

# Rio2 Limited and Sixth Wave Innovations Inc. Sign Contract for Further IXOS(R) Mining Technology Trials

written by Raj Shah | August 16, 2021

August 16, 2021 ([Source](#)) – **Sixth Wave Innovations Inc. (CSE: SIXW) (OTCQB: SIXWF) (FSE: AHUH)** (“Sixth Wave or SIXW or Company”) and **Rio2 Limited (“Rio2”) (TSXV: RIO) (OTCQX: RIOFF) (BVL: RIO)** are pleased to announce the signing of a contract (“Contract”) which provides for the continuation of testing of SIXW’s patented IXOS® purification polymer (the “**IXOS® Mining Technology**”) at Rio2’s Fenix Gold Project in Chile using Rio2’s nearby Lince Infrastructure facilities. The contract follows the successful completion of testing done on representative samples of ore from Rio2’s Fenix Gold Project at Sixth Wave’s Salt Lake City, Utah facility undertaken pursuant to the non-binding Letter of Intent (“**LOI**”) entered into between Sixth Wave and Rio2 in September 2020. See Sixth Wave’s and Rio2’s joint press release dated [September 15, 2020](#), for additional information regarding the LOI. The move to near-site testing represents a significant step forward, and investment by the two companies in the trial test project.

Under the terms of the LOI, Rio2 sent representative ore samples from its Fenix Gold Project to Sixth Wave for testing and analysis. The testing confirmed that IXOS® Mining Technology outperformed activated carbon on several key metrics including gold adsorption efficiency, ease of elution, and overall adsorption kinetics. A comprehensive costs/benefit analysis was performed using the data obtained in the laboratory testing

along with ongoing testing performed by Rio2 on activated carbon as part of their pilot operations. The analysis also detailed the expected plant size, potential CAPEX and OPEX savings, and expansion capability/pathways. IXOS<sup>®</sup> polymer is reusable and the potential for favorable usage life over activated carbon especially with scaling agents in the mine's water source provided sufficient encouragement that the project should proceed to the next phase of test work.

Sixth Wave will perform recovery tests from leach solution using its IXOS<sup>®</sup> Mining Technology and the leaching columns already commissioned and utilized by Rio2 to evaluate adsorption kinetics and other parameters. Testing is expected to start in Q4 2021, post-winter months, assuming that current COVID-19 restrictions in Chile will abate. The testing will include 50 days of on-site operation of the system under a variety of testing scenarios to validate IXOS<sup>®</sup> performance and determine additional details regarding the cost/benefit analysis. Tests with a parallel set of activated carbon columns will allow for direct comparison between the two adsorbents under common testing conditions. The potential positive environmental impact and reduced carbon footprint (CO<sub>2</sub> emissions) of using IXOS<sup>®</sup> over activated carbon for the process plant will also be explored during this phase of the project. The IXOS<sup>®</sup> Mining Technology operates at significantly reduced power consumption with fewer reagents than activated carbon. Therefore, opportunities exist for enhancing Rio2's environmental, social, and governance (ESG) posture should IXOS<sup>®</sup> Mining Technology continue to show advantages in overall process efficiency.

Consistent with the terms of the LOI, Rio2 will pay travel expenses, external test work, and the operation of the pilot equipment during the test. The SIXW team will be lead by Mr.

Nicol Newton, Sixth Wave's Director of Technical Services and a 20 year gold mining veteran. Mr. Newton will be accompanied by Dr. Glen Southard, one of the inventors and developers of IXOS® Mining Technology. Sixth Wave will provide in-kind labor to support testing and analysis and all of the testing apparatus/pilot equipment for use during the project. The field kit will be returned to SIXW upon completion of the pilot.

Upon successful completion and receipt of positive results from the column test pilot program, the companies will move to a second near site testing phase incorporating the IXOS® Mining Technology into a long term pilot plant that will operate alongside the currently planned carbon adsorption circuit, This will provide long-term operational data including the determination of the useful life of the IXOS® polymer beads, and specifications for full-scale implementation pegged to the mine operation and potential future mine expansion plans.

*"Sixth Wave continues to be very positive on the project and working relationship with Rio2. Moving to near-site testing with a solid and well focused test plan will validate and extend the laboratory testing already completed and help both companies make defensible, data driven decisions about next steps toward adoption,"* noted Dr. Jon Gluckman, President and CEO of Sixth Wave. He went on to say, *"We have really been impressed by the Rio2 team and the investment in time and resources that they are making to further this program. We will continue to do our part to deliver a positive return on this investment through our contributions to the cost sharing and delivering tangible benefits to Fenix Gold Project."*

*"Rio2 is always looking to embrace and trial new technology with the objective of bringing enhanced value to our stakeholders through the reduced CAPEX/OPEX opportunities that innovative*

*technologies may bring. The Fenix Gold Project is currently the largest undeveloped gold heap leach project in the Americas and we look forward to working alongside Sixth Wave during the development phase of the project,”* stated Mr. Alex Black, President and CEO of Rio2 Limited.

### **About RIO2 Limited**

Rio2 is a mining company with a focus on development and mining operations with a team that has proven technical skills as well as a successful capital markets track record. Rio2 is focused on taking its Fenix Gold Project in Chile to production in the shortest possible timeframe based on a staged development strategy. In addition to the Fenix Gold Project in development in Chile, Rio2 Limited continues to pursue additional strategic acquisitions where it can deploy its operational excellence and responsible mining practices to build a multi-asset, multi-jurisdiction, precious metals company.

To learn more about Rio2 Limited, please visit: <http://www.rio2.com> or Rio2's SEDAR profile at [www.sedar.com](http://www.sedar.com).

### **ON BEHALF OF THE BOARD OF RIO2 LIMITED**

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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 Rio2's planned development of its Fenix Gold Project, other aspects of Rio2's 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.

Rio2 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 both Rio2 and Sixth Wave on the SEDAR website at [www.sedar.com](http://www.sedar.com) or the websites of Rio2 ([www.rio2.com](http://www.rio2.com)) and 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. Rio2 and Sixth Wave have 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. Rio2 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.*

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