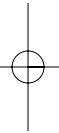
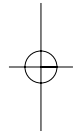


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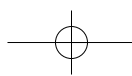
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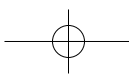
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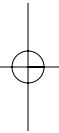
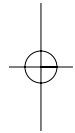
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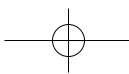
The papers in this volume have been for the most part prepared from disks supplied by the authors, with additional typesetting and formatting by The Southern African Institute of Mining and Metallurgy.

All papers included in this volume were subjected to review.

A technical and critical review of each paper was carried out by two technical reviewers.



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## FOREWORD

Platinum is a dynamic precious metal affecting many aspects of the global economy. The platinum market went from a supply surplus in 2006 to a deficit in 2007 and will most probably be in deficit again in 2008. The platinum price moved relentlessly higher during 2007 sparked by concerns of underproduction from South Africa.

Demand from the jewellery market fell only slightly in the face of the price rises, while healthy demand continued from the chemical, petroleum and electronics sectors. The new Exchange Traded Funds (ETFs) resulted in substantial demand from investors.

Supplies from South Africa fell by 260 000 ounces in 2007 to 5.04 million ounces. A wide range of challenges faced the industry, including safety, retention of skilled staff, industrial relations, and geological issues. While this cocktail of problems affected primary production at many mines, some mines reported increased platinum output on the back of successful expansion plans.

This was followed by severe power shortages, in January 2008, and ensuing power cuts, resulting in the temporary stoppage of deep-level mining operations.

Supplies from Russia, North America and Zimbabwe remained relatively unchanged in 2007.

In South Africa production is expected to grow from existing producers as brownfields expansions are commissioned. Three new mines, Blue Ridge, Smokey Hills and Platmin's Pilanesberg are due to come on stream in 2008. In addition, at least another six potential mining projects are in the feasibility study stage.

Increased metal prices, BEE rules and the redistribution of some mineral rights have encouraged a proliferation of companies exploring for and producing platinum across South Africa. Announcements of various BEE deals also look set to create a further wave of producers in the medium term.

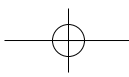
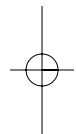
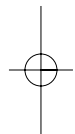
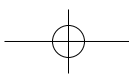
It is against this background that the Third International Platinum Conference will address orebody delineation, project valuation and management, mine design and modernisation, mineral beneficiation and the market. It is also anticipated that the issue of safe production and overall increases in productivity, through the introduction of technology, will demonstrate Southern Africa's status as a premier mining country.

It is my pleasure to welcome delegates from abroad and locally, on behalf of the SAIMM, to the Third International Platinum Conference 'Platinum In Transformation'.

I trust that you will find the proceedings informative and value adding and will participate in the discussions and debate in order to obtain maximum benefit from the conference. I am sure that the social programme and post-conference tours will be interesting and of great benefit to participants.

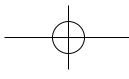
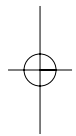
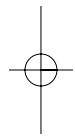
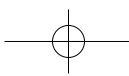
Finally, a big word of thanks to the members of the Organising Committee, the management and staff of the SAIMM, and to our willing sponsors, without all of whom this conference would not have been possible.

**Mike Rogers**  
*Chairman, Organising Committee*



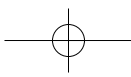
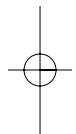
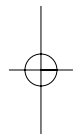
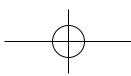
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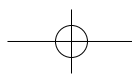
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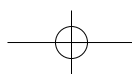
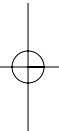
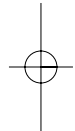
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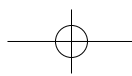
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