



# **Joint Press Release**

# Sibanye-Stillwater and Heraeus enter into a partnership to develop and commercialise novel electrolyser catalysts for the production of green hydrogen

- Collaborative project for the development of novel electrocatalysts based on ruthenium and iridium
- Cooperative communication and marketing activities to support PGM containing PEM electrolysers

Johannesburg and Hanau, 18 August 2022 - Sibanye-Stillwater and Heraeus Precious Metals have agreed to jointly collaborate on research and development of novel Platinum Group Metals (PGM) containing electrocatalysts with high activity and stability for Proton Exchange Membrane (PEM) electrolysers (the partnership), utilised in the production of Green Hydrogen, amongst others. The project will be equally funded by the parties over a three-year period. The results will be mutually commercialized, and the parties will cooperate on communication and marketing of the novel catalyst.

Platinum and iridium are currently essential components of electrocatalysts for the generation of green hydrogen by means of PEM electrolysis. Iridium, however, is one of the scarcest PGMs and its limited availability is a potential constraint on the future widespread adoption of PGM PEM electrolysers. Reducing iridium loadings in PEM electrocatalysts is key to ensuring a sustainable hydrogen ecosystem, enabling PEM technology to be cost competitive to make triple digit giga-watt-scale a reality within the next decade.

Technologies that reduce or replace iridium with, for example, ruthenium, offer significant potential. The partners aim to develop a new, robust solution based on looking at the substitution of iridium with other metals, as well as developing more sophisticated metal oxide structures.

Heraeus Precious Metals is an established and recognized international technology group with significant technical and intellectual expertise in the design of electrocatalysts for PEM electrolysis and in innovative solutions for the sustainable and cost-effective use of precious metals catalysts. "With our mutual know-how and resources, we are confident to develop novel solutions that will further strengthen the role of PEM electrolysis in the hydrogen economy", says Dr. Philipp Walter, Executive Vice President New Business Development at Heraeus Precious Metals. "Without cost effective PEM electrolysis the targets for the ramp-up of the hydrogen economy cannot be achieved. We are ready to invest into a sustainable raw material strategy to make it happen."

Sibanye-Stillwater, as a leading provider of green metals, including platinum, iridium, and ruthenium invests in market development and in innovative technologies that enable sustainable demand for the metals it produces.

"Our objective is to ensure our metals, including PGMs play a vital role in unlocking the future green economy, including hydrogen. The partnership with Heraeus and the investment in the successful development and commercialisation of catalysts for PEM electrolysers will enable another aspect of a greener future.", says Neal Froneman, CEO of Sibanye-Stillwater.

Heraeus Precious Metals



## **About Heraeus Precious Metals**

Heraeus Precious Metals is a leading provider of precious metals services and products. We combine all activities related to our comprehensive expertise in the precious metals loop – from trading to precious metals products to recycling. We are one of the world's largest refiners of platinum group metals (PGMs) and a leading name in industrial precious metals trading. Our precious metals products are used in a wide variety of industries, including the chemical, pharmaceutical, glass, electronics and automotive industries. We offer top quality solutions and products based on many years of experience and technical expertise. We are a reliable development partner for our customers and find the best solutions for their requirements.

#### **About Heraeus**

Heraeus, the technology group headquartered in Hanau, Germany, is a leading international family owned portfolio company. The company's roots go back to a family pharmacy started in 1660. Today, the Heraeus group includes businesses in the environmental, electronics, health and industrial applications sectors. Customers benefit from innovative technologies and solutions based on broad materials expertise and technological leadership.

In the 2021 financial year, the FORTUNE Global 500 listed group generated revenues of €29.5 billion (US\$34.9 billion\*) with approximately 16,200 employees in 40 countries. Heraeus is one of the top 10 family-owned companies in Germany and holds a leading position in its global markets.

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#### About Sibanye-Stillwater

Sibanye-Stillwater is a multinational mining and metals Group with a diverse portfolio of mining and processing operations and projects and investments across five continents. The Group is also one of the foremost global PGM autocatalytic recyclers and has interests in leading mine tailings retreatment operations. For more information, visit our website at <a href="http://www.sibanyestillwater.com">www.sibanyestillwater.com</a>

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#### FORWARD LOOKING STATEMENTS (SIBANYE-STILLWATER)

This announcement contains forward-looking statements within the meaning of the "safe harbour" provisions of the United States Private Securities Litigation Reform Act of 1995. All statements other than statements of historical fact included in this announcement may be forward-looking statements. Forward-looking statements may be identified by the use of words such as "will", "would", "expect", "forecast", "potential", "may", "could", "believe", "aim", "anticipate", "target", "estimate" and words of similar meaning.

These forward-looking statements, including among others, those relating to Sibanye-Stillwater Limited's ("Sibanye-Stillwater") future business prospects, financial positions, production and operational guidance, climate and ESG-related statements, targets and metrics, plans and objectives of management for future operations and ability to complete or successfully integrate ongoing and future acquisitions, are necessarily estimates reflecting the best judgement of Sibanye-Stillwater's senior management. Readers are cautioned not to place undue reliance on such statements. Forward-looking statements involve a number of known and unknown risks, uncertainties and other factors, many of which are difficult to predict and generally beyond the control of Sibanye-Stillwater that could cause its actual results and outcomes to be materially different from historical results or from any future results expressed or implied by such forward-looking statements. As a consequence, these forward-looking statements should be considered in light of various important factors, including those set forth in Sibanye-Stillwater's 2021 Integrated Annual Report and annual report on Form 20-F filed with the United States Securities and Exchange Commission on 22 April 2022 (SEC File no. 333-234096). These forward-looking statements speak only as of the date of this announcement. Sibanye-Stillwater expressly disclaims any obligation or undertaking to update or revise any forward-looking statement (except to the extent legally required).