

ZYRCULAR FOODS: BUILDING A BUSINESS IN THE ALTERNATIVE PROTEIN AND FOOD TECH MARKETS^{1, 2}

“The first time, you will buy the product for its novelty. Then, you will return if the taste was good and there are nutritional and sustainability benefits. And in the long-term, you will keep buying it if it has the right value.”

Nick Halla

Senior International Vice-president, Impossible Foods.

Santi Aliaga, CEO of Zyrular Foods, never imagined he would be in charge of driving a meat substitutes business after almost 15 years as controller of the agri-food group Grupo Vall Companys (GVC). However, that was precisely what he was doing in June 2021, at the express request of the family that owned GVC. This project was as exciting as it was uncertain. The aim was to capitalize on the rise of veganism and the expectations about non-animal alternative proteins and new food technologies (food tech) in line with the emerging values of sustainability and health among consumers. The possibilities were presumptively immense, but what was the actual market potential? How to build a profitable and sustainable competitive position? What should be the business model? How to add value to the family business and not diminish it?

GRUPO VALL COMPANYS: ONE OF THE LARGEST MEAT PRODUCERS IN EUROPE

The Vall Companys Agri-Food Group, founded in 1956, was a family-owned business operating in several areas of the flour and meat industries:

- **Livestock production:** in the pig (65% - 75% of sales), poultry (20% of sales), and cattle sectors. The group did not own farms (except for two broiler hatcheries and three swine insemination centers) but worked with more than 2,100 partner farms, providing them with breeding stock, feed, and veterinary care.
- **Meat industry:** the group had three slaughterhouses and four cutting plants for pigs,

¹ This is a case of the Research Division of San Telmo Business School, Spain. It has been written by Professor José Antonio Boccherini Bogert, of San Telmo Business School, in collaboration with research assistant Mr. Gabriel Ochoa de Zabalegui, and is intended as a basis for class discussion only and not to illustrate any judgment on the effective or ineffective management of a particular situation.

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² The Internet sources cited were visited between March 8th and June 20th 2021.

five slaughterhouses and five cutting plants for poultry, and two slaughterhouses and one cutting and distribution business for cattle.

- **Meat products:** hamburgers & patties, roasts, breaded, marinated, and pre-cooked meats, etc., under the brands BonChef (for restaurants), Saborea, and private labels.
- **Animal feed and veterinary medicines:** primarily for partner producers but also for third parties.

The group also had four plants where it manufactured bread meals. It had a company for logistics and purchasing raw materials and eleven marketing units. Its clients included industrial customers, wholesalers, distributors, retailers, and restaurants. The group's brands were not very relevant. See Exhibits 1 and 2 for the group's main financial and production figures.

The integrated production system from genetics (the animals were fattened on partner farms but came from the group's hatcheries) to packaging ensured complete traceability, food safety, and consistent product quality.

The group comprised 42 companies and had manufacturing facilities in 32 locations across Spain. It was the top pork producer in the country (10% of the market) and a major producer in Europe, the leading poultry producer in Spain (20% share), and the second flour producer in Spain, with a share of roughly 10%.

In the pork sector, the group marketed fresh meat mainly, although it also produced cured and processed products (as a piece and sliced). International sales were predominantly pork, with China being the leading buyer (229.5 million EUR in 2019). It sold its poultry meat mostly in Spain.

According to Albert Morera, General Manager of Grupo Vall Companies' swine division, *"the key to this business is to have a very efficient chain, costs, and yields, and bring to each market the product and pork pieces most widely consumed there. The main risks are animal diseases, sanitary regulations affecting international trade, and price fluctuations. Veganism is gaining followers, especially among the young population. Moreover, society demands that animals be treated well, and breeding, transportation, and slaughtering conditions continue to improve, which implies rising costs. On the other hand, the capacity to produce food animals is clearly finite. Meat will become more expensive in the future, which will encourage the growth of alternative proteins. However, organic meat has not succeeded: it costs 2.5 times more to produce, and consumption is below 0.1%."*

MEAT PRODUCTION, THE CHALLENGE OF SUSTAINABILITY, AND THE ANIMAL LIBERATION MOVEMENT³

In 2011, the FAO estimated that global demand for livestock products would increase by 73%⁴ in 2050 due to population growth, growing incomes, and urbanization. This forecast triggered concerns about resource availability to meet this demand and potential adverse effects:

- *Climate change*: according to the FAO, agriculture, forestry, and other land uses contributed 24% of human-induced greenhouse gas emissions (the contribution of livestock was 14.5%), although figures varied depending on source and methods and were not without controversy.
- *Use of natural resources*: the livestock industry used 70% of agricultural land for grazing and feed crops. Around one-third of the world's crops were used to feed livestock. Livestock systems also used more water resources than crops per kilogram, per calorie, and per protein.
- *Low feed-to-meat conversion ratios*: animals were inefficient in converting natural resources into edible products. To produce 1 kg of human food, chickens need between 1.5 and 2 kg of feed, pigs 2.5 kg, and cattle 5 to 7 kg. These rates had improved over time and continued to do so thanks to the genetic improvement of animals.
- *Animal diseases, zoonoses,⁵ and antibiotic use*: animal disease outbreaks often caused economic losses and sharp meat price fluctuations. In addition, some diseases were foodborne, and food contamination with fecal bacteria was also a concern. Intensive livestock breeding under high confinement conditions boosted the use of antibiotics to treat infections, prevent disease, and promote growth, which posed risks of antibiotic resistance in human medicine

In light of these debates, critics claimed that it made no sense to feed animals for meat production and advocated for alternative products. However, the FAO argued that one billion poor depended on livestock for food and income and that in marginal areas, cattle made a net-positive contribution to protein balances. On the other hand, animal rights activists complained that "*animals raised on factory farms often live in crowded, filthy spaces, subjected to brutal handling and slaughtered inhumanely.*" The animal liberation movement was gaining momentum, driven by activists, academics, artists, and organized groups who campaigned against the use of animals for research, food, entertainment, and textile production. This movement was inspired by the Australian philosopher Peter Singer in his 1975 book "*Animal Liberation*" and sought to eradicate speciesism (the idea that human beings have exclusive rights because of the species they belong to), which they considered anthropocentric as it discriminates against nonhuman animals. This movement caused controversy and philosophical, ethical, and legal

³ Most of this section has been adapted from the case "*DGI-326 EAT JUST: Food Tech and cultured meat for a new food system*" (José Antonio Boccherini Bogert, San Telmo Business School, 2021).

⁴ FAO (2011).

⁵ Zoonosis: a disease or infection that develops in animals and is transmitted to humans.