

COLLABORATION WITH GLOBAL 3D PRINTING LEADER EOS

- Hyperion to collaborate with EOS GmbH, the global leader for industrial 3D printing of metals and plastics, to deploy low-to-zero carbon titanium metal powders using its breakthrough HAMR and GSD technologies.
- EOS to leverage its expertise across the additive manufacturing industry accelerating deployment of the HAMR and GSD technologies.
- EOS to focus on offering its customers competitive and sustainable responsible manufacturing solutions via industrial 3D printing technology.
- Low-to zero-carbon titanium powder has the potential to significantly reduce the direct carbon impact of manufacturing versus other higher carbon metals.
- Increased use of titanium in the EV, spacetechnology, aerospace and defense sectors will also lead to lower energy consumption due to titanium's superior strength and lightweight properties.

Hyperion Metals Limited (ASX: HYM) ("Hyperion" or "the Company") is pleased to announce the execution of a memorandum of understanding ("MOU") for a technology partnership with EOS GmbH ("EOS"), the world's leading solution supplier in the field of industrial 3D printing (known as additive manufacturing, or AM) of metals and plastics. The partnership aims to accelerate the deployment of Hyperion's HAMR and GSD technologies for the potential production of low cost, low-to-zero carbon titanium metal powders. The collaboration will focus on:

- Technical and economic evaluation of powders produced via the hydrogen assisted magnesiothermic reduction ("HAMR") and granulation sintering and deoxygenation ("GSD") processes for use in additive manufacturing as compared to the current titanium metal powders
- Recyclability of titanium metal powders using the HAMR and/or GSD technology processes
- Environmental and sustainability evaluation of powders produced via the HAMR and GSD processes for use in additive manufacturing versus other production processes

Sascha Rudolph, Commercial Director Metal Materials at EOS commented:

"Our goal is to create innovative product and process solutions that help accelerate responsible manufacturing and sustainable solutions via industrial 3D printing technology. What is exciting is the potential for new, low cost, low carbon titanium powders that will provide organizations with both significant economic benefits and more sustainable solutions. The HAMR and GSD technology has the potential to lower the barriers to entry for titanium into existing markets of more conventional materials and will enable completely new mass market applications where high strength to weight are critical - such as electric vehicles.

"Titanium alloys are very widespread and versatile high-performance materials in AM, used by our customers in ingenious part designs covering everything from hip implants to Formula One parts to aircraft components. One barrier to wider adoption of AM is material cost – caused on one hand by the scarcity of the raw material, but on the other hand by the extremely complex and resource-intensive methods of extraction. Our partnership with Hyperion changes this landscape and allows us to deliver cost- and resource-efficient next gen methods of extracting the value from this extremely valuable and scarce natural resource all the while reducing the negative impact on our environment. This collaboration means more to us than two technology companies

joining forces to drive development of AM, it is also another great step on the journey of realizing the EOS vision of sustainable manufacturing."

Anastasios Arima, CEO and Managing Director of Hyperion Metals said:

"Collaborating with EOS significantly advances our vision to bring sustainably sourced, low cost and zero carbon titanium metal powders to international metal markets. More than any other 3D printing company, EOS has a similar value and vision in bringing sustainable manufacturing to the world and having a sustainable metal supply chain is crucial to that vision. Their experience in the additive manufacturing materials world is unparalleled. They have more than 25 years of experience working with metal powders and have a dedicated facility in Finland, EOS Metal Materials, that is focussed on the development, design and production of metal powders and processes."

"Titanium is a superior metal for a wide range of high-performance applications in the aerospace, medical, space and defence sectors. Hyperion, through its HAMR and GSD technologies, has the potential to produce zero carbon spherical titanium powders at a fraction of the cost of comparable titanium powders. Hyperion's technologies have the potential to disrupt not just the titanium market, but also the far larger aluminium and stainless-steel markets."

Under the non-binding MOU, Hyperion and EOS have agreed to negotiate in good faith to enter into definitive agreements to give effect to a partnership that allows Hyperion and EOS to work together to advance deployment of sustainably produced, low-cost and zero-carbon spherical and non-spherical titanium metal powders for use in the additive manufacturing industry. The MOU will terminate on 1 June 2022 unless extended by mutual agreement.



A350 titanium cable mount on the front spar of the vertical stabilizer made with EOS 3D printer.

About EOS

EOS provides responsible manufacturing solutions via industrial 3D printing technology to manufacturers around the world. Connecting high quality production efficiency with its pioneering innovation and sustainable practices, the independent company formed in 1989 will shape the future of manufacturing. Powered by its platform-driven digital value network of machines and a holistic portfolio of services, materials and processes, EOS is deeply committed to fulfilling its customers' needs and acting responsibly for our planet.

About Hyperion Metals

Hyperion's mission is to be the leading developer of zero carbon, sustainable, critical material supply chains for advanced American industries including space, aerospace, electric vehicles and 3D printing.

The Company holds a 100% interest in the Titan Project, covering nearly 6,000 acres of titanium, rare earth minerals, high grade silica sand and zircon rich mineral sands properties in Tennessee, USA. The Titan Project is strategically located in the southeast of the USA, with low-cost road, rail and water logistics connecting it to world class manufacturing industries.

Hyperion has secured options for the exclusive license to produce low carbon titanium metal and spherical powders using the breakthrough HAMR & GSD technologies. The HAMR & GSD technologies were invented by Dr. Z. Zak Fang and his team at the University of Utah with government funding from ARPA-E.

The HAMR technology has demonstrated the potential to produce titanium powders with low-to-zero carbon intensity, significantly lower energy consumption, significantly lower cost and at product qualities which exceed current industry standards. The GSD technology is a thermochemical process combining low cost feedstock material with high yield production, and can produce spherical titanium and titanium alloy powders at a fraction of the cost of comparable commercial powders.

Hyperion also has signed an MOU to establish a partnership with Energy Fuels (NYSE:UUUU) that aims to build an integrated, all-American rare earths supply chain. The MOU will evaluate the potential supply of rare earth minerals from Hyperion's Titan Project to Energy Fuels for value added processing at Energy Fuels' White Mesa Mill. Rare earths are highly valued as critical materials for magnet production essential for wind turbines, EVs, consumer electronics and military applications.

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This announcement has been authorized for release by Hyperion's Managing Director.

APPENDIX

HAMR non-spherical titanium metal powder technology

The HAMR technology, developed by Professor Zhigang Zak Fang of the University of Utah with funding from the Department of Energy and assistance by Boeing and Arconic, results in the production of titanium non-spherical powders with characteristics similar or better than commercially available titanium sponge and which can be used as a replacement for sponge or as a feedstock into other processes (near net shape applications or spherical powder production). Detailed energy-economic analysis and process simulations were performed to estimate the energy consumption, emissions, and cost at mass production of titanium metal using the HAMR technology. The result indicated that the HAMR process is more than 50% less energy intensive and cost competitive with the Kroll process.

Hyperion has an exclusive license over the HAMR technology and is focused on scaling the technology targeting the use of titanium minerals produced in Tennessee as initial feedstock.

This presents a significant opportunity to re-shore a low cost, fully integrated titanium metal supply chain with the highest standards in sustainability, potentially zero carbon operations and full traceability in a safe jurisdiction in the U.S. This HAMR process and the non-spherical powder produced alone can feed into the current titanium metal supply chain in the U.S. and Europe but can also be used for feedstock in further downstream processing.

GSD spherical titanium metal powder technology

Following the scientific principles underpinning the HAMR technology, Prof. Fang, also developed a process which could either utilize HAMR powder, Ti-scrap or Ti-sponge to produce spherical titanium metal powders for 3D printing applications. This technology was named Granulation Sintering and Deoxygenation ("GSD"). The technology is a novel method that synergistically combines granule spheroidization, sintering, and de-oxygenation into one integrated process for producing low-cost spherical titanium powder which significantly improves the yield and produces a spherical titanium alloy powder with low oxygen content, controllable particle size distributions and excellent flowability.

This GSD process can also be utilized to recycle titanium metal powders that have been utilized in the additive manufacturing industry for low cost.

Hyperion has exclusivity over this technology and aims to commence pilot production of spherical titanium powders in the 3rd Quarter 2021. Initially utilizing titanium scrap and/or sponge but with the ability to also utilize used powders and eventually backward integrating with the HAMR powders.

Hyperion's vision is to scale both HAMR and GSD to bring sustainably produced, low cost and zero carbon metal powders to market which when coupled with additive manufacturing can disrupt not only the current titanium parts supply chain but also the stainless steel and aluminum supply parts chains.

Forward looking statements

Information included in this release constitutes forward-looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward-looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "continue", and "guidance", or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.

Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance, and achievements to differ materially from any future results, performance or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licenses and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which the company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.

Forward looking statements are based on the Company and its management's good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company's business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company's business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company's control.

Although the Company attempts and has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant stock exchange listing rules, in providing this information the company does not undertake any obligation to publicly update or revise any of the forward-looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

Competent Persons Statement

The information in this announcement that relates to the Titan Project Exploration Results is extracted from Hyperion's ASX Announcements dated 29 June 2021, 6 May 2021, 10 March 2021 and 7 January 2021 ("Original ASX Announcements") which are available to view at Hyperion's website at www.hyperionmetals.us. Hyperion confirms that a) it is not aware of any new information or data that materially affects the information included in the Original ASX Announcements; b) all material assumptions included in the Original ASX Announcements continue to apply and have not materially changed; and c) the form and context in which the relevant Competent Persons' findings are presented in this report have not been materially changed from the Original ASX Announcements.