



changeNOW 2023  Featured Solution

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USING BEES AS ENVIRONMENTAL DRONES TO MONITOR POLLUTION AND BIODIVERSITY

 SUSTAINABILITY

An innovative solution uses bees to collect data on pollution and biodiversity for use in conservation efforts

Spotted: Around the world, regulations are being implemented to target ecosystem restoration, with the goal of improving resilience to climate change. For many organisations, these regulations mean an increased focus on biodiversity in any new projects. And this could mean added expense. A Belgian company, BeeOdiversity, is working to turn the conservation of biodiversity into an asset rather than a cost – by using bees.

BeeOdiversity uses bees as living drones. During their normal pollination activities, the bees collect billions of environmental samples. These are then analysed to identify, source, and assess the level of pollutants and measure plant biodiversity in a given area. The system can be used to assess the quality of a site or the impact of an activity. Armed with the data, organisations can then take proper improvement measures.

The company offers a range of services based on the data collected by the bees: from mapping a site's environment, to working out strategies to conserve and regenerate biodiversity. BeeOdiversity also helps to raise awareness among employees and local citizens.

The Belfast City Council recently announced that BeeOdiversity's technology will be used in a £588,000 (around €670,000) [scientific research site](#) in the city's Botanic Gardens to analyse the transmission of contaminants in food and plants.

Bees are often in the news because of their shrinking numbers and the effects of this on biodiversity. Because of this interest, Springwise has spotted several bee-related innovations. These range from AI-powered [hive monitoring](#) for healthier bees to [bee-free honey](#).

Springwise first spotted BeeOdiversity in [March 2020](#) and the company will be attending the ChangeNOW Summit in 2023.

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Takeaway:

BeeOdiversity's services are now being used in 100 different project sites in 17 countries, preserving more than 200 different plant species. Its services are used in land-use planning, agriculture, quantifying pollutants in industry, classifying risks in architecture, and water monitoring. BeeOdiversity also uses hives to [raise awareness](#) of conservation efforts in local communities and promote collaboration.