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**SLOVAKIA**

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**FLU<sup>U</sup>F**



## THE PROBLEM

Buyers of heating means are concerned about the price. The prices of energy sources are currently increasing, wood and wooden briquettes including. Not to mention the problem with deforestation in Slovakia. On the other hand, horse breeders are facing a surplus of horse manure, which is produced in amounts that can not be removed effectively, and thus it becomes waste.

## THE OPPORTUNITY

We see this product as a simple solution for hard times. We are not only transforming the future of heating, we are also raising awareness and starting conversation about pressing issues. These three core values – innovation, social contribution, and ecology – drive our company's mission to provide innovative and eco-friendly heating solutions that benefit both customers and the environment. By choosing FLUF briquettes, individuals support a company that values continuous improvement, social responsibility, and environmental sustainability.

## THE SOLUTION

Our mini-company Fluf brings unique FLUF briquettes to the market. They consist primarily of horse manure which is a forgotten, yet very effective fuel. They are more affordable than the competition, and a lot more eco-friendly. We use renewable sources and no-waste packaging as opposed to the competition that uses valuable wood and sells it wrapped in plastic.



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# COMPANY OVERVIEW

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The reason our company was founded was the energetic crisis, which was the most pressing issue in Slovakia in September. We are a neighboring country to Ukraine, which is currently occupied by Russia. This whole conflict resulted in gas prices rising and many people on the verge of poverty having to live in extreme conditions. It is not unusual that in these communities, the little children do not survive through winters.

Our vision is that in 20 years, 75% of households heating in fireplaces will use FLUF briquettes instead of wood.

We found an innovative, yet simple solution. Horse manure is an effective source of heating that is, however, not being used. We saw a niche on the market and decided to start developing this product. Although the idea is not completely new, we are the only company that sells these briquettes in Europe. That means we created a unique formula and manufacturing process that is not known anywhere in the world. Over time, as we spent countless hours developing this product, we realized just how many other problems it can solve.

According to OECD statistics, Slovakia harvests the most wood out of all developed countries, which results in the change in climate conditions, the pollution of drinking water and the disturbed biodiversity of forests. Despite such results, logging has increased by 75% since 1990, which is largely due to population growth and the tradition of heating with wood. Horse manure briquettes can completely replace wood for heating and thus save approximately 13-15 m<sup>3</sup> of forest in a household per year.



## PRODUCT:

Our company is bringing an **ecological and visionary product** to the market -FLUF briquettes made of horse manure. Their innovation lies in their many advantages. They are made of **waste materials** that are collected, and this way, have a purpose. They do not pollute the environment and their packaging is also fully burnable - **no waste approach**. They do not smell and they are easily stored thanks to their shape. They are very lightweight compared to wood. They are **cheaper and have the same heating capacity** than the average wooden briquette.



## Development:

We started with the manufacturing of big briquettes, however we realized that we do not know how to dry them yet and also need to introduce the unusual material to the buyers in a smaller form. The small briquettes are a perfect way to **gain trust and tear down the prejudice**. We also shaped them into hearts to make them more likeable, and thus make the promotion process faster. At the end of the heating season we need to adapt to the needs of the buyers, so we are in the process of creating a byproduct - horse manure fertilizers - while still offering and selling all our products.

## Manufacturing process:

We combine the horse manure with waste office paper that is soaked in water to reach a consistency that holds our briquettes together. The mass is **pressed manually in a hand press and air-dried naturally**.

## CHALLENGES

### DRYING

First, we pressed the briquettes into brick shape and let them dry naturally in the sun. This process took much longer during winter, so we started making our small briquettes that are more friendly for first time users and are easy to manipulate with.

### MOLD

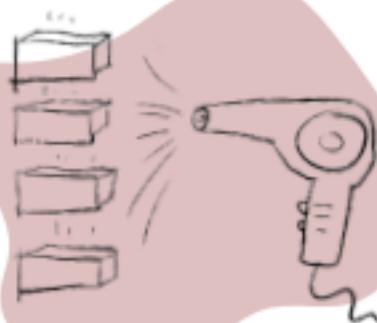
Wet biomass creates an optimal environment for saprophytic filamentous fungi. We learned how to properly store the briquettes, as they cannot be stored in a humid environment, especially during the drying stage.

### PREJUDICE

Our biggest challenge is that people hold natural repulse against horse manure. We minimize these feelings via marketing. By actively appearing in newspapers, TV, the radio and podcasts we manage to penetrate our buyer's subconscious which results in them not finding the idea too weird and buying our product. We also chose hearts as the appropriate shape for the small briquettes, as they evoke pleasant feelings in people. In-person selling events have proven to be the most effective for us. The potential buyer can touch and smell the product, as well as ask us any questions. These customers are most likely to return to our e-shop and become regulars.

### MANUFACTURING

There was no known recepture for making briquettes from horse manure, so we had to experiment with individual ingredients. In the beginning, we used dry manure that we pressed. However, it did not hold any shape. We started using shredded waste office paper as a wet component, which we soak in water. Later, we started enriching the briquettes with sawdust and hay from the stable bedding, which together with the paper increases the heating capacity.

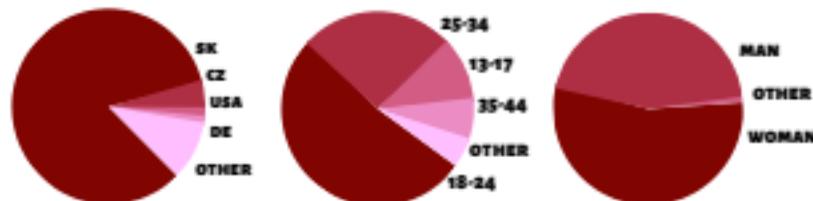


competitive factor	FLUF briquettes	BIOMAC briquettes	wood
sustainability	made using waste materials, with fully compostable packaging	made out of beech wood, wrapped in plastic	supports deforestation and sometimes cutting down trees illegally
price	0.55 €/piece	1.1 €/piece	70 €/1 m of wood
heating capacity	14 MJ/kg	17 MJ/kg	12MJ/kg
availability	e-shop, in Krby Tuma Košice, in-person selling events announced on webpage	in most home improvement stores	small businesses, individuals
other advantages	eco-friendly, very lightweight	mass production, years in business	burning dead trees

After a detailed market analysis, we can say for a fact that we are the **only known company** that offers this specific product. There are individuals who use horse manure as heating fuel, but no company sells horse manure as briquettes. Because of that, we have the advantage of having a unique place on the market. Therefore, our competition is any other heating product, as in wooden briquettes, or wood itself. **The process of buyers accepting our product on the market is still ongoing.** Some strategies we used to fasten the process are:

- building our name through **mass media, social media and press** (dennikN, Nový Čas, Trend, telKE, Levosphere podcast, rtvs, Markíza, SK-Nic, aktualy.sk, Slovak celebrities and influencers, our **Instagram (most active network, biggest audience)**, e-shop, Facebook and Twitter page)
- selling at the same places as our competition**, for example the biggest home improvement store in our city, OBI, which sells the biggest variety of heating briquettes in one place
- having our product **available in a brick-and-mortar store**, Krby Tuma in Košice, that specializes in selling fireplaces, so every customer of that store is part of our target group, and is more likely to buy our product there

## OUR INSTAGRAM FOLLOWERS:

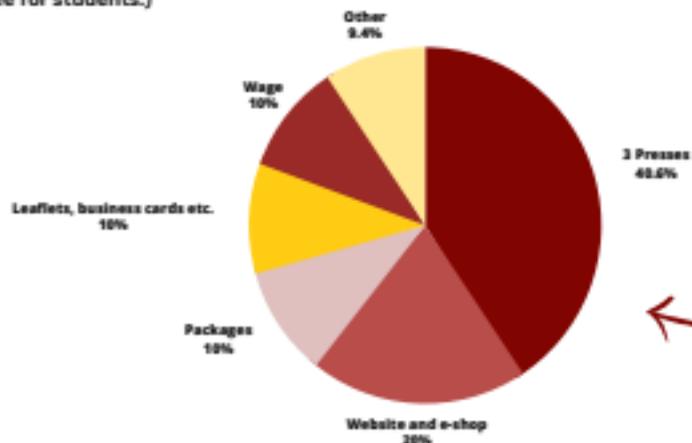


## LOGISTICS OF PRODUCTION:

Our manufacturing process consists of four parts, and everyone from the company takes an equal part in it. Firstly, workers go to the farm where they spend an hour. During that time they accumulate our material (horse manure). Secondly, we transfer the material to our place of production. That is done by car, and the price for that is 2.50€.

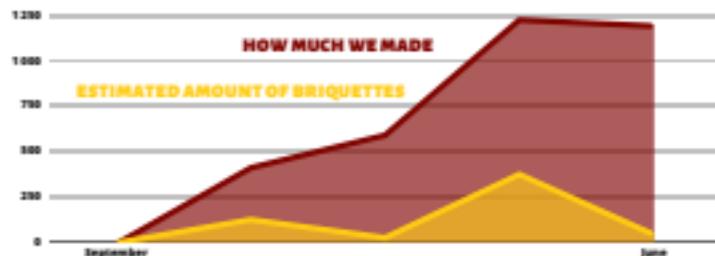
Next, we process the material and press the briquettes. 2 workers are needed for this part, that work 3 times a week for 3 hours. The wage in our company is 0.30€/hour. In the next step, we leave our briquettes to dry in the sun. The big ones dry for 3 days, and the small ones are dry after one day in direct sunlight. Lastly, we pack the small briquettes. Two workers are in charge of packing once a week for two hours. The big ones are placed on a palette or in a bigger box, according to the size of the order.

We distribute orders up to 30 km distance by car, on the buyer's expenses. Other orders are sent by the post office on the buyer's expenses as well. (Any other necessary transportation is done by bus on each individual's costs, or by train, that is free for students.)



## COMPARISON OF GOALS:

Our main goal in September was to make 500 briquettes, but we managed to outperform this limit by 128.8%, which counts up to 1144 briquettes. To achieve this, we put emphasis not only on production and making it more and more efficient, but also on marketing, so we could introduce this idea and its perks to public. We felt this was the most important thing, because due to the unusual material, people were hesitant to buy it at first. After we achieved this goal we decided to continue with the strategy of producing and promoting being our top priorities. Our next goal was to use 200 l of horse manure but now, we crossed this border by 154.5%, which is 309 l.



## FINANCIAL PERFORMANCE:

Our company started with 500€ from our shareholders. The main expenses were presses which cost 203.11€, and our webpage that cost 100€. Other costs were packages, stickers for packages, leaflets and receipts. These expenses vary from month to month, depending on our sales. The excess biomass we use is free.

At the beginning, we packed 6 small briquettes in paper bags. The margin for that was 78.7%. Now, we sell 12 small briquettes in cardboard boxes, with a margin rate of 82.5%. This rate for big FLUF briquettes, stored on wooden palettes, is 90.1%.

## WE PROMOTE ON:

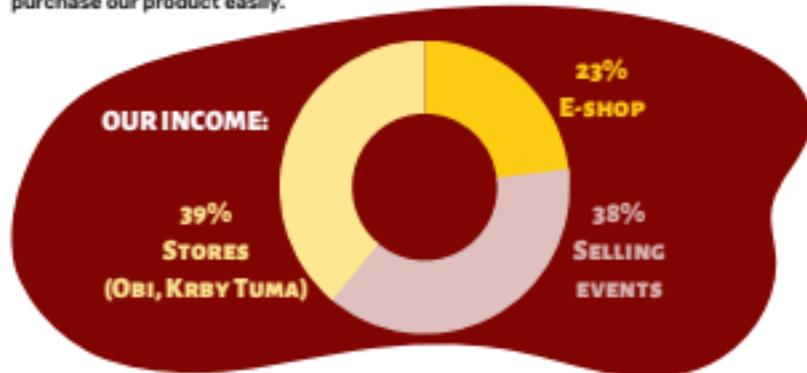
- 1,** Our website with an e-shop serves as a convenient platform for customers outside our region. It allows them to purchase FLUF Briquettes easily, providing a seamless shopping experience. The website showcases product details, benefits, and pricing information, enabling customers to make informed decisions. With a user-friendly interface and secure payment options, we ensure a smooth online purchasing process.
- 2,** We recognize the importance of personal interaction and firsthand experience for customers to fully understand and appreciate our product. To facilitate this, we organize selling events in villages, stores and shopping centers. These events serve as a platform for showcasing our briquettes, engaging directly with customers, and addressing any queries or concerns they may have. By allowing customers to see and feel the product, we aim to enhance their understanding and build trust in our brand. We already visited 4 shopping centers, 5 villages in Slovakia, and every week we sell at our local market.
- 3,** Our most active social media platform is Instagram. We quickly learned that despite our belief that our target group is not active on this platform, we can promote ourselves the best via Instagram. Regular posts, stories, Q&A's and giveaways, ensure that our audience is always engaged. It is also linked to our e-shop, so when a visitor likes what he sees, he can be at our product checkout in just a few clicks.
- 4,** We established a cooperation with a store called Krby Tuma, that sells fireplaces. This way we are available at a brick-and-mortar store, where every customer is also our target customer.

## WE ARE SELLING TO:

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**Villagers (Above 40 years old):** This group is primarily concerned with the affordability of heating materials. They value cost-effective solutions that meet their heating needs without straining their budgets. We reach out to them through mass media channels such as television, radio, and newspapers. Additionally, we engage with them on Facebook, where we provide information about our product and upcoming selling events. Selling events serve as an opportunity for them to purchase our briquettes and interact with our team directly.

**Eco-friendly individuals and young families:** This segment is particularly conscious of their carbon footprint and seeks environmentally friendly alternatives for heating. They prioritize sustainability and are interested in reducing their impact on the environment. We target this group through online magazines that focus on eco-friendly living and sustainability. Social media platforms such as Instagram and Facebook are also essential for reaching out to this audience. We share informative and engaging content that highlights the ecological benefits of our briquettes. To cater to their convenience, we provide an e-shop on our website, where they can purchase our product easily.



# FINANCES

SIGNATURE  
OF RENTON



Profit and Loss Account	
A Sales	841,50 €
B Purchases	585,74 €
C Production wages	126,00 €
D Closing stock	125,50 €
E Cost of sales ( B+C-D)	586,24 €
Gross profit (A-E)	255,26 €
F Salaries and bonuses	10,00 €
G Stationery	-
H Rent & hire	-
I Miscellaneous Expenditure	-
J Registration fee	5,00 €
Total Expenses (F+G+H+I+J)	15,00 €
K Gross Profit Less Total Expenses = Operating Profit	240,26 €
L Miscellaneous Income	-
M Net Profit (or Loss) (K+L)	240,26 €
N Corporation Tax Payable	36,04 €
O Profit after Tax (M-N)	204,22 €
P Appropriations of Profit (Q+R+S):	204,22 €
Q Dividends:	154,00 €
R Donations:	-
S Other:	50,22 €
Balance (O-P)	-

Balance Sheet	
Stock	125,50 €
Debtors	-
Cash at bank	-
Cash in hand	614,76 €
(A) TOTAL CURRENT ASSETS	740,26 €
Current Liabilities:	-
Bank Overdraft	-
Loans	-
Creditors	-
Corporation Tax Payable	36,04 €
VAT Due	-
(B) TOTAL CURRENT LIABILITIES	36,04 €
(C) BALANCE (A-B)	704,22 €
Represented by:	
(D) Issued Share Capital: shares at 5€	500,00 €
(E) Profit & Less Account (Profit after Tax)	204,22 €
(F) Shareholders Funds (D+E)	704,22 €

## PRICING:

We determined the price of our product based on a comprehensive analysis of our customers, costs, and competitors. Our department for finances has worked on extensive market research. After conducting a thorough analysis of the top 10 best-selling briquettes in Slovakia, we found that the average price of the competition is €0.7 per piece. In order to provide a more attractive offer, we have set a price of €0.55 for one briquette. What sets us apart from our competitors is that we are able to save on all components of our briquettes, as we collect the waste materials at no cost.

## FINANCIAL ANALYSIS:

The financial statement accurately represents the unique aspects of our company's operations. Our return on equity (ROE) stands at 40.8, which is nearly identical to our competitor, BIOMAC, whose ROE is 42.6. As we continue to operate in the market for a longer period, we have the potential to achieve a higher ROE. Our margin is 90.1%, which is significantly higher compared to our competitors. However, it is influenced by several factors, such as low wages and the absence of any rental expenses for the production facilities. This advantageous situation contributes to our substantially higher margin when compared to our competitors.

To effectively manage our finances, we maintained a detailed record of our income and expenses in an Excel spreadsheet. By diligently entering all our profits and losses, we were able to gain a clear understanding of our financial situation at any given time. This practice provided us with valuable insights into our cash flow and allowed us to make informed decisions regarding our money. Whether it was tracking revenue from sales or monitoring expenses such as rent, supplies, and wages, the Excel spreadsheet served as a reliable tool for us to stay organized and have a comprehensive overview of our financial activities. Having this constant visibility into every financial transaction gave us the confidence and control to navigate our business with greater efficiency and accuracy.

# MANAGEMENT

Our company consists of **14 members** with chosen roles that work in departments of each vice-president. The president and vice-presidents have meetings **once a week** to set up goals for the next period, and then delegate them to chosen members on company meetings. We also evaluate the already set goals with the whole team and give feedback to each other. Every team operates by itself, but when needed for project, chosen members of different departments cooperate on one task. Face-to-face communication is very important for us, that is why we prefer meetings, but we also communicate through social media, and stay organized on a platform called **Jira**.

One of our vital values is to make **everyone** feel important and motivated. To ensure this, we organize different team-building activities. This way it is easier for people to connect to each other, as well as to the company.

To assure that everyone understands the product, we all participate on manufacturing. We keep track of how much people have worked in manufacturing and we motivate them by adding extra bonuses to their salaries by the amount of worked hours.

We understand that learning from our mistakes, but mostly experienced professionals in the business, is the best we can do for our company. We run our ideas and visions regularly by our mentor **Brian Jakubec** so that we can gain a different, and more accomplished view.



Thanks to Lea's precision, every briquette is of top quality, and the customers are always satisfied. The biggest challenge for her was time management of the whole production.

**Number of team members: 4**



Terka is the best at having crazy ideas. Experiencing manual work was new to her as a city girl, but she got used to it.



This year, had taught Rebeka how to turn critique into positive feedback. Thanks to her aesthetic sense we have a beautiful logo, Instagram and much more.

**Number of team members: 3**



Jakub is the motivator of the team. Working in finances has taught him that having a clear record of every transaction is the key.

**Number of team members: 3**

# FUTURE

First of all, after we end our mini-company, we plan on continuing this business as a real firm. We were offered an investment by CB ESPRI worth 50 000€. Every year, we will give them back 2%. Below, you can see the division of the fund, as well as the business timeline for our future.



## In 4 months:

The main heating season starts in 4 months, that is why we need to build automatic production by then. This way we are able to compete with other heating options in quantity. With the help of machines, we would be able to produce 190 000 briquettes a year, which equals to 104 500€ a year. By then, we will also start a long term partnership with a shipping company, so that we can reduce the shipping fees for our customers as well as our international customers.

## In 1 year:

In the next year, we will set up a patent. This way we are able to protect ourselves and our unique idea as well as function like a real company on the market.

## In 5 years:

We plan to expand to bordering countries through the home improvement store OBI, with which we collaborate now in Slovakia. It will be easier than expanding through our own e-shop, while that will still function as well. Other than that, our product will be available in other fireplace selling stores, not just Krby Tuma.

## In 20 years:

Assuming that every satisfied customer recommends our product to 2 more people, the estimated amount in which 75% of households in Slovakia that now burn wood, will heat with our briquettes is 10 years. So our realistic vision is that this will take no more than 20 years.

 fluf\_sk

 flufbrikety.sk

**A SPECIAL THANKS TO:**

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**SCRIBO  
LIGO**

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NOEMI RÁCZOVÁ  
PETRA CHOMOVÁ  
BRIAN JAKUBEC**

