

# Investor Letter

2<sup>nd</sup> Quarter, 2024

*"You'll remember me when the west wind moves  
Upon the fields of barley  
You'll forget the Sun in his jealous sky  
As we walk in the fields of gold"*

Excerpt of the song *"Fields of Gold"* by Sting.

The SFA EAC fund ended the 2<sup>nd</sup> quarter of 2024 with a year-to-date return of -8.14%, while its benchmark, Ibovespa, had a return of -7.66%.

| Period                 | SFA EAC | Ibovespa | CDI     |
|------------------------|---------|----------|---------|
| <b>2T24</b>            | -8,14%  | -3,28%   | 2,53%   |
| <b>YTD</b>             | -8,20%  | -7,66%   | 5,22%   |
| <b>Last 3 years</b>    | 1,29%   | -4,33%   | 37,88%  |
| <b>Last 5 years</b>    | 59,23%  | 21,40%   | 47,58%  |
| <b>Since inception</b> | 321,17% | 126,79%  | 167,36% |

## How the 2<sup>nd</sup> Semester of 2024 Turned Out

Brazil has completely detached itself from the global scenario in 2024. From any angle you look at it, domestic assets have performed much worse than in the rest of the world.

The explanation for this lies in an environment of uncertainty heightened by a government that shows little willingness to address a growing fiscal problem. Separating noise from signal has been the great challenge in this volatile environment with often extreme narratives.

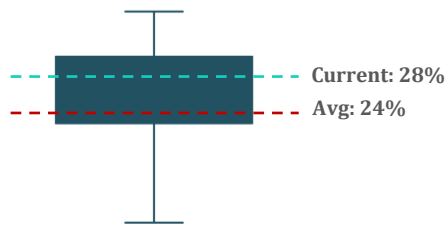
At SFA, as long-term investors, we are taking advantage of the current scenario because, despite the uncertainties, it also offers unique investment opportunities. We have been able to find new companies with the potential to become long-term investments at prices that would be difficult to find in a calmer environment.

To quantify the level of safety margin we have today in the companies we invest in, we will show some data below.

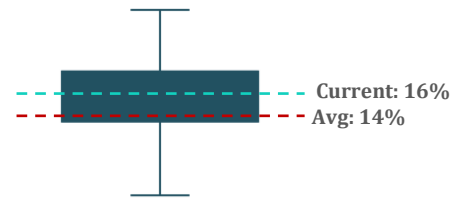
At SFA, we calculate the expected return of the portfolio (IRR) over a 5-year horizon. The portfolio IRR is calculated daily for each company in our fund and weighted by its size. We currently see our fund's IRR at around 28%, above average and close to the first quartile of the highest projected IRRs in our history.

A second analysis we like to do is to look at the expected return of the portfolio versus the 5-year nominal interest rate. We also observed a value above the historical average and close to the first quartile. Therefore, even with the rise in interest rates in recent years, we can say that the expected return of our portfolio more than compensates for the opportunity cost of buying a 5-year fixed-rate government bond. We use the 5-year fixed-rate since we understand that investments in equities should not be observed in periods shorter than 5 years and, for the same reason, our IRR considers the same period.

### Historical Expected Portfolio Return (IRR)



### IRR Premium vs 5-Year Interest

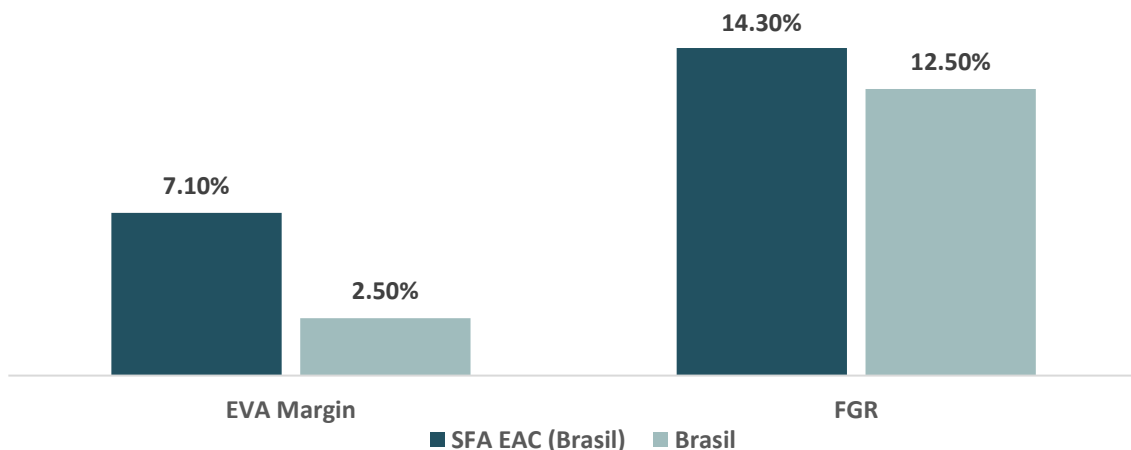


Another way we can analyze our fund's margin of safety is to look at how much we are paying for future growth in our companies.

Looking only at the Brazilian companies in our portfolio, their market value implies future growth of approximately 14%, remarkably similar to the rest of the Brazilian stock market. However, the companies in our portfolio have significantly higher value generation.

Therefore, we see a large margin of safety in being partners in a portfolio of excellent companies that generate returns considerably above the cost of capital.

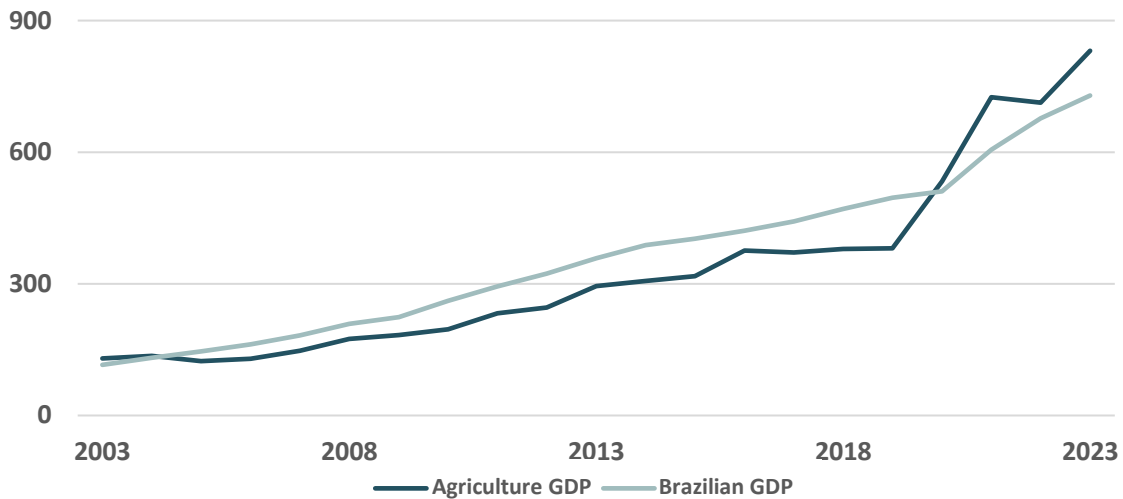
Good investments that generate returns above the risk-free rate require diligence and patience, two fundamental characteristics for us. We remain focused on finding these good investments, with efficient and active portfolio management.



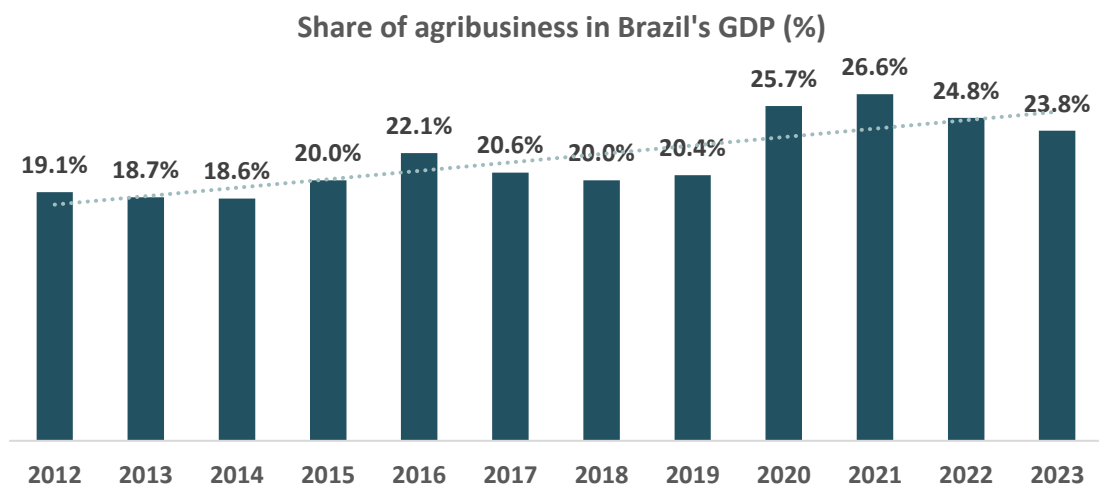
## Vittia: The Experience of Long-term Farmers in the Production of Bioinputs

Agribusiness has stood out for its significant contribution to Brazil's GDP over the past 20 years. Brazil is among the world's largest producers and exporters of food. The country's potential as an agricultural powerhouse is undeniable. In terms of competitive advantages, it is worth noting that our country has a vast territorial extension with fertile land and a favorable climate, irreplaceable characteristics that set Brazil apart in agriculture.

As we have highlighted in previous letters, we analyze companies for the portfolio regardless of size, geography, and sector, and we do not like to be guided by thematic investments. However, with so many competitive advantages for agribusiness, we wonder if, within this segment that is so important to the country's economy, there might be a company that fits the profile we like. And, it is worth mentioning, our philosophy consists of generating alpha for our shareholders by seeking companies that have economic moats, good management, and growth potential with value generation.



Source: IBGE Note: base 100, GDP at current value



Source: Cepea/CNA

In Brazil, farmers can harvest the same area twice a year, and there are currently studies to harvest a third time viable. In this way, we have achieved a huge increase in production without the need to increase the area. Furthermore, the increase in Brazilian productivity has come from the development of technologies used in agriculture. In addition to its natural advantages, Brazil has become an agribusiness powerhouse thanks to the development of technology for the field. Therefore, we are looking for investment opportunities in the agribusiness value chain that are linked to the use of technology and productivity gains in agriculture.

## Development of the Brazilian Agribusiness

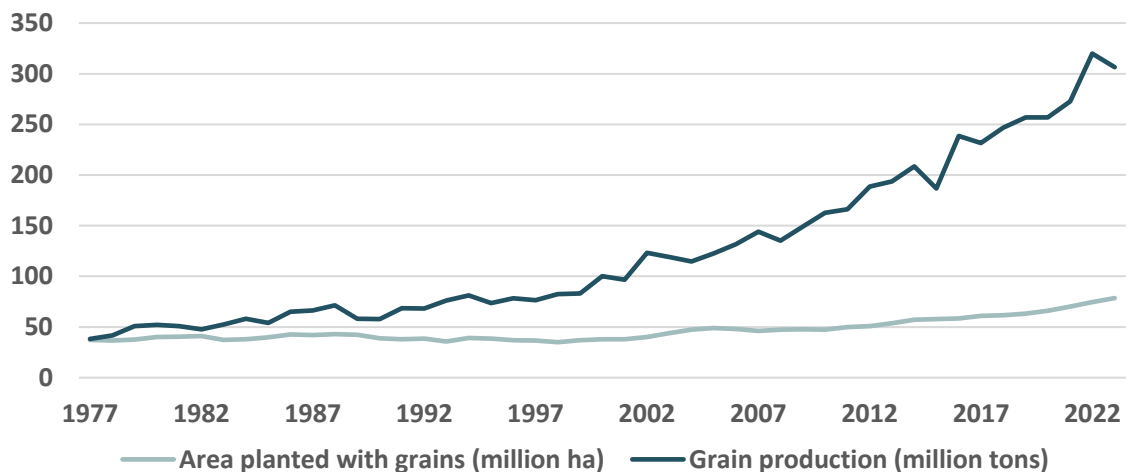
Currently, agribusiness is responsible for 21% of formal jobs in Brazil. Brazil has established itself as one of the largest agricultural producers and exporters in the world. In 2023, agriculture accounted for 23.8% of Brazil's GDP and 47.8% of its exports. Brazil is the world's largest producer of soybeans and one of the largest producers of corn, coffee, sugarcane, and cotton, as well as the largest exporter of soybeans, beef, and orange juice. Until the early 1970s, Brazil's agricultural economy was based primarily on the cultivation of coffee and sugarcane. Brazil imported staple foods such as rice, beans, meat, and milk.

### Position of Brazilian production in relation to world production – by segment (2021)



Source: IPEADATA, CONAB, SFA Compilation

The development of Brazilian agribusiness began with the occupation of the Cerrado region in the 1970s. The reality of Brazilian agriculture began to change, which was possible thanks to the scientific knowledge generated since that time. Due to a large migratory influx, especially of farmers, the Central-West region of Brazil, previously practically uninhabited, became an important region for producing grains, meats, fibers, and energy, thus reducing Brazil's dependence on imported products. In 2001, Brazil reached the 100-million-ton mark of grains, cultivating 38 million hectares. In 2023, 300 million ton of grains will be produced, in an area of 77 million hectares.



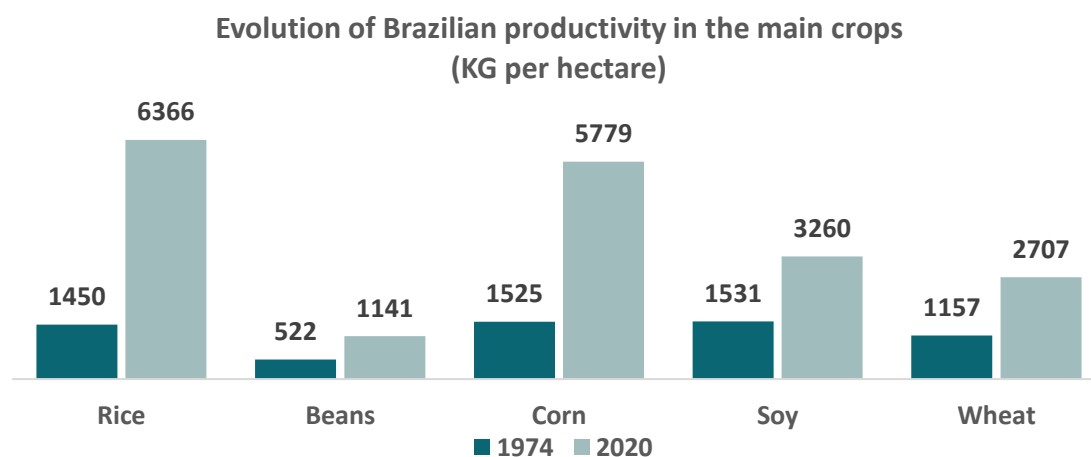
Source: IPEADATA, CONAB, SFA Compilation



Source: IPEADATA, CONAB, SFA Compilation

While grain production tripled between 2001 and 2023, the cultivated area only doubled. This difference is mainly due to the increase in productivity per unit of cultivated area. This is thanks to science and technology. To get an idea of the increase in productivity, if productivity in 2023 were the same as in 2001, 114 million hectares would be needed to produce 300 million tons of grain. At the same time as there was an increase in productivity, there was also a significant increase in the species cultivated in the most diverse regions of Brazil.

The industrialization of several cities in the interior of Brazil has had agriculture as its main activity. Crops that were previously considered to be of temperate climate, such as soybeans, are now grown in all regions of Brazil. Today, Brazil produces grapes in the semiarid region, something that was not possible before, and there are several examples of what has happened with agricultural production in Brazil, especially since the 1970s. With the expansion of agriculture, several cities have emerged. What continues to be seen in Brazilian agriculture would not be possible if Brazil had not developed a system of agricultural research, both public and private. This generates knowledge that is transformed into technologies, which are incorporated into production systems, contributing to improved productivity and, consequently, value generation. Technological development continues to prosper, and Brazil still has the capacity to expand its productive area, which should raise the country's status as a global agricultural power.



Source: IPEADATA, CONAB, SFA Compilation

## How to Invest in the Sector

After understanding Brazil's strengths and how the use of technology has been important for agricultural development, we looked at the agribusiness sector to find companies that are growing and generating value, or, as we like to think of it, companies with expectations of increasing EVA (Economic Value Added) in the long term. However, not everything is perfect. The fact that Brazil is an agricultural powerhouse does not mean that all companies in the sector have competitive advantages and can generate value in the long term. Companies in this sector are usually capital-intensive, have a high need for working capital, since crops take months to be harvested, and the sector is highly cyclical in terms of commodity prices. The reality is that the segment is challenging and, historically, many businesses in the sector have faced times of great financial difficulty. There are many players on the Brazilian stock exchange linked to the sector. We can divide the companies into the following categories:

- **Agricultural input distributors:** the distribution sector is made up of companies that purchase inputs from manufacturers and resell them to agricultural producers and livestock farmers. Distributors are responsible for supplying products and services, and their work also includes providing technical assistance to rural producers.
  - **Example:** Agrogalaxy

- **Agricultural producers:** rural producers who perform a business management activity, with the objective of producing and marketing agricultural products. From small producers to large exporters, they use leased or owned land to carry out the activity.
  - **Example:** SLC
- **Input manufacturers:** manufacturers of raw materials or essential production factors such as seeds, fertilizers, pesticides, and manures.
  - **Example:** Boa Safra
- **Capital goods manufacturers:** manufacturers of machinery, equipment, agricultural implements, and methodologies, such as plows, seeders, tractors, sprayers, and irrigation equipment.
  - **Example:** Kepler Webber

At SFA, we use EVA (Economic Value Added) as a basic tool for analyzing value generation. We can perform a kind of Dupont analysis on the EVA variation, that is, break down the sources of value generation into two components: growth with profit and productivity gains. The use of technology in the field is growing and is intricately linked to value generation, as it makes the chain more efficient and productive. Among so many opportunities, we find interesting companies that have some component of innovation and technology, where we can find the two components of value generation: expansion of the EVA margin in the long term and revenue growth with a positive EVA margin.

In our search, we came across Vittia, a manufacturer of agricultural inputs. Vittia is one of the pioneers in the manufacture of inoculants (or biological fertilizers) initially focused on the soybean market. Over the years, the company expanded its operations and began to produce and sell foliar fertilizers, soil fertilizers based on micronutrients (or soil micros), soil and organomineral conditioners, and biological pesticides. The company's trajectory has been marked by its commitment to combining research and development, method and practice, technology, and nature in the manufacture of new technologies in plant nutrition for the Brazilian agricultural market. In its operations in the agribusiness chain, it stands out as one of the main manufacturers of biological inputs in the country, which caught our attention from an investment standpoint. SFA decided to take an executive education course specializing in biological inputs, taught by Agroadvance Brasil. We really found this sector remarkably interesting and promising.

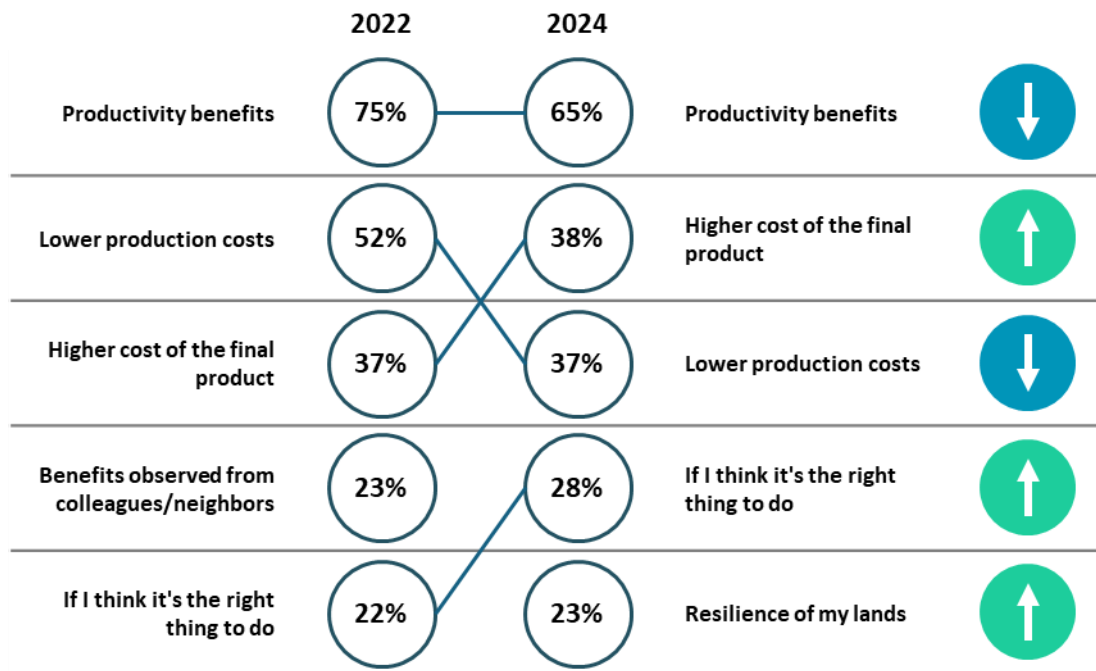
## Bioinputs Sector

According to MAPA (Ministry of Agriculture, Livestock and Food Supply), a bioinput is considered any product, process, or technology of biological origin — animal, plant or microbial — for use in production, storage, or processing in agricultural, livestock, forestry, and aquatic systems. Biological inputs, unlike chemical inputs, which are made from minerals, are organic compounds that can be used in agricultural production, such as natural fertilizers, manures, defensive strains (microorganisms and fungi), insects (pollinating bees and pest predators) and harvest remains.

The development of bioinputs has always been linked to the development of agriculture itself. However, in terms of large-scale, productive agriculture, the development of new biological input technologies has recently gained ground in an agriculture dominated by chemical inputs. Bioinputs represent only 5.6% of the total inputs sold globally.

### 3 main reasons for adopting sustainable practices

Q. What do you believe are the top 3 risks to your profits over the next 2 years? % of respondents



Source: Global Farmers Insights research by McKinsey, 2024

Bioinputs offer several advantages, such as reducing environmental impact, decreasing dependence on synthetic chemicals, and promoting agricultural practices that are more aligned with environmental preservation. But the most important from an investment standpoint is that bioinputs are efficient, cheap, and maintain or even increase soil productivity, factors that should lead to biological products increasing their share of the input market.

The global agricultural bioinputs market, which includes biodefensives, inoculants, biostimulants and biofertilizers, was estimated at US\$ 9.9 billion in 2020, with US\$ 5.2 billion represented by biodefensives (IHS Markit, 2021). The expectation is that, by 2027, the global market for bioinputs will continue to grow, exceeding US\$ 3 billion for biostimulants and US\$ 10 billion for biodefensives.

The use of bioinputs has been growing in Brazil and worldwide due to factors related to regulatory, market and crop management issues. Brazil is the most developed country in the use of bioinputs. The large-scale use and development of bioinputs was consolidated in 2007 with decree 6,233, which regulated law 10,831, known as the organic production law. Although there is still much to be developed in the legislation on biological inputs, Brazil is the most advanced country in the regulation, use, production and development of strains and other biological means in agriculture.

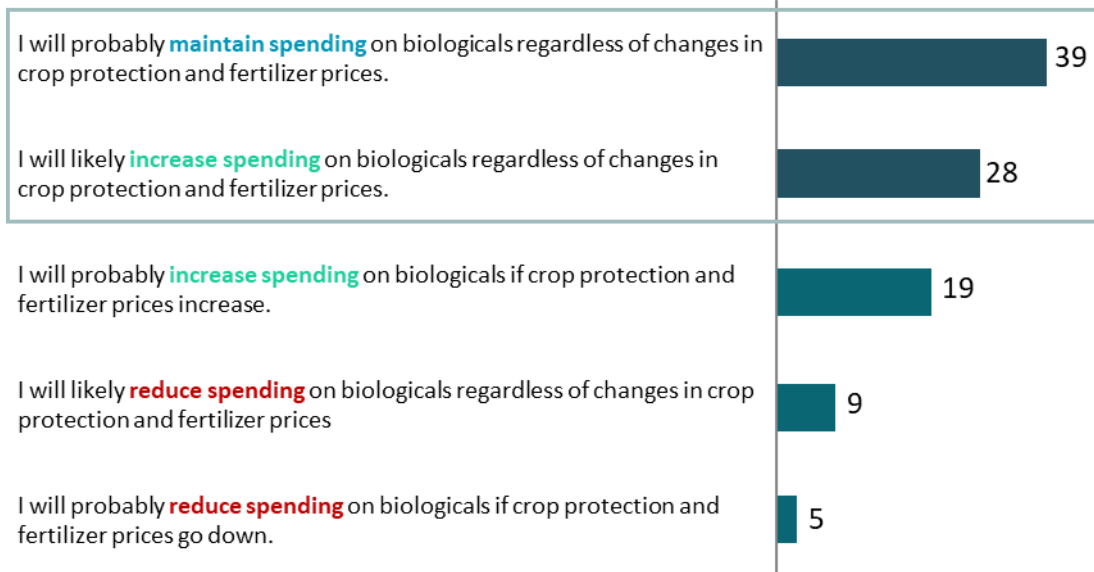
The regulatory approval process for biological products is consolidated and less bureaucratic than in other countries, but this doesn't mean that it's less rigorous. To be marketed in Brazil, a bioinput must be evaluated by three independent agencies: the Ministry of Agriculture, Livestock and Food Supply (MAPA), for agronomic efficacy, the Brazilian Institute of the Environment and Natural Resources (IBAMA), for environmental risks, and the National Health Surveillance Agency (ANVISA), for health risks. The product is only registered if it obtains approval from all three agencies.

The number of registered biological control products has increased considerably. A total of 502 products with active registration were recorded by March 2022, with emphasis on bioinsecticide registrations, which account for approximately half of the active registrations in Brazil.

### Future expenditure on bio-based products

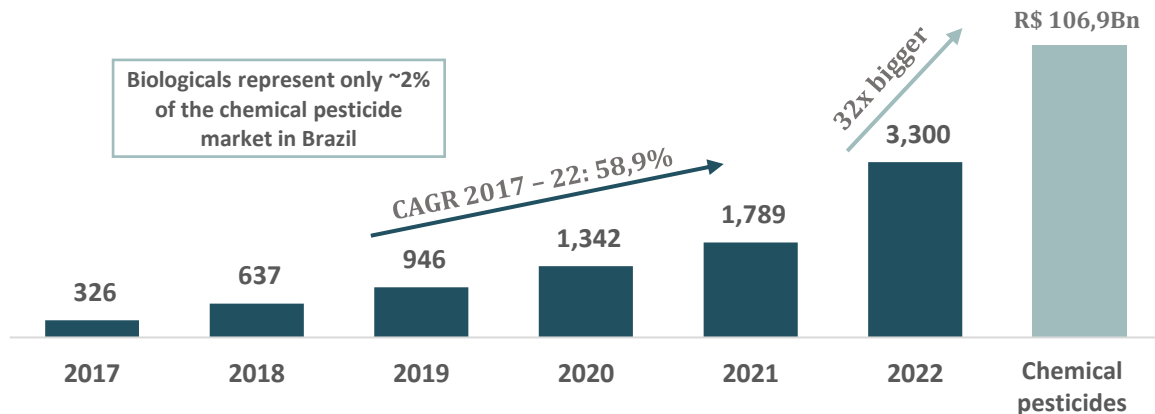
% of respondents 2024 (N=507)

Q. How likely are you to change your spending on biologicals as crop protection and fertilizer prices change?



Source: Global Farmers Insights research by McKinsey, 2024

### Brazilian biological pesticide market is growing rapidly



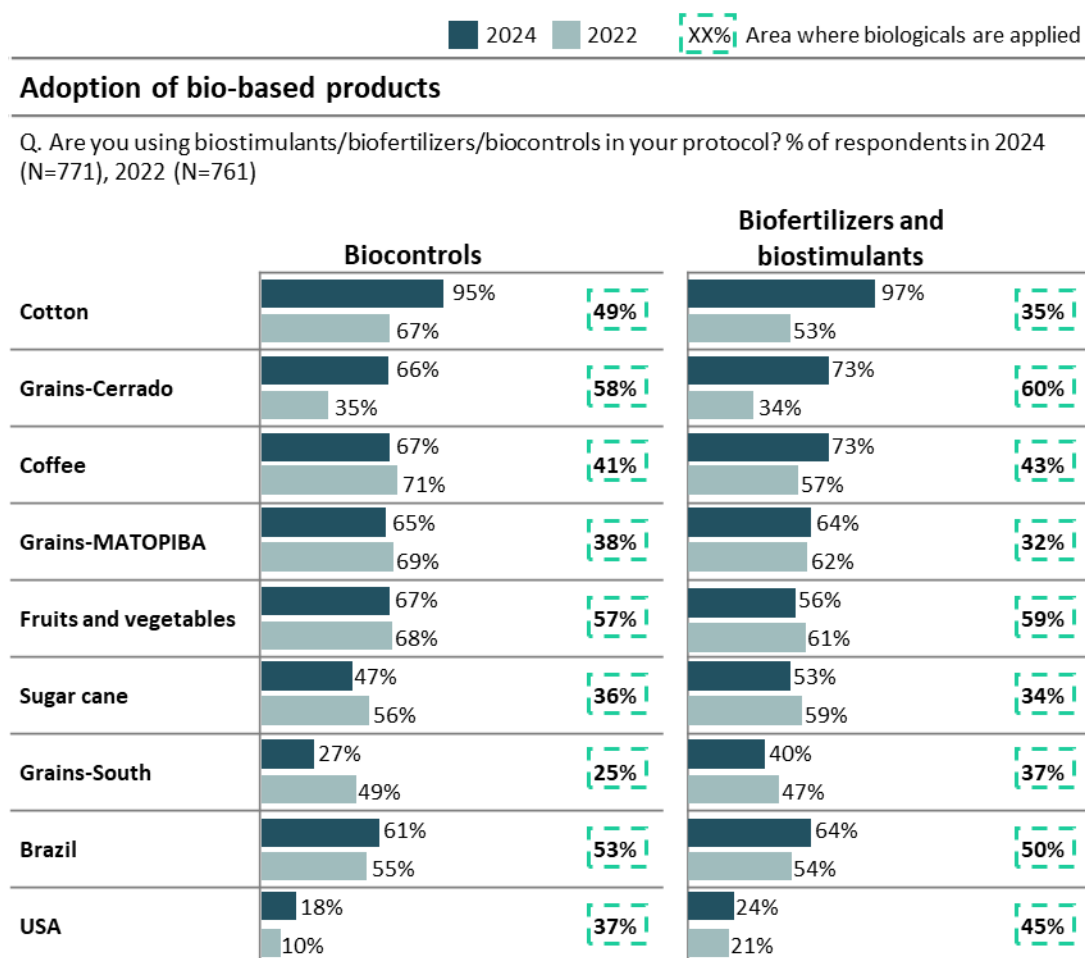
Source: Vittia

The biological solutions market comprises three segments: Biocontrol, Biostimulants and Biofertilizers; all of which share common characteristics as naturally-derived products used to replace or complement the use of conventional agrochemicals. The biological solutions market benefits from similar growth drivers to the broader agrochemical market (population growth, decreasing arable land, increasing volatility of climate conditions), but is exhibiting accelerated growth through the tailwinds of sustainability, organic farming, regulation and increasingly breaking down barriers to knowledge and adoption of the solutions by farmers who increasingly see the efficacy and improved productivity of the land. The natural agrochemicals market is still in the early development stage and is characterized by high fragmentation and dynamic growth rates.

- Biological stimulants:** Biostimulants are products that stimulate or boost biological processes in plants and related microbes. They help improve resilience to abiotic stresses (e.g., harsh weather conditions), increasing crop yield and quality and supporting healthy plant growth.
  - **CAGR 2012 – 2022:** 14%
  - **CAGR 2022 – 2027:** 12-13% (Source: broker research)

- **Biological pesticides:** Biological control agents are naturally occurring substances or organisms used to control fungi and bacteria, diseases, insect pests, nematodes, and weeds.
  - **CAGR 2012 – 2022:** 15%
  - **CAGR 2022 – 2027:** 16% (Source: broker research)
- **Biological Fertilizers (Inoculants):** Biofertilizers are used to fix nitrogen in the plant root zone to improve nutrient availability and acceptance, thus promoting plant growth.
  - **CAGR 2012 – 2022:** 20%
  - **CAGR 2022 – 2027:** 12% (Source: broker research)

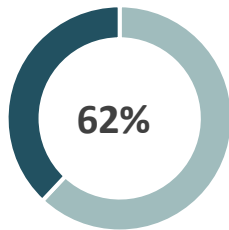
Vittia produces three categories of biological products, with an emphasis on inoculants and biological pesticides.



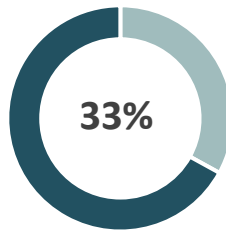
Source: Global Farmers Insights research by McKinsey, 2024

Main reasons for adopting bio-based products:

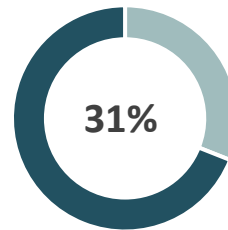
#### Biocontrols



Better efficiency

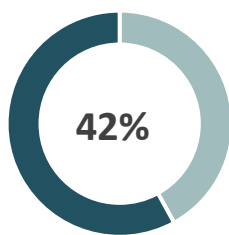


Lower cost

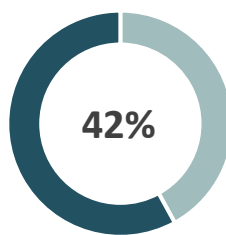


Insect protection

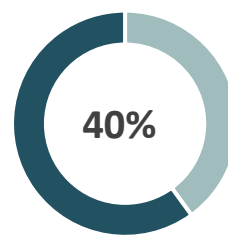
#### Biofertilizers and biostimulants



Improve productivity



Improve soil health



Improve crop quality

Source: Global Farmers Insights research by McKinsey, 2024

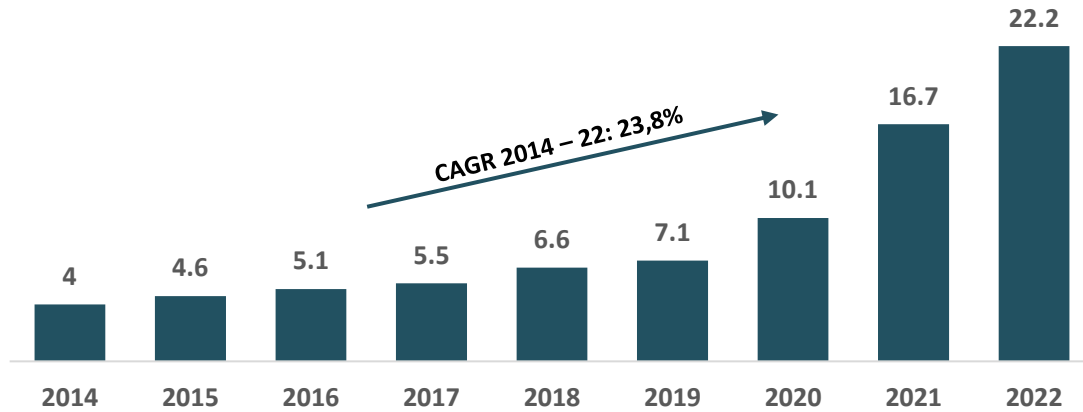
### Biological Fertilizers, Biofertilizers or Inoculants

Inoculants are the category of biological products that has been used the longest by farmers and are the most widely accepted products. Biofertilizers have experienced growth driven by a focus on sustainability, a favorable regulatory environment, higher adoption rates among farmers, as well as better documented products and understood efficacy.

Increasing soil and water pollution due to overuse of conventional chemical fertilizers is a key market driver for the segment, especially within sustainability-focused markets. Furthermore, biofertilizers have been shown to provide a new way for farmers to increase land production yields as traditional fertilizers need to be replaced or supplemented due to soil pollution and peak efficiency achieved by saturating the soil with NPK (acronym for chemical fertilizers containing nitrogen, phosphorus, and potassium).

Biofertilizers can be broadly categorized, based on the primary nutrient they provide to the plant, into nitrogen fixation, phosphate, and potassium solubilization, with shorter shelf life due to the use of live microbial cells and more complex storage and transportation.

### Brazilian Specialty Fertilizer Market



Source: Vittia

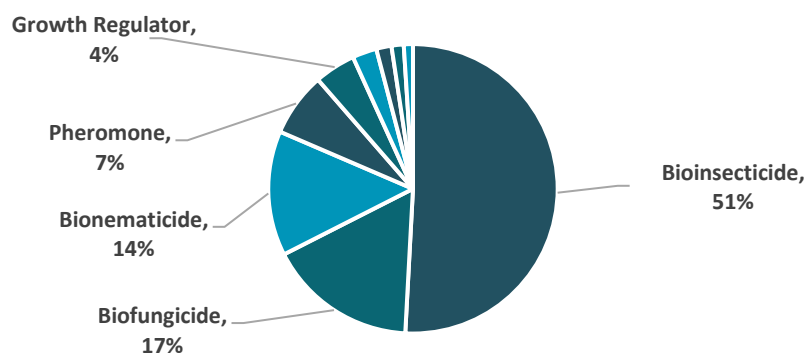
### Biological Defensives or Biodefensives

Biodefensives represent technologies that enhance the use of natural organisms or substances, aiming to prevent, reduce or eradicate pest and disease infestations in crops. Biological defensives are characterized into two types: microbiological-based and macrobiological.

The use of biopesticides offers a more sustainable, safe, and effective approach to pest control in agriculture, contributing to more responsible and environmentally conscious food production. In addition to being a less polluting input that is less harmful to the health of food consumers, producers have increased their acceptance due to the efficiency of the products and maintenance of soil productivity in the long term.

The use of biological pesticides in agriculture is relatively new compared to inoculants, but it already comprises the largest segment within the biological solutions market, reaching an estimated market volume of over US\$ 8 billion in 2023, driven by growth of approximately 17% per year in the last decade. In addition to being the largest market, biopesticides have the greatest growth potential due to the increase in share of the total pesticide market, compared to chemical pesticides, and this growth is driven by the continuous development of new strains for biological control.

### Biological control products with active registrations in Brazil



Source: CropLife Brasil, 2021

The segment has been growing consistently in key global agricultural markets. The strong historical growth trajectory reflects the shift in consumer preferences towards more sustainable agrochemical solutions, as well as increasing adoption rates by farmers as the segment matures and product efficacy is better understood and documented.

Brazil, in turn, stands out in the global market for bioinputs for biological control. From 2018 to 2022, the Brazilian biodefensives market grew by 62%, compared to the increase of approximately 16% in the global market during the same period. In the same trend, the latest survey on the adoption of these products shows that the total Brazilian biodefensives market, considering all crops and regions of the country, grew by 219% between the 2019/2020 and 2021/2022 harvests. Therefore, the estimated value was R\$3.3 billion for the last harvest. In contrast, in the previous period the value was R\$1.03 billion.

The main players in the biologicals market are medium and small companies focused on biodefensives, despite the entry of large agrochemical companies, which have built their presence partly through acquisitions. Generally, the competitive landscape is highly fragmented, with only a few players accounting for a significant share of the total market. Eventually, the maturity of the sector may lead to a consolidation of this market.

| Chemical Defensives                                                                                                                                                                             | Biodefensives                                                                                                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Decrease in beneficial insects due to their toxicity to non-target pests, altering the biodiversity of areas and affecting the natural biological balance.                                      | They are non-toxic and non-pathogenic to non-target organisms; thus, they do not directly affect beneficial animals such as predators and parasitoids.                                  |
| They leave chemical residues in food, either through direct application or through bioaccumulation, causing health problems such as skin problems, eye irritation, abdominal pain, cancer, etc. | Biodefensive residues are non-hazardous and safe at all times, even close to crop harvest times. No harmful residues remain in food, feed, or fiber.                                    |
| Due to their continued use in agriculture, chemicals can run off into aquifers and contaminate bodies of water.                                                                                 | They have limited persistence in the field and a short shelf life, and due to their biodegradability, they decompose quickly. Therefore, they are safer for humans and the environment. |
| Chemical pesticides are made up of a mixture of many synthetic chemicals.                                                                                                                       | Biodefensives are generally products and bioproducts of naturally occurring organisms such as plants, animals, and microorganisms.                                                      |
| Poisoning hazard for pesticide operators considering excessive exposure: although it depends on the concentration, toxicity, sensitivity, and duration of exposure.                             | Effective in low concentrations or quantities, resulting in less operator exposure.                                                                                                     |
| Pest resistance due to excessive use of chemical pesticides                                                                                                                                     | It is expected that pests will not develop resistance to biopesticides                                                                                                                  |
| Nature of control: curative                                                                                                                                                                     | Nature of control: preventive                                                                                                                                                           |
| Rapid effect in reducing the pest population                                                                                                                                                    | It takes time to reduce pest populations                                                                                                                                                |
| Reduction in the global market                                                                                                                                                                  | Increase in the international market                                                                                                                                                    |
| High production cost                                                                                                                                                                            | Low production cost                                                                                                                                                                     |

Source: Essiedu et al. (2020)

## Vittia

SFA sees great potential for development and growth in the biologicals sector and currently on the Brazilian stock exchange, Vittia is the only player with significant exposure to biological products. Being completely honest with our shareholders, we initially asked ourselves whether we would invest in Vittia simply because it was the only company in the segment. In studying the company, SFA found a number of other characteristics that we like to include in our investment thesis:

- Founders who are the defined controllers.
- Long track record in a highly cyclical sector that has survived several cycles.
- One of the pioneers in the biological segment.
- History of growth with value generation.
- Conservatism in financial management.
- Large distribution capacity and manufacturing capacity in a sector with many small players.
- Proven research and development management.
- One of the biggest players in the biologicals segment.

Vittia is one of the main competitors in the biodefensive and inoculant market (3rd player with ~6% market share, second place Biotrop with ~8% and first place Koppert with ~12% market share → SFA estimates), a fragmented and developing sector. Vittia has its own R&D, which gives it exclusive strains and a production process that guarantees the efficacy of its products. Despite its own R&D with a considerable pipeline of new products for commercial exploitation, after our research, we believe that R&D ends up being a weak competitive advantage, since a new strain can become a commodity after some time, or similar strains may emerge. We believe that Vittia's production and distribution capacity is what really gives the company competitive advantages, mainly because the sector is quite fragmented and unprofessional, which gives competitive advantages to larger companies. Although we are interested in the thesis of the biodefensive sector, it is worth highlighting that Vittia still has a portfolio of special and follicular fertilizers that serve as a gateway for customers who are not yet familiar with its biodefensives and inoculants.

Vittia works with its own sales force in direct contact with producers, in addition to having medium-sized and cooperative resellers. The production and distribution capacity creates a strong competitive advantage in a market fragmented by small and medium-sized players. Vittia has:

- More than 200 sales experts.
- 8 production plants.
- 81 R&D professionals.
- +350mm liters of installed capacity.
- 56 regulated targets.
- 1,252 direct customers.
- 412 distributors.
- 75 cooperatives.

This market is expected to consolidate over the years. The biggest competitors in this market are the main candidates to become consolidators. The big players, including Vittia, could become consolidators if they know how to take advantage of and manage their broad product portfolio and R&D capacity, production capacity and commercial strength, in addition to M&A opportunities arising in the sector. Furthermore, when the market becomes larger and Vittia manages to achieve a higher level of relevance in terms of share, it will also be a serious target candidate for a large agricultural inputs player that wants to enter or increase its share in the biological pesticides market, although the thesis doesn't depend on this exit to generate value for SFA's portfolio.

## Management

To detail our thesis, Vittia is a company that has a defined “owner” or controller with extensive experience in the agricultural sector. Founded in 1971 by the Romanini family in the city of São Joaquim da Barra, State of São Paulo, formerly known as Biosoja, Vittia began its activities as one of the first national producers of biological inputs. In 2021, it went public on the B3 and debuted on the stock exchange valued at R\$1.22 billion. The Romanini family continues to lead the business, continuing with its plan to expand and consolidate the sector with part of the IPO proceeds.

Vittia's CEO, Wilson Romanini, and his brother, Guilherme Romanini, Chairman of the Board, have each dedicated over 30 years to the company's operations. With the acquisition of Biovalens, Vittia was able to attract its founders, who are young but experienced professionals who bring other vital skills to the company. Examples of this include Henrique Ferro, the R&D Director, who has dedicated over 15 years to the research and development of microorganisms as biological pesticides, and Edgar Zanotto, who serves as Marketing Director. Completing the team are professionals with extensive experience: Alexandre Frizzo, CFO, has been with Vittia since 2015; Matheus Bezerra, Industrial Director at the company since 2016; and Rodrigo Agnesini, Commercial Director at Vittia since 2014.

## Competitive Advantages

A company's value generation can come from its competitive advantages, its current situation and/or superior management quality. It is a fact that Vittia has managed to generate value for its shareholders over the last 5 years. The first question that arises about Vittia's value generation is: 'what are its value generation drivers in a new and competitive market'? We believe that even though it is entering a new market, Vittia has managed to build competitive advantages that set it apart from its competitors.

Although the sector has over 150 manufacturers of bio-inputs, most of the participants are small and medium-sized companies that produce single products and depend on large distributors. Vittia has a verticalized process that ranges from research and development to manufacturing and its own sales force. Having its own sales force and technical assistance with over 200 specialized professionals is essential for this sector at the stage it is at, and most companies in the sector do not have this group of trained professionals. The biggest barrier to entry is the adoption of biological products in conjunction with or as a replacement for chemical products. The sale of biological products is very technical and consists of the salesperson presenting the product and its characteristics, as well as its application. The producer then tests it on a small scale and later expands its use. It may take a few harvests for the producer to see the benefits of the biological product for agricultural productivity.

Among other characteristics, Vittia's diversified portfolio is also important, as it increases the chance of cross-selling: Vittia sells its best-known products while the adoption of biological products is taking place. In order to have a diversified product portfolio and to be more competitive in biological products, having a large-scale production capacity capable of significantly diluting its costs is a characteristic that few in the sector have. As strains become more popular, having a cost advantage through scale, and differentiated processes is an essential quality for a sector consolidator. The large players in agricultural inputs are showing interest in the sector, but they are not yet competing intensely because it is a very small market compared to the chemical market. However, with the market expanding significantly in the coming years due to the competitive advantages of biological products, Vittia will also become an interesting acquisition target in the sector consolidation process. The big concern is whether Vittia will continue to be a value generator in the coming years, as we know that products with high margins attract the attention of competitors.

We summarize the following competitive advantages in Vittia, which within the current sector dynamics, differentiate it from most local independent competitors:

- **Patents:** Although there are no patents for biological beings, the strains isolated and registered with MAPA by Vittia end up being for the exclusive use of the company for a lifetime, something that resembles a competitive advantage of a patent. However, it is a competitive advantage that is neither strong nor lasting, because over time competitors may find similar solutions or isolate the strain in a different way to the point of being worth a new registration. Currently, the best-selling biological products are those developed through public research. The advantage of having a robust R&D will be evident in the coming years, as the new generation of biologicals is introduced to the market, which may generate higher margins for a period while older products become more commodities.
- **Cost advantage:** The verticalized R&D capacity, installed manufacturing capacity, one of the largest in the sector, together with its large, specialized sales force guarantees an advantage of scale and differentiated process that will be reinforced in the coming years as the prices of bioinputs fall with the increase in penetration of the sector. With these advantages, Vittia will be able to maintain the margin of its products by being one of the lowest cost players.
- **Niche market:** Vittia operates and is one of the pioneers in the biological inputs market niche. The biologicals sector is still too small for a large chemical player to want to invest heavily in this segment. Vittia's strategy is to grow within this specialized market. Having operated in this niche for years allows the company to operate and gain a high level of knowledge, becoming an expert in the field and a

reference for customers. The challenge of this advantage is that, when a niche becomes highly attractive, large players tend to enter the market, which can compromise its attractiveness. However, we believe that, when the time comes when large agricultural inputs players decide to enter the market definitively, Vittia will be well-positioned as an attractive target in the consolidation process.

Further on, we will highlight Vittia's product portfolio, R&D, manufacturing capacity and distribution in detail.

| Vittia's Presence in the Value Chain | Research and Development                                                                                                                                                                                                                                                   | Production of Special Fertilizers and Biological Defensives                                                                                                                                                             | Distribution and Sales                                                                                                                                                                        | Technical Support                                                                               |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| <b>Key Considerations</b>            | <p>Identification, study, and culture of microorganisms (bacteria and fungi) with potential agricultural application.</p> <p>Development of new proprietary formulas and industrial processes.</p> <p>Formulation of new plant nutrition and plant protection products</p> | <p>Crop Nutrition: production of special fertilizers, conditioners, soil conditioners, soil micronutrients, organominerals on an industrial scale.</p> <p>Crop Protection: production of microbial-based pesticides</p> | <p>Market access through a multichannel strategy:</p> <p>1) Direct sales<br/>2) Third-party distributors<br/>3) Cooperatives</p> <p>National scale to better cover Brazilian agribusiness</p> | <p>Qualified technical support covering customers (farmers, distributors, and cooperatives)</p> |
| <b>Key Figures</b>                   | <p>67 professionals</p> <p>~78 projects under development</p>                                                                                                                                                                                                              | <p>8 production plants</p> <p>+350 million liters of installed capacity</p>                                                                                                                                             | <p>~250 sales specialists</p> <p>+1,100 complementary products</p>                                                                                                                            | <p>~80,000 visits in 2023</p> <p>+9,000 rural properties registered</p>                         |

Source: Vittia

## Products

Vittia's portfolio has more than 1,100 products that offer solutions for all phases of the planting cycle, which opens doors for the company to win new customers, in addition to increasing the potential for monetization and costs as they are able to sell more products and increase their share for the existing customer base.

The portfolio of products they develop can be divided into the following categories:

- **Foliar Fertilizers:** these are products based on mineral substances that provide nutrients to plants through applications on their leaves or seeds, in addition to adjuvants, products used to maximize the efficiency of the application of other agricultural inputs. Also included in this category are biostimulants, which contain active ingredients of biological origin (amino acids, algae extracts and humic substances), free of agrotoxic substances, capable of acting, directly or indirectly, on all or part of the cultivated plants, increasing their productivity. In the fiscal year ended December 31, 2023, the foliar fertilizers category accounted for 42.1% of the company's gross revenue.
- **Soil Micro (soil fertilizers based on micronutrients):** these are products that have high solubility in water and are applied directly to the soil to provide micronutrients to plants and can be granulated or bran. In the fiscal year ended December 31, 2023, the soil fertilizer category accounted for 18.4% of the company's gross revenue.
- **Biological Defensives:** these are products developed from microorganisms – generally fungi, bacteria, and viruses, and macroorganisms – such as parasitoids and predators – used in agriculture to control pests and diseases that are harmful to plant development. Without using chemicals in their composition, biological pesticides are based on the principle of using “nature against nature” in a balanced and sustainable way. With a strong sustainability appeal, biological products have minimal environmental impacts compared to synthetic products with similar functions. In the fiscal year ended

December 31, 2023, the biological pesticides category accounted for 20.8% of the company's gross revenue.

- **Inoculants (Biological Fertilizers):** these are products developed based on microorganisms that act in the plant nutrition process. The main product on the market is a selected bacteria of the *Bradyrhizobium* genus that, when associated with plant roots, can convert N<sub>2</sub> (nitrogen molecule) from the atmosphere into nitrogen compounds, thus reducing the need for industrial nitrogen fertilizers. In the fiscal year ended December 31, 2023, the biological products category accounted for 9.8% of the company's gross revenue.
- **Soil Conditioners and Organominerals:** these are products used to improve the physical, physicochemical, and biological properties of the soil, with the aim of increasing the efficiency of nutrient absorption by plants. Regarding organomineral products themselves, it is worth noting that these are products of a fundamentally organic nature – obtained through physical, chemical, physicochemical, natural or controlled processes – from raw materials of plant or animal origin to which sources of mineral nutrients are added in order to improve the chemical, physical and biological characteristics of the soil, in addition to providing nutrients for plants. In the fiscal year ended December 31, 2023, the soil conditioners and organominerals category accounted for 5.7% of the company's gross revenue.
- **Industrial and Other Products:** these are products that are subdivided into salts for animal nutrition, products distributed by third parties, and by-products developed in other industrial processes of Vittia, which are sold to the fertilizer industry and other industries, such as the animal nutrition industry. In the fiscal year ended December 31, 2023, the industrial products category corresponded to 3.1% of the company's gross revenue. Among the products offered, manganese sulfate and magnesium sulfate stand out.

Source: Vittia 2024 Reference Form

| Gross Margin by Segment (%) |       |       |       |       |       |       |       |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|
|                             | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | 2023  |
| Minerals and Others         | 28,8% | 29,4% | 28,3% | 27,9% | 26,6% | 26,3% | 21,9% |
| Biological                  | 81,1% | 77,6% | 78,2% | 80,0% | 79,2% | 77,7% | 71,8% |

Source: Vittia

Biological products have higher added value. It can be seen from the gross margins that biological pesticides add to the company's consolidated gross margin and consequently sustain the company's current value generation. The question that remains is whether, as the sector matures, biological pesticides will reduce their margin. The answer we get is that they probably will. Looking at the example of inoculants, which ten years ago had margins similar to those of biological pesticides and which today have a lower margin. However, this will not reduce the company's total margin because the expectation is that the share of biological pesticides will grow at Vittia due to the growth of the sector and the increase in Vittia's share. And as with inoculants, there is a limit to the reduction of this margin. Unlike chemical inputs, in which the raw material is a commodity, and the product sold is a commodity, which leads to a reduced trading margin, biological products do not require chemical components (chemical inputs). Another relevant point is that they are scalable, because despite the high initial investment in bioreactors, the greater use of manufacturing capacity leads to cost reduction, which can sustain margins. In this process, different strains and formulations can be found, which makes the product sold less “commoditized”.

Despite the lower gross margin, Vittia's portfolio of inputs other than biological products are an important gateway for new customers who do not yet adopt biological products. In short, for the company to sustain its

margins, products with lower added value must grow in line with the market and biological products must gain share in the company's mix.

| Cross Selling Potential | Number of Vittia Products |
|-------------------------|---------------------------|
| 27%                     | 1                         |
| 16%                     | 2                         |
| 57%                     | 3 or more                 |

Source: Vittia

## Distribution Capacity

Market access is a strategic pillar for Vittia. During our studies, we had the opportunity to meet several players in the sector and we observed that, although there are more than 150 biological input companies, the vast majority are small. Unlike other input producers that depend exclusively on third-party distribution to reach agricultural producers, Vittia chose to build a robust commercial platform with multiple sales channels – direct sales, third-party distributors, and cooperatives – aiming to expand the company's geographic coverage, distribution capillarity and access to agricultural producers of different profiles and crops.

In addition to using multiple sales channels, it is important to highlight a success factor for the commercial strategy. Vittia has a specialized sales and support team with 240 highly qualified professionals who accompany farmers in the field, understand their needs and offer the most appropriate product portfolio solutions for each client, in addition to ongoing technical support.

### National Presence



**~250** specialized professionals dedicated to sales and technical support.

Continuous and intensive training for technical development and qualification

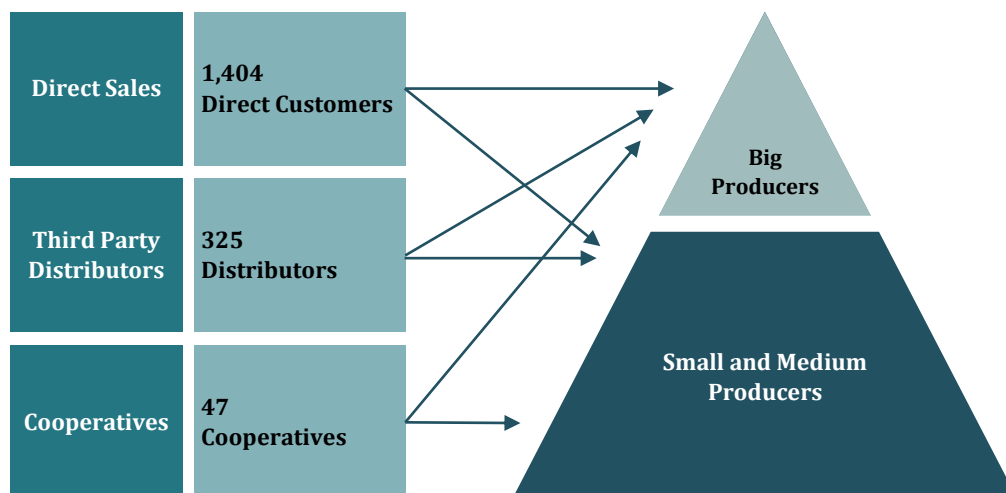
**5** distribution centers

Caption # Number of professionals by region as of 12/31/23

Source: Vittia

The presence of these professionals in the field strengthens relationships with customers, increases the credibility of brands and products, increases the potential for cross-sell and upsell between products and creates a switching cost for customers, thus constituting a relevant barrier to competition.

The company's robust sales force and technical support are important to overcome the barrier of producers who are unfamiliar with organic products. In addition, it reduces the company's need to rely on large distributors who have a long history of companies experiencing financial difficulties.



Source: Vittia

## Manufacturing

Vittia is one of the largest manufacturers of bio-inputs and has the largest infrastructure in the segment with 8 plants located in the states of São Paulo and Minas Gerais with the capacity to jointly produce more than 370 million liters of its 6 product categories.

Among the industrial units, the new biological products industrial plant located in São Joaquim da Barra (State of São Paulo) stands out, which we had the opportunity to visit in 2023. The plant opened in September 2020, with an installed capacity of approximately 15 million kilograms or liters or doses of products per year, an increase of approximately 23 times the previous nominal installed capacity dedicated to biological products (650,000 kilograms or liters or doses). This expansion should support the growth of Vittia's biological products segments over the next few years. Still on the new industrial plant, it is worth noting that the new unit has the capacity for new modular expansions with low investment needs.

The industrial structure already set up with expansion capacity generates value, as the investment has already been made and the eventual growth in sales of agricultural products could make Vittia the lowest cost player with the dilution of its fixed costs and a lower need for CAPEX in the coming years.

|                                                | Product Line                        | Installed Capacity                   |
|------------------------------------------------|-------------------------------------|--------------------------------------|
| <b>MG – Patos de Minas</b>                     | Organomineral                       | 81mm kg                              |
| <b>MG – Paraopeba</b>                          | Macrobiological Defensives          | 100kg                                |
| <b>SP – Ituverava</b>                          | Micros de Solo                      | 61mm kg                              |
| <b>SP – São Joaquim da Barra<br/>(3 units)</b> | Foliar Fertilizers & Biofertilizers | 110mm liters/kg                      |
|                                                | Macrobiological Defensives          | 15mm liters                          |
|                                                | Inoculants                          | 48mm doses                           |
| <b>SP – Serrana</b>                            | Organomineral                       | 46mm kg                              |
| <b>SP – Arthur Nogueira<br/>(2 units)</b>      | Foliar Fertilizers (Sulfur)         | 9mm liters                           |
|                                                | Macrobiological Defensives          | 1.200 liters of eggs + 24mm of pupae |

Source: Vittia

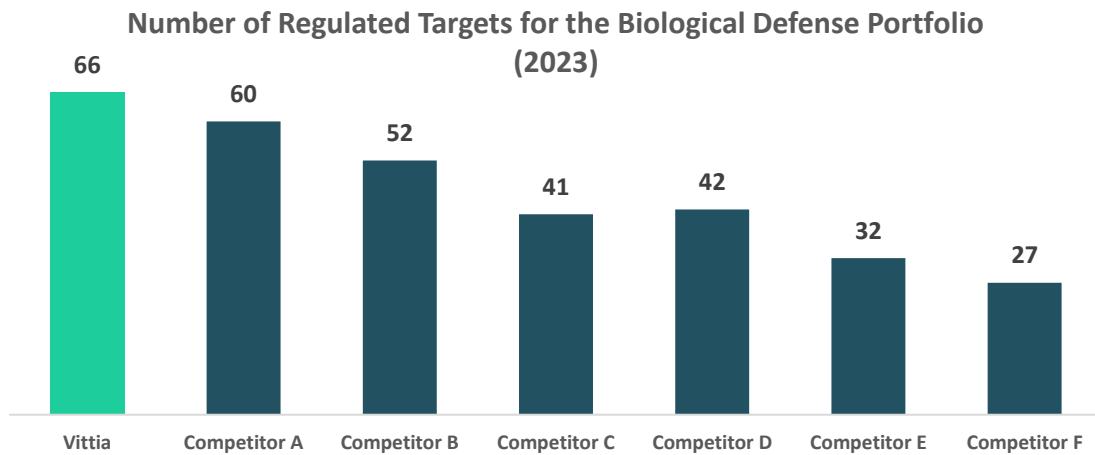
## Research and Development – R&D

Success in the development, commercialization and marketing of new products and technologies is essential for the company's growth. Vittia has extensive experience in R&D and value creation with integrated R&D, Market Development and Regulatory Affairs teams, totaling 67 highly qualified professionals – post-doctorates, doctors, masters, specialists, graduates, and technicians.

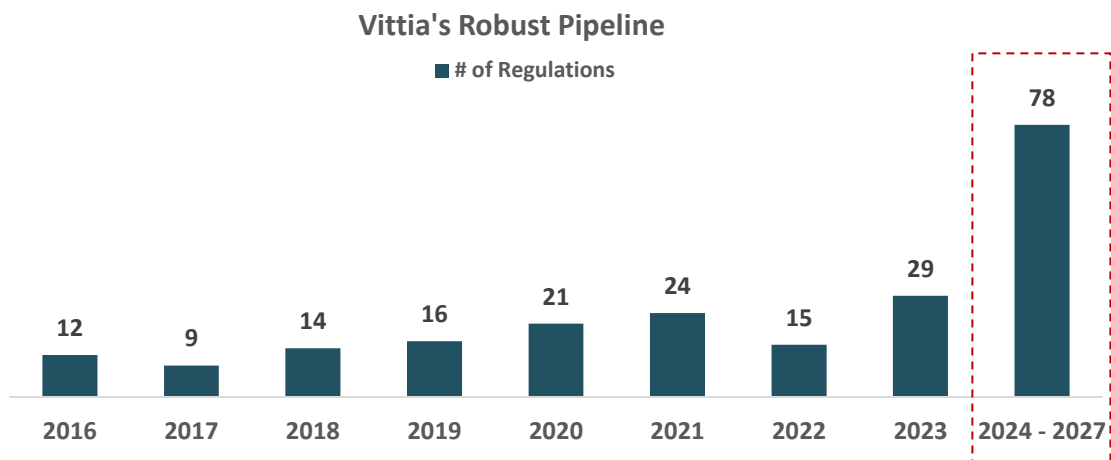
The company's R&D Center has a highly qualified technical team of 39 employees dedicated exclusively to R&D, who are carefully allocated to seven different sectors: bioprospecting, bioprocesses, fertilizers, agronomy, microbiology and agronomy and regulatory affairs. In addition, it has access to an exclusive strain bank with approximately 6,000 varieties of fungi and bacteria.

To demonstrate the successful integration and complementarity between the R&D Center and the Regulatory Affairs sector, since 2016, these areas and departments have been responsible for the development and regulation of more than 90 new products and recommendations for use. Today, the company has an intense pipeline for the development of new products to be regulated in the coming years; around 90 projects related to products, target inclusion and new recommendations for use are in the development phase.

Finally, in relation to Vittia's R&D capabilities, it is worth highlighting the strategic partnerships with more than 170 institutions and more than 200 researchers who have assisted in hundreds of field studies carried out with different products and in different crops and continue to make valuable contributions in the validation of laboratory and field tests in different soil and climate conditions throughout the country, in addition to sharing knowledge and experiences.



Source: Vittia



Source: Vittia

In R&D, however, we emphasize again that the development of new strains provides a competitive advantage, although not a strong one. If Vittia develops a successful product based on a new strain, it will have the advantage of being a pioneer and sustaining a higher margin on this product for a while until competitors launch a similar product, since it is not possible to register a patent on a living being. However, R&D is still important in the development of formulations that can facilitate applications, increase shelf life, and improve efficiency, which can differentiate its products from those of its competitors.

## On Farm

On-farm production, also known as “home production” or “farm production” of biological inputs, consists of multiplying bacterial strains on the property for own use. The expansion of on-farm production is a threat because it makes the product more “commoditized”, but the lower effectiveness of on-farm production perceived by producers (to be effective requires process and investment) and legislation should mitigate this risk. R&D is also essential, especially in the effectiveness of products produced by specialized companies. The law on agricultural inputs is moving towards greater bureaucracy in the manufacture of bioinputs, the development of new generations of biological products involves more processes than the simple organic reproduction of microorganisms.

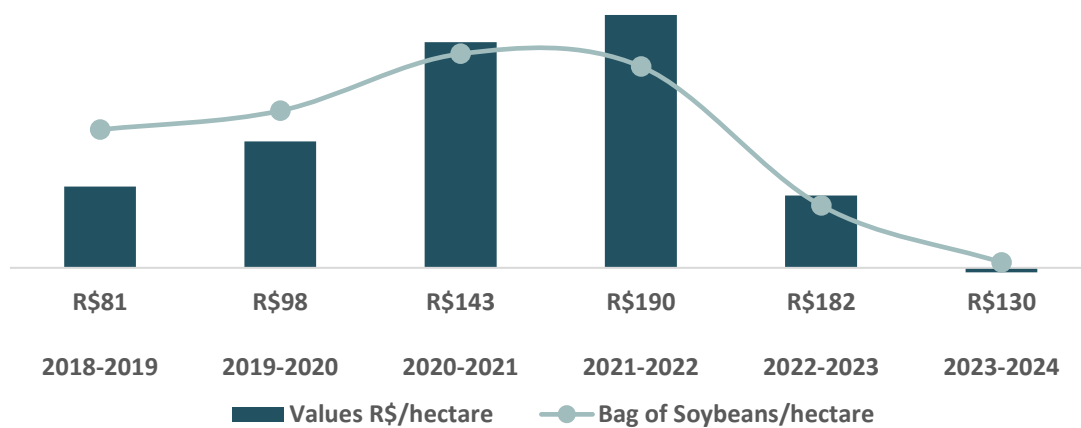
## Sector Moment: Conjunctural vs Structural

The sector is cyclical and after years of strong growth in the 2019/20, 2020/21, 2021/22 and 2022/23 harvests, the agricultural inputs sector suffered a sharp drop in prices in the 2023/24 harvest. Brazil had been setting

record production year after year and, together with the increase in the prices of agricultural commodities, encouraged the entire agricultural chain to invest more. The war in Ukraine, which began in the 2022/23 harvest, marked the peak in the price of agricultural commodities and the prices of inputs also soared, with many producers anticipating purchases of inputs for the following harvest. However, the chain was left with stocks at a high price, given that the expectation of another record for the 2023/24 harvest was frustrated by a crop failure and a drop in commodity prices.

Several factors explain the decline in the 2023/24 harvest. The reality is that the sector is cyclical and can be affected by climate events. The El Nino climate event in 2023 reduced crop productivity, especially in the Midwest of the country, where crop failure was more severe. In addition, we observed a drop in the prices of agricultural commodities in 2023. To make matters worse, this year, the sector was hit by Provisional Measure 1,185, which eliminated tax benefits, threatening to increase the average tax rate paid mainly by companies that resell inputs, which makes people less likely to invest in the sector.

**Productivity vs price of a bag of soybeans**



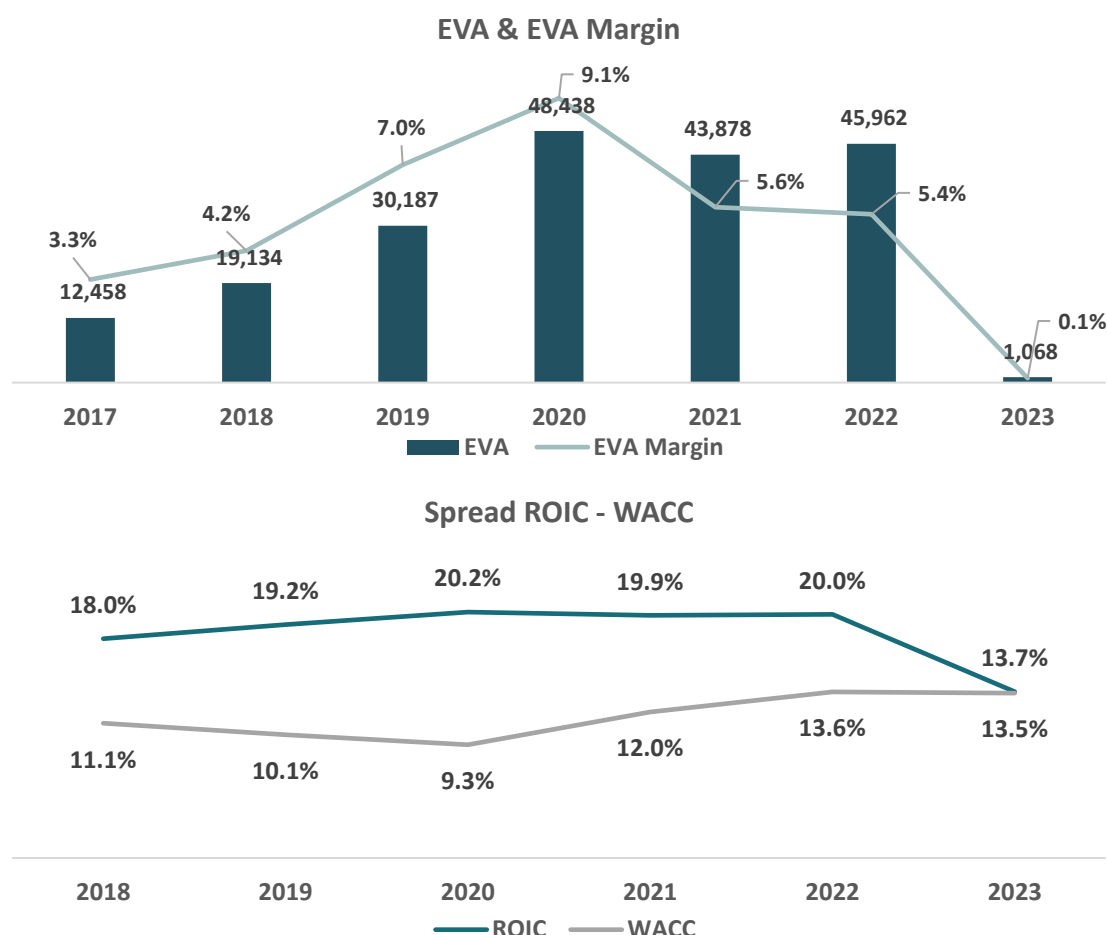
Source: Fundação abc

With the supply chain at a higher price, the prices of agricultural inputs plummeted. The entire agricultural supply chain suffered and even reduced producers' outlook for the 2024/25 harvest. Rural producers are financed by their suppliers, as they receive inputs at the beginning and middle of the harvest and pay suppliers after the harvest, which is no different for Vittia, which has a high cash cycle. The fear of this crop failure comes from the increased risk of default.

Amid this crisis, Vittia has been suffering from falling input prices and greater uncertainty regarding sales volume for the 2024/25 harvest. We believe that the current crisis in the sector is an opportunity to invest in Vittia and we decided to take a position in the company. The agricultural cycle is short and is part of the life of those who work in the sector. Subsequent harvests may be better. We have observed some companies in the agricultural sector in financial difficulty. Vittia's conservative approach to financial management is essential for the company to emerge from this storm in one piece. Due to its conservative approach to granting credit to its customers, Vittia's default rate should remain low, historically below 1%, which ensures the company's financial health for the next cycle. Even amid the crisis, the organic segment managed to grow 15% in the 2023/24 harvest. In addition, Vittia's multichannel sales strategy is proving to be a winning strategy, as it mitigates dependence on large resellers. These resellers are currently experiencing financial difficulties as they have to sell products at a loss when the chain is left in stock. It is during a crisis that we see which companies have good management.

## Vittia Financial Analysis

A company's financial results are a consequence of its competitive advantages, strategy, and management execution. In our investment process, the financial analysis performed on a company serves to confirm whether the characteristics found in the qualitative analysis actually correspond to the financial results. We attach importance to both analyses, as neither is an end in itself, but rather a means for SFA to make the best management decision. In fact, over the last 5 years, Vittia has generated value for its shareholders, which in our view is an indication of some competitive advantage and/or very competent management.



Vittia carried out its IPO in 2021, debuting on the stock exchange with a market value of R\$1.22 billion. The initial public offering totaled R\$436 million, 70% of which was a secondary offering that provided an exit to BRZ's private equity fund, which invested in the company in 2014. The company invested R\$126 million in cash, including hot issue and greenshoe.

The IPO occurred after a strong period of investments in 2020, when the company made two acquisitions and invested in manufacturing capacity, distribution, and R&D. Since its IPO, the company has generated EVA, even with the significant increase in the cost of capital. Only in 2023 did its return equal its cost of capital, due to the crop failure that occurred in the 2022/23 period and dropped input prices. This factor we consider to be cyclical and turned Vittia into an investment opportunity.

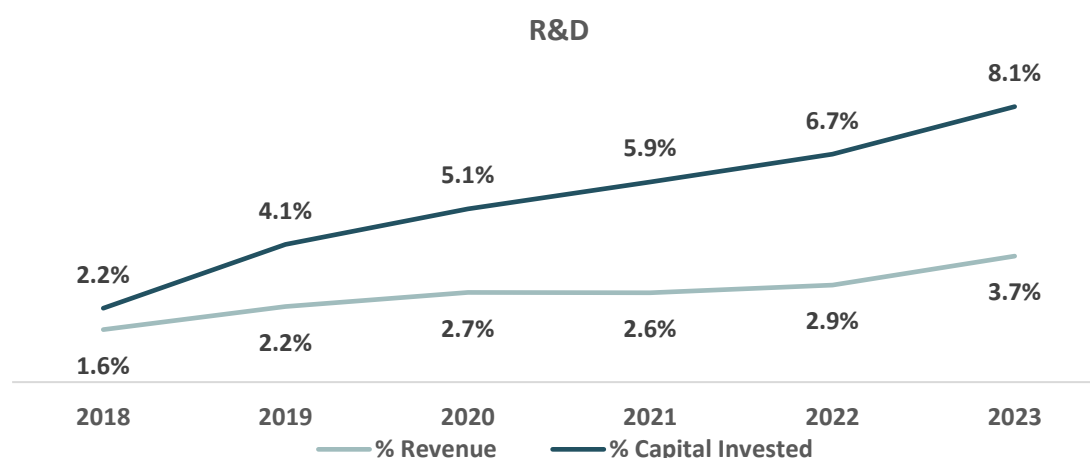
In previous letters, we have discussed adjusting the financial statements that companies publish to better understand the dynamics of each business and avoid falling into traps. As we have already said, there are many business practices and even accounting practices that serve to show good profits, but distance the shareholder from the economic reality. The adjustments to the financial statements that we make seek to translate accounting profit into economic profit:

- Separate financial activities from operational activities.
- Separate operational activities from non-operational activities.
- Minimize the possibility of “creating profit buffers”.
- Clarify economic performance.
- Understand changes related to:
  - increase in accounting profit - a company's management may be tempted to carry out practices that increase accounting profit but destroy shareholder value in the long term.
  - reduction of R&D - reduce spending on research and development, which are essential for the company to remain relevant in its market.
  - reduction in marketing - avoid marketing expenses at the expense of strengthening your brand.
  - not carrying out M&A - not carrying out important acquisitions, for fear of sacrificing current profit with integration costs and goodwill amortization.
  - poor capital allocation - investing too much in a mature business.
  - increase in sales x invoice: increase sales at the expense of a longer invoice period, which requires more working capital and reduces the cash generated.
  - deferral of expenses - deferring expenses that could generate tax savings.

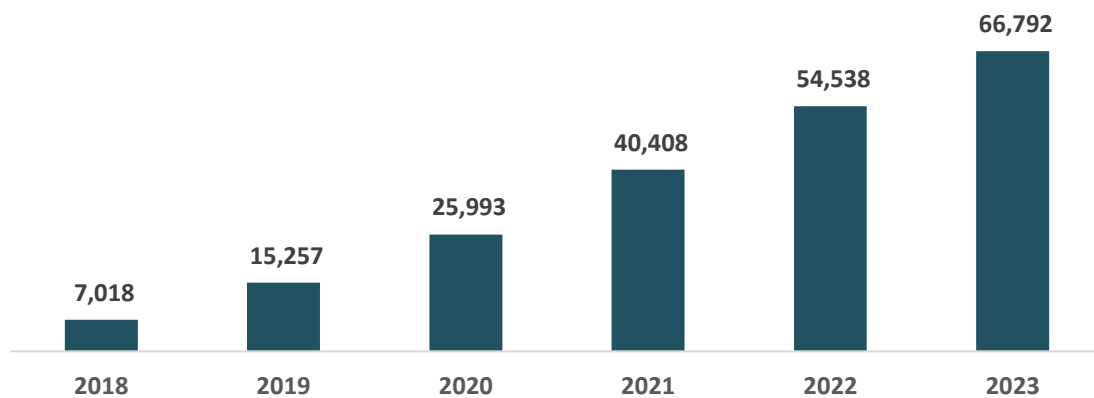
We always talk about the need for adjustments to transition from accounting reality to economic reality. An essential adjustment for Vittia is in R&D. Increasing R&D is necessary for Vittia's value thesis, because through R&D the company reinvests its profits to generate future value. The arrival of new generations of biological products is essential for Vittia to maintain its profitability and growth in value generation. Separating CAPEX from OPEX is fundamental to any thesis. In the case of Vittia, R&D that is not capitalized apparently destroys the company's profitability, so an adjustment is made to reach the true economic reality. A large part of R&D is spent, making the necessary adjustment to separate investment activities from operational ones, remembering that the R&D adjustment is not an “excuse” of the expense, because R&D expenses are amortized in 5 years and a capital charge is charged on capitalized R&D.

Since R&D is crucial to developing higher value-added products, it is also central to the company's thesis. The company already discloses that its reported ROIC is adjusted for non-operating expenses, such as IPO expenses and M&A expenses; however, we additionally adjust for R&D.

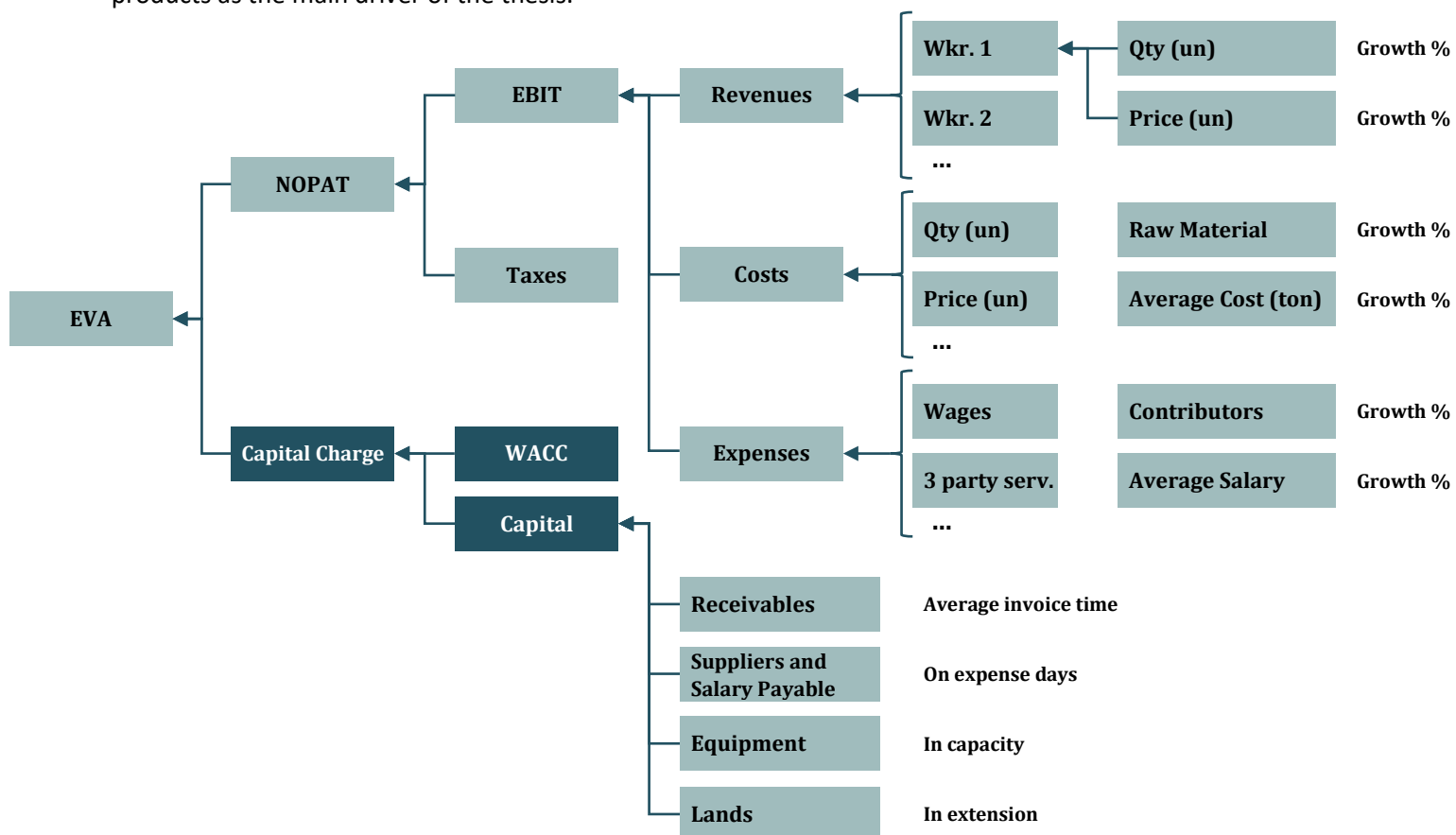
- Adjustment 1 – Non-operating expenses – not considered recurring.
- Adjustment 2 – R&D 100% spent → R&D 100% capitalized, amortization in 5 years, because it is a crucial point for the company's valuation.



## Capitalized R&amp;D (R\$ mm)



After calculating EVA, we see the need to find the company's main value drivers. And we observe that the growth of the biological mix is crucial for future value generation. We observe the strong growth of biological products as the main driver of the thesis.



The key to investing and managing investments is not just knowing the value of an asset but understanding the sources of value in that asset.

It's observed that, even during the 2022/23 harvest crisis, the company's revenue from biological products expanded.

| Net revenue by segment (BRL thousands)     | 2017           | 2018           | 2019           | 2020           | 2021           | 2022           | 2023           | CAGR 17-23   |
|--------------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|--------------|
| Foliar fertilizers and industrial products | 255,034        | 290,506        | 247,727        | 284,488        | 376,087        | 439,174        | 351,291        | 5.5%         |
| Soil Micros                                | 70,300         | 86,646         | 92,723         | 115,871        | 131,992        | 125,850        | 140,395        | 12.2%        |
| <b>Biological products</b>                 | <b>27,173</b>  | <b>46,101</b>  | <b>65,829</b>  | <b>87,626</b>  | <b>146,051</b> | <b>199,688</b> | <b>219,446</b> | <b>41.6%</b> |
| Soil conditioners and organominerals       | 23,640         | 29,036         | 25,675         | 42,660         | 124,785        | 86,479         | 44,977         | 11.3%        |
| <b>Total net revenue</b>                   | <b>376,147</b> | <b>452,289</b> | <b>431,954</b> | <b>530,645</b> | <b>778,915</b> | <b>851,191</b> | <b>756,109</b> | <b>12.3%</b> |

We note that, even with the drop in the margin of biological products, their increase in the mix has been responsible for maintaining the company's total gross margin, even in a challenging year like 2023. The detractor of the company's gross margin was organomineral products, a segment that Vittia intends to discontinue.

| <i>Net revenue breakdown by segment</i>    | 2017          | 2018          | 2019          | 2020          | 2021          | 2022          | 2023          |
|--------------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Foliar fertilizers and industrial products | 67.8%         | 64.2%         | 57.4%         | 53.6%         | 48.3%         | 51.6%         | 46.5%         |
| Soil Micros                                | 18.7%         | 19.2%         | 21.5%         | 21.8%         | 16.9%         | 14.8%         | 18.6%         |
| <b>Biological products</b>                 | <b>7.2%</b>   | <b>10.2%</b>  | <b>15.2%</b>  | <b>16.5%</b>  | <b>18.8%</b>  | <b>23.5%</b>  | <b>29.0%</b>  |
| Soil conditioners and organominerals       | 6.3%          | 6.4%          | 5.9%          | 8.0%          | 16.0%         | 10.2%         | 5.9%          |
| <b>Total net revenue</b>                   | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> |

| <i>Gross margin by segment</i>             | 2017         | 2018         | 2019         | 2020         | 2021         | 2022         | 2023         |
|--------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Foliar fertilizers and industrial products | 32.3%        | 33.5%        | 35.1%        | 36.6%        | 35.2%        | 33.7%        | 31.4%        |
| Soil Micros                                | 12.6%        | 14.4%        | 9.6%         | 7.3%         | 7.9%         | 15.9%        | 11.6%        |
| <b>Biological products</b>                 | <b>81.1%</b> | <b>77.6%</b> | <b>78.2%</b> | <b>80.0%</b> | <b>79.2%</b> | <b>77.7%</b> | <b>71.8%</b> |
| Soil conditioners and organominerals       | 38.7%        | 32.7%        | 29.7%        | 26.8%        | 20.5%        | 3.7%         | -20.0%       |
| <b>Total gross margin</b>                  | <b>32.6%</b> | <b>34.3%</b> | <b>35.9%</b> | <b>36.5%</b> | <b>36.5%</b> | <b>38.4%</b> | <b>36.4%</b> |

In this exercise, we see the gross margin excluding soil conditioners and organominerals, and we note that the growth in the company's gross margin comes from the increase in the mix of biologicals:

| <i>Net revenue by segment (BRL thousands)</i> | 2017           | 2018           | 2019           | 2020           | 2021           | 2022           | 2023           | CAGR 17-23   |
|-----------------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|--------------|
| Foliar fertilizers and industrial products    | 255,034        | 290,506        | 247,727        | 284,488        | 376,087        | 439,174        | 351,291        | 5.5%         |
| Soil Micros                                   | 70,300         | 86,646         | 92,723         | 115,871        | 131,992        | 125,850        | 140,395        | 12.2%        |
| <b>Biological products</b>                    | <b>27,173</b>  | <b>46,101</b>  | <b>65,829</b>  | <b>87,626</b>  | <b>146,051</b> | <b>199,688</b> | <b>219,446</b> | <b>41.6%</b> |
| <b>Total net revenue</b>                      | <b>352,507</b> | <b>423,253</b> | <b>406,279</b> | <b>487,985</b> | <b>654,130</b> | <b>764,712</b> | <b>711,132</b> | <b>12.4%</b> |

| <i>Net revenue breakdown by segment</i>    | 2017          | 2018          | 2019          | 2020          | 2021          | 2022          | 2023          |
|--------------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Foliar fertilizers and industrial products | 72.3%         | 68.6%         | 61.0%         | 58.3%         | 57.5%         | 57.4%         | 49.4%         |
| Soil Micros                                | 19.9%         | 20.5%         | 22.8%         | 23.7%         | 20.2%         | 16.5%         | 19.7%         |
| <b>Biological products</b>                 | <b>7.7%</b>   | <b>10.9%</b>  | <b>16.2%</b>  | <b>18.0%</b>  | <b>22.3%</b>  | <b>26.1%</b>  | <b>30.9%</b>  |
| <b>Total net revenue</b>                   | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> |

| <i>Gross margin by segment</i>             | 2017         | 2018         | 2019         | 2020         | 2021         | 2022         | 2023         |
|--------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Foliar fertilizers and industrial products | 32.3%        | 33.5%        | 35.1%        | 36.6%        | 35.2%        | 33.7%        | 31.4%        |
| Soil Micros                                | 12.6%        | 14.4%        | 9.6%         | 7.3%         | 7.9%         | 15.9%        | 11.6%        |
| <b>Biological products</b>                 | <b>81.1%</b> | <b>77.6%</b> | <b>78.2%</b> | <b>80.0%</b> | <b>79.2%</b> | <b>77.7%</b> | <b>71.8%</b> |
| <b>Total gross margin</b>                  | <b>32.1%</b> | <b>34.4%</b> | <b>36.3%</b> | <b>37.4%</b> | <b>39.5%</b> | <b>42.3%</b> | <b>40.0%</b> |

In a simplistic analysis, we observe that the company's most "commoditized" inputs pay for operating expenses, while value generation comes from biological products. This dynamic has occurred every year, with the exception of 2022/23. On this occasion, due to the drop in the price of agricultural inputs, Vittia's chemical product revenue also fell and was unable to cover sales, general and administrative expenses. In other words, the drop in revenue from "commoditized" products was the detractor of Vittia's value, not biological products. We also note the increase in sales expenses with the increase in sales force, which we do not consider to be negative for the company's long term.

| <i>Gross Profit ex-Biological Products</i> | 2017           | 2018           | 2019           | 2020           | 2021           | 2022           | 2023           |
|--------------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Foliar fertilizers and industrial products | 82,450         | 97,292         | 86,934         | 103,990        | 132,467        | 148,041        | 110,382        |
| Soil Micros                                | 8,828          | 12,458         | 8,909          | 8,401          | 10,484         | 20,041         | 16,258         |
| Soil conditioners and organominerals       | 9,149          | 9,493          | 7,636          | 11,423         | 25,634         | 3,231          | (9,000)        |
| <b>Gross Profit ex-Biological Products</b> | <b>100,427</b> | <b>119,243</b> | <b>103,479</b> | <b>123,814</b> | <b>168,585</b> | <b>171,314</b> | <b>117,640</b> |

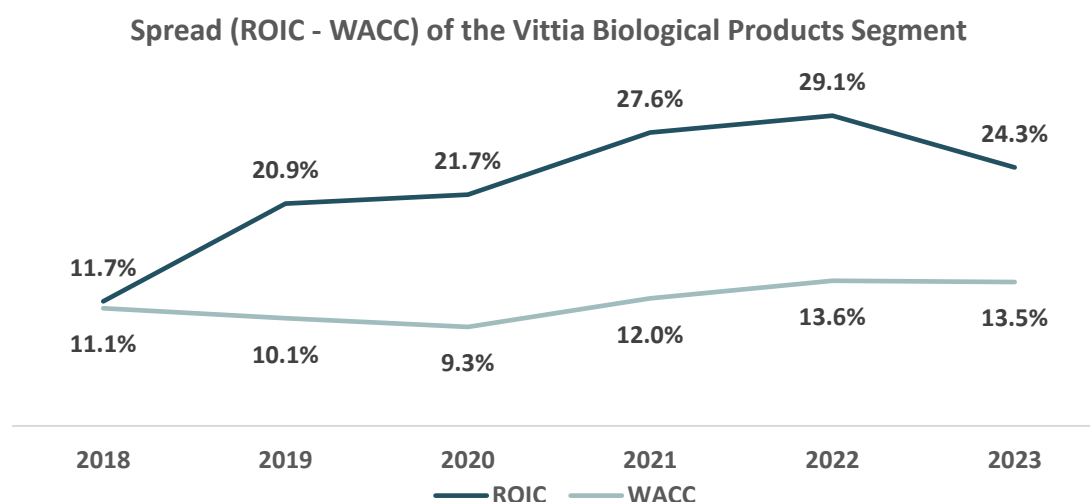
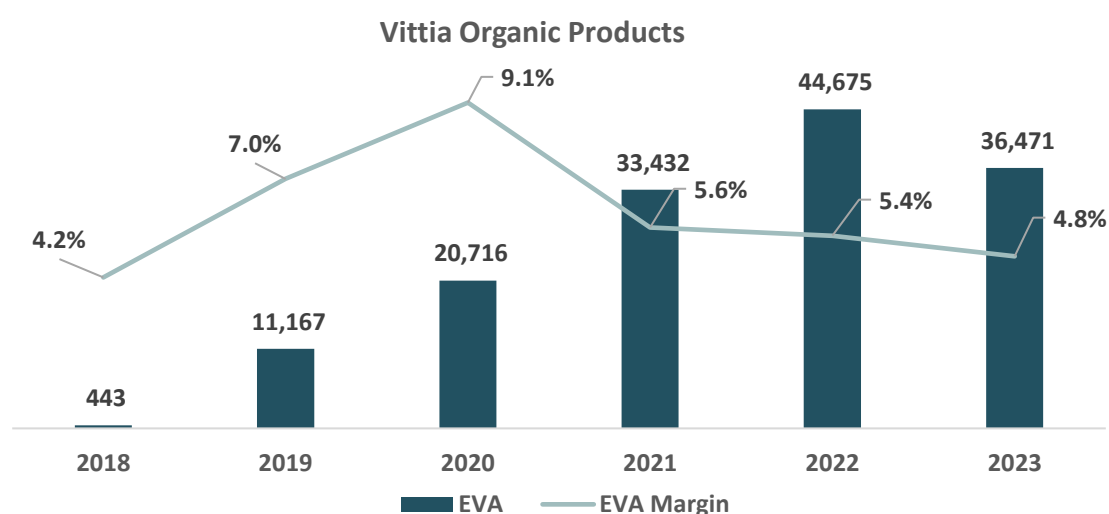
  

| <i>SG&amp;A</i>                     | 2017            | 2018            | 2019            | 2020            | 2021            | 2022            | 2023            |
|-------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Sales Expenses                      | - 36,820        | - 37,905        | - 34,606        | - 37,019        | - 58,740        | - 70,272        | - 82,157        |
| General and Administrative Expenses | - 39,956        | - 45,858        | - 48,326        | - 54,566        | - 74,530        | - 86,932        | - 98,573        |
| <b>Total SG&amp;A</b>               | <b>- 76,775</b> | <b>- 83,763</b> | <b>- 82,933</b> | <b>- 91,585</b> | <b>-133,270</b> | <b>-157,204</b> | <b>-180,730</b> |

To corroborate our thesis that Vittia's value driver is in biological products, we performed an EVA analysis, separating the EVA of biological products from other products. A purely theoretical exercise using conservative assumptions:

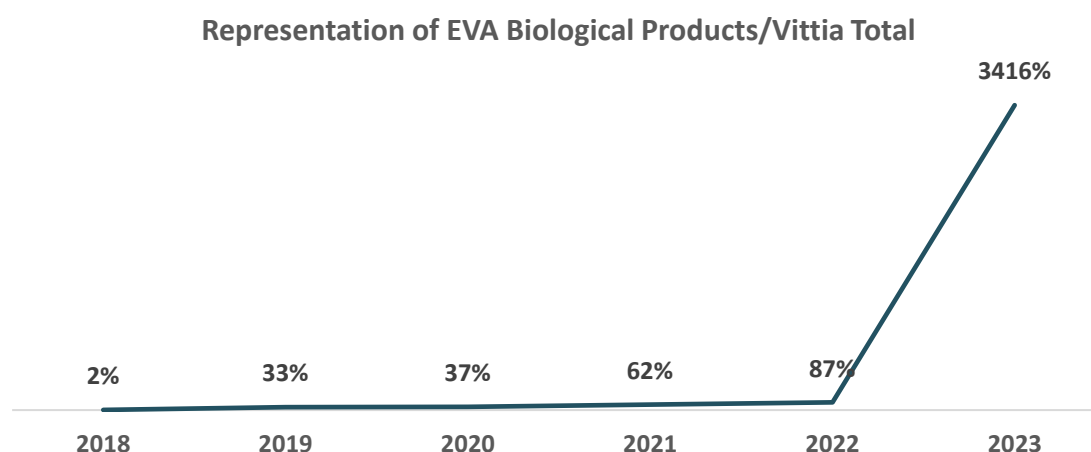
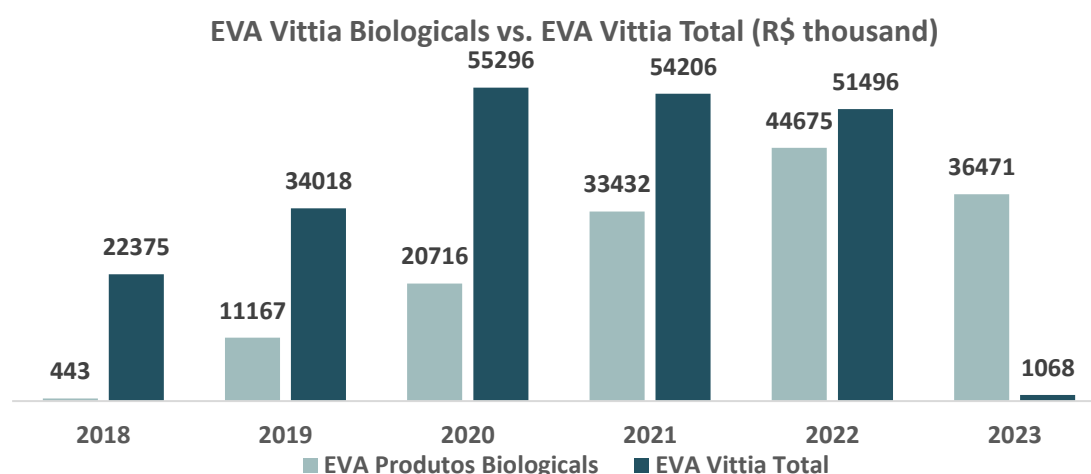
#### Premises:

- **Operating profit:**
  - Selling Expenses – Proportional to revenue from organic products.
  - G&A – 2/3 allocated to the biologicals segment.
  - Same income tax rate.
- **Capital:**
  - Working Capital – Maintenance of average terms and proportional to the cost of biological products, biological products require a smaller stock of raw materials.
  - Fixed and Intangible Assets – 2/3 allocated to the biological segment.

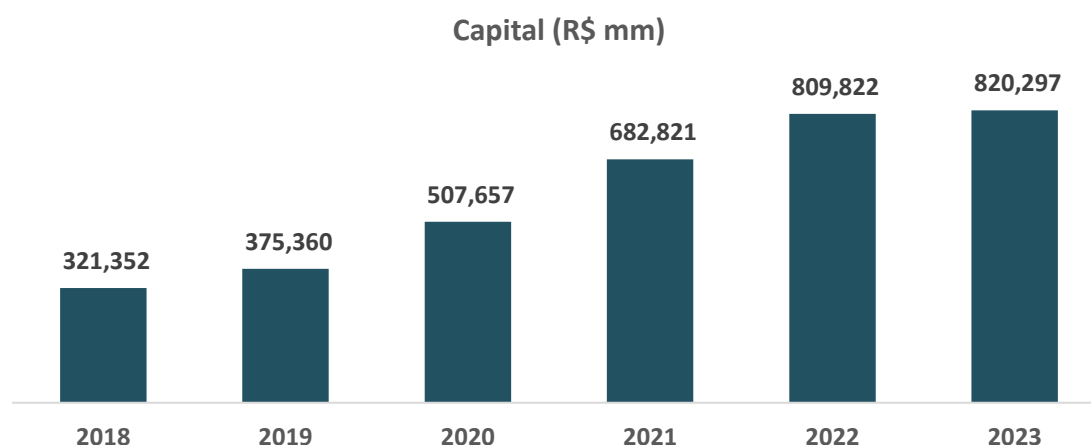


We observed that most of the EVA generated by the company comes from the biological segment. Even in 2023, a year in which the company tied up capital, it was clear that the value destruction came from other segments due to the crisis in the agricultural sector in the 2022/23 harvest. Meanwhile, the biological segment continued to generate value, even with the observed drop in margin. And the most important conclusion is this: we were able to see a path for value growth in the company. The drop in input prices is part of the cycle, and even when falling, it allowed the company to generate value in its fastest-growing segment. For us, this represented an investment opportunity, as it was a cyclical drop within a good structural thesis.

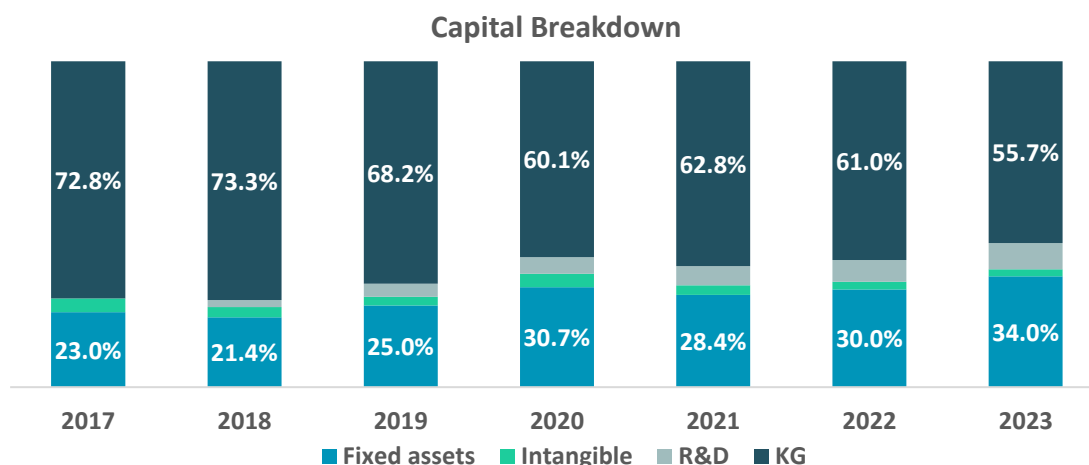
Therefore, our thesis from a financial standpoint is simple: mineral and other products cover Vittia's expenses, while biological products will be responsible for the growth in the company's value generation. Both through market growth and share gains; reinvestment efforts in R&D, manufacturing capacity and sales are strategically focused on the growth of this segment.



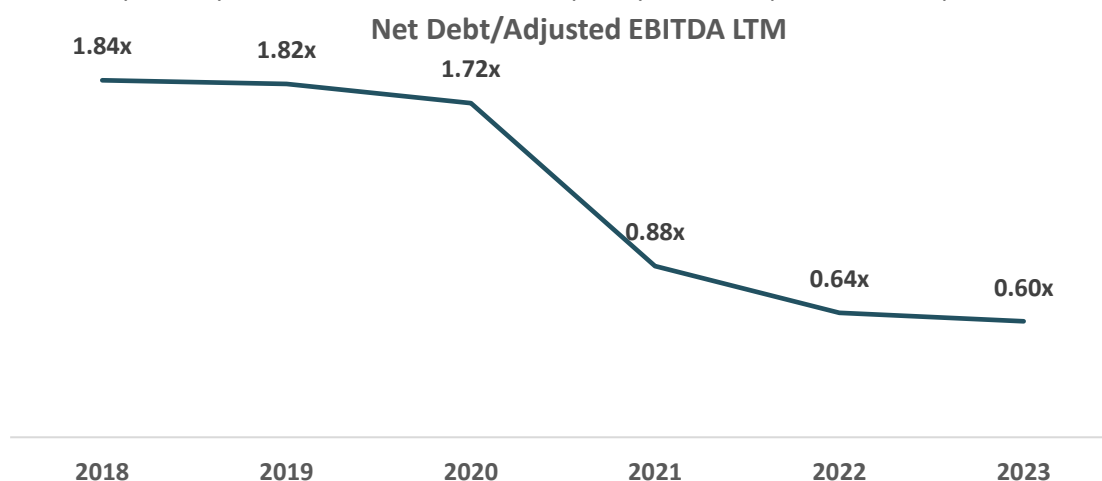
In terms of financial risk, we note that most of the company's capital allocation is for R&D and Working Capital. One characteristic of the agricultural inputs sector is that manufacturers finance the producer. Vittia manufactures and delivers the inputs that are recorded as sales at the beginning and throughout the harvest, but only receives the money from the sale at the harvest. The main concern with the crop failure, which we consider to be cyclical, was not so much the loss of value but rather the risk of default, given that most of its capital is allocated to working capital.



Capital growth in line with revenue and working capital reduction also in line with revenue.

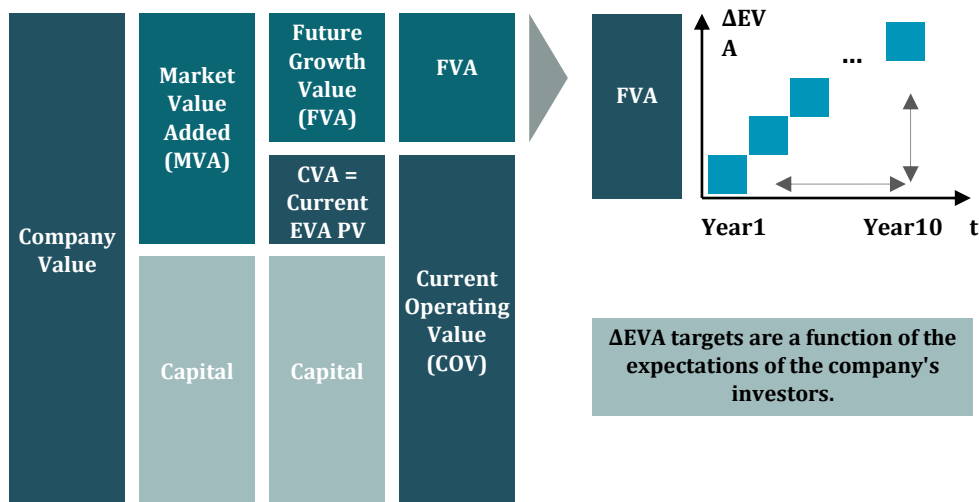


Vittia's 1H24 results corroborate the conservative quality of its management and good credit analysis. Amid the crisis, it didn't suffer from defaults and maintained its solid balance sheet. The company reversed its provisions, although less than in the previous year. Vittia's strategy of not selling to large distributors seems to be correct. Although its sales rate is slower, its strategy doesn't put it at unnecessary financial risk. In the current crisis, we see many large distributors in financial difficulty. If the company's sales strategy were different, Vittia would perhaps be suffering from higher defaults. Vittia doesn't want to sell its products to large distributors precisely because of the historical frequency of bankruptcies in the input distribution sector.



## Value & M&A

Vittia suffered a sharp drop in the stock market due to the crisis in the agricultural sector. We believe that this drop is exaggerated. Analyzing from the perspective of value generation, the company continues to generate value, albeit less, but it will generate value in the 2023/24 harvest. Using the FGR (Future Growth Reliance), we observe that Vittia's current price is perpetuating the current crisis, being:

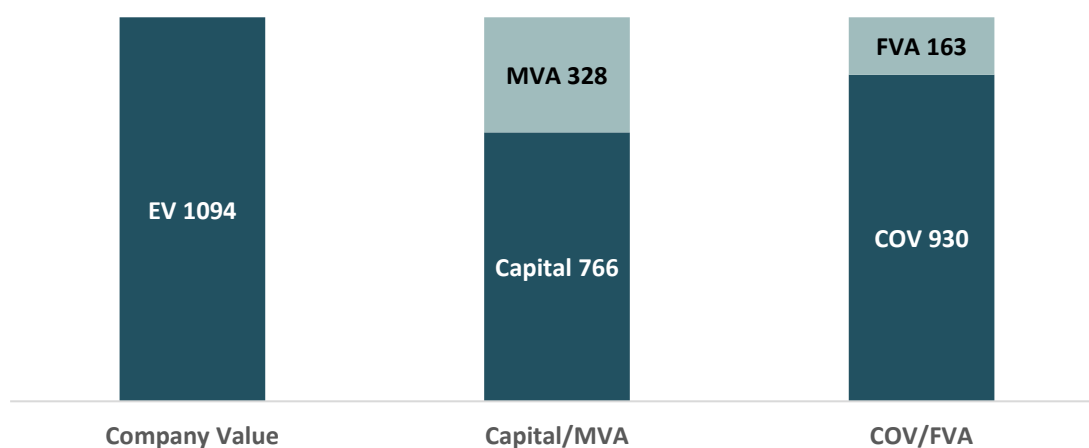


- **Capital:** Capital invested by the company (working capital, fixed and intangible assets).
- **MVA (Market Value Added):** What is attributed to the value of the company beyond the capital invested in it.
- **CVA (Current Value Added):** Perpetuity of the current EVA, considering that this EVA is recurring and predictable.
- **COV (Current Operating Value):** Value of current operations. Equivalent to capital + CVA. Value of capital and the present value of the EVA that this capital produces on a recurring basis.
- **FVA (Future Value Added):** Expected value. Increment in future EVA brought to present value.
- **FGR (Future Growth Reliance):** Implicit composition of FVA at current market value.

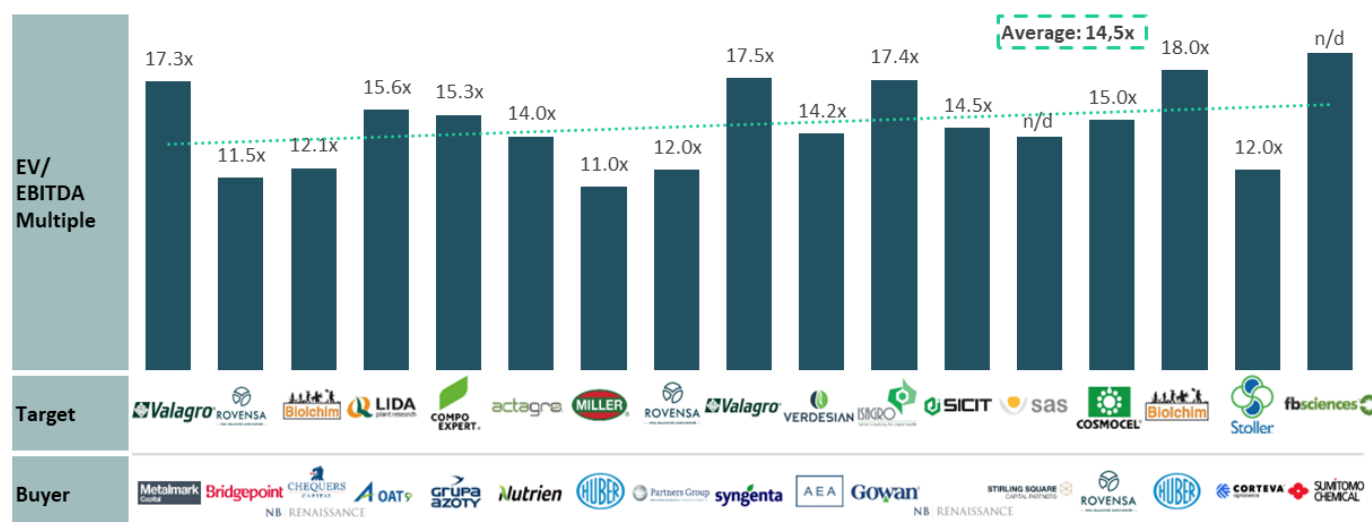
Using this framework for Vittia at the price of 08/27/2024, R\$6.3/share:

- Invested Capital: R\$766 million.
- Enterprise Value: R\$1,094 million
- FVA: R\$163 million

In other words, only 14% of Vittia's value represents expected growth in value generation, perpetuating the current EVA scenario, which is currently low.



While Vittia's strategic value as a major bioinput player is not recognized by the public equity market, the number of closed bioinput companies is booming. In the last 24 months, we can count more than 20 deals involving smaller bioinput companies.



Companies in the private market are trading at ~14x EV/EBITDA on average, while Vittia is being priced on the stock exchange at ~6.0x EV/EBITDA. If we use the private market multiple only on Vittia's LTM EBITDA, we have a potential appreciation of ~70% if it were traded in the private market, on top of an EBITDA affected by the current agribusiness cycle.

## Conclusion

Vittia's value generation thesis is based on the growth of the biological agricultural inputs market and the company's gain in market share, becoming one of the main consolidators in the sector. Vittia's biological products have a higher gross margin than mineral products and represent approximately 30% of revenue. As the biological pesticides market matures, it is likely that the margin of biological pesticides will fall in the future, however, it should occupy a larger space in the company's revenue, which would prevent the EVA margin from falling and the generation of future EVA will come from maintaining the EVA margin with the growth of the company's total revenue through biological products. The maintenance of the EVA margin will also come from greater efficiency and use of its manufacturing capacity, the largest in Latin America, with the capacity already installed for a new wave of growth.

Vittia's biological penetration growth will come from geographic expansion and increased penetration in underexplored agricultural crops, organic growth through cross-selling between portfolio products, launch of new products and growth through selective acquisitions.

Thank you for your trust,

**SFA Investimentos Team**

### Manager

**SFA INVESTIMENTOS LTDA**  
Rua Gomes de Carvalho, 768 – 8º andar  
Vila Olímpia – CEP: 04547-003  
São Paulo - Brasil  
Tel: +55 11 2780-0690  
ri@sfainvestimentos.com.br

### Administration

**BNY MELLON SERVIÇOS FINANCEIROS DISTRIBUIDORA DE TÍTULOS E VALORES MOBILIÁRIOS S.A.**  
Av. Presidente Wilson, nº 231 – 11º andar  
Centro – CEP: 20030-905  
Rio de Janeiro - Brasil  
Tel: +55 21 3219 2500

### Custodian

**BNY MELLON BANCO S.A.**  
Av. Presidente Wilson, nº 231 – 11º andar  
Centro – CEP: 20030-905  
Rio de Janeiro - Brasil  
Tel: +55 21 3219 2500  
www.bnymellon.com.br

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