



## **Beroni Group Announces Acquisition of "Brain Wave Extraction" Patent Technology from Japan Electrocardiogram Research Institute to Accelerate Layout in Brain-Computer Interface Field**

NEW YORK and SYDNEY, Australia, 10 March, 2025 - Beroni Group (OTCQB: BNIGF; NSX: BTG) ("Beroni" or the "Company"), is pleased to announce the acquisition of the "Brain Wave Extraction" patent technology from Japan Electrocardiogram Research Institute. As a foundational technology in the Brain-Computer Interface (BCI) field, this technology enables the acquisition of high-resolution electroencephalogram (EEG) signals using a minimal number of electrodes, significantly enhancing the practicality and portability of BCI systems. This acquisition marks Beroni Group's foray into the fields of artificial intelligence (AI) and brain-computer interfaces, further advancing its technological research and application in biomedicine and healthcare.

### **Market Outlook: Rapid Growth in the Brain-Computer Interface Industry with Huge Potential for Technological Applications**

According to Grand View Research, the global brain-computer interface market size was estimated at USD 2.44 billion in 2024 and is expected to grow at a CAGR of 18.15% from 2025 to 2030.

The rapid development of brain-computer interface technology is driven by its wide applications in medical rehabilitation, neuroscience research, gaming, entertainment, smart home, and other fields. Particularly in the medical field, brain-computer interface technology offers new rehabilitation and treatment methods for patients with paralysis, neurological disorders, and brain injuries, indicating enormous market potential.

Currently, major overseas players include Neuralink, BrainGate, Emotiv, NeuroSky, and others, with the market competition becoming increasingly intense. Among them, companies like Neuralink focus on implantable brain-computer interface technology, aiming to achieve human-computer interaction through high-precision EEG signal analysis. However, existing technologies generally face challenges such as a large number of electrodes, high complexity in signal acquisition, and poor portability, limiting their large-scale application.

The introduction of the "Brain Wave Extraction" technology is expected to bring revolutionary breakthroughs to the brain-computer interface industry. This technology enables the acquisition of high-resolution EEG signals using a minimal number of electrodes, significantly reducing hardware complexity and costs while improving the efficiency and accuracy of signal acquisition. This technological breakthrough is not only applicable to non-invasive brain-computer interface systems but also shows great potential in the field of implantable brain-computer interfaces.

### **Technical Advantages: Minimal Electrodes, High-Resolution EEG Signals, Promoting Practical Application of Brain-Computer Interfaces**

The "Brain Wave Extraction" technology represents a significant breakthrough in the brain-computer interface field. Its core lies in deriving high-resolution EEG signals equivalent to 64 channels using a minimal number of electrodes (e.g., 8 electrodes). The advantages of this technology are mainly reflected in the following aspects:

### **1. Reducing the Number of Electrodes, Enhancing Portability**

Traditional high-resolution EEG signal acquisition requires the placement of a large number of electrodes, which is not only complex to operate but also limits the portability of the device. The "Brain Wave Extraction" technology uses algorithms to derive EEG signals from other locations based on the measured signals from a few electrodes, significantly reducing the number of electrodes and making brain-computer interface devices more lightweight and portable, especially suitable for daily use and mobile scenarios.

### **2. Lowering Hardware Complexity and Costs**

The reduction in the number of electrodes directly decreases the complexity of hardware design and manufacturing costs, making brain-computer interface technology more feasible for large-scale commercial applications. This is of great significance for promoting the widespread adoption of brain-computer interface technology in medical and consumer electronics fields.

### **3. Applicable to Implantable Brain-Computer Interfaces, Enhancing Precision and Application Scope**

In the field of implantable brain-computer interfaces (e.g., Neuralink), reducing the number of electrodes is crucial due to the limited number of implantable electrodes and the high complexity of surgery. The "Brain Wave Extraction" technology enables the acquisition of whole-brain information using a minimal number of electrodes, significantly improving the precision and functionality of implantable brain-computer interfaces and expanding their application scope, such as more accurate neural signal decoding and broader human-computer interaction scenarios.

### **4. Combining with AI Algorithms to Further Enhance Performance**

By integrating with AI models, this technology can optimize existing multivariate analysis algorithms, achieving more efficient signal processing and higher-precision EEG signal analysis. In the future, with the continuous development of AI technology, the performance of the "Brain Wave Extraction" technology is expected to further improve, bringing more possibilities to the brain-computer interface field.

### **5. Wide Range of Application Scenarios**

The "Brain Wave Extraction" technology is not only applicable to medical rehabilitation (e.g., stroke patient rehabilitation, paralyzed patients controlling external devices) but also to neuroscience research, gaming, entertainment, smart home control, and other fields. Its high precision and portability make it have broad application potential in multiple industries.

## **Led by Academician Wei Daming, Promoting Technology Localization and Transformation in Japan, Australia and China**

Beroni Group has invited Academician Mr. Wei Daming to serve as the Chief Scientist, responsible for the research and localization transformation of the "Brain Wave Extraction" technology in Japan, Australia and China. Mr. Wei's profound expertise in brain science and artificial intelligence will provide strong support for the further optimization and application of this technology. Beroni Group plans to integrate the "Brain Wave Extraction" technology with artificial intelligence, promoting its wide application in healthcare, smart devices, and other fields.

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### **About Beroni Group Limited**

Beroni Group is an international enterprise focused on biomedicine, artificial intelligence, and modern technology research and development. With the mission of "Empowering Health with Technology," the group is committed to improving the quality of human life through innovative technologies. The acquisition of the "Brain Wave Extraction" patent technology is an important step in Beroni Group's strategic layout in the fields of artificial intelligence and brain-computer interfaces. In the future, Beroni Group will continue to leverage its strengths to promote the research and application of brain-computer interface technology, contributing to global healthcare. To learn more about Beroni, please visit [www.beronigroup.com](http://www.beronigroup.com).

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