Lodz University of Technology

Food For Better Mood

European Project Semester

02/2024 – 06/2024

Anna JAMON – Manon KLEINDIENST – Ona ZATANIA LOJO – Krzysztof MAGIN – Damian MOLINO MEDINA

Supervisor : Monika Kosmala

Lodz University of Technology

Table of content

Table of figures

i. Preface

The report below was prepared within the framework of the European Project Semester (EPS) at Lodz University of Technology. The project began on February 28 and ends on June 20. The EPS is a multidisciplinary and multicultural project for international (Erasmus) and Polish students. Students are offered a range of topics dealing with real-life problems, demands and technological and societal changes. The EPS is professionally oriented, enabling each student to contribute their knowledge according to their studies (engineering, business…) and to collaborate with external partners or internal university faculties.

ii. Executive summary

The "Food for Better Mood" project, part of the European Project Semester (EPS) at Lodz University of Technology, was undertaken from February to June 2024. The project's goal was to develop a unique line of chocolate bars designed to enhance mood and address common issues like stress, fatigue, and lack of concentration among European employees. This multidisciplinary and multicultural initiative involved a team of international and Polish students collaborating to create a product

that combines the pleasure of eating with scientifically proven mood-enhancing benefits.

The project identified a significant issue affecting many Europeans: high levels of stress, persistent fatigue, and lack of concentration, particularly in the workplace. Studies indicate that these problems are widespread, with a notable portion of the workforce struggling to maintain focus and manage stress effectively. Recognizing the positive impact of certain foods on mood, the team decided to create chocolate bars that not only taste good but also help improve emotional well-being.

The project identified a significant issue affecting many Europeans: high levels of stress, persistent fatigue, and lack of concentration, particularly in the workplace. Studies indicate that these problems are widespread, with a notable portion of the workforce struggling to maintain focus and manage stress effectively. Recognizing the positive impact of certain foods on mood, the team decided to create chocolate bars that not only taste good but also help improve emotional well-being.

The "Food for Better Mood" project successfully developed a line of chocolate bars aimed at improving consumers' mood while addressing stress, fatigue, and concentration issues. By focusing on high-quality, natural ingredients and leveraging a comprehensive marketing strategy, the project aims to carve out a niche in the crowded healthy snack market. The team's multidisciplinary approach and

commitment to continuous improvement position the "Good Mood" brand for potential success and growth in the market.

iii. Acknowledgement

We would like to express our deep gratitude to everyone who contributed to the realization of this project.

In particular, we would like to thank our EPS supervisors and teachers, Magdalena Żygłowicz, Grażyna Budzińska, Adrianna Kozłowska, without whom working on this project would not have been possible.

We would like to thank all our teachers, George Anders, Maria Woźniak-Malczewska, Julia Cieślewicz, for the various courses offered, which enabled us to learn but also to adapt this knowledge to further our project.

We would like to thank our supervisor Monika Kosmala for developing this great project, for following us throughout the semester and for her advice.

Special thanks go to our expert, Iwona Majak, for all her invaluable advice, for helping us out so many times, for teaching us important aspects of a food project, but above all for following us on this project.

Finally, we would like to thank the Biology and Food Department for its rooms and labs, and especially the Lodz University of Technology.

1. Introduction

1.1. Context

In order to better understand the context and scope of our project, a few statistics helped us to better define our problem statement. During our studies or our work, we often feel stressed and that can impact professional or personal life. Indeed, 64% of employees feel stressed at least once a week (APD 2022). “About 42% of workers admit not being able to stay focused for more than an hour without interruption.” (Culture RH 2023). Indeed, the lack of concentration could be a major problem at work or wherever. Finally, almost one in two Europeans say they have experienced persistent fatigue over the past 12 months (Ipsos 2000).

Thanks to these different studies and surveys we realized that most employees in Europe had the same problem: stress, lack of sleep and lack of concentration. Subsequently, we noticed that the food made this same target quite happy. Indeed, according to Harris interactive, in 2024, 79% of Europeans agree to give a score of 7,5 to food on the scale of happiness. That’s why we decided to combine a product that makes people happy with assets that fight against the problems that people encounters.

1.2. Definition of the target

1.2.1. Problem statement

Our company decided to create chocolate bars to improve people's mood because we noticed a few important things:

People Are More Stressed : Lately, many people are feeling more stressed and anxious due to busy lives and events like the COVID-19 pandemic. They are looking for ways to feel better and manage their stress.

Foods That Help Health : People want foods that do more than just fill their stomachs—they want foods that can also improve their health. Chocolate is already popular, so we thought it would be great to make a chocolate bar that also helps people feel happier.

Science Says Chocolate Can Boost Mood : Research shows that certain things in chocolate can make people feel happier:

- Flavonoids: These can help the brain work better.

- Theobromine and Caffeine: These can boost mood and energy.

- Phenylethylamine (PEA): This can make people feel good, like when they are in love.

- Serotonin Precursors: These can help improve mood and reduce stress.

Opportunity in the Market : There are many chocolate options, but not many that help with mood. By making a chocolate bar that also boosts mood, we saw a chance to stand out and offer something unique.

Natural and Quality Ingredients : People prefer natural, high-quality ingredients without artificial stuff. We aimed to create a premium chocolate bar using the best ingredients to meet this demand.

1.2.2. Target identification

The target group has been chosen after the research on attitudes of people of different ages and the way they spend their time. Performing the survey, the authors identified a specific audience segment that expressed a significant interest and demand for products that enhance mood and increase the level of well-being.

Demographic Description:

Age: 25-50 years old.
Lifestyle: Individuals who work a lot and do not have time for leisure activities and hobbies, or are very productive and have a lot of things to do.
Emotional State: Most of them are stressed up and anxious due to their busy schedules and other factors like the recent COVID-19 pandemic.
Health Consciousness: They understand the value of a healthy way of living and look for food that can feed them besides helping them in other ways.

Open-mindedness: These consumers are ready to buy new products and are ready to change their habits if the health benefits are perceived to be high.

Concentration Issues: They report disruptions in their ability to concentrate and pay attention because of stress and the other challenges they encounter.

Characteristics of the Target Group:

Busy Professionals: People who work and have other commitments they have to attend to, which may make it difficult for them to sit down for a long time and keep focus.

Health Conscious: They value their health and are in the lookout for products that are not only tasty but also healthy and good for the body and soul.

Interest in Emotional Well-being: They understand how to work through stress and elevate the state of mind in order to achieve emotional stability in everyday life.

Willingness to Experiment: Willing to consider new approaches and goods that may assist in stress reduction and lead to enhanced quality of life.

Open-minded Professionals: Eager to consider new and unconventional solutions that may provide some advantages in the sphere of health care.

1.2.3. Project objectives

Product Selection and Conceptualization: Conduct market research and choose chocolate bars as a primary product to relate to the theme of “food that helps improve mood”. Thus, the concept of the product should be clearly and logically defined, and the product should be positioned as a means to improve mood and provide certain emotional experiences.

Ingredient Research and Formulation: Invest time and effort in the research of natural compounds that are well-documented to have an impact on the mood of individuals. Choose specific ingredients like premium cocoa, nuts, dried fruits and other flavonoid, theobromine, caffeine, PEA, and serotonin precursors. Optimize the recipes of chocolate bars to ensure the positive effects of mood and emotional well-being of consumers, as well as the taste and texture of the product.

Product Development and Initial Testing: Develop actual chocolate bars from the chosen formulations to use in the next stages of the research. Do a test on the product and arguing about the taste, texture, appearance and the most essential aspect, the effect on their mood. Continuously collect feedbacks and suggestions from a selected group of consumers for improvement of recipes and product design.

Large-Scale Production and Quality Control: Develop strong production procedures for the bars in order to make sure that each bar that is produced is of high quality. Ensure a high level of quality assurance is followed throughout the production process, including the input materials and the packaging.

Marketing and Market Launch: Create a marketing campaign with the slogan ‘food for the better mood’, which will underline the positive effects of the chocolate bars on one’s mood and well-being. Some of the marketing strategies include the use of social media, involving popular personalities in the launch, and conducting promotional events that will create a buzz before the product is out.

Monitoring and Continuous Improvement: Finally, track the market response and customer satisfaction with the chocolate bars once they have been launched into the market. Accept the fact that we will have to adapt and innovate with the product, marketing, and sales we have to satisfy our customer and gain the best market share in the market.

1.3. Project’s structure

Define the objectives of the project:

Conducting a market research. Selecting chocolate bars as the primary product connected to the topic of “food for a better mood”. Reposition the product to properly fit into the consumer’s lifestyle, as a food that can make people happy.

Product Selection and Conceptualization:

Lodz University of Technology

Do a market research process about chocolate bars and how they get commercialized. Investigate what is meant by the product and how it connects with enhancing mood and offering emotional value.

Ingredient Research and Formulation:

Do research on the studies that have been done on the natural substances that have an effect on the mood. Enumerate the selected inputs like fine chocolate, nuts, dried fruits, and spirits that can alter a person's mood. Investigate how recipes are adjusted to maximize a positive mood as well as satisfaction of the food in terms of taste and texture.

Product Development and Initial Testing:

Make a testing and production session and test some different recipes to know what are the propper ingredients to get a good flavor and to get our porpuse of making healthier food.

Explain measures for quality control for the products, materials used as well as the packaging.

Marketing and Market Launch:

Describe the general marketing plan which includes social media, use of celebrities and promotional events.

Monitoring and Continuous Improvement:
Explain the observation of market response and customer reaction after the launch of the product. Get involved with the supervirsors oppinion and make neccesary changes in the product.

1.4. Green Mood project and team members

With our observations, the studies and our target identification we came up with the idea to create Good Mood: A brand offering products aimed at improving the mood of its consumers by targeting three problems: stress, fatigue and lack of concentration. At the same time, it is important for us to offer healthy products without forgetting the taste of these products but also are comforting to offer an effective product but especially guilty-free. Our goal is to be as transparent as possible with our consumers so that they can know exactly what they are eating while knowing the impacts our products can have on their bodies.

Our mission at Green Mood is to put people in a better mood with products that are good for their body and their mental health thanks to ingredients specially chosen to fight against the major problems that our target group encounters. This mission we

wish to fulfill while respecting our values which are quality, welfare, innovation and respect for health.

In Green Mood, the team of our project has a real strength since it consists of students from different countries but also with different studies creating a multiculturality and multidisciplinary that see themselves as real strengths for the project. Our different specializations allowed us to distribute specific roles within the team which allows us to share our work and knowledge.

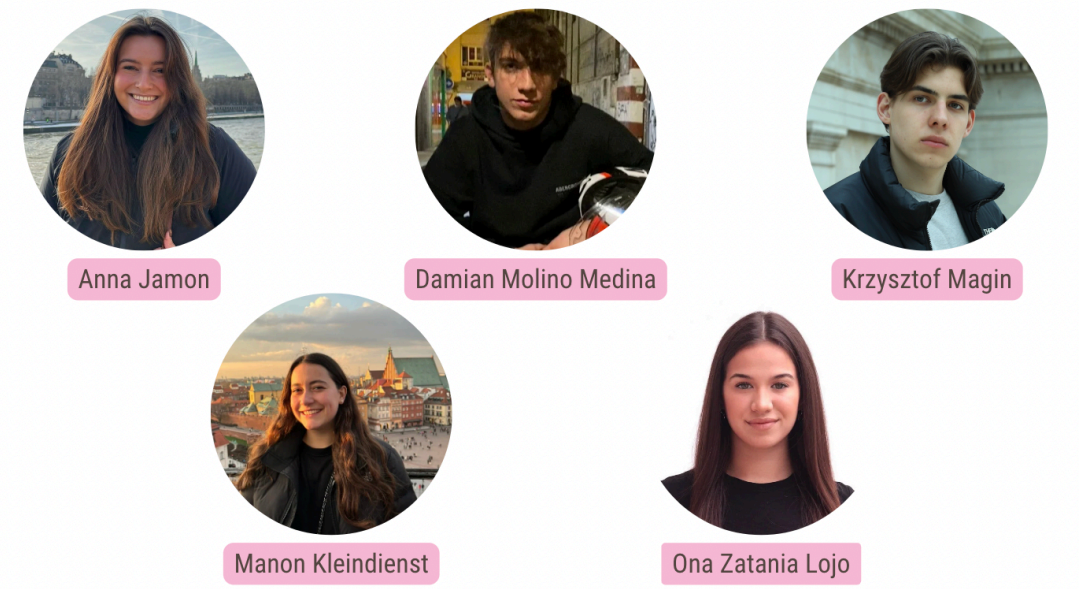

Figure 1: Members of the team

Indeed, we have our CEO and head of marketing Anna Jamon studying marketing at Kedge Business School in Marseille; our CFO Manon Kleindienst studying finance at Kedge Business School in Bordeaux; Damian Molino Medina student in the field of mechanical engineering and design in the University of Malaga in Spain, Ona Zatania Lojo also student in design at the University of Barcelona, both are responsible for the

product design and packaging and finally Krzysztof Magin, our sales director, is studying at the Lodz University of Technology.

2. Market study

2.1. Observations

It is often thought that the market for healthy snacks is quite clogged with many players offering general products aimed at a large target through healthy products, good for the body, the mind but also the environment. There are also brands offering very niche products aimed at a target with very specific diets or a lifestyle very focused on nutrition and fitness with a strong need for protein.

Indeed, the healthy snack market is in full expansion with the arrival of new brands, often very specialized.

This market is also expanding thanks to the general increase in living standards. People have maintained much more means to pay attention to what they consume with a willingness to provide a certain quality while being less attentive to the price this making possible the arrival of snacks quite expensive but made with products from a short circuit with complete transparency on the production and the list of ingredients with particular attention to nutritional values (without too much sugar or fat but with a focus on proteins very often) but also the quality of the ingredients offered and their benefits on the body.

Faced with this change of mentality and the way of consuming one could wonder if the market is clogged, if the launch of a new brand would not be a mistake in a market where new small brands emerge frequently and where the chances of not drowning in the middle of them are quite low.

That's why at Good Mood we want to develop a rather unique concept that differentiates us from all these brands. So, we selected four brands close to Good Mood and we analyzed them to understand how different we were from them.

2.2. Competitors

2.2.1. Luna

Luna Bar is a well-known brand in the nutrition bar industry. Luna Bar mainly targets active and health-conscious women with a high standard of living. This orientation towards women as the main target is demonstrated by the use of product specifically chosen according to their nutritional need but also to the needs of their body.

Indeed, the brand uses ingredients of natural origin but also organic allowing a certain quality of the products but also a real source of confidence in them. Their bars are often formulated with vegetable proteins, whole grains, nuts, dried fruits and other nutritious ingredients. In addition, they are generally GMO-free and without artificial ingredients.

One of the strengths of the brand Luna is to offer a wide range of flavors and bars answering quite specific problems allowing to target a wide target of woman. These include energy bars, protein bars, breakfast bars, low calorie bars, etc.

Luna snack bars can be used as a snack for women leading a rather active life because they are often rich in protein and fiber.

In summary, nutritional bars like those of the Luna brand are often chosen to solve problems related to hunger, lack of time, need of energy, lack of nutrient intake and control of portions and calories. Consumers of the brand are looking for efficient products to meet their nutritional needs and are not looking for products that affect their mood.

The target of Luna is quite wide in view of the variety of products it offers far from matching that of Good Mood.

Figure 2 : Chocolate bar by Luna

2.2.2. Good day

Lodz University
of Technology

Good Day is a recognized brand in the chocolate industry. Good Day mainly targets people who care about their health but also about the environment with quality and sustainable ingredients. Indeed, to reach and satisfy its target, Good Day uses high-quality, natural and often organic ingredients to produce quality products for its consumers. Their chocolate bars are often made with cocoa from sustainable sources and other nutritious components, without artificial additives or preservatives.

One of the strengths of the Good Day brand is its wide range of products, responding to specific food preferences and needs, allowing it to reach a wild target. This includes dark chocolates rich in antioxidants, original flavors with quite innovative recipes with nuts, dried fruits and spices. But above all Good Mood differentiates itself by offering products adapted to different diets: gluten-free, lactose-free and many others.

Good Day chocolates are therefore mainly aimed at people looking for a good comforting product without feeling guilty. It is a good product that offers a balance in pleasure and nutrition while not lowering the quality.

In summary, Good Day chocolates are often chosen to meet the desires for high-quality and healthy products, from ethical sources and the preference for natural and nutritious ingredients. Good Day consumers are looking for products that not only satisfy their palate, but also respect their health and sustainability values. Good Day therefore offers tasty products that are not intended to improve mood or improve any problems among its consumers.

Figure 3 : Chocolate bars by Good Day

2.2.3 Hum nutrition

Hum Nutrition is a recognized brand in the field of fitness and nutritional products. Hum Nutrition mainly targets fitness addicts concerned about their appearance, their health but also their diet, with a rather high standard of living. To meet the demand of this target, the brand uses high-quality, natural and often organic ingredients, guaranteeing the effectiveness of the products and strengthening consumer confidence. Their products include vitamins, minerals, superfoods and other healthy ingredients.

One of the strengths of the Hum Nutrition brand is its wide range of products responding to specific needs with ranges very focused on health and beauty, allowing them to reach a diversified clientele. This includes supplements and snacks for skin, hair, nails, digestion, energy and general well-being. The brand does not hesitate to

prove its quality by focusing on scientifically proven formulations and clinically tested ingredients.

Hum Nutrition supplements and snacks can be used by anyone looking to improve their overall health, appearance or well-being. They remain very focused on everything related to diets and as a source of protein or supplement for fitness addicts.

In summary, consumers of the brand are looking for effective products to meet their nutritional needs. even if the target is wide, the products remain quite niche with products very focused on nutrition and a supplement for people with a very active life. Here the mood is not the goal, but the physical result is.

Figure 4 : Chocolate bar by Hum Nutrition

2.2.4 Health Warrior

Health Warrior is a well-known brand in the nutrition product industry focused on products compatible with a sportive diet. Health Warrior has a very specific target: active, sporty and health-conscious people, who are looking for nutritious and practical solutions to support their dynamic lifestyle, especially with a high protein intake. To

satisfy this clientele, the brand uses natural ingredients and superfoods, to ensure consumers a real quality while giving them confidence in the brand, we find chia seeds, nuts, dried fruit in their bars.

One of the strengths of the brand is their wide range of products responding to very specific needs, this allowing them to reach a wide public. Their range includes products such as energy bars, protein bars and snacks based on seeds.

In summary, Health Warrior nutrition bars are often chosen to solve problems related to hunger, lack of time, need for energy, lack of nutrient intake, and portion and calorie control. Consumers of the brand are looking for effective products to meet their nutritional needs and that support an active and healthy lifestyle. The target of Health Warrior, although quite wide, remains very focused on very active people, addicted to fitness in search of products respectful of their lifestyle. This brand focuses mainly on the nutritional side of the products with a desire for results on the physique of its consumers and not on their mood.

Figure 5 : Chocolate bar by Health Warrior

2.3. Good Mood, a unique brand

After this analysis of the market and competitors we can therefore conclude that Good Mood has its full place in the market since the brand offers a unique product with a target that does not yet have this kind of product at its disposal.

Indeed, by offering products with a real impact on the mood, Good Mood acts as a real pioneer on the market. Its strength is to prepare products with ingredients specially chosen to act on the mood, and to counter three problems specific to our target: fatigue, stress and lack of concentration. But its impact on mood is not the only strength of the brand. Indeed, most competitors make available to their customers products focusing on the nutritional aspect that very often comes before the taste. At good mood, we don't offer a product based only on its nutritional aspect, we want a product that remains certain healthy for our consumers, but we want above all a product guilty-free with particular attention paid to the taste of the product so that its taste is already a source of good mood.

In short, the strength of Good Mood remains the fact that it targets a very broad target with needs that are still not met with healthy and tasty products.

2.4. Brand positioning

Although the potential competitors of Good Mood are quite far in terms of target and proposed product, we have nevertheless established the positioning of the brand in

the market. We remark that the positioning of Good Mood is very interesting and promising.

Figure 6 : Good mood and competitors positioning

3. "Good Mood" box

3.1. Questionnaire and goals

To perfectly match our product to the expectations of people with a profile similar to our target, we created a questionnaire. This questionnaire consisted of 6 questions (cf. Appendice 10.1 - Questionnaire) to determine the type of product we should create according to the preferences of the sample questioned. This questionnaire also enabled us to identify the most important aspects of a product according to this same sample. We shared our questionnaire to people from 20 to 50 years old in Spain and

France. We had 118 answers, which were a good beginning for us to think about our produce proposal.

The results of this questionnaire are: among the questioned people, 37,5% are employees and 34,4% are executives. Most of the people feel stressed at work or suffer from fatigue and lack of concentration. Indeed, 85% of the questioned employees and 91% of the questioned executives feel at least one of these three problems. Then, the questionnaire showed us that the questioned people prefer 3 kind of products: chocolate bar, smoothie and snack. Finally, the three most important things for people in a product are firstly the taste, secondly the quality and thirdly the price.

Thanks to these results and the answers, we thought about a proposal that meets the expectations of our target, the needs of the market and of our brand values and image. That's why we chose to propose a box of chocolate bars with different attributes.

3.2. Recipes of the chocolate bars

We chose the name of "Good Mood box" for our box which contains 4 kind of chocolate bars. Our box fights stress, fatigue, lack of concentration and aims to give you a good mood. We chose 4 different recipes for a variety of pleasures and tastes (cf. Appendice 10.2 – Details of proportions for each recipe)

3.2.1. Zen bar

The first chocolate bar is the “Zen bar” which helps to fight stress. When we feel stress our need for certain nutrients increases. In this case, we need magnesium, vitamins C and B, iron and omega 3. Magnesium helps combat stress and boost energy. It also improves nervous, psychic and emotional balance. B vitamins (notably B6, B9 and B12) help produce antidepressant hormones such as dopamine and norepinephrine. Finally, numerous scientific studies have demonstrated the anti-depressant action of omega-3s. In this sense, the best anti-stress foods would be salmon, eggs, dairy products, wholegrain cereals, spinach, garlic, avocado, dried fruit or small berries, honey, chocolate, black tea, herbal teas, brewer's yeast and oils.

For our chocolate bars, we obviously chose dark chocolate, for the good flavor and because it is very rich in magnesium, contains flavonoids and phenylethylamine (an alkaloid found in certain morphine which is the precursor of serotonin, the hormone that regulates our mood). The are almonds, lavender and puffed rice. Almonds are rich in unsaturated fats and vitamin E. They also provide various other micronutrients, such as calcium, magnesium, selenium, copper, manganese and vitamin B9. All these nutrients combine to give it multiple virtues, such as its contribution to micronutrient intake and the fight against oxidative stress, as well as its appetite-suppressant properties. Then, lavender has soothing and relaxing properties. It helps to reduce anxiety and to promote sleep. Finally, we chose puffed rice to add a crispy texture to our bar and for its low fat and kcal content.

The consumers could appreciate our bar due to the very tasty chocolate, the slight sour flavor, the sweet flavor of lavender and the nice crunch.

3.2.2. Revive bar

The “Revive bar” is the chocolate bar of the box which contribute to fight fatigue. Fatigue can be caused by certain nutrient deficiencies. Deficiencies in iron, vitamins (A, B, C, D), magnesium, calcium and zinc. Several types of food would be considered anti-fatigue foods, such as bananas (rich in magnesium and tryptophan), apples (which contain malic acid), citrus fruits (full of vitamin C), green vegetables (packed with magnesium and vitamins A, C and E), pumpkin seeds (source of magnesium), dark chocolate, salmon, trout and eggs.

For this chocolate bar we chose again dark chocolate for its many virtues, which we have already mentioned. Indeed, magnesium is very good against stress and fatigue. We also chose to add cranberries to add a new kind of texture to our bars, but also for their benefits. Cranberries are rich in antioxidants (notably flavonoids and polyphenols) which help prevent age-related diseases. Cranberries also contain vitamins (C and E) and minerals that boost the immune system. Then, we've added flax seeds to our recipe. Flax seeds are a valuable source of minerals, essential fatty acids and vitamins. Vitamins include B1 (thiamine), B2, B3, B5, B6 and E. Important minerals such as calcium, iron, zinc, potassium, selenium, magnesium and manganese can also be found in flaxseed. Finally, this ingredient is also rich in omega 3. For the visual appeal of our chocolate bar and its benefits, we chose to add orange peel. According to Ysidor N'GUESSAN Konan, who wrote a report on “Mineral components of orange

peels", zests are rich in potassium and calcium. According to other sources, the main nutrient in orange peel is vitamin C. Finally, as the first bar, we chose puffed rice for texture et benefits.

The consumers could appreciate this bar due to the nice flavor, the intense smell, the fresh taste and for the moderate crunch. This is also the only one bar without nuts for those who doesn't like or because of allergens.

3.2.3. Power boost

The "Power Boost" bar is giving you some boost, some energy. The nutrients you need to eat for an energy boost are carbohydrates, proteins, lipids, B vitamins and iron. Foods to encourage are wholegrain cereals, goji berries, acerola, dried fruit, nuts, bananas, cocoa, avocado...

For this bar we chose milk chocolate which stimulates the release of endorphins thanks to the combination of fat and sugar. Milk chocolate contains also micronutrients such as calcium, phosphorus and vitamin D. Moreover, we chose hazelnuts as an ingredient, as they are rich in vitamin E and oleic acid. They also contain numerous vitamins such as B1, B5, B6 and B9, as well as minerals and trace elements such as manganese, copper, iron and magnesium. Hazelnuts are rich in healthy fats and magnesium to fight muscle fatigue and regulate blood sugars levels. Little known in Europe, we decided to add ashwagandha, a plant with many benefits. Ashwagandha

contains flavonoids (antioxidants), phenolic acids (gallic, palmitic, oleic, vanillic, coumaric, linoleic, benzoic and syringic acids) and fatty acids. This Indian plant also contains alkaloids, catechins, steroidal lactones (including withaferin A) and kaempferol. This plant is said to have neuroprotective, anti-inflammatory and antioxidant effects, and to reduce stress and anxiety. Ashwagandha is also very interesting to consume before sports training as a booster to improve physical performance and concentration. Then, the extract of vanilla in the bar adds a sweet and pleasant flavor while it's low in calories, a source of antioxidant phenols, promotes digestive well-being and has aphrodisiac virtues. Finally, as the other bar, we add puffed rice for texture and pleasure.

To vary the pleasures, we have chosen milk chocolate, and the consumers could appreciate this bar due to the very mild aroma and taste and for the nice crunch.

3.2.4. Focus vision

Finally, our last chocolate bar is the box is the “Focus Vision” which aims to help people to concentrate more. Foods that are good for memory and concentration are nutrient-rich and low in fat and poor-quality sugars. The best nutrients for memory and concentration are vitamins B, C and E, zinc, magnesium and omega-3. The best foods for memory and concentration are oily fish (rich in omega-3 and fatty acids), oleaginous nuts such as hazelnuts, walnuts, almonds and cashews (concentrates of good fats, fiber, calcium, magnesium and vitamin E), legumes (source of

carbohydrates, proteins and vitamins B6 and B9, zinc...), red fruits (antioxidants, anti-inflammatory) and dark chocolate.

For this bar, we chose white chocolate, an ideal ingredient for pastries and desserts. It is rich in calcium and phosphorus. White chocolate is not made from cocoa like milk and dark chocolate, but from cocoa butter, so it does not have all the virtues of chocolate. However, consumed occasionally and in moderation, white chocolate is, except in special cases, a pleasure food that is not harmful to health. Even so, cocoa butter contains benefits such as stearic fatty acid, which has anticoagulant and cardiovascular preventive effects, oleic acid and antioxidants. White chocolate also contains vitamins A, B, C and D, calcium, magnesium, potassium, sodium and iron. In this recipe, we chose almonds, for its many virtues already mentioned and puffed rice. Our final ingredient, on trend these days and a real treat for the taste buds, is matcha. Matcha contains not only caffeine, amino acids and antioxidants, and vitamins such as A, B1, B2, B6, E, C and K. But it also contains important minerals such as calcium, iron, potassium, zinc and copper.

Finally, people could appreciate the large choice of chocolate with this last one because in the Good Mood box you can find the three types of chocolate. Consumers could also appreciate leafy aroma and flavor, it’s very pleasant bar to eat, it’s sweet and crunchy.

3.3. Nutritive values and allergens

Under European Union legislation, “pre-packaged foodstuffs sold in the EU must bear a label informing consumers of their energy and nutrient content”, which is why we have calculated the nutritional tables for each chocolate bar (cf. Appendice 10.3 – Nutritive tabs)

3.3.1. Zen bar

Nutritive Tab		
	for 100g	for 20g
Energy value	2169 kJ / 519 kcal	434 kJ / 104 kcal
Fat	33 g	6,6 g
Carbohydrates	36,7 g	7,3 g
Fiber	11,7 g	2,3 g
Protein	12,8 g	2,6 g

Figure 7 : Nutritive tab of Zen Bar

For Zen Bar, the nutritional table below indicates that this bar is rich in fiber because there is more than 6g of fiber for 100g. So, we can add on the packaging of this bar the claim “rich in fiber”.

About allergens, you will find an important allergen which is nuts.

3.3.2. Revive bar

Nutritive Tab		
	for 100g	for 34g
Energy value	1784 kJ / 427 kcal	607 kJ / 145 kcal

Fat	18,6 g	3,72 g
Carbohydrates	51,8 g	10,36 g
Fiber	11 g	2,2 g
Protein	23 g	4,6 g

Figure 8 : Nutritive tab of Revive Bar

For Revive Bar, the nutritional table below indicates that this bar is rich in fiber. So, we can add on the packaging of this bar the claim “rich in fiber”.

About allergens, there is no important allergen to write on the back of the packaging, but we can write that it mays contain traces of nuts.

3.3.3. Power boost

Nutritive Tab		
	for 100g	for 22g
Energy value	2330 kJ / 557 kcal	513 kJ / 123 kcal
Fat	35,1 g	7,7 g
Carbohydrates	49,5 g	10,9 g
Fiber	5,1 g	1,1 g
Protein	8,4 g	1,8 g

Figure 9 : Nutritive tab of Power Boost

For Power Boost, the nutritional table below indicates that this bar is a source of fiber because there is more than 3g of fiber in 100g (but not enough fiber to be

claimed as rich in fiber). So, we can add on the packaging of this bar the claim “source of fiber”

About allergens, you will find important allergens which are nuts and milk.

3.3.4. Focus vision

Nutritive Tab		
	for 100g	for 20g
Energy value	2167 kJ / 518 kcal	477 kJ / 114 kcal
Fat	27,8 g	6,1 g
Carbohydrates	56,1 g	12,3 g
Fiber	3,3 g	0,7 g
Protein	8,5 g	1,9 g

Figure 10 : Nutritive tab of Focus Vision

For Focus Vision, the nutritional table below indicates that this bar is a source of fiber. So, we can add on the packaging of this bar the claim “source of fiber”

About allergens, you will find an important allergen which is nuts.

3.4. Addiction

According to the book of Carolyn Coker Ross, “The Food Addiction Recovery Workbook : How to Manage Cravings, Reduce Stress, and Stop Hating Your Body », the food addiction is a “process addiction”. People may be addicted to behaviors rather than substances (compared to alcohol and drugs which are dependance to substances). These substance addictions are chronic with numerous relapses. If a

person is addicted to a food but doesn't have any on hand, he or she may feel frustrated, angry or sad. Food addiction would begin as a way to manage stress or unpleasant feelings. When people feel bad or stressed, food is a mean to have a fast pleasure and in this way people may be addicted to some food. But, according to Carolyn Coker Ross, it’s not the food itself the problem but the use of food.

For our Good Mood box, the major risk of addiction is chocolate addiction. If we refer to the research paper volume 4 “Self-compassion, well-being and chocolate addiction” of the “Romanian journal of cognitive behavioral therapy and hypnosis”, the need to consume chocolate comes from alimentary deficits such as the necessity to increase the level of magnesium or to balance levels of neurotransmitters involved in regulating disposition, alimentary indigestion and compulsive behaviors. Chocolate addiction is triggered by dopamine, the addiction hormone. The greater a person's sensitivity to dopamine, the more likely they are to become addicted.

Nevertheless, if chocolate consumption remains moderate on a daily basis, it is possible to enjoy its virtues without falling into addiction and without having a negative impact on health. We recommend eating two squares of chocolate a day (10g for women) and four squares a day (20g for men). However, consumption remains healthy as long as you don't exceed 30g of chocolate a day. Our chocolate bars contain between 14g and 16g of chocolate, which is enough to keep a person from becoming addicted, as long as they don't eat more than one bar a day. Moreover, the satiety provided by some of our ingredients (such as almonds, hazelnuts or puffed rice) helps curb the urge to eat more, so you don't overindulge in chocolate.

4. Brand identity

Brand image is very important for the company's success. It shapes the company's identity, reflecting its values and resonating with consumers. A strong brand image builds trust and loyalty in customers. It also sets the company apart in a crowded market, helping to attract and retain customers. Investing in developing and maintaining a strong brand image should be a top priority for any company aiming for long-term success.

4.1. Mission and values

The team’s mission is to make our customers happier with healthy and mood-enhancing products, thanks to ingredients specifically chosen to limit mood-related problems.

Regarding our values as a team, we feel reflected in the following:

Customer Happiness

- We focus on making our customers happy with products that improve their mood and well-being.

- We are committed to understanding and meeting our customers' needs.

Scientific Integrity

- We choose ingredients based on the latest scientific research.

- We are transparent about what's in our products and how they work.

Innovation

- We continuously improve our products based on new health and nutrition discoveries.

- We welcome new ideas and creative solutions to make our products better.

Sustainability

- We source our ingredients in a way that is good for the environment and fair to communities.

- We aim to reduce our environmental impact through sustainable practices.

4.2. Logo

The team created a new logo designed specifically to capture the essence of our company. In our team, we have created a vibrant and fresh design based on the words "GOOD MOOD," which not only represent the name of our company but also the feeling we aim to inspire in our customers.

Our logo also carries with it our slogan "Food for Better Mood." We want our customers to associate our brand with foods that not only satisfy the palate but also uplift their mood and make them feel good from the inside out.

The team has dedicated ourselves to make sure that our logo is easy to read, yet also eye-catching and appealing. We believe that the combination of fresh colors and clear typography makes our logo stand out in any context, from the packaging of our products to our presence on social media.

Figure 11 : Logo for Green Mood

During the development of the logo, the team chose a lightning bolt for it. The lightning bolt stands for energy, power, and new ideas. It shows our drive to deliver strong results and our innovative mindset.

For the text, we picked two fonts: Magnerica Ultra and Spud Bold. Magnerica Ultra looks strong and confident while Spud Bold is modern and sleek,. These fonts work well together, making sure our brand name stands out clearly.

We chose green and magenta for our colors because they look good together. Green represents growth, freshness, and stability, showing our focus on reliable and

sustainable solutions. Magenta adds a lively and creative touch, showing our enthusiasm and creativity. This mix of colors not only makes our logo look attractive but also shows our brand's dynamic and balanced nature.

Figure 12 : Color palette of Green Mood

5. Packaging

5.1. Product

When designing the packaging for our pack of 4 bars, it's important to start by really knowing the bars, who we're making them for, and what's out there in the market.

5.1.1. Knowing the bars

After testing the recipe and finalizing the product, we now have bars that measure 20 cm by 10 cm and weight between 24 and 43 grams. The packaging needs to match the size and weight of the bars, making sure they are protected and look good. It should be strong enough to keep the bars fresh and safe during shipping and handling.

We will also think about the design of the packaging, using colors, pictures, and our brand's logo to make it look attractive. Clear labels with information about the ingredients and nutrition will be important so that customers can easily see the details.

By designing the packaging to fit the bars' size and weight, we can make sure the product looks great and gives customers a good experience.

5.1.2. Competition

To make sure our packaging stands out, the team checked how other brands package their bars. This helps us see what's popular and what's missing in the market.

Figure 13 : Packaging of our competitor Luna

Figure 14 : Packaging of our competitor Good Day

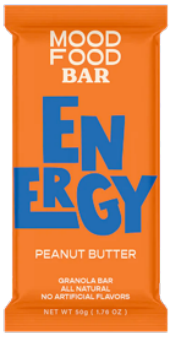

Figure 15 : Packaging of our competitor Hum Nutrition

Snack bar packaging is usually very colorful and easy to read. The bright colors and clear letters make the bars stand out. A very important point is that the packaging includes labels with the most important nutritional information about the bar, which helps people know what they are eating.

5.1.3. Normative

Making sure our packaging follows all the rules about what needs to be written on it is very important, for example what's inside the bars and if there are any allergens. From a marketing standpoint, stickers and certificates about what's in the bar and where it comes from are also really important. They help people trust the snack and understand what's in it. By showing these details, snack bar brands make sure they're being honest with their customers. Plus, having these certifications can make the snack bar stand out from others, showing its high quality and meets certain standards.

After working with a specialist to study our snack bars, the team has decided to add new labels to our packaging. These labels will show that our bars are part of a healthy

diet, are rich in fiber, and that our dark chocolate bars are high in antioxidants. Additionally, we will add a label to alert customers about the presence of nut allergens, as well as a label indicating that the packaging is eco-friendly and recyclable.

Adding these labels will help our customers understand the health benefits of our products. The "healthy diet" label will let people know that our bars can be included in their daily diet. The "rich in fiber" label points out that our bars are good for digestion. The "high in antioxidants" label on our dark chocolate bars will show that they help protect cells from damage. The "nut allergen" label will warn customers with nut allergies to be cautious. The "eco-friendly and recyclable" label will inform customers that our packaging is environmentally friendly and can be recycled.

These new labels show our commitment to being honest, providing nutritious options, and caring for the environment. We believe that by clearly showing these benefits and warnings, we can help our customers make better and safer choices about their snacks while also supporting eco-friendly practices.

5.2. Proposal

After looking closely at the product and what it needs, our team got together to think up different packaging ideas. We wanted to make sure the packaging met all the requirements. So, we talked about lots of options and tried to come up with creative

solutions. Our goal is to find packaging that not only keeps the product safe but also looks good and feels right for the people who will buy it.

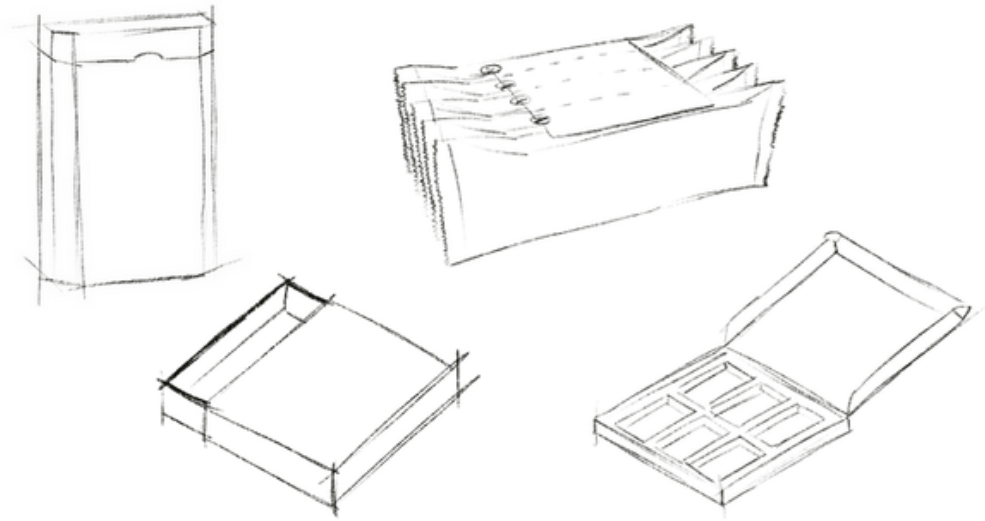

Figure 16 : Drawing of our packaging ideas

5.3. Final choice

After debating the options, the team chose a box with the style of a matchbox but bigger to fit the 4 bars for a few reasons. First off, this style is eye-catching and unique, standing out on the shelf among other products. Moreover, it's very practical, the slide-out design makes it easy for customers to access each bar without any trouble and being able to close it and keep the bars the customer didn't eat inside. Additionally, this type of box offers great protection for the bars, keeping them safe from damage or breakage during transportation. Also, the rectangular shape of the box makes it

easy to transport and storage. Finally, it can be produced with environmentally friendly materials.

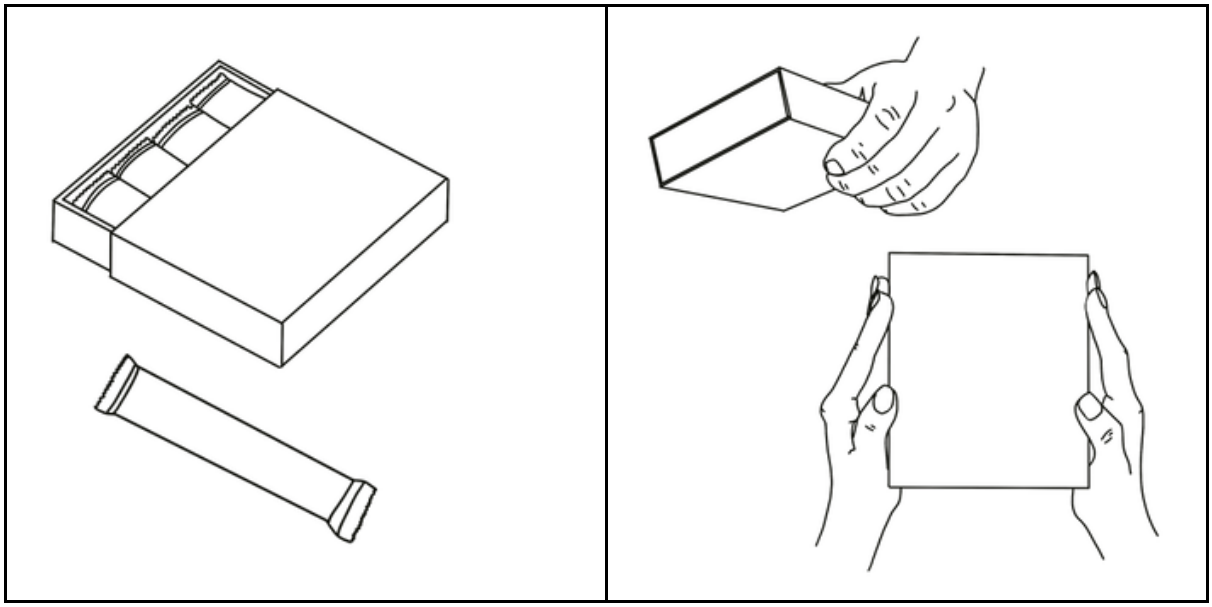

Figure 17 : Drawings of our final choice for the packaging

5.4. Materials

Choosing the right packaging material is very important for protecting products, reducing environmental impact, and managing costs. As companies face stricter environmental rules and more consumers want eco-friendly products, picking the best packaging material has become a crucial decision.

5.4.1. Bar packaging material

Packaging is very important for chocolate bars. The right packaging keeps the chocolate fresh, retains its flavor, and protects it from heat and moisture. Good

packaging also prevents the chocolate from getting damaged during shipping, so it arrives in perfect condition. Attractive packaging can catch the customer's eye and provide useful information like ingredients and nutrition facts. As more people care about the environment, choosing eco-friendly packaging helps improve the brand's image and meets the demand for sustainable products. Because of this mater, the team will consider the following properties:

- Source: The origin of the material, including whether it is made from renewable or non-renewable resources.
- Biodegradability: How easily the material breaks down in the environment, contributing to less waste and pollution.
- Properties: The characteristics of the material, such as strength, flexibility, and resistance to moisture or impact.
- Applications: The suitability of the material for different types of products and uses, ensuring the right fit for each specific need.
- General Cost Ranking: The overall cost of the material, including production, transportation, and disposal, to ensure economic viability.

5.4.1.1. Plastics comparative

Bio-based Plastic	Source	Biodegradability	Properties	Applications	General Cost Ranking

Polylactic Acid (PLA)	Corn, sugarcane	Biodegradable	Transparent, good barrier properties	Packaging, disposable tableware, 3D printing	2nd (Moderate)
Polyhydroxyalkanoates (PHA)	Bacterial fermentation	Biodegradable	Tailorable properties, good barrier	Packaging, medical devices, agriculture	3rd (Moderate to High)
Polyethylene Furanoate (PEF)	Plant sugars (corn)	Potentially biodegradable	Excellent barrier properties, durable	Beverage bottles, packaging	4th (Moderate to High)
Polybutylene Succinate (PBS)	Succinic acid (renewable)	Biodegradable	Good mechanical properties, heat resistance	Packaging films, compost bags, cutlery	Moderate to High
Starch-Based Plastics	Corn, potatoes, wheat	Biodegradable	Variable mechanical strength, good oxygen barrier	Packaging, disposable cutlery, mulch films	1st (Lowest)
Cellulose-Based Plastics	Wood pulp, cotton	Biodegradable	Good mechanical properties, moisture resistance	Coatings, films, textiles	Moderate to High
Polyglycolic Acid (PGA)	Glycolic acid	Biodegradable	High strength, excellent gas barrier	Medical sutures, tissue engineering	High

Figure 18 : Plastics comparative for bar packaging

5.4.1.2. Plastic choice

Finally, the team chose starch-based plastic after looking at its impact on the environment, how it performs, how much it costs, and how it fits with our goals for sustainability.

Starch-based plastics come from renewable sources like corn and potatoes, helping us use less fossil fuel and reduce our carbon footprint. They are biodegradable, so our packaging will break down more easily and not pollute the environment long-term.

Unlike regular plastics, starch-based plastics decompose more quickly in composting conditions. This helps us reduce our environmental impact and support recycling processes.

Starch-based plastics are good for packaging our bars because they protect against oxygen and moisture, keeping our products fresh. New advancements have made them stronger and more functional for food packaging.

Starch-based plastics are one of the most affordable biobased options. Their low cost helps us stay committed to sustainability without spending too much, letting us offer eco-friendly packaging at a competitive price.

Using starch-based plastic also makes our brand more appealing to environmentally conscious customers, showing we care about sustainability. This can boost customer loyalty and satisfaction.

5.4.2. Box packaging material

When it comes to packaging chocolate bars, one of the key concerns is ensuring their safe transportation from the manufacturer to the consumer. This journey involves various challenges, including potential damage from bumps, temperature fluctuations, and exposure to light and moisture. Also, eye-catching packaging can grab the attention of customers and offer valuable details such as ingredients and nutritional information. Given this importance, the team will take into account the following characteristics:

When studying a packaging material, several properties are crucial to consider for its suitability:

- Strength: Material's ability to withstand external forces without deforming or breaking.
- Weight: Balancing strength with weight is essential to ensure cost-effectiveness in transportation and handling, while also minimizing environmental impact.
- Durability: Durable materials ensure that the packaging remains intact throughout the distribution chain, preventing damage to the contents.
- Cost: The overall expense of the material, including production, transportation, and disposal costs.
- Protection Level: The packaging's ability to shield its contents from external factors such as moisture, light, temperature, and impact.

- Customization: The flexibility of the material in terms of shape, size, and printing options.
- Recyclability: A material's ability to be recycled and reintegrated into the production cycle.
- Environmental Impact: Assessing the material's overall ecological footprint, including its sourcing, production process, and disposal.
- Common Uses: Understanding the typical applications and industries where the material is utilized.

5.4.2.1. Box material comparative

Material	Cardboard	Corrugated Cardboard	Plastic
Strength	Moderate	High	High
Weight	Light	Light to moderate	Light to moderate
Durability	Moderate	High	High
Cost	Low	Moderate	Moderate
Protection Level	Basic	Good	Good

Customization	High	High	High
Recyclability	High	High	Moderate
Environmental Impact	Low	Low	Moderate
Common Uses	Retail packaging, lightweight items	Shipping boxes, storage, heavier items	Storage, food containers, industrial applications

Figure 19 : Materiel comparatives for box packaging

5.4.2.2. Box packaging choice

Finally, the team selected cardboard for our packaging because it is affordable, easy to customize, and good for the environment. Cardboard helps us keep costs low, so we can offer better prices to our customers.

We can easily shape and design cardboard to fit our products perfectly and make them look nice. It is also recyclable and biodegradable, which is important for our goal to be eco-friendly.

Cardboard is lightweight, which lowers shipping costs and makes handling easier. Plus, it is widely available, so we can always get more when we need it.

In summary, cardboard is a cost-effective, customizable, and eco-friendly packaging option that meets our needs and supports our commitment to sustainability.

5.5. Graphic design

To successfully complete the packaging, the team has developed a comprehensive graphic design. Our process began with drawing the base structure of the packaging.

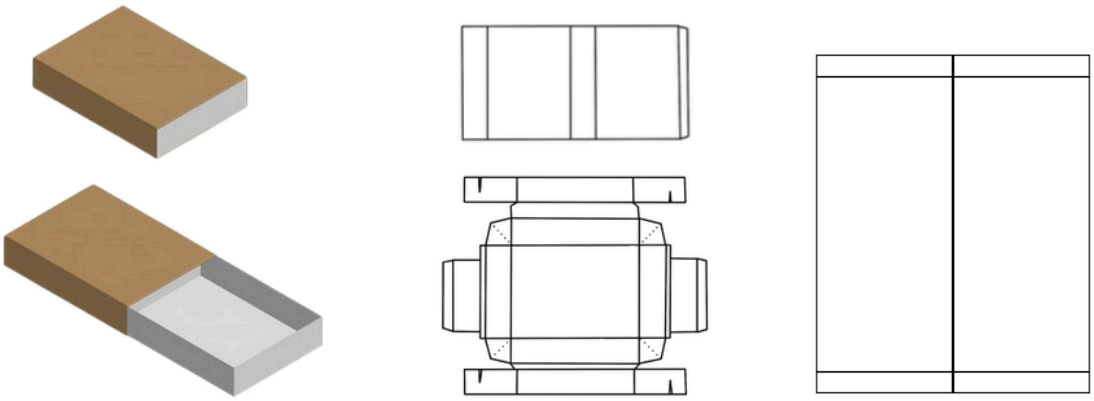

Figure 20 : Drawing of the final design of the packaging

From this foundational step, we proceeded to work on both the artistic and technical aspects. Artistically, we focused on designing an appealing and eye-catching front for the box. Technically, we ensured that all necessary elements were incorporated to accurately and clearly present the required information. This thorough approach allowed us to create a packaging design that is both visually attractive and functionally informative.

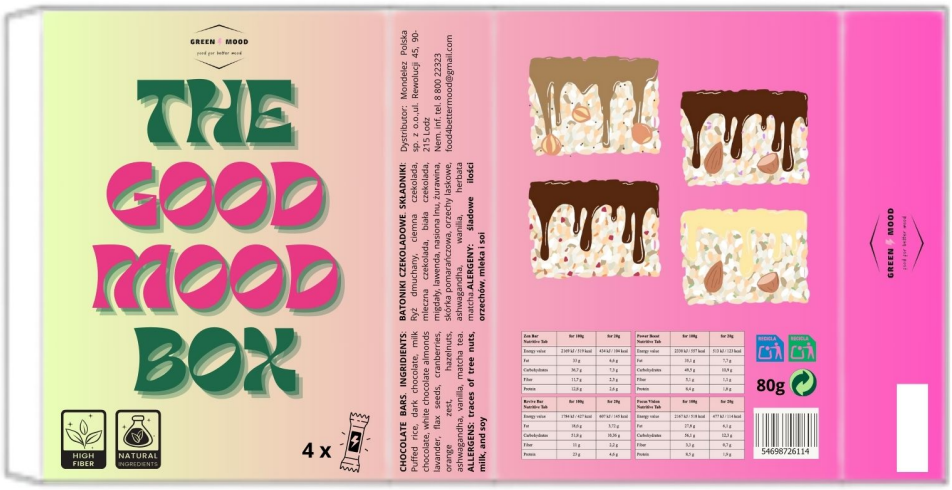

Figure 21 : Final look of the Good Mood box

Figure 222 : Final look of the bar packaging

The team has focused especially on the following aspects:

- We made sure the name of the bars is easy to see and looks exciting.
- We added clear messages to tell you valuable information about the bars, like that they are rich in fiber and made with natural ingredients.
- Our logo is on the packaging several times, so it is easily recognizable.
- On the back, we show graphicly how each bar looks like.
- We listed all the ingredients we used to make the bars and advertised allergens.
- We indicate how to recycle the packaging so we can help the environment.

With all this information, we hope our packaging helps understand our energy bars better and makes customers excited to try them.

6. Marketing plan

6.1. The product

First, in order to properly promote our product, we must define it. Our box is:

- A product to combat common problems in our target group: fatigue, lack of concentration and energy and stress
- A tasty product with tastes that are varied enough to create a really good experience.
- A product for everyone, this product is not just for our target audience but for all curious consumers looking for tasty, effective and healthy products.

So we conclude that our target is very broad that is interesting for our launch campaign.

6.2. Arch Story (360°)

In order to ensure a good launch, we must think of all the communication axes that we can within all the business lines related to the launch.

6.2.1. Shooting

Before any campaign we need attractive visuals of our product. It is important to carry out two kinds of shooting: first, a studio shooting before having very clear shots of the product as such and its packaging in order to be able to use it on any website

or during visual editing. Finally, we need "lifestyle" photos of our product in use, for example a person crunching our bar. This person must match our target without falling into the cliché. We can also take pictures of the product with its raw ingredients in order to attract the consumer on what is important and attractive in our products, either their composition for the taste aspect or for their benefit.

6.2.2. Press relations

Contacting paper and digital media that can reach our target audience, sends our products so that they can test them in order to write an article corresponding to our products

6.2.3. Event and influence

Event of launch of our product with food influencers in order to promote our brand and our product but also to meet these people with whom we could be led to work.

Organization of a wild distribution of product in a strategic place: in front of a business district or a metro station with a large number of offices around during the lunch break to post our products directly to our target accompanied by an explanatory flyer of the brand and a promotional code to push them to purchase

Participation in podcasts with food influencers or nutritionists to highlight our products and present them to a target concerned by these topics.

6.2.4. Social networks

Our campaign focuses on two topics: the informative side and the good mood side.

Firstly, the information side will allow us to really defend our products by explaining very clearly their composition and how interesting they are for the consumer. We must highlight the products used while detailing their benefits to make consumers want to consume products containing this type of ingredient but especially so that they recognize that they need to consume more of this type of product.

Finally, our bar is there to bring a better mood to our consumers, and we must also bring a touch of humor to our campaigns: use of funny slogan, use of meme or photos and cult videos to mark the mind of the consumer by making him feel a certain emotion in front of our visuals

7. Commercialization plan

In this chapter we would like to outline the strategy to launch and market a new line of chocolate bars called Green Mood. First we had to perform a market analysis.

7.1. Market overview

Poland is a growing market for food products with function extending beyond the basic nutrition. Polish people are starting to be more and more conscious about the food they consume and its impact on human's body. Polish market has a high consumption of chocolate products preferably the ones that are innovative and premium.

7.2. Target audience

Our target group are health-conscious working people aged 30 to 50 that are exposed to high levels of stress in their work environment. In the future our company can increase the scope of the audience beyond that target group and work on products more suitable for younger audience.

7.3. Competitive landscape

In Polish market there are a lot of major, well established company offering chocolate products. However, their products are not created with the aim of improving the health or mood of the customer. There are some smaller companies offering bars with other goals for example provide more protein, but there are none offering food to improve the mood of the customers.

7.4. Product positioning

We want our bars to be premium products with scientifically proofed recopies and ingredients to enhance mood, therefore will be using only high-quality natural ingredients without any artificial additives. The packaging will highlight the benefits of our product and appeal to health-conscious customers.

7.5. Sales and distribution

We want our products to be available mainly in Żabka stores, but also sold at the workplaces of our customers. This way we can make our products fast and easy to buy. When our products are that easily accessible, they can be advertised as a healthy alternative to for example nicotine or energy drinks.

Another way of selling or products can be cooperation with health food stores where our product can be seen by people already caring about the food they consume.

We also plan to sell our products on our company website. With this method we can offer subscriptions, discounts and loyalty programs to encourage repeat customers and maximize the earnings due to reduced number of distributors.

7.6. Pricing

Our bars will be priced as a premium product due to the added health benefits they give to the customers, therefore they will be a bit more expensive then the standard bars available in the shops. We estimated the cost of the ingredients for the 4 bars included in the good mood box. The cost of buying the ingredients in the popular supermarket store is 9,36 PLN (cf. Appendice 10.4 – Cost of ingredients) to which we

applied a factor of 0,7 as we will be buying the ingredients in bulk, therefore we expect the total cost of ingredients to be 6,55 PLN per box. To this cost we have to add the costs of packaging, transportation, distribution and overhead costs including manufacturing overheads, marketing and administrative costs. We estimated the cost of packaging and transportation to be around 4 PLN. This adds up to 10,55 PLN to which we added 20 % of the overhead costs so the total cost for creation of the good mood box will be about 12,66 PLN. We also have to account the margin for the distributors, however it can be omitted when selling on our website.

We are planning to set a price tag of 25 PLN for 4 bars included in the good mood box. This price may seem high comparing to normal bars offered in shops, but comparing to other bars giving additional nutrition values for example the protein bar that can cost even more than 10 PLN the price is reasonable.

7.7. Operational plan

We will be using only high-quality ingredients from well-established, reputable suppliers. We will partner with local manufacturers to ensure usage of local, eco-friendly ingredients. We are also planning to Implement a quality control system to ensure the quality and consistency of the bars.

In terms of logistics, we will collaborate with third party logistics companies to ensure nation or in the future Europe wide coverage. This way we can ensure quality, on-time transportation without creating and maintaining our own fleet of transportation vehicles which would greatly increase the cost of starting the business.

7.8. Risk management

The chocolate market both in Poland and in the rest of Europe is quite saturated, therefore in order to achieve success we have to focus our marketing strategy to encourage customers that care about the quality and impact of the food they buy.

We are planning on diversifying the suppliers base to mitigate the supply chain risks and possible disruptions in the production process.

7.9. Conclusions of the commercialization plan

Mood-enhancing chocolate bars present a unique, promising opportunity to fill the gap in the chocolate market. The demand for functional food is constantly growing therefore by establishing a successful marketing campaign and a strong, constant and failure free supply chain we can maximize our earning and greatly improve the well-being of our customer base. There is also a potential to widen our customer base beyond working people aged 30 to 50 years old for example provide products for students or school children that are particularly keen on sweets.

8. Conclusion

In conclusion, the commercialization plan for our mood-enhancing chocolate bars indicates a positive opportunity to capture the market for functional foods and the growing consumer interest in products that positively impact their welfare. With the help of an effective marketing strategy and a proper supply chain management, not only we plan to achieve the highest possible levels of profitability, but also to enhance, to a great extent, the quality of life of the target customer audience. Starting with the health-conscious and working population in the age bracket of 25-50 years who are exposed to high levels of stress, we can create a market niche for ourselves.

When analyzing the competition, we found a niche that was not covered: while the

large firms are selling chocolates and related products, none of them is focusing on the mood enhancement aspect. Thus, placing our bars as the products of superior quality with the scientifically backed recipes and natural ingredients, we can open up a niche market among the people who are concerned about their health and looking for the ways to enhance their mood.

As for sales and distribution, our main plan is to sell the product mainly through Żabka stores and workplaces, as this would allow the consumers to access the product easily. Further, marketing through health food stores and through our company website for online sales will provide extra opportunities to reach out different customer segments.

As for the packaging, following discussions and debates, our group has opted for a matchbox-type pack that will house the four bars. This choice is functional, protective, and environmentally friendly, allowing consumers to have a distinctive pattern they find appealing.

In the future, our major concern will be to implement the marketing and distribution plan to the best of our ability and to constantly assess market changes and customer reaction in order to make needed adjustments and successfully operate in the highly saturated chocolate business.

9. References

PUT REFERENCES IN ALPHABETICAL ORDER (wip)

Autorin Laura. (n.d.). *European project semester*. European Project Semester | International Cooperation Centre. https://cwm.p.lodz.pl/en/international-candidates/exchange-students/european-project-semester

Bio&Co. (2023, May 19). *10 Aliments énergétiques pour garder La Forme*. https://www.bioandco.bio/10-aliments-energetiques-pour-garder-la-forme/#:~:text=Amandes%2C%20noix%2C%20noisettes%2C%20figues,de%20v%C3%A9ritables%20concentr%C3%A9s%20d'%C3%A9nergie

Bradt, S. (2019, May 2). *Wandering mind not a happy mind*. Harvard Gazette. https://news.harvard.edu/gazette/story/2010/11/wandering-mind-not-a-happy-mind/

Burtinovic, N. (2023, April 6). *Les 5 aliments phares pour booster SES Capacités Intellectuelles*. Chefsquare. https://chefsquare.fr/blog/post/5-aliments-phares-pour-booster-ses-capacites-intellectuelles

Compagnie des sens. *QUELS SONT LES RÉELS BIENFAITS DES AMANDES POUR LA SANTÉ ?*. La Compagnie des Sens. https://www.compagnie-des-sens.fr/amandes/#:~:text=Son%20profil%20nutritionnel%20est%20typique,ou%20encore%20la%20vitamine%20B9

David Vanille. (2024, May 9). *Baies de Cranberry (Canneberge): Bienfaits, utilisations, Recettes*. https://www.davidvanille.com/fr/fruits-secs-et-graines/579-baies-de-cranberry-sechees-canneberges.html

Doridot, J.-F. (n.d.). Près d'un français sur Deux Souffre de la fatigue | Ipsos. https://www.ipsos.com/fr-fr/pres-dun-francais-sur-deux-souffre-de-la-fatigue

Fladung, J. (2020, April 9). *Thé matcha - ingrédients*. Matcha Kāru. https://matcha-karu.com/fr/blogs/le-blog-du-the-vert-tout-sur-le-matcha-le-the-vert-et-la-culture-du-the/the-matcha-ingredients#:~:text=Le%20matcha%20contient%20non%20seulement,le%20zinc%20et%20le%20cuivre.

Journée mondiale. (n.d.). *Les 8 meilleurs aliments anti-fatigue pour booster votre énergie*. Journée Mondiale. https://www.journee-mondiale.com/top-8-aliments-anti-fatigue-energie-vitalite-1404.htm

L'équipe PasseportSanté. (2017, June 26). *Les Bienfaits des Graines de Lin*. https://www.passeportsante.net/. https://www.passeportsante.net/fr/Actualites/Dossiers/DossierComplexe.aspx?doc=mille-bienfaits-graines-lin

La Compagnie des Sens. (n.d.). *Accueil*. https://www.compagnie-des-sens.fr/noisettes/s/

La fabrique des gourmands. (n.d.). Tout ce qu'il y a à savoir sur le chocolat blanc. https://www.lafabriquedesgourmands.com/blog/chocolat-personnalise/tout-savoir-sur-le-chocolat-blanc/

Léa Zubiria. (2017, May 30). *La Vanille : Comment en retirer tous ses bienfaits ?*. https://www.passeportsante.net/. https://www.passeportsante.net/fr/Nutrition/EncyclopedieAliments/Fiche.aspx?doc=vanille_nu

LEONIDAS. (n.d.). *Quels sont les bienfaits du chocolat au lait ?*. Leonidas site officiel. https://www.leonidas.com/be_fr/blog/chocolat-au-lait-bienfaits#:~:text=L'association%20du%20gras%20et,pour%20la%20sant%C3%A9%20des%20os

Natura Force. (n.d.). *Quels sont les bienfaits de l'ashwagandha ?* ttps://www.naturaforce.com/pages/ashwagandha#:~:text=En%20effet%2C%20l'ashwagandha%20contient,ainsi%20que%20des%20acides%20gras.

Procure. (2023, May 26). *Les 10 aliments Les Plus anti-stress*. PROCURE. https://www.procure.ca/2018/05/06/les-10-aliments-les-plus-anti-stress/

Ross, C. C. (2020). *The Food Addiction Recovery Workbook: How to manage cravings, reduce stress, and stop hating your body*. Read How You Want.

Service de presse ADP. (n.d.). *Près des deux tiers des salariés français subissent UN stress Régulier au Travail*. Près des deux tiers des salariés français subissent un stress régulier au travail. https://www.fr.adp.com/a-propos-adp/communiques-de-presse/02-09-22-pres-des-deux-tiers-des-salaries-francais-subissent-un-stress-regulier-au-travail.aspx

SKYSPA. (n.d.). *L'ingrédient du mois : Graine de Lin*. skyspa. https://skyspa.ca/fr/dix30/l-ingredient-du-mois-graine-de-lin#:~:text=Source%20d'Om%C3%A9ga-3%2C%20de%20vitamines%20et%20de%20min%C3%A9raux&text=Sans%20oublier%20les%20min%C3%A9raux%20:%20calcium,%2C%20s%C3%A9l%C3%A9nium%2C%20magn%C3%A9sium%20et%20mangan%C3%A8se

Wopilo. (n.d.). *Carence alimentaire et fatigue : Symptômes, conséquences et traitement*. https://wopilo.com/pages/les-carences-alimentaires-a-l-origine-de-la-fatigue#:~:text=Toutefois%2C%20la%20grande%20fatigue%2C%20accompagn%C3%A9e,caus%C3%A9es%20par%20une%20alimentation%20d%C3%A9s%C3%A9quilibr%C3%A9e

Ysidor N'GUESSAN Konan. (n.d.). (PDF) Mineral Components of Orange Peels. https://www.researchgate.net/publication/301564545_Mineral_components_of_orange_peels

Other link :

- https://eds-1p-1ebscohost-1com-1000009ke1f2c.han.p.lodz.pl/eds/pdfviewer/pdfviewer?vid=3&sid=5b9334e3-c5b4-445e-88ec-054acd1cdefb%40redis

https://eds-1p-1ebscohost-1com-1000009ke1f2c.han.p.lodz.pl/eds/pdfviewer/pdfviewer?vid=3&sid=5b9334e3-c5b4-445e-88ec-054acd1cdefb%40redis

10. Appendices

10.1. Questionnaire

Which gender do you identify with?

- Male
- Female
- Other
- Prefer not to say

To which socio-professional category do you belong?

- Farmers
- Craftsmen, shopkeepers, company managers
- Executives and higher intellectual professions (director, manager...)
- Employees
- Other people not in employment

Lodz University of Technology

GREEN MOOD
food for better mood

Do you feel stress, fatigue or lack of concentration at work?

- Yes
- No

Would you enjoy a product that reduces these problems?

- Yes
- No
- I don’t know

Which kind of product would you prefer?

- Chocolate bar
- Soup
- Smoothie
- Ready to eat meal
- Snack
- Shaker
- Other… (please specify)

What are the 3 most important things for you in a product?

- The taste
- Attractive packaging
- Transparence of the brand

- Quality of the products
- Local produce
- Organic food
- Price
- Other… (please specify)

10.2. Details of proportions for each recipe

			Weight of the bar
ZEN BAR	**1 bite (for presentation)**	**1 bar**	20g
Dark chocolate	4g	14g	
Almonds	2 almonds	4 almonds	
Lavender	1/2 pinch	1 pinch	
Puffed rice	1 tbl	5g = 3 tbl	

REVIVE BAR	**1 bite (for presentation)**	**1 bar**	34g
Dark chocolate	4g	14g	
Flax seeds	1/2 tsp	1,5 tsp	
Cranberries	6g	18g	
Orange zests	1 pinch	2,5 pinch	
Puffed rice	1 tbl	5g = 3 tbl	

POWER BOOST	**1 bite (for presentation)**	**1 bar**	22g
Milk chocolate	6g	16g	
Hazelnuts	2 hazelnuts	5 hazelnuts	
Ashwagandha	1/4 tsp inside & 1/4 tsp topping	1/2 tsp inside & 1/2 tsp topping	
Vanilla	1 drops	3 drops	
Puffed rice	1 tbl	5g = 3 tbl	

FOCUS VISION	**1 bite (for presentation)**	**1 bar**	22g
White chocolate	8g	16g	
Almonds	2 almonds	4 almonds	
Matcha Tea	1 pinch	1/3 tsp	
Puffed rice	1 tbl	5g = 3 tbl	

10.3. Nutritive tabs

ZEN BAR	proportions 1 bar (g)	/100g	kcal	protein	fat	sugar	fiber
Dark chocolate	14	58,3	313,3	6,4	21,6	19,3	8,2
Almonds	5	20,8	129,4	5,1	11,1	1,0	2,5
Lavender	1 pinch	0,0	0,0	0,0	0,0	0,0	0,0
Puffed rice	5	20,8	76,3	1,3	0,3	16,5	1,0
SUM	24	100,0	519	12,8	33,0	36,7	11,7

REVIVE BAR	proportions 1 bar (g)	/100g	kcal	protein	fat	sugar	fiber
Dark chocolate	14	32,6	174,8	19,2	12,0	10,7	4,6
Flax seeds	6	14,0	71,6	2,9	5,9	0,0	3,6
Cranberries	18	41,9	137,7	0,1	0,5	31,8	2,2
Orange zest	2,5 pinch	0,0	0,0	0,0	0,0	0,0	0,0
Puffed rice	5	11,6	42,6	0,7	0,2	9,2	0,6
SUM	43	100	427	23,0	18,6	51,8	11,0

POWER BOOST	proportions 1 bar (g)	/100g	kcal	protein	fat	sugar	fiber
Milk chocolate	16	56,1	302,6	3,6	17,4	32	1,3
Hazelnuts	7,5	26,3	190,5	3,7	17,4	3,7	2,9
Ashwagandha	1/2 tsp	0	0	0	0	0	0
Vanilla	3 drops	0	0	0	0	0	0
Puffed rice	5	17,5	64,2	1,1	0,3	13,9	0,9
SUM	28,5	100	557	8,4	35,1	49,5	5,1

FOCUS VISION	proportions 1 bar (g)	/100g	kcal	protein	fat	sugar	fiber
White chocolate	16	61,5	328,6	2,6	17,2	40,0	0
Almonds	5	19,2	119,4	4,7	10,3	0,9	2,3
Matcha tea	1 pinch	0,0	0	0	0	0	0
Puffed rice	5	19,2	70,4	1,2	0,3	15,2	1,0
SUM	26	100,0	518	8,5	27,8	56,1	3,3

10.4. Cost of ingredients

LIST OF INGRIDIENTS	Qty needed (g	Qty in the market (g	Price market (pln	Price per g (pln	Total Price (pln
Chocolate					
- Dark	40	90	7.97	0.088555556	3.542222222
- Milk	20	90	4.37	0.048555556	0.971111111
- White	20	80	3.99	0.049875	0.9975
Nuts					
- Almonds	10	100	6.59	0.0659	0.659
- Hazelnuts	5	175	12.55	0.071714286	0.358571429
Other					
- Ashwagandha	3	200	24	0.12	0.36
- Dry lavender	1	50	10.28	0.2056	0.2056
- Flax seed	5	400	4.49	0.011225	0.056125
- Cranberries	5	100	12.99	0.1299	0.6495
- Orange zest	1	500	3.99	0.00798	0.00798
- Vanilla	1	20	7.99	0.3995	0.3995
- Matcha tea	2	100	21.69	0.2169	0.4338
- Puffed rice	20	200	7.2	0.036	0.72
TOTAL	133				**9.360909762**