



fields4ever

Better soil , better food
A Global Soil Health Initiative

BIOME
MAKERS

A close-up photograph of several ripe red apples hanging from a tree branch. The apples are in sharp focus, showing their vibrant red color and some green at the base. The background is filled with out-of-focus green leaves and branches, creating a sense of depth and a natural setting. The lighting is soft, highlighting the texture of the apples and the veins on the leaves.

We must act now

fields4ever brings agriculture players the tools to assess the best agricultural practices to improve the productivity and healthiness of the soil.



Soil recovery and conservation

through sustainable agriculture practices

fields4ever is a global initiative powered by Biome Makers for the conservation and monitoring of soil health by promoting the development of **more sustainable and respectful agriculture management**.

Improving the soil health of agricultural lands holds the potential for achieving meaningful conservation and economic benefits, as well as **mitigating the growing threat of climate change**. Indeed, unhealthy soil is becoming a worldwide issue and the public is more aware of the key role that soil plays in supporting life. In order to move forward from theory to action, for providing a pragmatic and measurable approach and to homogenize soil quality assessment, Biome Makers has developed soil health monitoring tools and metrics for the agriculture community worldwide.

To develop sustainable management systems that integrate soil health monitoring practices it is important to execute different actions in a coordinated fashion and to include relevant stakeholders involved in agriculture such as farmers, agro-input providers, technical support service operators and regulators.



Global action

to prevent losing our soil productivity

Biome Makers is contributing to fields4ever global action with \$4M, committed to the recovery of the soil productivity lost over the past 40 years by increasing the resilience of farmland.

Within this context, **we plan to monitor up to 0,4M ha (1M acres) during the 18 months** duration of the fields4ever initiative, to achieve the following goals:

- 1 To unravel the soil health status of agriculture fields and to restore their health.
- 2 To sequester **0.5M metric tons** of greenhouse gas emissions
- 3 To save **1M metric tons** from soil erosion
- 4 To reduce by **5M pounds** the nutrients lost to the environment

Considering the worldwide extension of croplands, 1M acres represent only a simple single grain of soil. For this reason, Biome Makers is **looking for public and private partners to join this initiative for expanding this global action**.

Importance of soil health

Our soils are losing key properties, leading to global problems not only economical, but also social. However, if we act now, we will be rewarded beyond what we could have imagined.



A worldwide problem

with a solution

The world is rapidly evolving thanks to the great technology breakthroughs happening in all sectors. However, it is essential to rationalize the impact of human activities to ensure that we can overcome the challenges and sustain life in the long-term. In order to achieve this, it is necessary to execute collective actions to secure **the preservation of natural resources and, the conservation of soils' quality and productivity, is one of these key resources.**

Soils are the primary support of health on earth and, as a major storehouse of carbon and regulator of carbon dioxide emissions, are fundamental to modulate climate. Maintaining the soil healthy is imperative for long-term sustainable intensification.

More than 1 billion people are employed in agriculture worldwide, an active engine to feed the world population. While as a society we have been able to increase the agriculture yield in the last 40 years, the cost of this increase over the natural resources has been also high. Indeed, **roughly 1/3 of the world's arable land has been lost** in this period, while farmer's economics remained lineal. It is time to react and move forward only with the most sustainable and productive farming practices for fostering our fields.



A reward waiting for all humankind

fields4ever initiative looks at the soil as a living ecosystem and utilizes the soil microbiome as biomarker for soil health and productivity. Soil is a precious natural resource inhabited by a community of microorganisms - **the soil microbiome**, a connected microbial network that reflects any modifications happening in-field.

Soil microbiome is the most powerful and natural biomarker of the soil bioactivity and its functionality. Furthermore, the soil microbiome plays an essential role in **crops' development and productivity** and is being considered as the external plant immune system.

Having healthier soil will help achieve broader conservation goals, providing significant societal benefits for farmers and, ultimately all of us.

According to the USDA only “living” things can have health, so viewing soil as a living ecosystem reflects a fundamental shift in the way we care for our soils.



Sustainable fields forever

Using technology to support our partners, we will monitor soil health and needs to achieve sustainable fields forever.

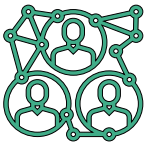


Productive soils forever

by using open technology



Farmers need to be able to monitor the health status of their soils in order to develop more respectful and productive farming practices. Thus, fields4ever initiative **grants access to the advanced soil quality assessment tools** developed by Biome Makers to all agricultural players and encourages the implementation of the most efficient practices in agriculture.



Be part of our soil's future

fields4ever is born with a global ambition: partners joining the initiative will contribute by their coordinated actions to reassess the scope and goals of the project.

Scientific researchers

Open calls and technology access.

Farmers

Supported soil quality assessment and training.

Manufacturers

Measurement of the impact of ag inputs in the soil's bioactivity.

Digitalization

Soil data connection and integration with precision agriculture platforms.

Agriculture Policy

Soil quality measurement standardization and data supply.



Partners

fields4ever is an initiative open to any organization supporting agriculture.

The following institutions are currently contributing directly or indirectly to the initiative in different forms: financial resources, communication, networking, management capabilities or other contributions.

**B I O M E
M A K E R S**



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Join this initiative today to expand the impact of this global action

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