

## **Media Release**

### **For immediate release**

#### **CSIR and NWU spearhead emerging hydrogen research area**

The Council for Scientific and Industrial Research (CSIR) has been appointed by the Department of Science and Technology (DST) to establish a Hydrogen Centre of Competence (CoC) to focus on hydrogen production, storage, delivery and distribution. The CoC will be established jointly with the North-West University (NWU).

Hydrogen and fuel cell technologies have been identified by the DST as a “Frontier Science and Technology” initiative that will potentially expand the base for the creation of wealth and position the country to compete within the dynamic knowledge economy. This initiative would foster proactive innovation and knowledge generation in beneficiation of key natural resources, resulting in new downstream industries. Globally, hydrogen and fuel cells are seen as energy solutions for the 21st century, enabling clean and efficient production of power and heat from a range of primary energy sources. The transition to a hydrogen economy is expected to greatly reduce dependency on oil and gas, and reduce carbon dioxide emissions.

South Africa is in a unique position to participate in the emerging hydrogen economy. It holds a dominating position in platinum reserves with more than 75% of the world’s known reserves. Platinum is the key catalytic material used in hydrogen fuel cells. There are also socio-economic benefits that could result from value addition to key natural resources, such as platinum.

The country also has a leading position in high-temperature gas-cooled nuclear reactors, such as the Pebble Bed Modular Reactor. This technology is key in the production of industrial-scale process heat that could be used in thermal electrolysis to generate hydrogen for use in fuel cells. Furthermore, South Africa is regarded as a leader in the technology to produce liquid fuels from coal through gasification.

The Hydrogen CoC will function in a hub-and-spoke collaborative mode, which is a mechanism to bring together all interested stakeholders to deliver on a long-term vision. The CoC, in its network form, will create a coherent and dynamic action plan to achieve that vision. It will steer the implementation of an action plan to deliver on agreed programmes and will generate sustainable competitiveness and world leadership for the country by stimulating increased and more effective investment in research and development, accelerated innovation and through eliminating barriers, contribute to the deployment and growth of hydrogen and fuel cell technologies.

The CoC also has the benefits of providing an opportunity to develop a knowledge base that can contribute at the forefront of an emerging industry, creating socio-economic opportunities for the nation.

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NOTE:

The CSIR (Council for Scientific and Industrial Research) is one of the leading R&D, technology and innovation institutions in Africa, with a track record spanning over 60 years. Structured to manage the entire research and innovation value chain, the CSIR strives for excellence in all its endeavours in order to improve the quality of life of South Africa's people and to increase the global competitiveness of South African industry. See [www.csir.co.za](http://www.csir.co.za) or contact tel 012-841-2000. The CSIR - our future through science.

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