PROGRAM

17th INTERNATIONAL SEMINAR ON FURNACE DESIGN – Operation & Process Simulation

TUESDAY | JUNE 17

12:00 – 21:00 **SEMINAR REGISTRATION (Wellness Hotel Horal – Lobby)**

13:00 – 16:00 **13th GFM USERS' MEETING** (for users of GS GFM Software, based on invitation)

Place: **Wellness Hotel Horal – Conference Room**

14:00 – 18:00 **GLASS DEFECTS WORKSHOP**

Place: **Spa Hotel Lanterna – Meeting Room**

16:30 – 18:00 **MEETING OF ICG TC15/21 | GLASS FURNACE DESIGN & OPERATION**

Program Coordinator: **Aaron Huber**
Place: **Wellness Hotel Horal – Conference Room**

19:30 – 23:00 **MEET & GREET PARTY (Wellness Hotel Horal)**
Small Refreshment Served
Dress Code: Casual

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WEDNESDAY | JUNE 18

08:30 – 14:00 **SEMINAR REGISTRATION (Wellness Hotel Horal – Lobby)**

08:50 – 09:20 WELCOME SPEECH

Speakers: **Erik Muijsenberg** (Program Coordinator) **& Marc Russo**
Place: **Wellness Hotel Horal – Conference Room**

09:20 – 12:45 TECHNICAL SESSION 1 | THE PATH TO DECARBONIZATION

Chairmen: **Harald Zimmermann, Jaroslav Klouzek**
Place: **Wellness Hotel Horal – Conference Room**

09:20 – 09:45 **AGC Glass Europe & Americas Decarbonization Initiatives Towards Low Carbon Products**
Fabrice Fasilow (AGC Glass Europe & Americas)

09:45 – 10:15 **INVITED LECTURE**
"The Secret of Getting Ahead Is Getting Started"
How Science and Industry Converge to Resolve Issues Facing the Global Glass Industry
Steve Whettingsteel (Krysteline Technologies Ltd)
Malte Sander (Glass Service, a.s.)

10:15 – 10:40 **Glass Futures: A Research and Collaboration Platform for Glass Industry Decarbonisation**
Dave Fordham (Glass Futures Ltd)
Presented by: Dave Fordham (Glass Futures Ltd) and Ernesto Cattaneo (Stara Glass)

10:40 – 11:05 **Decarbonisation, the Road Ahead May Be Bumpy!**
Stuart Hakes (F.I.C. UK Limited)

11:05 – 11:30 **COFFEE BREAK**

11:30 – 11:55 **Net-Zero Glass Production: Only a Dream?**
Sander Malte (Glass Service, a.s.)

11:55 – 12:20 **Numerical Modelling of a Continuous Glass Tank Furnace for Glass Industry**
Shivam Swarnakar, Jeetendra Sehgal (B.L. Kheruka R&D Center, Borosil Renewables Ltd.)

12:20 – 12:45 **Simulations, Reduced Models & Alternative Fuels to Improve Productivity and Sustainability in Glass Fiber Manufacturing**
Bruno A. Purnode, Ashreet Mishra, Alex Lohse, Ravi Arora (Owens Corning, Granville, USA)
Etienne Roux, Rino Fabris (Owens Corning, Chambery, France)
Shrikar Chakravarti, Kelly Tian, Victor Hernandez (Linde R&D Center, USA)

12:45 – 13:00 **GROUP PHOTO 2025 (Wellness Hotel Horal – Terrace)**

13:00 – 14:30 **LUNCH (Hotel Horal – Restaurant)**

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14:30 – 17:50	TECHNICAL SESSION 2 | SOFTWARE TECHNOLOGIES AND HYBRID MELTERS
	Chairmen: Aaron Huber, Fabiano Rodrigues
	Place: Wellness Hotel Horal – Conference Room

14:30 – 14:55	**Where Does the Glass Industry Stand in AI** John Page (Cardinal)
14:55 – 15:20	**CFD Modelling as a Multi-Purpose Tool to Aid Furnace Efficiency and Emissions** Matthew Rivers (Five Stein Ltd.)
15:20 – 15:45	**Numerical Modeling of Regenerators in Hybrid Glass Furnaces: Optimizing for Decarbonization** Canalp Kulahli (Sisecam Science and Technology Center)
15:45 – 16:10	**Zero CO_2 Project and Hybrid Furnaces** Dorothee Ullrich (Horn Glass Industries)
16:10 – 16:35	**COFFEE BREAK**
16:35 – 17:00	**Recent Advances in CFD Simulations of Industrial Furnaces:** **Improved Simulation of Batch Melting in Cold-Top Melters and Validated Bubbler Modeling** Miroslav Trochta, Tomas Krobot, Jiri Brada (Glass Service, a.s.)
17:00 – 17:25	**Hybrid Furnaces and Batch Carryover:** **Lab Studies and CFD Modeling for Improved Tank Design** Christian Räbiger (CelSian) Wolf Kuhn, Syntia Metchueng Kamden (Fives Stein)
17:25 – 17:50	**Experiences from the Design & Operation of an All-Electric Glass Melting Furnace** Harald Zimmermann (TH Deggendorf - TAZ Spiegelau) Weniamin Yusim, Tobias Helling, Florian Reischl (TH Deggendorf - TAZ Spiegelau) Lars Biennek, Wolfram Wintzer (Horn Glass Industries)
19:30 – 23:00	**RECEPTION – Welcoming Ceremony (Wellness Hotel Horal)** **10th GS MODELING AWARD 2025** Dress Code: Formal

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THURSDAY | JUNE 19

09:00 – 12:50 TECHNICAL SESSION 3 | DECARBONIZING COMBUSTION AND IMPROVING THE FURNACE LIFETIME

Chairmen: Michel Gaubil, Markus Schreder
Place: Wellness Hotel Horal – Conference Room

09:00 – 09:25 **Horizon Europe Project H2GLASS: Outcomes of the First Campaigns of Industrial Scale H2 Combustion Trials Performed in a Container Glass Melting Furnace of Steklarna Hrastnik**
Simone Tiozzo, Damiano Marchese (Stazione Sperimentale del Vetro)
Tilen Sever, Gorazd Krese (Steklarna Hrastnik)
Giuseppe Fragapane, P. Wang (SINTEF Manufacturing)

09:25 – 09:50 **Hydrogen Combustion Experiences in Glass Industry**
Ernesto Cattaneo (Stara Glass)

09:50 – 10:15 **FlammaTec Further Contributions to CO_2 Reduction in Glass Production by Optimization of Firing**
Andreas Birle (FlammaTec Germany GmbH)

10:15 – 10:40 **Decarbonization Through AI-Powered Batch Monitoring and Model-Based Predictive Control for Electric and Gas-Fired Furnaces**
Robert Prochazka, Erik Muijsenberg (Glass Service, a.s.)

10:40 – 11:05 **COFFEE BREAK**

11:05 – 11:30 **Regenerator Design Optimization and Monitoring Solutions to Maximize and Maintain Furnace Energy Efficiency**
Fabiano Rodrigues, Mohamed Lazrak (SEFPRO)
Tomas Denk, Miroslav Trochta, Tomas Krobot (Glass Service, a.s.)

11:30 – 11:55 **Refractory Corrosion During Industrial and Waste Glass Melting: Development of Corrosion Rate Model Based on Advanced Dynamic Corrosion Tests**
Richard Pokorny, Jaroslav Klouzek, Petra Cincibusova (University of Chemistry and Technology Prague & Institute of Rock Structure and Mechanics of the ASCR, Prague)
Radek Pezl, Sarka Msallamova (University of Chemistry and Technology Prague)
Pavel Hrma (AttainX, U.S. Department of Energy, Office of River Protection)
Albert A. Kruger (U.S. Department of Energy, Office of River Protection)

11:55 – 12:20 **GLASS SERVICE, SEFPRO & CRYSTALEX – Throat Corrosion Simulation**
Miroslav Polak (Glass Service, a.s.)
Michel Gaubil, Maxime Simon (SEFPRO)
Jiri Kruml (Crystalex)

12:20 – 12:45 **Tank Monitoring System to Maximize Furnace Lifetime and Avoid Major Safety Events**
Hugo Hiel-Beraud, Fabiano Rodrigues (SEFPRO)

13:00 – 14:30 **LUNCH (Wellness Hotel Horal – Restaurant)**

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THURSDAY | JUNE 19

14:30 – 17:00	**TECHNICAL SESSION 4 | OXY-GAS TECHNOLOGIES AND SPECIAL SOLUTIONS**
	Chairmen: Andrew Reynolds, Christian Räbiger
	Place: Wellness Hotel Horal – Conference Room
14:30 – 14:55	**Oxy-Fuel Furnaces – How Does This Influence the Flue Gas Treatment** Matthias Hagen ((DÜRR Systems AG)
14:55 – 15:20	**Using of Modelling Tools Driving the Implementation of DiluJet® Swing FH Oxy-Fuel Burners at the Refiner and Forehearths of Three Production Furnaces Previously Air-Fuel Fired** Joaquin de Diego (Nippon Gases Euro-Holding) Tuur de Preter (Nippon Gases Belgium) Masashi Yamaguchi, Yoshiyuki Hagihara (Taiyo Nippon Sanso Corporation)
15:20 – 15:45	**Heraeus' Innovative DPH Alloys: Revolutionizing Glass Production with Enhanced Performance and Sustainability** Tim Rackensperger (Heraeus Precious Metals) Presented by: Sophie Franchitto
15:45 – 16:10	**COFFEE BREAK**
16:10 – 16:35	**CFD-Simulation with Star CCM+** Andreas Hanninger (TH Deggendorf – TAZ Spiegelau)
16:35 – 17:00	**The Decarbonisation Pathway for Used Glass** Steve Whettingsteel (Krysteline Technologies Ltd)
17:00 – 17:15	**WRAP-UP: KEY TAKEAWAYS**
	Speaker: Erik Muijsenberg
	Place: Wellness Hotel Horal – Conference Room
19:30 – 24:00	**FAREWELL PARTY with Live Music & Dancing (Wellness Hotel Horal)** Dress Code: Casual

AIR PRODUCTS
Bernard Bonnefond
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Companies consenting to sponsor this event