

# Sixth Wave Innovations Inc. and Magnus Mineral Resources (PVT) Ltd Sign Memorandum of Understanding for Testing IXOS(R) Mining Technology and Implementation at the Penhalonga Gold Mine

written by Raj Shah | August 9, 2022

August 9, 2022 ([Source](#)) – **Sixth Wave Innovations Inc. (CSE: SIXW) (OTCQB: SIXWF) (FSE: AHUH)** (“**Sixth Wave or SIXW or Company**”) and Magnus Mineral Resources (PVT) Ltd are pleased to announce the signing of a MOU (“Contract”) which provides for ongoing test work using SIXW’s patented IXOS® molecular imprinted polymer for extraction and purification of gold and silver (the “IXOS® Mining Technology”) at the Penhalonga Gold Project Mine. A comprehensive test program will be designed to include the feasibility studies already conducted at the Penhalonga Gold Property. The goal of the test work is validation of IXOS®-Au superior performance attributes in direct comparison to activated carbon as evidenced by Sixth Wave’s multiple successful laboratory and field tests with varying ore types. Attributes include:

Operational:

- Higher gold capture
- Lower to no attrition or lost Au from attrition
- Better kinetics

- High capacity and purity result in a smaller plant
- Less complicated circuit with fewer parts

#### Environmental:

- Simple low-temperature elution
- No thermal regeneration
- Lower water usage
- Recyclable elution chemicals
- Lower CO<sub>2</sub> emissions
- No toxic airborne emissions

Upon agreement by both parties that test work has produced satisfactory and positive results, Sixth Wave and Magnus will enter into a definitive agreement under which Magnus will build an IXOS®-Au adsorption, desorption, and recovery (ADR) plant. The overall mining plan has a production target of 20tph of ore. Not including the pretreatment plant, the mill and IXOS-in-pulp ARD plant's current USD\$60M budget. A cooperative project management plan is being developed. In turn, Sixth Wave will name Magnus as the exclusive distributor for IXOS®-Au in Africa and the countries that comprise the Gulf Cooperation Council (GCC).

The proposed scope of work is as follows:

#### Phase 1

Magnus will provide SIXW a minimum of 10kg of ore samples representing the three dominant ore bodies at the mine site for evaluation at SIXW's laboratory in Salt Lake City, Utah. SIXW will perform a series of extraction and adsorption tests on the samples to determine gold recovery and match data with historic gold recovery from the mine site.

SIXW will perform adsorption tests using IXOS®-Au and activated carbon to ensure superior performance of IXOS®-Au resin. SIXW

will document test results that focus on process and performance metrics, revenue (CAPEX/OPEX) enhancement, and environmental (ESG) benefits of utilizing IXOS®-Au along with a proposed pathway to implementation.

## Phase 2

Conduct a site visit at the mine to evaluate existing infrastructure and provide necessary data for the implementation proposal. Implementation will require Magnus to raise additional capital. SIXW will provide subject matter expertise and engineering support to Magnus as needed at standard billing rates.

*“Sixth Wave and Magnus Mineral Resources (PVT) Limited look forward to a mutually beneficial collaboration. The test plan as contemplated will validate and extend laboratory testing to a field evaluation that will allow each company to make defensible, data driven decisions about next steps toward full adoption,”* noted Dr. Jon Gluckman, President, and CEO of Sixth Wave. *“Further, we are encouraged by the developing relationship between Sixth Wave and Magnus Mineral Resources (PVT) Limited and we will do our part to contribute to building a business case that will provide a significant return on investment for all stakeholders.”*

*“Magnus Mineral Resources (PVT) Limited seeks to embrace a new technological approach with the objective of bringing enhanced value to our stakeholders through the reduced CAPEX/OPEX opportunities that IXOS®-Au offers. The Penhalonga Gold Project situated in the Odzi-Mutare-Manica Greenstone Belt, has over 2 million oz of gold previously mined. The property currently has 4 claims covering an area of 40 hectare, as pegged in 2019.*

*Currently, artisanal, cooperatives and small-scale mines in and around the claims are producing 1kg to 5kg combined mining*

*surface oxidized and mineralized reef above 40meters deep. Two blocks out of 4 were randomly tested by trenching and the results so far are very encouraging,”* stated Mr. Tanaka Solomon Nyabadza, Managing Director, Magnus Mineral Resources (PVT) Limited.

### **About Magnus Mineral Resources (PVT) Limited**

Magnus Mineral Resources PLC is a Zimbabwean mineral-based company focused on acquisition, exploration, development, mining, processing, refining, metallurgy, and trading, and consultancy with extensive experience in gold, diamonds, lithium, and rare earth minerals.

The Company was established with the objective of acquiring and developing businesses on the African continent to generate development, deliver growth and create high value returns.

### **ON BEHALF OF THE MANAGEMENT OF MAGNUS MINERAL RESOURCES (PVT) LIMITED**

Mr. Tanaka Solomon Nyabadza, Founder & CEO

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### **About Sixth Wave**

Sixth Wave is a development stage nanotechnology company with patented technologies that focus on extraction, purification, and detection of target substances at the molecular level using highly specialized Molecularly Imprinted Polymers (MIPs). The Company is in the process of commercializing its IXOS<sup>®</sup>, a line of extraction polymers for the gold mining industry.

Sixth Wave can design, develop, and commercialize MIP solutions

across a broad spectrum of industries. The company is focused on nanotechnology architectures that are highly relevant for detection, purification, and separation of viruses, biogenic amines and other pathogens, and nutraceuticals for which the Company has products at various stages of development.

For more information about Sixth Wave, please visit our website at: [www.sixthwave.com](http://www.sixthwave.com).

### **ON BEHALF OF THE BOARD OF DIRECTORS**

*"Jon Gluckman"*

Jonathan Gluckman, Ph.D., President & CEO

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### **Forward-Looking Statements**

*This press release contains forward-looking statements and forward-looking information (collectively "forward-looking information") within the meaning of applicable securities laws, including statements regarding Magnus Mineral Resources planned development of its Penhalonga Gold Project, other aspects of Magnus' anticipated future operations and plans, and the testing and performance of Sixth Wave's IXOS<sup>®</sup> Mining Technology.*

*All statements included herein, other than statements of historical fact, may be forward-looking information and such information involves various risks and uncertainties. Forward-looking information is often, but not always, identified by the use of words such as "seek", "anticipate", "plan", "continue", "estimate", "expect", "may", "will", "project", "predict", "potential", "targeting", "intend", "could", "might", "should", "believe", and similar expressions. The forward-looking information is based on certain key expectations and assumptions*

made by management of Rio2 and Sixth Wave, including but not limited to: expectations concerning prevailing commodity prices, exchange rates, interest rates, applicable royalty rates, and tax laws; capital efficiencies; legislative and regulatory environment of Chile; future production rates and estimates of capital and operating costs; estimates of reserves and resources; anticipated timing and results of capital expenditures; the sufficiency of capital expenditures in carrying out planned activities; performance; the availability and cost of financing, labor and services; and Rio2's ability to access capital on satisfactory terms.

Magnus Mineral Resources and Sixth Wave believe the expectations reflected in these forward-looking statements are reasonable, but no assurance can be given that these expectations will prove to be correct and such forward-looking statements in this press release should not be unduly relied upon. A description of assumptions used to develop such forward-looking information and a description of risk factors that may cause actual results to differ materially from forward-looking information can be found in disclosure documents of Sixth Wave on the SEDAR website at [www.sedar.com](http://www.sedar.com) or the website of Sixth Wave ([www.sixthwave.com](http://www.sixthwave.com)), respectively. In particular, successful commercial deployment of the IXOS<sup>®</sup> technology is subject to the risk that the technology may not prove to be successful in achieving sufficient environmental or production efficiencies, the uncertainty of timing or availability of required regulatory approvals, lack of track record of developing products for mining applications and the need for additional capital to carry out product development activities. Forward-looking statements included in this press release are made as of the date of this press release and such information should not be relied upon as representing its views as of any date subsequent to the date of this press release. Sixth Wave has

*attempted to identify important factors that could cause actual results, performance, or achievements to vary from those current expectations or estimates expressed or implied by the forward-looking information. However, there may be other factors that cause results, performance, or achievements not to be as expected or estimated and that could cause actual results, performance, or achievements to differ materially from current expectations. Magnus Mineral Resources and Sixth Wave disclaim any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events, or otherwise, except as expressly required by applicable securities legislation.*