

RodeBol Events – morning



08:30 – 09:00 Registration and coffee

09:00 – 09:10 Opening and welcome day 2

Nuria Sanchez, Conference Chair, ArcelorMittal
Wim Van der Stricht, Secretary General, ESTEP

Decarbonisation and clean steel processes · Session chair: Nuria Sanchez

09:10 – 09:40 **KEYNOTE : Beyond the metal: How slag properties drive the future of clean steel production**

Kim Verbeken – Ghent University

09:40 – 10:00 **Decarbonisation of BF-BOF steelmaking: TRL7 pilot-scale demonstration of STEPWISE technology for H₂ production and CO₂ capture using steel gases**

Eric Van Dijk – TNO

10:00 – 10:20 **From a self-sufficient site to a flexible electrified producer: energy integration across the BF-BOF to DRI-EAF transition at Tata Steel IJmuiden**

Seyed Jamali – Tata Steel

10:20 – 10:40 **TRANSinter – Sintering process role in the (partial) transition to the direct reduction route**

Hubert Fouarge – CRM Group

10:40 – 11:00 **Pressure swing adsorption as a key enabler for steelmaking decarbonisation**

Martin Raventos – Air Liquide & Jean-Luc Reboul – ArcelorMittal

11:00 – 11:20 Coffee break

Decarbonisation and clean steel processes · Session chair: Ismael Matino

11:20 – 11:40 **Reduction kinetics and metallurgical performance of cold-agglomerated magnetite-based pellets for hydrogen direct reduction**

Matthew Bennett – Binding Solutions

11:40 – 12:00 **Hydrogen-based steel reheating in a pilot-scale walking beam furnace: decarbonisation potential and environmental trade-offs**

Xiangqiang Song – Swerim

12:00 – 12:20 **Experimental validation of coke breeze oxy-combustion for H₂-rich syngas production in integrated steelmaking**

Eros Faraci – RINA CSM

12:20 – 12:40 **EASyMelt deployment in Europe: a solution to decarbonize blast furnaces while preserving industrial competitiveness**

Maryam Baniyadi – SMS Group

12:40 – 13:00 **Pulsed hydrogen shaft injection for the blast furnace: first results from the H2II test rig trials**

Hauke Bartusch – BFI

13:00 – 14:15 Lunch

Day 2

Wednesday 21 October 2026

RodeBol Events – afternoon



Smart Steel Products and Applications · Session chair: Nuria Sanchez

- 14:15 – 14:45** **KEYNOTE : Experimental and numerical approaches to hydrogen compatibility testing of steel products and applications**
Frank Schweizer – Fraunhofer IWM
- 14:45 – 15:05** **Group Metallurgical consequences of zero-carbon steelmaking: impact of residual elements on the processing and properties of IF, DP, HSLA and high-carbon steels – first results of the MetConZero project**
Robrecht Jennen – CRM
- 15:05 – 15:25** **Creep performance of a high-chromium ferritic-martensitic steel with novel composition and thermal treatment**
Lorena Callejo – Tecnalia
- 15:25 – 15:45** **European project FEATHER: steel solution for next-generation H₂ cylinders**
Simon Catteau – Acciaierie Bertoli Safau
- 15:45 – 16:05** **SafeH2Pipe – Behaviour of vintage and modern pipelines with external damage for H₂-NG pipeline transport: project overview and assessment through small-scale and full-scale testing**
Dennis Vanhoecke – ArcelorMittal

16:05 – 16:25 **Coffee break**

Decarbonisation and clean steel processes · Session chair: Ismael Matino

- 16:25 – 16:45** **Hy4Smelt – current research topics**
Michael Schafelner – voestalpine & Gernot Polke – Primetals Technologies
- 16:45 – 17:05** **Green process gas heating: decarbonising auxiliary and heating processes in steel production with the Ultra-High Temperature Thermo Jet technology**
Stefan Sieberer – Primetals Technologies
- 17:05 – 17:25** **Fuel rate reduction and CO₂ emission optimisation in an integrated blast furnace: waste heat recovery, burden management and future fines recycling – operating experience from Jayaswal Neco Industries**
Rajkumar Yadu – Jayaswal Neco Industries
- 17:25 – 17:45** **Waste-derived reductants for blast furnace decarbonisation: a techno-economic and environmental assessment of SRF and torrefied waste wood utilisation**
Mario Avila – Ghent University
- 17:45 – 17:55** **Conclusions of day 2**
Nuria Sanchez, Conference Chair, ArcelorMittal
Wim Van der Stricht, Secretary General, ESTEP
- 20:00** **Conference dinner – Ghent Marriott Hotel**
Address : Drabstraat 37, 9000 Gent

Day 3

Thursday 22 October 2026

RodeBol Events – morning

08:30 – 08:45	Registration and coffee
08:45 – 08:50	Opening and welcome day 3 Inge Bellemans, Conference Chair, Ghent University Wim Van der Stricht, Secretary General, ESTEP
Predictive modelling and digital metallurgy · Session chair: Inge Bellemans	
08:50 – 09:20	KEYNOTE : Long-Horizon Forecasting of Microstructure Evolution in Multi-component Alloys: Phase-Field Simulations, Deep Learning, and Tensor Decomposition Nele Moelans – KU Leuven
09:20 – 09:40	A coupled decarburisation-dephosphorisation-denitrogenation model of the BOF emulsion zone: implications for low-carbon hot metal from H-DRI Gaurav Verma – TU Delft / TNO
09:40 – 10:00	PHASES Agent: an AI agent for physics-based digital metallurgy Daniel Berglund – Aerobase
10:00 – 10:20	A system approach to integrated resource control in the EAF: managing alternative carbon materials, hydrogen and heat recovery Ismael Matino – Scuola Superiore Sant'Anna
10:20 – 10:40	A hybrid physics-informed framework for near real-time quality prediction of direct reduced iron Tristan Kristan – Pro2Future
10:40 – 11:00	Coffee break
Circular economy, circularity by design and recovery-ready steel products · Chair: Enrico Malfa	
11:00 – 11:20	Mapping and prioritising waste heat recovery opportunities across electric and integrated steelmaking routes: the E-ECO Downstream project at Feralpi and Acciaierie d'Italia Valentina Colla – Scuola Superiore Sant'Anna
11:20 – 11:40	Self-reducing briquettes – the use of various carbon sources for reduction Hans Hage – Tata Steel
11:40 – 12:00	Hydraulic properties and alkali activation of artificial electric smelting furnace slag Irmtraud Marschall – K1-MET
12:00 – 12:20	Characterisation of high-quality steel scrap and use in integrated steelmaking plants – results of the REDERS project Marten Lichte – BFI
12:20 – 12:40	Steelanol: three years of industrial carbon recycling – where do we stand? Achievements, challenges and the path forward Kristof Verbeeck – ArcelorMittal
12:40 – 13:00	Steel industry zinc-containing residues valorisation – the ZincVal approach Hans Hage – Tata Steel
13:00 – 14:15	Lunch

Day 3

Thursday 22 October 2026

RodeBol Events – afternoon

Predictive modelling and digital metallurgy · Session chair: Inge Bellemans

14:15 – 14:35	Influence of crucible material on the microstructure and electrical conductivity of CaO-SiO₂-MgO-FeOx slags Carl Debrouwere – Ghent University
14:35 – 14:55	Model studies of liquid steel mixing in a steelmaking ladle Mariola Saturnus – Silesian University of Technology
14:55 – 15:15	Towards networked digital twins for a green steel value chain: an integration concept from the DiGreeS project Klemens Winkler – K1-MET
15:15 – 15:35	Microstructure analysis in the age of foundation models Michael Sluydts – Epotentia
15:35 – 15:45	Conclusions of day 3 & closing Inge Bellemans, Conference Chair, Ghent University Wim Van der Stricht, Secretary General, ESTEP
15:45	End of ESTEP Annual Event 2026



Poster session

Fifteen posters are presented during the poster session on Day 1 and remain on display throughout the event.

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| 1 | Industrial validation of low-emission automotive steel sheets through mitigation of inevitable impurity effects
Sunhwan Kwon – Hyundai Steel | 9 | Evaluation of slag foaming behaviour in an electric arc furnace using numerical modelling
Hadi Barati – K1-MET |
| 2 | Environmental benefit of radiation curing systems – an industrial pre-painted steel case
Neda Hashemi – CRM Group | 10 | Status of the Horizon Europe project “Maximise H₂ enrichment in direct reduction shaft furnaces”
Thorsten Hauck – BFI |
| 3 | Low-temperature CO₂ electrolysis to mitigate hard-to-abate emissions in the steel industry in a closed carbon loop
Nina Plankensteiner – K1-MET | 11 | Advanced steels for cost-effective high-pressure hydrogen storage and transport
Tuhin Das – ArcelorMittal |
| 4 | A system-level steel plant assessment tool (PAT) to support the green steel transition
Maryam Baniyadi – SMS group | 12 | Expert-in-the-loop Bayesian optimisation across alloy discovery and process optimisation in steels
Bernd Schuscha – Materials Center Leoben |
| 5 | HEPHAESTUS: an integrated process for high-purity recycling of EAF and AOD dust
Liuba Lukina – KU Leuven | 13 | Conclusions of the CAESAR Horizon Europe project – circularity enhancements by low-quality scrap analysis and refinement
Frédéric Van Loo – CRM Group |
| 6 | Consolidating a steelmaking process modelling asset for sustainable scenario simulations and future outlooks
Gabriele Franciosi – Scuola Superiore Sant’Anna | 14 | Safe H-DRI projects – intermediate findings: from hydrogen reduction to reoxidation and the importance of reliable material characterisation
Wolfgang Reiter – K1-MET |
| 7 | Absorption, adsorption or cryogenics? Operation of CO₂ capture technologies in heavy-industry conditions
Victor Deveen – CRM Group | 15 | Advancing industrial symbiosis in the steel industry: guidelines and roadmap for by-product valorisation from the RFCS Symbio-Steel project
Agnieszka Morillon – FEhS |
| 8 | Thermochemical analysis of the Midrex direct reduction product cooler: normal vs emergency operating conditions
Hafez Amani – ETM Consulting Engineers | | |