TOA FLAVOURFUL FUTURE



Impact report 2022



You are reading Vivera's first-ever Impact Report – and we are quite proud to present it. In this Impact Report, you will read how our company is trying to contribute to a liveable earth and to society overall.

FOREWORD FROM OUR CEO

Transitioning our food system to more plant-based and less animal-based food is better for our planet, for animal welfare and for our own health. At Vivera, we are proud to play a role in this transition and want to help consumers by facilitating a more sustainable lifestyle, achieving that goal by offering tasty plant-based products.

But let's face it, even if we all switched to plant-based food, we would still have an impact on the world around us, and often not in a positive way. All of us here at Vivera – our management, our employees and myself – are all highly motivated in our own unique way, dedicating ourselves to maximizing our positive impact and mitigating the negative impact. In doing so, we want to contribute to passing on a liveable planet and fair society to our children.

I am proud of the steps we have already taken and would like to thank everyone for their contribution to achieving B Corp certification, establishing our sustainability strategy and drafting this first Impact Report for 2022.

We know that we will continue to gain more insight into our impact, learning along the way about the effectiveness of the measures we adopt to minimize our impact. We are embarking on this journey with an open mind and, as we learn, we will do our very best to mitigate our negative impact and maximize the positive impact on our planet and society.

Willem van Weede, Vivera CEO



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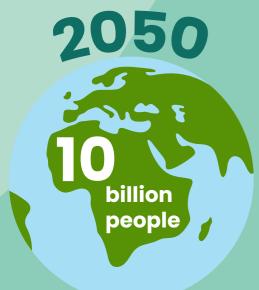


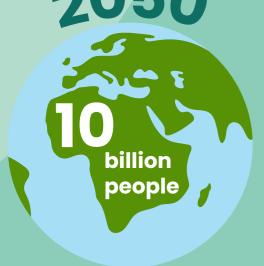
HOW DO WE CREATE **POSITIVE IMPACT**

Greenhouse gases

Food production leads to lots of CO2, and these emissions contribute to climate change. Animal-based food products are a major culprit in higher emissions. Plant-based foods are much more climate-friendly. Making a 1-kg beef burger causes 30.5 kg in CO2 emissions. In contrast, producing a 1-kg vegetarian burger the way we make it here at Vivera releases about 2.5 kg of CO2 (source: MDPI, see Appendix 4). Therefore, in 2019 we decided to divest our meat processing company Enkco. In doing so, we reduced our emissions and shifted our focus entirely to increasing our plant-based production.

If we all stopped eating meat, we could lower global CO2 emissions by as much as 14.5% (source: DW, see Appendix 4).







Changing our eating habits

But greenhouse gases aren't the only problem. The world population is still growing, and will probably reach 10 billion people in 2050. One of the biggest challenges is feeding healthy food to all those people without damaging our planet even more. The EAT-Lancet Commission, consisting of 37 prominent scientists from all around the globe, has said that this will essentially only be possible if we change our eating habits. They proposed a 'planetary health diet', lower in animal proteins and higher in plant-based proteins. Eating foods that are better for the world and plant-based also offers health benefits. Plant-based products contain much less saturated fat, reducing the risk of cardiovascular disease (source: Netherlands Nutrition Centre, see Appendix 4). No need to worry about missing out on key nutrients, either. Our products contain lots of soya, which is rich in protein. We also supplement our products with Vitamin B12 and iron here at Vivera, because people who eat a completely plant-based diet may not get enough of those.



Another advantage of plant-based food is that it takes far less land to grow crops. Producing 1 kg of meat takes 7 kg of soya – so it is much more efficient to put that soya straight into meat substitutes instead of feeding it to animals (source: Verduurzaming Nederland, see Appendix 4).





Another sustainability advantage of plant-based food: it takes much less water to produce. According to ProVeg, an organization that promotes more plant-based food, it takes 5 times more water to produce meat compared to our plant-based products (source: ProVeg, Appendix 4).

In other words, every piece of meat that you replace with a Vivera product has a direct climate benefit.



HOW DO WE MONITOR OUR IMPACT

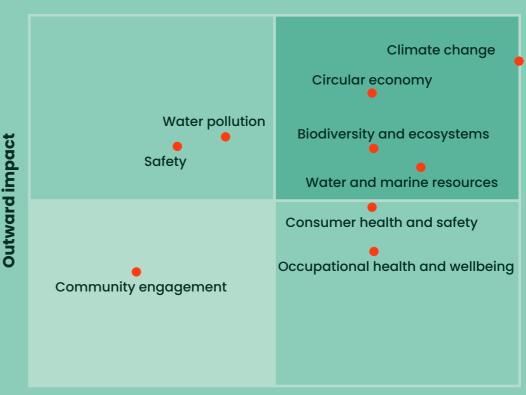


Engaging our stakeholders

To maximize our sustainable impact, it is important for us to ensure that we engage our stakeholders in our sustainability strategy. Our stakeholders represent a very diverse group, ranging from our shareholders and employees, consumers and supply partners, to financiers and government authorities. We try to establish engagement through interviews, talks, surveys, and social media. They also have an important say in determining the topics covered in this impact report. Appendix 1 offers more background information on how this has been structured in our company.

Materiality Matrix

It would be easy to assume that our stakeholders and Vivera as a company have differing goals and interests in terms of sustainability. Fortunately, our overall principles are very similar in many ways. This became apparent when we did the 'double materiality matrix'. Two perspectives were considered: how we affect the outside world (outward impact) and how the outside world affects us (inward impact). We looked at this in terms of sustainability impact and financial materiality. We plotted the outward and inward impacts in the following materiality matrix. (See Appendix 2 for tables showing outward and inward impact.)



Inward impact





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HOW DO WE MONITOR **OUR IMPACT**

Which SDGs will we be working on?

Working from the materiality matrix we created based on input from a number of stakeholders, we identified nine topics that we collectively feel are the most important. Focusing on these topics, we formulated targets for 2030. For a number of targets, we chose a target per kg of product produced. Each and every plantbased product represents advantages for climate, land and water use compared to meat. That means it is important for us to produce more so we can help more people switch to plant-based products. That's why we set targets that are designed to reduce our impact per kg of finished product.

1. Climate change

We are taking measures to reduce our carbon emissions and helping to work on SDG 13 Climate Action.



2. Waste reduction

We are taking measures to be more resource-efficient, contributing to SDG 12 Responsible Consumption and Production.



3. Biodiversity

We will be purchasing more organically grown ingredients, contributing to SDG 15 Life on Land.



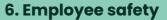
4. Clean water

By increasing organic procurement, we are contributing to SDG 6 Clean Water and Sanitation.



5. Water use

We are going to conserve water in our production, contributing to SDG 6 Clean Water and Sanitation and SDG 12 **Responsible Consumption and** Production.



We are taking measures to ensure the safety of our employees, contributing to SDG 3 Good Health and Well-being.



17 PARTNERSHIPS FOR THE GOALS

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7. Consumer health and safety

The safety and health of our products is a top priority. By providing healthy and food-safe products, we contribute to SDG 3 Good Health and Well-being.



We also set a target to improve the health and wellbeing of our employees, contributing to SDG 3 Good Health and Well-being.



We support civic organizations in line with **SDG 17 Partnerships for** the Goals.



Proud to be a B Corp

Since last spring, we can proudly state that we have achieved B Corp certification. Organizations that achieve Benefit Corporation status have proven that they have a major positive impact on people, society and the environment.

There are nearly 4000 Certified B Corps worldwide, 211 of which are in the Netherlands (May 2023). Fully in line with the principles of the B Corp movement, we actively seek collaboration with other companies and institutions towards a sustainable future. We regularly use the B Corp Impact Assessment tool to assess our impact and pursue ongoing improvement.

Keep learning

We have compiled this report conscientiously, to the best of our knowledge. We do not know everything, and are eager to learn. Questions or suggestions for improvement are welcome at info@vivera.com.

Certified



Corporation



Biodiversity

Organic ingredients

25% ingredients organically sourced

Climate change

CO2 reduction in line with Paris Agreement

Scope 1, 2 & 3

Total CO2 reduced by 45% per kg of finished product

OUR GOALS **FOR 2030**

Health & wellbeing

Employees

NPS employees score 25 pt

Clean water

Organic ingredients

25% ingredients organically sourced

Water use

Water use reduced by 18% per kg of finished product

GOOD FOR

THE PLANET

GOOD FOR

OUR PEOPLE

Safety

Employees

LTIFR reduced to 1.7

Waste reduction

Waste reduced by 30% per kg of finished product

GOOD FOR

Supporting community initiatives

> 5% of marketing budget

Health & safety

Consumers

80% sold finished products in NutriScore A or B

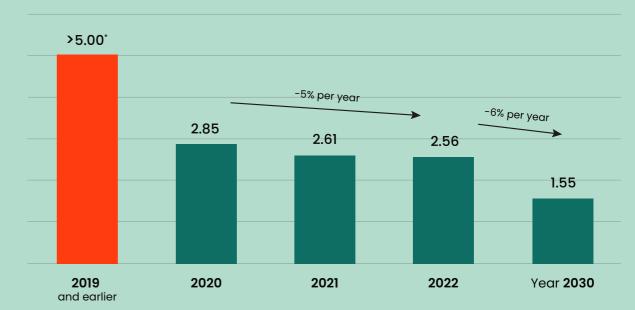


GOOD FOR THE PLANET

CO2 REDUCTION



CO₂ per kg of sold product



*No exact dates available due to Encko sales

Climate change and the Paris Agreement

Climate change is all around us. That is why it is incredibly important for all of us to take action now. We already started down that road in 2019 by divesting our meat-based activities. When consumers switch to plant-based products, this also leads to lower CO2 emissions. Still, we also have to look at the CO2 emissions generated by our own activities. Since 2021, we have divided these into three categories (or scopes).

5.6% of our emissions are in Scope 1: emissions from sources that we own or can control ourselves here at Vivera. Scope 2 is about energy procurement. In 2021, we switched to green electricity. As a result, our Scope 2 emissions are very low. Most of the emissions (about 95%) are in Scope 3: the emissions generated in the chain from raw material to finished product. Mapping our emissions not only helps us see where we are now, but - more importantly - enables us to identify the areas where we can achieve maximum savings. Once that's a known factor, it is time to define our goals. Our climate change targets are in line with the Paris Agreement: we aim to reduce

total CO2 emissions in our Scope 1, 2 AND 3 by 45% in 2030. As stated previously, we want to see growth. Selling even more plant-based products is better for the world. However, more growth also means increased emissions, even though the climate ultimately benefits every time a consumer replaces a piece of meat with a Vivera product.

We will do everything we can to keep reducing our company's emissions. Rather than setting a target in absolute kg of CO2 (in accordance with the Paris Agreement), we have opted for a relative percentage: 45% reduction in CO2 per kg of product produced in 2030.

How will we achieve this target?

We decided to focus on Scope I and Scope 3, because that's where we can make the most difference. Within that context, we will be focusing on three areas: ingredients, packaging and electrification.

CO2e per kg of sold product

Total	2,56
Scope 3:	0,15
Scope 2:	0
Scope 1:	2,41

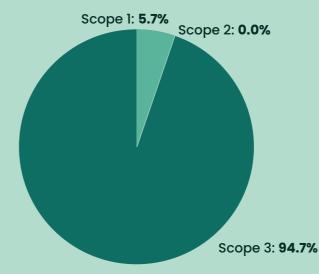
Ingredients

We have identified the five ingredients that have the biggest impact on our overall emissions and will be using smaller quantities (or replacing them with a more sustainable variety) – but without compromising on taste.

Packaging

We are going to use even less plastic, leading to savings of 6% per year until 2030.

Our emissions per scope 1, 2 & 3



Electrification

We are going to save on our logistics (5% per year until 2030), use less gas overall, and find alternatives with the aim of discontinuing natural gas dependence altogether.

All in all, these savings result in lower emissions per kg of product produced, reduced by 45% in 2030.

Our results in 2022

We divested our meat activities in 2019, which was the key step in reducing emissions. But why stop there? We have set ourselves an ambitious target to reduce CO2 emissions by 45% from our 2020 level. Compared to our 2020 reference year, we have now achieved 10% reduction in CO2. The main improvement was achieved in 2021 by switching to green energy. We also reduced plastic by switching to lighter product trays, saving 17% in plastic per tray.



GOOD FOR THE PLANET

BIODIVERSITY & CLEAN WATER





Biodiversity

Climate change is not the only issue we care about when it comes to the liveability of our planet. We also set targets to improve biodiversity. Biodiversity is absolutely essential to life on Earth. Without that huge variety of plants, animals and micro-organisms, we cannot have healthy ecosystems. Biodiversity is what allows us to breathe healthy air and eat healthy food. Obviously, there are major ties between biodiversity and climate change. Climate resilience is much higher in a biodiverse natural environment. A UK-based think tank showed that a plant-based diet is vitally important in protecting biodiversity (source: Chatham House, see Appendix

Our products help people make that transition to more plant-based protein sources. But it is also important to look at how our activities affect biodiversity. The ingredients used to make our products come from various plants grown for that purpose, and we want to minimize the negative impact from large-scale farming. Fertilizers and pesticides used in agriculture are reducing biodiversity (source: Chatham House, see Appendix 4).

Clean water

Drinking water can be contaminated by the fertilizers and pesticides that are often used in agriculture. Organic farms do not use chemical pesticides or artificial fertilizers.

Our target

Our goal is to have 25% of our ingredients organically sourced by 2030. The aim is for our products in the 'Quick, Healthy and Natural' group to be all-organic. That includes tofu, falafel and vegetable products.

These products use ingredients that can be sourced organically, and they do not contain any ingredients that are banned by organic guidelines. For various reasons, it is more difficult to achieve fully organic sourcing for the products in the 'meat substitutes' category that resemble meat or fish – or at least not without making major concessions in terms of flavour and texture. For example, organic products can only contain flavourings that are derived from the original ingredient that the flavoring is named after. That means that developing a product that tastes like chicken would require us to use a flavouring derived from actual chicken. By definition, this would no longer be vegan, so we cannot use it. We will continue to seek solutions for products that conform to the standards for organic products while remaining fully vegan.

How will we achieve this target?

We want to achieve organic sourcing of more ingredients. We will start by focusing on the vegetables and plant-based protein sources that we buy. Price will be an important consideration here, since we want to keep our products affordable. We will seek organic certification where possible.

Our results in 2022

Many of our products contain soya, since soy protein is easily absorbed by the human body, and the whole soybean can be processed effectively. The soya we buy is not sourced from South America, due to the risk of deforestation in that region. The soya we use comes from Europe, North America and China. We do not buy any genetically modified soya. GMO soya is often resistant to weed-killing chemicals, causing over-spraying and negatively affecting biodiversity. A significant and increasing percentage of the soybeans we buy come from Europe, and most of these are organically grown. In 2022, 11% of the total volume of ingredients we purchased was organically sourced.





GOOD FOR THE PLANET

WATER USE & WASTE REDUCTION





Water use

We are experiencing higher temperatures due to climate change, and the Netherlands is no exception. Rainfall has been significantly reduced in some years, both in our coastal country and farther inland, causing lower water levels in the major rivers flowing through the Netherlands. This leads to drought and water shortages (source: Rijkswaterstaat, the executive agency of the Ministry of Infrastructure and Water Management, see Appendix 4). To mitigate water scarcity, our goal is to use 18% less water per kg of product produced.

Waste reduction

Overall, 30% of food is wasted worldwide (source: FAO, see Appendix 4). Producing these food products requires vast amounts of raw materials. It takes up land and water and generates CO2 emissions, and then ends up being discarded. Here at Vivera, we focus on recycling waste – and on reducing how much waste we generate. In turn, that saves energy. By 2030, we aim to produce 30% less waste annually per kg of product produced.

How will we achieve these targets?

At Vivera, we use water to thoroughly clean our production facilities, as required by food safety standards. We also use a fair amount of water in cooling our production processes and products. In the next few years, we will be exploring ways to reduce water use. We will also be training our people to be more mindful of how they use water and to see where less water could be used in our day-to-day activities.

Reducing waste is a high priority in our company. In a production environment, waste can occur due to transitions in production runs, or as a result of variations in actual versus expected demand. We have a KAIZEN (continuous improvement) program at Vivera, with waste reduction a high priority. KPIs have been defined, and we review the results on a daily and weekly basis to identify additional improvements. We will continue to work on improving our production standards in the coming years to generate even less waste. We will also work in multidisciplinary teams to see how we can reduce waste throughout the chain.

Our results in 2022

Water use in 2020 was 8.3 liters per kg. It dropped to 8.1 liters per kg in 2021, before rising to 8.6 liters per kg in 2022. This is because an additional production hall was built in 2022 which is subject to different hygiene measures, leading to an increase in the use of cleaning water. We will seriously consider measures to take to bring this back down.

We are proud to have reduced waste by 3.4% in 2022 compared to the previous year. We achieved this by making it a top priority in our KAIZEN (continuous improvement) programme.





GOOD FOR OUR PEOPLE

EMPLOYEE SAFETY & WELLBEING



Employee safety

The safety of our employees is our highest priority. Safety is a major focus in all our day-to-day activities and is discussed at all levels of the organization. Our ambition is to not fall short of the companies that are global leaders in safety. We measure safety based on Lost Time Injury Frequency Rate (LTIFR): the number of lost-time injuries occurring in a workplace per 1 million hours worked. Our aim is to get our LTIFR below 1.7 in 2030.



How will we achieve this target?

We are well aware that safety is a wideranging concept, so our approach to safety encompasses various aspects. We are working to create a culture centred around team safety and accountability. We also take a good, hard look at the role of managers who need to serve as role models in this area and have significant responsibility in creating a culture of safety at Vivera. We are also investing in systems and resources that promote safety. Besides conducting safety assessments and risk analyses, we are also drafting clear working instructions. In close collaboration with our external partner in health and safety, Procorpus, we are working on implementing ergonomic improvements and reducing work-related stress.

Our results in 2022

Our LTIFR dropped from 10.5 to 9.4 in 2022. This was caused by a reduction of accidents due to unsafe behavior (such as tripping on stairs). We addressed this by including safety training in our annual training cycle. Safely operating machinery is a particular focus, and will continue to be a high priority for the foreseeable future.

Employee wellbeing

We want our employees to be healthy, feel good and be engaged in their work. This overall concept is summarized as 'employee wellbeing'. We will be measuring this by conducting a survey of our employees. This employee survey measures various aspects of how people perceive their work and where there is room for improvement. The results will be summarized in a Net Promotor Score (NPS), which indicates how many people would recommend Vivera to their friends or acquaintances as a potential employer. Our aim is to achieve an NPS score of 25 points in 2030.

How will we achieve this target?

We will offer various medical examinations on a voluntary basis, such as a periodic medical exam to check how much physical and mental strain our employees are experiencing. We also offer support in the event of physical, mental and financial problems. Moreover, we have resources to address physical problems that were caused by the work we do here at Vivera. Wherever possible, physical labour is automated or made easier by implementing tools to facilitate the work. We will also be conducting an employee survey and using the results to draft and implement an improvement plan.

Our results in 2022

In 2022, we focused extra attention on inappropriate conduct by people in supervisory or management roles. We assigned greater significance to the role of the confidential counsellor within the company, and communicated extensively about this to our employees. Two situations were revealed in our organization as a result of these steps. We took immediate action in response, prioritizing the social safety of our employees.

During the pandemic years of 2020 and 2021, protecting our employees from COVID-19 in the workplace was a major focus for us. All the coronavirus measures were gradually phased out in the first quarter of 2022. We were able to prevent any major outbreaks from occurring within Vivera.

In Q4-2022, a project group was assembled to prepare for the employee survey that was scheduled for Q1-2023.



GOOD FOR SOCIETY

CONSUMER HEALTH & SAFETY



Consumer health

A plant-based diet can have various health benefits. It is high in unsaturated fats, cholesterol-free and contains less saturated fats than meat. A lifestyle with less meat and more wholegrain cereals, more vegetables, more fruits and nuts lowers the risk of cardiovascular disease (source: Netherlands Heart Foundation, see Appendix 4).

If no one in the Netherlands changes how they eat, 1.9 million people will die from cardiovascular disease in 2030 (source: Netherlands Nutrition Centre, see Appendix 4). Vivera aims to entice as many people as possible to more deliberately make healthier choices by offering a truly delicious alternative to meat. To make sure our products are nutritional, we aim for 80% of our range to have a NutriScore of A or B.

How will we achieve this target?

We will be working on our recipes to improve our NutriScores. Lowering salt levels has the biggest potential for achieving this goal. Salt adds a lot of flavour to our products; since great taste is the most important motivator for consumers to buy, we will reduce salt gradually, so consumers grow accustomed to less salty flavours over time.

Our results in 2022

We reduced salt in 2022, bringing all our products below the salt standard (1.53 g of salt per 100 grams of product) at the end of 2022, except for our plant-based bacon bits and cheese products. This is in line with the guidelines set out in the salt agreement. As a result, 80% of our sold products are now in NutriScore A or B.









SUPPORTING COMMUNITY INITIATIVES



Community initiatives

Supplementing the impact we have on our direct consumers, we also want to make a positive contribution to society as a whole. We pursue this goal by supporting community initiatives at the international, national and local levels. Our target is to spend 5% of our annual marketing budget on this.

How will we achieve this target?

Every year, we will be looking for ways to cooperate with organizations that are a good fit for our company at the international, national and local levels. By engaging in these sustainable partnerships, we will be able to make a solid contribution.

Our results in 2022

In 2022, we spent 5% of our marketing budget on sponsoring. As a food producer, we are keenly aware that there are still between 720 and 811 million people still going hungry worldwide (UN, 2020). That's why we support The Hunger Project, an international organization fighting hunger worldwide.

Vivera is specifically funding the Gewoha Forest Project in Jabi-Tehnan, Ethiopia. The project aims to improve the local standard of living and increase food security and biodiversity, taking a stand against climate change. The goal is for the local community to become resilient and completely self-sufficient again within 10 years.

In 2022, nearly 500,000 seedlings were distributed and planted in the area, and 410,000 of those seedlings were successfully cultivated in the community nursery. In addition, nearly 177,000 trees and edible plants were planted in the farmyards of 1,680 households to establish 'food forests'.

At the national level, we work with and support NGOs that are working on the protein transition, such as the Green Protein Alliance, the True Animal Protein Price Coalition and Proveg. We work closely with Proveg to support the Veggie Challenge. This app-based campaign challenges consumers to spend 30 days eating less meat or going completely vegetarian or vegan. 12,000 people took part in the challenge in 2022.

At the local level, we are the main sponsor of the Triathlon in Holten. This major sporting event relies on a thousand volunteers in Holten; as a Holten-based company, we are pleased to support the initiative. 2000 people competed in various triathlons, including a Europe Triathlon Premium Cup, a Europe Triathlon Junior Cup and various company-based triathlon events. A race (now renamed the Vivera Run) creates an opportunity for as many people as possible to challenge their personal athletic performance, bringing in 400 participants. We support the organization financially and by providing our products.











Our goals for 2030 and our achievements over the past few years are neatly summarized below.

B-Corp	Topics	Where 2020	are we at 2021	now 2022	Target 2030	Unit of measurement	How we will achieve this
Good for the planet	1. Climate change 45% reduction in CO2	2.85	2.61	2.56	1.55	kg CO2/kg product	Different ingredients, less packaging, electrification
	2. Biodiversity3. Clean water4. Water use	11% 11% 8.3	9% 9% 8.1	11% 11% 8.6	25% 25% 6.5	% of kg purchased % of kg purchased ltr/kg	Using organically grown ingredients Using organically grown ingredients Continuous improvement program
	5. Waste reduction	NA	1,677	1,629	1,160	Waste T	Continuous improvement program
Good for our people	6. Employee safety 7. Employee wellbeing	NA NA	10.5 NA	9.4 NA	1.7 25	LTIFR NPS	Safety training Conduct employee survey and follow up on results
Good for society	8. Consumer health and safety 9. Supporting community initiatives	NA	75% 5%	80% 5%	80% 5%	Nutriscore A/B	Updated recipes, lower salt content Supporting local and international community initiatives



APPENDIX 1 HOW DO WE WORK ON OUR IMPACT

Engaging our stakeholders

To maximize our sustainable impact, it is important for us to ensure that we engage our stakeholders in our sustainability strategy. Our stakeholders represent a very diverse group, ranging from employees, consumers, supply partners and NGOs to financiers and government authorities. We try to engage all these people and organizations in all sorts of ways, including interviews, dialogues and surveys. They also have an important say in determining the topics covered in this annual sustainability report.

Sustainability Steering Committee

How can we ensure that our ambitious plans will be carried out to the best of our ability? To ensure that sustainability is firmly anchored in our organization, we established the Sustainability Steering Committee in early 2023. Since it is important to us that sustainability is embraced and expressed throughout the company, the steering committee consists of six managers from six different departments:

Bertran Averink

Safety, Health, & Environment Manager

Boele de Jong

Chief Financial Officer

Jan Lederer

Chief Operations Officer

Laura Moolenbeek

Human Resource Manager

Karin Löwik

Marketing Director

Willem van Weede

Chief Executive Officer





APPENDIX 2

MATERIALITY ANALYSIS OF INWARD IMPACTS

Engaging our stakeholders

We started exploring our materiality matrix by identifying external influences that affect our organization. These influences are displayed in the inward impact analysis. We then looked at how our company affects our external surroundings. This is displayed in the outward impact analysis. We then combined the inward and outward impacts into the materiality matrix.

	O Topic	Sub-topic	Sub-sub-topic	Operational context relevant to the (sub-)sub-topic	Cause(s) of the negative financial impact / reason(s) it can continue to exist	Description of financial impact on the organisation	Affected resources (natural, social and economic)	Affected relationships
,	Environment	Climate change		The predecessor from which the brand Vivera evolved was a producer of meat products. Vivera now manufactures plant-based protein products. Its manufacturing processes require a significant amount of energy, for example to freeze and heat products. The production of agricultural raw materials is dependent on fertilizers and machinery which are major source of greenhouse gas (GHG) emissions.	Continued reliance on fossil fuels, for example as power sources for machinery or other production activities; Continued investment in fossil fuel driven machinery moving towards the energy transition; Environmental effects of climate change, such as extreme weather and droughts, affecting farmland, and therefore impacting production volumes; Client expectations for product CO2 performance; Reputational damage.	Investments in machinery and equipment running on renewable energy; Stranded assets; Increased procurement costs of agricultural ingredients; Reduced demand; Fines and lawsuits.	Energy, agricultural raw materials	Government, customers
3	Environment	Pollution	Water pollution	Vivera sources significant amounts of agricultural products. Agricultural production is often paired with use of pesticides and fertilisers. Vivera uses large quantities of water for cleaning facilities and machinery.	Inadequate screening of suppliers, for example in the form of environmental impact assessments; Procurement of uncertified ingredients, meaning environmental risks are higher.	Reputational damage.		Customers
4	Environment	Water and marine resources		Vivera's manufacturing processes require significant amounts of water. The organization produces around 130,000 m³ of wastewater annually. Upstream in the value chain, arable agriculture requires high-volume water use.	Current rates of water consumption may possibly not be able to be increased due to local regulations, although Vivera has the ambition to expand its operations in Holten; Increased drought in agricultural sourcing regions.	Investments in more water-efficient machinery and equipment; Missed revenue (opportunity costs); Higher procurement costs.	Agricultural raw materials, license to operate	Government, local community
5	Environment	Biodiversity and ecosystems		Vivera sources various agricultural raw materials, including soya, wheat, oils, herbs and spices. Agricultural production is often associated with (intensive) use of fertilizers and other agrochemicals. Vivera uses natural gas combustion to generate heat.	A lack of transparency in value chains under increasing demand for responsibly sourced / certified ingredients and increasing attention from (civil) society for land-use changes in agricultural production that affect biodiversity. Government authorities, such as the EU, are currently developing laws that actively forbid the sourcing of soya and oils. This is expected to require increased efforts from Vivera through processes such as due diligence to guarantee that products are free of deforestation. Additionally this may result in a decrease in the available supply of these commodities and an increase in prices. The emissions of nitrogen compounds by Vivera may potentially pose a constraint on the expansion of its own operations.	Decreased demand; Higher procurement costs; Missed revenue (opportunity costs); Reputational damage.	Agricultural raw materials	Customers



10) Topic	Sub-topic	Sub-sub-topic	Operational context relevant to the (sub-)sub-topic	Cause(s) of the negative financial impact / reason(s) it can continue to exist	Description of financial impact on the organisation	Affected resources (natural, social and economic)	Affected relationships
6	Environment	Resource use and circular economy		Vivera is a food manufacturer that is reliant on plastic and cardboard packaging for conservation and marketing purposes. Additionally, as an industrial facility, it produces waste streams that require management.	Stricter legislation on the use of (non-recyclable and/or non-reusable) plastics and other packaging materials; Increased demand for products with circular packaging; Increased costs of raw materials (reinforced by laws and regulations).	Increased procurement costs; Decreased demand.	Packaging materials	Customers
7	Social	Safety		Vivera is a food manufacturer employing around 500 workers. In addition, many external visitors and contractors visit their production premises. The production process involves working with heavy moving equipment, such as dough mixers, heavy objects which need to be moved around, and high temperatures such as frying oil.	Sick leave for employees unable to work due to work-related injuries; Non-compliance with laws and regulations on workplace safety; Widespread attention (such as through media coverage) for severe incidents.	Fines and lawsuits; Wages of inactive workers; Reputational damage.	Labour	Government, employees
8	Social	Occupational health & wellbeing		Vivera's manufacturing processes include physical-intensive activities, at times in unnatural postures. In addition, food manufacturing and retailing is a fast-paced, dynamic industry which can be demanding to employees. Moreover, Vivera works a lot with migrant workers (mainly from Eastern Europe). In the past, there have been several incidents concerning working and living conditions of migrant workers. Payment of decent/living wages can also be an issue.	Sick leave for employees unable to work due to work-related illness (physical/mental); Loss of human capital; Inadequate monitoring of and investment in decent working and living conditions for migrant workers.	Wages of inactive workers; Low performance due to insufficient access to quality workers; Increased HRM costs (recruitment costs) due to poor employer brand; Reputational damage because of migrant worker scandals.	Labour	Employees
9	Social	Human capital development		Vivera is a food manufacturer, however innovation (and development) of intellectual property, for example recipes or production processes of products, are crucial to the continuity of the organization.	Inadequate investments in employee education and training.	Low performance due to insufficient access to quality workers; Increased HRM costs (recruitment costs) due to poor employer brand.	Labour	Employees
10	Social	Diversity & inclusion		Vivera performs various business activities and therefore has a diverse staff, for example with regard to educational level and nationality.	Human rights violations; Unequal treatment of sub-groups within the organization.	Fines and lawsuits; Increased HRM costs (recruitment costs) due to poor employer brand; Reputational damage.	Labour	Government, employees, customers



10	Торіс	Sub-topic	Sub-sub-topic	Operational context relevant to the (sub-)sub-topic	Cause(s) of the negative financial impact / reason(s) it can continue to exist	Description of financial impact on the organisation	Affected resources (natural, social and economic)	Affected relationships
11	Social	Consumer health & safety		Vivera produces food products that will be consumed after a period of logistics (storage, transport, retail) by consumers in various countries.	Recalls before distribution; Recalls after distribution; Health damage to consumers; Complaints and lawsuits claiming damages filed by consumers or consumer organizations.	Costs due to withdrawal of products and logistics associated with a recall; Reduced bargaining position due to deteriorated trust among retailers; Reputational damage; Claims and lawsuits by consumers.		Customers
12	Social	Community engagement		Vivera has several locations, with its largest production location in Holten, in the Dutch province of Overijssel. It is one of the larger and more well-known companies in the region.	Disturbance of surrounding community through landscape pollution (visual/noise/smell).	Reputational damage.	License to operate	
13	Governance	Corruption & bribery		Vivera has a wide range of suppliers and its value chains can be long and opaque, starting in non-Western countries where risks of bribery and corruption are higher. Moreover, the food industry has experienced corruption scandals in the past.	Lack of transparency leading to potential contribution to corruption and bribery via value chain.	Reduced access to financial services; Reputational damage.	Financial services	Financial service providers, customers



ľ	D Topic	Sub-topic	Sub-sub-topic	Operational context relevant to the (sub-)sub-topic	Causes of the negative or positive impact / reasons it can continue to exist	Description of the impact on the environment, people and society	Source(s)
,	Environment	Climate change		The predecessor from which the brand Vivera evolved was a producer of meat products. Vivera now manufactures plant-based protein products. Its manufacturing processes require a significant amount of energy, for example to freeze and heat products. The production of agricultural raw materials is dependent on fertilizers and machinery which are major sources of greenhouse gas (GHG) emissions.	Negative: Energy use by heating and cooling equipment on-site; Production of fertilizers and emission of N2O during application of fertilizers; Soya production is often associated with potential deforestation which accelerates climate change, especially when value chains are not transparent enough to rule out deforestation, such as through certification. Positive: By changing its core business to products using plant-based proteins and raising awareness of the benefits of plant-based diets, Vivera contributes to the societal shift to diets with a lower CO2 footprint.	Climate change, as a result of (excessive) GHG emissions, has worldwide consequences for environment, people and society. This includes extreme weather, pollution, and food and resource shortage. Given the current pace of climate change, remediability to levels below 1.5 degrees Celsius is considered unattainable.	4.3_Energy Use, Water Use, Other Emissions Interviews
3	Environment	Pollution	Water pollution	Vivera sources significant amounts of agricultural products. Agricultural production is often paired with use of pesticides and fertilisers. Vivera uses large quantities of water for cleaning facilities and machinery.	Negative: Inappropriate and/or intensive use of fertilizers and pesticides resulting in leakage/contamination. Positive: This water is treated up to standards required by the government using a chemical treatment plant. Cleaning agents are neutralized, and organic matter is removed and used as input for biogas production.	Contamination of rivers, lakes and estuaries resulting in environmental impact and posing health risks to the environment and local communities reliant on these local marine resources.	<u>Interviews</u>
4	Environment	Water and marine resources		Vivera's manufacturing processes require significant amounts of water. The organization produces around 130,000 m³ of wastewater annually. Upstream in the value chain, arable agriculture requires high-volume water use.	Negative: Significant water use during manufacturing processes. Vivera Holten is located in a water-scarce region, so impact is limited. Agricultural production, including irrigation, of (water-intensive) crops. Potentially, some percentage of the sourcing areas of Vivera's raw materials are water-scarce, thus increasing the impact. Positive: By changing its core business to products using plant-based proteins and raising awareness of the benefits of plant-based diets, Vivera contributes to the societal shift to diets associated with lower water consumption, since livestock farming is associated with higher water consumption than arable farming/horticulture.	Depletion of natural water resources, potentially leading to increased local water stress.	4.3 Energy Use, Water Use, Other Emissions https://earth.org/soybean- products-and-its- environmental-impact/ Interviews



I	ID Topic	Sub-topic	Sub-sub-topic	Operational context relevant to the (sub-)sub-topic	Causes of the negative or positive impact / reasons it can continue to exist	Description of the impact on the environment, people and society	Source(s)
,	5 Environment	Biodiversity and ecosystems		Vivera sources various agricultural raw materials, including soya, wheat, oils, herbs and spices. Agricultural production is often associated with (intensive) use of fertilizers and other agrochemicals. Vivera uses natural gas combustion to generate heat.	Negative: Degrading agricultural practices such as monoculture; soya in particular is highly associated with deforestation and land degradation. For most origins, supply chains are not transparent enough to rule out potential deforestation. Positive: Vivera does not procure soya from South America, and therefore does not contribute to the deforestation with which soya from this continent is heavily associated.	Transformation of natural vegetation or grazing lands to crops, also referred to as land-use change, is likely to increase soil erosion, and thus lead to land degradation. In case of large-scale deforestation, the risk of biodiversity loss is high. The ecosystem services associated with biodiversity are lost when the diversity in species decreases.	https://wwf.panda.org/discover/our_focus/food_practice/sustainable_production/soy/ https://earth.org/soybean-products-and-its-environmental-impact/
(6 Environment	Resource use and circular economy		Vivera is a food manufacturer that is reliant on plastic and cardboard packaging for conservation and marketing purposes. Additionally, as an industrial facility, it produces waste streams that require management.	Negative: Large-scale procurement of virgin/non-renewable (packaging) materials, produced with energy generated from fossil fuels; Positive: Vivera and its suppliers have taken steps to gradually reduce material waste through research or investment in reduced/reusable/recyclable packaging.	Depletion of natural resources for the production of packaging materials; Generation of large (packaging) waste streams leading to (plastic) pollution and emissions. The environmental impact depends on how waste can be / is treated.	Interviews
7	' Social	Safety		Vivera is a food manufacturer employing around 500 workers. In addition, many external visitors and contractors visit their production premises. The production process involves working with heavy moving equipment, such as dough mixers, heavy objects which need to be moved around, and high temperatures such as frying oil.	Negative: Regardless of the safety measures currently in place, the risk of exposing workers to potentially lethal and/or irreversible accidents, though small, remains present in everyday operations. In 3 years, 2 accidents happened that were not lethal but did have irreversible consequences. Positive: Due to safety measures taken, reinforced by laws and regulations, no lethal accidents have happened in recent years and most accidents had only minor consequences.	Incidents and, in the worst case, fatalities of Vivera's own employees or hired workers.	1.9 22-07-08-ima-online-rapport-vivera-2021 Interviews
8	3 Social	Occupational health & wellbeing		Vivera's manufacturing processes include physical-intensive activities, at times in unnatural postures. In addition, food manufacturing and retailing is a fast-paced, dynamic industry which can be demanding to employees. Moreover, Vivera works a lot with migrant workers (mainly from Eastern Europe). In the past, there have been several incidents concerning working and living conditions of migrant workers. Payment of decent/living wages can also be an issue.	Negative: Vivera currently does not monitor the pressure that employees experience, so the potential for work-related stress is high. As described under safety, the (work-related) physical wellbeing of employees is more regulated and monitored, also reinforced by laws and regulations. Nonetheless, physical working environments are known to affect the physical wellbeing of workers.	Physical and/or mental disability, at times long term, which can result into (early, permanent) dropout of employees.	1.9 22-07-08-ima-online- rapport-vivera-2021 Interviews



ľ	O Topic	Sub-topic Sul	ıb-sub-topic	Operational context relevant to the (sub-)sub-topic	Causes of the negative or positive impact / reasons it can continue to exist	Description of the impact on the environment, people and society	Source(s)
9	Social	Human capital development		Vivera is a food manufacturer, however innovation (and development) of intellectual property, for example recipes or production processes of products, are crucial to the continuity of the organization.	Negative: Vivera invests in personal development opportunities, but the risk that these are not sufficient and/or there is insufficient awareness of the possibilities potentially stands in the way of employees growing in their career within/beyond Vivera. The language barrier of the many immigrant workers at Vivera is also a potential obstacle.	The extent to which employers invest in the development of their employees determines their ability to develop in skill, thus affecting wellbeing and economic development.	Interviews
10	Social	Diversity & inclusion		Vivera performs various business activities and therefore has a diverse staff, for example with regard to educational level and nationality.	Negative: The ratio between men and women is balanced, reducing the risk of one gender not feeling at home in the organization. Additionally, Vivera employs many immigrant workers. Insufficient transparency in job descriptions and salaries increases the risk of different groups being treated unequally. Lack of awareness of their rights makes immigrant workers vulnerable to inappropriate conduct by co-workers and/or external visitors.	Feelings of exclusion can lead to decreased mental wellbeing and psychological safety in the workplace. In the worst cases, this leads to long-term mental and/or physical symptoms.	<u>Interviews</u>
,	Social	Consumer health & safety		Vivera produces food products that will be consumed after a period of logistics (storage, transport, retail) by consumers in various countries.	Negative: Vivera produces products that, despite present control measures, are susceptible to contamination and/or spoiling which can harm human health. Risks include improper heating/cooling of products, mismatching packaging and contents, and cross-contamination of products with different ingredients. Vivera produces products that contain animal proteins such as cheese that contain a high amount of salt and fat, resulting in a lower NutriScore. Positive: By changing its core business to products using plant-based proteins and raising awareness of the benefits of plant-based diets, Vivera contributes to diets lower in salt and saturated fats. The national nutrition score for the majority of Vivera products is in the highest category.	Food consumption-related incidents (spoiled/allergens/contaminations), in worst case causing fatalities; Contribution to (un)healthy food consumption / diets resulting into higher/lower risk of health problems.	Interviews



	D Тор	ic Sub-topic	Sub-sub-topic	Operational context relevant to the (sub-)sub-topic	Causes of the negative or positive impact / reasons it can continue to exist	Description of the impact on the environment, people and society	Source(s)
1:	: Social	Community engo	gement	Vivera has several locations, with its largest production location in Holten, in the Dutch province of Overijssel. It is one of the larger and more well-known companies in the region.	Positive: As one of the larger and more well-known companies in the region, Vivera can potentially contribute to local developments such as events, sponsorships, job opportunities, education, internships, and innovation or involve local entrepreneurs in their operations, for example by cooperating on local water management or transportation.	Economic development/social cohesion	<u>Interviews</u>
1:	Governo	ınce Corruption & brib	ery	Vivera has a wide range of suppliers and its value chains can be long and opaque, starting in non-Western countries where risks of bribery and corruption are higher. Moreover, the food industry has experienced corruption scandals in the past.	Negative: Insufficient transparency in value chains leaves Vivera potentially vulnerable to contributing to corruption and bribery through its value chains. Possibility of corruption, and absence of educational programs and mechanisms focused on detecting corruption.	Societal damage, primarily in the form of lost tax revenues that can be used to address societal issues.	https://bis.lexisnexis.co.uk/blog/categories/governance-risk-and-compliance/food-manufacturers-bribery-and-corruption



APPENDIX 3

GUIDE TO CO₂ FOOTPRINT REPORT

Period

We calculate greenhouse gas emissions based on our fiscal year, which roughly corresponds to a calendar year (1 January 2022 to 31 December 2022).

Organizational boundaries

Our emission calculations start with the cultivation of food products and extraction of raw materials and end when products leave the Vivera production lines and facilities. Emissions associated with downstream transport and distribution or end-of-life processing of products after sale are not included in the 2020-2022 carbon footprint, but we may include them in a subsequent CO₂ footprint.

All the sites operated by Vivera are included: Holten, Rijssen, Vriezenveen and Deventer.

Guidelines

Scope 1 & 2

Emissions are calculated according to the methodology of the Corporate Accounting and Reporting Standard as defined by the Greenhouse Gas (GHG) Protocol.

Scope 3 emissions are calculated according to the Corporate Value Chain Scope 3 Guidance by GHG Protocol (also known as 'Scope 3 guidelines').

Operational boundaries

The GHG Protocol requires organizations to establish and document their operational boundaries and classify their emissions as direct (Scope 1) or indirect (Scope 2 and 3).

Operational boundaries should be reassessed annually by taking into account the changing importance of different sources of carbon emissions, changed data availability and reliability, and new international guidelines.

Emissions

CO₂ emissions, greenhouse gas (GHG) emissions into the atmosphere, are reported in kilograms of carbon dioxide equivalents (CO_{2e}). This is the universal unit of measurement used to indicate the global warming potential (GWP) of each greenhouse gas, expressed in terms of the GWP of one unit of CO₂.

These units are used as a common standard for assessing emissions of various greenhouse gases.

Vivera has concluded that, in line with the operational boundaries, the following emissions fall within the scope of Vivera's CO₂ report.

Calculating emissions

Emissions are calculated using activity data and emission conversion factors based on the following formula:

Emission =
Activity Data * Emission Conversion Factor

Activity data

Activity data is the quantitative measure of an activity level that results in greenhouse gas emissions. It is multiplied by an emission conversion factor to derive the greenhouse gas emissions associated with a process or operation. Activity data includes the number of kilowatt-hours of electricity consumed, the amount of fuel used, the volume of goods purchased, and the distance travelled. Activity data used to calculate greenhouse gas emissions is derived from supplier invoices, meter readings or correspondence exchanged with suppliers.



APPENDIX 3

GUIDE TO CO₂ FOOTPRINT REPORT

In line with the operational boundaries, Vivera has concluded that the following emissions are within scope of CO₂ reporting for the company:

Scope 1 & 2

Total energy use of the production sites, facilities and vehicles.

Scope 3

Scopes

Goods and services purchased

Scope 1 - Direct emissions

Scope 2 - Indirect emissions

Scope 3 - Other indirect emissions

The ingredients and packaging materials sourced by Vivera.

Capital assets

The capital assets purchased during the reporting year, such as building materials or machinery.

Fuel and energy-related activities

The emissions associated with the energy used in Vivera's own operations.

Upstream transport and distribution

Fuel consumed by vehicles and vessels not owned by Vivera, based on the estimated tonne-kilometres of goods to Vivera's business locations. This also includes goods stored at internal (Holten) and external (Nijkerk) cold storage locations.

Waste generated during activities

All waste streams produced by Vivera, including: food waste, industrial waste, paper and cardboard, packaged and unpackaged food products, frying oil and other waste.

Business trips

Business trips made by Vivera employees by plane, train and car. Travel in company-leased cars for business purposes is not included in this category; these business trips are reported under Scope 1 & 2.

Employee commuting

In scope

Yes

Yes

The commute by Vivera employees from their homes to Vivera facilities (on a daily basis). The estimated average distance travelled from work to home and the mode of transport used is self-reported by Vivera employees. Vivera does not

currently have primary data about employee commuting.

Upstream leased assets

Not relevant.

Downstream transport and distribution

Transport and logistics executed by parties in the downstream value chain, such as transport from distribution centres to retailers and transport by consumers from retailers to their homes.

Processing of sold products

Not relevant.

Use of sold products

In accordance with the Scope 3 guidelines, food products outside the scope are considered an 'indirect usephase emission product'. For these types of products, it is optional to report on how products are used after they are sold.

End-of-life processing of sold products

End-of-life processing of packaging materials.

Downstream leased assets

Not relevant.

Franchises

Not relevant.

Investments

If there are no capital assets

Emission types

Diesel use		
Petrol use		
Coolant leakage		

Coolant loakage	103
Electricity use	Yes
Purchased goods and services Capital assets Fuel and energy-related activities Upstream transport and distribution Waste generated during activities Business trips Employee commuting Upstream leased assets Downstream transport and distribution Processing of sold products Use of sold products End-of-life processing of sold products	Yes No Yes Yes Yes Yes Yes N/A No N/A No
Downstream leased assets Franchises Investments	N/A N/A No



APPENDIX 4 REFERENCES

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