

## **MISTRA ANNUAL ROUNDTABLE AND PGM EXCHANGE BOOK LAUNCH**

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### **SETTING THE SCENE**

It is appropriate that we should start off by thanking Dr Mosibudi Mangena for agreeing to facilitate today's session – once again confirming his passion for science in general and the hydrogen economy in particular.

This is MISTRA's fourth annual partners' roundtable on platinum-group metals and fuel cell technology. As reflected in the programme, there will be a presentation setting out a summary of the discussions we have had in previous iterations.

Overall, there is quite a lot of progress the country has made; but there are also many gaps.

In case there may be any doubts, let me emphasise that the Mapungubwe Institute (MISTRA) proceeds from a philosophical and political economy standpoint that a resource curse is not the natural order of things. It is not ordained that countries with abundant mineral resources should experience skewed economic growth, a distorted economic structure and wild swings in currency value.

Rather, inversely, a judicious approach to these endowments can serve as a basis for South Africa's new industrialisation and modernisation drives. The fundamental issue is how to make multiple linkages work!

Coming back to the issue of the hydrogen economy, let us look at some of the recent milestones:

- The first one is the appreciation of this opportunity in government: the Department of Science and Innovation is no longer an orphan, alone championing fuel cell technology - with the Departments of Trade, Industry and Competition; Mineral Resources and Energy now fully involved.
- The second milestone is the relatively successful global campaigns by producers to scale up market demand.
- Thirdly, there has been welcome movement towards implementation in SA, with the establishment of SEZs in Gauteng, Northwest and new activities in KwaZulu-Natal.
- Fourthly, South Africa's research and application efforts on production of fuel cells as well as green hydrogen are being intensified.
- And, lastly, the global fuel cell sector in both stationary and mobile applications, is growing rapidly: from Japan, China and South Korea to train locomotives in Europe, and now Australia which is establishing a hydrogen project in Queensland.

In this context, we can say that the world is entering the epoch of a hydrogen economy. The question for SA is whether we will be among early adopters or hapless followers.

Among the immediate tasks in my view are issues such as becoming lead actors in fuel cell and component manufacturing and asserting our place, from the very beginning, in the global value chains. This should also include expanding practical application in electricity generation – and we already have ample experience in this regard. In terms of motor vehicles, there are many areas which lend themselves to practical application such as rapid-transit transportation, as well as post office and other delivery vehicles that trudge the same routes, thus allowing for easy provision of hydrogen infrastructure.

The point is about moving more systematically to practical implementation. And it is heartening that development finance institutions such as the IDC and the DBSA have identified this as an opportunity as have private ones such as NEDBANK – hopefully, creating funding streams for these initiatives.

This afternoon, we will launch MISTRA's research report on a South African PGM Exchange. The journey of this report started some six years ago when we published the book on the global hydrogen economy. It then became clear that we needed to broaden how beneficiation strategies are envisioned, to include financial beneficiation.

In partnership with Pan-African Investment and Research Services and the Johannesburg Stock Exchange, MISTRA then set out to investigate the desirability and practicability of setting up a PGM exchange in South Africa.

In that report, it is argued that we can use financial linkages to advance development. To achieve this, we need the appropriate policy context; and we should engage the various operational and logistical matters.

We do not, by any means, assume that success in setting up an exchange is guaranteed. Many practical hurdles will have to be jumped over before it becomes a reality.

We wish to thank the many stakeholders – from government, academia, labour, business and the regulators – for their rigorous engagement as the project unfolded. And we are profoundly grateful to the researchers who have in a sense put their heads on the block on an issue that is bound to generate much debate; and to the Department of Science and Innovation that in this instance has lived up fully to its name by supporting the project.

There will be many questions and many debates. But the Chinese saying is perhaps truer than even before: we'll have to cross the river by feeling the stones.

**END**