



**SAIMM**  
THE SOUTHERN AFRICAN INSTITUTE  
OF MINING AND METALLURGY

# 4<sup>TH</sup> MANGANESE SCHOOL

THEME: ENVIRONMENT/ENERGY – CO<sub>2</sub> EMISSIONS

20-21 SEPTEMBER 2022, PARIS

Venue: Fédération Nationale Des Travaux Publics (FNTP)  
3 Rue de Berri, 75008 Paris, France



**PRÉMA**

## PROGRAMME: CO<sub>2</sub> EMISSIONS AND ENERGY EFFICIENCY

### Day 1 - Tuesday 20 September 2022

08:30 – 09:00 **Welcome Coffee**

#### Session 1: General

09:00–09:15 **Introduction** - L. Joncourt, *Eramet Ideas*

09:20–10:15 **Market** - A. D'hambure, *International Manganese Institute*

10:15–11:10 **Mn fundamentals: Part I** - Eli Ringdalen, *Sintef*

11:10–11:30 **Coffee Break**

11:30–12:25 **Mn fundamentals: Part II** - G. Nussbaum, *Eramet Ideas*

12:25–14:00 **Lunch Break**

#### Session 2: Reduction of CO<sub>2</sub> emissions

14:00–14:40 **CO<sub>2</sub> reduction program in Eramet** - B. Ravary, *Eramet Norway*

14:40–15:20 **PreMa project overview and results** - Eli Ringdalen, *Sintef*

15:20–16:00 **HSC Sim base case in PREMA** - T. Larssen, *Sintef*

16:00–16:20 **Coffee Break**

16:20–17:00 **Thermal balance simulations/LCA** - C. Wieszczyk, *Metso:Outotec*

17:00– 17:40 **Reduction of environmental impact and optimization of energy consumption** - D. Gryshan, *OFZ*

### Day 2 - Wednesday 21 September 2022

08:30–09:00 **Welcome Coffee**

#### Session 2 (continue): Reduction of CO<sub>2</sub> emissions

09:00–09:40 **Improving Pre-reduction inside HCFemn furnaces** - A. Hecquet and A. Nigmatova, *Eramet Ideas*

09:40–10:20 **Pre-heating Mintek Pilot** - S. Moholwa, *Mintek*

10:20–11:00 **CO<sub>2</sub> capture and energy recovery opportunities** - C. Fleuriault, *Eramet Norway*

11:00–11:20 **Coffee Break**

#### Session 3: Reduction of energy use and alternative sources

11:20–12:00 **Biocarbon** – S. Yngve Larsen, *Eramet Norway*

12:00–12:40 **Use of H<sub>2</sub>/Alternative processes** - T. Hitier, *Eramet Ideas*

12:40–14:00 **Lunch Break**

14:00–14:40 **Solar energy** - D. Bezuidenhout, *Mintek*

#### Session 4: Conclusion

14:40–16:40 **Workshop: Realising pre-reduction in the industry** - W. Bam, *Associate Prof. Stellenbosch University*

16:40–17:00 **Coffee Break**

17:00–17:20 **Concluding remarks**