



Virtual Project Meeting

04/12/2024

The Circle (TC)



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The Circle is the largest aquaponic farm in Italy. The farm consists of a 12.500 m2 aquaponic implant regularly running since 2017.

With aquaponics, we gain important advantages such as:

- **180 liters** of water saved per kg of salad
- **33,000 kg** of CO not emitted into the atmosphere every year
- Production per hectare: **4x**
- Pollutant emissions: **0%**
- **Reduced** use of herbicides, synthetic fertilizers and insecticides.



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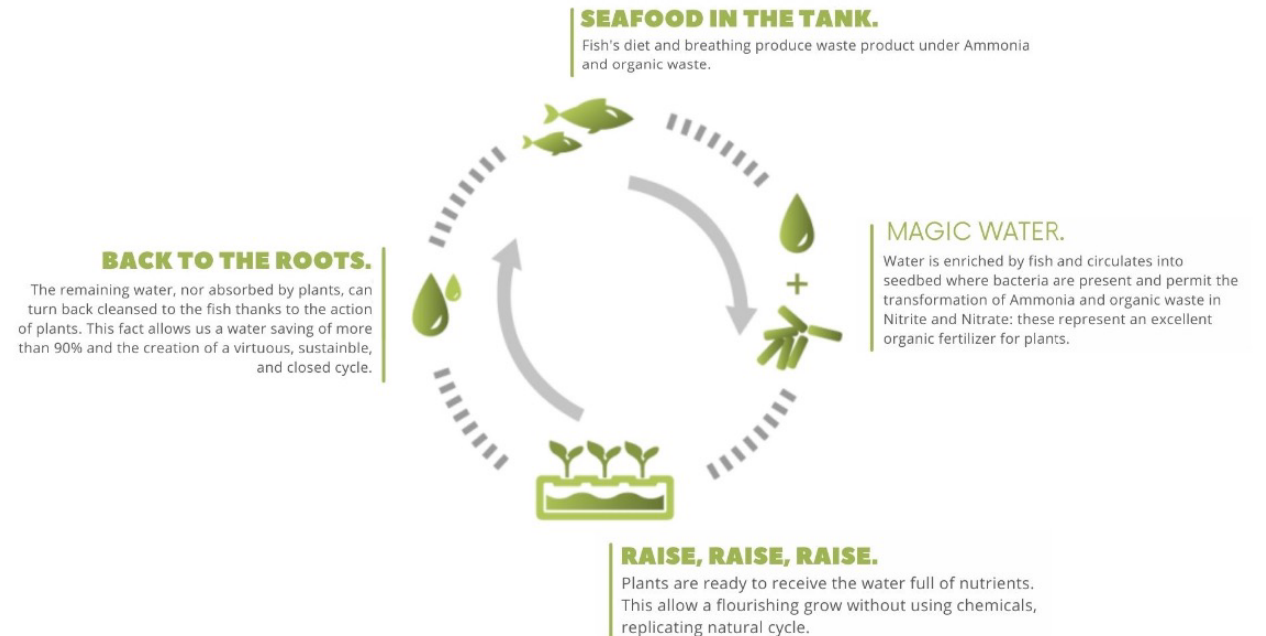
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The Technology:

In aquaponics, water circulates from the fish tanks to the plants, fertilising them, and the cleansed water is then channelled back to the fish.

This makes it possible to recover all the water that the plants are unable to absorb; water consumption is thus reduced by 90% per kg of product compared to traditional agriculture.

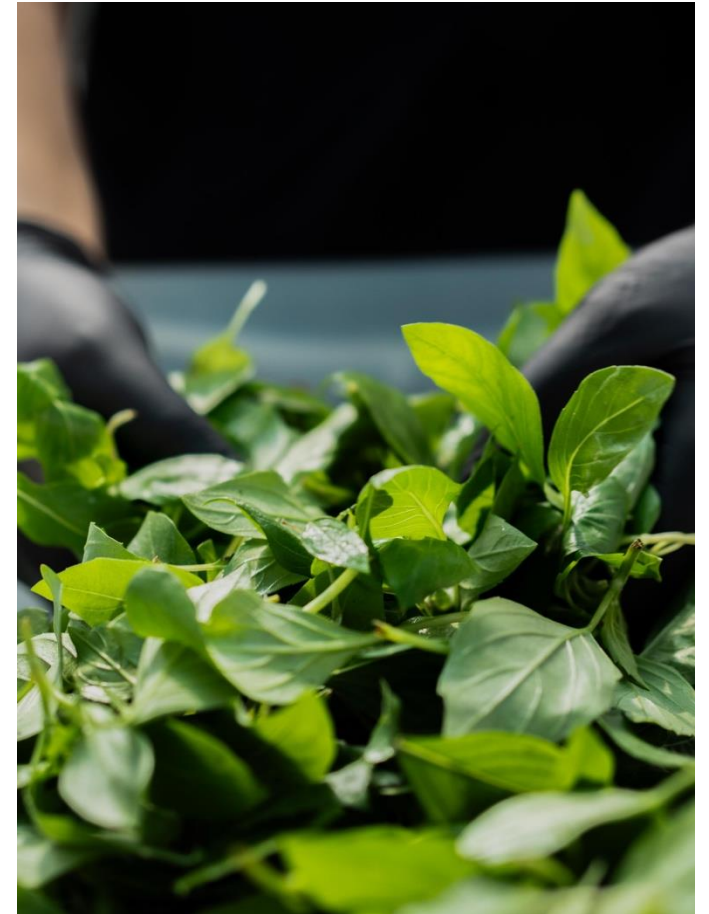
Our technology allows us to cultivate entirely without soil, so, the production of food is possible even in polluted and exhausted fields.



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The Importance of monitoring the water in a high quality agrifood production.



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This system also guarantees higher yields and more rapid growth in the plants under cultivation.

This implant is technically perfect to test out sensors and other monitoring systems.

Within Greener, The Circle act as the main end-user from the aquaponics food sector and we run the sensor in a real site area.



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For a sustainable and high-quality cultivation like that of The Circle, which operates using water in a controlled manner and relies on water quality, it is essential to achieve high standards of control.



To do this, it is necessary to develop easy and accessible tools, just like Greener's, to allow even small companies to avoid costly laboratories and conduct essential analyses directly on-site.



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Within the data generated from the collection in our production implant we are helping the improvement of the sensor.

At the end of the project what we expect is the effective demonstration of the applicability and effectiveness of the Greener sensor in improving the production and control processes of an agritech company.



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How can innovative SMEs help research?

Innovative SMEs like The Circle can bridge research and application by providing agile, real-world testing grounds for cutting-edge solutions. Their focus on sustainability, innovation, and circularity accelerates technology transfer, transforming theoretical concepts into market-ready products.

SMEs foster collaboration, advancing research in sectors like food security, resource efficiency, and carbon-neutral production systems.



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Thanks for your attention



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