

Radium (2547 TW)

Radium (2547.TW) AI Transformation Awarded in Business Weekly's "Top 100 AI Innovators"

**AI-Driven Smart Water Management Strengthens Operational Momentum and Secures Northern Taiwan's Largest Sustainable Water Circulation Platform
Deepening Diversified Innovation to Build Long-Term Competitive Advantage for Sustainable Cities**

Radium Group (2547.TW) has been selected for *Business Weekly's "Top 100 AI Innovators- Be A Leader. Be An Igniter"* in recognition of its sustained and disciplined investment in artificial intelligence, data governance, and process intelligence. Through self-developed tangible breakthroughs in AI-powered water technologies, sustainable urban development, and a diversified cross-sector business portfolio, Radium demonstrates the concrete results of its long-term transformation, marking a milestone in how a traditional enterprise can fundamentally reshape its core capabilities through AI. AI and sustainable water resources have now become the company's most critical growth engines for the coming decade.

Award-Winning AI Water Technologies Establish Northern Taiwan's Largest Sustainable Water Circulation Platform

Business Weekly reveals that a leader's determination is crucial. Radium's inclusion in the *Business Weekly AI Innovation 100* is primarily attributed to its substantive achievements at the intersection of AI, data science, and sustainable water resources, including:

- Development of Taiwan's first AI-monitored smart reclaimed water plant
- Deployment of deep learning-based water quality anomaly early warning systems
- Construction of a data lake comprising 7.3 billion data points to drive intelligent water operations
- Implementation of AI models for membrane lifespan prediction, energy optimization, and water quality classification
- Use of computer vision to build training datasets and significantly improve water quality interpretation accuracy

By integrating AI systems across wastewater treatment, water recycling, equipment management, and IoT monitoring, Radium trains optimal models on historical big data to ensure more stable effluent quality while reducing energy consumption and operating costs. Through this approach, the company has successfully transformed

traditional water utilities into a high-technology industry, creating a clear and defensible competitive differentiation.

In northern Taoyuan, the Group's subsidiary, Rih Ding Water, currently manages a public wastewater BOT project connecting more than 166,000 households, accounting for over 60% of Taoyuan City's public connected sewer households. Upon completion of future phases, total wastewater treatment capacity daily will increase to 150,000 CMD, fully supporting the stable supply of reclaimed water. Meanwhile, Bao Ding Reclaimed Water is executing the largest reclaimed water BTO project in northern Taiwan, currently supplying a stable 40,000 CMD daily to petrochemical, electronics, and the Guanyin Industrial Park. Upon full completion, total supply capacity daily will reach 112,000 CMD, becoming an indispensable sustainable water source for northern Taiwan's industrial value chain. This intelligent system not only improves water operations efficiency but also helps enterprises reduce water costs, advancing Radium's vision of "A green enterprise determined to uphold sustainability."

Accelerating Growth in the Global Smart Water Management Market: AI as the Primary Driver

According to Straits Research, the global water treatment market reached USD 65.17 billion in 2023 and is projected to grow to USD 119.81 billion by 2032, with a compound annual growth rate (CAGR) of 7%. MarketsandMarkets further estimates that the global smart water management market will reach USD 22.4 billion by 2026, expanding at an annual growth rate exceeding 10%. AI has become the central force in water resource management, encompassing machine learning analytics, water quality forecasting, anomaly detection, and automated maintenance, enabling enterprises to significantly improve operational efficiency while lowering costs.

Governments and enterprises across Europe, the United States, and Asia are actively investing in smart water technologies. Europe is advancing water data-sharing platforms, the United States is adopting AI-driven pipeline management, and Asia is developing real-time water quality monitoring systems. These global trends underscore AI's critical role in future water management and its accelerating impact on environmental sustainability.

Reversing Traditional Industry Efficiency Through Technology

Radium's internally developed AI systems have also been systematically deployed across its diversified businesses, including:

- **Intelligent construction site audits:** Image analysis combined with large language models to rapidly generate risk reports, more than doubling efficiency
- **Smart customer service and intelligent marketing:** Proprietary RAG-based customer service and marketing agents, reducing customer complaints by 50%
- **AI-generated marketing videos:** Reducing video production costs by approximately 80%

On average, these initiatives deliver process efficiency improvements ranging from 20% to 100%, materially enhancing operational quality and competitive strength.

Looking ahead, Radium will continue to embed AI deeply into its internal operations while selectively externalizing certain AI technologies as exportable business models, positioning them as a core growth engine for the company's next decade of development.



Radium was awarded the Business Weekly's "Top 100 AI Innovators," CIO Johnson Wang (right) accepted the award on behalf of the Company



Rih Ding Water- ESG Park in Taoyuan



Bao Ding Reclaimed Water develops Taiwan's first AI-monitored smart reclaimed water plant