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The Future of Korea's Water Industry Opens Through Startups... Startup Water 2025 Held

- Final competition and awards ceremony for the “Startup Water 2025” to be held on November 25

The Ministry of Climate, Energy and Environment (MCEE, Minister Kim Sunghwan) and Korea Water Resources Corporation (President Yun Seogdae) announced that they will hold the final competition of the “Startup Water 2025” on November 25 at the Novotel Ambassador Hotel (located in Gangnam-gu, Seoul) to identify “innovative high-growth companies (unicorns)” that will drive the water industry as a new engine of growth for Korea.

As the importance of water management increases due to the intensifying climate crisis, the global water market is projected* to reach KRW 1,485 trillion in 2025.

What continues to drive this market, which grows steadily by 2.9% each year, includes: increasing investment in smart infrastructure; expanding demand for sustainable water-circulation technologies; and water-resource management technologies.

* Source: Global Water Intelligence (GWI)

Amid these global shifts, the MCEE considers the water industry a new growth engine that will lead the next decade. To identify startups and prospective founders with innovative technologies, it has hosted the Startup Water since 2020.

Now in its sixth year, the competition began with a nationwide call for applications on August 25 and was conducted in two categories: the “Idea Division” for the general public and the “Commercialization Division” for startup companies. A total of 80 teams entered the competition, and after rigorous document and presentation evaluations, 18 teams advanced to the finals.

The top four teams in each division will compete in the final round on November 25 before a panel of expert judges and a 52-member public evaluation group. Through this final evaluation, each division will select a Grand Prize winner, a First Prize winner, and two Excellence Award winners.

First, the companies that advanced to the final round in the Commercialization Division possess highly competitive, next-generation breakthrough technologies in high-demand global sectors such as ultrapure water and carbon capture.

These companies include: WaterTrinez, which has developed an eco-friendly filter that replaces fluoropolymer-based materials; K-Nano, which is developing an ultrapure-water purity monitoring system using artificial intelligence (AI) and particle engineering technologies; R&S Science, which provides a real-time monitoring system for low-molecular weight organic compounds such as urea; and Carbon Energy, which is developing core technology for direct air carbon capture using a seawater-based sodium electrolysis reactor.

The teams that advanced to the final round in the Idea Division showcase innovative technologies closely connected to everyday life.

Among these teams: Song A-yeong proposes a porous, resource-circulating water-quality and aquatic-ecosystem restoration block made from recycled marine waste; Choi Jong-yun presents a natural-drop, riverside microplastic-reduction technology using “RiverPresso,” an upcycled

coffee-ground filter, both ideas that repurpose discarded waste for water management. Also noteworthy are ideas aimed at solving everyday water issues, such as: Lee Seung-hu's commercialization concept for removing small organisms (chironomids) at water treatment plants using a microporous capture mesh, and Lee Sang-ho's real-time water-security system based on a small language model (SLM).

Winners of this year's competition will receive KRW 100 million in total prize money, the Minister of Climate, Energy and Environment Award, and a comprehensive growth support package. The Ministry will provide recipients with integrated, practical support for commercialization, including: access to performance-testing facilities linked to the K-Testbed^{*}; participation in domestic and international exhibitions for market expansion; and assistance in attracting investment through water-industry funds. Moreover, the Ministry plans to strategically connect the technologies and ideas presented in this competition with national R&D programs to accelerate innovation in the water sector.

^{*} A support program that opens public- and private-sector facilities and equipment to startups and small and medium-sized enterprises, enabling them to conduct on-site validation of their innovative technologies and products and expand market access.

Meanwhile, over the past five years, the MCEE has discovered a total of 73 innovative startups through the Startup Water. As of last year, these companies recorded KRW 96.2 billion in sales, KRW 53.5 billion in investment attraction, and 464 new jobs created, establishing themselves as key players in Korea's water-industry ecosystem.

Kim Hyojeong, Director General of Water Use Policy Bureau at the MCEE, stated, "With the global water market continuing to expand, now is precisely the time to actively nurture startups with innovative ideas and technologies." She added, "The Ministry will continue to identify promising startups and prospective entrepreneurs and will be a strong supporter in helping them grow into real, successful businesses."