

BUSINESS SUMMARY

PROPOSAL

Create a Class B technology-based company to manufacture and commercialize biocompatible materials for medical and non-medical applications.

THE PRODUCT

The initial product is hydroxyapatite obtained from eggshells (EHAp), used as bone filler in dentistry and trauma surgery applications. Biocompatible filaments for tissue engineering are currently under development. The minimum price of 1 gram of HAp from a national competitor is AR\$2100 (June/2020), with material derived from human or bovine cadaveric donors.

ADVANTAGES OVER COMPETITORS

Product sourced from industrial waste, zero risk of disease transmission, and highly competitive pricing.

PROBLEMS IT SOLVES

- Health and aesthetic issues due to the loss of dental pieces (200 million cases/year).
- Demand for hydroxyapatite-based materials to treat conditions related to population aging, fractures, and/or bone tissue damage (8.9 million fractures/year).
- Lack of environmentally sustainable alternatives in the healthcare sector.
- Lack of biocompatible filaments for tissue engineering using 3D printers.
- Environmental pollution from poultry industry waste.

BENEFITS IT GENERATES

- **Clients:** Raw materials that significantly improve profit margins.
- **Patients:** Zero risk of disease transmission from animal sources, biocompatible compound with lower rejection rates, and better financial accessibility.
- **Healthcare professionals:** Patients with fewer relapses and earlier discharge times.
- **Poultry industry:** Transformation of waste into value-added products.
- **Environment:** Reduction of environmental pollution from organic waste.

REVENUE GENERATION

- Through bulk EHAp sales (0.5, 1, and 2 kg) and calcination technology in a B2B model. Sales will be made through multiple channels and strategically partnered distributors.
- Through sales of biocompatible filaments for 3D printing of bone tissue, for compassionate use or non-medical purposes.

MARKET

The global hydroxyapatite market reached USD 2.125 billion in 2017 and is expected to grow at a rate of 10.3% annually between 2017–2024. The short-term goal is to enter the national market with an annual production of 60 kg (2% of the Argentine market) and in the medium term enter the international market with 600 kg/year.

CURRENT STATUS

We currently have a repeatable lab-scale production process. The next stage is to scale up to a production of 50 kg/month, aiming to solve the scaling challenges without excessive investment.