BIONIC SYSTEM

Ecological technology enabling the processing of waste into a beneficial product called Biochar.

Microwave tolerance technology that converts sewage sludge into biochar (biochar), which has the ability to support soil-forming processes and retain water in nature. In contrast to other sludge treatment methods, microwave tolerance works without combustion and therefore elements such as carbon and phosphorus remain in a form suitable for application in the soil. The technology is completely clean, without any risk of hazardous by-products. Thanks to the possibility to carry out the process at temperatures below the critical values for the formation of fumes, the risk of formation of hazardous substances is completely eliminated.

Unique selling points:

- Complete elimination of the risk of hazardous fumes.
- Soil regeneration and the promotion of soil formation, including water retention in nature.
- The possibility of transforming waste into materials that not only retain water in the soil but also promote plant protection against fungi and other diseases.
- Creating a circular economy model (e.g. for smaller municipalities and cities) where biochar can be applied and tailored to the needs of local soil and plants.

Product

Treatment of sewage sludge

Technology readiness

Development

Proof of concept

▶ Prototype

First implementation

Extensive implementation

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