The Fifteenth International Ferro-Alloys Congress (Infacon XV) was held in Cape Town from 25 to 28 February 2018, and was attended by 450 delegates from 32 countries. After a cycle of four congresses in the northern hemisphere (New Delhi, India, 2007; Helsinki, Finland, 2010; Almaty, Kazakhstan, 2013; and Kyiv, Ukraine, 2015), it was appropriate that Infacon should return to South Africa at a time of great change in the region.

This series of congresses began in Johannesburg in 1974 under the guidance of Professor Robbie Robinson, then Director General of the National Institute for Metallurgy (NIM), the predecessor of Mintek; he also became President of SAIMM in 1975. (Robbie remained an active contributor to the Journal of the SAIMM until shortly before his passing away at the age of 86 in 2016.) In 1974, Robbie was the Chairman of the Organizing Committee of the First International Congress on Ferro-Alloys (Infacon) – a partnership between what is now Mintek, the SAIMM, and FAPA (Ferro-Alloy Producers’ Association). He also established an international governance structure that is now known as the International Committee on Ferro-Alloys (ICFA), which is made up of representation from major countries that produce and consume ferro-alloys. ICFA was chaired for many years, until the most recent congress, by Dr Nic Barcza (President of the SAIMM in 1996–1997).

The Infacon series of conferences continues to thrive, and Infacon has become established as the premier technical conference serving the international ferro-alloys industry. It has been held in twelve different countries around the world, and continues to grow in size and stature.

Infacon XV covered the major ferro-alloys (especially FeCr and FeMn) extensively. The primary focus was on the technical aspects of production processes, furnaces, and power supplies, but safety, environmental, and legislative topics were also covered. The discussions reflected many of the needs and challenges faced by ferro-alloy producers today.

This congress reflected a changing industry in a changing world. There have been major structural changes in the ferro-alloys industry over the past few years, as companies seek to find the global economic optimum of where and how important metals are produced. For example, in 2012, China replaced South Africa as the leading producer of ferrochromium. More recently, we see further evidence of change in South Africa’s new political leadership, and a mood of optimism is now coming to the fore. The current drought in Cape Town emphasized the importance of adapting to a changing climate, and prompted delegates to reflect on how, as responsible citizens of our planet, we can improve the environmental performance and energy efficiency of our industry. South Africa has played a leading role in the global ferro-alloys industry for a long time. Even if the nature of its contribution changes, the country will continue to be a major player in this arena.

Delegates were pleased to have Infacon return to Cape Town – a city of great scenic beauty and world heritage sites. A welcoming function was held the evening before the conference at ‘On the Rocks’ in Bloubergstrand, with a spectacular view of Table Mountain and the sunset over Robben Island. The conference dinner was held at Kirstenbosch National Botanical Gardens, accompanied by an extensive and wide-ranging cultural programme of dancing and singing.

The peer review process was taken very seriously, and the organizers have drawn on the expertise and insights of a group of 146 specialists from around the world who generously offered constructive criticism and suggestions. These contributions improved the quality of papers greatly. About 150 papers were selected from 199 abstracts submitted. Each paper was thoroughly reviewed by at least two independent specialists in that field. We are grateful to the expert reviewers who gave of their time freely in undertaking this monumental task, and appreciate their valuable technical and editing contributions. We also appreciate the time and effort that authors put into their papers and presentations.

Infacon is based on the principle that the sharing of technical information benefits the industry. The publication of scientific and engineering work is vital. The Infacon series of congresses is well known for the quality of its papers, due largely to the considerable work that is put into reviewing. ICFA has a policy of making papers from all Infacon conferences, current and past, freely available via open access. Past papers are now available online.

I am very grateful to the members of the Organizing Committee (and their employers – Mintek and the University of the Witwatersrand), the reviewers, authors, and presenters – all of whom have put so much into the congress. Special thanks are due to the SAIMM conferencing and publishing teams for hosting and ensuring the smooth running of this event. The Ferro-Alloy Producers’ Association (FAPA) encouraged its members to open their operations to visitors, and a well-supported programme of post-conference technical tours was arranged. The experienced International Advisory Committee was always ready and available to offer support and guidance. The support of our sponsors and exhibitors is also greatly appreciated. In particular, we should like to acknowledge our platinum sponsor Hatch, gold sponsors Furncor and Ripasso Energy, and silver sponsors Metix, RHI Magnesita, Vatvedt Group, W.L. Gore & Associates, and Dneprodyromach.

At the conclusion of the conference an African drum, a tangible symbol of Infacon XV, was handed over by Professor Hurman Eric, on behalf of South Africa, to Benjamin Ravary from Norway, as that is where the next Infacon will be held in 2021.

R.T. Jones