

Scale up to an industrial level and patent technologies for microencapsulating bioactive compounds in six healthy plant-based foods.

1.- PROJECT DESCRIPTION

The widespread prevalence of unhealthy eating habits in modern society leads to chronic non-communicable diseases, such as cardiovascular diseases and diabetes, which are responsible for one in five deaths globally. Additionally, the processed food industry contributes to 26% of greenhouse gas emissions.

Building on the pioneering experiences of Japan and South Korea in the 1980s, functional foods were developed—foods fortified with bioactive compounds (vitamins, minerals, etc.) to improve consumer health. Currently, this global market is valued at USD 189 billion, with USD 86 billion coming from plant-based foods. However, most products remain dairy, soups, or juices, as it is challenging to preserve the bioactive properties during cooking or other industrial processes.

A solution to this challenge has been the micro or nanoencapsulation of bioactive compounds. This technology allows them to be incorporated into foods without altering their properties or changing the production process. Furthermore, it expands the range of plant-based processed foods, including plant-based burgers, among others.

Homo Foods aims to be a strategic partner for plant-based processed food companies, and help them to fortify existing products and create new ones.

2.- BUSINESS MODEL

Homo Foods commercializes intellectual property licenses for:

- Nano and microencapsulation technologies for bioactive compounds, stabilized in the production process of plant-based analog foods.
- In-house development of plant-based analog foods, with or without microencapsulation technology for bioactive compounds.

Potential clients include large beverage and processed food producers.

Currently, Homo Foods has six (6) proposals for healthy, nutritious plant-based foods (spreadable cheese, mayonnaise, ice cream, mozzarella, burgers, and sausages) in which the production process incorporates microcapsules containing plant-based Omega 3 and three minerals (calcium, iron, and zinc), as well as antioxidants.

These six proposals have a Technology Readiness Level (TRL) of 5 and have shown positive results from their minimum viable product (MVP) versions—samples tested

with potential consumers. Since the technology does not alter the food's industrial process, the results can be easily and cost-effectively scaled.

3.- FUNDING

Homo Foods is currently in the "pre-seed" stage. By 2025, it has secured global funding of USD 25,000, consisting of contributions from the founding partners and non-refundable grants (ANRs) from Argentina's Ministry of Science and Technology totaling USD 15,000. This funding enabled:

- The registration of the brand and logo;
- The establishment of the Homo Foods corporation;
- The development of a minimum viable product (MVP) version;

Homo Foods is now conducting a pre-seed capital round to raise USD 300,000 by March 2025 and achieve the following within the next 24 months:

- Acquire laboratory supplies;
- Design an intellectual property strategy for the six foods mentioned;
- Scale production to an industrial level;
- Begin regulatory approval processes for commercialization;
- Develop a brand positioning campaign;
- Expand the team by adding more human resources.

A second funding round (USD 1 million) is planned for early 2027 to position the licensed technologies in the target market. The goal is to advance international expansion with a soft landing in the first three target countries (Brazil, Mexico, and the U.S.), stabilize microencapsulation technology with additional bioactive compounds (resveratrol, lycopene, squalene, CBD, etc.), and explore new types of foods and technologies, such as incorporating biotechnology or precision fermentation (seed capital).

4.- IRR AND INVESTOR PROFILE

The investor's entry will be through the acquisition of 20% of Homo Foods' shares.

The ideal investor profile includes venture capital funds or corporate venture capital firms focused on scientific, biotech, or foodtech startups in their investment strategy.

For the second funding round (USD 1M), priority will be given to funds from the U.S., Europe, or Asia.

5.- RISKS AND BOTTLENECKS

A potential risk is the existence of similar patents in either the developed plant-based food products or the microencapsulation technology of bioactives. To mitigate this risk, Homo Foods has a strong intellectual property and international regulations plan, led by one of Argentina's leading professionals in the field.

6.- EXECUTION PLAN

The execution plan includes the following stages:

- Commercial launch to license the intellectual property of the six foods mentioned, which is expected within the next 24 months. This will involve patenting the technology for stabilizing Omega 3 and minerals via microcapsules in the six plant-based foods, obtaining regulatory approvals, and beginning sales in Argentina, Brazil, Mexico, and the U.S. Markets. Confirmation is expected soon that the first version of the minimum viable product (MVP) technology is globally patentable.
- Expansion of production, stabilizing more bioactive compounds with scientifically proven health benefits, such as collagen, resveratrol, CBD, and lycopene. This will occur alongside parallel expansion into the Asian market, the world's largest adopter of functional foods.

7.- ADDITIONAL BACKGROUND

Currently, two multinational companies (one plant-based and the other animal-based) are exploring potential collaborations for Homo Foods to stabilize bioactives in their products.

Additionally, Homo Foods is co-developing an ice cream product with a leading Argentine company in Latin America and negotiating with two other corporations in different food segments.

The Research and Technical Assistance Center for Industry (CIATI, <https://ciati.com.ar/>) has facilitated a collaboration between Homo Foods and the multinational BeBord Foods (<https://bebordfoods.com/>) for their plant-based products.

Homo Foods has also requested support from the Proveg venture capital fund (<https://provegincubator.com/>), one of Europe's most prominent foodtech funds.

Perfil

Homo Foods is an Argentine foodtech startup founded in 2022, focused on using science to improve people's health and well-being without significantly altering their eating habits, while ensuring long-term environmental sustainability.

The company tackles a key challenge in the food industry by developing nano and microencapsulation technologies required to incorporate bioactive compounds. Currently, Homo Foods applies these technologies to its own plant-based analog food developments, stabilizing bioactives using the food production system itself.

Homo Foods is the ideal partner for B2B clients seeking to commercialize industrial plant-based foods with functional benefits and healthy characteristics. They create technologies that focus on using nano and microencapsulation techniques in plant-based food matrices to stabilize plant-derived bioactive compounds (such as Omega 3, resveratrol, lycopene, squalene, CBD, etc.) using the same food production process. This method of stabilizing bioactives makes functional foods more accessible and affordable to the end consumer.

The company is led by a researcher from the National Scientific and Technical Research Council (CONICET) of Argentina and a business executive with extensive experience. Additionally, the team includes specialists in intellectual property, food technology, and investment.

CONICET has recognized Homo Foods as a Technology-Based Company (EBT) and awarded it two grants through the Scientific and Technological Research Projects (PICT). Furthermore, the company has an agreement with the University of Litoral (UNL), which allows it to access its laboratories and human resources, including interns and doctoral fellows.

Homo Foods has been invited by the KM ZERO Food Innovation Hub (Spain) and the Mexican Vegan Entrepreneurs Association to present at the region's most relevant food industry fair in 2024, The Foodtech Summit and Expo in Mexico City.

In 2024, the Rockstart fund (<https://rockstart.com/>), based in Colombia, the Netherlands, and Denmark, evaluated Homo Foods among 750 foodtech companies across Latin America. After passing four evaluation stages, it was highlighted as one of the 25 most promising foodtech companies. Through Rockstart, the technology was presented to the R&D team at the Colombian dairy producer Grupo Alpina (<https://alpina.com/>).

In 2023, Homo Foods ranked fifth out of 700 applicants in a foodtech competition organized for Grupo Arcor (Argentina) by Kamay Ventures.

In 2022, Homo Foods placed seventh in a foodtech competition with 1,000 companies, organized by the industrial group Molinos (Argentina).