



News

Slovakian soil regenerator ekolive wins sustainable innovation award WUR

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The Slovakian startup *ekolive* was announced as the winner in the first edition of the Feike Sijbesma Sustainable Innovation Award on Tuesday September 6th and awarded with € 25,000. They convinced the jury with their interdisciplinary biotechnological approach to clean contaminated and regenerate depleted soil, and use the byproduct of this process as an organic biostimulant in agriculture. This opens up new sources of raw materials for industrial minerals and returns used raw materials to the value cycle, while also increasing production and nutritional value in agriculture with the byproduct. With their technology, they contribute to as many as 11 out of the 17 Sustainable Development Goals, making them just the sort of inspiring sustainable innovators the jury was looking for.

“I am very happy,” said CEO of *ekolive*, Darina Štyriaková, after the ceremony. “This award is a recognition of our work, and we hope this prize will help us reach new markets, in particular in The Netherlands.” Štyriaková received € 25,000 to invest in the startup, but far more valuable for her were the networking opportunities that the award ceremony provided.

Bioleaching technology explained

ekolive offers a technology that cleans waste, minerals or soils with the help of bacteria (“bioremediation”). Minerals can be extracted and industrial waste can be reused (“bioleaching”). Meanwhile, this process produces a useful by-product: organic biostimulants with three important contents: contained plant growth-promoting bacteria, organic acids and almost all necessary micronutrients. These can replace harmful agrochemicals, stimulate plants, their growth and health, and help restore health of depleted or destroyed soils. Ultimately, this increases yields and nutritional value in agriculture. Nutrients in soils become more available to plants, reducing the need for fertilizer, and soils can also store up to 25% more water. The jury was impressed about the scope of their business: “It touches the entire food chain. We are very proud that you are able to work in this interdisciplinary field,” said Prof.dr. Louise O. Fresco, who chaired the jury, to the winner.



*With the use of *ekolive*'s biostimulant (right upper corner) and without (left lower corner)*

Help with a research gap

The jury also provided some useful feedback: *ekolive* should figure out which bacteria account for the benefits to the soil and agricultural crops, and why they are so special. Štyriaková added, “We are aware of this gap. Our bacteria can do many things: improve yields, growth speed, increase sugar content, and even bring seemingly dead trees back to life. But we don’t know why. That’s why we are currently searching for scientists who can help us find these scientific explanations, and the prize money can help us do this.”

The next step: the Dutch market

After several pilot projects, *ekolive* is now ready to reach the market, and the Dutch market seems a perfect place to start. Štyriaková: “We know that farmers here are facing several problems, for example, high gas prices, which are a big problem for greenhouse production, and restrictions on using nitrogen fertilizers. We know our product can make plants more resistant to cold, so farmers could save on gas. And our bio-fertilizer can provide an alternative for chemical fertilizers – or at least boost their effects even though using less of them. This is a chance for us to help.”

About the Feike Sijbesma Sustainable Innovation Award

This prize rewards international start-up initiatives that focus on tackling global challenges in our food systems. The initiatives must realize a large-scale transformation for as many people as possible, be no older than seven years, must have a business case, and be environmentally friendly. The award is named after Feike Sijbesma, former CEO of DSM. Sijbesma: "There are improvements possible and needed in the whole food chain. This prize stimulates entrepreneurs who develop unique new technologies and markets. The world really needs this." The award is organized by University Fund Wageningen and Wageningen University & Research, and is made possible by the Royal DSM Brighter Living Foundation. The next edition will take place in 2023.