



HiTeMP-3 Forum

National Wine Centre, Adelaide
26-28 Sept, 2022

The third High Temperature Minerals Processing Forum, HiTeMP-3, consolidated the forum's position as a globally leading think-tank in the net-zero transition for heavy industry. It engaged some 170 delegates from thirteen countries to chart highly prospective pathways to net-zero emissions for the high temperature processes used to manufacture energy-intensive materials such as steel, cement, aluminium, copper and nickel. HiTeMP-3 was attended in near equal numbers by industry and researchers (43% and 46%, respectively), together with 11% from government agencies. It successfully integrated the simultaneous streaming for the 35 virtual participants from across the world within the live meeting of delegates.

Founded by the University of Adelaide's Centre for Energy Technology, the biennial HiTeMP-3 was co-hosted by both the Heavy Industry Low-carbon Transition Cooperative Research Centre (HILT CRC) and Mission Innovation's Net-Zero Industry Mission. Its success is demonstrated by the results of an anonymous on-line survey, which revealed 98% broad agreement that HiTeMP-3 was valuable, with all delegates stating that they would recommend it to their colleagues. Some valuable suggestions were also made, which will be incorporated into future meetings to make them even better.

HiTeMP-3 identified a continued strengthening of the global commitment to net-zero for the sector, with all participating companies committed to the transition and the majority also committed to a 2050 target. While this transition is generally projected to increase production costs in the short to medium term, this increase can be readily overcome by market premiums and/or pricing mechanisms (such as a carbon tax), because it is small relative to the final value of a manufactured product (such as automobile).

The important role of emerging low-carbon industrial hubs was highlighted, owing to their potential to share infrastructure costs, build scale more quickly and attract additional investment through their potential to generate new, green jobs. The combination of the unique opportunities of each industrial hub, the unique composition of each ore body and the regional diversity of energy supply options implies that the technology solutions needed for each hub will also be bespoke. This highlights the need for a diverse range of both technology and energy solutions, rather than a single silver bullet, and, in turn, the need for a high level of expertise, understanding and predictive tools to develop tailored solutions with a diverse mix of technology. In this vein, HiTeMP-3 presented a diverse mix of emerging technologies for each industrial sector, incorporating a range of net-zero energy sources, spanning net-zero hydrogen (H₂), electrification, carbon capture with re-use or storage and the direct use of heat from concentrating solar thermal energy.

Unlike a traditional conference, all speakers at HiTeMP are invited, with each being selected to represent a particular stakeholder group and provide a particular perspective for each of the topics. All delegates were given many opportunities to engage, through a parallel poster session, through participation in the extended discussion sessions - both face-to-face and via the on-line SliDo App, and through numerous informal networking events. Selected presentations will be made available for streaming from the website and the YouTube channel. A series of publications is also being planned to synthesise these key perspectives.

The Organising Committee gratefully acknowledges the strong support from the South Australian Government, with the forum being opened by Deputy Premier, the Hon Susan Close MP, and with the Minister for Energy and Resources, the Hon Tom Koutsantonis MP speaking at the cocktail function. We also acknowledge the outstanding support from the Steering Committee, its Advisory Board, HILT CRC, Mission Innovation and University of Adelaide's Institute for Sustainability, Energy and Resources. We are looking forward to welcoming past delegates and new participants to Adelaide in 2024 for the fourth event in



the series!

Delegates from the third HiTeMP Forum, National Wine Centre, The University of Adelaide.

Organising Committee

Gus Nathan, Paula Angerstein, Maziar Arjomandi, Alfonso Chinnici, Zoe Dimas, Mehdi Jafarian, Greg Metha, Woei Saw, Jen Thomas, Liam Wagner.

Steering Committee

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